

Attachments

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- 2037 Build Mit

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ATTACHMENT A

Volumes (Peak)

Calculations

Background Traffic Volumes
AM Peak data

Assumed growth rate: 0.01
March 2023 Seasonal Adjust: 1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust: 1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

AM Peak data	Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
13. Union Ave (US3Bus) at Elm Street / Clinton Street																	
	7:45 AM		0		0.00												
<u>Movement</u>			0		0.00												
EBL	146		146	227.76	227.76	230.04	232.34	234.66	237.01	239.38	241.77	244.19	246.63	249.10	251.59	254.11	256.65
EBT	14		14	21.84	21.84	22.06	22.28	22.50	22.73	22.96	23.19	23.42	23.65	23.89	24.13	24.37	24.61
EBR	228		228	355.68	355.68	359.24	362.83	366.46	370.12	373.82	377.56	381.34	385.15	389.00	392.89	396.82	400.79
WBL	42		42	65.52	65.52	66.18	66.84	67.51	68.19	68.87	69.56	70.26	70.96	71.67	72.39	73.11	73.84
WBT	35		35	54.60	54.60	55.15	55.70	56.26	56.82	57.39	57.96	58.54	59.13	59.72	60.32	60.92	61.53
WBR	10		10	15.60	15.60	15.76	15.92	16.08	16.24	16.40	16.56	16.73	16.90	17.07	17.24	17.41	17.58
NBL	134		134	209.04	209.04	211.13	213.24	215.37	217.52	219.70	221.90	224.12	226.36	228.62	230.91	233.22	235.55
NBT	279		279	435.24	435.24	439.59	443.99	448.43	452.91	457.44	462.01	466.63	471.30	476.01	480.77	485.58	490.44
NBR	3		3	4.68	4.68	4.73	4.78	4.83	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28
SBL	1		1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
SBT	239		239	372.84	372.84	376.57	380.34	384.14	387.98	391.86	395.78	399.74	403.74	407.78	411.86	415.98	420.14
SBR	109		109	170.04	170.04	171.74	173.46	175.19	176.94	178.71	180.50	182.31	184.13	185.97	187.83	189.71	191.61
			0		0.00												
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave																	
	7:00 AM		0		0.00												
<u>Movement</u>			0		0.00												
EBL	8		8	8.00	8.00	8	8	8	8	8	8	8	8	8	8	8	8
EBT	2		2	2.00	2.00	2	2	2	2	2	2	2	2	2	2	2	2
EBR	1		1	1.00	1.00	1	1	1	1	1	1	1	1	1	1	1	1
WBL	266		266	414.96	414.96	419.11	423.30	427.53	431.81	436.13	440.49	444.89	449.34	453.83	458.37	462.95	467.58
WBT	0		0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0
WBR	172		172	268.32	268.32	271.00	273.71	276.45	279.21	282.00	284.82	287.67	290.55	293.46	296.39	299.35	302.34
NBL	1		1	1.00	1.00	1	1	1	1	1	1	1	1	1	1	1	1
NBT	344		344	536.64	536.64	542.01	547.43	552.90	558.43	564.01	569.65	575.35	581.10	586.91	592.78	598.71	604.70
NBR	101		101	157.56	157.56	159.14	160.73	162.34	163.96	165.60	167.26	168.93	170.62	172.33	174.05	175.79	177.55
SBL	104		104	162.24	162.24	163.86	165.50	167.16	168.83	170.52	172.23	173.95	175.69	177.45	179.22	181.01	182.82
SBT	224		224	349.44	349.44	352.93	356.46	360.02	363.62	367.26	370.93	374.64	378.39	382.17	385.99	389.85	393.75
SBR	1		1	1.00	1.00	1	1	1	1	1	1	1	1	1	1	1	1
			0		0.00												
14. Parade Road (NH106) at Lexington Drive																	
	7:15 AM		0		0.00												
<u>Movement</u>			0		0.00												
EBL	45		45	70.20	70.20	70.90	71.61	72.33	73.05	73.78	74.52	75.27	76.02	76.78	77.55	78.33	79.11
EBR	53		53	82.68	82.68	83.51	84.35	85.19	86.04	86.90	87.77	88.65	89.54	90.44	91.34	92.25	93.17
NBL	147		147	229.32	229.32	231.61	233.93	236.27	238.63	241.02	243.43	245.86	248.32	250.80	253.31	255.84	258.40
NBT	290		290	452.40	452.40	456.92	461.49	466.10	470.76	475.47	480.22	485.02	489.87	494.77	499.72	504.72	509.77
SBT	364		364	567.84	567.84	573.52	579.26	585.05	590.90	596.81	602.78	608.81	614.90	621.05	627.26	633.53	639.87
SBR	79		79	123.24	123.24	124.47	125.71	126.97	128.24	129.52	130.82	132.13	133.45	134.78	136.13	137.49	138.86
			0		0.00												

PHF	% Heavy	Counted Heavy	Calculated Heavy	AM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
13. Union Ave (US3Bus) at Elm Street / Clinton Street										
Movement										
0.75	4%	6		EBL	257	98	257	355		
	21%	3	3%	EBT	25	0		25	0.90	
	2%	5		EBR	401	56		457		
0.78	5%	2		WBL	74	0		74		
	14%	5	5%	WBT	62	0		62	0.90	
	30%	3		WBR	18	0		18		
0.83	6%	8		NBL	236	41		277		
	3%	8	4%	NBT	490	0		490	0.90	
	33%	1		NBR	5	0		5		
0.85	0%	0		SBL	2	0		2		
	2%	4	3%	SBT	420	0		420	0.90	
	6%	6		SBR	192	62		254		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave										
Movement										
0.69	0%	0		EBL	8	0	44	8		
	0%	0	2%	EBT	2	0		2	0.90	
	0%	0		EBR	1	0		1		
0.80	2%	4		WBL	468	4		472		
	0%	0	2%	WBT	0	0		0	0.90	
	2%	4		WBR	302	4		306		
0.92	0%	0		NBL	1	0		1		
	3%	11	3%	NBT	605	10		615	0.92	
	1%	1		NBR	178	2		180		
0.80	4%	4		SBL	183	11		194		
	3%	7	3%	SBT	394	13		407	0.90	
	0%	0		SBR	1	0		1		
14. Parade Road (NH106) at Lexington Drive										
Movement										
0.91	20%	9		EBL	79	67	655	146	0.91	
	15%	8	2%	EBR	93	0		93		
0.82	7%	10		NBL	258	0		258		
	2%	7	4%	NBT	510	198		708	0.90	
0.81	1%	5		SBT	640	328		968		
	4%	3	2%	SBR	139	62		201	0.90	

Background Traffic Volumes
AM Peak data

Assumed growth rate: 0.01
March 2023 Seasonal Adjust: 1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust: 1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

AM Peak data		Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
15. N.Main Street at Oak Street																		
	7:00 AM			0		0.00												
	<u>Movement</u>			0		0.00												
	EBL	15		15	23.40	23.40	23.63	23.87	24.11	24.35	24.59	24.84	25.09	25.34	25.59	25.85	26.11	26.37
	EBT	67		67	104.52	104.52	105.57	106.63	107.70	108.78	109.87	110.97	112.08	113.20	114.33	115.47	116.62	117.79
	EBR	3		3	4.68	4.68	4.73	4.78	4.83	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28
	WBL	80		80	124.80	124.80	126.05	127.31	128.58	129.87	131.17	132.48	133.80	135.14	136.49	137.85	139.23	140.62
	WBT	54		54	84.24	84.24	85.08	85.93	86.79	87.66	88.54	89.43	90.32	91.22	92.13	93.05	93.98	94.92
	WBR	103		103	160.68	160.68	162.29	163.91	165.55	167.21	168.88	170.57	172.28	174.00	175.74	177.50	179.28	181.07
	NBL	3		3	4.68	4.68	4.73	4.78	4.83	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28
	NBT	376		376	586.56	586.56	592.43	598.35	604.33	610.37	616.47	622.63	628.86	635.15	641.50	647.92	654.40	660.94
	NBR	42		42	65.52	65.52	66.18	66.84	67.51	68.19	68.87	69.56	70.26	70.96	71.67	72.39	73.11	73.84
	SBL	107		107	166.92	166.92	168.59	170.28	171.98	173.70	175.44	177.19	178.96	180.75	182.56	184.39	186.23	188.09
	SBT	417		417	650.52	650.52	657.03	663.60	670.24	676.94	683.71	690.55	697.46	704.43	711.47	718.58	725.77	733.03
	SBR	4		4	6.24	6.24	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03
				0		0.00												
19. N.Main Street at New Salem Street																		
	7:15 AM			0		0.00												
	<u>Movement</u>			0		0.00												
	EBL	50		50	78.00	78.00	78.78	79.57	80.37	81.17	81.98	82.80	83.63	84.47	85.31	86.16	87.02	87.89
	EBR	4		4	6.24	6.24	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03
	NBL	20		20	31.20	31.20	31.51	31.83	32.15	32.47	32.79	33.12	33.45	33.78	34.12	34.46	34.80	35.15
	NBT	402		402	627.12	627.12	633.39	639.72	646.12	652.58	659.11	665.70	672.36	679.08	685.87	692.73	699.66	706.66
	SBT	384	+2	386	599.04	599.04	605.03	611.08	617.19	623.36	629.59	635.89	642.25	648.67	655.16	661.71	668.33	675.01
	SBR	105		105	163.80	163.80	165.44	167.09	168.76	170.45	172.15	173.87	175.61	177.37	179.14	180.93	182.74	184.57
				0		0.00												
16. N.Main Street at Veterans Square / Church Street																		
	7:15 AM			0		0.00												
	<u>Movement</u>			0		0.00												
	EBL	1		1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
	EBT	37		37	57.72	57.72	58.30	58.88	59.47	60.06	60.66	61.27	61.88	62.50	63.13	63.76	64.40	65.04
	WBT	171		171	266.76	266.76	269.43	272.12	274.84	277.59	280.37	283.17	286.00	288.86	291.75	294.67	297.62	300.60
	WBR	107		107	166.92	166.92	168.59	170.28	171.98	173.70	175.44	177.19	178.96	180.75	182.56	184.39	186.23	188.09
	NBL	59		59	92.04	92.04	92.96	93.89	94.83	95.78	96.74	97.71	98.69	99.68	100.68	101.69	102.71	103.74
	NBT	312	+2	314	486.72	486.72	491.59	496.51	501.48	506.49	511.55	516.67	521.84	527.06	532.33	537.65	543.03	548.46
	NBR	15		15	23.40	23.40	23.63	23.87	24.11	24.35	24.59	24.84	25.09	25.34	25.59	25.85	26.11	26.37
	SBL	87		87	135.72	135.72	137.08	138.45	139.83	141.23	142.64	144.07	145.51	146.97	148.44	149.92	151.42	152.93
	SBR	303		303	472.68	472.68	477.41	482.18	487.00	491.87	496.79	501.76	506.78	511.85	516.97	522.14	527.36	532.63
				0		0.00												

PHF	% Heavy	Counted Heavy	Calculated Heavy	AM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
15. N.Main Street at Oak Street										
Movement										
0.71	7%	1		EBL	26	27	527	53	0.90	
	1%	1	2%	EBT	118	0		118		
	0%	0		EBR	5	0		5		
0.73	6%	5		WBL	141	0		141	0.90	
	6%	3	6%	WBT	95	0		95		
	9%	9		WBR	181	22		203		
0.86	0%	0		NBL	5	0		5	0.90	
	5%	19	5%	NBT	661	149		810		
	2%	1		NBR	74	0		74		
0.91	3%	3		SBL	188	10		198	0.91	
	2%	8	2%	SBT	733	308		1041		
	0%	0		SBR	7	11		18		
19. N.Main Street at New Salem Street										
Movement										
0.79	4%	2	4%	EBL	88	75	456	163	0.90	
	0%	0		EBR	7	0		7		
0.75	0%	0	4%	NBL	35	0		35	0.90	
	4%	16		NBT	707	74		781		
0.84	3%	13	3%	SBT	675	111		786	0.90	
	1%	1		SBR	185	196		381		
16. N.Main Street at Veterans Square / Church Street										
Movement										
0.73	0%	0	3%	EBL	2	0	161	2	0.90	
	3%	1		EBT	65	0		65		
0.88	4%	6	3%	WBT	301	0		301	0.90	
	1%	1		WBR	188	28		216		
0.67	0%	0		NBL	104	0		104	0.90	
	4%	13	4%	NBT	548	31		579		
0.79	7%	1		NBR	26	0		26	0.90	
	1%	1	3%	SBL	153	31		184		
	4%	11		SBR	533	71		604		

Background Traffic Volumes
AM Peak data

Assumed growth rate: 0.01
March 2023 Seasonal Adjust: 1.56 NHDOT Group 5 Averages
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Site Trips are not Seasonally Adjusted or Grown.

AM Peak data		Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
S.Main Street / N.Main Street																		
	7:15 AM			0		0.00												
	<u>Movement</u>			0		0.00												
	EBL 166			166	258.96	258.96	261.55	264.17	266.81	269.48	272.17	274.89	277.64	280.42	283.22	286.05	288.91	291.80
	EBT 224			224	349.44	349.44	352.93	356.46	360.02	363.62	367.26	370.93	374.64	378.39	382.17	385.99	389.85	393.75
	EBR 66			66	102.96	102.96	103.99	105.03	106.08	107.14	108.21	109.29	110.38	111.48	112.59	113.72	114.86	116.01
	WBL 88			88	137.28	137.28	138.65	140.04	141.44	142.85	144.28	145.72	147.18	148.65	150.14	151.64	153.16	154.69
	WBT 177			177	276.12	276.12	278.88	281.67	284.49	287.33	290.20	293.10	296.03	298.99	301.98	305.00	308.05	311.13
	WBR 77			77	120.12	120.12	121.32	122.53	123.76	125.00	126.25	127.51	128.79	130.08	131.38	132.69	134.02	135.36
	NBL 62			62	96.72	96.72	97.69	98.67	99.66	100.66	101.67	102.69	103.72	104.76	105.81	106.87	107.94	109.02
	NBT 307			307	478.92	478.92	483.71	488.55	493.44	498.37	503.35	508.38	513.46	518.59	523.78	529.02	534.31	539.65
	NBR 113			113	176.28	176.28	178.04	179.82	181.62	183.44	185.27	187.12	188.99	190.88	192.79	194.72	196.67	198.64
	SBL 19			19	29.64	29.64	29.94	30.24	30.54	30.85	31.16	31.47	31.78	32.10	32.42	32.74	33.07	33.40
	SBT 251			251	391.56	391.56	395.48	399.43	403.42	407.45	411.52	415.64	419.80	424.00	428.24	432.52	436.85	441.22
	SBR 101			101	157.56	157.56	159.14	160.73	162.34	163.96	165.60	167.26	168.93	170.62	172.33	174.05	175.79	177.55
				0		0.00												
20. Court Street (US3Bus) at Fair Street																		
	7:15 AM			0		0.00												
	<u>Movement</u>			0		0.00												
	EBL 182			182	283.92	283.92	286.76	289.63	292.53	295.46	298.41	301.39	304.40	307.44	310.51	313.62	316.76	319.93
	EBT 389			389	606.84	606.84	612.91	619.04	625.23	631.48	637.79	644.17	650.61	657.12	663.69	670.33	677.03	683.80
	WBT 270			270	421.20	421.20	425.41	429.66	433.96	438.30	442.68	447.11	451.58	456.10	460.66	465.27	469.92	474.62
	WBR 33			33	51.48	51.48	51.99	52.51	53.04	53.57	54.11	54.65	55.20	55.75	56.31	56.87	57.44	58.01
	NBL 1			1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
	NBT 9			9	14.04	14.04	14.18	14.32	14.46	14.60	14.75	14.90	15.05	15.20	15.35	15.50	15.66	15.82
	NBR 5			5	7.80	7.80	7.88	7.96	8.04	8.12	8.20	8.28	8.36	8.44	8.52	8.61	8.70	8.79
	SBL 13			13	20.28	20.28	20.48	20.68	20.89	21.10	21.31	21.52	21.74	21.96	22.18	22.40	22.62	22.85
	SBR 171			171	266.76	266.76	269.43	272.12	274.84	277.59	280.37	283.17	286.00	288.86	291.75	294.67	297.62	300.60
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl																		
	<u>Movement</u>																	
	EBhL 4			4	4.20	4.20	4.24	4.28	4.32	4.36	4.40	4.44	4.48	4.52	4.57	4.62	4.67	4.72
	EBL 117			117	122.85	122.85	124.08	125.32	126.57	127.84	129.12	130.41	131.71	133.03	134.36	135.70	137.06	138.43
	EBT 10			10	10.50	10.50	10.61	10.72	10.83	10.94	11.05	11.16	11.27	11.38	11.49	11.60	11.72	11.84
	EBR 6			6	6.30	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03	7.10
	WBL 5			5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
	WBT 21			21	22.05	22.05	22.27	22.49	22.71	22.94	23.17	23.40	23.63	23.87	24.11	24.35	24.59	24.84
	WBbR 2			2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
	WBR 6			6	6.30	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03	7.10
	NBL 1			1	1.05	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
	NBbL 1			1	1.05	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
	NBT 342			342	359.10	359.10	362.69	366.32	369.98	373.68	377.42	381.19	385.00	388.85	392.74	396.67	400.64	404.65
	NBR 3			3	3.15	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48	3.51
	SBL 2			2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
	SBT 330			330	346.50	346.50	349.97	353.47	357.00	360.57	364.18	367.82	371.50	375.22	378.97	382.76	386.59	390.46
	SBR 117			117	122.85	122.85	124.08	125.32	126.57	127.84	129.12	130.41	131.71	133.03	134.36	135.70	137.06	138.43
	SBhR 2			2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
	SEBhL 5			5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
	SEBbL 2			2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
	SEBbR 5			5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
	SEBhR 0			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PHF	% Heavy	Counted Heavy	Calculated Heavy	AM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
S.Main Street / N.Main Street										
				Movement						
0.84	2%	3	3%	EBL	292	0	51	292	0.90	
	4%	8		EBT	394	0		394		
	5%	3		EBR	116	0		116		
0.92	6%	5	3%	WBL	155	0		155	0.92	
	2%	3		WBT	311	0		311		
	1%	1		WBR	135	0		135		
0.77	5%	3	5%	NBL	109	0		109	0.90	
	5%	14		NBT	540	19		559		
	4%	5		NBR	199	0		199		
0.84	5%	1	5%	SBL	33	0		33	0.90	
	4%	11		SBT	441	32		473		
	8%	8		SBR	178	0		178		
20. Court Street (US3Bus) at Fair Street										
				Movement						
0.82	2%	3	2%	EBL	320	52	205	372	0.90	
	3%	11		EBT	684	0		684		
0.92	4%	10	4%	WBT	475	0		475	0.92	
	3%	1		WBR	58	0		58		
0.63	0%	0	2%	NBL	2	0		2	0.90	
	0%	0		NBT	16	0		16		
	20%	1		NBR	9	0		9		
0.85	0%	0	2%	SBL	23	0		23	0.90	
	2%	3		SBR	301	153		454		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl										
				Movement						
0.77	0%	0	3%	EBhL	5	0	43	5	0.90	
	3%	4		EBL	138	23		161		
	0%	0		EBT	12	0		12		
	0%	0		EBR	7	0		7		
0.77	0%	0	2%	WBL	6	0		6	0.90	
	10%	2		WBT	25	0		25		
	0%	0		WBbR	2	0		2		
	0%	0		WBR	7	0		7		
0.91	0%	0	4%	NBL	1	0		1	0.91	
	0%	0		NBbL	1	0		1		
	4%	14		NBT	405	0		405		
	33%	1		NBR	4	0		4		
0.90	0%	0	2%	SBL	2	0		2	0.90	
	3%	9		SBT	390	0		390		
	1%	1		SBR	138	20		158		
	0%	0		SBhR	2	0		2		
0.60	0%	0	2%	SEBhL	6	0		6	0.90	
	0%	0		SEBbL	2	0		2		
	0%	0		SEBbR	6	0		6		
	0%	0		SEBhR	0	0		0		

Background Traffic Volumes
PM Peak data

Assumed growth rate:	0.01
March 2023 Seasonal Adjust:	1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust:	1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

PM Peak data	Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
13. Union Ave (US3Bus) at Elm Street / Clinton Street																	
	3:00 PM		1		0.00												
<u>Movement</u>			0		0.00												
EBL	186		186	290.16	290.16	293.06	295.99	298.95	301.94	304.96	308.01	311.09	314.20	317.34	320.51	323.72	326.96
EBT	18		18	28.08	28.08	28.36	28.64	28.93	29.22	29.51	29.81	30.11	30.41	30.71	31.02	31.33	31.64
EBR	196		196	305.76	305.76	308.82	311.91	315.03	318.18	321.36	324.57	327.82	331.10	334.41	337.75	341.13	344.54
WBL	35		35	54.60	54.60	55.15	55.70	56.26	56.82	57.39	57.96	58.54	59.13	59.72	60.32	60.92	61.53
WBT	24		24	37.44	37.44	37.81	38.19	38.57	38.96	39.35	39.74	40.14	40.54	40.95	41.36	41.77	42.19
WBR	18		18	28.08	28.08	28.36	28.64	28.93	29.22	29.51	29.81	30.11	30.41	30.71	31.02	31.33	31.64
NBL	198		198	308.88	308.88	311.97	315.09	318.24	321.42	324.63	327.88	331.16	334.47	337.81	341.19	344.60	348.05
NBT	469		469	731.64	731.64	738.96	746.35	753.81	761.35	768.96	776.65	784.42	792.26	800.18	808.18	816.26	824.42
NBR	23		23	35.88	35.88	36.24	36.60	36.97	37.34	37.71	38.09	38.47	38.85	39.24	39.63	40.03	40.43
SBL	1		1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
SBT	389		389	606.84	606.84	612.91	619.04	625.23	631.48	637.79	644.17	650.61	657.12	663.69	670.33	677.03	683.80
SBR	145		145	226.20	226.20	228.46	230.74	233.05	235.38	237.73	240.11	242.51	244.94	247.39	249.86	252.36	254.88
			0		0.00												
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave																	
	4:15 PM		1		0.00												
<u>Movement</u>			0		0.00												
EBL	3		3	3.00	3.00	3	3	3	3	3	3	3	3	3	3	3	3
EBT	20		20	20.00	20.00	20	20	20	20	20	20	20	20	20	20	20	20
EBR	1		1	1.00	1.00	1	1	1	1	1	1	1	1	1	1	1	1
WBL	155		155	241.80	241.80	244.22	246.66	249.13	251.62	254.14	256.68	259.25	261.84	264.46	267.10	269.77	272.47
WBT	8		8	8.00	8.00	8	8	8	8	8	8	8	8	8	8	8	8
WBR	163		163	254.28	254.28	256.82	259.39	261.98	264.60	267.25	269.92	272.62	275.35	278.10	280.88	283.69	286.53
NBL	1		1	1.00	1.00	1	1	1	1	1	1	1	1	1	1	1	1
NBT	406		406	633.36	633.36	639.69	646.09	652.55	659.08	665.67	672.33	679.05	685.84	692.70	699.63	706.63	713.70
NBR	213		213	332.28	332.28	335.60	338.96	342.35	345.77	349.23	352.72	356.25	359.81	363.41	367.04	370.71	374.42
SBL	131		131	204.36	204.36	206.40	208.46	210.54	212.65	214.78	216.93	219.10	221.29	223.50	225.74	228.00	230.28
SBT	383		383	597.48	597.48	603.45	609.48	615.57	621.73	627.95	634.23	640.57	646.98	653.45	659.98	666.58	673.25
SBR	10		10	10.00	10.00	10	10	10	10	10	10	10	10	10	10	10	10
			0		0.00												
14. Parade Road (NH106) at Lexington Drive																	
	3:15 PM		1		0.00												
<u>Movement</u>			0		0.00												
EBL	157		157	244.92	244.92	247.37	249.84	252.34	254.86	257.41	259.98	262.58	265.21	267.86	270.54	273.25	275.98
EBR	284		284	443.04	443.04	447.47	451.94	456.46	461.02	465.63	470.29	474.99	479.74	484.54	489.39	494.28	499.22
NBL	46		46	71.76	71.76	72.48	73.20	73.93	74.67	75.42	76.17	76.93	77.70	78.48	79.26	80.05	80.85
NBT	371		371	578.76	578.76	584.55	590.40	596.30	602.26	608.28	614.36	620.50	626.71	632.98	639.31	645.70	652.16
SBT	355		355	553.80	553.80	559.34	564.93	570.58	576.29	582.05	587.87	593.75	599.69	605.69	611.75	617.87	624.05
SBR	46		46	71.76	71.76	72.48	73.20	73.93	74.67	75.42	76.17	76.93	77.70	78.48	79.26	80.05	80.85
			0		0.00												

PHF	% Heavy	Counted Heavy	Calculated Heavy	PM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
13. Union Ave (US3Bus) at Elm Street / Clinton Street										
Movement										
0.94	3%	5		EBL	327	94	297	421	0.94	
	6%	1	3%	EBT	32	0		32		
	2%	4		EBR	345	49		394		
0.66	0%	0		WBL	62	0		62	0.90	
	0%	0	2%	WBT	42	0		42		
	0%	0		WBR	32	0		32		
0.93	4%	7		NBL	348	53		401	0.93	
	1%	5	2%	NBT	824	0		824		
	0%	0		NBR	40	0		40		
0.90	0%	0		SBL	2	0		2	0.90	
	2%	7	2%	SBT	684	0		684		
	2%	3		SBR	255	101		356		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave										
Movement										
0.60	0%	0		EBL	3	0	155	3	0.90	
	0%	0	2%	EBT	20	0		20		
	0%	0		EBR	1	0		1		
0.94	1%	1		WBL	272	36		308	0.94	
	0%	0	1%	WBT	8	0		8		
	1%	1		WBR	287	25		312		
0.98	0%	0		NBL	1	0		1	0.98	
	1%	3	1%	NBT	714	10		724		
	0%	1		NBR	374	38		412		
0.95	0%	0		SBL	230	39		269	0.95	
	1%	5	1%	SBT	673	7		680		
	0%	0		SBR	10	0		10		
14. Parade Road (NH106) at Lexington Drive										
Movement										
0.72	2%	3	2%	EBL	276	65	845	341	0.90	
	2%	5		EBR	499	0		499		
0.80	7%	3	1%	NBL	81	0		81	0.90	
	1%	2		NBT	652	363		1015		
0.91	4%	14	4%	SBT	624	343		967	0.91	
	4%	2		SBR	81	74		155		

Background Traffic Volumes
PM Peak data

Assumed growth rate:	0.01
March 2023 Seasonal Adjust:	1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust:	1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

PM Peak data		Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
15. N.Main Street at Oak Street																		
	3:15 PM			1		0.00												
	<u>Movement</u>			0		0.00												
	EBL	29		29	45.24	45.24	45.69	46.15	46.61	47.08	47.55	48.03	48.51	49.00	49.49	49.98	50.48	50.98
	EBT	33		33	51.48	51.48	51.99	52.51	53.04	53.57	54.11	54.65	55.20	55.75	56.31	56.87	57.44	58.01
	EBR	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	WBL	53		53	82.68	82.68	83.51	84.35	85.19	86.04	86.90	87.77	88.65	89.54	90.44	91.34	92.25	93.17
	WBT	40		40	62.40	62.40	63.02	63.65	64.29	64.93	65.58	66.24	66.90	67.57	68.25	68.93	69.62	70.32
	WBR	91		91	141.96	141.96	143.38	144.81	146.26	147.72	149.20	150.69	152.20	153.72	155.26	156.81	158.38	159.96
	NBL	6		6	9.36	9.36	9.45	9.54	9.64	9.74	9.84	9.94	10.04	10.14	10.24	10.34	10.44	10.54
	NBT	379		379	591.24	591.24	597.15	603.12	609.15	615.24	621.39	627.60	633.88	640.22	646.62	653.09	659.62	666.22
	NBR	34		34	53.04	53.04	53.57	54.11	54.65	55.20	55.75	56.31	56.87	57.44	58.01	58.59	59.18	59.77
	SBL	121		121	188.76	188.76	190.65	192.56	194.49	196.43	198.39	200.37	202.37	204.39	206.43	208.49	210.57	212.68
	SBT	588		588	917.28	917.28	926.45	935.71	945.07	954.52	964.07	973.71	983.45	993.28	1003.21	1013.24	1023.37	1033.60
	SBR	14		14	21.84	21.84	22.06	22.28	22.50	22.73	22.96	23.19	23.42	23.65	23.89	24.13	24.37	24.61
				0		0.00												
19. N.Main Street at New Salem Street																		
	3:15 PM			1		0.00												
	<u>Movement</u>			0		0.00												
	EBL	54		54	84.24	84.24	85.08	85.93	86.79	87.66	88.54	89.43	90.32	91.22	92.13	93.05	93.98	94.92
	EBR	8		8	12.48	12.48	12.60	12.73	12.86	12.99	13.12	13.25	13.38	13.51	13.65	13.79	13.93	14.07
	NBL	14		14	21.84	21.84	22.06	22.28	22.50	22.73	22.96	23.19	23.42	23.65	23.89	24.13	24.37	24.61
	NBT	379		379	591.24	591.24	597.15	603.12	609.15	615.24	621.39	627.60	633.88	640.22	646.62	653.09	659.62	666.22
	SBT	499		499	778.44	778.44	786.22	794.08	802.02	810.04	818.14	826.32	834.58	842.93	851.36	859.87	868.47	877.15
	SBR	176		176	274.56	274.56	277.31	280.08	282.88	285.71	288.57	291.46	294.37	297.31	300.28	303.28	306.31	309.37
				0		0.00												
16. N.Main Street at Veterans Square / Church Street																		
	3:15 PM			1		0.00												
	<u>Movement</u>			0		0.00												
	EBL	3		3	4.68	4.68	4.73	4.78	4.83	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28
	EBT	46		46	71.76	71.76	72.48	73.20	73.93	74.67	75.42	76.17	76.93	77.70	78.48	79.26	80.05	80.85
	WBT	244		244	380.64	380.64	384.45	388.29	392.17	396.09	400.05	404.05	408.09	412.17	416.29	420.45	424.65	428.90
	WBR	129	+1	130	201.24	201.24	203.25	205.28	207.33	209.40	211.49	213.60	215.74	217.90	220.08	222.28	224.50	226.75
	NBL	130		130	202.80	202.80	204.83	206.88	208.95	211.04	213.15	215.28	217.43	219.60	221.80	224.02	226.26	228.52
	NBT	257	+3	260	400.92	400.92	404.93	408.98	413.07	417.20	421.37	425.58	429.84	434.14	438.48	442.86	447.29	451.76
	NBR	37		37	57.72	57.72	58.30	58.88	59.47	60.06	60.66	61.27	61.88	62.50	63.13	63.76	64.40	65.04
	SBL	112		112	174.72	174.72	176.47	178.23	180.01	181.81	183.63	185.47	187.32	189.19	191.08	192.99	194.92	196.87
	SBR	395		395	616.20	616.20	622.36	628.58	634.87	641.22	647.63	654.11	660.65	667.26	673.93	680.67	687.48	694.35
				0		0.00												

PHF	% Heavy	Counted Heavy	Calculated Heavy	PM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF
15. N.Main Street at Oak Street									
Movement									
0.78	0%	0		EBL	51	19	710	70	0.90
	0%	0	2%	EBT	58	0		58	
	0%	0		EBR	0	0		0	
0.75	2%	1		WBL	93	0		93	0.90
	0%	0	1%	WBT	70	0		70	
	1%	1		WBR	160	15		175	
0.82	0%	0		NBL	11	0		11	0.90
	3%	10	2%	NBT	666	331		997	
	0%	0		NBR	60	0		60	
0.87	1%	1		SBL	213	22	710	235	0.90
	3%	20	3%	SBT	1034	295		1329	
	7%	1		SBR	25	28		53	
19. N.Main Street at New Salem Street									
Movement									
0.82	2%	1		EBL	95	170	622	265	0.90
	0%	0	2%	EBR	14	0		14	
0.83	0%	0		NBL	25	0		25	0.90
	2%	8	2%	NBT	666	160		826	
0.91	4%	20	3%	SBT	877	168		1045	0.91
	1%	2		SBR	309	124	433		
16. N.Main Street at Veterans Square / Church Street									
Movement									
0.72	0%	0		EBL	5	0	302	5	0.90
	4%	2	4%	EBT	81	0		81	
0.90	0%	1		WBT	429	0		429	0.90
	2%	3	1%	WBR	227	49		276	
0.85	0%	0		NBL	229	0		229	0.90
	2%	4	1%	NBT	452	102		554	
0.91	0%	0		NBR	65	0		65	0.91
	2%	2	4%	SBL	197	50		247	
	4%	17		SBR	694	101		795	

Background Traffic Volumes
PM Peak data

Assumed growth rate:	0.01
March 2023 Seasonal Adjust:	1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust:	1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

PM Peak data	Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
S.Main Street / N.Main Street																	
	3:45 PM		1		0.00												
<u>Movement</u>			0		0.00												
EBL	187		187	291.72	291.72	294.64	297.59	300.57	303.58	306.62	309.69	312.79	315.92	319.08	322.27	325.49	328.74
EBT	270		270	421.20	421.20	425.41	429.66	433.96	438.30	442.68	447.11	451.58	456.10	460.66	465.27	469.92	474.62
EBR	105		105	163.80	163.80	165.44	167.09	168.76	170.45	172.15	173.87	175.61	177.37	179.14	180.93	182.74	184.57
WBL	140		140	218.40	218.40	220.58	222.79	225.02	227.27	229.54	231.84	234.16	236.50	238.87	241.26	243.67	246.11
WBT	246		246	383.76	383.76	387.60	391.48	395.39	399.34	403.33	407.36	411.43	415.54	419.70	423.90	428.14	432.42
WBR	56		56	87.36	87.36	88.23	89.11	90.00	90.90	91.81	92.73	93.66	94.60	95.55	96.51	97.48	98.45
NBL	83		83	129.48	129.48	130.77	132.08	133.40	134.73	136.08	137.44	138.81	140.20	141.60	143.02	144.45	145.89
NBT	256		256	399.36	399.36	403.35	407.38	411.45	415.56	419.72	423.92	428.16	432.44	436.76	441.13	445.54	450.00
NBR	128		128	199.68	199.68	201.68	203.70	205.74	207.80	209.88	211.98	214.10	216.24	218.40	220.58	222.79	225.02
SBL	29		29	45.24	45.24	45.69	46.15	46.61	47.08	47.55	48.03	48.51	49.00	49.49	49.98	50.48	50.98
SBT	321		321	500.76	500.76	505.77	510.83	515.94	521.10	526.31	531.57	536.89	542.26	547.68	553.16	558.69	564.28
SBR	202		202	315.12	315.12	318.27	321.45	324.66	327.91	331.19	334.50	337.85	341.23	344.64	348.09	351.57	355.09
			0		0.00												
20. Court Street (US3Bus) at Fair Street																	
	3:30 PM		1		0.00												
<u>Movement</u>			0		0.00												
EBL	63		63	98.28	98.28	99.26	100.25	101.25	102.26	103.28	104.31	105.35	106.40	107.46	108.53	109.62	110.72
EBT	447		447	697.32	697.32	704.29	711.33	718.44	725.62	732.88	740.21	747.61	755.09	762.64	770.27	777.97	785.75
WBT	48		48	74.88	74.88	75.63	76.39	77.15	77.92	78.70	79.49	80.28	81.08	81.89	82.71	83.54	84.38
WBR	22		22	34.32	34.32	34.66	35.01	35.36	35.71	36.07	36.43	36.79	37.16	37.53	37.91	38.29	38.67
NBL	2		2	3.12	3.12	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48
NBT	2		2	3.12	3.12	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48
NBR	5		5	7.80	7.80	7.88	7.96	8.04	8.12	8.20	8.28	8.36	8.44	8.52	8.61	8.70	8.79
SBL	8		8	12.48	12.48	12.60	12.73	12.86	12.99	13.12	13.25	13.38	13.51	13.65	13.79	13.93	14.07
SBR	295		295	460.20	460.20	464.80	469.45	474.14	478.88	483.67	488.51	493.40	498.33	503.31	508.34	513.42	518.55
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl																	
					0.00												
<u>Movement</u>					0.00												
EBhL	5		5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
EBL	230		230	241.50	241.50	243.92	246.36	248.82	251.31	253.82	256.36	258.92	261.51	264.13	266.77	269.44	272.13
EBT	24		24	25.20	25.20	25.45	25.70	25.96	26.22	26.48	26.74	27.01	27.28	27.55	27.83	28.11	28.39
EBR	4		4	4.20	4.20	4.24	4.28	4.32	4.36	4.40	4.44	4.48	4.52	4.57	4.62	4.67	4.72
WBL	11		11	11.55	11.55	11.67	11.79	11.91	12.03	12.15	12.27	12.39	12.51	12.64	12.77	12.90	13.03
WBT	26		26	27.30	27.30	27.57	27.85	28.13	28.41	28.69	28.98	29.27	29.56	29.86	30.16	30.46	30.76
WBbR	3		3	3.15	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48	3.51
WBR	12		12	12.60	12.60	12.73	12.86	12.99	13.12	13.25	13.38	13.51	13.65	13.79	13.93	14.07	14.21
NBL	1		1	1.05	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
NBbL	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NBT	449		449	471.45	471.45	476.16	480.92	485.73	490.59	495.50	500.46	505.46	510.51	515.62	520.78	525.99	531.25
NBR	17		17	17.85	17.85	18.03	18.21	18.39	18.57	18.76	18.95	19.14	19.33	19.52	19.72	19.92	20.12
SBL	3		3	3.15	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48	3.51
SBT	428		428	449.40	449.40	453.89	458.43	463.01	467.64	472.32	477.04	481.81	486.63	491.50	496.42	501.38	506.39
SBR	157		157	164.85	164.85	166.50	168.17	169.85	171.55	173.27	175.00	176.75	178.52	180.31	182.11	183.93	185.77
SBhR	2		2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
SEBhL	5		5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
SEBbL	3		3	3.15	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48	3.51
SEBbR	8		8	8.40	8.40	8.48	8.56	8.65	8.74	8.83	8.92	9.01	9.10	9.19	9.28	9.37	9.46
SEBhR	7		7	7.35	7.35	7.42	7.49	7.56	7.64	7.72	7.80	7.88	7.96	8.04	8.12	8.20	8.28

PHF	% Heavy	Counted Heavy	Calculated Heavy	PM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
S.Main Street / N.Main Street										
				Movement						
0.91	0%	0		EBL	329	0	155	329	0.91	
	1%	2	1%	EBT	475	0		475		
	1%	1		EBR	185	0		185		
0.97	1%	1		WBL	246	0		246	0.97	
	2%	5	1%	WBT	432	0		432		
	0%	0		WBR	98	0		98		
0.87	2%	2		NBL	146	0		146	0.90	
	2%	4	1%	NBT	450	73		523		
	0%	0		NBR	225	0		225		
0.90	0%	0		SBL	51	0		51	0.90	
	4%	13	3%	SBT	564	82		646		
	1%	2		SBR	355	0		355		
20. Court Street (US3Bus) at Fair Street										
				Movement						
0.91	0%	0	1%	EBL	111	134	229	245	0.91	
	1%	4		EBT	786	0		786		
0.88	19%	9	2%	WBT	84	0		84	0.90	
	0%	0		WBR	39	0		39		
0.56	0%	0		NBL	3	0		3	0.90	
	0%	0	2%	NBT	3	0		3		
	0%	0		NBR	9	0		9		
0.80	0%	0	1%	SBL	14	0		14	0.90	
	1%	3		SBR	519	95		614		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl										
				Movement						
0.91	0%	0		EBhL	6	0	73	6	0.91	
	1%	2		EBL	272	36		308		
	8%	2	2%	EBT	28	0		28		
	0%	0		EBR	5	0		5		
0.72	0%	0		WBL	13	0		13	0.90	
	0%	0		WBT	31	0		31		
	0%	0	2%	WBbR	4	0		4		
	0%	0		WBR	14	0		14		
0.90	0%	0		NBL	1	0		1	0.90	
	0%	0		NBbL	0	0		0		
	2%	7	1%	NBT	531	0		531		
	0%	0		NBR	20	0		20		
0.97	0%	0		SBL	4	0		4	0.97	
	1%	5		SBT	506	0		506		
	1%	2	1%	SBR	186	37		223		
	0%	0		SBhR	2	0		2		
0.82	0%	0		SEBhL	6	0		6	0.90	
	0%	0		SEBbL	4	0		4		
	0%	0	2%	SEBbR	9	0		9		
	14%	1		SEBhR	8	0		8		

Background Traffic Volumes
SAT Peak data

Assumed growth rate:0.01

March 2023 Seasonal Adjust:1.56NHDOT Group 5 Averages

June 2023 Seasonal Adjust:1.05NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

SAT Peak data		Existing 2025 (Raw data) [03/08/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
13. Union Ave (US3Bus) at Elm Street / Clinton Street																		
11:15 AM																		
Movement																		
EBL	177		177	276.12	276.12	278.88	281.67	284.49	287.33	290.20	293.10	296.03	298.99	301.98	305.00	308.05	311.13	
EBT	11		11	17.16	17.16	17.33	17.50	17.68	17.86	18.04	18.22	18.40	18.58	18.77	18.96	19.15	19.34	
EBR	112		112	174.72	174.72	176.47	178.23	180.01	181.81	183.63	185.47	187.32	189.19	191.08	192.99	194.92	196.87	
WBL	40		40	62.40	62.40	63.02	63.65	64.29	64.93	65.58	66.24	66.90	67.57	68.25	68.93	69.62	70.32	
WBT	23		23	35.88	35.88	36.24	36.60	36.97	37.34	37.71	38.09	38.47	38.85	39.24	39.63	40.03	40.43	
WBR	23		23	35.88	35.88	36.24	36.60	36.97	37.34	37.71	38.09	38.47	38.85	39.24	39.63	40.03	40.43	
NBL	108		108	168.48	168.48	170.16	171.86	173.58	175.32	177.07	178.84	180.63	182.44	184.26	186.10	187.96	189.84	
NBT	469		469	731.64	731.64	738.96	746.35	753.81	761.35	768.96	776.65	784.42	792.26	800.18	808.18	816.26	824.42	
NBR	15		15	23.40	23.40	23.63	23.87	24.11	24.35	24.59	24.84	25.09	25.34	25.59	25.85	26.11	26.37	
SBL	4		4	6.24	6.24	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03	
SBT	458		458	714.48	714.48	721.62	728.84	736.13	743.49	750.92	758.43	766.01	773.67	781.41	789.22	797.11	805.08	
SBR	155		155	241.80	241.80	244.22	246.66	249.13	251.62	254.14	256.68	259.25	261.84	264.46	267.10	269.77	272.47	
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave																		
11:15 AM																		
Movement																		
EBL	9		9	9.00	9.00	9	9	9	9	9	9	9	9	9	9	9	9	
EBT	8		8	8.00	8.00	8	8	8	8	8	8	8	8	8	8	8	8	
EBR	4		4	4.00	4.00	4	4	4	4	4	4	4	4	4	4	4	4	
WBL	111		111	173.16	173.16	174.89	176.64	178.41	180.19	181.99	183.81	185.65	187.51	189.39	191.28	193.19	195.12	
WBT	8		8	8.00	8.00	8	8	8	8	8	8	8	8	8	8	8	8	
WBR	113		113	176.28	176.28	178.04	179.82	181.62	183.44	185.27	187.12	188.99	190.88	192.79	194.72	196.67	198.64	
NBL	3		3	3.00	3.00	3	3	3	3	3	3	3	3	3	3	3	3	
NBT	410		410	639.60	639.60	646.00	652.46	658.98	665.57	672.23	678.95	685.74	692.60	699.53	706.53	713.60	720.74	
NBR	125		125	195.00	195.00	196.95	198.92	200.91	202.92	204.95	207.00	209.07	211.16	213.27	215.40	217.55	219.73	
SBL	79		79	123.24	123.24	124.47	125.71	126.97	128.24	129.52	130.82	132.13	133.45	134.78	136.13	137.49	138.86	
SBT	345		345	538.20	538.20	543.58	549.02	554.51	560.06	565.66	571.32	577.03	582.80	588.63	594.52	600.47	606.47	
SBR	5		5	5.00	5.00	5	5	5	5	5	5	5	5	5	5	5	5	
14. Parade Road (NH106) at Lexington Drive																		
11:00 AM																		
Movement																		
EBL	49		49	76.44	76.44	77.20	77.97	78.75	79.54	80.34	81.14	81.95	82.77	83.60	84.44	85.28	86.13	
EBR	83		83	129.48	129.48	130.77	132.08	133.40	134.73	136.08	137.44	138.81	140.20	141.60	143.02	144.45	145.89	
NBL	18		18	28.08	28.08	28.36	28.64	28.93	29.22	29.51	29.81	30.11	30.41	30.71	31.02	31.33	31.64	
NBT	221		221	344.76	344.76	348.21	351.69	355.21	358.76	362.35	365.97	369.63	373.33	377.06	380.83	384.64	388.49	
SBT	233		233	363.48	363.48	367.11	370.78	374.49	378.23	382.01	385.83	389.69	393.59	397.53	401.51	405.53	409.59	
SBR	17		17	26.52	26.52	26.79	27.06	27.33	27.60	27.88	28.16	28.44	28.72	29.01	29.30	29.59	29.89	

PHF	% Heavy	Counted Heavy	Calculated Heavy	SAT Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
13. Union Ave (US3Bus) at Elm Street / Clinton Street										
Movement										
0.93	1%	1		EBL	311	90	300	401	0.93	
	0%	0	2%	EBT	19	0		19		
	0%	0		EBR	197	56		253		
0.80	0%	0		WBL	70	0		70	0.90	
	0%	0	2%	WBT	40	0		40		
	0%	0		WBR	40	0		40		
0.94	2%	2		NBL	190	59		249	0.94	
	0%	1	1%	NBT	824	0		824		
	0%	0		NBR	26	0		26		
0.95	0%	0		SBL	7	0		7	0.95	
	1%	4	1%	SBT	805	0		805		
	1%	1		SBR	272	95		367		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave										
Movement										
0.58	0%	0		EBL	9	0	128	9	0.90	
	0%	0	2%	EBT	8	0		8		
	0%	0		EBR	4	0		4		
0.85	1%	1		WBL	195	26		221	0.90	
	0%	0	2%	WBT	8	0		8		
	0%	0		WBR	199	36		235		
0.85	0%	0		NBL	3	0		3	0.90	
	0%	2	1%	NBT	721	5		726		
	1%	1		NBR	220	22		242		
0.89	1%	1		SBL	139	34		173	0.90	
	1%	2	1%	SBT	606	5		611		
	0%	0		SBR	5	0		5		
14. Parade Road (NH106) at Lexington Drive										
Movement										
0.40	0%	0		EBL	86	53	549	139	0.90	
	1%	1	1%	EBR	146	0		146		
0.88	6%	1		NBL	32	0		32	0.90	
	1%	2	1%	NBT	388	227		615		
0.82	0%	1	1%	SBT	410	219		629	0.90	
	6%	1		SBR	30	50		80		

Background Traffic Volumes
SAT Peak data

Assumed growth rate:0.01

March 2023 Seasonal Adjust:1.56NHDOT Group 5 Averages

June 2023 Seasonal Adjust:1.05NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

SAT Peak data	Existing 2025 (Raw data) [03/08/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
15. N.Main Street at Oak Street																	
11:00 AM																	
Movement																	
EBL	11		11	17.16	17.16	17.33	17.50	17.68	17.86	18.04	18.22	18.40	18.58	18.77	18.96	19.15	19.34
EBT	17		17	26.52	26.52	26.79	27.06	27.33	27.60	27.88	28.16	28.44	28.72	29.01	29.30	29.59	29.89
EBR	1		1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
WBL	20		20	31.20	31.20	31.51	31.83	32.15	32.47	32.79	33.12	33.45	33.78	34.12	34.46	34.80	35.15
WBT	23		23	35.88	35.88	36.24	36.60	36.97	37.34	37.71	38.09	38.47	38.85	39.24	39.63	40.03	40.43
WBR	60		60	93.60	93.60	94.54	95.49	96.44	97.40	98.37	99.35	100.34	101.34	102.35	103.37	104.40	105.44
NBL	6		6	9.36	9.36	9.45	9.54	9.64	9.74	9.84	9.94	10.04	10.14	10.24	10.34	10.44	10.54
NBT	243		243	379.08	379.08	382.87	386.70	390.57	394.48	398.42	402.40	406.42	410.48	414.58	418.73	422.92	427.15
NBR	19		19	29.64	29.64	29.94	30.24	30.54	30.85	31.16	31.47	31.78	32.10	32.42	32.74	33.07	33.40
SBL	51		51	79.56	79.56	80.36	81.16	81.97	82.79	83.62	84.46	85.30	86.15	87.01	87.88	88.76	89.65
SBT	349		349	544.44	544.44	549.88	555.38	560.93	566.54	572.21	577.93	583.71	589.55	595.45	601.40	607.41	613.48
SBR	5		5	7.80	7.80	7.88	7.96	8.04	8.12	8.20	8.28	8.36	8.44	8.52	8.61	8.70	8.79
19. N.Main Street at New Salem Street																	
11:00 AM																	
Movement																	
EBL	50		50	78.00	78.00	78.78	79.57	80.37	81.17	81.98	82.80	83.63	84.47	85.31	86.16	87.02	87.89
EBR	7		7	10.92	10.92	11.03	11.14	11.25	11.36	11.47	11.58	11.70	11.82	11.94	12.06	12.18	12.30
NBL	11		11	17.16	17.16	17.33	17.50	17.68	17.86	18.04	18.22	18.40	18.58	18.77	18.96	19.15	19.34
NBT	233		233	363.48	363.48	367.11	370.78	374.49	378.23	382.01	385.83	389.69	393.59	397.53	401.51	405.53	409.59
SBT	265		265	413.40	413.40	417.53	421.71	425.93	430.19	434.49	438.83	443.22	447.65	452.13	456.65	461.22	465.83
SBR	119		119	185.64	185.64	187.50	189.38	191.27	193.18	195.11	197.06	199.03	201.02	203.03	205.06	207.11	209.18
16. N.Main Street at Veterans Square / Church Street																	
11:00 AM																	
Movement																	
EBL	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EBT	30		30	46.80	46.80	47.27	47.74	48.22	48.70	49.19	49.68	50.18	50.68	51.19	51.70	52.22	52.74
WBT	222		222	346.32	346.32	349.78	353.28	356.81	360.38	363.98	367.62	371.30	375.01	378.76	382.55	386.38	390.24
WBR	61		61	95.16	95.16	96.11	97.07	98.04	99.02	100.01	101.01	102.02	103.04	104.07	105.11	106.16	107.22
NBL	135		135	210.60	210.60	212.71	214.84	216.99	219.16	221.35	223.56	225.80	228.06	230.34	232.64	234.97	237.32
NBT	182	+1	183	283.92	283.92	286.76	289.63	292.53	295.46	298.41	301.39	304.40	307.44	310.51	313.62	316.76	319.93
NBR	52		52	81.12	81.12	81.93	82.75	83.58	84.42	85.26	86.11	86.97	87.84	88.72	89.61	90.51	91.42
SBL	53		53	82.68	82.68	83.51	84.35	85.19	86.04	86.90	87.77	88.65	89.54	90.44	91.34	92.25	93.17
SBR	217	+2	219	338.52	338.52	341.91	345.33	348.78	352.27	355.79	359.35	362.94	366.57	370.24	373.94	377.68	381.46

PHF	% Heavy	Counted Heavy	Calculated Heavy	SAT Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF
15. N.Main Street at Oak Street									
Movement									
0.81	0%	0		EBL	19	24	447	43	0.90
	0%	0	2%	EBT	30	0		30	
	0%	0		EBR	2	0		2	
0.86	5%	1		WBL	35	0		35	0.90
	0%	0	3%	WBT	40	0		40	
	3%	2		WBR	105	39		144	
0.89	0%	0		NBL	11	0		11	0.90
	0%	1	2%	NBT	427	165		592	
	0%	0		NBR	33	0		33	
0.72	0%	0		SBL	90	31	121	0.90	
	1%	4	1%	SBT	613	166	779		
	0%	0		SBR	9	22	31		
19. N.Main Street at New Salem Street									
Movement									
0.79	0%	0	2%	EBL	88	36	329	124	0.90
	0%	0		EBR	12	0		12	
0.91	0%	0	2%	NBL	19	0		19	0.91
	2%	4		NBT	410	128		538	
0.72	2%	5	2%	SBT	466	117		583	0.90
	1%	1		SBR	209	48	257		
16. N.Main Street at Veterans Square / Church Street									
Movement									
0.83	0%	0	2%	EBL	0	0	216	0	0.90
	0%	0		EBT	53	0		53	
0.83	0%	1	1%	WBT	390	0		390	0.90
	5%	3		WBR	107	39		146	
0.83	1%	1		NBL	237	0		237	0.90
	0%	0	2%	NBT	320	74		394	
	0%	0		NBR	91	0		91	
0.77	2%	1	1%	SBL	93	35	128	0.90	
	1%	3		SBR	381	68	449		

Background Traffic Volumes
SAT Peak data

Assumed growth rate:	0.01
March 2023 Seasonal Adjust:	1.56 NHDOT Group 5 Averages
June 2023 Seasonal Adjust:	1.05 NHDOT Group 5 Averages (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

SAT Peak data	Existing 2025 (Raw data) [03/08/2025]	Balance	2025	Existing 2025 w/ Seasonal Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
S.Main Street / N.Main Street																	
11:00 AM																	
<u>Movement</u>																	
EBL	156		156	243.36	243.36	245.79	248.25	250.73	253.24	255.77	258.33	260.91	263.52	266.16	268.82	271.51	274.23
EBT	274		274	427.44	427.44	431.71	436.03	440.39	444.79	449.24	453.73	458.27	462.85	467.48	472.15	476.87	481.64
EBR	83		83	129.48	129.48	130.77	132.08	133.40	134.73	136.08	137.44	138.81	140.20	141.60	143.02	144.45	145.89
WBL	118		118	184.08	184.08	185.92	187.78	189.66	191.56	193.48	195.41	197.36	199.33	201.32	203.33	205.36	207.41
WBT	219		219	341.64	341.64	345.06	348.51	352.00	355.52	359.08	362.67	366.30	369.96	373.66	377.40	381.17	384.98
WBR	68		68	106.08	106.08	107.14	108.21	109.29	110.38	111.48	112.59	113.72	114.86	116.01	117.17	118.34	119.52
NBL	61		61	95.16	95.16	96.11	97.07	98.04	99.02	100.01	101.01	102.02	103.04	104.07	105.11	106.16	107.22
NBT	181		181	282.36	282.36	285.18	288.03	290.91	293.82	296.76	299.73	302.73	305.76	308.82	311.91	315.03	318.18
NBR	147		147	229.32	229.32	231.61	233.93	236.27	238.63	241.02	243.43	245.86	248.32	250.80	253.31	255.84	258.40
SBL	31		31	48.36	48.36	48.84	49.33	49.82	50.32	50.82	51.33	51.84	52.36	52.88	53.41	53.94	54.48
SBT	198		198	308.88	308.88	311.97	315.09	318.24	321.42	324.63	327.88	331.16	334.47	337.81	341.19	344.60	348.05
SBR	145		145	226.20	226.20	228.46	230.74	233.05	235.38	237.73	240.11	242.51	244.94	247.39	249.86	252.36	254.88
20. Court Street (US3Bus) at Fair Street																	
11:00 AM																	
<u>Movement</u>																	
EBL	130		130	202.80	202.80	204.83	206.88	208.95	211.04	213.15	215.28	217.43	219.60	221.80	224.02	226.26	228.52
EBT	414		414	645.84	645.84	652.30	658.82	665.41	672.06	678.78	685.57	692.43	699.35	706.34	713.40	720.53	727.74
WBT	376		376	586.56	586.56	592.43	598.35	604.33	610.37	616.47	622.63	628.86	635.15	641.50	647.92	654.40	660.94
WBR	27		27	42.12	42.12	42.54	42.97	43.40	43.83	44.27	44.71	45.16	45.61	46.07	46.53	47.00	47.47
NBL	2		2	3.12	3.12	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48
NBT	1		1	1.56	1.56	1.58	1.60	1.62	1.64	1.66	1.68	1.70	1.72	1.74	1.76	1.78	1.80
NBR	3		3	4.68	4.68	4.73	4.78	4.83	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28
SBL	20		20	31.20	31.20	31.51	31.83	32.15	32.47	32.79	33.12	33.45	33.78	34.12	34.46	34.80	35.15
SBR	195		195	304.20	304.20	307.24	310.31	313.41	316.54	319.71	322.91	326.14	329.40	332.69	336.02	339.38	342.77
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl																	
<u>Movement</u>																	
EBhL	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EBL	151		151	158.55	158.55	160.14	161.74	163.36	164.99	166.64	168.31	169.99	171.69	173.41	175.14	176.89	178.66
EBT	26		26	27.30	27.30	27.57	27.85	28.13	28.41	28.69	28.98	29.27	29.56	29.86	30.16	30.46	30.76
EBR	6		6	6.30	6.30	6.36	6.42	6.48	6.54	6.61	6.68	6.75	6.82	6.89	6.96	7.03	7.10
WBL	8		8	8.40	8.40	8.48	8.56	8.65	8.74	8.83	8.92	9.01	9.10	9.19	9.28	9.37	9.46
WBT	11		11	11.55	11.55	11.67	11.79	11.91	12.03	12.15	12.27	12.39	12.51	12.64	12.77	12.90	13.03
WBbR	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WBR	5		5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
NBL	5		5	5.25	5.25	5.30	5.35	5.40	5.45	5.50	5.56	5.62	5.68	5.74	5.80	5.86	5.92
NBbL	1		1	1.05	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
NBT	433		433	454.65	454.65	459.20	463.79	468.43	473.11	477.84	482.62	487.45	492.32	497.24	502.21	507.23	512.30
NBR	3		3	3.15	3.15	3.18	3.21	3.24	3.27	3.30	3.33	3.36	3.39	3.42	3.45	3.48	3.51
SBL	4		4	4.20	4.20	4.24	4.28	4.32	4.36	4.40	4.44	4.48	4.52	4.57	4.62	4.67	4.72
SBT	358		358	375.90	375.90	379.66	383.46	387.29	391.16	395.07	399.02	403.01	407.04	411.11	415.22	419.37	423.56
SBR	88		88	92.40	92.40	93.32	94.25	95.19	96.14	97.10	98.07	99.05	100.04	101.04	102.05	103.07	104.10
SBhR	2		2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
SEBhL	2		2	2.10	2.10	2.12	2.14	2.16	2.18	2.20	2.22	2.24	2.26	2.28	2.30	2.32	2.34
SEBbL	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SEBbR	1		1	1.05	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12	1.13	1.14	1.15	1.16	1.17
SEBhR	0		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PHF	% Heavy	Counted Heavy	Calculated Heavy	SAT Peak data	2037 No-Build	Site Trip Distribution (Full Build)	Site Trips Added to Intersection	2037 Build (Full Build)	FUTURE BUILD PM PHF	
S.Main Street / N.Main Street										
				Movement						
0.94	1%	1		EBL	274	0	142	274		
	1%	2	1%	EBT	482	0		482	0.94	
	1%	1		EBR	146	0		146		
0.95	0%	0		WBL	207	0		207		
	1%	2	1%	WBT	385	0		385	0.95	
	1%	1		WBR	120	0		120		
0.94	0%	0		NBL	107	0		107		
	1%	1	1%	NBT	318	74		392	0.94	
	1%	1		NBR	258	0		258		
0.79	0%	0		SBL	54	0		54		
	1%	1	1%	SBT	348	68		416	0.90	
	2%	3		SBR	255	0		255		
20. Court Street (US3Bus) at Fair Street										
				Movement						
0.92	1%	1	1%	EBL	229	27	67	256	0.92	
	1%	5		EBT	728	0		728		
0.87	1%	4	1%	WBT	661	0		661	0.90	
	4%	1		WBR	47	0		47		
0.50	0%	0		NBL	3	0		3		
	0%	0	2%	NBT	2	0		2	0.90	
	0%	0		NBR	5	0		5		
0.74	0%	0	1%	SBL	35	0		35	0.90	
	1%	2		SBR	343	40		383		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl										
				Movement						
0.90	0%	0		EBhL	0	0	65	0		
	0%	0	2%	EBL	179	30		209	0.90	
	0%	0		EBT	31	0		31		
	0%	0		EBR	7	0		7		
0.75	0%	0		WBL	9	0		9		
	0%	0	2%	WBT	13	0		13	0.90	
	0%	0		WBbR	0	0		0		
	0%	0		WBR	6	0		6		
0.91	0%	0		NBL	6	0		6		
	0%	0	2%	NBbL	1	0		1	0.91	
	0%	2		NBT	512	0		512		
	0%	0		NBR	4	0		4		
0.89	0%	0		SBL	5	0		5		
	1%	4	1%	SBT	424	0		424	0.90	
	2%	2		SBR	104	35		139		
	0%	0		SBhR	2	0		2		
0.75	0%	0		SEBhL	2	0	2			
	0%	0	2%	SEBbL	0	0	0	0.90		
	0%	0		SEBbR	1	0	1			
	0%	0		SEBhR	0	0	0			

ATTACHMENT B

Adjustment

Seasonal

Growth

Heavy Vehicles

Year 2023 Monthly Data

Group 5 Averages: Recreational Highways

<u>Month</u>	<u>MADT</u>	<u>Adjustment to Average</u>	<u>Adjustment to Peak</u>
January	7,742	1.27	1.63
February	8,117	1.21	1.55
March	8,048	1.22	1.56
April	8,787	1.12	1.43
May	10,554	0.93	1.19
June	11,959	0.82	1.05
July	12,587	0.78	1.00
August	12,456	0.79	1.01
September	10,687	0.92	1.18
October	10,134	0.97	1.24
November	8,747	1.13	1.44
December	8,481	1.16	1.48
Average ADT:	9,858		
Peak ADT:	12,587		

Growth

Belknap County - Group 5 Highway Station	
NH 104 west of Chase Rd (by	
02295022 Meredith	Wickwas Lake)

VOLUME TREND ?	
Year	Annual Growth
2023	3%
2022	-1%
2021	12%
2020	-10%
2019	1%
2018	0%
2017	4%
2016	0%
2015	3%
2014	0%

Year	AADT	Annual Change
2014	11658	
2015	12020	3.11%
2016	11976	-0.37%
2017	12499	4.37%
2018	12480	-0.15%
2019	12638	1.27%
2020	11415	-9.68%
2021	12776	11.92%
2022	12632	-1.13%
2023	12997	2.89%

Average Growth: 0.11%

CAGR	1.22%
Exp	-1.00%
Avg	0.11%

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

AM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	AM HEAVY	AM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated, use 2%
13. Union Ave (US3Bus) at Elm Street / Clinton Street					
<u>Movement</u>					
EBL	146	6	4%		
EBT	14	3	21%	3%	3%
EBR	228	5	2%		
WBL	42	2	5%		
WBT	35	5	14%	5%	5%
WBR	10	3	30%		
NBL	134	8	6%		
NBT	279	8	3%	4%	4%
NBR	3	1	33%		
SBL	1	0	0%		
SBT	239	4	2%	3%	3%
SBR	109	6	6%		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave					
<u>Movement</u>					
EBL	8	0	0%		
EBT	2	0	0%	0%	2%
EBR	1	0	0%		
WBL	266	4	2%		
WBT	0	0	0%	2%	2%
WBR	172	4	2%		
NBL	1	0	0%		
NBT	344	11	3%	3%	3%
NBR	101	1	1%		
SBL	104	4	4%		
SBT	224	7	3%	3%	3%
SBR	1	0	0%		
14. Parade Road (NH106) at Lexington Drive					
<u>Movement</u>					
EBL	45	9	20%	0%	2%
EBR	53	8	15%		
NBL	147	10	7%	4%	4%
NBT	290	7	2%		
SBT	364	5	1%	2%	2%
SBR	79	3	4%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

AM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	AM HEAVY	AM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
15. N.Main Street at Oak Street <u>Movement</u>					
EBL	15	1	7%		
EBT	67	1	1%	2%	2%
EBR	3	0	0%		
WBL	80	5	6%		
WBT	54	3	6%	6%	6%
WBR	~~103~~	9	~~9%~~		
NBL	3	0	0%		
NBT	376	19	5%	5%	5%
NBR	42	1	2%		
SBL	107	3	3%		
SBT	417	8	2%	2%	2%
SBR	4	0	0%		
19. N.Main Street at New Salem Street <u>Movement</u>					
EBL	50	2	4%	4%	4%
EBR	4	0	0%		
NBL	20	0	0%	4%	4%
NBT	402	16	4%		
SBT	384	13	3%	3%	3%
SBR	105	1	1%		
16. N.Main Street at Veterans Square / Church Street <u>Movement</u>					
EBL	1	0	0%	3%	3%
EBT	37	1	3%		
WBT	171	6	4%	3%	3%
WBR	107	1	1%		
NBL	59	0	0%		
NBT	312	13	4%	4%	4%
NBR	15	1	7%		
SBL	87	1	1%	3%	3%
SBR	303	11	4%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

AM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	AM HEAVY	AM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated, use 2%
17. Court Street (US3Bus) / Union Ave (US3Bus) at S.Main Street / N.Main Street					
<u>Movement</u>					
EBL	166	3	2%		
EBT	224	8	4%	3%	3%
EBR	66	3	5%		
WBL	88	5	6%		
WBT	177	3	2%	3%	3%
WBR	77	1	1%		
NBL	62	3	5%		
NBT	307	14	5%	5%	5%
NBR	113	5	4%		
SBL	19	1	5%		
SBT	251	11	4%	5%	5%
SBR	101	8	8%		
20. Court Street (US3Bus) at Fair Street					
<u>Movement</u>					
EBL	182	3	2%	2%	2%
EBT	389	11	3%		
WBT	270	10	4%	4%	4%
WBR	33	1	3%		
NBL	1	0	0%		
NBT	9	0	0%	0%	2%
NBR	5	1	20%		
SBL	13	0	0%	2%	2%
SBR	171	3	2%		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl					
<u>Movement</u>					
EBhL	4	0	0%		
EBL	117	4	3%	3%	3%
EBT	10	0	0%		
EBR	6	0	0%		
WBL	5	0	0%		
WBT	21	2	10%	0%	2%
WBbR	2	0	0%		
WBR	6	0	0%		
NBL	1	0	0%		
NbL	1	0	0%	4%	4%
NBT	342	14	4%		
NBR	3	1	33%		
SBL	2	0	0%		
SBT	330	9	3%	2%	2%
SBR	117	1	1%		
SBhR	2	0	0%		
SEBhL	5	0	0%		
SEBbL	2	0	0%	0%	2%
SEBbR	5	0	0%		
SEBhR	0	0	-		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

PM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	PM HEAVY	PM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
13. Union Ave (US3Bus) at Elm Street / Clinton Street					
<u>Movement</u>					
EBL	186	5	3%		
EBT	18	1	6%	3%	3%
EBR	196	4	2%		
WBL	35	0	0%		
WBT	24	0	0%	0%	2%
WBR	18	0	0%		
NBL	198	7	4%		
NBT	469	5	1%	2%	2%
NBR	23	0	0%		
SBL	1	0	0%		
SBT	389	7	2%	2%	2%
SBR	145	3	2%		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave					
<u>Movement</u>					
EBL	3	0	0%		
EBT	20	0	0%	0%	2%
EBR	1	0	0%		
WBL	155	1	1%		
WBT	8	0	0%	1%	1%
WBR	163	1	1%		
NBL	1	0	0%		
NBT	406	3	1%	1%	1%
NBR	213	1	0%		
SBL	131	0	0%		
SBT	383	5	1%	1%	1%
SBR	10	0	0%		
14. Parade Road (NH106) at Lexington Drive					
<u>Movement</u>					
EBL	157	3	2%	2%	2%
EBR	284	5	2%		
NBL	46	3	7%	1%	1%
NBT	371	2	1%		
SBT	355	14	4%	4%	4%
SBR	46	2	4%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

PM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	PM HEAVY	PM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
15. N.Main Street at Oak Street					
<u>Movement</u>					
EBL	29	0	0%		
EBT	33	0	0%	0%	2%
EBR	0	0	0%		
WBL	53	1	2%		
WBT	40	0	0%	1%	1%
WBR	91	1	1%		
NBL	6	0	0%		
NBT	379	10	3%	2%	2%
NBR	34	0	0%		
SBL	121	1	1%		
SBT	588	20	3%	3%	3%
SBR	14	1	7%		
19. N.Main Street at New Salem Street					
<u>Movement</u>					
EBL	54	1	2%	2%	2%
EBR	8	0	0%		
NBL	14	0	0%	2%	2%
NBT	379	8	2%		
SBT	499	20	4%	3%	3%
SBR	176	2	1%		
16. N.Main Street at Veterans Square / Church Street					
<u>Movement</u>					
EBL	3	0	0%	4%	4%
EBT	46	2	4%		
WBT	244	1	0%	1%	1%
WBR	129	3	2%		
NBL	130	0	0%		
NBT	257	4	2%	1%	1%
NBR	37	0	0%		
SBL	112	2	2%	4%	4%
SBR	395	17	4%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

PM Peak Hour	Existing 2025 (Raw data) [03/06/2025]	PM HEAVY	PM %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
17. Main Street / S.Main Street at Court Street (US3Bus) / Union Ave (US3Bus)					
<u>Movement</u>					
EBL	187	0	0%		
EBT	270	2	1%	1%	1%
EBR	105	1	1%		
WBL	140	1	1%		
WBT	246	5	2%	1%	1%
WBR	56	0	0%		
NBL	83	2	2%		
NBT	256	4	2%	1%	1%
NBR	128	0	0%		
SBL	29	0	0%		
SBT	321	13	4%	3%	3%
SBR	202	2	1%		
20. Court Street (US3Bus) at Fair Street					
<u>Movement</u>					
EBL	63	0	0%	1%	1%
EBT	447	4	1%		
WBT	48	9	~~19%~~	0%	2%
WBR	22	0	0%		
NBL	2	0	0%		
NBT	2	0	0%	0%	2%
NBR	5	0	0%		
SBL	8	0	0%	1%	1%
SBR	295	3	1%		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl					
<u>Movement</u>					
EBhL	5	0	0%		
EBL	230	2	1%	2%	2%
EBT	24	2	8%		
EBR	4	0	0%		
WBL	11	0	0%		
WBT	26	0	0%	0%	2%
WBbR	3	0	0%		
WBR	12	0	0%		
NBL	1	0	0%		
NBbL	0	0	-	1%	1%
NBT	449	7	2%		
NBR	17	0	0%		
SBL	3	0	0%		
SBT	428	5	1%	1%	1%
SBR	157	2	1%		
SBhR	2	0	0%		
SEBhL	5	0	0%		
SEBbL	3	0	0%	0%	2%
SEBbR	8	0	0%		
SEBhR	7	1	~~14%~~		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

SAT Peak Hour	Existing 2025 (Raw data) [03/08/2025]	SAT HEAVY	SAT %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
13. Union Ave (US3Bus) at Elm Street / Clinton Street					
<u>Movement</u>					
EBL	177	1	1%		
EBT	11	0	0%	0%	2%
EBR	112	0	0%		
WBL	40	0	0%		
WBT	23	0	0%	0%	2%
WBR	23	0	0%		
NBL	108	2	2%		
NBT	469	1	0%	1%	1%
NBR	15	0	0%		
SBL	4	0	0%		
SBT	458	4	1%	1%	1%
SBR	155	1	1%		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave					
<u>Movement</u>					
EBL	9	0	0%		
EBT	8	0	0%	0%	2%
EBR	4	0	0%		
WBL	111	1	1%		
WBT	8	0	0%	0%	2%
WBR	113	0	0%		
NBL	3	0	0%		
NBT	410	2	0%	1%	1%
NBR	125	1	1%		
SBL	79	1	1%		
SBT	345	2	1%	1%	1%
SBR	5	0	0%		
14. Parade Road (NH106) at Lexington Drive					
<u>Movement</u>					
EBL	49	0	0%	1%	1%
EBR	83	1	1%		
NBL	18	1	6%	1%	1%
NBT	221	2	1%		
SBT	233	1	0%	1%	1%
SBR	17	1	6%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

SAT Peak Hour	Existing 2025 (Raw data) [03/08/2025]	SAT HEAVY	SAT %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated , use 2%
15. N.Main Street at Oak Street <u>Movement</u>					
EBL	11	0	0%		
EBT	17	0	0%	0%	2%
EBR	1	0	0%		
WBL	20	1	5%		
WBT	23	0	0%	3%	3%
WBR	60	2	3%		
NBL	6	0	0%		
NBT	243	1	0%	0%	2%
NBR	19	0	0%		
SBL	51	0	0%		
SBT	349	4	1%	1%	1%
SBR	5	0	0%		
19. N.Main Street at New Salem Street <u>Movement</u>					
EBL	50	0	0%	0%	2%
EBR	7	0	0%		
NBL	11	0	0%	2%	2%
NBT	233	4	2%		
SBT	265	5	2%	2%	2%
SBR	119	1	1%		
16. N.Main Street at Veterans Square / Church Street <u>Movement</u>					
EBL	0	0	0%	0%	2%
EBT	30	0	0%		
WBT	222	1	0%	1%	1%
WBR	61	3	5%		
NBL	135	1	1%		
NBT	182	0	0%	0%	2%
NBR	52	0	0%		
SBL	53	1	2%	1%	1%
SBR	217	3	1%		

Background Traffic Volumes - HEAVY VEHICLE CALCULATIONS

NOTE: For calculated HV weighted average per NHDOT Synchro Checklist, Heavy vehicle percentages >8% are not to be averaged into the approach value
Volumes with strikethrough are not included in weighted average

SAT Peak Hour	Existing 2025 (Raw data) [03/08/2025]	SAT HEAVY	SAT %Heavy	CALCULATE D WEIGHTED AVERAGE	If 0% calculated, use 2%
17. Main Street / S.Main Street at Court Street (US3Bus) / Union Ave (US3Bus)					
<u>Movement</u>					
EBL	156	1	1%		
EBT	274	2	1%	1%	1%
EBR	83	1	1%		
WBL	118	0	0%		
WBT	219	2	1%	1%	1%
WBR	68	1	1%		
NBL	61	0	0%		
NBT	181	1	1%	1%	1%
NBR	147	1	1%		
SBL	31	0	0%		
SBT	198	1	1%	1%	1%
SBR	145	3	2%		
20. Court Street (US3Bus) at Fair Street					
<u>Movement</u>					
EBL	130	1	1%	1%	1%
EBT	414	5	1%		
WBT	376	4	1%	1%	1%
WBR	27	1	4%		
NBL	2	0	0%		
NBT	1	0	0%	0%	2%
NBR	3	0	0%		
SBL	20	0	0%	1%	1%
SBR	195	2	1%		
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis Pl					
<u>Movement</u>					
EBhL	0	0	-		
EBL	151	0	0%	0%	2%
EBT	26	0	0%		
EBR	6	0	0%		
WBL	8	0	0%		
WBT	11	0	0%	0%	2%
WBbR	0	0	-		
WBR	5	0	0%		
NBL	5	0	0%		
NBbL	1	0	0%	0%	2%
NBT	433	2	0%		
NBR	3	0	0%		
SBL	4	0	0%		
SBT	358	4	1%	1%	1%
SBR	88	2	2%		
SBhR	2	0	0%		
SEBhL	2	0	0%		
SEBbL	0	0	-	0%	2%
SEBbR	1	0	0%		
SEBhR	0	0	-		

ATTACHMENT C

Timings



INTERSECTION NAME: Oak & N Main

INSTALLATION DATE: _____

PROGRAMMED BY: _____

PROGRAM DATE: _____

CONTROLLER SERIAL #: _____

SECURITY CODE: _____

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

ADDRESS: _____

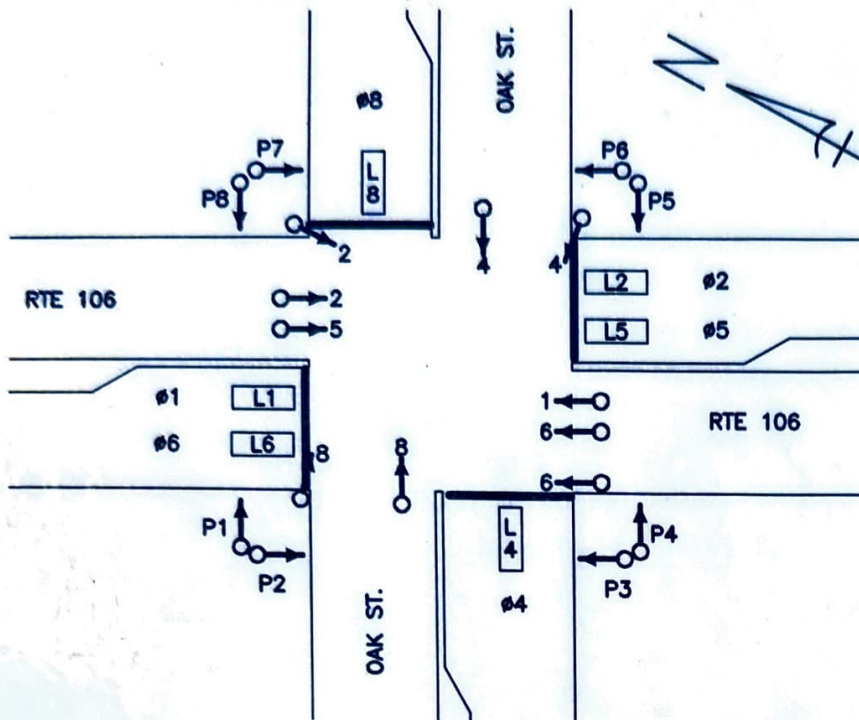
INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS								
	1	2	3	4	5	6	7	8	
MIN GREEN	7	7	0	7	7	7	0	7	9
PASSAGE	30	30	30	30	30	30	30	30	20
YELLOW/10	40	40	30	40	40	40	30	40	30
RED/10	20	20	10	20	20	20	10	20	20
MAX I	12	25	0	22	12	35	0	22	15
MAX II	15	45	0	15	15	45	0	15	15
WALK									5
PED CLEAR									17
S/A									
TBR									
TTR									
MIN GAP									
MAX VI									
MAX EXT									
AUTO MAX									
AMR									

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF								
SEQUENCE			1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG					
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2		3 AND 4		5 AND 6		7 AND 8	
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY C/S/O OR CLOCK/INPUT								

INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH			(0-127 SECONDS)	
1 ST ALL RED AFTER FLASH			(0-127 SECONDS)	

INTERSECTION DRAWING



←R USED ONLY IF LEFT TURN HEAD IS 3 SECTION

NEMA OVERLAP PROGRAM CARD (IF SUPPLIED)

OLD	OLC	OLB	OLA
RING 2 RING 1	RING 2 RING 1	RING 2 RING 1	RING 2 RING 1

NEMA MONITOR PROGRAM CARD

1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
1-3	2-4	3-5	4-6	5-7	6-8	7-9	8-10	9-11	10-12	
1-4	2-5	3-6	4-7	5-8	6-9	7-10	8-11	9-12		
1-5	2-6	3-7	4-8	5-9	6-10	7-11	8-12			
1-6	2-7	3-8	4-9	5-10	6-11	7-12				
1-7	2-8	3-9	4-10	5-11	6-12					
1-8	2-9	3-10	4-11	5-12						
1-9	2-10	3-11	4-12							
1-10	2-11	3-12								
1-11	2-12									
1-12										

CAUTION
FOR SAFE SIGNAL OPERATION
CONTROL EQUIPMENT MUST BE
PROGRAMMED AND CONNECTED ACCORDING TO
THIS DRAWING. IF ANY CHANGES ARE MADE, THE
USER MUST PROPERLY PROGRAM ALL CONTROL
EQUIPMENT OR UNSAFE OPERATION MAY RESULT.

NOTES:

SIGNAL CONNECTIONS

SIG#	PH	G	Y	R	←G	←Y	←R	→G	→Y	WK	DW	FL	LOOP	CH	TERMINALS	PH	LOOP
1	1				503	502	501					←R	1	1	DP1-1 DP1-3	1	L1
2	2	506	505	504								Y	2	2	DP1-4 DP1-6	2	L2
4	4	512	511	510								R	3	3	DP1-7 DP1-9	3	L3
5	5				515	514	513					←R	4	4	DP1-10 DP1-12	4	L4
6	6	518	517	516								Y	5	5	DP1-17 DP1-19	5	L5
8	8	524	523	522								R	6	6	DP1-20 DP1-22	6	L6
													7	7	DP1-23 DP1-25	7	L7
													8	8	DP1-26 DP1-28	8	L8
													9	9	DP2-1 DP2-3	-	L2A
ALL PEDS	P9									527	525		10	10	DP2-4 DP2-6	-	L2B
													11	11	DP2-7 DP2-9	-	L4A
													12	12	DP2-10 DP2-12	-	L4B
													13	13	DP2-17 DP2-19	-	L6A
													14	14	DP2-20 DP2-22	-	L6B
													15	15	DP2-23 DP2-25	-	L8A
													16	16	DP2-26 DP2-28	-	L8B

PED CALLS

P1	DP1-13	P5	DP2-13
P2	DP1-14	P6	DP2-14
P3	DP1-15	P7	DP2-15
P4	DP1-16	P8	DP2-16

KEYBOARD PHASE OMTS/SEQUENCE

OMIT PHASES 3,7
SEE PAGE 3 OF CW FOR SPECIAL PROGRAMMING REQUIRED FOR PED
OPERATION

LOADSWITCHES

X=UNUSED

1 2 3 4 5 6 7 8 9 10 11 12

N.H. RTE 106 & OAK ST.

APPROVALS

DRAWN BY TH 11-10-11
CHECKED BY BB 11-10-11

DATE

PEEK
TRAFFIC

2906 CORPORATE WAY
PALMETTO, FLORIDA 34221, USA

DESCR W/D OF 2-8# CONTROLLER FOR
NEW HAMPSHIRE

CONFIG# 8501#16768

AD# P-083

SIZE
A

DRAWING NO.

8500#16766

REV
0

ZONE

I.D.

ALL USE FORBIDDEN
WITHOUT WRITTEN CONSENT
OF PEEK TRAFFIC

SCALE

N/A

SO#

244816

SHEET

1 OF 1



INTERSECTION NAME: Church & N. Main

PROGRAMMED BY: _____

CONTROLLER SERIAL # _____

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

INSTALLATION DATE: _____

PROGRAM DATE: _____

SECURITY CODE: _____

ADDRESS: _____

INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS							
	1	2	3	4	5	6	7	8
MIN GREEN	0	5	5	5	0	5	0	0
PASSAGE								
YELLOW		4	4	4	4	4	4	4
RED		2	2	2	2	2	2	2
MAX I		25	25	25		25		
MAX II								
WALK								
PED CLEAR								
S/A								
TBR								
TTR								
MIN GAP								
MAX VI								
MAX EXT		4	4	4	4	4	4	4
AUTO MAX								
AMR								

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF								
SEQUENCE	1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG							
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2		3 AND 4		5 AND 6		7 AND 8	
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY C/S/O OR CLOCK/INPUT								

INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH		(0-127 SECONDS)		
1 ST ALL RED AFTER FLASH		(0-127 SECONDS)		

FIELD TERMINATION
MAIN ST @ VETERAN'S SQUARE
LACONIA NH

STREET	PHASE	SIGNAL	GRN	YEL	RED	G→←	Y→←	WALK	DW
VETERAN EB	Ø2		104	105	106				
MAIN ST SB	Ø3		107	108	109				
MAIN ONE WAY	Ø4		110	111	112				
CHURCH EB	Ø6		116	117	118				
	Ø								
	Ø								
	Ø								
	Ø								
	Ø								
	Ø								
	Ø								
	Ø								
	Ø								

LOOPS

STREET	PHASE	LOOP LOCATION	PANEL TERMINATION	DELAY	EXT	NOTES
VETERAN EB	Ø2		TB8 1&2			
VETERAN EB	Ø2		TB8 3&4			
MAIN ST SB	Ø3		TB8 5&6			
MAIN ST SB	Ø3		TB8 7&8			
MAIN ONE WAY	Ø4		TB8 9&10			
MAIN ONE WAY	Ø4		TB8 11&12			
CHURCH EB	Ø6		TB9 1&2			
CHURCH EB	Ø6		TB9 3&4			
	Ø					
	Ø					
	Ø					
	Ø					
	Ø					
	Ø					
	Ø					
	Ø					

OVERLAPS

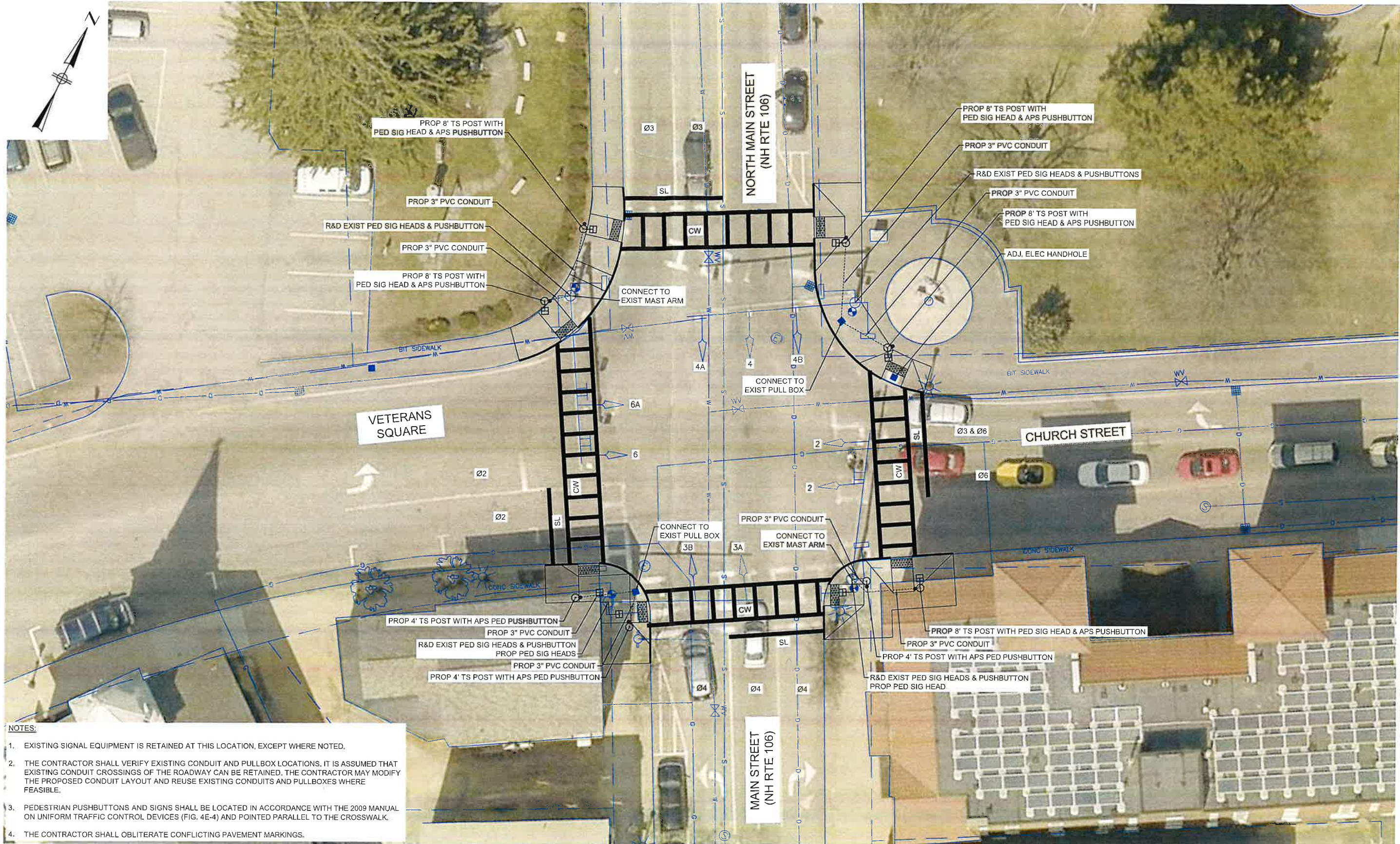
OLA=
 OLB=
 OLC=
 OLD=
 OLE=
 OLF=

PREEMPTION

CHANNEL 1 CALLS 1&6
 CHANNEL 2 CALLS 2&5
 CHANNEL 3 CALLS 3&8
 CHANNEL 4 CALLS 4&7

PED BUTTON HOOKUP

CHANNEL	PHASE	TERMINAL
A	Ø9	PTC-2, AC-
B	Ø	
C	Ø	
D	Ø	



- NOTES:
1. EXISTING SIGNAL EQUIPMENT IS RETAINED AT THIS LOCATION, EXCEPT WHERE NOTED.
 2. THE CONTRACTOR SHALL VERIFY EXISTING CONDUIT AND PULLBOX LOCATIONS. IT IS ASSUMED THAT EXISTING CONDUIT CROSSINGS OF THE ROADWAY CAN BE RETAINED. THE CONTRACTOR MAY MODIFY THE PROPOSED CONDUIT LAYOUT AND REUSE EXISTING CONDUITS AND PULLBOXES WHERE FEASIBLE.
 3. PEDESTRIAN PUSHBUTTONS AND SIGNS SHALL BE LOCATED IN ACCORDANCE WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FIG. 4E-4) AND POINTED PARALLEL TO THE CROSSWALK.
 4. THE CONTRACTOR SHALL OBLITERATE CONFLICTING PAVEMENT MARKINGS.

0:162010 1:20 PM 01:00005-5888 - LACONIA NH - UNION AVE DRAWING FILESETASK 20088-02 SIGNAL DWG (BETA SITE BY - EXISTING BLUE SITE)

NUMBER				DATE	MADE BY	CHECKED BY	REVISIONS	DRAWN BY: TD	DESIGNED BY: TD	CHECKED BY: GL	REGISTERED PROFESSIONAL	PREPARED BY:  www.BETA-inc.com	SUBCONSULTANT	SCALE 10 0 10 20 SCALE IN FEET: 1"=10'	TITLE ADA Compliance North Main Street (NH RTE 106) at Church Street (Priority 1) Laconia, NH SIGNAL PLAN	BETA JOB NO. 5888	ISSUE DATE 05/14/2019	SHEET NO. 8 OF 15

After change
Page 2 of 2



INTERSECTION NAME: Union / Main / Court

PROGRAMMED BY: Wes Anderson

CONTROLLER SERIAL # _____

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

INSTALLATION DATE: 10/18/2017

PROGRAM DATE: _____

SECURITY CODE: _____

ADDRESS: _____

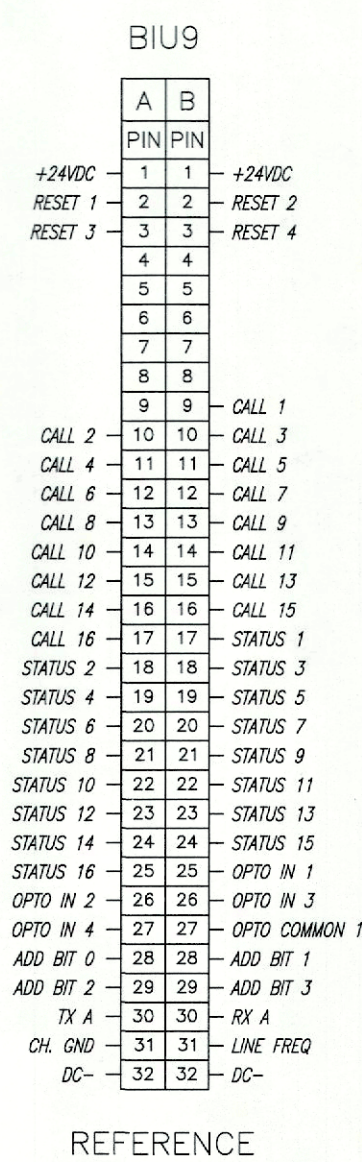
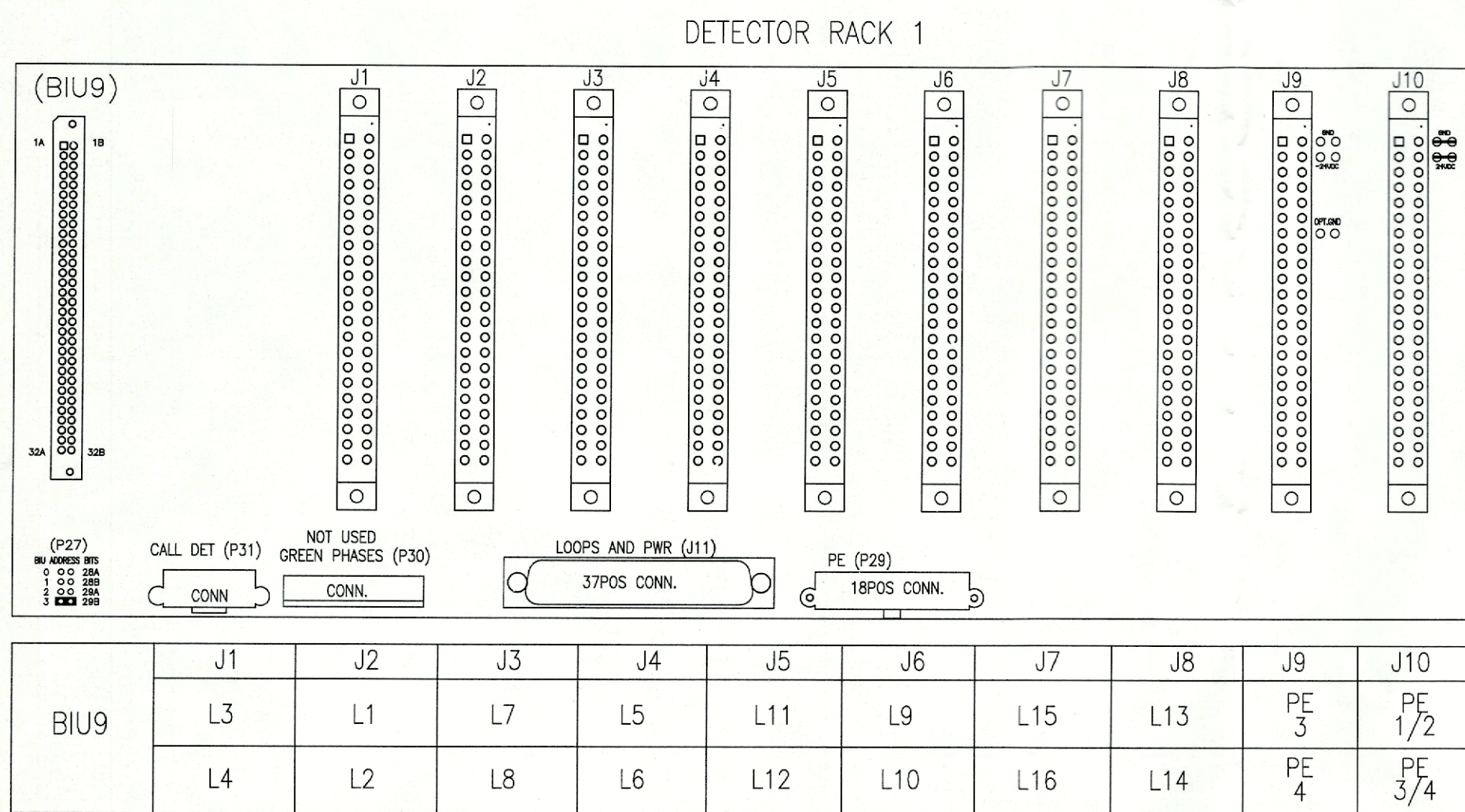
INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS							
	1	2	3	4	5	6	7	8
MIN GREEN	0	15	4	15	4	15	4	15
PASSAGE	20	50	20	50	20	50	20	50
YELLOW	30	40	30	40	30	40	30	40
RED	10	20	10	20	10	20	10	20
MAX I	25	45	15	45	15	45	15	45
MAX II	25	45	15	45	15	45	15	45
WALK	7	7	0	7	0	7	0	7
PED CLEAR	28	15	0	15	0	15	0	15
S/A								
TBR								
TTR								
MIN GAP								
MAX VI								
MAX EXT								
AUTO MAX								
AMR								

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF								
SEQUENCE			1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG					
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2		3 AND 4		5 AND 6		7 AND 8	
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY C/S/O OR CLOCK/INPUT								

INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH		(0-127 SECONDS)		
1 ST ALL RED AFTER FLASH		(0-127 SECONDS)		

[illegible]



"D1" LOOPS & PWR CABLE (J11)

PIN	FUNCTION	PCB	TERM
1	LOOP IN 1	J2-D,4	401B
2	LOOP IN 1	J2-E,5	402B
3	LOOP IN 2	J2-J,8	403B
4	LOOP IN 2	J2-K,9	404B
5	LOOP IN 3	J1-D,4 & J2-P,13	405B
6	LOOP IN 3	J1-E,5 & J2-R,14	406B
7	LOOP IN 4	J1-J,8 & J2-U,17	407B
8	LOOP IN 4	J1-K,9 & J2-V,18	408B
9	LOOP IN 5	J4-D,4	409B
10	LOOP IN 5	J4-E,5	410B
11	LOOP IN 6	J4-J,8	411B
12	LOOP IN 6	J4-K,9	412B
13	LOOP IN 7	J3-D,4 & J4-P,13	413B
14	LOOP IN 7	J3-E,5 & J4-R,14	414B
15	LOOP IN 8	J3-J,8 & J4-U,17	415B
16	LOOP IN 8	J3-K,9 & J4-V,18	416B
17	LOOP IN 9	J6-D,4	417B
18	LOOP IN 9	J6-E,5	418B
19	LOOP IN 10	J6-J,8	419B
20	LOOP IN 10	J6-K,9	420B
21	LOOP IN 11	J5-D,4 & J6-P,13	421B
22	LOOP IN 11	J5-E,5 & J6-R,14	422B
23	LOOP IN 12	J5-J,8 & J6-U,17	423B
24	LOOP IN 12	J5-K,9 & J6-V,18	424B
25	LOOP IN 13	J8-D,4	425B
26	LOOP IN 13	J8-E,5	426B
27	LOOP IN 14	J8-J,8	427B
28	LOOP IN 14	J8-K,9	428B
29	LOOP IN 15	J7-D,4 & J8-P,13	429B
30	LOOP IN 15	J7-E,5 & J8-R,14	430B
31	LOOP IN 16	J7-J,8 & J8-U,17	431B
32	LOOP IN 16	J7-K,9 & J8-V,18	432B
33	+12VDC	J1-B	482A
34	L.GND	32A,B	446A
35	+24VDC	1A	448A
36	LINE FREQ. REF.	31B	481A
37	EARTH GROUND	31A	GB5

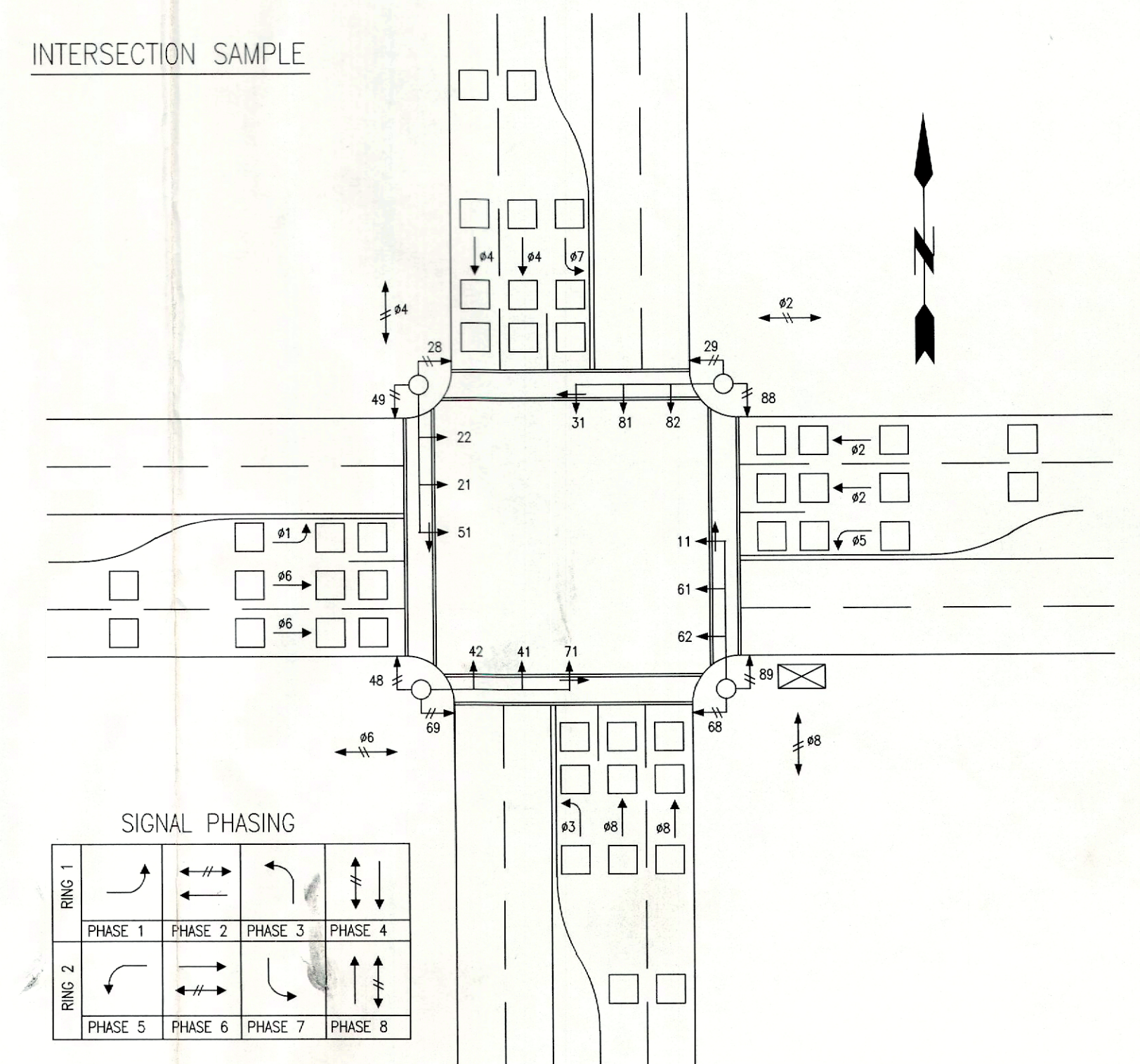
"DC1" BIU9 CALL INPUTS (P31)

PIN	FUNCTION	PCB	TERM
1	CH1-CALL	9B	SW101-2
2	CH2-CALL	10A	SW102-2
3	CH3-CALL	10B	SW103-2
4	CH4-CALL	11A	SW104-2
5	CH5-CALL	11B	SW105-2
6	CH6-CALL	12A	SW106-2
7	CH7-CALL	12B	SW107-2
8	CH8-CALL	13A	SW108-2
9	CH9-CALL	13B	SW109-2
10	CH10-CALL	14A	SW110-2
11	CH11-CALL	14B	SW111-2
12	CH12-CALL	15A	SW112-2
13	CH13-CALL	15B	SW113-2
14	CH14-CALL	16A	SW114-2
15	CH15-CALL	16B	SW115-2
16	CH16-CALL	17A	SW116-2
17	-	-	-
18	-	-	-
19	-	-	-
20	LOGIC GND.	L.G.	SW104-1

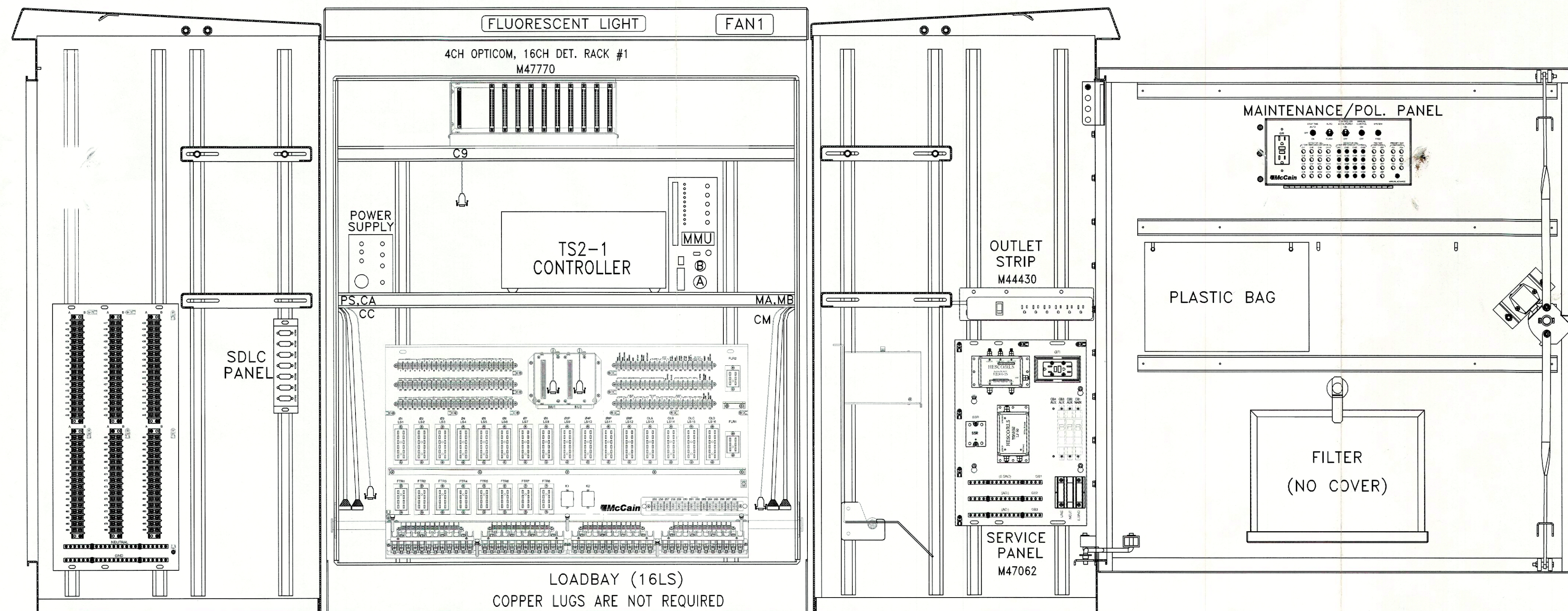
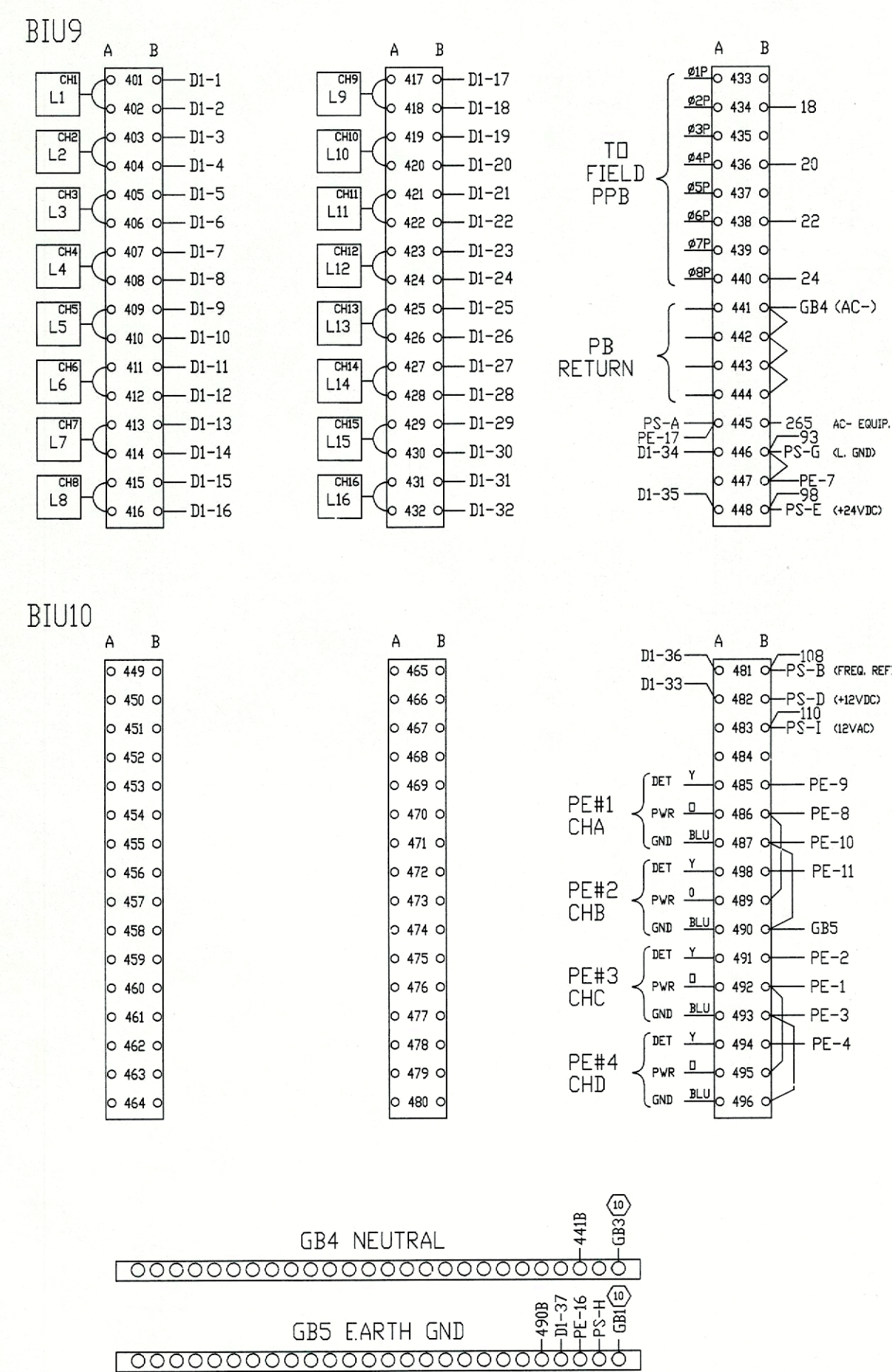
"PE" PREEMPTION CABLE (P29)

PIN	FUNCTION	PCB	TERM
1	+26 VDC TO DETS	J9-E	492B
2	CH3 DET IN	J9-D	491B
3	DC- TO DETS	J9-K	493B
4	CH4 DET IN	J9-J	494B
5	CH3 CALL OUT	J9-F	13
6	CH4 CALL OUT	J9-W	14
7	CALL OUT COMMON	J9-H	447B
8	+26 VDC TO DETS	J10-E	486B
9	CH1 DET IN	J10-D	485B
10	DC- TO DETS	J10-K	487B
11	CH2 DET IN	J10-J	488B
12	CH1 CALL OUT	J10-F	11
13	CH2 CALL OUT	J10-W	12
14	DET COMMUNICATION	J10-19	-
15	DET COMMUNICATION	J10-21	-
16	EQUIPMENT GROUND	J9-L	GB5
17	AC NEUTRAL	J9-M	445A
18	AC+ 120V	J9-N	260

INTERSECTION SAMPLE



LOOP PANEL



REV	DESIGN ACTIVITY	MADE BY	DATE
X1	SUBMITTAL	ER	12/03/12

McCain® 2365 OAK RIDGE WAY VISTA, CA 92081

P44 CAB, TS2-1

SIZE	SCALE	PART NUMBER	REV.
D	NONE	M55460	X1

Feb. 10, 2015 at 12:10 p.m.



Phase Concurrency
2,5,6
4,8

INTERSECTION NAME: Elm St & Union

PROGRAMMED BY: _____

CONTROLLER SERIAL # _____

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

INSTALLATION DATE: _____

PROGRAM DATE: _____

SECURITY CODE: _____

ADDRESS: _____

INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS							
	1	2	3	4	5	6	7	8
MIN GREEN	0	5	5	5	5	5	0	5
PASSAGE/10	6	30	0	30	30	30		30
YELLOW/10	0	40	0	40	40	40	0	40
RED/10	0	2	0	20	0	20	0	20
MAX I	0	35	0	20	10	25	0	30
MAX II	0	40	0	17	10	30	0	20
WALK	0							
PED CLEAR								
S/A								
TBR								
TTR								
MIN GAP								
MAX VI								
MAX EXT								
AUTO MAX								
AMR								

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF								
SEQUENCE	1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG							
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2	3 AND 4		5 AND 6		7 AND 8		
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY C/S/O OR CLOCK/INPUT								

INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH			(0-127 SECONDS)	
1 ST ALL RED AFTER FLASH			(0-127 SECONDS)	



INTERSECTION NAME: Elm St 3 Union J

INSTALLATION DATE: _____

PROGRAMMED BY: _____

PROGRAM DATE: _____

CONTROLLER SERIAL #: _____

SECURITY CODE: _____

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

ADDRESS: _____

Ring 1 - 24.9
Ring 2 5.0, 8

INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY								
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS							
	9	10	11	12	13	14	15	16
MIN GREEN	4	15	4	15	4	15	4	15
PASSAGE/10	20	50	20	50	20	50	20	50
YELLOW/10	40	40	30	40	30	40	30	40
RED/10	20	20	10	20	10	20	10	20
MAX I	15	45	15	45	15	45	15	45
MAX II	15	45	15	45	15	45	15	45
WALK	7							
PED CLEAR	18							
S/A								
TBR								
TTR								
MIN GAP								
MAX VI								
MAX EXT								
AUTO MAX								
AMR								

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF								
SEQUENCE	1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG							
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2		3 AND 4		5 AND 6		7 AND 8	
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY G/S/O OR CLOCK/INPUT								

INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH			(0-127 SECONDS)	
1 ST ALL RED AFTER FLASH			(0-127 SECONDS)	

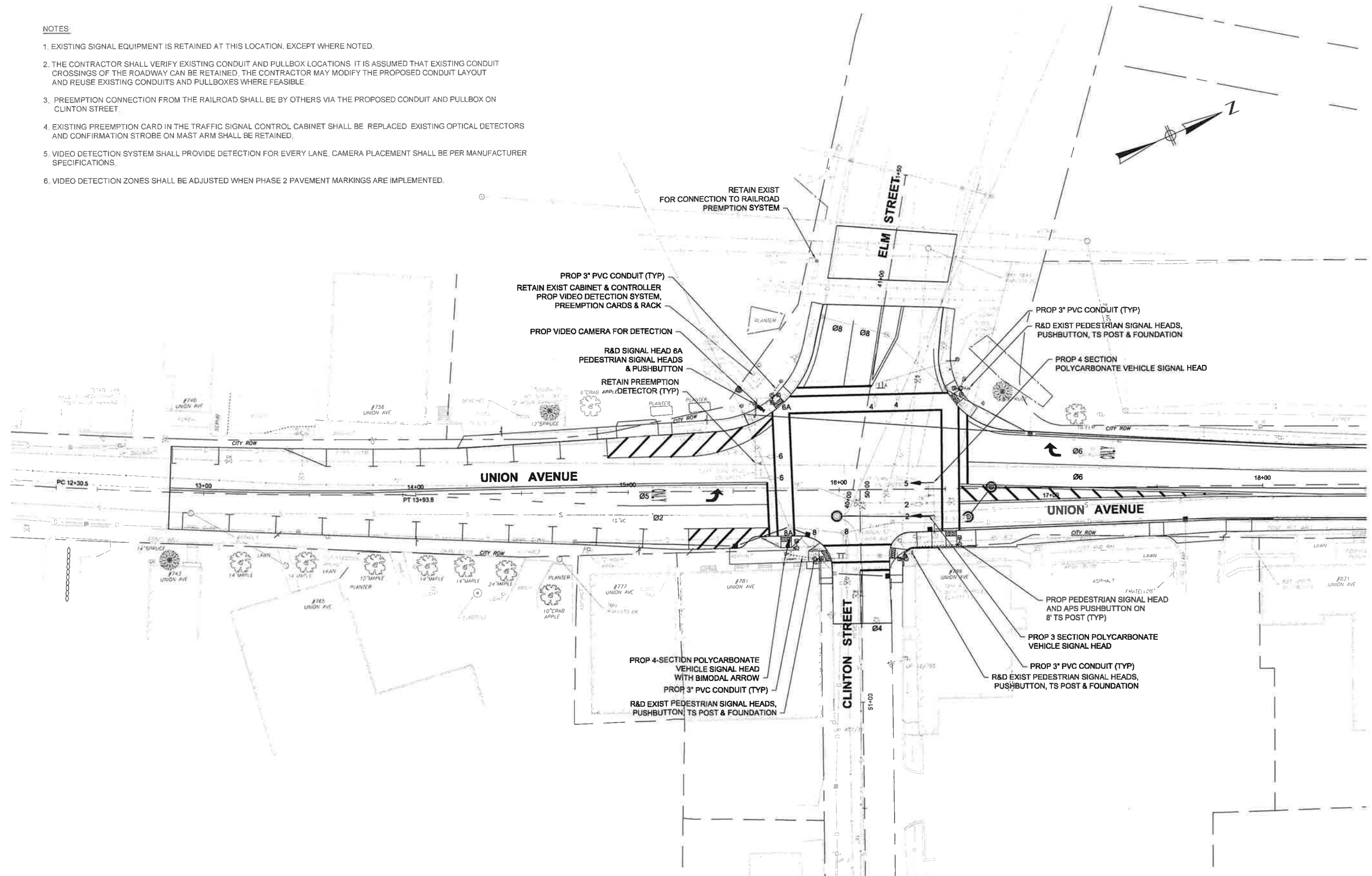
1. EXISTING SIGNAL EQUIPMENT IS RETAINED AT THIS LOCATION, EXCEPT WHERE NOTED.

3. PREEMPTION CONNECTION FROM THE RAILROAD SHALL BE BY OTHERS VIA THE PROPOSED CONDUIT AND PULLBOX ON CLINTON STREET.

4. EXISTING PREEMPTION CARD IN THE TRAFFIC SIGNAL CONTROL CABINET SHALL BE REPLACED. EXISTING OPTICAL DETECTORS AND CONFIRMATION STROBE ON MAST ARM SHALL BE RETAINED.

5. VIDEO DETECTION SYSTEM SHALL PROVIDE DETECTION FOR EVERY LANE. CAMERA PLACEMENT SHALL BE PER MANUFACTURER SPECIFICATIONS.

6. VIDEO DETECTION ZONES SHALL BE ADJUSTED WHEN PHASE 2 PAVEMENT MARKINGS ARE IMPLEMENTED.



				DRAWN BY SD	REGISTERED PROFESSIONAL For Review Only	PREPARED BY  www.BETA-Inc.com	SUBCONSULTANT	SCALE  SCALE IN FEET 1"=20' UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN FEET	TITLE UNION AVENUE ROADWAY IMPROVEMENTS ELM STREET TO STARK STREET TRAFFIC SIGNAL PLAN LACONIA, NEW HAMPSHIRE	BETA JOB NO <u>5868</u>
				DESIGNED BY SD / CT						ISSUE DATE <u>07/18/2018</u>
				CHECKED BY DJ / JP						SHEET NO <u>34 OF 53</u>
NUMBER	DATE	MADE BY	CHECKED BY	REVISIONS						

1/20/2019 8:52 AM O:\5800S\5868 - LACONIA NH UNION AVE\DRAWING FILES\PLAN SET\5868 SIGNAL DWG (BETA STB BW STB)

UNION AVE @ ELM ST / CLINTON ST
LACONIA NH

LIGHTS

LOOPS

FACE #/0	G	Y	R	G<→	Y<→	W	DW
2	504	505	506				
3	507	508	509				
4	510	511	512				
5	513	514	515				
6	516	517	518				
EXCLUS PED						525	527

PED BUTTON		
CH	Phase	Terminal
A	2	D4-9, AC-
B		
C		
D		

For R/R Preempt
connections refer
to cabinet prints.

L.D.#	Phase	Loop	Terminal
27	2		D7 1+2
3	~~4~~	3	D7 3+4
4	~~5~~	4	D6 5+6
5	~~6~~	5	D7 5+6
6	~~7~~	6	D6 7+8
7	~~8~~	6	D7 7+8
LD	2		
2	2		D7 1+2
3	3		D6 3+4
4	3		D7 5+6
5	4		D6 5+6
6	5		D7 5+6
7	6		D6 7+8
8	6		D7 7+8
9	3		D6 9+10
10	3		D7 9+10

FLASH PROGRAM

CH	1	2	3	4	5	6	7	8	9	10	11	12
FL	R	Y	R	R	R	Y						

R = RED FLASH
Y = YELLOW FLASH
U = UNUSED FLASH

OVERLAP		PHASE							
		1	2	3	4	5	6	7	8
	A								
	B								
	C								
	D								

02 03 04 05 06

EXCL
PED

1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16
1-3	2-4	3-5	4-6	5-7	6-8	7-9	8-10	9-11	10-12	11-13	12-14	13-15	14-16	
1-4	2-5	3-6	4-7	5-8	6-9	7-10	8-11	9-12	10-13	11-14	12-15	13-16		
1-5	2-6	3-7	4-8	5-9	6-10	7-11	8-12	9-13	10-14	11-15	12-16			
1-6	2-7	3-8	4-9	5-10	6-11	7-12	8-13	9-14	10-15	11-16				
1-7	2-8	3-9	4-10	5-11	6-12	7-13	8-14	9-15	10-16					
1-8	2-9	3-10	4-11	5-12	6-13	7-14	8-15	9-16						
1-9	2-10	3-11	4-12	5-13	6-14	7-15	8-16							
1-10	2-11	3-12	4-13	5-14	6-15	7-16								
1-11	2-12	3-13	4-14	5-15	6-16									
1-12	2-13	3-14	4-15	5-16										
1-13	2-14	3-15	4-16											
1-14	2-15	3-16												
1-15	2-16													
1-16														

Phase	1	2	3	4	5	6	7	8	9
min/gm		5	5	5	5	5			
ext		3	3	3	3	3			
yellow		4	4	4	4	4			
red		3	2	2	3	3			
max I		35	20	10	15	35			
max II		60	20	15	30	60			
walk									7
ped clr									11
recall		SOFT				SOFT			

MAX 1 0600-0900

MAX 2 1500-1800



INTERSECTION NAME: Guilford Ave & Union

PROGRAMMED BY: _____

CONTROLLER SERIAL # 12589

INTERSECTION TELEPHONE (IF DIRECT DIAL): _____

SECTION: _____

INSTALLATION DATE: 1997

PROGRAM DATE: _____

SECURITY CODE: _____

ADDRESS: _____

INTERVAL	PHASE (ON/OFF)							
	1	2	3	4	5	6	7	8
MEMORY		X				X		
EXT RECALL								
MAX RECALL								
PED RECALL								
CNA I								
CNA II								
FL WALK								
SOFT RECALL								
WALK REST								
COND PED								
FWTPCL								

INTERVAL	PHASE TIMINGS							
	1	2	3	4	5	6	7	8
MIN GREEN	4	10	5	0	0	10	5	0
PASSAGE	20	30	30		30	30	30	30
YELLOW	40	40	40			40	40	40
RED	10	20	20		20	20	20	20
MAX I	15	35	30			45	30	
MAX II	15	65	30			65	30	45
WALK				7				
PED CLEAR				14				
S/A								
TBR								
TTR								
MIN GAP								
MAX VI								
MAX EXT								
AUTO MAX								
AMR								

PHASES USED								
	1	2	3	4	5	6	7	8
ON/OFF	1	1	1			2	2	
SEQUENCE			1 = SEQ, 2 = DUAL RNG, 3-7 = SPEC, 8 = LEAD/LAG					
LEAD/LAG CODES (ONLY USED IF "8" WAS ENTERED FOR SEQUENCE)								
PAIRS	1 AND 2		3 AND 4		5 AND 6		7 AND 8	
CODE								
LEAD/LAG CODES - 1 = NO REV, 2 = ALWAYS REV, 3 = REV BY C/S/O OR CLOCK/INPUT								

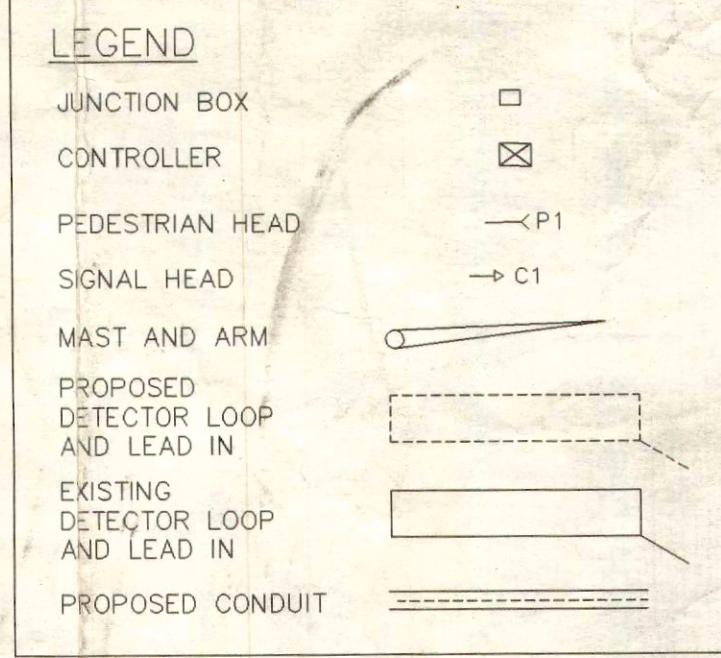
INITIALIZE/FLASH				
	INITIALIZE	ENTER FLASH	EXIT FLASH	INTERVAL CODES: 1 = RED 2 = YELLOW 3 = GREEN
RING 1 PHASE				
RING 2 PHASE				
INTERVAL				
POWER UP/RESTART TIMINGS				
MINIMUM FLASH			(0-127 SECONDS)	
1 ST ALL RED AFTER FLASH			(0-127 SECONDS)	

L.T. Union Suffolk Walks

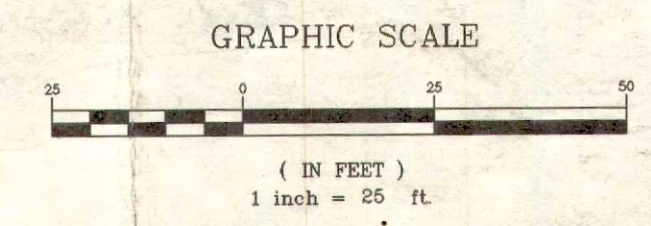
PHASE	1	2	3	4
MIN GRN	5	5	20	-
PASSAGE	0.5	1.5	1.0	-
YELLOW	3	3.6	3.5	-
RED CL	1	1.5	2.2	-
MAX GR I	15	45	30	-
MAX GR II	15	45	30	-
WALK	-	-	-	7
CLEAR	-	-	-	15
RECALL	OFF	ON-MIN	OFF	OFF

1 Left 2 C North Suffolk 3

NOTE: ALL SIGNAL HEADS SHALL BE MOUNTED WITH ASTRO-BRAC OR SIMILAR RIGID MOUNTING.



**DRAFT
FOR REVIEW ONLY
NOT FOR CONSTRUCTION**



CHIP AWAY EXISTING MAST FOUNDATION TO A DEPTH SUFFICIENT TO ALLOW INSTALLATION OF A CONCRETE JUNCTION BOX

INSTALL 4" SCHEDULE 80 PVC CONDUIT

INSTALL 24R TYPE 2 CONCRETE FOUNDATION, MAST 'C' AND 20' ARM, SIGNAL HEADS C1 AND C2, PEDESTRIAN SIGNALS P2 AND P3 AND PUSH-BUTTON

INSTALL 4" SCH 80 PVC CONDUIT FROM MAST 'A' FOUNDATION THROUGH ADJACENT J-BOX TO J-BOX ON NW CORNER

RiteAid Pharmacy
84' X 128' FINISHED
INSIDE DIMENSIONS
10,976 GROSS SQ.FT.

INSTALL 6'x25' LOOPS WITH 5 SEC. DELAY ON RIGHT TURN LOOP. LOOP LEAD-IN TO JUNCTION BOX

INSTALL JUNCTION BOX FOR LOOP LEAD-INS FROM RITE-AID DRIVE

INSTALL PEDESTRIAN P1 HEAD PLUS PUSH-BUTTON

INSTALL 36R-A TYPE 2 CONCRETE FOUNDATION AND MAST 'A' WITH 45' ARM AND REINSTALL SIGNAL HEADS A1 AND A2

INSTALL SIGN MUTCD R10-12
LEFT TURN YIELD ON GREEN
24"x36"

INSTALL 6'x35' LOOPS WITH LEAD-IN TO NEW JUNCTION BOX ON NW CORNER

INSTALL DETECTOR AMPLIFIERS FOR GILFORD AVE. RIGHT-TURN WITH 5 SEC. DELAY FOR RITE-AID DETECTOR LOOPS (2)

RELOCATE 30' MAST ARM 'B' TO EXISTING BASE ON NORTHEAST CORNER AND INSTALL SIGNAL HEADS B1, B2, PED SIGNALS P4, P5 AND PUSH-BUTTON

RELOCATE MAST 'D' AND ARM TO NEW BASE AS SHOWN

INSTALL 24R TYPE 2 CONCRETE BASE IN GRASS STRIP BETWEEN CURB AND SIDEWALK, RELOCATED MAST 'D', 20' ARM, SIGNAL HEADS D1 AND D2, PED. SIGNAL P6 AND PUSH-BUTTON

INSTALL 4" SCHEDULE 80 PVC CONDUIT FROM JUNCTION BOX TO MAST 'D'

REPLACE PEDESTRIAN PEDESTAL AND CHIP AWAY BASE SUFFICIENT TO INSTALL A CONCRETE JUNCTION BOX

INSTALL 6'x35' LOOPS WITH LEAD-IN AS SHOWN LOOPS WIRED TO PHASE 2

INSTALL 40'±, 2" SCHEDULE 80 PVC UNDER SIDEWALK AND CONCRETE JUNCTION BOX

RE-STRIPE UNION AVE. NORTHBOUND AS SHOWN

REMOVE EXISTING ON STREET PARKING. INSTALL MUTCD R7-1 "NO PARKING AT ANY TIME"

REMOVE ON-STREET PARKING TO A MINIMUM OF 50' SOUTH OF STRAFFORD ST. INSTALL NEW MUTCD R7-1 "NO PARKING AT ANY TIME"

- NOTES:**
1. THE INSTALLATION WILL COMPLY WITH NHDOT SPECIFICATIONS AS SET FORTH IN SECTION 616, AND WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 2. ALL EXISTING SIGNAL HEADS AND PEDESTRIAN HEADS TO BE RE-USED. EXISTING SIGNAL HEADS TO BE REPAIRED AS NECESSARY AND REFITTED WITH PARTIAL VISORS AND BACK PLATES (WHERE NECESSARY).
 3. NEW MAST ARMS TO BE UNPAINTED GALVANIZED STEEL.
 4. ALL SIGNAL HEADS TO BE MOUNTED WITH ASTRO-BRAC OR SIMILAR RIGID MOUNT.
 5. ALL EXISTING WIRE TO BE REMOVED, AND INSTALLATION REWIRED WITH NEW CABLE. DISPOSAL OF OLD CABLE IS THE RESPONSIBILITY OF THE CONTRACTOR.
 6. THE LOCATION OF ALL COMPONENTS IS APPROXIMATE. ANY SIGNIFICANT DEVIATION IN THE INSTALLATION MUST BE APPROVED BY THE CITY OF LACONIA.

FIELD TERMINATION

Union Avenue(NH Route 3)/Church Street/Davis Plaza/Winter Street
Laconia New Hampshire

STREET	PHASE	SIGNAL	GRN	YEL	RED	G→←	Y→←	WALK	DW
	ø1		501	502	503				
Union St NEB	ø2		504	505	506				
Church St EB	ø3		507	508	509				
Davis Place SB	ø4		510	511	512				
	ø5		513	514	515				
Union St SWB	ø6		516	517	518				
	ø7		519	520	521				
Winter St NB	ø8		522	523	524			525	527
Exclusive Ped	ø9PED								
	OLA		528	529	530				
	OLB		531	532	533				
	OLC		534	535	536				

LOOPS

STREET	PHASE	LOOP LOCATION	PANEL TERMINATION	DELAY	EXT	NOTES
1	ø		TB8 1&3			
2 Union St NEB	ø2		TB8 4&5			
3 Church St EB	ø3		TB8 7&9			
4 Davis Place SB	ø4		TB8 10&12			
5	ø		TB8 13&15			
6 Union St SWB	ø6		TB8 16&18			
7 Union St SWB	ø6		TB8 19&21			
8	ø		TB8 22&24			
9 Winter St NB	ø8		TB9 1&3			
10	ø		TB9 4&6			
11	ø		TB9 7&9			
12	ø		TB9 10&12			
13	ø		TB9 13&15			
14	ø		TB9 16&18			
15	ø		TB9 19&21			
16	ø		TB9 22&24			

PREEMPTION

CHANNEL 1 CALLS 6
CHANNEL 2 CALLS 2
CHANNEL 3 CALLS 3
CHANNEL 4 CALLS 4
CHANNEL 5 CALLS 8

Strobe Relay: Terminal #3

PED BUTTON HOOKUP

CHANNEL	PHASE	TERMINAL
A	ø9	PTC-2, AC-
B	ø	PTC-4, AC-
C	ø	PTC-6, AC-
D	ø	PTC-8, AC-

12 | 3487
56 |

Union Avenue(NH Route 3)/Church Street/Davis Plaza/Winter Street
Laconia New Hampshire

[illegible]

PERMISSIVES

[illegible][illegible]

ATTACHMENT D

Crash Data

Summary

NHDOT raw data

							Year				Severity			Crash Type (**Assumed to be with another vehicle)						Weather			Weekday Commuter Peak				
	Intersection	Number	Date	Day	Time	Number of Vehicles	2020	2021	2022	2023	Property Damage Only	Injury	Fatal	Pedestrian	Unknown**	Fixed Object/ DITCH	OTHER MOTOR VEHICLE	ANIMAL	Bicycle		Sun Glare	Rain/Wet	Snow/Ice		Weekday AM (7-9AM)	Weekday PM (3-6PM)	Non-Commuter Peak
	14. North Main St at Lexington Dr	111	3/10/2023	FRI	344PM	2				1	1				1											1	
	14. North Main St at Lexington Dr	25	5/6/2021	THUR	1050AM	2		1				1					1										1
	14. North Main St at Lexington Dr	225	12/4/2020	FRI	256PM	2		1			1						1										1
	14. North Main St at Lexington Dr	207	12/16/2022	FRI	1144AM	1			1		1				1								1				1
4	TOTALS							1	1	1	0	3	1	0	0	0	2	0	2	0	0	0	0	1	0	1	3
	15. North Main St at Oak St	109	8/30/2022	TUE	635PM	2			1		1				1												1
	15. North Main St at Oak St	303	5/10/2023	WED	707AM	2				1		1			1										1		
	15. North Main St at Oak St	117	4/11/2023	TUE	754PM	2				1		1			1												1
	15. North Main St at Oak St	35	7/27/2022	WED	326PM	2			1			1			1											1	
	15. North Main St at Oak St	45	3/29/2023	WED	1111AM	2				1	1				1												1
	15. North Main St at Oak St	266	8/17/2021	TUE	121PM	2		1				1					1										1
	15. North Main St at Oak St	84	1/17/2021	SUN	1027AM	2		1			1						1										1
	15. North Main St at Oak St	76	10/1/2020	THUR	623PM	2		1			1						1										1
	15. North Main St at Oak St	79	2/8/2020	SAT	1032AM	2		1			1						1										1
	15. North Main St at Oak St	309	10/21/2020	WED	728PM	2		1			1						1										1
10	TOTALS							3	2	2	3	0	6	4	0	0	0	5	0	5	0	0	0	1	1	8	
	19. North Main St at New Salem St	67	11/28/2023	TUE	1030AM	2				1		1			1												1
	19. North Main St at New Salem St	29	7/5/2022	TUE	242PM	2			1		1				1												1
	19. North Main St at New Salem St	318	8/28/2020	FRI	428PM	2		1			1						1								1		
	19. North Main St at New Salem St	22	8/19/2021	THUR	909AM	2			1			1					1										1
	19. North Main St at New Salem St	186	3/31/2023	FRI	1008AM	2				1	1				1												1
5	TOTALS							1	1	1	2	0	3	2	0	0	0	3	0	2	0	0	0	0	0	1	4
	16. North Main St at Veterans Sq/Church St	184	7/19/2023	WED	310PM	2				1	1				1											1	
	16. North Main St at Veterans Sq/Church St	167	10/31/2022	MON	1144AM	2			1			1			1												1
	16. North Main St at Veterans Sq/Church St	85	3/19/2021	FRI	1228PM	2		1			1						1										1
	16. North Main St at Veterans Sq/Church St	258	1/6/2020	MON	405PM	2		1			1						1								1		
	16. North Main St at Veterans Sq/Church St	319	6/17/2020	WED	453PM	2		1			1						1								1		
	16. North Main St at Veterans Sq/Church St	126	10/28/2020	WED	1156AM	2		1			1						1										1
	16. North Main St at Veterans Sq/Church St	127	5/26/2020	TUE	953AM	2		1			1						1										1
7	TOTALS							4	1	1	1		6	1	0		0	2	0	5	0	0	0	0	0	3	4

						Year				Severity			Crash Type (**Assumed to be with another vehicle)						Weather			Weekday Commuter Peak						
	Intersection	Number	Date	Day	Time	Number of Vehicles	2020	2021	2022	2023	Property Damage Only	Injury	Fatal	Pedestrian	Unknown**	Fixed Object DITCH	OTHER MOTOR VEHICLE	ANIMAL	Bicycle		Sun Glare	Rain/Wet	Snow/Ice		Weekday AM (7-9AM)	Weekday PM (3-6PM)	Non-Commuter Peak	
	17. North Main St at Union Ave/Court St	301	1/12/2021	TUE	1002AM	2			1			1					1					1					1	
	17. North Main St at Union Ave/Court St	141	2/8/2022	TUE	609PM	2				1		1		1													1	
	17. North Main St at Union Ave/Court St	19	7/14/2021	WED	325PM	2			1		1						1									1		
	17. North Main St at Union Ave/Court St	144	9/5/2022	MON	847AM	2				1	1						1					1			1			
	17. North Main St at Union Ave/Court St	206	12/22/2022	THUR	132PM	2				1	1						1										1	
	17. North Main St at Union Ave/Court St	169	12/1/2022	THUR	820AM	2				1	1						1								1			
	17. North Main St at Union Ave/Court St	118	10/26/2023	THUR	730AM	2				1	1						1								1			
	17. North Main St at Union Ave/Court St	218	7/27/2023	THUR	447PM	3				1	1						1									1		
	17. North Main St at Union Ave/Court St	213	3/28/2023	TUE	246PM	2				1	1						1										1	
	17. North Main St at Union Ave/Court St	295	6/25/2022	SAT	610PM	2				1	1				1												1	
	17. North Main St at Union Ave/Court St	39	5/8/2023	MON	259PM	2				1	1						1									1		
	17. North Main St at Union Ave/Court St	296	6/1/2022	WED	851AM	3				1	1				1							1			1			
	17. North Main St at Union Ave/Court St	291	8/16/2023	WED	221PM	2				1	1				1												1	
	17. North Main St at Union Ave/Court St	245	5/8/2022	SUN	431PM	1				1	1					1											1	
	17. North Main St at Union Ave/Court St	277	12/19/2022	MON	152PM	1				1	1					1											1	
	17. North Main St at Union Ave/Court St	106	3/24/2022	THUR	514PM	2				1	1						1					1				1		
	17. North Main St at Union Ave/Court St	80	4/2/2020	THUR	522PM	2		1			1						1					1				1		
	17. North Main St at Union Ave/Court St	42	6/11/2023	SUN	107PM	3				1		1					1										1	
	17. North Main St at Union Ave/Court St	149	8/29/2023	TUES	105PM	2				1	1						1										1	
	17. North Main St at Union Ave/Court St	249	3/1/2023	WED	331PM	1				1	1					1										1		
	17. North Main St at Union Ave/Court St	130	1/4/2021	MON	453PM	2				1	1						1									1		
	17. North Main St at Union Ave/Court St	121	12/29/2020	TUES	133PM	2		1			1						1										1	
	17. North Main St at Union Ave/Court St	2	9/23/2020	WED	441PM	2		1			1						1									1		
	17. North Main St at Union Ave/Court St	194	5/23/2020	SAT	1138AM	2		1			1						1										1	
	17. North Main St at Union Ave/Court St	204	1/8/2022	SAT	449PM	2				1	1						1					1					1	
	17. North Main St at Union Ave/Court St	164	10/1/2021	FRI	1102PM	2				1		1					1										1	
	17. North Main St at Union Ave/Court St	96	7/29/2021	THUR	958PM	1				1	1					1						1					1	
	17. North Main St at Union Ave/Court St	15	2/19/2021	FRI	1113AM	2				1	1						1						1				1	
	17. North Main St at Union Ave/Court St	313	3/17/2022	THURS	437PM	2				1	1			1												1		
	17. North Main St at Union Ave/Court St	11	8/16/2020	SUN	508PM	2		1			1						1										1	
30	TOTALS							5	6	11	8	0	26	4	0	0	2	3	4	21	0	0	0	7	1	4	9	17

						Year				Severity			Crash Type (**Assumed to be with another vehicle)						Weather			Weekday Commuter Peak		
						2020	2021	2022	2023	Property Damage Only	Injury	Fatal	Pedestrian	Unknown**	Fixed Object/ DITCH	OTHER MOTOR VEHICLE	ANIMAL	Bicycle	Sun Glare	Rain/Wet	Snow/Ice	Weekday AM (7-9AM)	Weekday PM (3-6PM)	Non-Commuter Peak
	20. Court St at Fair St	239	10/25/2022	TUE	515PM	2			1			1		1									1	
	20. Court St at Fair St	188	10/19/2023	THUR	307PM	2			1			1		1									1	
	20. Court St at Fair St	107	9/10/2022	SAT	1233PM	2			1			1		1										1
	20. Court St at Fair St	136	6/23/2022	THUR	424PM	2			1			1		1									1	
	20. Court St at Fair St	307	2/21/2023	TUE	326PM	2			1			1		1									1	
	20. Court St at Fair St	142	1/7/2022	FRI	629PM	2			1			1				1								1
	20. Court St at Fair St	10	1/4/2020	SAT	1016AM	2		1				1				1								1
	20. Court St at Fair St	133	8/5/2021	THUR	304PM	2			1			1				1							1	
	20. Court St at Fair St	99	7/7/2021	WED	107PM	2			1			1				1								1
9	TOTALS						1	2	4	2	0	6	3	0	0	5	0	4	0	0	0	0	5	4
	13. Union Ave at Elm St/Clinton St	244	9/15/2022	THUR	607PM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	38	7/10/2023	MON	238PM	2			1			1		1					1					1
	13. Union Ave at Elm St/Clinton St	27	12/28/2022	WED	514PM	2			1			1		1									1	
	13. Union Ave at Elm St/Clinton St	146	2/23/2023	THUR	1217PM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	250	12/11/2023	MON	524PM	2			1			1		1									1	
	13. Union Ave at Elm St/Clinton St	183	7/10/2023	MON	1015AM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	63	5/23/2022	MON	507PM	2			1			1		1									1	
	13. Union Ave at Elm St/Clinton St	278	9/29/2022	THUR	128PM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	203	11/22/2022	TUE	511PM	2			1			1		1									1	
	13. Union Ave at Elm St/Clinton St	215	6/11/2023	SUN	1228PM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	112	5/17/2023	WED	1203PM	2			1			1		1										1
	13. Union Ave at Elm St/Clinton St	148	11/22/2023	WED	717PM	2			1			1		1					1					1
	13. Union Ave at Elm St/Clinton St	280	3/7/2022	MON	7152AM	2			1			1				1						1		
	13. Union Ave at Elm St/Clinton St	56	7/29/2021	THUR	954PM	2			1			1				1								1
	13. Union Ave at Elm St/Clinton St	219	8/29/2020	SAT	1153AM	2		1				1				1			1					1
	13. Union Ave at Elm St/Clinton St	230	9/8/2021	WED	508PM	2			1			1				1							1	
	13. Union Ave at Elm St/Clinton St	14	3/1/2021	MON	139PM	2			1			1				1			1					1
	13. Union Ave at Elm St/Clinton St	159	1/30/2021	SAT	140PM	2			1			1				1								1
	13. Union Ave at Elm St/Clinton St	161	7/28/2021	WED	153PM	2			1			1				1								1
	13. Union Ave at Elm St/Clinton St	17	3/21/2021	SUN	1158AM	2			1			1				1								1
	13. Union Ave at Elm St/Clinton St	156	10/15/2020	THUR	639PM	2		1				1				1								1
	13. Union Ave at Elm St/Clinton St	154	11/27/2020	FRI	926AM	1		1				1					1							1
22	TOTALS						3	6	6	7	0	18	4	0	0	12	0	9	1	0	0	4	5	16

						Year					Severity			Crash Type (**Assumed to be with another vehicle)							Weather			Weekday Commuter Peak		
	Intersection	Number	Date	Day	Time	Number of Vehicles	2020	2021	2022	2023	Property Damage Only	Injury	Fatal	Pedestrian	Unknown**	Fixed Object/ DITCH	OTHER MOTOR VEHICLE	ANIMAL	Bicycle		Sun Glare	Rain/Wet	Snow/Ice	Weekday AM (7-9AM)	Weekday PM (3-6PM)	Non-Commuter Peak
	18. Union Ave at Rite Aid/Gilford Ave	241	7/23/2022	SAT	1052AM	2			1		1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	64	10/24/2022	MON	440PM	2			1		1				1										1	
	18. Union Ave at Rite Aid/Gilford Ave	139	5/2/2022	MON	210PM	2			1		1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	120	3/24/2023	FRI	907AM	2				1	1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	247	3/2/2023	THUR	655 AM	2				1	1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	253	3/15/2023	WED	125PM	2				1	1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	100	7/12/2022	TUE	1211PM	2			1		1				1											1
	18. Union Ave at Rite Aid/Gilford Ave	179	4/18/2022	MON	634AM	2			1			1			1							1				1
	18. Union Ave at Rite Aid/Gilford Ave	151	2/9/2020	SUN	1258PM	2		1			1						1									1
	18. Union Ave at Rite Aid/Gilford Ave	165	8/7/2021	SAT	1113PM	2			1			1					1									1
	18. Union Ave at Rite Aid/Gilford Ave	91	11/6/2021	SAT	542PM	1			1		1					1										1
	18. Union Ave at Rite Aid/Gilford Ave	269	3/31/2021	WED	356PM	2			1			1					1								1	
	18. Union Ave at Rite Aid/Gilford Ave	193	4/20/2020	MON	101PM	3		1				1					1									1
	18. Union Ave at Rite Aid/Gilford Ave	59	6/17/2021	THUR	1113AM	2			1		1						1									1
	18. Union Ave at Rite Aid/Gilford Ave	177	1/7/2022	FRI	829AM	2			1		1						1					1		1		
15	TOTALS						2	4	6	3	11	4	0	0	8	1	6	0	0		0	1	1	1	2	12
	21. Union Ave at Church St/Winter St/Davis Pl	23	4/9/2023	SUN	321PM	2				1	1						1									1
	21. Union Ave at Church St/Winter St/Davis Pl	59	5/30/2021	SUN	402PM	2			1		1						1					1				1
	21. Union Ave at Church St/Winter St/Davis Pl	3	12/19/2020	SAT	1214PM	2		1			1						1					1				1
	21. Union Ave at Church St/Winter St/Davis Pl	39	10/28/2020	SUN	1220PM	2		1			1						1									1
	21. Union Ave at Church St/Winter St/Davis Pl	20	2/8/2023	WED	345PM	3				1		1					1								1	
	21. Union Ave at Church St/Winter St/Davis Pl	54	7/3/2023	MON	435PM	2				1		1					1								1	
	21. Union Ave at Church St/Winter St/Davis Pl	57	9/25/2020	FRI	228PM	3		1			1						1									1
	21. Union Ave at Church St/Winter St/Davis Pl	61	5/29/2022	SUN	352PM	2				1	1						1									1
	21. Union Ave at Church St/Winter St/Davis Pl	291	4/9/2021	FRI	145PM	1			1		1					1										1
	21. Union Ave at Church St/Winter St/Davis Pl	75	1/8/2020	WED	515PM	2		1			1						1					1			1	
	21. Union Ave at Church St/Winter St/Davis Pl	79	6/15/2020	TUE	132PM	2		1				1					1									1
11	TOTALS						5	2	1	3	8	3	0	0	0	1	10	0	0		0	2	1	0	3	8

OBJECT ID	CRASH DATE	DAY OF THE WEEK	CRASH TIME	ROUTENO_ STREETNAME	POSTED SPEED	FATAL INDICATOR	TOTAL INJURED	VEHICLES COUNT	CRASH TYPE	FIXED OBJECT STRUCK	FIRST HARMFUL EVENT	ROAD SURFACE CONDITION	WEATHER CONDITION	SEVERITY
1	2/22/2020	Saturday	2217	VETERANS SQ	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
2	9/23/2020	Wednesday	1641	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
3	12/19/2020	Saturday	1214	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	Clear	No Apparent Injury
4	6/20/2020	Saturday	2122	855 UNION AVE	30	No	0	2	Parked Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
5	8/13/2020	Thursday	1729	ROLLER COASTER RD	50	No	2	2	Other Motor Vehicle	Value not provided		Dry	Clear	Suspected Minor Injury
6	3/1/2021	Monday	1339	UNION AVE	30	No	2	2	Other Motor Vehicle	Value not provided		Wet	Cloudy	Possible Injury
7	8/19/2022	Friday	1427	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	No Apparent Injury
8	7/17/2022	Sunday	1301	WEIRS BLVD	30	No	1	1			Overturn/Rollover(Non Collision)	Dry	Clear	Suspected Serious Injury
9	7/28/2022	Thursday	1920	ENDICOTT NORTH ST	30	No	1	1			Curb(Collision with Fixed Object)	Wet	Rain	Suspected Minor Injury
10	7/30/2023	Sunday	330	ELM ST	30	No		1			Utility Pole/Light Support(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
11	10/28/2020	Wednesday	814	NORTH MAIN ST	35	No	1	1	Pedestrian	Value not provided		Wet	Rain	No Apparent Injury
12	10/28/2020	Wednesday	1422	UNION AVE	30	No	0	1	Fixed Object	Telephone/Electric Pole		Wet	Cloudy	No Apparent Injury
13	1/12/2021	Tuesday	1612	NORTH MAIN ST	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	Possible Injury
14	12/29/2021	Wednesday	1743	CHURCH ST	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	No Adverse Conditions	No Apparent Injury
15	4/2/2021	Friday	841	423 SOUTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
16	7/6/2021	Tuesday	1106	297 UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
17	3/3/2022	Thursday	1627	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury

18	11/28/2023	Tuesday	1030	N MAIN ST		No	1	2		Motor Vehicle in Transport	Unknown	Unknown	Suspected Serious Injury
19	8/31/2023	Thursday	1023	OAK ST		No	2	3		Pedestrian	Dry	Clear	No Apparent Injury
20	2/8/2023	Wednesday	1545	UNION AVE	30	No	2	3		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Possible Injury
21	11/1/2023	Wednesday	1551	CHURCH ST		No	1	2		Motor Vehicle in Transport	Dry	Clear	Suspected Minor Injury
22	6/8/2023	Thursday	1104	CHURCH ST	30	No	1	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	Possible Injury
23	4/9/2023	Sunday	1521	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Unknown
24	3/25/2020	Wednesday	851	VETERANS SQ	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
25	8/5/2020	Wednesday	1525	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
26	10/1/2020	Thursday	1823	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
27	10/5/2020	Monday	1445	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
28	3/26/2021	Friday	1307	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
29	7/18/2021	Sunday	735	N MAIN ST	35	No	1	1	Fixed Object	Telephone/Electric Pole	Wet	Rain	Suspected Minor Injury
30	6/23/2021	Wednesday	1556	S MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
31	12/14/2021	Tuesday	1652	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
32	8/3/2021	Tuesday	1315	MAIN ST	30	No	0	2	Parked Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
33	7/7/2021	Wednesday	1307	COURT ST	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury

34	10/26/2023	Thursday	1453	GILFORD AVE		No	2	2		Motor Vehicle in Transport	Dry	Clear	Suspected Minor Injury
35	2/13/2023	Monday	1740	653 MAIN ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
36	4/11/2023	Tuesday	1954	N MAIN ST	30	No	1	2		Unknown	Dry	Clear	Suspected Minor Injury
37	5/26/2020	Tuesday	1113	VETERANS SQ	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
38	10/28/2020	Wednesday	1156	CHURCH ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
39	3/8/2020	Sunday	1220	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	No Adverse Conditions	No Apparent Injury
40	7/7/2021	Wednesday	1157	BEACON WEST ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
41	4/13/2021	Tuesday	1409	S MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
42	2/8/2022	Tuesday	1809	UNION AVE	30	No	1	2	Pedestrian	Value not provided	Wet	Cloudy	Suspected Minor Injury
43	12/6/2020	Sunday	1205	435 UNION AVE	30	No	1	3	Other Motor Vehicle	Value not provided	Wet	Cloudy	Suspected Minor Injury
44	2/9/2020	Sunday	1258	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
45	6/14/2020	Sunday	1332	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	No Adverse Conditions	No Apparent Injury
46	7/6/2020	Monday	1243	UNION AVE	30	No	0	3	Parked Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
47	12/9/2020	Wednesday	1142	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
48	8/23/2020	Sunday	1216	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
49	10/21/2020	Wednesday	1928	N MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
50	9/17/2021	Friday	1515	UNION AVE	30	No	0	3	Other Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
51	3/4/2022	Friday	2148	MESSER ST	30	No	1	1	Fixed Object	Other	Dry	Clear	Suspected Minor Injury

52	7/25/2022	Monday	934	ROLLER COASTER RD	50	No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	Suspected Minor Injury
53	4/18/2022	Monday	634	UNION AVE	30	No	2	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Suspected Minor Injury
54	7/3/2023	Monday	1635	UNION AVE	30	No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Suspected Minor Injury
55	7/18/2023	Tuesday	1648	261 UNION AVE		No		1			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
56	1/24/2023	Tuesday	1722	245 UNION AVE	30	No		2			Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Cloudy	No Apparent Injury
57	9/25/2020	Friday	1428	UNION AVE	30	No	0	3	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
58	9/10/2021	Friday	1613	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
59	5/30/2021	Sunday	1602	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	Rain	No Apparent Injury
60	6/19/2021	Saturday	20	endicott north st	40	No	2	1	Overturn/Rollover	Embankment/Ditch/Curb		Dry	Clear	Suspected Minor Injury
61	5/29/2022	Sunday	1552	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
62	12/22/2022	Thursday	1332	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

63	12/16/2022	Friday	1144	N MAIN ST	35	No		1		Traffic Sign Support(Collision with Fixed Object)	Snow	Snow	No Apparent Injury
64	3/1/2022	Tuesday	948	MAIN ST	25	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
65	10/21/2022	Friday	1210	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
66	3/28/2023	Tuesday	1446	COURT ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
67	8/29/2020	Saturday	1153	UNION AVE	0	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
68	9/8/2021	Wednesday	1708	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
69	10/31/2021	Sunday	23	ENDICOTT NORTH ST	30	No	0	1	Fixed Object	Sign Post	Wet	Rain	No Apparent Injury
70	9/12/2021	Sunday	1227	SOUTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
71	9/26/2022	Monday	858	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
72	9/7/2023	Thursday	1619	UNION AVE		No		2		Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
73	3/15/2023	Wednesday	1325	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
74	5/13/2020	Wednesday	1427	NORTH MAIN ST	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Possible Injury
75	1/8/2020	Wednesday	1715	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Snow	Snow	No Apparent Injury
76	1/6/2020	Monday	1605	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Ice	Clear	No Apparent Injury

77	8/18/2020	Tuesday	1450	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
78	1/12/2021	Tuesday	1002	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided	Wet	Clear	Possible Injury
79	6/15/2021	Tuesday	1248	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
80	5/9/2021	Sunday	1332	ENDICOTT NORTH ST	40	No	1	1	Fixed Object	Telephone/Electric Pole	Dry	Clear	Suspected Minor Injury
81	8/17/2021	Tuesday	1321	OAK ST	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
82	11/21/2021	Sunday	2033	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
83	9/11/2020	Friday	1724	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
84	3/19/2020	Thursday	1718	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
85	1/13/2020	Monday	1338	GILFORD AVE	30	No	0	3	Other Motor Vehicle	Value not provided	Ice	Rain	No Apparent Injury
86	2/8/2020	Saturday	1032	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
87	4/2/2020	Thursday	1722	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
88	10/6/2020	Tuesday	1656	GILFORD AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
89	3/2/2020	Monday	1310	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
90	1/4/2020	Saturday	1016	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
91	4/20/2020	Monday	1301	GILFORD AVE	30	No	2	3	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
92	8/16/2020	Sunday	1708	SOUTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
93	2/4/2021	Thursday	1541	ELM ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
94	2/19/2021	Friday	1113	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Snow	No Apparent Injury
95	3/10/2021	Wednesday	1423	VETERANS SQ	30	No	2	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury

96	3/21/2021	Sunday	1158	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
97	3/9/2021	Tuesday	1223	ENDICOTT EAST ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
98	2/22/2021	Monday	1715	CLINTON ST	30	No	0	2	Other Motor Vehicle	Value not provided	Snow	Snow	No Apparent Injury
99	2/24/2021	Wednesday	1731	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
100	1/4/2021	Monday	1653	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
101	3/23/2021	Tuesday	1046	ELM ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
102	6/17/2021	Thursday	1136	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
103	7/14/2021	Wednesday	1525	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
104	8/29/2021	Sunday	1331	UNION AVE	30	No	0	2	Pedal Cycle/Moped	Value not provided	Dry	Clear	No Apparent Injury
105	8/24/2021	Tuesday	1420	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
106	8/19/2021	Thursday	909	NORTH MAIN ST	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	Suspected Minor Injury
107	7/20/2021	Tuesday	2248	NORTH MAIN ST	30	No	0	1	Fixed Object	Other	Wet	Rain	No Apparent Injury
108	11/9/2021	Tuesday	1611	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Possible Injury
109	6/21/2021	Monday	1650	LAKE ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
110	5/6/2021	Thursday	1050	PARADE RD	35	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
111	5/22/2021	Saturday	2054	NORTH MAIN ST	30	No	0	1	Fixed Object	RR Crossing Device	Dry	Clear	No Apparent Injury
112	12/28/2022	Wednesday	1714	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

113	11/22/2022	Tuesday	1711	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
114	7/26/2022	Tuesday	1001	695 N MAIN ST	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
115	7/5/2022	Tuesday	1442	N MAIN ST	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	No Apparent Injury
116	6/1/2022	Wednesday	1622	N MAIN ST	30	No		2			Other Non-Collision(Non-Collision)	Dry	Clear	No Apparent Injury
117	1/30/2022	Sunday	949	ENDICOTT EAST ST	30	No	0	2	Other Motor Vehicle	Value not provided		Snow	Clear	No Apparent Injury
118	9/17/2022	Saturday	1756	ENDICOTT NORTH ST	40	No	1	3			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Suspected Minor Injury
119	7/27/2022	Wednesday	1526	OAK ST	30	No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Suspected Minor Injury
120	6/17/2022	Friday	106	WATSON RD	30	No	1	1			Overturn/Rollover(Non Collision)	Dry	Clear	Suspected Minor Injury
121	4/26/2023	Wednesday	2043	855 UNION AVE		No		1			Other Fixed Object (wall, building, tunnel, etc)(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
122	6/16/2023	Friday	1306	765 UNION AVE		No		1			Curb(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
123	6/6/2023	Tuesday	1156	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

124	8/16/2023	Wednesday	1421	S MAIN ST		No	2	Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
125	7/10/2023	Monday	1438	UNION AVE	30	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	No Apparent Injury
126	5/8/2023	Monday	1459	S MAIN ST	30	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Unknown
127	5/14/2023	Sunday	1517	PARADE RD	40	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
128	3/31/2023	Friday	1008	N MAIN ST	30	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
129	2/24/2023	Friday	1159	PARADE RD	40	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Clear	No Apparent Injury
130	3/31/2023	Friday	2229	ELM ST	30	No	2	Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Snow	Snow	No Apparent Injury
131	12/3/2023	Sunday	941	UNION AVE		No	1	Other Post, Pole, or Support	Dry	Clear	No Apparent Injury
132	9/8/2023	Friday	1821	765 UNION AVE		No	2	Parked Motor Vehicle	Dry	Clear	No Apparent Injury
133	12/20/2023	Wednesday	531	N MAIN ST		No	2	Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
134	7/21/2023	Friday	1239	653 MAIN ST	30	No	2	Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

135	6/11/2023	Sunday	1307	45 COURT ST	30	No	1	3			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Possible Injury
136	4/28/2023	Friday	1506	855 UNION AVE		No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
137	2/26/2023	Sunday	1013	ENDICOTT EAST ST	30	No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Snow	Snow	Possible Injury
138	3/29/2023	Wednesday	1111	OAK ST	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
139	10/14/2020	Wednesday	2253	MESSER ST	30	No	1	2	Bicyclist	Value not provided		Dry	Clear	Possible Injury
140	7/29/2020	Wednesday	1035	BEACON EAST ST	0	No	1	2	Bicyclist	Value not provided		Dry	Clear	No Apparent Injury
141	3/20/2020	Friday	1300	ELM ST	35	No	1	2	Other Motor Vehicle	Value not provided		Dry	Cloudy	Suspected Minor Injury
142	10/19/2021	Tuesday	1609	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
143	8/22/2021	Sunday	1705	CHURCH ST	30	No	0	4	Other Motor Vehicle	Value not provided		Wet	Rain	No Apparent Injury
144	7/28/2021	Wednesday	1353	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	Suspected Minor Injury
145	6/13/2021	Sunday	1908	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
146	6/12/2021	Saturday	2244	ENDICOTT NORTH ST	40	No	2	3	Other Motor Vehicle	Value not provided		Dry	Clear	Suspected Minor Injury
147	8/21/2021	Saturday	2218	LAKE ST	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Cloudy	No Apparent Injury
148	7/31/2021	Saturday	1158	ENDICOTT NORTH ST	30	No	0	1	Fixed Object	Tree		Dry	Clear	No Apparent Injury
149	7/29/2021	Thursday	2154	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	Rain	Unknown

150	8/2/2021	Monday	1054	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
151	6/17/2021	Thursday	1113	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
152	1/8/2022	Saturday	1906	MESSER ST	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
153	5/23/2022	Monday	1707	UNION AVE	30	No		2			Other Non-Collision(Non-Collision)	Dry	Clear	No Apparent Injury
154	10/9/2022	Sunday	1959	799 UNION AVE		No		2			Other Non-motorist(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
155	6/29/2022	Wednesday	1509	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
156	10/24/2022	Monday	1640	UNION AVE	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
157	1/7/2022	Friday	829	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Snow	Snow	No Apparent Injury
158	6/25/2022	Saturday	1810	MAIN ST	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
159	8/13/2023	Sunday	1608	UNION AVE		No		2			Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
160	10/11/2023	Wednesday	1012	25 UNION AVE		No		2			Parked Motor Vehicle	Dry	Clear	No Apparent Injury
161	6/5/2020	Friday	1126	UNION AVE	30	No	2	3	Other Motor Vehicle	Value not provided		Dry	Clear	Suspected Minor Injury
162	8/26/2020	Wednesday	1608	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
163	2/6/2020	Thursday	2000	LANE RD	40	No	0	1	Fixed Object	Embankment/Ditch/Curb		Ice	Sleet,Hail,Freeze Rail,Drizzle	No Apparent Injury

164	1/17/2021	Sunday	1027	N MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
165	3/19/2021	Friday	1228	VETERANS SQ	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
166	11/6/2021	Saturday	1742	GILFORD AVE	30	No	0	1	Fixed Object	Traffic Signal	Dry	Clear	No Apparent Injury
167	10/26/2021	Tuesday	1107	PLEASANT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Cloudy	No Apparent Injury
168	12/6/2021	Monday	1715	BEACON WEST ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Cloudy	No Apparent Injury
169	8/26/2021	Thursday	2244	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
170	7/29/2021	Thursday	2158	UNION AVE	30	No	0	1	Fixed Object	Median	Wet	Rain	No Apparent Injury
171	9/11/2021	Saturday	1155	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
172	7/12/2022	Tuesday	1211	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
173	1/30/2022	Sunday	832	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided	Snow	Clear	No Apparent Injury
174	1/23/2022	Sunday	1241	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided	Dry	No Adverse Conditions	No Apparent Injury
175	4/1/2022	Friday	1436	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
176	8/16/2022	Tuesday	1831	765 UNION AVE		No		2		Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
177	11/5/2022	Saturday	1121	UNION AVE	30	No	1	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Suspected Minor Injury
178	3/24/2022	Thursday	1714	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury

179	9/10/2022	Saturday	1233	FAIR ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
180	3/16/2022	Wednesday	725	GILFORD AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Cloudy	No Apparent Injury
181	1/18/2022	Tuesday	1637	GILFORD AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	No Adverse Conditions	No Apparent Injury
182	8/30/2022	Tuesday	1835	N MAIN ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
183	3/10/2023	Friday	1544	LEXINGTON DR	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
184	5/17/2023	Wednesday	1203	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
185	4/10/2023	Monday	1611	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
186	3/1/2023	Wednesday	1530	COURT ST	30	No		1		Traffic Sign Support(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
187	12/21/2023	Thursday	1536	PARADE RD		No	1	2		Motor Vehicle in Transport	Dry	Clear	Suspected Minor Injury
188	10/26/2023	Thursday	730	UNION AVE		No		2		Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
189	10/19/2023	Thursday	1507	COURT ST		No	1	2		Motor Vehicle in Transport	Dry	Clear	Suspected Serious Injury
190	3/24/2023	Friday	907	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	No Apparent Injury

191	7/27/2023	Thursday	1647	UNION AVE	30	No	3			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
192	5/10/2023	Wednesday	707	N MAIN ST	30	No	2	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Possible Injury
193	12/29/2020	Tuesday	1333	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
194	2/18/2020	Tuesday	1000	BEACON WEST ST	30	No	0	3	Other Motor Vehicle	Value not provided	Wet	Snow	No Apparent Injury
195	12/25/2020	Friday	24	ENDICOTT EAST ST	30	No	1	1	Fixed Object	Median	Wet	Rain	Possible Injury
196	6/7/2020	Sunday	1502	VETERANS SQ	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
197	5/26/2020	Tuesday	953	CHURCH ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
198	9/11/2020	Friday	2343	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
199	11/25/2020	Wednesday	1047	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
200	12/4/2020	Friday	1456	NORTH MAIN ST	35	No	0	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
201	10/28/2021	Thursday	1652	VETERAN'S SQ	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
202	10/1/2021	Friday	2302	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
203	4/27/2021	Tuesday	1354	UNION AVE	30	No	0	2	Other Motor Vehicle	Traffic Signal	Dry	Clear	No Apparent Injury
204	8/5/2021	Thursday	1504	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
205	12/31/2021	Friday	1837	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury

206	6/23/2022	Thursday	1624	COURT ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
207	5/16/2022	Monday	731	ELM ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
208	8/17/2022	Wednesday	1022	MAIN ST	30	No	1	2		Pedalcycle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
209	5/2/2022	Monday	1410	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
210	1/26/2022	Wednesday	1053	ELM ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
211	1/15/2022	Saturday	1037	CHURCH ST	30	No	0	3	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
212	1/7/2022	Friday	1829	FAIR ST	30	No	0	2	Other Motor Vehicle	Value not provided	Ice	No Adverse Conditions	No Apparent Injury
213	9/5/2022	Monday	847	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	No Apparent Injury
214	2/21/2023	Tuesday	1526	COURT ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	No Apparent Injury
215	2/23/2023	Thursday	1217	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Snow	Snow	No Apparent Injury
216	12/20/2023	Wednesday	1526	ROLLER COASTER RD		No		2		Motor Vehicle in Transport	Dry	Clear	No Apparent Injury

217	1/13/2023	Friday	1332	UNION AVE	30	No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	Possible Injury
218	11/22/2023	Wednesday	1917	UNION AVE		No		2			Motor Vehicle in Transport	Wet	Clear	No Apparent Injury
219	6/22/2023	Thursday	631	OAK ST	30	No	1	2			Pedalcycle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
220	8/29/2023	Tuesday	1305	S MAIN ST		No		2			Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
221	7/24/2020	Friday	1218	GILFORD AVE	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
222	11/27/2020	Friday	926	ELM ST	30	No	0	1	Animal(Other)	Value not provided		Dry	Clear	
223	11/1/2020	Sunday	2004	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	Rain	No Apparent Injury
224	5/23/2020	Saturday	1138	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
225	10/15/2020	Thursday	1839	ELM ST	35	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
226	1/30/2021	Saturday	1340	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
227	2/26/2021	Friday	1912	799 UNION AVE	0	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
228	2/18/2021	Thursday	1611	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
229	8/7/2021	Saturday	2313	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	Possible Injury
230	10/21/2021	Thursday	1215	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
231	10/31/2022	Monday	1144	MAIN ST		No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

232	12/1/2022	Thursday	820	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	No Apparent Injury
233	2/2/2022	Wednesday	657	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Cloudy	No Apparent Injury
234	8/5/2022	Friday	1622	855 UNION AVE		No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
235	4/18/2022	Monday	659	BEACON WEST ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
236	9/15/2022	Thursday	1807	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
237	9/22/2022	Thursday	1654	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	No Apparent Injury
238	3/17/2022	Thursday	1637	UNION AVE	0	No	0	2	Pedestrian	Value not provided	Dry	Cloudy	No Apparent Injury
239	8/1/2023	Tuesday	1625	COURT ST	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
240	7/10/2023	Monday	1015	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	No Apparent Injury
241	11/26/2023	Sunday	1045	PARADE RD		No	1	1		Overturn/Rollover	Dry	Clear	Suspected Minor Injury
242	10/8/2023	Sunday	1703	736 UNION AVE		No		1		Other Post, Pole, or Support	Dry	Clear	No Apparent Injury

243	7/19/2023	Wednesday	1510	CHURCH ST	25	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
244	1/22/2020	Wednesday	703	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
245	6/26/2020	Friday	1542	BEACON WEST ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
246	11/3/2021	Wednesday	1732	ELM ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
247	11/4/2021	Thursday	1751	GILFORD AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
248	6/10/2021	Thursday	1624	725 UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
249	7/18/2021	Sunday	1453	WATSON RD	30	No	0	3	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
250	7/30/2021	Friday	104	LAKE ST	35	No	0	1	Other	Value not provided	Wet	Cloudy	No Apparent Injury
251	1/8/2022	Saturday	1649	COURT ST	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Cloudy	No Apparent Injury
252	12/4/2023	Monday	1337	17 LEXINGTON DR		No		2		Parked Motor Vehicle	Dry	Clear	Unknown
253	6/10/2023	Saturday	1414	WATSON RD	30	No		1		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Unknown
254	6/11/2023	Sunday	1228	UNION AVE	30	No	2	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	Possible Injury
255	3/17/2020	Tuesday	913	PARADE RD	50	No	0	1	Fixed Object	Tree	Ice	Snow	No Apparent Injury
256	9/27/2020	Sunday	1509	COURT ST	30	No	2	1	Fixed Object	Telephone/Electric Pole	Dry	Cloudy	Possible Injury
257	5/10/2020	Sunday	1055	PARADE RD	40	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury

258	3/6/2020	Friday	1356	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
259	8/28/2020	Friday	1628	NORTH MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
260	6/12/2021	Saturday	1758	ENDICOTT NORTH ST	30	No	2	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
261	8/9/2021	Monday	1649	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
262	10/25/2022	Tuesday	1715	COURT ST	30	No	1	2		Pedalcycle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	No Apparent Injury
263	7/23/2022	Saturday	1052	UNION AVE	39	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
264	8/16/2022	Tuesday	2021	736 UNION AVE	30	No		2		Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
265	5/8/2022	Sunday	1631	COURT ST	30	No		1		Traffic Sign Support(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
266	3/2/2023	Thursday	655	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Snow	Snow	No Apparent Injury
267	7/26/2023	Wednesday	1132	PARADE RD	50	No		2		Pedalcycle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
268	12/11/2023	Monday	1724	UNION AVE		No		2		Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
269	6/17/2020	Wednesday	1653	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
270	1/22/2020	Wednesday	836	BEACON EAST ST	25	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
271	12/15/2021	Wednesday	1856	GILFORD AVE	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	Possible Injury

272	7/9/2021	Friday	2237	FAIR ST	30	No	1	2	Bicyclist	Value not provided	Dry	Clear	Possible Injury
273	4/30/2021	Friday	1639	CLINTON ST	0	No	0	2	Other Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
274	6/23/2022	Thursday	1618	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
275	1/21/2022	Friday	757	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
276	12/19/2022	Monday	1352	COURT ST	30	No		1		Curb(Collision with Fixed Object)	Dry	Cloudy	No Apparent Injury
277	9/29/2022	Thursday	1328	UNION AVE	30	No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
278	10/26/2022	Wednesday	1517	45 COURT ST		No		1		Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Rain	Unknown
279	3/7/2022	Monday	715	CLINTON ST	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Rain	Suspected Minor Injury
280	6/1/2022	Wednesday	851	COURT ST	30	No		3		Other Non-motorist(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Cloudy	No Apparent Injury
281	7/2/2023	Sunday	1853	ENDICOTT NORTH ST	40	No	4	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Wet	Cloudy	Suspected Minor Injury
282	8/1/2023	Tuesday	1615	UNION AVE	30	No	1	2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
283	8/23/2023	Wednesday	1353	PARADE RD		No	1	2		Motor Vehicle in Transport	Dry	Clear	Suspected Minor Injury
284	9/30/2023	Saturday	656	OAK ST		No		1		Traffic Sign Support	Dry	Clear	No Apparent Injury

285	6/15/2023	Thursday	1700	PARADE RD	50	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
286	3/29/2023	Wednesday	721	855 UNION AVE		No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
287	9/16/2022	Friday	2301	N MAIN ST	30	No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
288	3/31/2021	Wednesday	1556	UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	Suspected Minor Injury
289	6/12/2022	Sunday	1904	PARADE RD	40	No		1			Embankment(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
290	3/31/2020	Tuesday	1930	WINTER ST	30	No	0	2	Parked Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
291	4/9/2021	Friday	1345	WINTER ST	30	No	0	1	Fixed Object	Telephone/Electric Pole		Dry	Clear	No Apparent Injury
292	9/29/2021	Wednesday	1149	WINTER ST	25	No	0	2	Parked Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
293	6/23/2023	Friday	1645	288 UNION AVE		No		2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
294	3/17/2023	Friday	1412	288 UNION AVE		No		2			Other Non-Collision(Non-Collision)	Dry	Cloudy	No Apparent Injury
295	7/18/2022	Monday	2000	17 GILFORD AVE	30	No		1			Curb(Collision with Fixed Object)	Dry	Rain	Unknown
296	11/2/2023	Thursday	1215	GILFORD AVE		No		2			Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
297	10/5/2020	Monday	1515	UNION AVE	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
298	3/8/2021	Monday	1601	311 UNION AVE	30	No	1	2	Other Motor Vehicle	Value not provided		Dry	Clear	Possible Injury
299	2/7/2020	Friday	1934	UNION AVE	30	No	0	1	Fixed Object	Telephone/Electric Pole		Snow	Snow	No Apparent Injury

300	8/1/2020	Saturday	509	GILFORD AVE	30	No	0	1	Fixed Object	Telephone/Electric Pole		Dry	Clear	No Apparent Injury
301	8/21/2022	Sunday	1050	45 COURT ST	30	No		2		Other Non-motorist(Collision with person, motor vehicle, or Non-Fixed Object)		Dry	Clear	No Apparent Injury
302	10/21/2020	Wednesday	540	45 COURT ST	0	No	0	1	Fixed Object	Light Pole		Wet	Rain	No Apparent Injury
303	2/9/2022	Wednesday	1210	45 COURT ST	0	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
304	10/5/2023	Thursday	934	174 COURT ST		No		2			Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
305	10/6/2023	Friday	1940	161 COURT ST		No		2			Parked Motor Vehicle	Dry	Cloudy	No Apparent Injury
306	5/16/2022	Monday	1537	161 COURT ST		No	1	2			Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Cloudy	Suspected Minor Injury
307	9/1/2022	Thursday	636	28 LEXINGTON DR		No		2			Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
308	7/7/2020	Tuesday	1540	LEXINGTON DR	30	No	0	2	Other Motor Vehicle	Value not provided		Dry	Clear	No Apparent Injury
309	8/28/2020	Friday	414	PARADE RD	50	No	0	1	Fixed Object	Embankment/Ditch/Curb		Dry	Clear	No Apparent Injury
310	12/4/2020	Friday	1522	PARADE RD	40	No	0	1	Overturn/Rollover	Embankment/Ditch/Curb		Dry	Clear	No Apparent Injury
311	12/8/2020	Tuesday	1223	PARADE RD	50	No	0	1	Fixed Object	Culvert/Headwall		Dry	Clear	No Apparent Injury
312	2/11/2021	Thursday	1009	FAIR ST	30	No	0	2	Other Motor Vehicle	Value not provided		Wet	No Adverse Conditions	No Apparent Injury
313	1/16/2021	Saturday	1233	COURT ST	30	No	0	1	Fixed Object	Sign Post		Wet	Cloudy	No Apparent Injury
314	4/28/2020	Tuesday	411	SOUTH MAIN ST	30	No	0	1	Fixed Object	Other		Dry	Clear	No Apparent Injury

315	10/26/2023	Thursday	1631	45 COURT ST		No		2		Motor Vehicle in Transport	Dry	Clear	No Apparent Injury
316	11/21/2020	Saturday	1545	MAIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
317	9/28/2021	Tuesday	1230	480 MAIN ST	25	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
318	3/22/2021	Monday	1417	423 SOUTH MAIN ST	0	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
319	11/15/2020	Sunday	1642	SOUTH MAIN ST	30	No	1	2	Other Motor Vehicle	Value not provided	Wet	Rain	Suspected Minor Injury
320	4/26/2020	Sunday	1605	BALDWIN ST	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	No Adverse Conditions	No Apparent Injury
321	8/10/2023	Thursday	1550	173 COURT ST		No		2		Motor Vehicle in Transport	Dry	Cloudy	No Apparent Injury
322	12/2/2023	Saturday	1157	9 VETERAN'S SQ		No		2		Parked Motor Vehicle	Dry	Clear	Unknown
323	3/15/2023	Wednesday	932	480 MAIN ST		No		2		Motor vehicle in Transport(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
324	10/31/2021	Sunday	854	UNION AVE	0	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
325	11/3/2021	Wednesday	1549	UNION AVE	30	No	0	2	Parked Motor Vehicle	Value not provided	Dry	Cloudy	No Apparent Injury
326	6/18/2021	Friday	2117	ROLLER COASTER RD	30	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
327	11/15/2021	Monday	1505	ELM ST	30	No	0	2	Pedestrian	Value not provided	Dry	Clear	No Apparent Injury
328	6/12/2021	Saturday	1708	WATSON RD	30	No	0	2	Other Motor Vehicle	Value not provided	Dry	Clear	No Apparent Injury
329	6/13/2021	Sunday	1351	PARADE RD	50	No	1	2	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
330	7/9/2021	Friday	1229	union ave	30	No	0	2	Other Motor Vehicle	Value not provided	Wet	Rain	No Apparent Injury
331	9/8/2022	Thursday	1129	1367 UNION AVE		No		2		Parked Motor Vehicle(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury

332	2/1/2023	Wednesday	1840	1367 UNION AVE	30	No		2		Ditch(Collision with Fixed Object)	Dry	Clear	No Apparent Injury
333	5/27/2020	Wednesday	1216	UNION AVE	30	No	1	4	Other Motor Vehicle	Value not provided	Dry	Clear	Suspected Minor Injury
334	5/13/2020	Wednesday	532	MEREDITH CENTER RD	40	No	0	1	Animal(Other)	Value not provided	Dry	Clear	No Apparent Injury
335	6/10/2022	Friday	742	PARADE RD	40	No		1		Animal (live)(Collision with person, motor vehicle, or Non-Fixed Object)	Dry	Clear	No Apparent Injury
336	6/16/2022	Thursday	640	PARADE RD	40	No		2		Unknown	Dry	Cloudy	No Apparent Injury
337	11/12/2021	Friday	37	MEREDITH CENTER RD	40	No	1	1	Fixed Object	Embankment/Ditch/Curb	Dry	Clear	Possible Injury
338	12/2/2021	Thursday	936	MEREDITH CENTER RD	40	No	0	1	Fixed Object	Embankment/Ditch/Curb	Snow	Sleet and Fog	No Apparent Injury

ATTACHMENT E

Pedestrians

Tabulations

Counts

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Background Traffic Volumes

* Synchro Guidance: Page 12-10 states if 100 or more pedestrians per hour, set ped calls to 100. If between 1 and 15 pedestrians per hour, set to ped calls to 5. If less than 10 pedestrians per day (AM+PM), set calls to 0.
NOTE: If less than 10 peds per day, the ped call is set to 1 to show the difference between exclusive and concurrent pedestrian timing. If peds greater than 15 but less than 100, assume ped calls 50% of pedestrians counted.

Peak Pedestrian Data					AM Peak			PM Peak Hour			SAT Peak Hour		
APPROACH	Crosswalk Direction	Concurrent Phase	Crosswalk Width	Min. Walk Time (3.5 ft/s)	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B
13. Union Ave (US3Bus) at Elm Street / Clinton Street													
EB Approach	N/S	Ø2/Ø6	80	23	0	0	<u>5</u>	4	2	17	0	0	<u>5</u>
WB Approach	N/S	Ø2/Ø6	55	16	4	3		13	6		5	3	
NB Approach	E/W	Ø4/Ø8	75	21	2	1		10	5		3	1	
SB Approach	E/W	Ø4/Ø8	70	20	2	1		7	4		2	1	
					8			34			10		
18. Union Ave (US3Bus) at Rite Aid / Gilford Ave													
EB Approach	N/S	Ø2	53	15	2	1	<u>5</u>	2	1	<u>5</u>	5	3	<u>5</u>
WB Approach	N/S	Ø2	45	13	5	2		9	4		1	0	
NB Approach	E/W	Ø3	87	25	2	1		0	0		2	1	
SB Approach	E/W	Ø3	71	20	3	1		0	0		2	1	
					12			11			10		
15. N.Main Street at Oak Street													
EB Approach	N/S Ø11	Ø2/Ø6	34	10	0	0	<u>5</u>	0	0	<u>5</u>	3	3	<u>5</u>
WB Approach	N/S Ø11	Ø2/Ø6	34	10	3	2		8	3		0	0	
NB Approach	E/W Ø12	Ø4/Ø8	52	15	1	1		0	0		1	2	
SB Approach	E/W Ø12	Ø4/Ø8	52	15	3	2		5	2		0	0	
					7			13			4		
16. N.Main Street at Veterans Square / Church Street													
EB Approach	N/S Ø12	Ø4(Ø3)	60	17	1	0	11	2	1	14	7	2	5
WB Approach	N/S Ø12	Ø4(Ø3)	46	13	8	4		16	8		6	1	
NB Approach	E/W Ø11	Ø2/Ø6	46	13	7	4		3	2		7	2	

Background Traffic Volumes

* Synchro Guidance: Page 12-10 states if 100 or more pedestrians per hour, set ped calls to 100. If between 1 and 15 pedestrians per hour, set to ped calls to 5. If less than 10 pedestrians per day (AM+PM), set calls to 0.
NOTE: If less than 10 peds per day, the ped call is set to 1 to show the difference between exclusive and concurrent pedestrian timing. If peds greater than 15 but less than 100, assume ped calls 50% of pedestrians counted.

Peak Pedestrian Data					AM Peak			PM Peak Hour			SAT Peak Hour		
APPROACH	Crosswalk Direction	Concurrent Phase	Crosswalk Width	Min. Walk Time (3.5 ft/s)	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B	Number of Pedestrians	Number of pedestrian calls per Synchro Guidance* (Concurrent) MIT	Number of pedestrian calls per Synchro Guidance* (Exclusive) NB&B
SB Approach	E/W Ø11	Ø2/Ø6	47	13	5	3	5	6	3	14	3	0	5
17. Court Street (US3Bus) / Union Ave (US3Bus) at S.Main Street / N.Main Street					21			27			13		
EB Approach	N/S	Ø4/Ø8	80	23	6	2		11	6		0	0	
WB Approach	N/S	Ø4/Ø8	92	26	5	2	5	9	5	14	10	3	5
NB Approach	E/W	Ø2/Ø6	92	26	1	1		4	2		4	1	
SB Approach	E/W	Ø2/Ø6	75	21	1	0		3	1		1	1	
21. Unions Ave (US3Bus) at Church Street / Winter Street / Davis PI					13		5	27		15	15		10
EB Approach (CHURCH)	N/S	Ø2	37	11	1	1		4	2		5	3	
WB Approach (WINTER)	N/S	Ø2	38	11	1	0		8	4		5	2	
NB Approach (UNION)	E/W	Ø3/Ø4/Ø8	37	11	6	2	5	9	5	15	8	4	10
SB Approach (UNION) NO CROSSWALK													
SEB Approach (DAVIS)	N/S	Ø2	42	12	3	2		9	4		2	1	
					11			30			20		

PDI File #: **250420 (1)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Severance Road W: Lane Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (1)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Severance Road W: Lane Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2		2
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0			
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100		
Exiting Leg Total	0							0							0							2							2

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	
Exiting Leg	0							0							0							2							2
Total	0							0							0							4							4

PDI File #: **250420 (1)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Severance Road W: Lane Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Parade Road (Route 106)							Severance Road							Parade Road (Route 106)							Lane Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (2)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Elm Street W: Merideth Center Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (2)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Elm Street W: Merideth Center Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (2)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Elm Street W: Merideth Center Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Parade Road (Route 106)							Elm Street							Parade Road (Route 106)							Merideth Center Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (3)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Old North Main Street W: Right Way Path
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 6:00 AM
End Time: 6:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3	3
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2
Total	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	4
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: 250420 (3)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Old North Main Street W: Right Way Path
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 6:00 AM
End Time: 6:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turns	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	0	0	3	3	0	0	0	0	2	0	2	10
Approach %	0	0	0	0	0	0	0	0	0	0	0	40	60		0	0	0	0	0	100		0	0	0	0	100	0			
Total %	0	0	0	0	0	0	0	0	0	0	0	20	30	50	0	0	0	0	0	30	30	0	0	0	0	20	0	20		
Exiting Leg Total	0							5							3							2							10	

AM Peak Hour Analysis from 06:00 AM to 10:00 AM begins at:

8:15 AM	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	1	3
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.375
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	0	1	3
Exiting Leg	0							0							2							1							3
Total	0							0							4							2							6

MidDay Peak Hour Analysis from 10:00 AM to 2:00 PM begins at:

12:45 PM	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	3	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500		0.000	0.000	0.000	0.000	0.000	0.250	0.250		0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	3	
Exiting Leg	0							2							1							0							3
Total	0							4							2							0							6

PM Peak Hour Analysis from 2:00 PM to 06:00 PM begins at:

2:00 PM	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0	4	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.750		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.500	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
Exiting Leg	0							3							0							1							4
Total	0							6							0							2							8

PDI File #: **250420 (3)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Old North Main Street W: Right Way Path**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Pedestrians

	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Parade Road (Route 106)							Old North Main Street							Parade Road (Route 106)							Right Way Path							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (4)**
 Location: **N: Merideth Center Road S: Merideth Center Road**
 Location: **E: Lane Road W: Eastman Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (4)
Location: N: Merideth Center Road S: Merideth Center Road
Location: E: Lane Road W: Eastman Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100	
Exiting Leg Total	0							0							0							1							1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250		0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Exiting Leg	0							0							0							1							1
Total	0							0							0							2							2

PDI File #: 250420 (4)
Location: N: Merideth Center Road S: Merideth Center Road
Location: E: Lane Road W: Eastman Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Merideth Center Road							Lane Road							Merideth Center Road							Eastman Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (5)**
 Location: **S: Merideth Center Road**
 Location: **E: New Hampshire Route 104 W: New Hampshire Route 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: **Pedestrians**

	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (5)**
 Location: **S: Merideth Center Road**
 Location: **E: New Hampshire Route 104 W: New Hampshire Route 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**



Class:

Pedestrians

	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total	
	from East						from South						from West							
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0	

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (5)**
 Location: **S: Merideth Center Road**
 Location: **E: New Hampshire Route 104 W: New Hampshire Route 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Class: **Pedestrians**

	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total	
	from East						from South						from West							
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0	

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	New Hampshire Route 104						Merideth Center Road						New Hampshire Route 104						Total
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (6)**
 Location: **N: New Hampshire Route 104 S: New Hampshire Route 104**
 Location: **E: Winona Road W: Pease Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (6)
Location: N: New Hampshire Route 104 S: New Hampshire Route 104
Location: E: Winona Road W: Pease Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road								
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0	
Total	0							0							0							0							0	0

PDI File #: 250420 (6)
Location: N: New Hampshire Route 104 S: New Hampshire Route 104
Location: E: Winona Road W: Pease Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	New Hampshire Route 104							Winona Road							New Hampshire Route 104							Pease Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (7a)**
 Location: **N: DW Highway (Rte 3) S: DW Highway (Route 3)**
 Location: **W: NH Route 104 SB Onramp NW: Rte 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0						0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0						0
Total	0						0						0						0						0

PDI File #: **250420 (7a)**
 Location: **N: DW Highway (Rte 3) S: DW Highway (Route 3)**
 Location: **W: NH Route 104 SB Onramp NW: Rte 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0						0						0						0						0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0						0
Total	0						0						0						0						0

PDI File #: **250420 (7a)**
 Location: **N: DW Highway (Rte 3) S: DW Highway (Route 3)**
 Location: **W: NH Route 104 SB Onramp NW: Rte 104**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0		0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	0						0						0						0						0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Southbound Onramp						New Hampshire Route 104						Total
	from North						from South						from West						from Northwest						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0						0
Total	0						0						0						0						0

PDI File #: 250420 (7b)
Location: N: DW Highway (Route 3) S: DW Highway (Route 3)
Location: W: New Hampshire Route 104 Northbound Offramp
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 7:00 AM
End Time: 9:00 AM
Class:



Pedestrians

	Daniel Webster Highway (Route 3)							Daniel Webster Highway (Route 3)							New Hampshire Route 104 Northbound Offramp							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total			
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Northbound Offramp						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: 250420 (7b)
Location: N: DW Highway (Route 3) S: DW Highway (Route 3)
Location: W: New Hampshire Route 104 Northbound Offramp
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Daniel Webster Highway (Route 3)							Daniel Webster Highway (Route 3)							New Hampshire Route 104 Northbound Offramp							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Northbound Offramp						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0	
Total	0						0						0						0	

PDI File #: 250420 (7b)
Location: N: DW Highway (Route 3) S: DW Highway (Route 3)
Location: W: New Hampshire Route 104 Northbound Offramp
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Northbound Offramp							
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total	0						0						0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Daniel Webster Highway (Route 3)						Daniel Webster Highway (Route 3)						New Hampshire Route 104 Northbound Offramp						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (8) rev**
 Location: **N: Daniel Webster Highway (Route 3) S: Daniel Webster Highway (Route 3)**
 Location: **E: Upper Mile Point Drive W: Parade Road (Route 106)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)								Upper Mile Point Drive								Daniel Webster Highway (Route 3)								Parade Road (Route 106)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6				
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2					
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Total	0	0	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8					
Grand Total	0	0	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8					
Approach %	0	0	0	0	0	0	0	0	0	0	0	62.5	37.5		0	0	0	0	0	0	0	0	0	0	0	0	0						
Total %	0	0	0	0	0	0	0	0	0	0	0	62.5	37.5	100	0	0	0	0	0	0	0	0	0	0	0	0	0						
Exiting Leg Total	0								8								0								0								8

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:45 AM	Daniel Webster Highway (Route 3)							Upper Mile Point Drive							Daniel Webster Highway (Route 3)							Parade Road (Route 106)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5	37.5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.375	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Exiting Leg	0							8							0							0							8
Total	0							16							0							0							16

PDI File #: **250420 (8) rev**
 Location: **N: Daniel Webster Highway (Route 3) S: Daniel Webster Highway (Route 3)**
 Location: **E: Upper Mile Point Drive W: Parade Road (Route 106)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)								Upper Mile Point Drive								Daniel Webster Highway (Route 3)								Parade Road (Route 106)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Exiting Leg Total	0								0								0								0								0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Daniel Webster Highway (Route 3)								Upper Mile Point Drive								Daniel Webster Highway (Route 3)								Parade Road (Route 106)								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000				
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Exiting Leg	0								0								0								0								0
Total	0								0								0								0								0

PDI File #: **250420 (8) Saturday**
 Location: **N: Daniel Webster Highway (Route 3) S: Daniel Webster Highway (Route 3)**
 Location: **E: Upper Mile Point Drive W: Parade Road (Route 106)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)							Upper Mile Point Drive							Daniel Webster Highway (Route 3)							Parade Road (Route 106)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Daniel Webster Highway (Route 3)							Upper Mile Point Drive							Daniel Webster Highway (Route 3)							Parade Road (Route 106)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (9)**
 Location: **N: Parade Road (Route 106) S: Parade Road (Route 106)**
 Location: **E: Roller Coaster Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Parade Road (Route 106)							Roller Coaster Road							Parade Road (Route 106)							Total
	from North							from East							from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Parade Road (Route 106)						Roller Coaster Road						Parade Road (Route 106)						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0	
Total	0						0						0						0	

PDI File #: 250420 (9)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Roller Coaster Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Roller Coaster Road							Parade Road (Route 106)							Total
	from North							from East							from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total				
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Parade Road (Route 106)						Roller Coaster Road						Parade Road (Route 106)						Total	
	from North						from East						from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0	
Total	0						0						0						0	

PDI File #: 250420 (9)
Location: N: Parade Road (Route 106) S: Parade Road (Route 106)
Location: E: Roller Coaster Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Parade Road (Route 106)							Roller Coaster Road							Parade Road (Route 106)							Total
	from North							from East							from South							
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total				
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Parade Road (Route 106)						Roller Coaster Road						Parade Road (Route 106)						Total
	from North						from East						from South						
	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	U-Turn	CW-WB	CW-EB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (10)**
 Location: **N: DW Highway (Route 3) S: DW Highway (Route 3)**
 Location: **E: Watson Road W: Roller Coaster Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Daniel Webster Highway (Route 3)							Watson Road							Daniel Webster Highway (Route 3)							Roller Coaster Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Approach %	0	0	0	0	0	100		0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	1							0							0							0							1

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Daniel Webster Highway (Route 3)							Watson Road							Daniel Webster Highway (Route 3)							Roller Coaster Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Exiting Leg	1							0							0							0							1
Total	2							0							0							0							2

PDI File #: **250420 (10)**
 Location: **N: DW Highway (Route 3) S: DW Highway (Route 3)**
 Location: **E: Watson Road W: Roller Coaster Road**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**



Class:

Pedestrians

	Daniel Webster Highway (Route 3)							Watson Road						Daniel Webster Highway (Route 3)						Roller Coaster Road						Total			
	from North							from East						from South						from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn		CW-NB	CW-SB	Total
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Approach %	0	0	0	0	100	0		0	0	0	0	0	0	0	0	0	0	0	100	0		0	0	0	0	0	0		
Total %	0	0	0	0	50	0	50	0	0	0	0	0	0	0	0	0	0	0	50	0	50	0	0	0	0	0	0		
Exiting Leg Total	1							0						1						0						2			

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	Daniel Webster Highway (Route 3)							Watson Road							Daniel Webster Highway (Route 3)							Roller Coaster Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	1							0							0							0							1
Total	2							0							0							0							2

PDI File #: 250420 (10)
Location: N: DW Highway (Route 3) S: DW Highway (Route 3)
Location: E: Watson Road W: Roller Coaster Road
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Daniel Webster Highway (Route 3)							Watson Road							Daniel Webster Highway (Route 3)							Roller Coaster Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Daniel Webster Highway (Route 3)							Watson Road							Daniel Webster Highway (Route 3)							Roller Coaster Road							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (11)**
 Location: **S: Daniel Webster Highway (Route 3) SW: Driveway**
 Location: **E: Endicott Street East (Route 11 B) W: DW Highway (Route 3)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							Total
	from East							from South							from Southwest							from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							Total
	from East							from South							from Southwest							from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (11)
Location: S: Daniel Webster Highway (Route 3) SW: Driveway
Location: E: Endicott Street East (Route 11 B) W: DW Highway (Route 3)
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							Total
	from East							from South							from Southwest							from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							
	from East							from South							from Southwest							from West							Total
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (11)
Location: S: Daniel Webster Highway (Route 3) SW: Driveway
Location: E: Endicott Street East (Route 11 B) W: DW Highway (Route 3)
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							Total
	from East							from South							from Southwest							from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Endicott Street East (Route 11 B)							Daniel Webster Highway (Route 3)							Driveway							Daniel Webster Highway (Route 3)							Total
	from East							from South							from Southwest							from West							
	Thru	Bear Left	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	Hard Left	U-Turn	CW-WB	CW-EB	Total	Hard Right	Bear Right	Hard Left	U-Turn	CW-NWB	CW-SEB	Total	Hard Right	Right	Thru	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: **250420 (12)**
 Location: **N: Lake Street (Route 3) S: Blaisdell Avenue**
 Location: **E: Lake Shore Drive (Route 3) W: Union Ave (Route 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							
	from North							from East							from South							from West							Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							
	from North							from East							from South							from West							Total
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0							0							0							0							0
Total	0							0							0							0							0

PDI File #: 250420 (12)
Location: N: Lake Street (Route 3) S: Blaisdell Avenue
Location: E: Lake Shore Drive (Route 3) W: Union Ave (Route 3 Business)
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	3
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	66.7		0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	66.7	100	0	0	0	0	0	0		
Exiting Leg Total	0							0							3							0							3

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:30 PM	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	
Exiting Leg	0							0							2							0							2	
Total	0							0							4							0							4	

PDI File #: 250420 (12)
Location: N: Lake Street (Route 3) S: Blaisdell Avenue
Location: E: Lake Shore Drive (Route 3) W: Union Ave (Route 3 Business)
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	3
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	3
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3		0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66.7	33.3	100	0	0	0	0	0	0		
Exiting Leg Total	0							0							3							0							3

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Lake Street (Route 3)							Lake Shore Drive (Route 3)							Blaisdell Avenue							Union Avenue (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	3	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.375	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	3	
Exiting Leg	0							0							3							0							3	
Total	0							0							6							0							6	

PDI File #: **250420 (13)**
 Location: **N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)**
 Location: **E: Clinton Street W: Elm Street**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class:

Pedestrians

	Union Avenue (Route 3 Business)							Clinton Street							Union Avenue (Route 3 Business)							Elm Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	1	1	2	0	0	0	0	0	0	8	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3	
8:45 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	5	
Grand Total	0	0	0	0	2	1	3	0	0	0	0	2	2	4	0	0	0	0	4	2	6	0	0	0	0	0	0	13	
Approach %	0	0	0	0	66.7	33.3		0	0	0	0	50	50		0	0	0	0	66.7	33.3		0	0	0	0	0	0		
Total %	0	0	0	0	15.4	7.69	23.1	0	0	0	0	15.4	15.4	30.8	0	0	0	0	30.8	15.4	46.2	0	0	0	0	0	0		
Exiting Leg Total	3							4							6							0							13

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Union Avenue (Route 3 Business) SB							Clinton Street WB							Union Avenue (Route 3 Business) NB							Elm Street EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
7:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	8
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	1	1	2	0	0	0	0	0	0	0	8
Exiting Leg	2							4							2							0							8
Total	4							8							4							0							16

PDI File #: **250420 (13)**
 Location: **N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)**
 Location: **E: Clinton Street W: Elm Street**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**



Class:

Pedestrians

	Union Avenue (Route 3 Business)							Clinton Street							Union Avenue (Route 3 Business)							Elm Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	3	3	6	0	0	0	0	2	1	3	13
3:15 PM	0	0	0	0	2	2	4	0	0	0	0	3	3	6	0	0	0	0	2	0	2	0	0	0	0	0	0	12	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
3:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3	0	0	0	0	1	1	2	0	0	0	0	0	1	7
Total	0	0	0	0	3	4	7	0	0	0	0	8	5	13	0	0	0	0	6	4	10	0	0	0	0	2	2	4	34
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	3	0	3	0	0	0	0	0	0	8	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	4	0	4	0	0	0	0	0	0	6	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	3	
Total	0	0	0	0	0	0	0	0	0	0	0	3	6	9	0	0	0	0	7	1	8	0	0	0	0	0	0	17	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	2	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	3	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	2	2	0	0	0	0	0	0	4	
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	1	2	3	0	0	0	0	2	0	2	0	0	0	0	1	2	3	9
Total	0	0	0	0	1	0	1	0	0	0	0	2	6	8	0	0	0	0	3	3	6	0	0	0	0	1	2	3	18
Grand Total	0	0	0	0	4	4	8	0	0	0	0	13	17	30	0	0	0	0	16	8	24	0	0	0	0	3	4	7	69
Approach %	0	0	0	0	50	50		0	0	0	0	43.3	56.7		0	0	0	0	66.7	33.3		0	0	0	0	42.9	57.1		
Total %	0	0	0	0	5.8	5.8	11.6	0	0	0	0	18.8	24.6	43.5	0	0	0	0	23.2	11.6	34.8	0	0	0	0	4.35	5.8	10.1	
Exiting Leg Total	8							30							24							7							69

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Union Avenue (Route 3 Business) SB							Clinton Street WB						Union Avenue (Route 3 Business) NB						Elm Street EB									
	from North							from East						from South						from West								Total	
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total
3:00 PM	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	3	3	6	0	0	0	0	2	1	3	13
3:15 PM	0	0	0	0	2	2	4	0	0	0	0	3	3	6	0	0	0	0	2	0	2	0	0	0	0	0	0	0	12
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
3:45 PM	0	0	0	0	0	1	1	0	0	0	0	2	1	3	0	0	0	0	1	1	2	0	0	0	0	0	1	1	7
Total Volume	0	0	0	0	3	4	7	0	0	0	0	8	5	13	0	0	0	0	6	4	10	0	0	0	0	2	2	4	34
% Approach Total	0.0	0.0	0.0	0.0	42.9	57.1		0.0	0.0	0.0	0.0	61.5	38.5		0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.375	0.500	0.438	0.000	0.000	0.000	0.000	0.667	0.417	0.542	0.000	0.000	0.000	0.000	0.500	0.333	0.417	0.000	0.000	0.000	0.000	0.250	0.500	0.333	0.654
Entering Leg	0	0	0	0	3	4	7	0	0	0	0	8	5	13	0	0	0	0	6	4	10	0	0	0	0	2	2	4	34
Exiting Leg	7							13						10						4								34	
Total	14							26						20						8								68	

PDI File #: **250420 (13)**
 Location: **N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)**
 Location: **E: Clinton Street W: Elm Street**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Class:

Pedestrians

	Union Avenue (Route 3 Business)							Clinton Street							Union Avenue (Route 3 Business)							Elm Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:30 AM	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2	2	0	0	0	0	0	4	
Total	0	0	0	0	1	1	2	0	0	0	0	2	2	4	0	0	0	0	0	2	2	0	0	0	0	0	0	8	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	2	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Total	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	1	0	1	0	0	0	0	0	0	6	
Grand Total	0	0	0	0	1	1	2	0	0	0	0	5	4	9	0	0	0	0	1	2	3	0	0	0	0	0	0	14	
Approach %	0	0	0	0	50	50		0	0	0	0	55.6	44.4		0	0	0	0	33.3	66.7		0	0	0	0	0	0		
Total %	0	0	0	0	7.14	7.14	14.3	0	0	0	0	35.7	28.6	64.3	0	0	0	0	7.14	14.3	21.4	0	0	0	0	0	0		
Exiting Leg Total	2							9							3							0							14

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:15 AM	Union Avenue (Route 3 Business) SB							Clinton Street WB							Union Avenue (Route 3 Business) NB							Elm Street EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	1	1	2	0	0	0	0	3	2	5	0	0	0	0	1	2	3	0	0	0	0	0	0	0	10
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.750	0.500	0.625	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	3	2	5	0	0	0	0	1	2	3	0	0	0	0	0	0	0	10
Exiting Leg	2							5							3							0							10
Total	4							10							6							0							20

PDI File #: 250420 (14)
Location: N: North Main St (Rte 106) S: North Main St (Rte 106)
Location: W: Lexington Drive
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 7:00 AM
End Time: 9:00 AM
Class:



Pedestrians

	North Main Street (Route 106)							North Main Street (Route 106)							Lexington Drive							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total				
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	North Main Street (Route 106)						North Main Street (Route 106)						Lexington Drive						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0	
Total	0						0						0						0	

PDI File #: **250420 (14)**
 Location: **N: North Main St (Rte 106) S: North Main St (Rte 106)**
 Location: **W: Lexington Drive**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**



Class: **Pedestrians**

	North Main Street (Route 106)							North Main Street (Route 106)							Lexington Drive							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total			
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100				
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	100			
Exiting Leg Total	0							0							1							1

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	North Main Street (Route 106)						North Main Street (Route 106)						Lexington Drive						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250		0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Exiting Leg	0						0						1						1	
Total	0						0						2						2	

PDI File #: 250420 (14)
Location: N: North Main St (Rte 106) S: North Main St (Rte 106)
Location: W: Lexington Drive
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM



Class: Pedestrians

	North Main Street (Route 106)							North Main Street (Route 106)							Lexington Drive							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg Total	0							0							0							0

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	North Main Street (Route 106)						North Main Street (Route 106)						Lexington Drive						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg	0						0						0						0
Total	0						0						0						0

PDI File #: **250420 (15)**
 Location: **N: North Main St (Route 106) S: North Main St (Route 106)**
 Location: **E: Oak Street W: Oak Street**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class:

Pedestrians

	North Main Street (Route 106)							Oak Street							North Main Street (Route 106)_							Oak Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	3	0	3	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	7
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	3	0	3	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Grand Total	0	0	0	0	6	0	6	0	0	0	0	7	0	7	0	0	0	0	0	1	1	0	0	0	0	0	0	0	14
Approach %	0	0	0	0	100	0		0	0	0	0	100	0		0	0	0	0	0	100		0	0	0	0	0	0		
Total %	0	0	0	0	42.9	0	42.9	0	0	0	0	50	0	50	0	0	0	0	0	7.14	7.14	0	0	0	0	0	0	0	
Exiting Leg Total	6							7							1							0							14

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	North Main Street (Route 106)							Oak Street							North Main Street (Route 106)							Oak Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
7:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	3	0	3	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	7
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000		0.438
Entering Leg	0	0	0	0	3	0	3	0	0	0	0	3	0	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	7
Exiting Leg	3							3							1							0							7
Total	6							6							2							0							14

individual

group

did not push button

did push button

PDI File #: 250420 (15)
 Location: N: North Main St (Route 106) S: North Main St (Route 106)
 Location: E: Oak Street W: Oak Street
 City, State: Laconia, NH
 Client: TFMoran/J. Porter
 Site Code: 96126.01
 Count Date: Thursday, March 6, 2025
 Start Time: 3:00 PM
 End Time: 6:00 PM
 Class:



Pedestrians

	North Main Street (Route 106)							Oak Street							North Main Street (Route 106)_							Oak Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	1	0	1	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
3:30 PM	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	2	5	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
5:30 PM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
Grand Total	0	0	0	0	4	2	6	0	0	0	0	7	6	13	0	0	0	0	0	0	0	0	0	0	0	0	2	2	21
Approach %	0	0	0	0	66.7	33.3		0	0	0	0	53.8	46.2		0	0	0	0	0	0	0	0	0	0	0	0	100		
Total %	0	0	0	0	19	9.52	28.6	0	0	0	0	33.3	28.6	61.9	0	0	0	0	0	0	0	0	0	0	0	0	9.52	9.52	
Exiting Leg Total	6							13							0							2							21

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	North Main Street (Route 106) SB							Oak Street WB							North Main Street (Route 106) NB							Oak Street EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	1	0	1	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
3:15 PM	0	0	0	0	2	0	2	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
3:30 PM	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	0	0	3	2	5	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
% Approach Total	0.0	0.0	0.0	0.0	60.0	40.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.375	0.250	0.625	0.000	0.000	0.000	0.000	0.500	0.500	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.542		
Entering Leg	0	0	0	0	3	2	5	0	0	0	0	4	4	8	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
Exiting Leg	5							8							0							0							13
Total	10							16							0							0							26

individual

group

did not push button

did push button

PDI File #: **250420 (15)**
 Location: **N: North Main St (Route 106) S: North Main St (Route 106)**
 Location: **E: Oak Street W: Oak Street**
 City, State: **Laconia, NH**
 Client: **TF Moran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**



Pedestrians

	North Main Street (Route 106)							Oak Street							North Main Street (Route 106)_							Oak Street							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	3	4
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	0	0	75	75	
Exiting Leg Total	0							0							1							3							4

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:15 AM	North Main Street (Route 106) SB							Oak Street WB							North Main Street (Route 106) NB							Oak Street EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	3	4
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.750	0.750	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	3	4
Exiting Leg	0							0							1							3							4
Total	0							0							2							6							8

PDI File #: 250420 (16)
 Location: N: North Main St (Route 106) S: North Main St (Route 106)
 Location: E: Church Street W: Veterans Square
 City, State: Laconia, NH
 Client: TFMoran/J. Porter
 Site Code: 96126.01
 Count Date: Thursday, March 6, 2025
 Start Time: 7:00 AM
 End Time: 9:00 AM



Class:

Pedestrians

	North Main Street (Route 106)							Church Street							North Main Street (Route 106)							Veterans Square							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	3	1	4	0	0	0	0	0	1	1	8
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	4	0	4	0	0	0	0	0	0	0	8
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
Total	0	0	0	0	0	5	5	0	0	0	0	5	3	8	0	0	0	0	7	0	7	0	0	0	0	1	0	1	21
Grand Total	0	0	0	0	0	6	6	0	0	0	0	6	4	10	0	0	0	0	10	1	11	0	0	0	0	1	1	2	29
Approach %	0	0	0	0	0	100		0	0	0	0	60	40		0	0	0	0	90.9	9.09		0	0	0	0	50	50		
Total %	0	0	0	0	0	20.7	20.7	0	0	0	0	20.7	13.8	34.5	0	0	0	0	34.5	3.45	37.9	0	0	0	0	3.45	3.45	6.9	
Exiting Leg Total	6							10							11							2							29

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	North Main Street (Route 106) SB							Church Street WB							North Main Street (Route 106) NB							Veterans Square EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	6
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	4	0	4	0	0	0	0	0	0	0	8
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	0	5	5	0	0	0	0	5	3	8	0	0	0	0	7	0	7	0	0	0	0	1	0	1	21
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	62.5	37.5		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.313	0.313	0.000	0.000	0.000	0.000	0.417	0.250	0.500	0.000	0.000	0.000	0.000	0.438	0.000	0.438	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.656
Entering Leg	0	0	0	0	0	5	5	0	0	0	0	5	3	8	0	0	0	0	7	0	7	0	0	0	0	1	0	1	21
Exiting Leg	5							8							7							1							21
Total	10							16							14							2							42

PDI File #: **250420 (16)**
 Location: **N: North Main St (Route 106) S: North Main St (Route 106)**
 Location: **E: Church Street W: Veterans Square**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**



Class:

Pedestrians

	North Main Street (Route 106)							Church Street						North Main Street (Route 106)							Veterans Square							Total	
	from North							from East						from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB		Total
3:00 PM	0	0	0	0	0	2	2	0	0	0	0	2	1	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1	3	0	0	0	0	0	0	4	
3:30 PM	0	0	0	0	1	0	1	0	0	0	0	2	3	5	0	0	0	0	2	0	2	0	0	0	0	0	0	8	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	1	2	3	0	0	0	0	5	4	9	0	0	0	0	4	2	6	0	0	0	0	0	0	18	
4:00 PM	0	0	0	0	2	1	3	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	2	0	2	9
4:15 PM	0	0	0	0	0	3	3	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	1	0	1	0	0	0	0	0	0	6	
Total	0	0	0	0	2	4	6	0	0	0	0	2	14	16	0	0	0	0	3	0	3	0	0	0	0	2	0	2	27
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	0	1	4	
5:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	2	
5:45 PM	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	5	
Total	0	0	0	0	1	3	4	0	0	0	0	0	4	4	0	0	0	0	2	1	3	0	0	0	0	2	0	2	13
Grand Total	0	0	0	0	4	9	13	0	0	0	0	7	22	29	0	0	0	0	9	3	12	0	0	0	0	4	0	4	58
Approach %	0	0	0	0	30.8	69.2		0	0	0	0	24.1	75.9		0	0	0	0	75	25		0	0	0	0	100	0		
Total %	0	0	0	0	6.9	15.5	22.4	0	0	0	0	12.1	37.9	50	0	0	0	0	15.5	5.17	20.7	0	0	0	0	6.9	0	6.9	
Exiting Leg Total	13							29							12							4							58

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	North Main Street (Route 106) SB							Church Street WB							North Main Street (Route 106) NB							Veterans Square EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
4:00 PM	0	0	0	0	2	1	3	0	0	0	0	1	1	2	0	0	0	0	2	0	2	0	0	0	0	2	0	2	9
4:15 PM	0	0	0	0	0	3	3	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	1	0	1	0	0	0	0	0	0	6	
Total Volume	0	0	0	0	2	4	6	0	0	0	0	2	14	16	0	0	0	0	3	0	3	0	0	0	0	2	0	2	27
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	12.5	87.5		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.333	0.500	0.000	0.000	0.000	0.000	0.500	0.700	0.800	0.000	0.000	0.000	0.000	0.375	0.000	0.375	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.750
Entering Leg	0	0	0	0	2	4	6	0	0	0	0	2	14	16	0	0	0	0	3	0	3	0	0	0	0	2	0	2	27
Exiting Leg	6							16							3							2							27
Total	12							32							6							4							54

PDI File #: **250420 (16)**
 Location: **N: North Main St (Route 106) S: North Main St (Route 106)**
 Location: **E: Church Street W: Veterans Square**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	North Main Street (Route 106)								Church Street								North Main Street (Route 106)								Veterans Square								Total
	from North								from East								from South								from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total					
11:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	1	1	2	6				
11:15 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	1	4					
11:30 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	3	0	3	0	0	0	0	2	0	2	7				
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	2	0	0	0	0	2	0	2	6				
Total	0	0	0	0	1	2	3	0	0	0	0	2	4	6	0	0	0	0	5	2	7	0	0	0	0	5	2	7	23				
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	0	1	1	4				
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3				
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2				
12:45 PM	0	0	0	0	2	0	2	0	0	0	0	0	4	4	0	0	0	0	0	3	3	0	0	0	0	1	0	1	10				
Total	0	0	0	0	2	0	2	0	0	0	0	5	4	9	0	0	0	0	1	5	6	0	0	0	0	1	1	2	19				
Grand Total	0	0	0	0	3	2	5	0	0	0	0	7	8	15	0	0	0	0	6	7	13	0	0	0	0	6	3	9	42				
Approach %	0	0	0	0	60	40		0	0	0	0	46.7	53.3		0	0	0	0	46.2	53.8		0	0	0	0	66.7	33.3						
Total %	0	0	0	0	7.14	4.76	11.9	0	0	0	0	16.7	19	35.7	0	0	0	0	14.3	16.7	31	0	0	0	0	14.3	7.14	21.4					
Exiting Leg Total	5							15							13							9							42				

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	North Main Street (Route 106)							Church Street						North Main Street (Route 106)						Veterans Square							Total		
	from North							from East						from South						from West									
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB		CW-SB	Total
11:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	1	0	1	0	0	0	0	1	1	2	6
11:15 AM	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	1	4	
11:30 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	3	0	3	0	0	0	0	2	0	2	7
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	2	0	0	0	0	2	0	2	6
Total Volume	0	0	0	0	1	2	3	0	0	0	0	2	4	6	0	0	0	0	5	2	7	0	0	0	0	5	2	7	23
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	71.4	28.6		0.0	0.0	0.0	0.0	71.4	28.6		
PHF	0.000	0.000	0.000	0.000	0.250	0.500	0.750	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.000	0.000	0.000	0.000	0.417	0.500	0.583	0.000	0.000	0.000	0.000	0.625	0.500	0.875	0.821
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	2	4	6	0	0	0	0	5	2	7	0	0	0	0	5	2	7	23
Exiting Leg	3							6						6						7							23		
Total	6							12						14						14							46		

PDI File #: **250420 (17)**
 Location: **N: S Main St (Route 106) S: S Main St (Route 106)**
 Location: **E: Union Ave (Rte 3 Business) W: Court St (Rte 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	South Main Street (Route 106)							Union Avenue (Route 3 Business)							South Main Street (Route 106)							Court Street (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
Total	0	0	0	0	2	0	2	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	1	0	1	5
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	4	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	3	
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	2	0	0	0	0	1	0	1	0	0	0	0	1	1	4	
Total	0	0	0	0	0	1	1	0	0	0	0	2	3	5	0	0	0	0	1	0	1	0	0	0	0	4	2	6	13
Grand Total	0	0	0	0	2	1	3	0	0	0	0	2	4	6	0	0	0	0	1	1	2	0	0	0	0	5	2	7	18
Approach %	0	0	0	0	66.7	33.3		0	0	0	0	33.3	66.7		0	0	0	0	50	50		0	0	0	0	71.4	28.6		
Total %	0	0	0	0	11.1	5.56	16.7	0	0	0	0	11.1	22.2	33.3	0	0	0	0	5.56	5.56	11.1	0	0	0	0	27.8	11.1	38.9	
Exiting Leg Total	3							6							2							7							18

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	South Main Street (Route 106) SB							Union Avenue (Route 3 Business) WB							South Main Street (Route 106) NB							Court Street (Route 3 Business) EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	
8:15 AM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	4	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	3	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	1	1	4	
Total Volume	0	0	0	0	0	1	1	0	0	0	0	2	3	5	0	0	0	0	1	0	1	0	0	0	4	2	6	13	
% Approach Total	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	40.0	60.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.500	0.750	0.625	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.813
Entering Leg	0	0	0	0	0	1	1	0	0	0	0	2	3	5	0	0	0	0	1	0	1	0	0	0	4	2	6	13	
Exiting Leg	1							5							1							6							13
Total	2							10							2							12							26

PDI File #: 250420 (17)
Location: N: S Main St (Route 106) S: S Main St (Route 106)
Location: E: Union Ave (Rte 3 Business) W: Court St (Rte 3 Business)
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	South Main Street (Route 106)							Union Avenue (Route 3 Business)							South Main Street (Route 106)							Court Street (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	1	1	5	
3:15 PM	0	0	0	0	0	0	2	2	0	0	0	0	2	2	4	0	0	0	0	1	0	1	0	0	0	0	1	4	5	12
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	0	3	3	7
3:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	
Total	0	0	0	0	0	1	2	3	0	0	0	0	7	4	11	0	0	0	0	2	0	2	0	0	0	0	2	8	10	26
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	2	0	2	6	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	5
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	0	7	5	12	0	0	0	0	0	3	0	3	0	0	0	0	2	1	3	18
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	4
Total	0	0	0	0	0	0	0	0	0	0	0	3	6	9	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	14
Grand Total	0	0	0	0	1	2	3		0	0	0	0	17	15	32	0	0	0	0	5	0	5	0	0	0	0	6	12	18	58
Approach %	0	0	0	0	33.3	66.7			0	0	0	0	53.1	46.9		0	0	0	0	100	0		0	0	0	0	33.3	66.7		
Total %	0	0	0	0	1.72	3.45	5.17		0	0	0	0	29.3	25.9	55.2	0	0	0	0	8.62	0	8.62	0	0	0	0	10.3	20.7	31	
Exiting Leg Total	3							32							5							18							58	

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:15 PM	South Main Street (Route 106)							Union Avenue (Route 3 Business)							South Main Street (Route 106)							Court Street (Route 3 Business)							Total
	from North SB							from East WB							from South NB							from West EB							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:15 PM	0	0	0	0	0	2	2	0	0	0	0	2	2	4	0	0	0	0	1	0	1	0	0	0	0	1	4	5	12
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	1	0	1	0	0	0	0	0	3	3	7
3:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2	0	0	0	0	2	0	2	6
Total Volume	0	0	0	0	1	2	3	0	0	0	0	7	2	9	0	0	0	0	4	0	4	0	0	0	0	4	7	11	27
% Approach Total	0.0	0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	77.8	22.2		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	36.4	63.6		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.583	0.250	0.563	0.000	0.000	0.000	0.000	0.500	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.438	0.550	0.563
Entering Leg	0	0	0	0	1	2	3	0	0	0	0	7	2	9	0	0	0	0	4	0	4	0	0	0	0	4	7	11	27
Exiting Leg	3							9							4							11							27
Total	6							18							8							22							54

PDI File #: **250420 (17)**
 Location: **N: S Main St (Route 106) S: S Main St (Route 106)**
 Location: **E: Union Ave (Rte 3 Business) W: Court St (Rte 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	South Main Street (Route 106)							Union Avenue (Route 3 Business)							South Main Street (Route 106)							Court Street (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	0	0	0	1	0	1	0	0	0	0	5	5	10	0	0	0	0	2	1	3	0	0	0	0	0	0	0	14
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	2	0	2	0	0	0	0	0	1	1	7
Grand Total	0	0	0	0	1	0	1	0	0	0	0	7	7	14	0	0	0	0	4	1	5	0	0	0	0	0	1	1	21
Approach %	0	0	0	0	100	0		0	0	0	0	50	50		0	0	0	0	80	20		0	0	0	0	0	100		
Total %	0	0	0	0	4.76	0	4.76	0	0	0	0	33.3	33.3	66.7	0	0	0	0	19	4.76	23.8	0	0	0	0	0	4.76	4.76	
Exiting Leg Total	1							14							5							1							21

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:15 AM	South Main Street (Route 106) SB							Union Avenue (Route 3 Business) WB							South Main Street (Route 106) NB							Court Street (Route 3 Business) EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
11:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	1	2	0	0	0	0	0	0	0	5
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	1	0	1	0	0	0	0	5	5	10	0	0	0	0	3	1	4	0	0	0	0	0	0	0	15
% Approach Total	0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.313	0.625	0.625	0.000	0.000	0.000	0.000	0.375	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750
Entering Leg	0	0	0	0	1	0	1	0	0	0	0	5	5	10	0	0	0	0	3	1	4	0	0	0	0	0	0	0	15
Exiting Leg	1							10							4							0							15
Total	2							20							8							0							30

PDI File #: **250420 (18)**
 Location: **N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)**
 Location: **E: Gilford Avenue (Route 11 A) W: Rite Aid Driveway**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Union Avenue (Route 3 Business)							Gilford Avenue (Route 11 A)							Union Avenue (Route 3 Business)							Rite Aid Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	2	0	2	5	
7:30 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	2	1	3	0	0	0	0	0	5	5	0	0	0	0	2	0	2	0	0	0	2	0	2	12	
8:00 AM	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	3	
Total	0	0	0	0	0	1	1	0	0	0	0	1	5	6	0	0	0	0	0	0	0	0	0	0	0	1	1	8	
Grand Total	0	0	0	0	2	2	4	0	0	0	0	1	10	11	0	0	0	0	2	0	2	0	0	0	2	1	3	20	
Approach %	0	0	0	0	50	50		0	0	0	0	9.09	90.9		0	0	0	0	100	0		0	0	0	0	66.7	33.3		
Total %	0	0	0	0	10	10	20	0	0	0	0	5	50	55	0	0	0	0	10	0	10	0	0	0	0	10	5	15	
Exiting Leg Total	4							11							2							3							20

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Union Avenue (Route 3 Business) SB							Gilford Avenue (Route 11A) WB							Union Avenue (Route 3 Business) NB							Rite Aid Driveway EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	2	2	0	0	0	0	2	0	2	0	0	0	0	0	0	0	5
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	2	0	2	5	
7:30 AM	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	2	1	3	0	0	0	0	0	5	5	0	0	0	0	2	0	2	0	0	0	2	0	2	12	
% Approach Total	0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0	0.0			
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.417	0.417	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.600	
Entering Leg	0	0	0	0	2	1	3	0	0	0	0	0	5	5	0	0	0	0	2	0	2	0	0	0	2	0	2	12	
Exiting Leg	3							5							2							2							12
Total	6							10							4							4							24

PDI File #: 250420 (18)
Location: N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)
Location: E: Gilford Avenue (Route 11 A) W: Rite Aid Driveway
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Thursday, March 6, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Union Avenue (Route 3 Business)							Gilford Avenue (Route 11 A)							Union Avenue (Route 3 Business)							Rite Aid Driveway							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	5	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	2	2	4	6
Grand Total	0	0	0	0	0	0	0	0	0	0	0	11	2	13	0	0	0	0	1	0	1	0	0	0	0	3	8	11	25
Approach %	0	0	0	0	0	0	0	0	0	0	0	84.6	15.4		0	0	0	0	100	0		0	0	0	0	27.3	72.7		
Total %	0	0	0	0	0	0	0	0	0	0	0	44	8	52	0	0	0	0	4	0	4	0	0	0	0	12	32	44	
Exiting Leg Total	0							13							1							11							25

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

3:00 PM	Union Avenue (Route 3 Business) SB							Gilford Avenue (Route 11A) WB							Union Avenue (Route 3 Business) NB							Rite Aid Driveway EB							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.8	22.2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.500	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500		0.688
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	0	0	0	0	0	0	0	0	1	1	2	11
Exiting Leg	0							9							0							2							11
Total	0							18							0							4							22

PDI File #: **250420 (18)**
 Location: **N: Union Ave (Rte 3 Business) S: Union Ave (Rte 3 Business)**
 Location: **E: Gilford Avenue (Route 11 A) W: Rite Aid Driveway**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Union Avenue (Route 3 Business)							Gilford Avenue (Route 11 A)							Union Avenue (Route 3 Business)							Rite Aid Driveway							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3	
11:45 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	3	5	
Total	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	0	0	0	4	1	5	10	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Total	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	2	4		
Grand Total	0	0	0	0	1	1	2	0	0	0	0	3	0	3	0	0	0	0	1	1	2	0	0	0	0	4	3	7	14	
Approach %	0	0	0	0	50	50		0	0	0	0	100	0		0	0	0	0	50	50		0	0	0	0	57.1	42.9			
Total %	0	0	0	0	7.14	7.14	14.3	0	0	0	0	21.4	0	21.4	0	0	0	0	7.14	7.14	14.3	0	0	0	0	28.6	21.4	50		
Exiting Leg Total	2							3							2							7							14	

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Union Avenue (Route 3 Business) SB							Gilford Avenue (Route 11A) WB							Union Avenue (Route 3 Business) NB							Rite Aid Driveway EB							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	2
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	3	
11:45 AM	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	3	5	
Total Volume	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	0	0	0	4	1	5	10	
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	80.0	20.0			
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.500	0.250	0.417	0.500	
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	1	0	1	0	0	0	0	1	1	2	0	0	0	0	4	1	5	10	
Exiting Leg	2							1							2							5							10	
Total	4							2							4							10							20	

PDI File #: **250420 (19)**
 Location: **N: N Main St (Route 106) S: North Main St (Rte 106)**
 Location: **W: New Salem Street**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**



Class: **Pedestrians**

	North Main Street (Route 106)							North Main Street (Route 106)							New Salem Street							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total			
7:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	2	
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	4	
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	1	3	
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	1	2	
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	1	3	
Total	0	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	2	1	3	3	9	
Grand Total	0	0	0	0	0	0	0	0	0	0	6	4	10	0	0	0	2	1	3	3	13	
Approach %	0	0	0	0	0	0	0	0	0	0	60	40		0	0	0	66.667	33.333				
Total %	0	0	0	0	0	0	0	0	0	0	46.154	30.769	76.923	0	0	0	15.385	7.6923	23.077			
Exiting Leg Total	0							10							3							13

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

8:00 AM	North Main Street (Route 106)						North Main Street (Route 106)						New Salem Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
8:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	1	3
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	3
Total Volume	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	2	1	3	9
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.375	0.750	0.000	0.000	0.000	0.500	0.250	0.750	0.750
Entering Leg	0	0	0	0	0	0	0	0	0	3	3	6	0	0	0	2	1	3	9
Exiting Leg	0						6						3						9
Total	0						12						6						18

PDI File #: **250420 (19)**
 Location: **N: N Main St (Route 106) S: North Main St (Rte 106)**
 Location: **W: New Salem Street**
 City, State: **Laconia, NH**
 Client: **TFMoraan/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	North Main Street (Route 106)						North Main Street (Route 106)						New Salem Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
3:30 PM	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	2	2	5
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	3	1	4	0	0	0	0	3	3	7
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	1	0	1	10
Grand Total	0	0	0	0	0	0	0	0	0	11	3	14	0	0	0	1	3	4	18
Approach %	0	0	0	0	0	0	0	0	0	78.571	21.429		0	0	0	25	75		
Total %	0	0	0	0	0	0	0	0	0	61.111	16.667	77.778	0	0	0	5.556	16.667	22.222	
Exiting Leg Total	0						14						4						18

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	North Main Street (Route 106)						North Main Street (Route 106)						New Salem Street						Total
	from North						from South						from West						
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	0	1	3
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	1	0	1	10
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.8	22.2		0.0	0.0	0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.500	0.750	0.000	0.000	0.000	0.250	0.000	0.250	0.833
Entering Leg	0	0	0	0	0	0	0	0	0	7	2	9	0	0	0	1	0	1	10
Exiting Leg	0						9						1						10
Total	0						18						2						20

PDI File #: 250420 (19)
Location: N: N Main St (Route 106) S: North Main St (Rte 106)
Location: W: New Salem Street
City, State: Laconia, NH
Client: TFMoran/J. Porter
Site Code: 96126.01
Count Date: Saturday, March 8, 2025
Start Time: 11:00 AM
End Time: 1:00 PM



Class: Pedestrians

	North Main Street (Route 106)							North Main Street (Route 106)							New Salem Street							Total
	from North							from South							from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total		Thru	Left	U-Turn	CW-WB	CW-EB	Total		Right	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	2
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	1	2
Total	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	1	1	2	2	4
Grand Total	0	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	1	2	3	3	6
Approach %	0	0	0	0	0	0	0	0	0	0	33.333	66.667		0	0	0	0	33.333	66.667			
Total %	0	0	0	0	0	0	0	0	0	0	16.667	33.333	50	0	0	0	0	16.667	33.333	50		
Exiting Leg Total	0							3							3							6

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

12:00 PM	North Main Street (Route 106)						North Main Street (Route 106)						New Salem Street						Total	
	from North						from South						from West							
	Right	Thru	U-Turn	CW-EB	CW-WB	Total	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Left	U-Turn	CW-NB	CW-SB	Total		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	2
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	4
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	50	0.0	0.0	0.0	50.0	50.0	50	
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.250	0.250	0.500	0.500
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	1	1	2	4
Exiting Leg	0						2						2						4	
Total	0						4						4						8	

PDI File #: **250420 (20)**
 Location: **N: Fair Street S: Fair Street**
 Location: **E: Court St (Rte 3 Business) W: Court St (Rte 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **7:00 AM**
 End Time: **9:00 AM**
 Class:



Pedestrians

	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	0	0	50	0	50	0	0	0	0	0	0	0	0
Exiting Leg Total	0							1							1							0							2

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:00 AM	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg	0							1							0							0							1
Total	0							2							0							0							2

PDI File #: **250420 (20)**
 Location: **N: Fair Street S: Fair Street**
 Location: **E: Court St (Rte 3 Business) W: Court St (Rte 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Thursday, March 6, 2025**
 Start Time: **3:00 PM**
 End Time: **6:00 PM**
 Class:



Pedestrians

	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3	
5:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4	
Total	0	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	3	1	4	0	0	0	0	0	0	7	
Grand Total	0	0	0	0	0	1	1	2	0	0	0	0	2	3	5	0	0	0	0	3	2	5	0	0	0	0	0	0	12	
Approach %	0	0	0	0	0	50	50		0	0	0	0	40	60		0	0	0	0	60	40		0	0	0	0	0			
Total %	0	0	0	0	0	8.33	8.33	16.7	0	0	0	0	16.7	25	41.7	0	0	0	0	25	16.7	41.7	0	0	0	0	0	0		
Exiting Leg Total	2							5							5							0							12	

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

5:00 PM	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total
	from North							from East							from South							from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
Total Volume	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	3	1	4	0	0	0	0	0	0	0	7
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.375	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.438
Entering Leg	0	0	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	3	1	4	0	0	0	0	0	0	0	7
Exiting Leg	2							1							4							0							7
Total	4							2							8							0							14

PDI File #: **250420 (20)**
 Location: **N: Fair Street S: Fair Street**
 Location: **E: Court St (Rte 3 Business) W: Court St (Rte 3 Business)**
 City, State: **Laconia, NH**
 Client: **TFMoran/J. Porter**
 Site Code: **96126.01**
 Count Date: **Saturday, March 8, 2025**
 Start Time: **11:00 AM**
 End Time: **1:00 PM**
 Class:



Pedestrians

	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4
11:15 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	6
12:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	2	2	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	5	
Grand Total	0	0	0	0	1	3	4	0	0	0	0	2	2	4	0	0	0	0	0	3	3	0	0	0	0	0	0	0	11	
Approach %	0	0	0	0	25	75		0	0	0	0	50	50		0	0	0	0	0	100		0	0	0	0	0	0			
Total %	0	0	0	0	9.09	27.3	36.4	0	0	0	0	18.2	18.2	36.4	0	0	0	0	0	27.3	27.3	0	0	0	0	0	0	0		
Exiting Leg Total	4							4							3							0							11	

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:00 AM	Fair Street							Court Street (Route 3 Business)							Fair Street							Court Street (Route 3 Business)							Total	
	from North							from East							from South							from West								
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total		
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	4	
11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	6
% Approach Total	0.0	0.0	0.0	0.0	50.0	50.0			0.0	0.0	0.0	0.0	66.7	33.3		0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.250	0.250	0.500		0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.375	
Entering Leg	0	0	0	0	0	1	1	2	0	0	0	0	2	1	3	0	0	0	0	0	0	1	1	0	0	0	0	0	0	6
Exiting Leg	2							3							1							1							0	6
Total	4							6							2							0							12	

PDI File #: 250667 A
Location: N: Union Avenue S: Union Avenue NW: Davis Place
Location: E: Winter Street W: Church Street
City, State: Laconia, NH
Client: TF Moran/ J. Porter
Site Code: 96126.01
Count Date: Wednesday, June 25, 2025
Start Time: 7:00 AM
End Time: 9:00 AM
Class:



Pedestrians

	Union Avenue								Winter Street								Union Avenue								Church Street								Davis Place								Total	
	from North								from East								from South								from West								from Northwest									
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-WEB	CW-SWB	Total		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	2	5		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2			
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	3	10		
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	12	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3	18	
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0	100	0	0	0	0	0	66.7	33.3	66.7	33.3		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	33.3	66.7	0	0	0	0	0	0	11.1	11.1	0	0	0	0	0	0	5.56	5.56	0	0	0	0	11.1	5.56	16.7	16.7		
Exiting Leg Total	0								12								2								1								3								18	

Peak Hour Analysis from 07:00 AM to 09:00 AM begins at:

7:30 AM	Union Avenue								Winter Street								Union Avenue								Church Street								Davis Place								Total	
	from North								from East								from South								from West								from Northwest									
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2	5	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3	11	
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	66.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	66.7	33.3	66.7		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.550
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	2	1	3	11		
Exiting Leg	0								6								1								1								3								11	
Total	0								12								2								2								6								22	

PDI File #: 250667 A
Location: N: Union Avenue S: Union Avenue NW: Davis Place
Location: E: Winter Street W: Church Street
City, State: Laconia, NH
Client: TF Moran/ J. Porter
Site Code: 96126.01
Count Date: Wednesday, June 25, 2025
Start Time: 3:00 PM
End Time: 6:00 PM
Class:



Pedestrians

	Union Avenue								Winter Street								Union Avenue								Church Street								Davis Place								Total	
	from North								from East								from South								from West								from Northwest									
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NB	CW-SWB	Total		
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	5	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3		10
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	5		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	10	0	0	0	0	0	4	3	7	0	0	0	0	0	0	0	0	0	0	0	3	2	5	22			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	5			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	1	2	3	8		
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2	7		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	0	0	0	0	0	2	2	10		
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	0	0	0	0	0	2	7	9	0	0	0	0	0	3	1	4	0	0	0	0	4	5	9	30		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	6		
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	5	3	8	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	13	
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	10	16	26	0	0	0	0	0	8	10	18	0	0	0	0	0	3	2	5	0	0	0	0	0	7	8	15	65	
Approach %	0	0	0	0	0	100	0		0	0	0	0	0	38.5	61.5		0	0	0	0	0	44.4	55.6		0	0	0	0	0	60	40		0	0	0	0	0	46.7	53.3			
Total %	0	0	0	0	0	1.54	0	1.54	0	0	0	0	0	15.4	24.6	40	0	0	0	0	0	12.3	15.4	27.7	0	0	0	0	0	4.62	3.08	7.69	0	0	0	0	0	10.8	12.3	23.1		
Exiting Leg Total	1								26								18								5								15								65	

Peak Hour Analysis from 03:00 PM to 06:00 PM begins at:

4:00 PM	Union Avenue SB								Winter Street WB								Union Avenue NB								Church Street EB								Davis Place SEB									
	from North								from East								from South								from West								from Northwest									
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	Total	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	5			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2	3	8							
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	2	0	2	0	0	0	0	2	0	2	7			
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	1	2	3	0	0	0	0	0	0	1	1	0	0	0	0	0	2	2	10		
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	18	0	0	0	0	0	2	7	9	0	0	0	0	0	3	1	4	0	0	0	0	4	5	9	30		
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0	22.2	77.8		0.0	0.0	0.0	0.0	0.0	75.0	25.0		0.0	0.0	0.0	0.0	0.0	44.4	55.6			
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500		0.000	0.000	0.000	0.000	0.000	0.500	0.583	0.750	0.000	0.000	0.000	0.000	0.000	0.375	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.500	0.625	0.750		0.750
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8	18	0	0	0	0	0	2	7	9	0	0	0	0	0	3	1	4	0	0	0	0	4	5	9	30		
Exiting Leg	0								8								9								4								9								30	
Total	0								16								18								8								18								60	

PDI File #: 250667 A
Location: N: Union Avenue S: Union Avenue NW: Davis Place
Location: E: Winter Street W: Church Street
City, State: Laconia, NH
Client: TF Moran/ J. Porter
Site Code: 96126.01
Count Date: Saturday, June 28, 2025
Start Time: 11:00 AM
End Time: 1:00 PM
Class:



Pedestrians

	Union Avenue								Winter Street								Union Avenue								Church Street								Davis Place								Total
	from North								from East								from South								from West								from Northwest								
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total	
11:00 AM	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	6	
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Total	0	0	0	0	0	1	1	2	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	10			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	1	1	16		
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	5	6	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	0	2	2		
Grand Total	0	0	0	0	0	1	1	2	0	0	0	0	0	2	7	9	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	1	6	7	28	
Approach %	0	0	0	0	0	50	50		0	0	0	0	0	22.2	77.8		0	0	0	0	0	20	80		0	0	0	0	0	20	80		0	0	0	0	0	14.3	85.7		
Total %	0	0	0	0	0	3.57	3.57	7.14	0	0	0	0	0	7.14	25	32.1		0	0	0	0	3.57	14.3	17.9		0	0	0	0	0	3.57	14.3	17.9		0	3.57	21.4	25			
Exiting Leg Total	2								9								5								5								7								28

Peak Hour Analysis from 11:00 AM to 01:00 PM begins at:

11:30 AM	Union Avenue								Winter Street								Union Avenue								Church Street								Davis Place								Total			
	from North								from East								from South								from West								from Northwest											
	Hard Right	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Bear Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Bear Left	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	Hard Left	U-Turn	CW-NB	CW-SB	Total	Hard Right	Bear Right	Bear Left	Hard Left	U-Turn	CW-NEB	CW-SWB	Total				
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2				
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1					
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1						
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	1	1	1	16				
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	2	6	8	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	2	2	2	20				
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	0.0	20.0	80.0		0.0	0.0	0.0	0.0	0.0	0.0	100.0					
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.375	0.400		0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250		0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250		0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500		0.313
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	2	6	8	0	0	0	0	0	1	4	5	0	0	0	0	0	1	4	5	0	0	0	0	0	0	2	2	20				
Exiting Leg	0								8								5								5								2								20			
Total	0								16								10								10								4								40			

ATTACHMENT F

Intersection #14: Synchro/SIDRA (AM/PM/SAT)

2037 No-Build (Synchro)

2037 Build (Synchro)

2037 Build Mit (Synchro/SIDRA)

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

AM 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	79	93	258	510	640	139
Future Volume (vph)	79	93	258	510	640	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	102	287	567	865	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

AM 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	79	93	258	510	640	139
Future Volume (Veh/h)	79	93	258	510	640	139
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	87	102	287	567	711	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1929	788	865			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1929	788	865			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	74	63			
cM capacity (veh/h)	46	391	770			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	87	102	287	567	865	
Volume Left	87	0	287	0	0	
Volume Right	0	102	0	0	154	
cSH	46	391	770	1700	1700	
Volume to Capacity	1.90	0.26	0.37	0.33	0.51	
Queue Length 95th (ft)	221	26	43	0	0	
Control Delay (s)	616.4	17.4	12.4	0.0	0.0	
Lane LOS	F	C	B			
Approach Delay (s)	293.2		4.2		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			30.9			
Intersection Capacity Utilization			70.8%	ICU Level of Service		C
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

PM 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	276	499	81	652	624	81
Future Volume (vph)	276	499	81	652	624	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	1%	1%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	307	554	90	724	775	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

PM 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	276	499	81	652	624	81
Future Volume (Veh/h)	276	499	81	652	624	81
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	307	554	90	724	686	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1634	730	775			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1634	730	775			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	89			
cM capacity (veh/h)	99	422	845			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	307	554	90	724	775	
Volume Left	307	0	90	0	0	
Volume Right	0	554	0	0	89	
cSH	99	422	845	1700	1700	
Volume to Capacity	3.09	1.31	0.11	0.43	0.46	
Queue Length 95th (ft)	Err	621	9	0	0	
Control Delay (s)	Err	183.9	9.8	0.0	0.0	
Lane LOS	F	F	A			
Approach Delay (s)	3683.6		1.1		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			1294.9			
Intersection Capacity Utilization			75.3%	ICU Level of Service		D
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

SAT 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	146	32	388	410	30
Future Volume (vph)	86	146	32	388	410	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	96	162	36	431	489	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

SAT 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	146	32	388	410	30
Future Volume (Veh/h)	86	146	32	388	410	30
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	96	162	36	431	456	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	976	472	489			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	976	472	489			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	65	73	97			
cM capacity (veh/h)	271	594	1079			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	96	162	36	431	489	
Volume Left	96	0	36	0	0	
Volume Right	0	162	0	0	33	
cSH	271	594	1079	1700	1700	
Volume to Capacity	0.35	0.27	0.03	0.25	0.29	
Queue Length 95th (ft)	39	28	3	0	0	
Control Delay (s)	25.4	13.3	8.5	0.0	0.0	
Lane LOS	D	B	A			
Approach Delay (s)	17.8		0.7		0.0	
Approach LOS	C					
Intersection Summary						
Average Delay			4.0			
Intersection Capacity Utilization			39.1%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

AM 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	146	93	258	708	968	201
Future Volume (vph)	146	93	258	708	968	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	160	102	287	787	1299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

AM 2037 B
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	146	93	258	708	968	201
Future Volume (Veh/h)	146	93	258	708	968	201
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	160	102	287	787	1076	223
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2548	1188	1299			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2548	1188	1299			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	56	46			
cM capacity (veh/h)	13	229	527			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	160	102	287	787	1299	
Volume Left	160	0	287	0	0	
Volume Right	0	102	0	0	223	
cSH	13	229	527	1700	1700	
Volume to Capacity	11.91	0.44	0.54	0.46	0.76	
Queue Length 95th (ft)	Err	53	81	0	0	
Control Delay (s)	Err	32.7	19.7	0.0	0.0	
Lane LOS	F	D	C			
Approach Delay (s)	6119.0		5.3		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			610.6			
Intersection Capacity Utilization			95.5%	ICU Level of Service		F
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

PM 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	341	499	81	1015	967	155
Future Volume (vph)	341	499	81	1015	967	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	1%	1%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	379	554	90	1128	1233	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

PM 2037 B
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	341	499	81	1015	967	155
Future Volume (Veh/h)	341	499	81	1015	967	155
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	379	554	90	1128	1063	170
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2456	1148	1233			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2456	1148	1233			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	84			
cM capacity (veh/h)	28	242	569			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	379	554	90	1128	1233	
Volume Left	379	0	90	0	0	
Volume Right	0	554	0	0	170	
cSH	28	242	569	1700	1700	
Volume to Capacity	13.31	2.29	0.16	0.66	0.73	
Queue Length 95th (ft)	Err	1094	14	0	0	
Control Delay (s)	Err	625.6	12.5	0.0	0.0	
Lane LOS	F	F	B			
Approach Delay (s)	4433.3		0.9		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			1222.6			
Intersection Capacity Utilization			97.9%	ICU Level of Service		F
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: Parade Rd (NH106) & Lexington Dr

SAT 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	139	146	32	615	629	80
Future Volume (vph)	139	146	32	615	629	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			0
Storage Lanes	1	1	1			0
Taper Length (ft)	100		100			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	4280	
Travel Time (s)	34.1			132.0	97.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	162	36	683	788	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

HCM Unsignalized Intersection Capacity Analysis

14: Parade Rd (NH106) & Lexington Dr

SAT 2037 B
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	139	146	32	615	629	80
Future Volume (Veh/h)	139	146	32	615	629	80
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	154	162	36	683	699	89
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1498	744	788			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1498	744	788			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	61	96			
cM capacity (veh/h)	130	416	836			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	154	162	36	683	788	
Volume Left	154	0	36	0	0	
Volume Right	0	162	0	0	89	
cSH	130	416	836	1700	1700	
Volume to Capacity	1.19	0.39	0.04	0.40	0.46	
Queue Length 95th (ft)	232	45	3	0	0	
Control Delay (s)	204.3	19.0	9.5	0.0	0.0	
Lane LOS	F	C	A			
Approach Delay (s)	109.3		0.5		0.0	
Approach LOS	F					
Intersection Summary						
Average Delay			19.1			
Intersection Capacity Utilization			53.7%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
14: N.Main St/Parade Rd (NH106) & Lexington Dr

AM 2037 B-MIT
Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	146	93	258	708	968	201
Future Volume (vph)	146	93	258	708	968	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			200
Storage Lanes	1	1	1			1
Taper Length (ft)	100		100			
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	3280	
Travel Time (s)	34.1			132.0	74.5	
Peak Hour Factor	0.91	0.91	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	160	102	287	787	1299	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	pm+ov	Prot	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4				
Detector Phase	4	5	5	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	17.0	26.0	26.0	73.0	47.0	
Total Split (%)	18.9%	28.9%	28.9%	81.1%	52.2%	
Maximum Green (s)	11.0	20.0	20.0	67.0	41.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
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	Min	Min	
v/c Ratio	0.61	0.14	0.71	0.57	0.79	
Control Delay	46.1	9.0	41.2	6.3	22.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.1	9.0	41.2	6.3	22.5	
Queue Length 50th (ft)	87	16	148	144	300	
Queue Length 95th (ft)	#162	45	236	217	390	
Internal Link Dist (ft)	1420			5730	3200	
Turn Bay Length (ft)	1000		250			

Lanes, Volumes, Timings
 14: N.Main St/Parade Rd (NH106) & Lexington Dr

AM 2037 B-MIT

Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Base Capacity (vph)	281	768	468	1514	1834	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.57	0.13	0.61	0.52	0.71	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 14: N.Main St/Parade Rd (NH106) & Lexington Dr

 Ø2  Ø5 73 s 26 s		 Ø6 47 s	 Ø4 17 s

HCM Signalized Intersection Capacity Analysis

14: N.Main St/Parade Rd (NH106) & Lexington Dr

AM 2037 B-MIT

Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	146	93	258	708	968	201
Future Volume (vph)	146	93	258	708	968	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1736	1827	3448	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1736	1827	3448	
Peak-hour factor, PHF	0.91	0.91	0.90	0.90	0.90	0.90
Adj. Flow (vph)	160	102	287	787	1076	223
RTOR Reduction (vph)	0	33	0	0	19	0
Lane Group Flow (vph)	160	69	287	787	1280	0
Heavy Vehicles (%)	2%	2%	4%	4%	2%	2%
Turn Type	Prot	pm+ov	Prot	NA	NA	
Protected Phases	4	5	5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	10.3	27.5	17.2	60.5	37.3	
Effective Green, g (s)	12.3	31.5	19.2	62.5	39.3	
Actuated g/C Ratio	0.15	0.38	0.23	0.75	0.47	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	262	678	402	1379	1636	
v/s Ratio Prot	c0.09	0.02	c0.17	0.43	c0.37	
v/s Ratio Perm		0.02				
v/c Ratio	0.61	0.10	0.71	0.57	0.78	
Uniform Delay, d1	33.0	16.5	29.3	4.4	18.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.2	0.1	5.9	0.6	2.5	
Delay (s)	37.2	16.6	35.2	4.9	20.7	
Level of Service	D	B	D	A	C	
Approach Delay (s)	29.2			13.0	20.7	
Approach LOS	C			B	C	
Intersection Summary						
HCM 2000 Control Delay			18.4		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.73			
Actuated Cycle Length (s)			82.8		Sum of lost time (s)	12.0
Intersection Capacity Utilization			65.6%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
14: N.Main St/Parade Rd (NH106) & Lexington Dr

PM 2037 B-MIT
Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	341	499	81	1015	967	155
Future Volume (vph)	341	499	81	1015	967	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			200
Storage Lanes	1	1	1			1
Taper Length (ft)	100		100			
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	3280	
Travel Time (s)	34.1			132.0	74.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	1%	1%	4%	4%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	379	554	90	1128	1233	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	
Total Split (s)	27.0	27.0	14.0	63.0	49.0	
Total Split (%)	30.0%	30.0%	15.6%	70.0%	54.4%	
Maximum Green (s)	21.0	21.0	8.0	57.0	43.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
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	Min	Min	
v/c Ratio	0.81	0.95	0.46	0.93	0.69	
Control Delay	46.5	47.6	45.7	29.1	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	46.5	47.6	45.7	29.1	18.7	
Queue Length 50th (ft)	204	200	49	491	268	
Queue Length 95th (ft)	#356	#417	97	#852	347	
Internal Link Dist (ft)	1420			5730	3200	
Turn Bay Length (ft)	1000		250			

Lanes, Volumes, Timings
 14: N.Main St/Parade Rd (NH106) & Lexington Dr

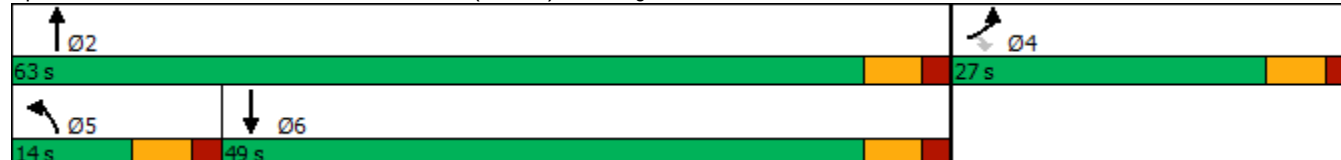
PM 2037 B-MIT
 Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Base Capacity (vph)	469	585	205	1278	1777	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.81	0.95	0.44	0.88	0.69	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 87.2
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 14: N.Main St/Parade Rd (NH106) & Lexington Dr



HCM Signalized Intersection Capacity Analysis

14: N.Main St/Parade Rd (NH106) & Lexington Dr

PM 2037 B-MIT
Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	341	499	81	1015	967	155
Future Volume (vph)	341	499	81	1015	967	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1583	1787	1881	3399	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1770	1583	1787	1881	3399	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.91	0.91
Adj. Flow (vph)	379	554	90	1128	1063	170
RTOR Reduction (vph)	0	166	0	0	14	0
Lane Group Flow (vph)	379	388	90	1128	1219	0
Heavy Vehicles (%)	2%	2%	1%	1%	4%	4%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	21.1	21.1	6.2	55.4	43.2	
Effective Green, g (s)	23.1	23.1	8.2	57.4	45.2	
Actuated g/C Ratio	0.26	0.26	0.09	0.65	0.51	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	462	413	165	1219	1735	
v/s Ratio Prot	0.21		0.05	0.60	0.36	
v/s Ratio Perm		0.24				
v/c Ratio	0.82	0.94	0.55	0.93	0.70	
Uniform Delay, d1	30.7	32.0	38.4	13.7	16.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.1	28.9	3.7	11.8	1.3	
Delay (s)	41.9	61.0	42.0	25.5	17.8	
Level of Service	D	E	D	C	B	
Approach Delay (s)	53.2			26.7	17.8	
Approach LOS	D			C	B	
Intersection Summary						
HCM 2000 Control Delay			30.8		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.98			
Actuated Cycle Length (s)			88.5		Sum of lost time (s)	12.0
Intersection Capacity Utilization			79.0%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

Lanes, Volumes, Timings
14: N.Main St/Parade Rd (NH106) & Lexington Dr

SAT 2037 B-MIT
Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (vph)	139	146	32	615	629	80
Future Volume (vph)	139	146	32	615	629	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	1000	0	250			200
Storage Lanes	1	1	1			1
Taper Length (ft)	100		100			
Right Turn on Red		Yes				Yes
Link Speed (mph)	30			30	30	
Link Distance (ft)	1500			5810	3280	
Travel Time (s)	34.1			132.0	74.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	162	36	683	788	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Detector Phase	4	4	5	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	24.0	24.0	11.0	24.0	24.0	
Total Split (s)	28.0	28.0	13.0	62.0	49.0	
Total Split (%)	31.1%	31.1%	14.4%	68.9%	54.4%	
Maximum Green (s)	22.0	22.0	7.0	56.0	43.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	
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	Min	Min	
Walk Time (s)	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	
v/c Ratio	0.35	0.32	0.12	0.62	0.44	
Control Delay	20.3	6.0	23.5	9.7	10.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.3	6.0	23.5	9.7	10.4	
Queue Length 50th (ft)	31	0	8	106	51	

Lanes, Volumes, Timings
 14: N.Main St/Parade Rd (NH106) & Lexington Dr

SAT 2037 B-MIT
 Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Queue Length 95th (ft)	101	41	38	227	162	
Internal Link Dist (ft)	1420			5730	3200	
Turn Bay Length (ft)	1000		250			
Base Capacity (vph)	887	875	332	1819	3111	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.17	0.19	0.11	0.38	0.25	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 50.6
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated

Splits and Phases: 14: N.Main St/Parade Rd (NH106) & Lexington Dr

 Ø2	 Ø4
62 s	28 s
 Ø5	 Ø6
13 s	49 s

HCM Signalized Intersection Capacity Analysis

14: N.Main St/Parade Rd (NH106) & Lexington Dr

SAT 2037 B-MIT

Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	139	146	32	615	629	80
Future Volume (vph)	139	146	32	615	629	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1599	1787	1881	3514	
Flt Permitted	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	1787	1599	1787	1881	3514	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	154	162	36	683	699	89
RTOR Reduction (vph)	0	125	0	0	12	0
Lane Group Flow (vph)	154	37	36	683	776	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%
Turn Type	Prot	Perm	Prot	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	10.3	10.3	2.2	31.8	23.6	
Effective Green, g (s)	12.3	12.3	4.2	33.8	25.6	
Actuated g/C Ratio	0.23	0.23	0.08	0.62	0.47	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	406	363	138	1175	1662	
v/s Ratio Prot	c0.09		0.02	c0.36	0.22	
v/s Ratio Perm		0.02				
v/c Ratio	0.38	0.10	0.26	0.58	0.47	
Uniform Delay, d1	17.7	16.5	23.5	6.0	9.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.1	1.0	0.7	0.2	
Delay (s)	18.3	16.7	24.5	6.7	9.8	
Level of Service	B	B	C	A	A	
Approach Delay (s)	17.4			7.6	9.8	
Approach LOS	B			A	A	
Intersection Summary						
HCM 2000 Control Delay			10.3		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.58			
Actuated Cycle Length (s)			54.1		Sum of lost time (s)	12.0
Intersection Capacity Utilization			46.7%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

MOVEMENT SUMMARY



Site: [14] 14-Lexington (CITY ROUNDABOUT)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site
Site Category: (None)
Roundabout
Site Scenario: 3 | AM 2037 BUILD - 14 CITY

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV] veh/h	%	[Total HV] veh/h	%				[Veh. veh	Dist] ft				mph
South: N. Main St															
3	L2	All MCs	287	4.0	287	4.0	0.245	5.3	LOS A	1.1	29.0	0.33	0.18	0.33	30.7
8	T1	All MCs	787	4.0	787	4.0	0.414	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	35.9
Approach			1073	4.0	1073	4.0	0.414	1.5	LOS A	1.1	29.0	0.09	0.05	0.09	34.3
North: Parade Rd (NH106)															
4	T1	All MCs	1076	2.0	1076	2.0	1.021	49.7	LOS F	53.5	1358.2	1.00	2.19	3.60	20.1
14	R2	All MCs	223	2.0	223	2.0	0.136	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
Approach			1299	2.0	1299	2.0	1.021	41.1	LOS E	53.5	1358.2	0.83	1.81	2.98	21.8
West: Lexington Dr															
5	L2	All MCs	160	2.0	160	2.0	0.317	11.9	LOS B	1.2	30.7	0.71	0.73	0.79	28.2
12	R2	All MCs	102	2.0	102	2.0	0.062	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
Approach			263	2.0	263	2.0	0.317	7.3	LOS A	1.2	30.7	0.43	0.45	0.48	30.8
All Vehicles			2635	2.8	2635	2.8	1.021	21.6	LOS C	53.5	1358.2	0.49	0.96	1.55	26.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY



Site: [14] 14-Lexington (CITY ROUNDABOUT)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: (None)

Roundabout

Site Scenario: 2 | PM 2037 BUILD - 14 CITY

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]		[Total HV]					[Veh. veh	Dist] ft				mph
			veh/h	%	veh/h	%	v/c	sec							
South: N. Main St															
3	L2	All MCs	90	1.0	90	1.0	0.091	4.5	LOS A	0.4	9.0	0.44	0.32	0.44	31.1
8	T1	All MCs	1128	1.0	1128	1.0	0.576	0.3	LOS A	0.0	0.0	0.00	0.00	0.00	35.9
Approach			1218	1.0	1218	1.0	0.576	0.6	LOS A	0.4	9.0	0.03	0.02	0.03	35.5
North: Parade Rd (NH106)															
4	T1	All MCs	1063	4.0	1063	4.0	0.848	18.0	LOS C	14.2	365.3	0.86	0.36	0.86	28.0
14	R2	All MCs	170	4.0	170	4.0	0.106	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.2
Approach			1233	4.0	1233	4.0	0.848	15.5	LOS C	14.2	365.3	0.74	0.31	0.74	28.9
West: Lexington Dr															
5	L2	All MCs	379	2.0	379	2.0	0.772	31.4	LOS D	5.1	130.4	0.88	1.10	1.63	22.8
12	R2	All MCs	554	2.0	554	2.0	0.338	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	36.1
Approach			933	2.0	933	2.0	0.772	12.8	LOS B	5.1	130.4	0.36	0.45	0.66	29.1
All Vehicles			3384	2.4	3384	2.4	0.848	9.4	LOS A	14.2	365.3	0.38	0.25	0.46	31.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: F:\TFM Projects\96126 Legacy at Laconia - Laconia, NH\96126-01 Pillsbury - NH State School Due Diligence\Traffic\SIDRA\96126-01 ROUNDABOUT.sipx

MOVEMENT SUMMARY



Site: [14] 14-Lexington (CITY ROUNDABOUT)

Output produced by SIDRA INTERSECTION Version: 10.0.5.217

New Site

Site Category: (None)

Roundabout

Site Scenario: 4 | SAT 2037 BUILD - 14 CITY

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows		Arrival Flows		Deg. Satn	Aver. Delay	Level of Service	95% Back Of Queue		Prop. Qued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			[Total HV]	[Total HV]	[Total HV]	[Total HV]				[Veh. veh	Dist] ft				mph
			veh/h	%	veh/h	%	v/c	sec							
South: N. Main St															
3	L2	All MCs	36	1.0	36	1.0	0.029	3.2	LOS A	0.1	2.8	0.26	0.13	0.26	31.6
8	T1	All MCs	683	1.0	683	1.0	0.349	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	36.0
Approach			719	1.0	719	1.0	0.349	0.3	LOS A	0.1	2.8	0.01	0.01	0.01	35.8
North: Parade Rd (NH106)															
4	T1	All MCs	699	1.0	699	1.0	0.514	7.2	LOS A	3.9	97.9	0.22	0.06	0.22	32.4
14	R2	All MCs	89	1.0	89	1.0	0.054	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.3
Approach			788	1.0	788	1.0	0.514	6.4	LOS A	3.9	97.9	0.19	0.06	0.19	32.8
West: Lexington Dr															
5	L2	All MCs	154	1.0	154	1.0	0.211	7.3	LOS A	0.8	20.8	0.60	0.53	0.60	29.9
12	R2	All MCs	162	1.0	162	1.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	36.3
Approach			317	1.0	317	1.0	0.211	3.6	LOS A	0.8	20.8	0.29	0.26	0.29	32.8
All Vehicles			1823	1.0	1823	1.0	0.514	3.5	LOS A	3.9	97.9	0.14	0.07	0.14	33.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c >1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: Siegloch M1 implied by US HCM 6 Roundabout Capacity Model.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

ATTACHMENT G

Intersection #15: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	118	5	141	95	181	5	661	74	188	733	7
Future Volume (vph)	26	118	5	141	95	181	5	661	74	188	733	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	166	0	0	464	0	6	816	0	207	813	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0		28.0	28.0		18.0	41.0		18.0	41.0	
Total Split (%)	24.6%	24.6%		24.6%	24.6%		15.8%	36.0%		15.8%	36.0%	
Maximum Green (s)	22.0	22.0		22.0	22.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.40			1.29		0.02	1.11		0.67	0.76	
Control Delay		33.1			177.6		11.8	94.2		31.1	24.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		33.1			177.6		11.8	94.2		31.1	24.0	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 NB
Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	22.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		72			~304		1	~491		59	261	
Queue Length 95th (ft)		179			#679		10	#1049		#222	#957	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		412			361		372	737		335	1066	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.40			1.29		0.02	1.11		0.62	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 91

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
18 s	41 s	27 s	28 s
 Ø5	 Ø6		 Ø8
18 s	41 s		28 s

Lane Group	Ø9

Queue Length 50th (ft)	

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

AM 2037 NB

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	118	5	141	95	181	5	661	74	188	733	7
Future Volume (vph)	26	118	5	141	95	181	5	661	74	188	733	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.94		1.00	0.98		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1838			1660		1719	1782		1711	1860	
Flt Permitted		0.83			0.75		0.14	1.00		0.09	1.00	
Satd. Flow (perm)		1538			1264		254	1782		155	1860	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	29	131	6	157	106	201	6	734	82	207	805	8
RTOR Reduction (vph)	0	2	0	0	23	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	164	0	0	441	0	6	813	0	207	813	0
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		22.3			22.3		41.7	40.6		57.2	50.1	
Effective Green, g (s)		24.3			24.3		45.7	42.6		59.2	52.1	
Actuated g/C Ratio		0.24			0.24		0.46	0.43		0.59	0.52	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		373			307		161	759		287	969	
v/s Ratio Prot							0.00	c0.46		c0.09	c0.44	
v/s Ratio Perm		0.11			c0.35		0.02			0.34		
v/c Ratio		0.44			1.43		0.04	1.07		0.72	0.84	
Uniform Delay, d1		32.1			37.9		18.2	28.7		25.2	20.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.8			213.5		0.1	53.5		8.6	6.5	
Delay (s)		32.9			251.3		18.3	82.2		33.8	26.9	
Level of Service		C			F		B	F		C	C	
Approach Delay (s)		32.9			251.3			81.7			28.3	
Approach LOS		C			F			F			C	
Intersection Summary												
HCM 2000 Control Delay			88.2			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			1.08									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			17.0			
Intersection Capacity Utilization			94.9%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	58	0	93	70	160	11	666	60	213	1034	25
Future Volume (vph)	51	58	0	93	70	160	11	666	60	213	1034	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	121	0	0	359	0	12	807	0	237	1177	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	21.0	21.0		21.0	21.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		17.5%	42.5%		17.5%	42.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.72			1.23		0.05	0.88		0.69	0.96	
Control Delay		65.0			163.6		8.7	36.4		29.9	34.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 NB
Timing Plan: NHDOT/City

Lane Group Ø9

Lane Configurations
 Traffic Volume (vph)
 Future Volume (vph)
 Ideal Flow (vphpl)
 Lane Width (ft)
 Storage Length (ft)
 Storage Lanes
 Taper Length (ft)
 Right Turn on Red
 Link Speed (mph)
 Link Distance (ft)
 Travel Time (s)
 Peak Hour Factor
 Heavy Vehicles (%)
 Parking (#/hr)
 Shared Lane Traffic (%)
 Lane Group Flow (vph)
 Enter Blocked Intersection
 Lane Alignment
 Median Width(ft)
 Link Offset(ft)
 Crosswalk Width(ft)
 Two way Left Turn Lane
 Headway Factor
 Turning Speed (mph)
 Turn Type
 Protected Phases 9
 Permitted Phases
 Detector Phase
 Switch Phase
 Minimum Initial (s) 4.0
 Minimum Split (s) 27.0
 Total Split (s) 27.0
 Total Split (%) 23%
 Maximum Green (s) 22.0
 Yellow Time (s) 3.0
 All-Red Time (s) 2.0
 Lost Time Adjust (s)
 Total Lost Time (s)
 Lead/Lag
 Lead-Lag Optimize?
 Vehicle Extension (s) 3.0
 Recall Mode None
 Walk Time (s) 5.0
 Flash Dont Walk (s) 17.0
 Pedestrian Calls (#/hr) 5
 v/c Ratio
 Control Delay
 Queue Delay

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		65.0			163.6		8.7	36.4		29.9	34.9	
Queue Length 50th (ft)		66			~239		2	385		67	433	
Queue Length 95th (ft)		#212			#560		13	#964		#239	#1489	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		167			291		387	915		386	1229	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.72			1.23		0.03	0.88		0.61	0.96	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 96

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
21 s	51 s	27 s	21 s
 Ø5	 Ø6		 Ø8
21 s	51 s		21 s

Lane Group	Ø9

Total Delay

Queue Length 50th (ft)

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

PM 2037 NB

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	58	0	93	70	160	11	666	60	213	1034	25
Future Volume (vph)	51	58	0	93	70	160	11	666	60	213	1034	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.93		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1820			1730		1770	1840		1694	1838	
Flt Permitted		0.50			0.84		0.08	1.00		0.09	1.00	
Satd. Flow (perm)		936			1469		141	1840		162	1838	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	57	64	0	103	78	178	12	740	67	237	1149	28
RTOR Reduction (vph)	0	0	0	0	28	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	121	0	0	331	0	12	805	0	237	1177	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Parking (#/hr)				0								
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.2			15.2		51.9	50.8		69.4	62.3	
Effective Green, g (s)		17.2			17.2		55.9	52.8		71.4	64.3	
Actuated g/C Ratio		0.16			0.16		0.53	0.50		0.68	0.61	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		153			240		123	924		322	1124	
v/s Ratio Prot							0.00	0.44		c0.10	c0.64	
v/s Ratio Perm		0.13			c0.22		0.05			0.40		
v/c Ratio		0.79			1.38		0.10	0.87		0.74	1.05	
Uniform Delay, d1		42.2			43.9		23.0	23.1		25.9	20.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		23.7			193.8		0.3	9.0		8.5	39.9	
Delay (s)		65.9			237.7		23.3	32.2		34.4	60.3	
Level of Service		E			F		C	C		C	E	
Approach Delay (s)		65.9			237.7			32.0			56.0	
Approach LOS		E			F			C			E	
Intersection Summary												
HCM 2000 Control Delay			73.3			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			1.07									
Actuated Cycle Length (s)			105.1			Sum of lost time (s)			17.0			
Intersection Capacity Utilization			92.4%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	30	2	35	40	105	11	427	33	90	613	9
Future Volume (vph)	19	30	2	35	40	105	11	427	33	90	613	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	56	0	0	200	0	12	511	0	100	691	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		13.0	24.0		13.0	24.0	
Total Split (s)	28.0	28.0		28.0	28.0		18.0	41.0		18.0	41.0	
Total Split (%)	24.6%	24.6%		24.6%	24.6%		15.8%	36.0%		15.8%	36.0%	
Maximum Green (s)	22.0	22.0		22.0	22.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.19			0.55		0.05	0.60		0.36	0.60	
Control Delay		29.7			27.3		38.8	23.9		37.2	17.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		29.7			27.3		38.8	23.9		37.2	17.4	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 NB
Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	22.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		18			51		4	157		36	125	
Queue Length 95th (ft)		71			171		28	#531		125	#770	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		508			576		353	1009		345	1148	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.11			0.35		0.03	0.51		0.29	0.60	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 74.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
18 s	41 s	27 s	28 s
 Ø5	 Ø6		 Ø8
18 s	41 s		28 s

Lane Group	Ø9

Queue Length 50th (ft)	

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

SAT 2037 NB

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	30	2	35	40	105	11	427	33	90	613	9
Future Volume (vph)	19	30	2	35	40	105	11	427	33	90	613	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1820			1683		1770	1843		1728	1877	
Flt Permitted		0.80			0.93		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1484			1576		1770	1843		1728	1877	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	21	33	2	39	44	117	12	474	37	100	681	10
RTOR Reduction (vph)	0	1	0	0	46	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	55	0	0	154	0	12	509	0	100	691	0
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)		13.0			13.0		1.0	36.3		8.2	43.5	
Effective Green, g (s)		15.0			15.0		3.0	38.3		10.2	45.5	
Actuated g/C Ratio		0.18			0.18		0.04	0.46		0.12	0.55	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		266			283		63	846		211	1024	
v/s Ratio Prot							0.01	0.28		c0.06	c0.37	
v/s Ratio Perm		0.04			c0.10							
v/c Ratio		0.21			0.54		0.19	0.60		0.47	0.67	
Uniform Delay, d1		29.1			31.1		39.0	16.8		34.1	13.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			2.1		1.5	1.2		1.7	1.8	
Delay (s)		29.5			33.2		40.5	18.1		35.8	15.4	
Level of Service		C			C		D	B		D	B	
Approach Delay (s)		29.5			33.2			18.6			18.0	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			20.5			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			83.4			Sum of lost time (s)			17.0			
Intersection Capacity Utilization			60.3%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	0	0	489	0	6	982	0	218	1164	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0		28.0	28.0		18.0	41.0		18.0	41.0	
Total Split (%)	24.6%	24.6%		24.6%	24.6%		15.8%	36.0%		15.8%	36.0%	
Maximum Green (s)	22.0	22.0		22.0	22.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.59			1.35		0.02	1.34		0.69	1.09	
Control Delay		40.2			205.3		11.8	186.6		32.8	77.3	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		40.2			205.3		11.8	186.6		32.8	77.3	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	22.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		92			~337		1	~697		66	564	
Queue Length 95th (ft)		#248			#718		10	#1318		#242	#1528	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		331			361		336	735		334	1067	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.59			1.35		0.02	1.34		0.65	1.09	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 91.3

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
18 s	41 s	27 s	28 s
 Ø5	 Ø6		 Ø8
18 s	41 s		28 s

Lane Group	Ø9

Queue Length 50th (ft)	

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

AM 2037 B

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.94		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1828			1654		1719	1787		1711	1858	
Flt Permitted		0.67			0.75		0.09	1.00		0.09	1.00	
Satd. Flow (perm)		1241			1263		170	1787		155	1858	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	59	131	6	157	106	226	6	900	82	218	1144	20
RTOR Reduction (vph)	0	1	0	0	26	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	195	0	0	463	0	6	980	0	218	1164	0
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		22.3			22.3		41.7	40.6		57.6	50.5	
Effective Green, g (s)		24.3			24.3		45.7	42.6		59.6	52.5	
Actuated g/C Ratio		0.24			0.24		0.46	0.42		0.59	0.52	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		300			305		125	758		293	971	
v/s Ratio Prot							0.00	c0.55		c0.10	c0.63	
v/s Ratio Perm		0.16			c0.37		0.02			0.35		
v/c Ratio		0.65			1.52		0.05	1.29		0.74	1.20	
Uniform Delay, d1		34.2			38.1		22.4	28.9		26.1	24.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		5.0			249.6		0.2	141.4		9.8	99.3	
Delay (s)		39.2			287.7		22.6	170.3		35.9	123.2	
Level of Service		D			F		C	F		D	F	
Approach Delay (s)		39.2			287.7			169.4			109.5	
Approach LOS		D			F			F			F	
Intersection Summary												
HCM 2000 Control Delay			152.9			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.25									
Actuated Cycle Length (s)			100.4			Sum of lost time (s)			17.0			
Intersection Capacity Utilization			105.9%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	375	0	12	1175	0	261	1536	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	21.0	21.0		21.0	21.0		21.0	51.0		21.0	51.0	
Total Split (%)	17.5%	17.5%		17.5%	17.5%		17.5%	42.5%		17.5%	42.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		15.0	45.0		15.0	45.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.01			1.28		0.05	1.30		0.76	1.24	
Control Delay		120.5			183.3		8.7	167.5		39.4	136.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		120.5			183.3		8.7	167.5		39.4	136.4	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	23%
Maximum Green (s)	22.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		84			~261		2	~881		97	~1075	
Queue Length 95th (ft)		#270			#582		13	#1585		#310	#2084	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		141			292		382	905		365	1234	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		1.01			1.28		0.03	1.30		0.72	1.24	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 97.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
21 s	51 s	27 s	21 s
 Ø5	 Ø6		 Ø8
21 s	51 s		21 s

Lane Group	Ø9

Queue Length 50th (ft)	

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

PM 2037 B

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.93		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1813			1726		1770	1847		1694	1834	
Flt Permitted		0.43			0.84		0.08	1.00		0.07	1.00	
Satd. Flow (perm)		801			1478		142	1847		126	1834	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	64	0	103	78	194	12	1108	67	261	1477	59
RTOR Reduction (vph)	0	0	0	0	31	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	142	0	0	344	0	12	1173	0	261	1535	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.2			15.2		51.7	50.6		70.4	63.3	
Effective Green, g (s)		17.2			17.2		55.7	52.6		72.4	65.3	
Actuated g/C Ratio		0.16			0.16		0.52	0.50		0.68	0.61	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		129			239		121	914		319	1127	
v/s Ratio Prot							0.00	0.64		c0.12	c0.84	
v/s Ratio Perm		0.18			c0.23		0.05			0.44		
v/c Ratio		1.10			1.44		0.10	1.28		0.82	1.36	
Uniform Delay, d1		44.5			44.5		23.3	26.8		32.7	20.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		108.8			219.9		0.4	136.1		14.9	168.8	
Delay (s)		153.3			264.4		23.6	162.9		47.6	189.3	
Level of Service		F			F		C	F		D	F	
Approach Delay (s)		153.3			264.4			161.5			168.7	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay		175.9										
HCM 2000 Volume to Capacity ratio		1.32										
Actuated Cycle Length (s)		106.2										
Intersection Capacity Utilization		109.5%										
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	243	0	12	695	0	134	900	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		13.0	13.0		13.0	13.0	
Total Split (s)	28.0	28.0		28.0	28.0		18.0	41.0		18.0	41.0	
Total Split (%)	24.6%	24.6%		24.6%	24.6%		15.8%	36.0%		15.8%	36.0%	
Maximum Green (s)	22.0	22.0		22.0	22.0		12.0	35.0		12.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.44			0.65		0.04	0.80		0.36	0.76	
Control Delay		38.8			30.2		10.5	29.9		11.4	21.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		38.8			30.2		10.5	29.9		11.4	21.2	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	22.0
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	17.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		33			68		1	241		18	212	
Queue Length 95th (ft)		103			199		15	#837		91	#1100	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		291			539		422	873		442	1179	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.29			0.45		0.03	0.80		0.30	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 81.1

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St

 Ø1	 Ø2	 Ø9	 Ø4
18 s	41 s	27 s	28 s
 Ø5	 Ø6		 Ø8
18 s	41 s		28 s

Lane Group	Ø9

Queue Length 50th (ft)	

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

SAT 2037 B

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.91		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805			1667		1770	1848		1728	1871	
Flt Permitted		0.51			0.94		0.12	1.00		0.15	1.00	
Satd. Flow (perm)		949			1586		228	1848		281	1871	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	33	2	39	44	160	12	658	37	134	866	34
RTOR Reduction (vph)	0	1	0	0	63	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	82	0	0	180	0	12	693	0	134	899	0
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.9			13.9		42.6	41.6		56.1	49.1	
Effective Green, g (s)		15.9			15.9		46.6	43.6		58.1	51.1	
Actuated g/C Ratio		0.18			0.18		0.52	0.48		0.64	0.57	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		167			279		169	894		349	1061	
v/s Ratio Prot							0.00	0.38		c0.04	c0.48	
v/s Ratio Perm		0.09			c0.11		0.03			0.20		
v/c Ratio		0.49			0.64		0.07	0.78		0.38	0.85	
Uniform Delay, d1		33.5			34.5		14.9	19.2		12.0	16.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.3			5.0		0.2	4.3		0.7	6.4	
Delay (s)		35.7			39.5		15.0	23.5		12.7	22.7	
Level of Service		D			D		B	C		B	C	
Approach Delay (s)		35.7			39.5			23.3			21.4	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			24.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			90.1			Sum of lost time (s)			17.0			
Intersection Capacity Utilization			71.6%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106)/N.Main St & Oak St

AM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	0	0	489	0	6	982	0	218	1164	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		13.0	28.0		13.0	28.0	
Total Split (s)	34.0	34.0		34.0	34.0		13.0	57.0		15.0	59.0	
Total Split (%)	28.3%	28.3%		28.3%	28.3%		10.8%	47.5%		12.5%	49.2%	
Maximum Green (s)	28.0	28.0		28.0	28.0		7.0	51.0		9.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	1	1		2	2			0			2	
v/c Ratio		0.56			1.31		0.03	1.12		0.91	1.04	
Control Delay		41.9			190.0		11.2	98.3		78.9	59.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		41.9			190.0		11.2	98.3		78.9	59.7	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	2	3
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
15: N.Main St (NH106)/N.Main St & Oak St

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		112			~408		1	~758		97	694	
Queue Length 95th (ft)		219			#710		8	#1203		#291	#1460	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		349			373		208	874		239	1123	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.56			1.31		0.03	1.12		0.91	1.04	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 108.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

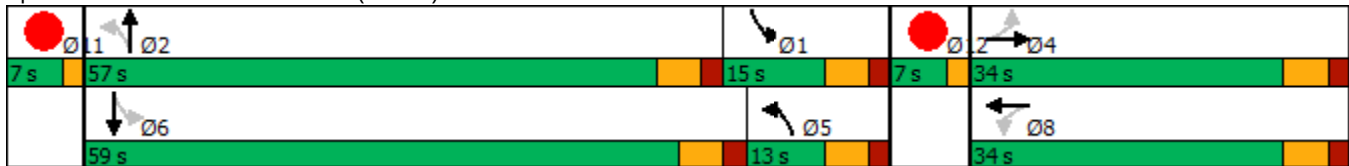
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106)/N.Main St & Oak St



Lane Group	Ø11	Ø12

Queue Length 50th (ft)		

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106)/N.Main St & Oak St

AM 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.94		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1828			1654		1719	1787		1711	1858	
Flt Permitted		0.68			0.75		0.08	1.00		0.07	1.00	
Satd. Flow (perm)		1259			1261		136	1787		126	1858	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	59	131	6	157	106	226	6	900	82	218	1144	20
RTOR Reduction (vph)	0	1	0	0	25	0	0	3	0	0	0	0
Lane Group Flow (vph)	0	195	0	0	464	0	6	979	0	218	1164	0
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		28.1			28.1		52.4	51.1		71.1	63.8	
Effective Green, g (s)		30.1			30.1		56.4	53.1		73.1	65.8	
Actuated g/C Ratio		0.26			0.26		0.48	0.45		0.62	0.56	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		323			324		110	811		295	1044	
v/s Ratio Prot							0.00	c0.55		c0.10	c0.63	
v/s Ratio Perm		0.16			c0.37		0.02			0.36		
v/c Ratio		0.60			1.43		0.05	1.21		0.74	1.11	
Uniform Delay, d1		38.2			43.5		51.6	31.9		44.8	25.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.2			211.0		0.2	104.9		9.3	64.9	
Delay (s)		41.4			254.5		51.8	136.8		54.1	90.5	
Level of Service		D			F		D	F		D	F	
Approach Delay (s)		41.4			254.5			136.3			84.7	
Approach LOS		D			F			F			F	
Intersection Summary												
HCM 2000 Control Delay		125.8										
HCM 2000 Volume to Capacity ratio		1.23										
Actuated Cycle Length (s)		117.0										
Intersection Capacity Utilization		105.9%										
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106)/N.Main St & Oak St

PM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	375	0	12	1175	0	261	1536	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		1.0	1.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		21.0	21.0		13.0	28.0		13.0	28.0	
Total Split (s)	25.0	25.0		25.0	25.0		13.0	63.0		18.0	68.0	
Total Split (%)	20.8%	20.8%		20.8%	20.8%		10.8%	52.5%		15.0%	56.7%	
Maximum Green (s)	19.0	19.0		19.0	19.0		7.0	57.0		12.0	62.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?								Yes		Yes		
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		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	0	0		2	2			0			3	
v/c Ratio		0.94			1.18		0.06	1.17		0.92	1.22	
Control Delay		103.7			145.2		8.5	112.6		75.2	125.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		103.7			145.2		8.5	112.6		75.2	125.1	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
 15: N.Main St (NH106)/N.Main St & Oak St

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		95			~280		2	~939		126	~1237	
Queue Length 95th (ft)		#250			#541		10	#1430		#337	#1969	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		151			317		215	1005		283	1262	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.94			1.18		0.06	1.17		0.92	1.22	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 108.8

Natural Cycle: 150

Control Type: Semi Act-Uncoord

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106)/N.Main St & Oak St



Lane Group	Ø11	Ø12

Queue Length 50th (ft)		

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106)/N.Main St & Oak St

PM 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.93		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1813			1726		1770	1847		1694	1834	
Flt Permitted		0.42			0.84		0.07	1.00		0.06	1.00	
Satd. Flow (perm)		785			1479		126	1847		113	1834	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	64	0	103	78	194	12	1108	67	261	1477	59
RTOR Reduction (vph)	0	0	0	0	32	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	142	0	0	343	0	12	1173	0	261	1535	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.0			19.0		58.4	57.1		80.1	72.8	
Effective Green, g (s)		21.0			21.0		62.4	59.1		82.1	74.8	
Actuated g/C Ratio		0.18			0.18		0.53	0.51		0.70	0.64	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		141			265		113	933		336	1173	
v/s Ratio Prot							0.00	0.64		c0.13	c0.84	
v/s Ratio Perm		0.18			c0.23		0.05			0.42		
v/c Ratio		1.01			1.29		0.11	1.26		0.78	1.31	
Uniform Delay, d1		48.0			48.0		51.7	28.9		43.2	21.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		77.7			157.6		0.4	124.5		10.7	145.1	
Delay (s)		125.6			205.5		52.1	153.4		54.0	166.1	
Level of Service		F			F		D	F		D	F	
Approach Delay (s)		125.6			205.5			152.4			149.8	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay		155.7										
HCM 2000 Volume to Capacity ratio		1.28										
Actuated Cycle Length (s)		116.9										
Intersection Capacity Utilization		109.5%										
Analysis Period (min)		15										
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106)/N.Main St & Oak St

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	243	0	12	695	0	134	900	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		11.0	21.0		11.0	21.0	
Total Split (s)	23.0	23.0		23.0	23.0		13.0	70.0		13.0	70.0	
Total Split (%)	19.2%	19.2%		19.2%	19.2%		10.8%	58.3%		10.8%	58.3%	
Maximum Green (s)	17.0	17.0		17.0	17.0		7.0	64.0		7.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	2	2		0	0			3			0	
v/c Ratio		0.40			0.64		0.05	0.73		0.38	0.74	
Control Delay		40.6			33.3		6.5	21.0		15.7	17.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		40.6			33.3		6.5	21.0		15.7	17.0	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
15: N.Main St (NH106)/N.Main St & Oak St

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		34			75		2	247		21	249	
Queue Length 95th (ft)		113			#256		10	514		60	#806	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		251			444		298	1513		380	1531	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.33			0.55		0.04	0.46		0.35	0.59	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 82

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106)/N.Main St & Oak St



Lane Group	Ø11	Ø12

Queue Length 50th (ft)		

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106)/N.Main St & Oak St

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.91		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805			1667		1770	1848		1728	1871	
Flt Permitted		0.55			0.94		0.10	1.00		0.17	1.00	
Satd. Flow (perm)		1013			1583		178	1848		314	1871	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	33	2	39	44	160	12	658	37	134	866	34
RTOR Reduction (vph)	0	1	0	0	56	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	82	0	0	187	0	12	693	0	134	899	0
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.8			14.8		40.7	39.9		57.6	50.8	
Effective Green, g (s)		16.8			16.8		44.7	41.9		59.6	52.8	
Actuated g/C Ratio		0.19			0.19		0.50	0.47		0.66	0.59	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		189			296		138	862		424	1100	
v/s Ratio Prot							0.00	0.37		c0.05	c0.48	
v/s Ratio Perm		0.08			c0.12		0.04			0.16		
v/c Ratio		0.43			0.63		0.09	0.80		0.32	0.82	
Uniform Delay, d1		32.3			33.6		34.5	20.4		21.6	14.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.6			4.3		0.3	5.5		0.4	4.8	
Delay (s)		33.9			38.0		34.7	25.9		22.1	19.5	
Level of Service		C			D		C	C		C	B	
Approach Delay (s)		33.9			38.0			26.1			19.8	
Approach LOS		C			D			C			B	
Intersection Summary												
HCM 2000 Control Delay			24.7			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			89.8			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			70.0%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	196	0	0	489	0	6	982	0	218	1164	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		13.0	28.0		13.0	28.0	
Total Split (s)	47.0	47.0		47.0	47.0		13.0	43.0		16.0	46.0	
Total Split (%)	39.2%	39.2%		39.2%	39.2%		10.8%	35.8%		13.3%	38.3%	
Maximum Green (s)	41.0	41.0		41.0	41.0		7.0	37.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	1	1		2	2			0			2	
v/c Ratio		0.35			0.88		0.03	0.83		0.84	0.69	
Control Delay		25.8			46.4		17.2	39.2		66.0	26.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		25.8			46.4		17.2	39.2		66.0	26.1	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	2	3
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		90			279		2	305		92	285	
Queue Length 95th (ft)		180			#575		10	#493		#273	#599	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		562			562		213	1254		261	1683	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.35			0.87		0.03	0.78		0.84	0.69	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 106.4

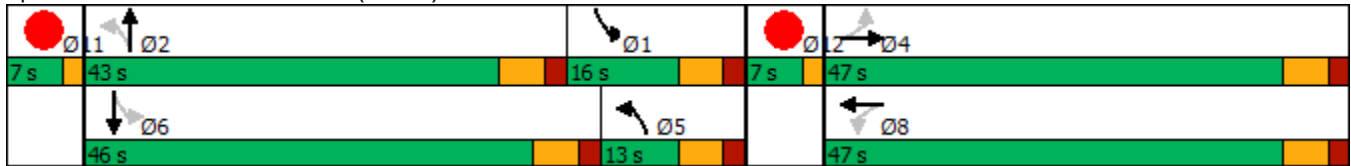
Natural Cycle: 100

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St



Lane Group	Ø11	Ø12
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

AM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Future Volume (vph)	53	118	5	141	95	203	5	810	74	198	1041	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		1.00			0.94		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1828			1654		1719	3395		1711	3530	
Flt Permitted		0.75			0.79		0.11	1.00		0.10	1.00	
Satd. Flow (perm)		1384			1328		196	3395		176	3530	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	59	131	6	157	106	226	6	900	82	218	1144	20
RTOR Reduction (vph)	0	1	0	0	25	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	195	0	0	464	0	6	977	0	218	1163	0
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	2%	2%	2%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		40.9			40.9		36.2	35.0		55.9	48.7	
Effective Green, g (s)		42.9			42.9		40.2	37.0		57.9	50.7	
Actuated g/C Ratio		0.37			0.37		0.35	0.32		0.51	0.44	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		518			497		111	1096		315	1561	
v/s Ratio Prot							0.00	c0.29		c0.10	c0.33	
v/s Ratio Perm		0.14			c0.35		0.02			0.25		
v/c Ratio		0.38			0.93		0.05	0.89		0.69	0.74	
Uniform Delay, d1		26.1			34.5		46.9	36.9		38.5	26.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.5			24.7		0.2	9.3		6.4	2.0	
Delay (s)		26.6			59.2		47.1	46.2		44.9	28.5	
Level of Service		C			E		D	D		D	C	
Approach Delay (s)		26.6			59.2			46.2			31.1	
Approach LOS		C			E			D			C	
Intersection Summary												
HCM 2000 Control Delay			40.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			114.6			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			79.9%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	0	375	0	12	1175	0	261	1536	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		1.0	1.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		21.0	21.0		13.0	28.0		13.0	28.0	
Total Split (s)	34.0	34.0		34.0	34.0		13.0	49.0		23.0	59.0	
Total Split (%)	28.3%	28.3%		28.3%	28.3%		10.8%	40.8%		19.2%	49.2%	
Maximum Green (s)	28.0	28.0		28.0	28.0		7.0	43.0		17.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?								Yes		Yes		
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		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	0	0		2	2			0			3	
v/c Ratio		0.50			0.83		0.05	0.81		0.75	0.74	
Control Delay		41.0			49.2		12.2	33.0		48.7	19.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		41.0			49.2		12.2	33.0		48.7	19.9	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		80			213		3	353		112	320	
Queue Length 95th (ft)		168			#444		13	#554		#272	#764	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		298			475		230	1564		387	2122	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.48			0.79		0.05	0.75		0.67	0.72	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 102.8

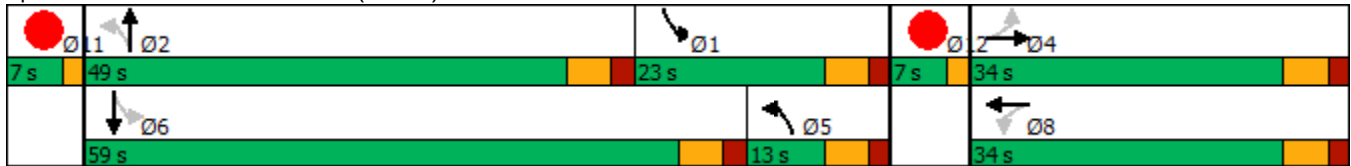
Natural Cycle: 100

Control Type: Semi Act-Uncoord

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 15: N.Main St (NH106) & Oak St



Lane Group	Ø11	Ø12
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

PM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Future Volume (vph)	70	58	0	93	70	175	11	997	60	235	1329	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		1.00			0.93		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1813			1726		1770	3509		1694	3485	
Flt Permitted		0.54			0.86		0.09	1.00		0.09	1.00	
Satd. Flow (perm)		1006			1500		176	3509		154	3485	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	78	64	0	103	78	194	12	1108	67	261	1477	59
RTOR Reduction (vph)	0	0	0	0	32	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	142	0	0	343	0	12	1171	0	261	1534	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	3%	3%	3%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.8			26.8		41.5	40.3		66.3	59.1	
Effective Green, g (s)		28.8			28.8		45.5	42.3		68.3	61.1	
Actuated g/C Ratio		0.26			0.26		0.41	0.38		0.62	0.55	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		261			389		118	1338		400	1920	
v/s Ratio Prot							0.00	c0.33		c0.13	c0.44	
v/s Ratio Perm		0.14			c0.23		0.04			0.27		
v/c Ratio		0.54			0.88		0.10	0.88		0.65	0.80	
Uniform Delay, d1		35.4			39.4		47.3	31.9		33.0	20.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		2.3			20.3		0.4	6.7		3.8	2.4	
Delay (s)		37.7			59.7		47.7	38.5		36.8	22.4	
Level of Service		D			E		D	D		D	C	
Approach Delay (s)		37.7			59.7			38.6			24.5	
Approach LOS		D			E			D			C	
Intersection Summary												
HCM 2000 Control Delay			33.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			110.9			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			74.8%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	11	12	12
Storage Length (ft)	0		0	0		0	80		0	160		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			50			60		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			500			1190			5810	
Travel Time (s)		11.4			11.4			27.0			132.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	83	0	0	243	0	12	695	0	134	900	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	21.0	21.0		21.0	21.0		11.0	21.0		11.0	21.0	
Total Split (s)	38.0	38.0		38.0	38.0		11.0	49.0		19.0	57.0	
Total Split (%)	31.7%	31.7%		31.7%	31.7%		9.2%	40.8%		15.8%	47.5%	
Maximum Green (s)	32.0	32.0		32.0	32.0		5.0	43.0		13.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-2.0			-2.0		-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							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	None	None		None	None		None	Min		None	Min	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			10.0			10.0	
Pedestrian Calls (#/hr)	2	2		0	0			3			0	
v/c Ratio		0.27			0.53		0.03	0.55		0.29	0.45	
Control Delay		24.4			20.1		9.1	18.9		13.4	11.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		24.4			20.1		9.1	18.9		13.4	11.5	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		

Lanes, Volumes, Timings
15: N.Main St (NH106) & Oak St

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)		20			42		1	85		16	69	
Queue Length 95th (ft)		86			168		12	250		74	296	
Internal Link Dist (ft)		420			420			1110			5730	
Turn Bay Length (ft)							80			160		
Base Capacity (vph)		734			987		350	2786		671	3118	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.11			0.25		0.03	0.25		0.20	0.29	

Intersection Summary

Area Type: Other

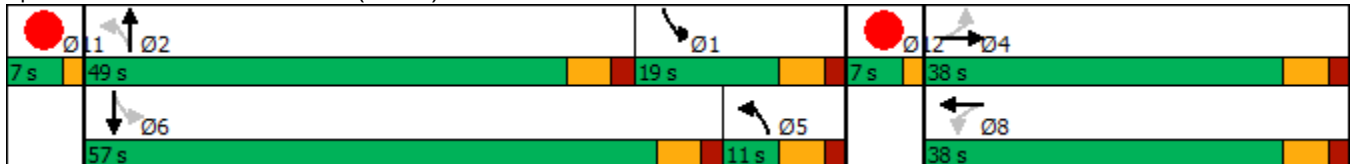
Cycle Length: 120

Actuated Cycle Length: 61.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 15: N.Main St (NH106) & Oak St



Lane Group	Ø11	Ø12
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

HCM Signalized Intersection Capacity Analysis

15: N.Main St (NH106) & Oak St

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Future Volume (vph)	43	30	2	35	40	144	11	592	33	121	779	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	12	12	12	11	12	12
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		1.00			0.91		1.00	0.99		1.00	0.99	
Flt Protected		0.97			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1805			1667		1770	3511		1728	3554	
Flt Permitted		0.65			0.94		0.19	1.00		0.27	1.00	
Satd. Flow (perm)		1208			1575		360	3511		485	3554	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	48	33	2	39	44	160	12	658	37	134	866	34
RTOR Reduction (vph)	0	1	0	0	63	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	82	0	0	180	0	12	692	0	134	898	0
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.2			13.2		20.4	19.8		38.6	32.0	
Effective Green, g (s)		15.2			15.2		24.4	21.8		40.6	34.0	
Actuated g/C Ratio		0.22			0.22		0.35	0.32		0.59	0.49	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		266			346		180	1109		551	1751	
v/s Ratio Prot							0.00	c0.20		c0.05	c0.25	
v/s Ratio Perm		0.07			c0.11		0.02			0.09		
v/c Ratio		0.31			0.52		0.07	0.62		0.24	0.51	
Uniform Delay, d1		22.5			23.7		20.9	20.1		11.9	11.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			1.3		0.2	1.1		0.2	0.3	
Delay (s)		23.2			25.0		21.0	21.2		12.1	12.1	
Level of Service		C			C		C	C		B	B	
Approach Delay (s)		23.2			25.0			21.2			12.1	
Approach LOS		C			C			C			B	
Intersection Summary												
HCM 2000 Control Delay			17.2			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			69.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			49.6%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

ATTACHMENT H

Intersection #19: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

AM 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	7	35	707	675	185
Future Volume (vph)	88	7	35	707	675	185
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	4%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	825	956	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

AM 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	7	35	707	675	185
Future Volume (Veh/h)	88	7	35	707	675	185
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	98	8	39	786	750	206
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.71	0.56	0.56			
vC, conflicting volume	1717	853	956			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	891	352	534			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	52	98	93			
cM capacity (veh/h)	205	387	577			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	106	825	956			
Volume Left	98	39	0			
Volume Right	8	0	206			
cSH	212	577	1700			
Volume to Capacity	0.50	0.07	0.56			
Queue Length 95th (ft)	63	5	0			
Control Delay (s)	37.8	2.0	0.0			
Lane LOS	E	A				
Approach Delay (s)	37.8	2.0	0.0			
Approach LOS	E					
Intersection Summary						
Average Delay			3.0			
Intersection Capacity Utilization			77.7%	ICU Level of Service		D
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

PM 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	95	14	25	666	877	309
Future Volume (vph)	95	14	25	666	877	309
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	122	0	0	768	1304	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

PM 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	95	14	25	666	877	309
Future Volume (Veh/h)	95	14	25	666	877	309
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	106	16	28	740	964	340
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.53	0.40	0.40			
vC, conflicting volume	1930	1134	1304			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1195	590	1013			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	92	90			
cM capacity (veh/h)	99	204	275			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	122	768	1304			
Volume Left	106	28	0			
Volume Right	16	0	340			
cSH	106	275	1700			
Volume to Capacity	1.15	0.10	0.77			
Queue Length 95th (ft)	196	8	0			
Control Delay (s)	209.9	4.1	0.0			
Lane LOS	F	A				
Approach Delay (s)	209.9	4.1	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			13.1			
Intersection Capacity Utilization			77.7%	ICU Level of Service		D
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

SAT 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	12	19	410	466	209
Future Volume (vph)	88	12	19	410	466	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	472	750	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

SAT 2037 NB
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	12	19	410	466	209
Future Volume (Veh/h)	88	12	19	410	466	209
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	98	13	21	451	518	232
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.78	0.70	0.70			
vC, conflicting volume	1127	634	750			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	529	254	421			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	75	98	97			
cM capacity (veh/h)	387	545	791			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	111	472	750			
Volume Left	98	21	0			
Volume Right	13	0	232			
cSH	401	791	1700			
Volume to Capacity	0.28	0.03	0.44			
Queue Length 95th (ft)	28	2	0			
Control Delay (s)	17.4	0.8	0.0			
Lane LOS	C	A				
Approach Delay (s)	17.4	0.8	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			49.5%	ICU Level of Service		A
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

AM 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	163	7	35	781	786	381
Future Volume (vph)	163	7	35	781	786	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	4%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	189	0	0	907	1296	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

AM 2037 B

Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	163	7	35	781	786	381
Future Volume (Veh/h)	163	7	35	781	786	381
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	181	8	39	868	873	423
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.63	0.49	0.49			
vC, conflicting volume	2030	1084	1296			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1347	652	1084			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	96	87			
cM capacity (veh/h)	91	228	312			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	189	907	1296			
Volume Left	181	39	0			
Volume Right	8	0	423			
cSH	93	312	1700			
Volume to Capacity	2.03	0.13	0.76			
Queue Length 95th (ft)	408	11	0			
Control Delay (s)	573.2	5.2	0.0			
Lane LOS	F	A				
Approach Delay (s)	573.2	5.2	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			47.3			
Intersection Capacity Utilization			85.7%	ICU Level of Service		E
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

PM 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	265	14	25	826	1045	433
Future Volume (vph)	265	14	25	826	1045	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	310	0	0	946	1624	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

PM 2037 B
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	265	14	25	826	1045	433
Future Volume (Veh/h)	265	14	25	826	1045	433
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	294	16	28	918	1148	476
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.53	0.40	0.40			
vC, conflicting volume	2360	1386	1624			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1998	1214	1811			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	82	79			
cM capacity (veh/h)	28	88	135			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	310	946	1624			
Volume Left	294	28	0			
Volume Right	16	0	476			
cSH	29	135	1700			
Volume to Capacity	10.74	0.21	0.96			
Queue Length 95th (ft)	Err	19	0			
Control Delay (s)	Err	17.9	0.0			
Lane LOS	F	C				
Approach Delay (s)	Err	17.9	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			1082.2			
Intersection Capacity Utilization			103.6%	ICU Level of Service		G
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

SAT 2037 B
Timing Plan: NHDOT/City

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	124	12	19	538	583	257
Future Volume (vph)	124	12	19	538	583	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	1190	
Travel Time (s)	29.9			6.8	27.0	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	0	0	612	934	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

SAT 2037 B
Timing Plan: NHDOT/City

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	124	12	19	538	583	257
Future Volume (Veh/h)	124	12	19	538	583	257
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	138	13	21	591	648	286
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.62	0.51	0.51			
vC, conflicting volume	1424	791	934			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	561	97	380			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	53	97	96			
cM capacity (veh/h)	291	485	596			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	151	612	934			
Volume Left	138	21	0			
Volume Right	13	0	286			
cSH	302	596	1700			
Volume to Capacity	0.50	0.04	0.55			
Queue Length 95th (ft)	66	3	0			
Control Delay (s)	28.3	1.0	0.0			
Lane LOS	D	A				
Approach Delay (s)	28.3	1.0	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			60.6%	ICU Level of Service		B
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

AM 2037 B-MIT-L

Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	163	7	35	781	786	381
Future Volume (vph)	163	7	35	781	786	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100	0			200
Storage Lanes	1	1	0			1
Taper Length (ft)	25		25			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	620	
Travel Time (s)	29.9			6.8	14.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	4%	4%	4%	4%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	181	8	0	907	873	423
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

AM 2037 B-MIT-L

Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	163	7	35	781	786	381
Future Volume (Veh/h)	163	7	35	781	786	381
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	181	8	39	868	873	423
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		4				
Median type				None	None	
Median storage veh						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.80	0.63	0.63			
vC, conflicting volume	1819	873	873			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	955	510	510			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	16	98	94			
cM capacity (veh/h)	214	354	662			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	189	907	873	423		
Volume Left	181	39	0	0		
Volume Right	8	0	0	423		
cSH	223	662	1700	1700		
Volume to Capacity	0.85	0.06	0.51	0.25		
Queue Length 95th (ft)	164	5	0	0		
Control Delay (s)	72.8	1.7	0.0	0.0		
Lane LOS	F	A				
Approach Delay (s)	72.8	1.7	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			6.4			
Intersection Capacity Utilization			85.2%	ICU Level of Service	E	
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

PM 2037 B-MIT-L

Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	265	14	25	826	1045	433
Future Volume (vph)	265	14	25	826	1045	433
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100	0			200
Storage Lanes	1	1	0			1
Taper Length (ft)	25		25			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	620	
Travel Time (s)	29.9			6.8	14.1	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	294	16	0	946	1148	476
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

PM 2037 B-MIT-L

Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	265	14	25	826	1045	433
Future Volume (Veh/h)	265	14	25	826	1045	433
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.91	0.91
Hourly flow rate (vph)	294	16	28	918	1148	476
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		4				
Median type				None	None	
Median storage veh						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.64	0.48	0.48			
vC, conflicting volume	2122	1148	1148			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1330	767	767			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	92	93			
cM capacity (veh/h)	102	193	407			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	310	946	1148	476		
Volume Left	294	28	0	0		
Volume Right	16	0	0	476		
cSH	105	407	1700	1700		
Volume to Capacity	2.96	0.07	0.68	0.28		
Queue Length 95th (ft)	740	6	0	0		
Control Delay (s)	970.4	2.5	0.0	0.0		
Lane LOS	F	A				
Approach Delay (s)	970.4	2.5	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			105.3			
Intersection Capacity Utilization			85.0%	ICU Level of Service	E	
Analysis Period (min)			15			

Lanes, Volumes, Timings
19: N.Main St (NH106) & New Salem St

SAT 2037 B-MIT-L

Timing Plan: MIT

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	124	12	19	538	583	257
Future Volume (vph)	124	12	19	538	583	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	100	0			200
Storage Lanes	1	1	0			1
Taper Length (ft)	25		25			
Link Speed (mph)	30			30	30	
Link Distance (ft)	1314			300	620	
Travel Time (s)	29.9			6.8	14.1	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	138	13	0	612	648	286
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

19: N.Main St (NH106) & New Salem St

SAT 2037 B-MIT-L

Timing Plan: MIT

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	124	12	19	538	583	257
Future Volume (Veh/h)	124	12	19	538	583	257
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.91	0.91	0.90	0.90
Hourly flow rate (vph)	138	13	21	591	648	286
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		4				
Median type				None	None	
Median storage veh						
Upstream signal (ft)				300	1190	
pX, platoon unblocked	0.87	0.76	0.76			
vC, conflicting volume	1281	648	648			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	676	380	380			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	61	97	98			
cM capacity (veh/h)	357	507	896			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	151	612	648	286		
Volume Left	138	21	0	0		
Volume Right	13	0	0	286		
cSH	390	896	1700	1700		
Volume to Capacity	0.39	0.02	0.38	0.17		
Queue Length 95th (ft)	45	2	0	0		
Control Delay (s)	20.5	0.6	0.0	0.0		
Lane LOS	C	A				
Approach Delay (s)	20.5	0.6	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			57.2%	ICU Level of Service		B
Analysis Period (min)			15			

ATTACHMENT I

Intersection #16: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	188	104	548	26	153	0	533
Future Volume (vph)	2	65	0	0	301	188	104	548	26	153	0	533
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	72	0	0	334	209	116	609	29	170	0	592
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	3.0	4.0	4.0	4.0	3.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.01	0.14			0.65	0.22	0.22	1.12	0.05	0.49		0.67
Control Delay	26.5	24.6			33.0	2.7	25.1	102.7	0.2	33.3		7.2
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	26.5	24.6			33.0	2.7	25.1	102.7	0.2	33.3		7.2
Queue Length 50th (ft)	1	21			115	0	35	~288	0	63		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	26%
Maximum Green (s)	25.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	7	79			#371	40	117	#786	0	164		107
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	184	551			551	1073	519	546	547	524		883
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.01	0.13			0.61	0.19	0.22	1.12	0.05	0.32		0.67

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 72.7

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	188	104	548	26	153	0	533
Future Volume (vph)	2	65	0	0	301	188	104	548	26	153	0	533
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1752	1845			1845	1568	1736	1827	1553	1752		1568
Flt Permitted	0.33	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	616	1845			1845	1568	1736	1827	1553	1752		1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	72	0	0	334	209	116	609	29	170	0	592
RTOR Reduction (vph)	0	0	0	0	0	111	0	0	20	0	0	418
Lane Group Flow (vph)	2	72	0	0	334	98	116	609	9	170	0	174
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)	18.3	18.3			18.3	30.5	19.7	19.7	19.7	12.2		19.7
Effective Green, g (s)	20.3	20.3			20.3	34.5	21.7	21.7	21.7	14.2		21.7
Actuated g/C Ratio	0.28	0.28			0.28	0.47	0.29	0.29	0.29	0.19		0.29
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	4.0	4.0			4.0	3.0	4.0	4.0	4.0	3.0		4.0
Lane Grp Cap (vph)	169	507			507	817	510	537	456	337		461
v/s Ratio Prot		0.04			c0.18	0.02		c0.33		c0.10		
v/s Ratio Perm	0.00					0.04	0.07		0.01			0.11
v/c Ratio	0.01	0.14			0.66	0.12	0.23	1.13	0.02	0.50		0.38
Uniform Delay, d1	19.5	20.2			23.7	11.1	19.7	26.0	18.5	26.7		20.7
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.0	0.2			3.4	0.1	0.3	81.4	0.0	1.2		0.7
Delay (s)	19.5	20.4			27.1	11.1	20.0	107.4	18.5	27.8		21.4
Level of Service	B	C			C	B	C	F	B	C		C
Approach Delay (s)		20.3			21.0			90.5			22.8	
Approach LOS		C			C			F			C	
Intersection Summary												
HCM 2000 Control Delay			46.2		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			73.8		Sum of lost time (s)					14.0		
Intersection Capacity Utilization			64.6%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	227	229	452	65	197	0	694
Future Volume (vph)	5	81	0	0	429	227	229	452	65	197	0	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	90	0	0	477	252	254	502	72	216	0	763
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	11.0	24.0	24.0	24.0	11.0		24.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.06	0.18			0.90	0.25	0.50	0.95	0.13	0.56		0.77
Control Delay	28.8	25.9			51.2	2.5	30.2	58.9	2.3	34.2		9.0
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	28.8	25.9			51.2	2.5	30.2	58.9	2.3	34.2		9.0
Queue Length 50th (ft)	2	29			195	0	90	208	0	82		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	26%
Maximum Green (s)	25.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	14
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	15	94			#582	43	#243	#620	12	208		#146
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	95	514			530	1083	503	530	535	489		985
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.06	0.18			0.90	0.23	0.50	0.95	0.13	0.44		0.77

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 76.3

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	227	229	452	65	197	0	694
Future Volume (vph)	5	81	0	0	429	227	229	452	65	197	0	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1736	1827			1881	1599	1787	1881	1599	1736		1553
Flt Permitted	0.19	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	340	1827			1881	1599	1787	1881	1599	1736		1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	6	90	0	0	477	252	254	502	72	216	0	763
RTOR Reduction (vph)	0	0	0	0	0	127	0	0	52	0	0	552
Lane Group Flow (vph)	6	90	0	0	477	125	254	502	20	216	0	211
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)	19.5	19.5			19.5	34.4	19.5	19.5	19.5	14.9		19.5
Effective Green, g (s)	21.5	21.5			21.5	38.4	21.5	21.5	21.5	16.9		21.5
Actuated g/C Ratio	0.28	0.28			0.28	0.49	0.28	0.28	0.28	0.22		0.28
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)	94	506			521	873	495	521	443	378		430
v/s Ratio Prot		0.05			c0.25	0.03		c0.27		c0.12		
v/s Ratio Perm	0.02					0.05	0.14		0.01			0.14
v/c Ratio	0.06	0.18			0.92	0.14	0.51	0.96	0.05	0.57		0.49
Uniform Delay, d1	20.6	21.3			27.2	10.7	23.6	27.7	20.5	27.1		23.5
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.4	0.2			21.1	0.1	1.2	30.3	0.1	2.5		1.2
Delay (s)	21.0	21.6			48.2	10.8	24.8	57.9	20.6	29.6		24.7
Level of Service	C	C			D	B	C	E	C	C		C
Approach Delay (s)		21.5			35.3			44.5			25.8	
Approach LOS		C			D			D			C	
Intersection Summary												
HCM 2000 Control Delay			34.2		HCM 2000 Level of Service				C			
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			77.6		Sum of lost time (s)				14.0			
Intersection Capacity Utilization			88.2%		ICU Level of Service				E			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	107	237	320	91	93	0	381
Future Volume (vph)	0	53	0	0	390	107	237	320	91	93	0	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	433	119	263	356	101	103	0	423
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Prot
Protected Phases		2			6	3		4		3		3
Permitted Phases	2				6	6	4		4			
Detector Phase	2	2			6	3	4	4	4	3		3
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	11.0	11.0			11.0	11.0	11.0	11.0	11.0	11.0		11.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			None	Min	Min	Min	Min	Min		Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.11			0.77	0.13	0.51	0.66	0.19	0.31		0.66
Control Delay		24.2			37.5	3.1	29.2	33.0	5.7	30.0		8.8
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		24.2			37.5	3.1	29.2	33.0	5.7	30.0		8.8
Queue Length 50th (ft)		17			156	0	86	122	0	36		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	26%
Maximum Green (s)	25.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 NB
 Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		67			#515	31	#268	#401	33	105		85
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)						500	50		50			105
Base Capacity (vph)		556			561	1086	528	556	555	533		774
Starvation Cap Reductn		0			0	0	0	0	0	0		0
Spillback Cap Reductn		0			0	0	0	0	0	0		0
Storage Cap Reductn		0			0	0	0	0	0	0		0
Reduced v/c Ratio		0.11			0.77	0.11	0.50	0.64	0.18	0.19		0.55

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 72.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	107	237	320	91	93	0	381
Future Volume (vph)	0	53	0	0	390	107	237	320	91	93	0	381
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)		1863			1881	1599	1770	1863	1583	1787		1599
Flt Permitted		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)		1863			1881	1599	1770	1863	1583	1787		1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	59	0	0	433	119	263	356	101	103	0	423
RTOR Reduction (vph)	0	0	0	0	0	62	0	0	72	0	0	345
Lane Group Flow (vph)	0	59	0	0	433	57	263	356	29	103	0	78
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Prot
Protected Phases		2			6	3		4		3		3
Permitted Phases	2				6	6	4		4			
Actuated Green, G (s)		19.7			19.7	31.3	19.0	19.0	19.0	11.6		11.6
Effective Green, g (s)		21.7			21.7	35.3	21.0	21.0	21.0	13.6		13.6
Actuated g/C Ratio		0.29			0.29	0.48	0.28	0.28	0.28	0.18		0.18
Clearance Time (s)		6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)		547			552	850	502	529	449	328		294
v/s Ratio Prot		0.03			c0.23	0.01		c0.19		c0.06		0.05
v/s Ratio Perm						0.02	0.15		0.02			
v/c Ratio		0.11			0.78	0.07	0.52	0.67	0.06	0.31		0.26
Uniform Delay, d1		19.0			24.0	10.4	22.2	23.4	19.3	26.1		25.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2		0.1			7.6	0.0	1.3	3.7	0.1	0.8		0.7
Delay (s)		19.2			31.6	10.5	23.5	27.1	19.4	26.9		26.5
Level of Service		B			C	B	C	C	B	C		C
Approach Delay (s)		19.2			27.0			24.7			26.6	
Approach LOS		B			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			25.7		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			73.9		Sum of lost time (s)					14.0		
Intersection Capacity Utilization			67.2%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Future Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	72	0	0	334	240	116	643	29	204	0	671
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	11.0	24.0	24.0	24.0	11.0		24.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.01	0.14			0.66	0.25	0.23	1.22	0.05	0.53		0.72
Control Delay	27.0	25.3			34.5	2.6	26.0	141.5	0.2	33.5		7.9
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	27.0	25.3			34.5	2.6	26.0	141.5	0.2	33.5		7.9
Queue Length 50th (ft)	1	22			122	0	37	~340	0	77		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	26%
Maximum Green (s)	25.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	11
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	8	79			#371	42	117	#836	0	196		119
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	172	534			534	1061	502	529	533	507		930
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.01	0.13			0.63	0.23	0.23	1.22	0.05	0.40		0.72

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 74.7

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Future Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1752	1845			1845	1568	1736	1827	1553	1752		1568
Flt Permitted	0.32	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	595	1845			1845	1568	1736	1827	1553	1752		1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	72	0	0	334	240	116	643	29	204	0	671
RTOR Reduction (vph)	0	0	0	0	0	124	0	0	21	0	0	480
Lane Group Flow (vph)	2	72	0	0	334	116	116	643	8	204	0	191
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)	18.4	18.4			18.4	32.6	19.6	19.6	19.6	14.2		19.6
Effective Green, g (s)	20.4	20.4			20.4	36.6	21.6	21.6	21.6	16.2		21.6
Actuated g/C Ratio	0.27	0.27			0.27	0.48	0.28	0.28	0.28	0.21		0.28
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)	159	495			495	838	494	519	441	373		446
v/s Ratio Prot		0.04			c0.18	0.03		c0.35		c0.12		
v/s Ratio Perm	0.00					0.04	0.07		0.01			0.12
v/c Ratio	0.01	0.15			0.67	0.14	0.23	1.24	0.02	0.55		0.43
Uniform Delay, d1	20.4	21.1			24.8	10.9	20.8	27.2	19.5	26.6		22.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.0	0.2			4.0	0.1	0.3	123.2	0.0	2.1		0.9
Delay (s)	20.4	21.3			28.7	11.0	21.1	150.4	19.6	28.6		23.0
Level of Service	C	C			C	B	C	F	B	C		C
Approach Delay (s)		21.3			21.3			126.5			24.3	
Approach LOS		C			C			F			C	
Intersection Summary												
HCM 2000 Control Delay			58.3		HCM 2000 Level of Service				E			
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			75.9		Sum of lost time (s)				14.0			
Intersection Capacity Utilization			69.0%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Future Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	90	0	0	477	307	254	616	72	271	0	874
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	11.0	24.0	24.0	24.0	11.0		24.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.06	0.18			0.93	0.29	0.52	1.20	0.14	0.64		0.91
Control Delay	29.4	26.6			56.9	2.5	31.5	136.7	2.3	36.3		20.0
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	29.4	26.6			56.9	2.5	31.5	136.7	2.3	36.3		20.0
Queue Length 50th (ft)	2	32			213	0	99	~348	0	107		47

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	26%
Maximum Green (s)	25.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	4.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	14
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	15	94			#582	46	#243	#789	12	#286		#390
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	93	499			513	1080	488	513	522	474		965
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.06	0.18			0.93	0.28	0.52	1.20	0.14	0.57		0.91

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 78.4

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Future Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1736	1827			1881	1599	1787	1881	1599	1736		1553
Flt Permitted	0.19	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	341	1827			1881	1599	1787	1881	1599	1736		1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	6	90	0	0	477	307	254	616	72	271	0	874
RTOR Reduction (vph)	0	0	0	0	0	151	0	0	53	0	0	545
Lane Group Flow (vph)	6	90	0	0	477	156	254	616	19	271	0	329
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)	19.4	19.4			19.4	36.5	19.4	19.4	19.4	17.1		19.4
Effective Green, g (s)	21.4	21.4			21.4	40.5	21.4	21.4	21.4	19.1		21.4
Actuated g/C Ratio	0.27	0.27			0.27	0.51	0.27	0.27	0.27	0.24		0.27
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)	91	490			505	892	479	505	429	416		416
v/s Ratio Prot		0.05			c0.25	0.04		c0.33		c0.16		
v/s Ratio Perm	0.02					0.06	0.14		0.01			0.21
v/c Ratio	0.07	0.18			0.94	0.17	0.53	1.22	0.05	0.65		0.79
Uniform Delay, d1	21.7	22.4			28.6	10.6	24.9	29.2	21.6	27.3		27.1
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.4	0.2			26.8	0.1	1.4	115.8	0.1	4.0		10.4
Delay (s)	22.1	22.7			55.4	10.7	26.3	145.0	21.6	31.3		37.5
Level of Service	C	C			E	B	C	F	C	C		D
Approach Delay (s)		22.6			37.9			103.5			36.0	
Approach LOS		C			D			F			D	
Intersection Summary												
HCM 2000 Control Delay			57.5		HCM 2000 Level of Service				E			
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			79.7		Sum of lost time (s)				14.0			
Intersection Capacity Utilization			94.5%		ICU Level of Service				F			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Future Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	433	162	263	438	101	142	0	499
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	11.0	24.0	24.0	24.0	11.0		24.0
Total Split (s)	25.0	25.0			25.0	25.0	25.0	25.0	25.0	25.0		25.0
Total Split (%)	24.5%	24.5%			24.5%	24.5%	24.5%	24.5%	24.5%	24.5%		24.5%
Maximum Green (s)	19.0	19.0			19.0	19.0	19.0	19.0	19.0	19.0		19.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead		Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.11			0.79	0.17	0.51	0.80	0.18	0.41		0.61
Control Delay		24.3			38.7	2.8	29.1	39.9	5.6	31.7		6.6
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		24.3			38.7	2.8	29.1	39.9	5.6	31.7		6.6
Queue Length 50th (ft)		17			158	0	87	161	0	51		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B
 Timing Plan: NHDOT/City

Lane Group Ø9

Lane Configurations
 Traffic Volume (vph)
 Future Volume (vph)
 Ideal Flow (vphpl)
 Storage Length (ft)
 Storage Lanes
 Taper Length (ft)
 Right Turn on Red
 Link Speed (mph)
 Link Distance (ft)
 Travel Time (s)
 Peak Hour Factor
 Heavy Vehicles (%)
 Shared Lane Traffic (%)
 Lane Group Flow (vph)
 Enter Blocked Intersection
 Lane Alignment
 Median Width(ft)
 Link Offset(ft)
 Crosswalk Width(ft)
 Two way Left Turn Lane
 Headway Factor
 Turning Speed (mph)
 Turn Type
 Protected Phases 9
 Permitted Phases
 Detector Phase
 Switch Phase
 Minimum Initial (s) 1.0
 Minimum Split (s) 27.0
 Total Split (s) 27.0
 Total Split (%) 26%
 Maximum Green (s) 25.0
 Yellow Time (s) 2.0
 All-Red Time (s) 0.0
 Lost Time Adjust (s)
 Total Lost Time (s)
 Lead/Lag
 Lead-Lag Optimize?
 Vehicle Extension (s) 4.0
 Recall Mode None
 Walk Time (s) 7.0
 Flash Dont Walk (s) 18.0
 Pedestrian Calls (#/hr) 5
 v/c Ratio
 Control Delay
 Queue Delay
 Total Delay
 Queue Length 50th (ft)

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B
 Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		67			#515	35	#268	#527	33	139		93
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)						500	50		50			105
Base Capacity (vph)		546			551	1085	518	546	547	523		821
Starvation Cap Reductn		0			0	0	0	0	0	0		0
Spillback Cap Reductn		0			0	0	0	0	0	0		0
Storage Cap Reductn		0			0	0	0	0	0	0		0
Reduced v/c Ratio		0.11			0.79	0.15	0.51	0.80	0.18	0.27		0.61

Intersection Summary

Area Type: Other

Cycle Length: 102

Actuated Cycle Length: 73.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St

 Ø2	 Ø3	 Ø4	 Ø9
25 s	25 s	25 s	27 s
 Ø6			
25 s			

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Future Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)		1863			1881	1599	1770	1863	1583	1787		1599
Flt Permitted		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)		1863			1881	1599	1770	1863	1583	1787		1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	59	0	0	433	162	263	438	101	142	0	499
RTOR Reduction (vph)	0	0	0	0	0	85	0	0	72	0	0	355
Lane Group Flow (vph)	0	59	0	0	433	77	263	438	29	142	0	144
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)		19.6			19.6	31.8	19.6	19.6	19.6	12.2		19.6
Effective Green, g (s)		21.6			21.6	35.8	21.6	21.6	21.6	14.2		21.6
Actuated g/C Ratio		0.29			0.29	0.48	0.29	0.29	0.29	0.19		0.29
Clearance Time (s)		6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)		536			541	848	509	536	455	338		460
v/s Ratio Prot		0.03			c0.23	0.02		c0.24		c0.08		
v/s Ratio Perm						0.03	0.15		0.02			0.09
v/c Ratio		0.11			0.80	0.09	0.52	0.82	0.06	0.42		0.31
Uniform Delay, d1		19.6			24.7	10.7	22.3	24.9	19.4	26.8		20.9
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2		0.1			8.8	0.1	1.2	9.8	0.1	1.2		0.5
Delay (s)		19.8			33.5	10.8	23.5	34.7	19.4	27.9		21.4
Level of Service		B			C	B	C	C	B	C		C
Approach Delay (s)		19.8			27.3			29.1			22.9	
Approach LOS		B			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.4		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			75.0		Sum of lost time (s)					14.0		
Intersection Capacity Utilization			71.5%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Future Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	72	0	0	334	240	116	643	29	204	0	671
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	24.0	24.0	24.0	24.0	24.0		24.0
Total Split (s)	24.0	24.0			24.0	24.0	40.0	40.0	40.0	24.0		40.0
Total Split (%)	23.5%	23.5%			23.5%	23.5%	39.2%	39.2%	39.2%	23.5%		39.2%
Maximum Green (s)	18.0	18.0			18.0	18.0	34.0	34.0	34.0	18.0		34.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lag	Lead	Lead	Lead	Lag		Lead
Lead-Lag Optimize?						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
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)	0.0	0.0			0.0		0.0	0.0	0.0			0.0
Flash Dont Walk (s)	13.0	13.0			13.0		17.0	17.0	17.0			17.0
Pedestrian Calls (#/hr)	4	4			3		4	4	4			4
v/c Ratio	0.02	0.17			0.80	0.28	0.16	0.84	0.04	0.62		0.64
Control Delay	31.5	30.8			48.7	2.8	18.8	36.9	0.1	42.0		5.1
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	31.5	30.8			48.7	2.8	18.8	36.9	0.1	42.0		5.1
Queue Length 50th (ft)	1	31			167	0	37	297	0	99		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	7%	7%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	7	4
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	8	80			#383	38	94	#653	0	199		83
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	93	427			427	831	723	761	728	405		1044
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.02	0.17			0.78	0.29	0.16	0.84	0.04	0.50		0.64

Intersection Summary

Area Type: Other

Cycle Length: 102

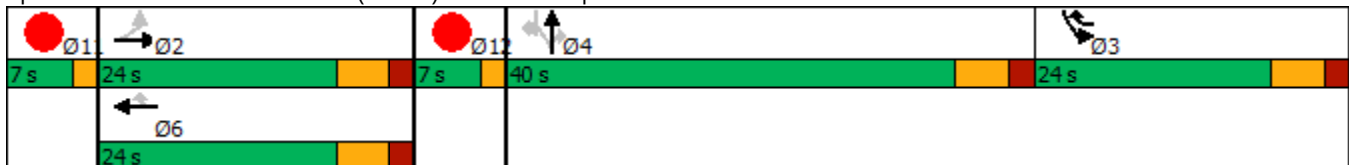
Actuated Cycle Length: 87.1

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

AM 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Future Volume (vph)	2	65	0	0	301	216	104	579	26	184	0	604
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1752	1845			1845	1568	1736	1827	1553	1752		1568
Flt Permitted	0.22	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	406	1845			1845	1568	1736	1827	1553	1752		1568
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	72	0	0	334	240	116	643	29	204	0	671
RTOR Reduction (vph)	0	0	0	0	0	144	0	0	17	0	0	402
Lane Group Flow (vph)	2	72	0	0	334	96	116	643	12	204	0	269
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)	17.9	17.9			17.9	32.3	34.3	34.3	34.3	14.4		34.3
Effective Green, g (s)	19.9	19.9			19.9	36.3	36.3	36.3	36.3	16.4		36.3
Actuated g/C Ratio	0.22	0.22			0.22	0.40	0.40	0.40	0.40	0.18		0.40
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0	3.0		3.0
Lane Grp Cap (vph)	89	406			406	629	697	733	623	317		629
v/s Ratio Prot		0.04			c0.18	0.03		c0.35		c0.12		
v/s Ratio Perm	0.00					0.03	0.07		0.01			0.17
v/c Ratio	0.02	0.18			0.82	0.15	0.17	0.88	0.02	0.64		0.43
Uniform Delay, d1	27.6	28.6			33.6	17.2	17.3	25.0	16.3	34.3		19.6
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.1	0.2			12.6	0.1	0.1	11.5	0.0	4.4		0.5
Delay (s)	27.7	28.8			46.2	17.4	17.5	36.5	16.3	38.7		20.0
Level of Service	C	C			D	B	B	D	B	D		C
Approach Delay (s)		28.8			34.1			32.9			24.4	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			29.9									
HCM 2000 Volume to Capacity ratio			0.79									
Actuated Cycle Length (s)			90.4									
Intersection Capacity Utilization			69.0%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Future Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	90	0	0	477	307	254	616	72	271	0	874
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			6
Detector Phase	2	2			6	3	4	4	4	3		6
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	24.0	24.0	24.0	24.0	24.0		24.0
Total Split (s)	28.0	28.0			28.0	25.0	35.0	35.0	35.0	25.0		28.0
Total Split (%)	27.5%	27.5%			27.5%	24.5%	34.3%	34.3%	34.3%	24.5%		27.5%
Maximum Green (s)	22.0	22.0			22.0	19.0	29.0	29.0	29.0	19.0		22.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lag	Lead	Lead	Lead	Lag		
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		Min
Walk Time (s)	0.0	0.0			0.0		0.0	0.0	0.0			0.0
Flash Dont Walk (s)	13.0	13.0			13.0		17.0	17.0	17.0			13.0
Pedestrian Calls (#/hr)	2	2			3		9	9	9			3
v/c Ratio	0.07	0.18			0.94	0.31	0.41	0.94	0.11	0.71		0.92
Control Delay	30.6	28.2			62.2	2.2	25.9	54.0	0.4	44.7		22.2
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay	30.6	28.2			62.2	2.2	25.9	54.0	0.4	44.7		22.2
Queue Length 50th (ft)	3	38			258	0	105	324	0	136		64

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	7%	7%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	4.0	4.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	5	9
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	15	91			#544	37	210	#663	0	#286		#404
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)	100					500	50		50			105
Base Capacity (vph)	81	492			507	979	622	655	647	409		952
Starvation Cap Reductn	0	0			0	0	0	0	0	0		0
Spillback Cap Reductn	0	0			0	0	0	0	0	0		0
Storage Cap Reductn	0	0			0	0	0	0	0	0		0
Reduced v/c Ratio	0.07	0.18			0.94	0.31	0.41	0.94	0.11	0.66		0.92

Intersection Summary

Area Type: Other

Cycle Length: 102

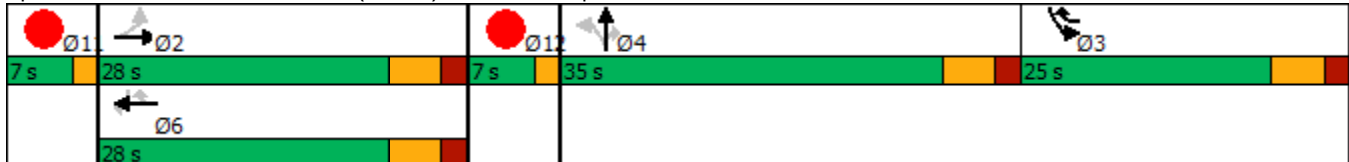
Actuated Cycle Length: 89.4

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

PM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Future Volume (vph)	5	81	0	0	429	276	229	554	65	247	0	795
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)	1736	1827			1881	1599	1787	1881	1599	1736		1553
Flt Permitted	0.17	1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)	303	1827			1881	1599	1787	1881	1599	1736		1553
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	6	90	0	0	477	307	254	616	72	271	0	874
RTOR Reduction (vph)	0	0	0	0	0	162	0	0	48	0	0	541
Lane Group Flow (vph)	6	90	0	0	477	145	254	616	24	271	0	333
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	1%	1%	1%	4%	4%	4%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			6
Actuated Green, G (s)	22.1	22.1			22.1	39.7	29.1	29.1	29.1	17.6		22.1
Effective Green, g (s)	24.1	24.1			24.1	43.7	31.1	31.1	31.1	19.6		24.1
Actuated g/C Ratio	0.26	0.26			0.26	0.47	0.34	0.34	0.34	0.21		0.26
Clearance Time (s)	6.0	6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)	78	475			489	754	600	631	537	367		404
v/s Ratio Prot		0.05			c0.25	0.04		c0.33		c0.16		
v/s Ratio Perm	0.02					0.05	0.14		0.02			0.21
v/c Ratio	0.08	0.19			0.98	0.19	0.42	0.98	0.05	0.74		0.82
Uniform Delay, d1	25.9	26.7			34.0	14.2	23.8	30.4	20.7	34.1		32.3
Progression Factor	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2	0.6	0.3			34.2	0.2	0.7	29.7	0.0	8.1		13.4
Delay (s)	26.4	26.9			68.2	14.4	24.5	60.1	20.8	42.2		45.7
Level of Service	C	C			E	B	C	E	C	D		D
Approach Delay (s)		26.9			47.1			47.5			44.8	
Approach LOS		C			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			45.7		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			92.6		Sum of lost time (s)					16.0		
Intersection Capacity Utilization			94.5%		ICU Level of Service					F		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Future Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		500	50		50	0		105
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			25			100			0		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			650			1120			300	
Travel Time (s)		15.1			14.8			25.5			6.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	0	433	162	263	438	101	142	0	499
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Detector Phase	2	2			6	3	4	4	4	3		4
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0	5.0		5.0
Minimum Split (s)	24.0	24.0			24.0	19.0	24.0	24.0	24.0	19.0		24.0
Total Split (s)	26.0	26.0			26.0	24.0	26.0	26.0	26.0	24.0		26.0
Total Split (%)	28.9%	28.9%			28.9%	26.7%	28.9%	28.9%	28.9%	26.7%		28.9%
Maximum Green (s)	20.0	20.0			20.0	18.0	20.0	20.0	20.0	18.0		20.0
Yellow Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
All-Red Time (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0	2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0
Total Lost Time (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lead/Lag						Lag	Lead	Lead	Lead	Lag		Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	4.0	4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Recall Mode	Min	Min			Min	None	None	None	None	None		None
Walk Time (s)	0.0	0.0			0.0		0.0	0.0	0.0			0.0
Flash Dont Walk (s)	13.0	13.0			13.0		17.0	17.0	17.0			17.0
Pedestrian Calls (#/hr)	2	2			0		3	3	3			3
v/c Ratio		0.10			0.76	0.17	0.49	0.77	0.17	0.41		0.60
Control Delay		21.7			35.6	2.0	26.3	36.0	1.9	30.4		6.0
Queue Delay		0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		21.7			35.6	2.0	26.3	36.0	1.9	30.4		6.0
Queue Length 50th (ft)		18			163	0	90	166	0	54		0

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	8%	8%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	4.0	4.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	2	3
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
 16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		58			#423	24	215	#433	12	123		81
Internal Link Dist (ft)		586			570			1040			220	
Turn Bay Length (ft)						500	50		50			105
Base Capacity (vph)		570			575	941	541	570	594	497		835
Starvation Cap Reductn		0			0	0	0	0	0	0		0
Spillback Cap Reductn		0			0	0	0	0	0	0		0
Storage Cap Reductn		0			0	0	0	0	0	0		0
Reduced v/c Ratio		0.10			0.75	0.17	0.49	0.77	0.17	0.29		0.60

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 72.8

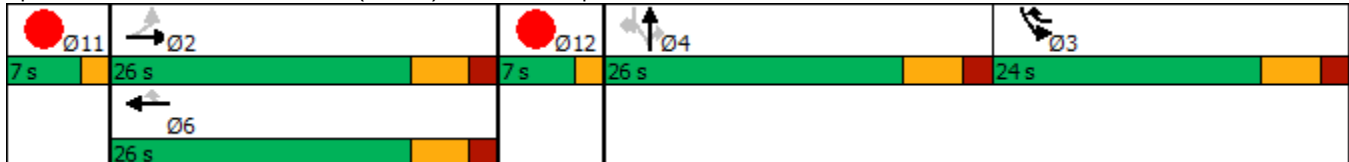
Natural Cycle: 85

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: N.Main St (NH106) & Veterans Square/Church St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

16: N.Main St (NH106) & Veterans Square/Church St

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Future Volume (vph)	0	53	0	0	390	146	237	394	91	128	0	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Frt		1.00			1.00	0.85	1.00	1.00	0.85	1.00		0.85
Flt Protected		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (prot)		1863			1881	1599	1770	1863	1583	1787		1599
Flt Permitted		1.00			1.00	1.00	0.95	1.00	1.00	0.95		1.00
Satd. Flow (perm)		1863			1881	1599	1770	1863	1583	1787		1599
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	59	0	0	433	162	263	438	101	142	0	499
RTOR Reduction (vph)	0	0	0	0	0	85	0	0	71	0	0	352
Lane Group Flow (vph)	0	59	0	0	433	77	263	438	30	142	0	147
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Turn Type	Perm	NA			NA	pm+ov	Perm	NA	Perm	Prot		Perm
Protected Phases		2			6	3		4		3		
Permitted Phases	2					6	4		4			4
Actuated Green, G (s)		20.0			20.0	32.0	20.3	20.3	20.3	12.0		20.3
Effective Green, g (s)		22.0			22.0	36.0	22.3	22.3	22.3	14.0		22.3
Actuated g/C Ratio		0.29			0.29	0.47	0.29	0.29	0.29	0.18		0.29
Clearance Time (s)		6.0			6.0	6.0	6.0	6.0	6.0	6.0		6.0
Vehicle Extension (s)		4.0			4.0	4.0	4.0	4.0	4.0	4.0		4.0
Lane Grp Cap (vph)		540			545	758	520	547	465	329		469
v/s Ratio Prot		0.03			c0.23	0.02		c0.24		c0.08		
v/s Ratio Perm						0.03	0.15		0.02			0.09
v/c Ratio		0.11			0.79	0.10	0.51	0.80	0.06	0.43		0.31
Uniform Delay, d1		19.8			24.9	11.0	22.2	24.7	19.3	27.4		20.8
Progression Factor		1.00			1.00	1.00	1.00	1.00	1.00	1.00		1.00
Incremental Delay, d2		0.1			8.3	0.1	1.1	8.7	0.1	1.2		0.5
Delay (s)		19.9			33.1	11.1	23.3	33.4	19.4	28.7		21.4
Level of Service		B			C	B	C	C	B	C		C
Approach Delay (s)		19.9			27.1			28.3			23.0	
Approach LOS		B			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			26.1		HCM 2000 Level of Service					C		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			75.9		Sum of lost time (s)					16.0		
Intersection Capacity Utilization			71.5%		ICU Level of Service					C		
Analysis Period (min)			15									
c Critical Lane Group												

ATTACHMENT J

Intersection #17: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings

AM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	540	199	33	441	178
Future Volume (vph)	292	394	116	155	311	135	109	540	199	33	441	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	438	129	168	338	147	121	600	221	37	490	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.36	0.79	0.23	0.70	0.61	0.27	0.54	1.01	0.38	0.26	1.05	0.41
Control Delay	226.1	53.9	10.0	72.0	46.1	12.3	64.7	82.7	21.4	67.0	102.2	23.1
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	226.1	53.9	10.0	72.0	46.1	12.3	64.7	82.7	21.4	67.0	102.2	23.1
Queue Length 50th (ft)	~324	301	7	126	217	17	89	~507	60	27	~403	50

Lanes, Volumes, Timings

AM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	39.0
Total Split (s)	39.0
Total Split (%)	22%
Maximum Green (s)	35.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	28.0
Pedestrian Calls (#/hr)	7
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings

AM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#786	#695	69	#370	479	91	206	#1161	194	84	#1023	177
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	239	697	665	239	697	665	373	596	584	373	466	481
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.36	0.63	0.19	0.70	0.48	0.22	0.32	1.01	0.38	0.10	1.05	0.41

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 128.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group	Ø9

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

AM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) City Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	540	199	33	441	178
Future Volume (vph)	292	394	116	155	311	135	109	540	199	33	441	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	324	438	129	168	338	147	121	600	221	37	490	198
RTOR Reduction (vph)	0	0	82	0	0	82	0	0	79	0	0	86
Lane Group Flow (vph)	324	438	47	168	338	65	121	600	142	37	490	112
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.5	36.6	36.6	15.5	36.6	36.6	14.9	40.3	40.3	7.1	32.5	32.5
Effective Green, g (s)	17.5	38.6	38.6	17.5	38.6	38.6	16.9	42.3	42.3	9.1	34.5	34.5
Actuated g/C Ratio	0.13	0.29	0.29	0.13	0.29	0.29	0.13	0.32	0.32	0.07	0.26	0.26
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	231	537	456	231	537	456	219	577	490	117	470	400
v/s Ratio Prot	c0.18	c0.24		0.10	0.18		c0.07	c0.33		0.02	0.27	
v/s Ratio Perm			0.03			0.04			0.09			0.07
v/c Ratio	1.40	0.82	0.10	0.73	0.63	0.14	0.55	1.04	0.29	0.32	1.04	0.28
Uniform Delay, d1	57.5	43.7	34.3	55.3	40.8	34.8	54.3	45.1	33.9	58.8	49.0	39.1
Progression 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
Incremental Delay, d2	205.1	9.3	0.1	10.8	2.3	0.1	3.0	48.2	0.3	1.6	53.0	0.4
Delay (s)	262.7	53.0	34.4	66.1	43.1	34.9	57.3	93.4	34.2	60.3	102.1	39.5
Level of Service	F	D	C	E	D	C	E	F	C	E	F	D
Approach Delay (s)		126.6			47.2			74.9			82.9	
Approach LOS		F			D			E			F	
Intersection Summary												
HCM 2000 Control Delay			85.4									
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			132.6									
Intersection Capacity Utilization			78.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

PM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	450	225	51	564	355
Future Volume (vph)	329	475	185	246	432	98	146	450	225	51	564	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	362	522	203	254	445	101	162	500	250	57	627	394
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0	14.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.72	0.85	0.34	1.21	0.73	0.17	0.66	0.90	0.45	0.39	1.54	0.82
Control Delay	381.7	62.8	20.9	182.7	55.7	5.8	76.9	72.4	28.8	77.1	290.3	47.2
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	381.7	62.8	20.9	182.7	55.7	5.8	76.9	72.4	28.8	77.1	290.3	47.2
Queue Length 50th (ft)	~435	392	50	~244	316	0	131	405	89	46	~710	184

Lanes, Volumes, Timings

PM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	39.0
Total Split (s)	39.0
Total Split (%)	22%
Maximum Green (s)	35.0
Yellow Time (s)	3.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	28.0
Pedestrian Calls (#/hr)	14
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings

PM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

Using Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#889	#903	163	#604	#707	38	266	#919	239	116	#1366	#497
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	210	611	598	210	611	598	334	553	552	327	408	479
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.72	0.85	0.34	1.21	0.73	0.17	0.49	0.90	0.45	0.17	1.54	0.82

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 148.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group	Ø9

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

PM 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) City Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	450	225	51	564	355
Future Volume (vph)	329	475	185	246	432	98	146	450	225	51	564	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Peak-hour factor, PHF	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	362	522	203	254	445	101	162	500	250	57	627	394
RTOR Reduction (vph)	0	0	79	0	0	69	0	0	83	0	0	132
Lane Group Flow (vph)	362	522	124	254	445	32	162	500	167	57	627	262
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.4	46.2	46.2	15.4	46.2	46.2	18.2	41.5	41.5	8.9	32.2	32.2
Effective Green, g (s)	17.4	48.2	48.2	17.4	48.2	48.2	20.2	43.5	43.5	10.9	34.2	34.2
Actuated g/C Ratio	0.11	0.32	0.32	0.11	0.32	0.32	0.13	0.29	0.29	0.07	0.23	0.23
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	204	597	508	204	597	508	237	539	458	125	415	353
v/s Ratio Prot	c0.20	c0.28		0.14	0.24		c0.09	c0.27		0.03	c0.34	
v/s Ratio Perm			0.08			0.02			0.10			0.17
v/c Ratio	1.77	0.87	0.24	1.25	0.75	0.06	0.68	0.93	0.37	0.46	1.51	0.74
Uniform Delay, d1	67.1	48.9	38.3	67.1	46.3	36.0	62.7	52.6	43.1	67.6	58.7	54.7
Progression 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
Incremental Delay, d2	367.7	13.4	0.3	144.5	5.0	0.1	7.9	22.2	0.5	2.6	242.1	8.2
Delay (s)	434.8	62.3	38.5	211.7	51.3	36.1	70.6	74.8	43.6	70.2	300.8	62.9
Level of Service	F	E	D	F	D	D	E	E	D	E	F	E
Approach Delay (s)		181.9			100.3			65.5			201.7	
Approach LOS		F			F			E			F	

Intersection Summary

HCM 2000 Control Delay	143.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	151.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

SAT 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	318	258	54	348	255
Future Volume (vph)	274	482	146	207	385	120	107	318	258	54	348	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	513	155	218	405	126	114	338	274	60	387	283
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.29	0.78	0.24	0.96	0.62	0.20	0.52	0.62	0.50	0.37	0.87	0.53
Control Delay	205.3	50.8	12.6	110.8	44.8	9.0	67.0	51.3	28.6	68.4	70.4	19.9
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	205.3	50.8	12.6	110.8	44.8	9.0	67.0	51.3	28.6	68.4	70.4	19.9
Queue Length 50th (ft)	~295	365	21	180	267	5	90	245	105	47	303	56

Lane Group Ø9

Lane Configurations

Traffic Volume (vph)

Future Volume (vph)

Ideal Flow (vphpl)

Storage Length (ft)

Storage Lanes

Taper Length (ft)

Right Turn on Red

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor

Heavy Vehicles (%)

Shared Lane Traffic (%)

Lane Group Flow (vph)

Enter Blocked Intersection

Lane Alignment

Median Width(ft)

Link Offset(ft)

Crosswalk Width(ft)

Two way Left Turn Lane

Headway Factor

Turning Speed (mph)

Turn Type

Protected Phases 9

Permitted Phases

Detector Phase

Switch Phase

Minimum Initial (s) 5.0

Minimum Split (s) 39.0

Total Split (s) 39.0

Total Split (%) 22%

Maximum Green (s) 35.0

Yellow Time (s) 3.0

All-Red Time (s) 1.0

Lost Time Adjust (s)

Total Lost Time (s)

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s) 3.0

Recall Mode None

Walk Time (s) 7.0

Flash Dont Walk (s) 28.0

Pedestrian Calls (#/hr) 8

v/c Ratio

Control Delay

Queue Delay

Total Delay

Queue Length 50th (ft)

Lanes, Volumes, Timings

SAT 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#689	#862	100	#496	579	65	195	#524	270	119	#737	199
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	226	657	634	226	657	634	358	545	548	358	447	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.29	0.78	0.24	0.96	0.62	0.20	0.32	0.62	0.50	0.17	0.87	0.53

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 136.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group	Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

SAT 2037 NB

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) City Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	318	258	54	348	255
Future Volume (vph)	274	482	146	207	385	120	107	318	258	54	348	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	291	513	155	218	405	126	114	338	274	60	387	283
RTOR Reduction (vph)	0	0	77	0	0	77	0	0	86	0	0	150
Lane Group Flow (vph)	291	513	78	218	405	49	114	338	188	60	387	133
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.3	45.8	45.8	15.3	45.8	45.8	14.7	37.6	37.6	9.0	31.9	31.9
Effective Green, g (s)	17.3	47.8	47.8	17.3	47.8	47.8	16.7	39.6	39.6	11.0	33.9	33.9
Actuated g/C Ratio	0.12	0.34	0.34	0.12	0.34	0.34	0.12	0.28	0.28	0.08	0.24	0.24
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	218	636	541	218	636	541	211	527	448	139	451	383
v/s Ratio Prot	c0.16	c0.27		0.12	0.22		c0.06	0.18		0.03	c0.21	
v/s Ratio Perm			0.05			0.03			0.12			0.08
v/c Ratio	1.33	0.81	0.14	1.00	0.64	0.09	0.54	0.64	0.42	0.43	0.86	0.35
Uniform Delay, d1	61.9	42.5	32.5	61.9	39.4	31.9	58.6	44.6	41.4	62.1	51.3	44.5
Progression 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
Incremental Delay, d2	178.5	7.4	0.1	61.0	2.1	0.1	2.8	2.7	0.6	2.1	14.9	0.5
Delay (s)	240.4	49.9	32.6	122.9	41.5	31.9	61.4	47.2	42.1	64.3	66.2	45.0
Level of Service	F	D	C	F	D	C	E	D	D	E	E	D
Approach Delay (s)		104.9			63.6			47.5			57.8	
Approach LOS		F			E			D			E	
Intersection Summary												
HCM 2000 Control Delay			71.1									
HCM 2000 Volume to Capacity ratio			0.82									
Actuated Cycle Length (s)			141.2									
Intersection Capacity Utilization			74.4%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

AM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Future Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	438	129	168	338	147	121	621	221	37	526	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.36	0.79	0.23	0.70	0.61	0.27	0.54	1.04	0.38	0.26	1.13	0.41
Control Delay	226.1	53.9	10.0	72.0	46.1	12.3	64.7	91.1	21.4	67.0	125.5	23.1
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	226.1	53.9	10.0	72.0	46.1	12.3	64.7	91.1	21.4	67.0	125.5	23.1
Queue Length 50th (ft)	~324	301	7	126	217	17	89	~541	60	27	~462	50

Lane Group Ø9

Lane Configurations

Traffic Volume (vph)

Future Volume (vph)

Ideal Flow (vphpl)

Storage Length (ft)

Storage Lanes

Taper Length (ft)

Right Turn on Red

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor

Heavy Vehicles (%)

Shared Lane Traffic (%)

Lane Group Flow (vph)

Enter Blocked Intersection

Lane Alignment

Median Width(ft)

Link Offset(ft)

Crosswalk Width(ft)

Two way Left Turn Lane

Headway Factor

Turning Speed (mph)

Turn Type

Protected Phases 9

Permitted Phases

Detector Phase

Switch Phase

Minimum Initial (s) 5.0

Minimum Split (s) 39.0

Total Split (s) 39.0

Total Split (%) 22%

Maximum Green (s) 35.0

Yellow Time (s) 3.0

All-Red Time (s) 1.0

Lost Time Adjust (s)

Total Lost Time (s)

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s) 3.0

Recall Mode None

Walk Time (s) 7.0

Flash Dont Walk (s) 28.0

Pedestrian Calls (#/hr) 5

v/c Ratio

Control Delay

Queue Delay

Total Delay

Queue Length 50th (ft)

Lanes, Volumes, Timings

AM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#786	#695	69	#370	479	91	206	#1211	194	84	#1112	177
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	239	697	665	239	697	665	373	596	584	373	466	481
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.36	0.63	0.19	0.70	0.48	0.22	0.32	1.04	0.38	0.10	1.13	0.41

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 128.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group	Ø9

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

AM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) City Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Future Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	324	438	129	168	338	147	121	621	221	37	526	198
RTOR Reduction (vph)	0	0	82	0	0	82	0	0	79	0	0	86
Lane Group Flow (vph)	324	438	47	168	338	65	121	621	142	37	526	112
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.5	36.6	36.6	15.5	36.6	36.6	14.9	40.3	40.3	7.1	32.5	32.5
Effective Green, g (s)	17.5	38.6	38.6	17.5	38.6	38.6	16.9	42.3	42.3	9.1	34.5	34.5
Actuated g/C Ratio	0.13	0.29	0.29	0.13	0.29	0.29	0.13	0.32	0.32	0.07	0.26	0.26
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	231	537	456	231	537	456	219	577	490	117	470	400
v/s Ratio Prot	c0.18	c0.24		0.10	0.18		c0.07	c0.34		0.02	0.29	
v/s Ratio Perm			0.03			0.04			0.09			0.07
v/c Ratio	1.40	0.82	0.10	0.73	0.63	0.14	0.55	1.08	0.29	0.32	1.12	0.28
Uniform Delay, d1	57.5	43.7	34.3	55.3	40.8	34.8	54.3	45.1	33.9	58.8	49.0	39.1
Progression 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
Incremental Delay, d2	205.1	9.3	0.1	10.8	2.3	0.1	3.0	59.6	0.3	1.6	78.3	0.4
Delay (s)	262.7	53.0	34.4	66.1	43.1	34.9	57.3	104.8	34.2	60.3	127.3	39.5
Level of Service	F	D	C	E	D	C	E	F	C	E	F	D
Approach Delay (s)		126.6			47.2			82.6			101.2	
Approach LOS		F			D			F			F	

Intersection Summary

HCM 2000 Control Delay	91.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	132.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

PM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Future Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	362	522	203	254	445	101	162	581	250	57	718	394
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0	14.0	11.0	14.0	14.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.72	0.85	0.34	1.21	0.73	0.17	0.66	1.05	0.45	0.39	1.76	0.85
Control Delay	381.7	62.8	20.9	182.7	55.7	5.8	76.9	102.0	28.8	77.1	383.9	53.0
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	381.7	62.8	20.9	182.7	55.7	5.8	76.9	102.0	28.8	77.1	383.9	53.0
Queue Length 50th (ft)	~435	392	50	~244	316	0	131	~527	89	46	~870	203

Lane Group Ø9

Lane Configurations

Traffic Volume (vph)

Future Volume (vph)

Ideal Flow (vphpl)

Storage Length (ft)

Storage Lanes

Taper Length (ft)

Right Turn on Red

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor

Heavy Vehicles (%)

Shared Lane Traffic (%)

Lane Group Flow (vph)

Enter Blocked Intersection

Lane Alignment

Median Width(ft)

Link Offset(ft)

Crosswalk Width(ft)

Two way Left Turn Lane

Headway Factor

Turning Speed (mph)

Turn Type

Protected Phases 9

Permitted Phases

Detector Phase

Switch Phase

Minimum Initial (s) 5.0

Minimum Split (s) 39.0

Total Split (s) 39.0

Total Split (%) 22%

Maximum Green (s) 35.0

Yellow Time (s) 3.0

All-Red Time (s) 1.0

Lost Time Adjust (s)

Total Lost Time (s)

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s) 3.0

Recall Mode None

Walk Time (s) 7.0

Flash Dont Walk (s) 28.0

Pedestrian Calls (#/hr) 14

v/c Ratio

Control Delay

Queue Delay

Total Delay

Queue Length 50th (ft)

Lanes, Volumes, Timings

PM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#889	#903	163	#604	#707	38	266	#1122	239	116	#1591	#540
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	210	611	598	210	611	598	334	553	552	327	408	463
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.72	0.85	0.34	1.21	0.73	0.17	0.49	1.05	0.45	0.17	1.76	0.85

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 148.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group	Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

PM 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) (US 1) Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Future Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Peak-hour factor, PHF	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	362	522	203	254	445	101	162	581	250	57	718	394
RTOR Reduction (vph)	0	0	79	0	0	69	0	0	83	0	0	115
Lane Group Flow (vph)	362	522	124	254	445	32	162	581	167	57	718	279
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.4	46.2	46.2	15.4	46.2	46.2	18.2	41.5	41.5	8.9	32.2	32.2
Effective Green, g (s)	17.4	48.2	48.2	17.4	48.2	48.2	20.2	43.5	43.5	10.9	34.2	34.2
Actuated g/C Ratio	0.11	0.32	0.32	0.11	0.32	0.32	0.13	0.29	0.29	0.07	0.23	0.23
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	204	597	508	204	597	508	237	539	458	125	415	353
v/s Ratio Prot	c0.20	c0.28		0.14	0.24		c0.09	c0.31		0.03	c0.39	
v/s Ratio Perm			0.08			0.02			0.10			0.18
v/c Ratio	1.77	0.87	0.24	1.25	0.75	0.06	0.68	1.08	0.37	0.46	1.73	0.79
Uniform Delay, d1	67.1	48.9	38.3	67.1	46.3	36.0	62.7	54.1	43.1	67.6	58.7	55.4
Progression 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
Incremental Delay, d2	367.7	13.4	0.3	144.5	5.0	0.1	7.9	61.4	0.5	2.6	338.5	11.1
Delay (s)	434.8	62.3	38.5	211.7	51.3	36.1	70.6	115.5	43.6	70.2	397.3	66.5
Level of Service	F	E	D	F	D	D	E	F	D	E	F	E
Approach Delay (s)		181.9			100.3			90.1			269.8	
Approach LOS		F			F			F			F	

Intersection Summary

HCM 2000 Control Delay	168.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	151.7	Sum of lost time (s)	20.0
Intersection Capacity Utilization	96.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lanes, Volumes, Timings

SAT 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Future Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	513	155	218	405	126	114	417	274	60	462	283
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0
Total Split (s)	21.0	51.0	51.0	21.0	51.0	51.0	31.0	36.0	36.0	31.0	36.0	36.0
Total Split (%)	11.8%	28.7%	28.7%	11.8%	28.7%	28.7%	17.4%	20.2%	20.2%	17.4%	20.2%	20.2%
Maximum Green (s)	15.0	45.0	45.0	15.0	45.0	45.0	25.0	30.0	30.0	25.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	1.29	0.78	0.24	0.96	0.62	0.20	0.52	0.77	0.50	0.37	1.03	0.56
Control Delay	205.3	50.8	12.6	110.8	44.8	9.0	67.0	56.8	29.3	68.4	101.5	25.2
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	205.3	50.8	12.6	110.8	44.8	9.0	67.0	56.8	29.3	68.4	101.5	25.2
Queue Length 50th (ft)	~295	365	21	180	267	5	90	319	108	47	380	80

Lane Group Ø9

Lane Configurations

Traffic Volume (vph)

Future Volume (vph)

Ideal Flow (vphpl)

Storage Length (ft)

Storage Lanes

Taper Length (ft)

Right Turn on Red

Link Speed (mph)

Link Distance (ft)

Travel Time (s)

Peak Hour Factor

Heavy Vehicles (%)

Shared Lane Traffic (%)

Lane Group Flow (vph)

Enter Blocked Intersection

Lane Alignment

Median Width(ft)

Link Offset(ft)

Crosswalk Width(ft)

Two way Left Turn Lane

Headway Factor

Turning Speed (mph)

Turn Type

Protected Phases 9

Permitted Phases

Detector Phase

Switch Phase

Minimum Initial (s) 5.0

Minimum Split (s) 39.0

Total Split (s) 39.0

Total Split (%) 22%

Maximum Green (s) 35.0

Yellow Time (s) 3.0

All-Red Time (s) 1.0

Lost Time Adjust (s)

Total Lost Time (s)

Lead/Lag

Lead-Lag Optimize?

Vehicle Extension (s) 3.0

Recall Mode None

Walk Time (s) 7.0

Flash Dont Walk (s) 28.0

Pedestrian Calls (#/hr) 8

v/c Ratio

Control Delay

Queue Delay

Total Delay

Queue Length 50th (ft)

Lanes, Volumes, Timings

SAT 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#689	#862	100	#496	579	65	195	#724	275	119	#925	240
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	226	657	634	226	657	634	358	545	545	358	447	507
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.29	0.78	0.24	0.96	0.62	0.20	0.32	0.77	0.50	0.17	1.03	0.56

Intersection Summary

Area Type: Other

Cycle Length: 178

Actuated Cycle Length: 136.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)

 Ø1	 Ø2	 Ø3	 Ø4	 Ø9
21 s	51 s	31 s	36 s	39 s
 Ø5	 Ø6	 Ø7	 Ø8	
21 s	51 s	31 s	36 s	

Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

SAT 2037 B

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) City Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Future Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	291	513	155	218	405	126	114	417	274	60	462	283
RTOR Reduction (vph)	0	0	77	0	0	77	0	0	83	0	0	126
Lane Group Flow (vph)	291	513	78	218	405	49	114	417	191	60	462	157
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	15.3	45.8	45.8	15.3	45.8	45.8	14.7	37.6	37.6	9.0	31.9	31.9
Effective Green, g (s)	17.3	47.8	47.8	17.3	47.8	47.8	16.7	39.6	39.6	11.0	33.9	33.9
Actuated g/C Ratio	0.12	0.34	0.34	0.12	0.34	0.34	0.12	0.28	0.28	0.08	0.24	0.24
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	218	636	541	218	636	541	211	527	448	139	451	383
v/s Ratio Prot	c0.16	c0.27		0.12	0.22		c0.06	c0.22		0.03	c0.25	
v/s Ratio Perm			0.05			0.03			0.12			0.10
v/c Ratio	1.33	0.81	0.14	1.00	0.64	0.09	0.54	0.79	0.43	0.43	1.02	0.41
Uniform Delay, d1	61.9	42.5	32.5	61.9	39.4	31.9	58.6	47.0	41.5	62.1	53.6	45.2
Progression 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
Incremental Delay, d2	178.5	7.4	0.1	61.0	2.1	0.1	2.8	8.0	0.7	2.1	48.7	0.7
Delay (s)	240.4	49.9	32.6	122.9	41.5	31.9	61.4	54.9	42.2	64.3	102.4	45.9
Level of Service	F	D	C	F	D	C	E	D	D	E	F	D
Approach Delay (s)		104.9			63.6			51.5			79.7	
Approach LOS		F			E			D			E	
Intersection Summary												
HCM 2000 Control Delay			76.5									
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			141.2									
Intersection Capacity Utilization			78.0%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

AM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Future Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	438	129	168	338	147	121	621	221	37	526	198
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	22.0	36.0	36.0	18.0	32.0	32.0	13.0	39.0	39.0	13.0	39.0	39.0
Total Split (%)	18.3%	30.0%	30.0%	15.0%	26.7%	26.7%	10.8%	32.5%	32.5%	10.8%	32.5%	32.5%
Maximum Green (s)	16.0	30.0	30.0	12.0	26.0	26.0	7.0	33.0	33.0	7.0	33.0	33.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0
Pedestrian Calls (#/hr)		0	0		1	1		2	2		2	2
v/c Ratio	1.04	0.84	0.23	0.74	0.78	0.29	0.84	0.90	0.32	0.27	0.89	0.32
Control Delay	106.2	51.8	2.8	66.6	52.2	4.9	91.8	52.4	9.2	53.7	53.4	7.7
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	106.2	51.8	2.8	66.6	52.2	4.9	91.8	52.4	9.2	53.7	53.4	7.7
Queue Length 50th (ft)	~245	272	0	111	208	0	82	~457	22	24	335	11

Lane Group	Ø11	Ø12

Lane Configurations		

Traffic Volume (vph)		

Future Volume (vph)		

Ideal Flow (vphpl)		

Storage Length (ft)		

Storage Lanes		

Taper Length (ft)		

Right Turn on Red		

Link Speed (mph)		

Link Distance (ft)		

Travel Time (s)		

Peak Hour Factor		

Heavy Vehicles (%)		

Shared Lane Traffic (%)		

Lane Group Flow (vph)		

Enter Blocked Intersection		

Lane Alignment		

Median Width(ft)		

Link Offset(ft)		

Crosswalk Width(ft)		

Two way Left Turn Lane		

Headway Factor		

Turning Speed (mph)		

Turn Type		

Protected Phases	11	12

Permitted Phases		

Detector Phase		

Switch Phase		

Minimum Initial (s)	1.0	1.0

Minimum Split (s)	7.0	7.0

Total Split (s)	7.0	7.0

Total Split (%)	6%	6%

Maximum Green (s)	5.0	5.0

Yellow Time (s)	2.0	2.0

All-Red Time (s)	0.0	0.0

Lost Time Adjust (s)		

Total Lost Time (s)		

Lead/Lag		

Lead-Lag Optimize?		

Vehicle Extension (s)	3.0	3.0

Recall Mode	None	None

Walk Time (s)	5.0	5.0

Flash Dont Walk (s)	0.0	0.0

Pedestrian Calls (#/hr)	1	4

v/c Ratio		

Control Delay		

Queue Delay		

Total Delay		

Queue Length 50th (ft)		

Lanes, Volumes, Timings

AM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#493	#513	20	#250	#385	35	#215	#801	93	64	#638	71
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	312	554	592	230	484	539	144	687	691	144	594	622
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.79	0.22	0.73	0.70	0.27	0.84	0.90	0.32	0.26	0.89	0.32

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 107

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

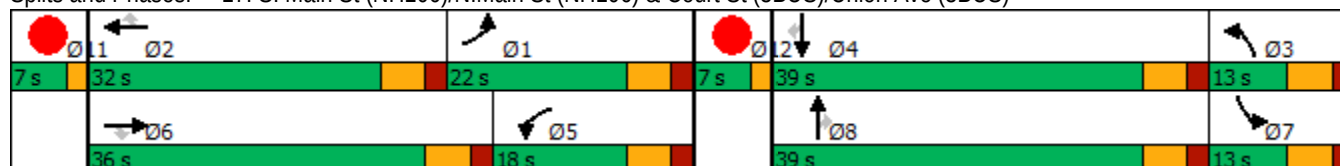
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

AM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Future Volume (vph)	292	394	116	155	311	135	109	559	199	33	473	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1752	1845	1568	1752	1845	1568	1719	1810	1538	1719	1810	1538
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	324	438	129	168	338	147	121	621	221	37	526	198
RTOR Reduction (vph)	0	0	94	0	0	114	0	0	111	0	0	121
Lane Group Flow (vph)	324	438	35	168	338	33	121	621	110	37	526	77
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	5%	5%	5%	5%	5%	5%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	17.1	28.4	28.4	11.9	23.2	23.2	9.6	38.6	38.6	4.1	33.1	33.1
Effective Green, g (s)	19.1	30.4	30.4	13.9	25.2	25.2	11.6	40.6	40.6	6.1	35.1	35.1
Actuated g/C Ratio	0.17	0.27	0.27	0.12	0.22	0.22	0.10	0.36	0.36	0.05	0.31	0.31
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	296	497	422	215	412	350	176	651	553	92	563	478
v/s Ratio Prot	c0.18	c0.24		0.10	0.18		c0.07	c0.34		0.02	0.29	
v/s Ratio Perm			0.02			0.02			0.07			0.05
v/c Ratio	1.09	0.88	0.08	0.78	0.82	0.09	0.69	0.95	0.20	0.40	0.93	0.16
Uniform Delay, d1	46.8	39.5	30.8	48.0	41.6	34.7	48.9	35.2	24.9	51.6	37.7	28.2
Progression 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
Incremental Delay, d2	80.0	16.6	0.1	16.7	12.3	0.1	10.6	24.3	0.2	2.9	22.8	0.2
Delay (s)	126.9	56.1	30.9	64.7	54.0	34.9	59.5	59.5	25.1	54.5	60.5	28.3
Level of Service	F	E	C	E	D	C	E	E	C	D	E	C
Approach Delay (s)		78.2			52.4			51.6			51.9	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM 2000 Control Delay			59.1									
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			112.8									
Intersection Capacity Utilization			79.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

PM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Future Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	362	522	203	254	445	101	162	581	250	57	718	394
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	22.0	36.0	36.0	19.0	33.0	33.0	15.0	39.0	39.0	12.0	36.0	36.0
Total Split (%)	18.3%	30.0%	30.0%	15.8%	27.5%	27.5%	12.5%	32.5%	32.5%	10.0%	30.0%	30.0%
Maximum Green (s)	16.0	30.0	30.0	13.0	27.0	27.0	9.0	33.0	33.0	6.0	30.0	30.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0
Pedestrian Calls (#/hr)		1	1		2	2		5	5		6	6
v/c Ratio	1.22	0.94	0.34	1.03	0.89	0.18	0.90	0.90	0.38	0.45	1.32	0.62
Control Delay	166.3	65.1	8.9	112.7	59.6	0.7	94.2	53.4	11.6	61.3	190.3	17.1
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	166.3	65.1	8.9	112.7	59.6	0.7	94.2	53.4	11.6	61.3	190.3	17.1
Queue Length 50th (ft)	~298	341	14	~176	288	0	110	380	37	38	~623	79

Lane Group	Ø11	Ø12

Lane Configurations		

Traffic Volume (vph)		

Future Volume (vph)		

Ideal Flow (vphpl)		

Storage Length (ft)		

Storage Lanes		

Taper Length (ft)		

Right Turn on Red		

Link Speed (mph)		

Link Distance (ft)		

Travel Time (s)		

Peak Hour Factor		

Heavy Vehicles (%)		

Shared Lane Traffic (%)		

Lane Group Flow (vph)		

Enter Blocked Intersection		

Lane Alignment		

Median Width(ft)		

Link Offset(ft)		

Crosswalk Width(ft)		

Two way Left Turn Lane		

Headway Factor		

Turning Speed (mph)		

Turn Type		

Protected Phases	11	12

Permitted Phases		

Detector Phase		

Switch Phase		

Minimum Initial (s)	1.0	1.0

Minimum Split (s)	7.0	7.0

Total Split (s)	7.0	7.0

Total Split (%)	6%	6%

Maximum Green (s)	5.0	5.0

Yellow Time (s)	2.0	2.0

All-Red Time (s)	0.0	0.0

Lost Time Adjust (s)		

Total Lost Time (s)		

Lead/Lag		

Lead-Lag Optimize?		

Vehicle Extension (s)	3.0	3.0

Recall Mode	None	None

Walk Time (s)	5.0	5.0

Flash Dont Walk (s)	0.0	0.0

Pedestrian Calls (#/hr)	3	11

v/c Ratio		

Control Delay		

Queue Delay		

Total Delay		

Queue Length 50th (ft)		

Lanes, Volumes, Timings

PM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#558	#652	79	#397	#556	0	#269	#715	117	89	#995	213
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	296	554	593	246	502	554	181	649	664	129	543	636
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.94	0.34	1.03	0.89	0.18	0.90	0.90	0.38	0.44	1.32	0.62

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 108.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

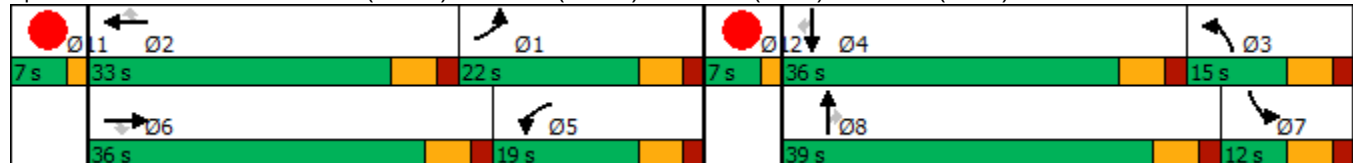
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

PM 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Future Volume (vph)	329	475	185	246	432	98	146	523	225	51	646	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1752	1845	1568
Peak-hour factor, PHF	0.91	0.91	0.91	0.97	0.97	0.97	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	362	522	203	254	445	101	162	581	250	57	718	394
RTOR Reduction (vph)	0	0	124	0	0	75	0	0	116	0	0	177
Lane Group Flow (vph)	362	522	79	254	445	26	162	581	134	57	718	217
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%	3%	3%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	16.0	30.1	30.1	13.0	27.1	27.1	10.2	35.5	35.5	4.8	30.1	30.1
Effective Green, g (s)	18.0	32.1	32.1	15.0	29.1	29.1	12.2	37.5	37.5	6.8	32.1	32.1
Actuated g/C Ratio	0.16	0.28	0.28	0.13	0.26	0.26	0.11	0.33	0.33	0.06	0.28	0.28
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	284	533	453	236	483	411	192	623	529	105	523	444
v/s Ratio Prot	c0.20	c0.28		0.14	0.24		c0.09	c0.31		0.03	c0.39	
v/s Ratio Perm			0.05			0.02			0.08			0.14
v/c Ratio	1.27	0.98	0.17	1.08	0.92	0.06	0.84	0.93	0.25	0.54	1.37	0.49
Uniform Delay, d1	47.6	40.2	30.6	49.1	40.9	31.8	49.6	36.6	27.6	51.7	40.5	33.7
Progression 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
Incremental Delay, d2	148.1	33.3	0.2	80.3	23.0	0.1	27.2	21.0	0.3	5.6	179.6	0.8
Delay (s)	195.7	73.5	30.7	129.4	64.0	31.8	76.7	57.6	27.9	57.3	220.2	34.6
Level of Service	F	E	C	F	E	C	E	E	C	E	F	C
Approach Delay (s)		106.2			80.7			53.2			149.7	
Approach LOS		F			F			D			F	
Intersection Summary												
HCM 2000 Control Delay			100.7									F
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			113.2							20.0		
Intersection Capacity Utilization			96.4%							F		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

SAT 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Future Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		150	200		200	125		125	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	175			200			225			50		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1650			1074			560			340	
Travel Time (s)		37.5			24.4			12.7			7.7	
Peak Hour Factor	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	513	155	218	405	126	114	417	274	60	462	283
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0	11.0	32.0	32.0
Total Split (s)	24.0	40.0	40.0	19.0	35.0	35.0	15.0	34.0	34.0	13.0	32.0	32.0
Total Split (%)	20.0%	33.3%	33.3%	15.8%	29.2%	29.2%	12.5%	28.3%	28.3%	10.8%	26.7%	26.7%
Maximum Green (s)	18.0	34.0	34.0	13.0	29.0	29.0	9.0	28.0	28.0	7.0	26.0	26.0
Yellow 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
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
Lost Time Adjust (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
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
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	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	Min	Min	None	Min	Min	None	None	None	None	None	None
Walk Time (s)		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Flash Dont Walk (s)		26.0	26.0		26.0	26.0		26.0	26.0		26.0	26.0
Pedestrian Calls (#/hr)		1	1		1	1		3	3		0	0
v/c Ratio	0.83	0.85	0.25	0.87	0.81	0.23	0.63	0.72	0.45	0.41	0.93	0.46
Control Delay	63.5	49.4	4.3	77.6	51.3	2.7	64.0	43.9	15.4	57.6	67.0	8.2
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	63.5	49.4	4.3	77.6	51.3	2.7	64.0	43.9	15.4	57.6	67.0	8.2
Queue Length 50th (ft)	193	314	0	147	247	0	75	260	52	39	306	10

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	2	3
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings

SAT 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)	#406	#585	38	#329	#458	18	#173	#493	150	91	#597	87
Internal Link Dist (ft)		1570			994			480			260	
Turn Bay Length (ft)	150		150	200		200	125		125	100		
Base Capacity (vph)	350	637	656	252	548	589	185	577	610	151	495	615
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.81	0.24	0.87	0.74	0.21	0.62	0.72	0.45	0.40	0.93	0.46

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 106.8

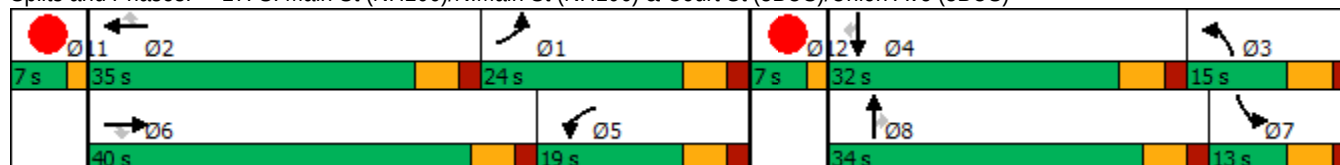
Natural Cycle: 110

Control Type: Actuated-Uncoordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS)



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

SAT 2037 B-MIT

17: S. Main St (NH106)/N.Main St (NH106) & Court St (3BUS)/Union Ave (3BUS) Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Future Volume (vph)	274	482	146	207	385	120	107	392	258	54	416	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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
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	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1787	1881	1599	1787	1881	1599	1787	1881	1599	1787	1881	1599
Peak-hour factor, PHF	0.94	0.94	0.94	0.95	0.95	0.95	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	291	513	155	218	405	126	114	417	274	60	462	283
RTOR Reduction (vph)	0	0	107	0	0	94	0	0	122	0	0	197
Lane Group Flow (vph)	291	513	48	218	405	32	114	417	152	60	462	86
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			6			2			8			4
Actuated Green, G (s)	19.0	32.2	32.2	13.1	26.3	26.3	10.2	30.8	30.8	5.5	26.1	26.1
Effective Green, g (s)	21.0	34.2	34.2	15.1	28.3	28.3	12.2	32.8	32.8	7.5	28.1	28.1
Actuated g/C Ratio	0.19	0.31	0.31	0.14	0.25	0.25	0.11	0.29	0.29	0.07	0.25	0.25
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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
Lane Grp Cap (vph)	336	577	490	242	477	406	195	553	470	120	474	403
v/s Ratio Prot	c0.16	c0.27		0.12	0.22		c0.06	c0.22		0.03	c0.25	
v/s Ratio Perm			0.03			0.02			0.10			0.05
v/c Ratio	0.87	0.89	0.10	0.90	0.85	0.08	0.58	0.75	0.32	0.50	0.97	0.21
Uniform Delay, d1	43.8	36.8	27.6	47.4	39.5	31.6	47.2	35.6	30.6	50.1	41.3	32.9
Progression 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
Incremental Delay, d2	20.1	15.4	0.1	32.7	13.2	0.1	4.4	5.8	0.4	3.3	34.5	0.3
Delay (s)	64.0	52.2	27.7	80.2	52.7	31.7	51.6	41.4	31.0	53.4	75.8	33.2
Level of Service	E	D	C	F	D	C	D	D	C	D	E	C
Approach Delay (s)		51.8			57.2			39.3			59.2	
Approach LOS		D			E			D			E	
Intersection Summary												
HCM 2000 Control Delay			51.8									
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			111.4									
Intersection Capacity Utilization			78.0%									
Analysis Period (min)			15									
c Critical Lane Group												

ATTACHMENT K

Intersection #20: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	320	684	0	0	475	58	2	16	9	23	0	301
Future Volume (vph)	320	684	0	0	475	58	2	16	9	23	0	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	356	760	0	0	579	0	0	30	0	26	0	334
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

AM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	684	0	0	475	58	2	16	9	23	0	301
Future Volume (Veh/h)	320	684	0	0	475	58	2	16	9	23	0	301
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	356	760	0	0	516	63	2	18	10	26	0	334
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	579			760			2354	2051	760	2038	2020	548
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	579			760			2354	2051	760	2038	2020	548
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	64			100			71	50	98	0	100	38
cM capacity (veh/h)	995			843			7	36	406	18	37	537
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	356	760	579	30	26	334						
Volume Left	356	0	0	2	26	0						
Volume Right	0	0	63	10	0	334						
cSH	995	1700	1700	36	18	537						
Volume to Capacity	0.36	0.45	0.34	0.82	1.42	0.62						
Queue Length 95th (ft)	41	0	0	74	91	106						
Control Delay (s)	10.6	0.0	0.0	259.6	660.0	22.1						
Lane LOS	B			F	F	C						
Approach Delay (s)	3.4		0.0	259.6	68.2							
Approach LOS				F	F							
Intersection Summary												
Average Delay			17.3									
Intersection Capacity Utilization			64.2%		ICU Level of Service		C					
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	111	786	0	0	84	39	3	3	9	14	0	519
Future Volume (vph)	111	786	0	0	84	39	3	3	9	14	0	519
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	864	0	0	136	0	0	16	0	16	0	577
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

PM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	786	0	0	84	39	3	3	9	14	0	519
Future Volume (Veh/h)	111	786	0	0	84	39	3	3	9	14	0	519
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	122	864	0	0	93	43	3	3	10	16	0	577
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			864			1800	1244	864	1234	1222	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			864			1800	1244	864	1234	1222	114
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			87	98	97	88	100	39
cM capacity (veh/h)	1454			779			22	160	354	138	165	941
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	122	864	136	16	16	577						
Volume Left	122	0	0	3	16	0						
Volume Right	0	0	43	10	0	577						
cSH	1454	1700	1700	88	138	941						
Volume to Capacity	0.08	0.51	0.08	0.18	0.12	0.61						
Queue Length 95th (ft)	7	0	0	16	10	109						
Control Delay (s)	7.7	0.0	0.0	54.5	34.4	14.7						
Lane LOS	A			F	D	B						
Approach Delay (s)	1.0		0.0	54.5	15.2							
Approach LOS				F	C							
Intersection Summary												
Average Delay			6.3									
Intersection Capacity Utilization			52.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	229	728	0	0	661	47	3	2	5	35	0	343
Future Volume (vph)	229	728	0	0	661	47	3	2	5	35	0	343
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	249	791	0	0	786	0	0	11	0	39	0	381
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

SAT 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	229	728	0	0	661	47	3	2	5	35	0	343
Future Volume (Veh/h)	229	728	0	0	661	47	3	2	5	35	0	343
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	249	791	0	0	734	52	3	2	6	39	0	381
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	786			791			2430	2075	791	2056	2049	760
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786			791			2430	2075	791	2056	2049	760
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	70			100			0	95	98	0	100	7
cM capacity (veh/h)	837			834			1	38	390	30	39	408
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	249	791	786	11	39	381						
Volume Left	249	0	0	3	39	0						
Volume Right	0	0	52	6	0	381						
cSH	837	1700	1700	4	30	408						
Volume to Capacity	0.30	0.47	0.46	2.80	1.31	0.93						
Queue Length 95th (ft)	31	0	0	63	111	260						
Control Delay (s)	11.1	0.0	0.0	2475.5	469.3	61.9						
Lane LOS	B			F	F	F						
Approach Delay (s)	2.7		0.0	2475.5	99.7							
Approach LOS				F	F							
Intersection Summary												
Average Delay			31.8									
Intersection Capacity Utilization			72.2%		ICU Level of Service				C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	372	684	0	0	475	58	2	16	9	23	0	454
Future Volume (vph)	372	684	0	0	475	58	2	16	9	23	0	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	413	760	0	0	579	0	0	30	0	26	0	504
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

AM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	684	0	0	475	58	2	16	9	23	0	454
Future Volume (Veh/h)	372	684	0	0	475	58	2	16	9	23	0	454
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	413	760	0	0	516	63	2	18	10	26	0	504
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	579			760			2638	2165	760	2152	2134	548
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	579			760			2638	2165	760	2152	2134	548
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	58			100			0	35	98	0	100	6
cM capacity (veh/h)	995			843			1	28	406	11	29	537
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	413	760	579	30	26	504						
Volume Left	413	0	0	2	26	0						
Volume Right	0	0	63	10	0	504						
cSH	995	1700	1700	8	11	537						
Volume to Capacity	0.42	0.45	0.34	3.83	2.27	0.94						
Queue Length 95th (ft)	52	0	0	Err	104	297						
Control Delay (s)	11.2	0.0	0.0	Err	1237.4	53.1						
Lane LOS	B			F	F	F						
Approach Delay (s)	3.9		0.0	Err	111.2							
Approach LOS				F	F							
Intersection Summary												
Average Delay			157.2									
Intersection Capacity Utilization			70.0%		ICU Level of Service					C		
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	786	0	0	84	39	3	3	9	14	0	614
Future Volume (vph)	245	786	0	0	84	39	3	3	9	14	0	614
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	269	864	0	0	136	0	0	16	0	16	0	682
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

PM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	786	0	0	84	39	3	3	9	14	0	614
Future Volume (Veh/h)	245	786	0	0	84	39	3	3	9	14	0	614
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	269	864	0	0	93	43	3	3	10	16	0	682
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			864			2198	1538	864	1528	1516	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			864			2198	1538	864	1528	1516	114
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	82			100			60	97	97	80	100	28
cM capacity (veh/h)	1454			779			8	94	354	79	98	941
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	269	864	136	16	16	682						
Volume Left	269	0	0	3	16	0						
Volume Right	0	0	43	10	0	682						
cSH	1454	1700	1700	35	79	941						
Volume to Capacity	0.18	0.51	0.08	0.46	0.20	0.72						
Queue Length 95th (ft)	17	0	0	38	18	164						
Control Delay (s)	8.0	0.0	0.0	174.6	62.2	18.2						
Lane LOS	A			F	F	C						
Approach Delay (s)	1.9		0.0	174.6	19.2							
Approach LOS				F	C							
Intersection Summary												
Average Delay			9.3									
Intersection Capacity Utilization			58.1%		ICU Level of Service				B			
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	728	0	0	661	47	3	2	5	35	0	383
Future Volume (vph)	256	728	0	0	661	47	3	2	5	35	0	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	1		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	278	791	0	0	786	0	0	11	0	39	0	426
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

SAT 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	728	0	0	661	47	3	2	5	35	0	383
Future Volume (Veh/h)	256	728	0	0	661	47	3	2	5	35	0	383
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	278	791	0	0	734	52	3	2	6	39	0	426
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	786			791			2533	2133	791	2114	2107	760
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786			791			2533	2133	791	2114	2107	760
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	67			100			0	94	98	0	100	0
cM capacity (veh/h)	837			834			0	33	390	26	34	408
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1	SB 2						
Volume Total	278	791	786	11	39	426						
Volume Left	278	0	0	3	39	0						
Volume Right	0	0	52	6	0	426						
cSH	837	1700	1700	0	26	408						
Volume to Capacity	0.33	0.47	0.46	Err	1.50	1.05						
Queue Length 95th (ft)	37	0	0	Err	118	346						
Control Delay (s)	11.4	0.0	0.0	Err	580.3	89.3						
Lane LOS	B			F	F	F						
Approach Delay (s)	3.0		0.0	Err	130.5							
Approach LOS				F	F							
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			74.7%		ICU Level of Service					D		
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

AM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	372	684	0	0	475	58	2	16	9	0	0	454
Future Volume (vph)	372	684	0	0	475	58	2	16	9	0	0	454
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	4%	4%	4%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	413	760	0	0	579	0	0	30	0	0	0	504
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

AM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	372	684	0	0	475	58	2	16	9	0	0	454
Future Volume (Veh/h)	372	684	0	0	475	58	2	16	9	0	0	454
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	413	760	0	0	516	63	2	18	10	0	0	504
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	579			760			2638	2165	760	2152	2134	548
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	579			760			2638	2165	760	2152	2134	548
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	58			100			0	35	98	100	100	6
cM capacity (veh/h)	995			843			1	28	406	11	29	537
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	413	760	579	30	504							
Volume Left	413	0	0	2	0							
Volume Right	0	0	63	10	504							
cSH	995	1700	1700	8	537							
Volume to Capacity	0.42	0.45	0.34	3.83	0.94							
Queue Length 95th (ft)	52	0	0	Err	297							
Control Delay (s)	11.2	0.0	0.0	Err	53.1							
Lane LOS	B			F	F							
Approach Delay (s)	3.9		0.0	Err	53.1							
Approach LOS				F	F							
Intersection Summary												
Average Delay			144.9									
Intersection Capacity Utilization			70.0%		ICU Level of Service				C			
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

PM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	786	0	0	84	39	3	3	9	0	0	614
Future Volume (vph)	245	786	0	0	84	39	3	3	9	0	0	614
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	269	864	0	0	136	0	0	16	0	0	0	682
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis 20: Fair St & Court St (3BUS)

PM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	786	0	0	84	39	3	3	9	0	0	614
Future Volume (Veh/h)	245	786	0	0	84	39	3	3	9	0	0	614
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	269	864	0	0	93	43	3	3	10	0	0	682
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	136			864			2198	1538	864	1528	1516	114
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	136			864			2198	1538	864	1528	1516	114
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	82			100			60	97	97	100	100	28
cM capacity (veh/h)	1454			779			8	94	354	79	98	941
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	269	864	136	16	682							
Volume Left	269	0	0	3	0							
Volume Right	0	0	43	10	682							
cSH	1454	1700	1700	35	941							
Volume to Capacity	0.18	0.51	0.08	0.46	0.72							
Queue Length 95th (ft)	17	0	0	38	164							
Control Delay (s)	8.0	0.0	0.0	174.6	18.2							
Lane LOS	A			F	C							
Approach Delay (s)	1.9		0.0	174.6	18.2							
Approach LOS				F	C							
Intersection Summary												
Average Delay			8.8									
Intersection Capacity Utilization			58.1%		ICU Level of Service				B			
Analysis Period (min)			15									

Lanes, Volumes, Timings
20: Fair St & Court St (3BUS)

SAT 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	256	728	0	0	661	47	3	2	5	0	0	383
Future Volume (vph)	256	728	0	0	661	47	3	2	5	0	0	383
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	0		0	150		0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (ft)	100			25			25			100		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1016			1650			360			1792	
Travel Time (s)		23.1			37.5			8.2			40.7	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	2%	2%	2%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	278	791	0	0	786	0	0	11	0	0	0	426
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized

HCM Unsignalized Intersection Capacity Analysis

20: Fair St & Court St (3BUS)

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	728	0	0	661	47	3	2	5	0	0	383
Future Volume (Veh/h)	256	728	0	0	661	47	3	2	5	0	0	383
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	278	791	0	0	734	52	3	2	6	0	0	426
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	786			791			2533	2133	791	2114	2107	760
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	786			791			2533	2133	791	2114	2107	760
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	67			100			0	94	98	100	100	0
cM capacity (veh/h)	837			834			0	33	390	26	34	408
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	SB 1							
Volume Total	278	791	786	11	426							
Volume Left	278	0	0	3	0							
Volume Right	0	0	52	6	426							
cSH	837	1700	1700	0	408							
Volume to Capacity	0.33	0.47	0.46	Err	1.05							
Queue Length 95th (ft)	37	0	0	Err	346							
Control Delay (s)	11.4	0.0	0.0	Err	89.3							
Lane LOS	B			F	F							
Approach Delay (s)	3.0		0.0	Err	89.3							
Approach LOS				F	F							
Intersection Summary												
Average Delay			Err									
Intersection Capacity Utilization			74.7%		ICU Level of Service				D			
Analysis Period (min)			15									

ATTACHMENT L

Intersection #13: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Canton St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	25	401	74	62	18	236	490	5	2	420	192
Future Volume (vph)	257	25	401	74	62	18	236	490	5	2	420	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.83	0.83	0.85	0.85	0.85
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	376	535	0	197	0	284	596	0	0	496	226
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	36.0	36.0	14.0	26.0	26.0		14.0	45.0		31.0	31.0	31.0
Total Split (%)	32.1%	32.1%	12.5%	23.2%	23.2%		12.5%	40.2%		27.7%	27.7%	27.7%
Maximum Green (s)	30.0	30.0	10.0	20.0	20.0		10.0	39.0		25.0	25.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	Lag
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.91	0.48		0.57		0.86	0.68			0.86	0.46
Control Delay		55.3	2.5		32.1		44.3	25.1			45.8	30.0
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		55.3	2.5		32.1		44.3	25.1			45.8	30.0
Queue Length 50th (ft)		170	0		72		85	209			226	88

Lanes, Volumes, Timings
 13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	28%
Maximum Green (s)	25.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	1
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#389	5		178		#308	#525			#564	213
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		415	1109		343		332	872			579	493
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.91	0.48		0.57		0.86	0.68			0.86	0.46

Intersection Summary

Area Type: Other

Cycle Length: 112

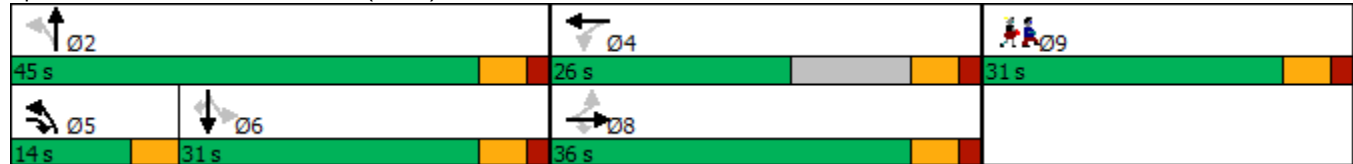
Actuated Cycle Length: 87.2

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	25	401	74	62	18	236	490	5	2	420	192
Future Volume (vph)	257	25	401	74	62	18	236	490	5	2	420	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.98		1.00	1.00			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1764	1568		1739		1736	1824			1844	1568
Flt Permitted		0.60	1.00		0.51		0.14	1.00			1.00	1.00
Satd. Flow (perm)		1112	1568		912		248	1824			1841	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.83	0.83	0.85	0.85	0.85
Adj. Flow (vph)	343	33	535	95	79	23	284	590	6	2	494	226
RTOR Reduction (vph)	0	0	275	0	4	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	376	260	0	193	0	284	595	0	0	496	226
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		30.5	40.7		30.5		39.7	39.7			25.5	25.5
Effective Green, g (s)		32.5	44.7		32.5		41.7	41.7			27.5	27.5
Actuated g/C Ratio		0.35	0.49		0.35		0.45	0.45			0.30	0.30
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		392	761		321		309	825			549	468
v/s Ratio Prot			0.05				c0.12	0.33				
v/s Ratio Perm		c0.34	0.12		0.21		0.29				c0.27	0.14
v/c Ratio		0.96	0.34		0.60		0.92	0.72			0.90	0.48
Uniform Delay, d1		29.2	14.6		24.5		22.7	20.5			31.0	26.5
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		34.5	0.3		3.2		30.7	3.1			18.2	0.8
Delay (s)		63.6	14.9		27.6		53.4	23.6			49.2	27.3
Level of Service		E	B		C		D	C			D	C
Approach Delay (s)		35.0			27.6			33.2			42.3	
Approach LOS		D			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			35.9				HCM 2000 Level of Service				D	
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			92.1				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			80.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	32	345	62	42	32	348	824	40	2	684	255
Future Volume (vph)	327	32	345	62	42	32	348	824	40	2	684	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	382	367	0	152	0	374	929	0	0	762	283
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	5	8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	23.0	23.0	14.0	26.0	26.0		14.0	50.0		36.0	36.0	36.0
Total Split (%)	21.5%	21.5%	13.1%	24.3%	24.3%		13.1%	46.7%		33.6%	33.6%	33.6%
Maximum Green (s)	17.0	17.0	10.0	20.0	20.0		10.0	44.0		30.0	30.0	30.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag	Lag	Lag	Lead				Lead			Lag	Lag	Lag
Lead-Lag Optimize?	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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.31	0.41		0.95		1.11	0.94			1.37	0.48
Control Delay		194.4	2.9		95.5		107.8	40.8			205.3	28.2
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		194.4	2.9		95.5		107.8	40.8			205.3	28.2
Queue Length 50th (ft)		~217	0		62		123	310			~448	91

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 NB
Timing Plan: NHDOT/City

Lane Group	Ø3	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	3	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	5.0
Minimum Split (s)	3.0	31.0
Total Split (s)	3.0	31.0
Total Split (%)	3%	29%
Maximum Green (s)	1.0	25.0
Yellow Time (s)	2.0	4.0
All-Red Time (s)	0.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		18.0
Pedestrian Calls (#/hr)		17
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#564	31		#249		#479	#1008			#1002	257
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		291	889		160		336	991			555	589
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.31	0.41		0.95		1.11	0.94			1.37	0.48

Intersection Summary

Area Type: Other

Cycle Length: 107

Actuated Cycle Length: 88.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

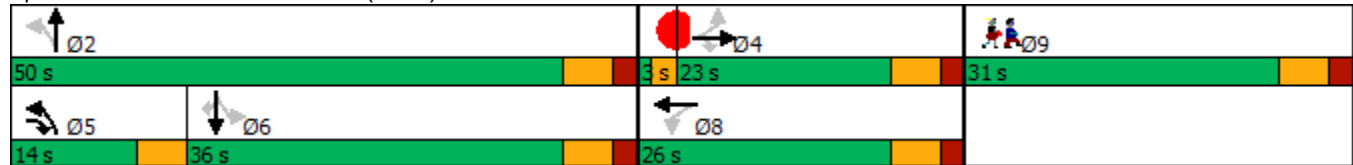
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø3	Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	327	32	345	62	42	32	348	824	40	2	684	255
Future Volume (vph)	327	32	345	62	42	32	348	824	40	2	684	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1764	1568		1763		1770	1850			1863	1583
Flt Permitted		0.62	1.00		0.33		0.11	1.00			0.80	1.00
Satd. Flow (perm)		1138	1568		588		213	1850			1492	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Adj. Flow (vph)	348	34	367	69	47	36	374	886	43	2	760	283
RTOR Reduction (vph)	0	0	228	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	382	139	0	142	0	374	928	0	0	762	283
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)		20.6	30.9		20.6		45.2	45.2			30.9	30.9
Effective Green, g (s)		22.6	34.9		22.6		47.2	47.2			32.9	32.9
Actuated g/C Ratio		0.25	0.38		0.25		0.51	0.51			0.36	0.36
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		279	594		144		317	948			532	565
v/s Ratio Prot			0.03				c0.16	0.50				
v/s Ratio Perm		c0.34	0.06		0.24		0.45			c0.51	0.18	
v/c Ratio		1.37	0.23		0.99		1.18	0.98		1.43	0.50	
Uniform Delay, d1		34.8	19.5		34.6		26.4	22.0		29.6	23.2	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		187.3	0.2		70.6		108.7	23.8		205.2	0.7	
Delay (s)		222.1	19.7		105.2		135.0	45.7		234.8	23.9	
Level of Service		F	B		F		F	D		F	C	
Approach Delay (s)		122.9			105.2			71.4		177.7		
Approach LOS		F			F			E		F		
Intersection Summary												
HCM 2000 Control Delay			119.0				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.24									
Actuated Cycle Length (s)			92.1				Sum of lost time (s)		18.0			
Intersection Capacity Utilization			118.4%				ICU Level of Service		H			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Canton St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	19	197	70	40	40	190	824	26	7	805	272
Future Volume (vph)	311	19	197	70	40	40	190	824	26	7	805	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	354	212	0	166	0	202	905	0	0	854	286
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	36.0	36.0	14.0	26.0	26.0		14.0	45.0		31.0	31.0	31.0
Total Split (%)	32.1%	32.1%	12.5%	23.2%	23.2%		12.5%	40.2%		27.7%	27.7%	27.7%
Maximum Green (s)	30.0	30.0	10.0	20.0	20.0		10.0	39.0		25.0	25.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	Lag
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.83	0.22		0.41		0.60	1.01			2.59	0.56
Control Delay		44.7	1.9		24.7		24.2	57.8			741.9	32.3
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		44.7	1.9		24.7		24.2	57.8			741.9	32.3
Queue Length 50th (ft)		153	0		52		51	413			~729	116

Lanes, Volumes, Timings
 13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	28%
Maximum Green (s)	25.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#468	20		163		#204	#1096			#1335	#311
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		429	974		402		341	896			330	510
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.83	0.22		0.41		0.59	1.01			2.59	0.56

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 87.2

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

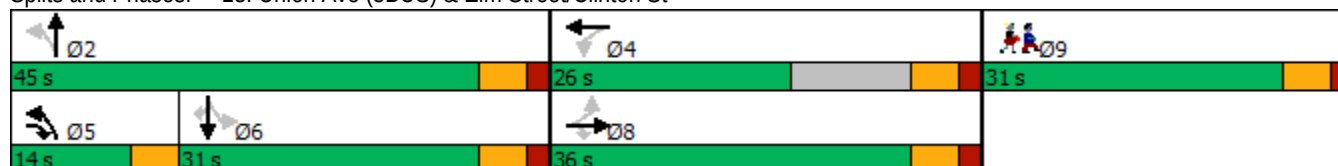
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	311	19	197	70	40	40	190	824	26	7	805	272
Future Volume (vph)	311	19	197	70	40	40	190	824	26	7	805	272
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.96		1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1779	1583		1755		1787	1872			1880	1599
Flt Permitted		0.62	1.00		0.59		0.13	1.00			0.55	1.00
Satd. Flow (perm)		1151	1583		1053		252	1872			1035	1599
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	334	20	212	78	44	44	202	877	28	7	847	286
RTOR Reduction (vph)	0	0	110	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	354	102	0	156	0	202	904	0	0	854	286
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		30.5	40.3		30.5		39.7	39.7			25.9	25.9
Effective Green, g (s)		32.5	44.3		32.5		41.7	41.7			27.9	27.9
Actuated g/C Ratio		0.35	0.48		0.35		0.45	0.45			0.30	0.30
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		406	761		371		310	847			313	484
v/s Ratio Prot			0.02				0.08	c0.48				
v/s Ratio Perm		c0.31	0.05		0.15		0.21				c0.83	0.18
v/c Ratio		0.87	0.13		0.42		0.65	1.07			2.73	0.59
Uniform Delay, d1		27.9	13.3		22.6		19.6	25.2			32.1	27.3
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		18.2	0.1		0.8		4.8	50.5			786.8	1.9
Delay (s)		46.0	13.3		23.4		24.5	75.7			818.9	29.2
Level of Service		D	B		C		C	E			F	C
Approach Delay (s)		33.8			23.4			66.3			620.8	
Approach LOS		C			C			E			F	
Intersection Summary												
HCM 2000 Control Delay			269.9									F
HCM 2000 Volume to Capacity ratio			1.53									
Actuated Cycle Length (s)			92.1									
Intersection Capacity Utilization			122.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Canton St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Future Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.25	0.83	0.85	0.85	0.85
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	506	609	0	197	0	334	1966	0	0	496	299
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	5	8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	26.0	26.0	14.0	36.0	36.0		14.0	45.0		31.0	31.0	31.0
Total Split (%)	23.2%	23.2%	12.5%	32.1%	32.1%		12.5%	40.2%		27.7%	27.7%	27.7%
Maximum Green (s)	20.0	20.0	10.0	30.0	30.0		10.0	39.0		25.0	25.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag			Lead				Lead			Lag	Lag	Lag
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.23	0.54		0.88		1.01	2.25			1.28	0.61
Control Delay		152.5	3.0		64.1		74.4	586.5			173.7	34.0
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		152.5	3.0		64.1		74.4	586.5			173.7	34.0
Queue Length 50th (ft)		~309	5		85		115	~1609			~311	123

Lanes, Volumes, Timings
 13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B
 Timing Plan: NHDOT/City

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	31.0
Total Split (s)	31.0
Total Split (%)	28%
Maximum Green (s)	25.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	18.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#570	9		#252		#387	398			#675	#303
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		410	1129		225		332	873			387	493
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.23	0.54		0.88		1.01	2.25			1.28	0.61

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 87.2

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

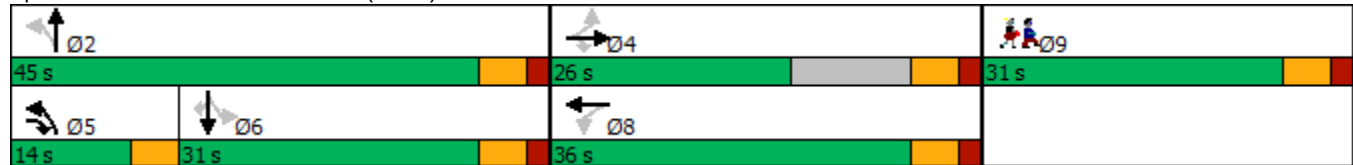
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø9

Queue Length 95th (ft)	

Internal Link Dist (ft)	

Turn Bay Length (ft)	

Base Capacity (vph)	

Starvation Cap Reductn	

Spillback Cap Reductn	

Storage Cap Reductn	

Reduced v/c Ratio	

Intersection Summary	

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Future Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.98		1.00	1.00			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1762	1568		1739		1736	1826			1844	1568
Flt Permitted		0.60	1.00		0.33		0.14	1.00			0.67	1.00
Satd. Flow (perm)		1101	1568		595		248	1826			1230	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.25	0.83	0.85	0.85	0.85
Adj. Flow (vph)	473	33	609	95	79	23	334	1960	6	2	494	299
RTOR Reduction (vph)	0	0	299	0	4	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	506	310	0	193	0	334	1966	0	0	496	299
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)		30.5	40.7		30.5		39.7	39.7			25.5	25.5
Effective Green, g (s)		32.5	44.7		32.5		41.7	41.7			27.5	27.5
Actuated g/C Ratio		0.35	0.49		0.35		0.45	0.45			0.30	0.30
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		388	761		209		309	826			367	468
v/s Ratio Prot			0.05				0.14	c1.08				
v/s Ratio Perm		c0.46	0.14		0.32		0.35				0.40	0.19
v/c Ratio		1.30	0.41		0.92		1.08	2.38			1.35	0.64
Uniform Delay, d1		29.8	15.2		28.6		24.5	25.2			32.3	28.0
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		154.5	0.4		41.3		74.5	624.8			175.2	2.9
Delay (s)		184.3	15.6		70.0		99.0	650.0			207.5	30.9
Level of Service		F	B		E		F	F			F	C
Approach Delay (s)		92.1			70.0			570.0			141.1	
Approach LOS		F			E			F			F	
Intersection Summary												
HCM 2000 Control Delay			349.4				HCM 2000 Level of Service				F	
HCM 2000 Volume to Capacity ratio			1.86									
Actuated Cycle Length (s)			92.1				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			86.0%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Canton St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Future Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	419	0	152	0	431	929	0	0	762	396
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	26.0	26.0	14.0	23.0	23.0		14.0	50.0		36.0	36.0	36.0
Total Split (%)	24.3%	24.3%	13.1%	21.5%	21.5%		13.1%	46.7%		33.6%	33.6%	33.6%
Maximum Green (s)	20.0	20.0	10.0	17.0	17.0		10.0	44.0		30.0	30.0	30.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag			Lead	Lag	Lag		Lead			Lag	Lag	Lag
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.67	0.46		2.20		1.28	0.94			1.37	0.67
Control Delay		342.8	3.0		608.9		171.8	40.8			205.3	33.9
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		342.8	3.0		608.9		171.8	40.8			205.3	33.9
Queue Length 50th (ft)		~319	0		~111		~189	310			~448	139

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø3	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	3	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	5.0
Minimum Split (s)	3.0	31.0
Total Split (s)	3.0	31.0
Total Split (%)	3%	29%
Maximum Green (s)	1.0	25.0
Yellow Time (s)	2.0	4.0
All-Red Time (s)	0.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		18.0
Pedestrian Calls (#/hr)		17
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#724	33		#274		#571	#1008			#1002	#416
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		288	918		69		336	991			555	589
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.67	0.46		2.20		1.28	0.94			1.37	0.67

Intersection Summary

Area Type: Other

Cycle Length: 107

Actuated Cycle Length: 88.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

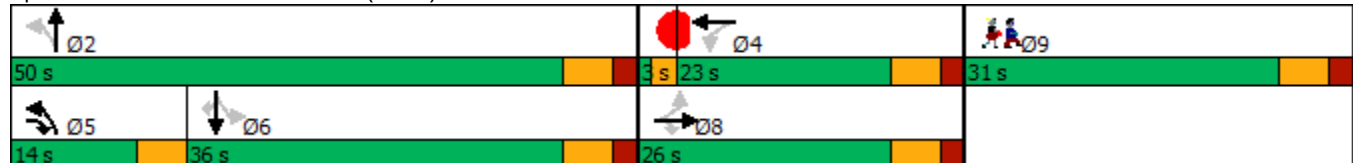
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø3	Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

PM 2037 B

13: Union Ave (3BUS) & Elm Street/Clinton St

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Future Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1763	1568		1763		1770	1850			1863	1583
Flt Permitted		0.61	1.00		0.13		0.11	1.00			0.80	1.00
Satd. Flow (perm)		1129	1568		232		213	1850			1492	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Adj. Flow (vph)	448	34	419	69	47	36	431	886	43	2	760	396
RTOR Reduction (vph)	0	0	260	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	482	159	0	142	0	431	928	0	0	762	396
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		20.6	30.9		20.6		45.2	45.2			30.9	30.9
Effective Green, g (s)		22.6	34.9		22.6		47.2	47.2			32.9	32.9
Actuated g/C Ratio		0.25	0.38		0.25		0.51	0.51			0.36	0.36
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		277	594		56		317	948			532	565
v/s Ratio Prot			0.04				c0.18	0.50				
v/s Ratio Perm		0.43	0.07		c0.61		0.51				c0.51	0.25
v/c Ratio		1.74	0.27		2.54		1.36	0.98			1.43	0.70
Uniform Delay, d1		34.8	19.8		34.8		26.4	22.0			29.6	25.4
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		347.7	0.2		742.1		181.0	23.8			205.2	3.9
Delay (s)		382.4	20.0		776.8		207.4	45.7			234.8	29.3
Level of Service		F	C		F		F	D			F	C
Approach Delay (s)		213.9			776.8			97.0			164.5	
Approach LOS		F			F			F			F	
Intersection Summary												
HCM 2000 Control Delay			177.3				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.61									
Actuated Cycle Length (s)			92.1				Sum of lost time (s)		18.0			
Intersection Capacity Utilization			123.6%				ICU Level of Service		H			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Canton St

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Future Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		300	0		0	75		0	500		0
Storage Lanes	0		1	0		0	1		0	1		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	451	272	0	166	0	265	905	0	0	854	386
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			12			3	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Detector Phase	4	4	5	8	8		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Total Split (s)	26.0	26.0	14.0	36.0	36.0		14.0	45.0		31.0	31.0	31.0
Total Split (%)	23.2%	23.2%	12.5%	32.1%	32.1%		12.5%	40.2%		27.7%	27.7%	27.7%
Maximum Green (s)	20.0	20.0	10.0	30.0	30.0		10.0	39.0		25.0	25.0	25.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag	Lag	Lag	Lead				Lead			Lag	Lag	Lag
Lead-Lag Optimize?	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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.06	0.27		0.53		0.77	1.01			2.64	0.77
Control Delay		88.8	1.9		29.7		35.1	57.8			763.3	40.7
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		88.8	1.9		29.7		35.1	57.8			763.3	40.7
Queue Length 50th (ft)		222	0		56		71	413			~730	170

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø3	Ø9
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	3	9
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	5.0
Minimum Split (s)	10.0	31.0
Total Split (s)	10.0	31.0
Total Split (%)	9%	28%
Maximum Green (s)	4.0	25.0
Yellow Time (s)	4.0	4.0
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		18.0
Pedestrian Calls (#/hr)		5
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#631	22		#194		#314	#1096			#1336	#479
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			300				75					
Base Capacity (vph)		427	1000		313		342	896			324	503
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.06	0.27		0.53		0.77	1.01			2.64	0.77

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 87.2

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

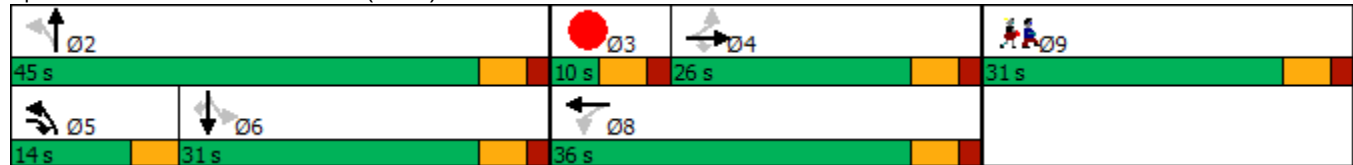
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø3	Ø9

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Future Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.96		1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1778	1583		1755		1787	1872			1880	1599
Flt Permitted		0.61	1.00		0.45		0.14	1.00			0.55	1.00
Satd. Flow (perm)		1145	1583		813		255	1872			1030	1599
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	431	20	272	78	44	44	265	877	28	7	847	386
RTOR Reduction (vph)	0	0	140	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	451	132	0	156	0	265	904	0	0	854	386
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		4	5		8		5	2			6	
Permitted Phases	4		4	8			2			6		6
Actuated Green, G (s)		30.5	40.7		30.5		39.7	39.7			25.5	25.5
Effective Green, g (s)		32.5	44.7		32.5		41.7	41.7			27.5	27.5
Actuated g/C Ratio		0.35	0.49		0.35		0.45	0.45			0.30	0.30
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		404	768		286		318	847			307	477
v/s Ratio Prot			0.02				0.11	c0.48				
v/s Ratio Perm		c0.39	0.06		0.19		0.27				c0.83	0.24
v/c Ratio		1.12	0.17		0.54		0.83	1.07			2.78	0.81
Uniform Delay, d1		29.8	13.3		23.9		21.0	25.2			32.3	29.9
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		80.2	0.1		2.1		16.8	50.5			810.8	9.8
Delay (s)		110.0	13.4		26.0		37.8	75.7			843.1	39.6
Level of Service		F	B		C		D	E			F	D
Approach Delay (s)		73.7			26.0			67.1			593.0	
Approach LOS		E			C			E			F	
Intersection Summary												
HCM 2000 Control Delay			264.2				HCM 2000 Level of Service				F	
HCM 2000 Volume to Capacity ratio			1.78									
Actuated Cycle Length (s)			92.1				Sum of lost time (s)			22.0		
Intersection Capacity Utilization			127.6%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Future Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		0	75		0	0		500
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.83	0.83	0.85	0.85	0.85
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	506	609	0	197	0	334	596	0	0	496	299
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	11.0	27.0	27.0		11.0	29.0		29.0	29.0	29.0
Total Split (s)	46.0	46.0	17.0	46.0	46.0		17.0	52.0		35.0	35.0	35.0
Total Split (%)	41.1%	41.1%	15.2%	41.1%	41.1%		15.2%	46.4%		31.3%	31.3%	31.3%
Maximum Green (s)	40.0	40.0	13.0	40.0	40.0		13.0	46.0		29.0	29.0	29.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	0.0	2.0	2.0		0.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lead/Lag			Lag				Lag			Lead	Lead	Lead
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0		21.0	21.0			23.0		23.0	23.0	23.0
Pedestrian Calls (#/hr)	2	2		1	1			0		3	3	3
v/c Ratio		1.10	0.56		0.64		0.93	0.68			0.95	0.62
Control Delay		101.1	6.8		35.0		70.1	26.3			64.3	37.3
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		101.1	6.8		35.0		70.1	26.3			64.3	37.3
Queue Length 50th (ft)		~352	65		90		135	270			297	157

Lanes, Volumes, Timings
 13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	1
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#495	96		170		#319	440			#545	271
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			400				75					500
Base Capacity (vph)		461	1087		309		358	871			523	484
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.10	0.56		0.64		0.93	0.68			0.95	0.62

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 100.8

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

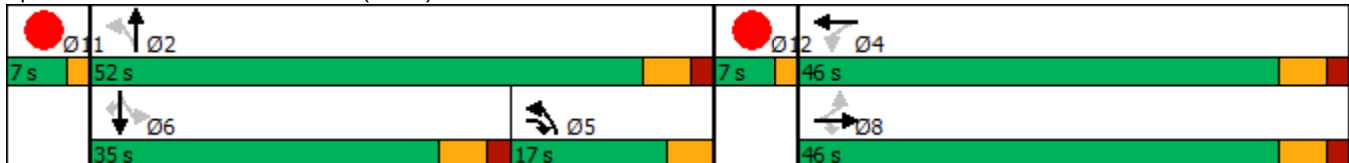
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

AM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Future Volume (vph)	355	25	457	74	62	18	277	490	5	2	420	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	2.0		4.0		2.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.98		1.00	1.00			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1762	1568		1739		1736	1824			1844	1568
Flt Permitted		0.60	1.00		0.41		0.16	1.00			0.92	1.00
Satd. Flow (perm)		1105	1568		733		285	1824			1697	1568
Peak-hour factor, PHF	0.75	0.75	0.75	0.78	0.78	0.78	0.83	0.83	0.83	0.85	0.85	0.85
Adj. Flow (vph)	473	33	609	95	79	23	334	590	6	2	494	299
RTOR Reduction (vph)	0	0	161	0	4	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	506	448	0	193	0	334	595	0	0	496	299
Heavy Vehicles (%)	3%	3%	3%	5%	5%	5%	4%	4%	4%	3%	3%	3%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		40.1	53.1		40.1		48.1	46.1			29.1	29.1
Effective Green, g (s)		42.1	57.1		42.1		50.1	48.1			31.1	31.1
Actuated g/C Ratio		0.40	0.55		0.40		0.48	0.46			0.30	0.30
Clearance Time (s)		6.0	4.0		6.0		4.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		447	860		296		346	843			507	468
v/s Ratio Prot			0.08				c0.14	0.33				
v/s Ratio Perm		c0.46	0.21		0.26		c0.32				0.29	0.19
v/c Ratio		1.13	0.52		0.65		0.97	0.71			0.98	0.64
Uniform Delay, d1		30.9	14.8		25.0		37.3	22.3			36.1	31.6
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		83.9	0.6		5.1		38.8	2.7			34.0	2.9
Delay (s)		114.8	15.4		30.1		76.1	25.0			70.1	34.4
Level of Service		F	B		C		E	C			E	C
Approach Delay (s)		60.5			30.1			43.4			56.7	
Approach LOS		E			C			D			E	
Intersection Summary												
HCM 2000 Control Delay			52.3				HCM 2000 Level of Service				D	
HCM 2000 Volume to Capacity ratio			1.04									
Actuated Cycle Length (s)			104.0				Sum of lost time (s)			14.0		
Intersection Capacity Utilization			86.0%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Future Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		0	75		0	0		500
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	419	0	152	0	431	929	0	0	762	396
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	11.0	27.0	27.0		11.0	29.0		29.0	29.0	29.0
Total Split (s)	35.0	35.0	20.0	35.0	35.0		20.0	61.0		41.0	41.0	41.0
Total Split (%)	31.8%	31.8%	18.2%	31.8%	31.8%		18.2%	55.5%		37.3%	37.3%	37.3%
Maximum Green (s)	29.0	29.0	14.0	29.0	29.0		14.0	55.0		35.0	35.0	35.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag			Lag				Lag			Lead	Lead	Lead
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0		21.0	21.0			23.0		23.0	23.0	23.0
Pedestrian Calls (#/hr)	4	4		5	5			2		6	6	6
v/c Ratio		1.34	0.45		0.82		1.19	0.87			1.53	0.67
Control Delay		202.8	6.2		64.3		143.0	29.0			275.2	33.3
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		202.8	6.2		64.3		143.0	29.0			275.2	33.3
Queue Length 50th (ft)		~380	40		77		~263	427			~647	194

Lanes, Volumes, Timings
 13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	8	9
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#676	114		#226		#545	#907			#1026	366
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			400				75					500
Base Capacity (vph)		359	938		185		362	1071			498	594
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.34	0.45		0.82		1.19	0.87			1.53	0.67

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 98.8

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

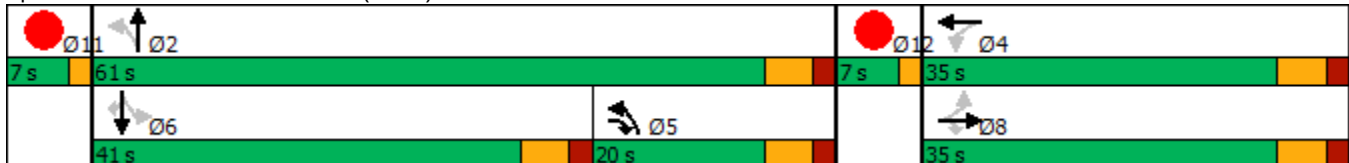
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

PM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Future Volume (vph)	421	32	394	62	42	32	401	824	40	2	684	356
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.97		1.00	0.99			1.00	0.85
Flt Protected		0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1763	1568		1763		1770	1850			1863	1583
Flt Permitted		0.62	1.00		0.31		0.10	1.00			0.71	1.00
Satd. Flow (perm)		1143	1568		560		181	1850			1329	1583
Peak-hour factor, PHF	0.94	0.94	0.94	0.90	0.90	0.90	0.93	0.93	0.93	0.90	0.90	0.90
Adj. Flow (vph)	448	34	419	69	47	36	431	886	43	2	760	396
RTOR Reduction (vph)	0	0	152	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	482	267	0	142	0	431	928	0	0	762	396
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		29.1	43.2		29.1		55.2	55.2			35.1	35.1
Effective Green, g (s)		31.1	47.2		31.1		57.2	57.2			37.1	37.1
Actuated g/C Ratio		0.30	0.46		0.30		0.56	0.56			0.36	0.36
Clearance Time (s)		6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		348	724		170		351	1036			482	575
v/s Ratio Prot			0.06				c0.19	0.50				
v/s Ratio Perm		c0.42	0.11		0.25		0.49			c0.57	0.25	
v/c Ratio		1.39	0.37		0.84		1.23	0.90		1.58	0.69	
Uniform Delay, d1		35.5	17.8		33.1		39.6	19.8		32.5	27.6	
Progression Factor		1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		190.2	0.3		28.5		125.2	10.1		271.2	3.4	
Delay (s)		225.7	18.1		61.6		164.8	29.9		303.7	31.0	
Level of Service		F	B		E		F	C		F	C	
Approach Delay (s)		129.2			61.6			72.7		210.5		
Approach LOS		F			E			E		F		
Intersection Summary												
HCM 2000 Control Delay			131.1				HCM 2000 Level of Service			F		
HCM 2000 Volume to Capacity ratio			1.41									
Actuated Cycle Length (s)			102.1				Sum of lost time (s)		16.0			
Intersection Capacity Utilization			123.6%				ICU Level of Service		H			
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Future Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		400	0		0	75		0	0		500
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (ft)	25			25			100			25		
Right Turn on Red			Yes			Yes			Yes			No
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		405			500			6259			7662	
Travel Time (s)		9.2			11.4			142.3			174.1	
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	451	272	0	166	0	265	905	0	0	854	386
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Detector Phase	8	8	5	4	4		5	2		6	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Minimum Split (s)	29.0	29.0	11.0	27.0	27.0		11.0	29.0		29.0	29.0	29.0
Total Split (s)	38.0	38.0	16.0	38.0	38.0		16.0	68.0		52.0	52.0	52.0
Total Split (%)	31.7%	31.7%	13.3%	31.7%	31.7%		13.3%	56.7%		43.3%	43.3%	43.3%
Maximum Green (s)	32.0	32.0	10.0	32.0	32.0		10.0	62.0		46.0	46.0	46.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		-2.0	-2.0		-2.0		-2.0	-2.0			-2.0	-2.0
Total Lost Time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lead/Lag			Lag				Lag			Lead	Lead	Lead
Lead-Lag Optimize?			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
Recall Mode	None	None	None	None	None		None	Min		Min	Min	Min
Walk Time (s)	0.0	0.0		0.0	0.0			0.0		0.0	0.0	0.0
Flash Dont Walk (s)	21.0	21.0		21.0	21.0			23.0		23.0	23.0	23.0
Pedestrian Calls (#/hr)	1	1		1	1			0		3	3	3
v/c Ratio		1.29	0.32		0.88		0.99	0.82			1.51	0.55
Control Delay		184.6	4.1		75.0		94.8	26.3			264.2	26.8
Queue Delay		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Delay		184.6	4.1		75.0		94.8	26.3			264.2	26.8
Queue Length 50th (ft)		~386	9		97		129	437			~799	184

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B-MIT
Timing Plan: MIT

Lane Group	Ø11	Ø12

Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	5.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		#677	57		#264		#355	#901			#1207	340
Internal Link Dist (ft)		325			420			6179			7582	
Turn Bay Length (ft)			400				75					500
Base Capacity (vph)		349	853		189		267	1105			566	707
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.29	0.32		0.88		0.99	0.82			1.51	0.55

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 108.8

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

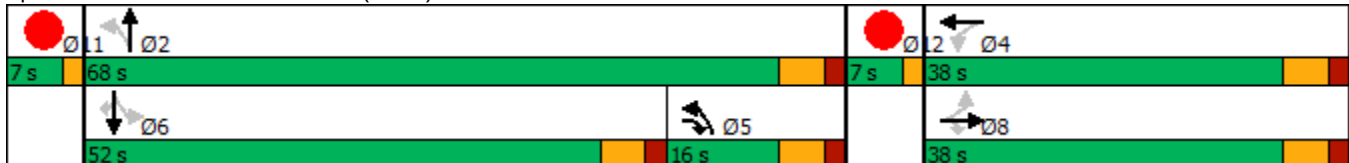
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 13: Union Ave (3BUS) & Elm Street/Clinton St



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

13: Union Ave (3BUS) & Elm Street/Clinton St

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Future Volume (vph)	401	19	253	70	40	40	249	824	26	7	805	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0			4.0	4.0
Lane Util. Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt		1.00	0.85		0.96		1.00	1.00			1.00	0.85
Flt Protected		0.95	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)		1778	1583		1755		1787	1872			1880	1599
Flt Permitted		0.60	1.00		0.32		0.08	1.00			0.68	1.00
Satd. Flow (perm)		1116	1583		572		144	1872			1280	1599
Peak-hour factor, PHF	0.93	0.93	0.93	0.90	0.90	0.90	0.94	0.94	0.94	0.95	0.95	0.95
Adj. Flow (vph)	431	20	272	78	44	44	265	877	28	7	847	386
RTOR Reduction (vph)	0	0	146	0	10	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	451	126	0	156	0	265	904	0	0	854	386
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	pm+ov	Perm	NA		pm+pt	NA		Perm	NA	Perm
Protected Phases		8	5		4		5	2			6	
Permitted Phases	8		8	4			2			6		6
Actuated Green, G (s)		32.1	42.2		32.1		62.2	62.2			46.1	46.1
Effective Green, g (s)		34.1	46.2		34.1		64.2	64.2			48.1	48.1
Actuated g/C Ratio		0.30	0.41		0.30		0.57	0.57			0.43	0.43
Clearance Time (s)		6.0	6.0		6.0		6.0	6.0			6.0	6.0
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)		339	652		173		259	1072			549	686
v/s Ratio Prot			0.02				c0.11	0.48				
v/s Ratio Perm		c0.40	0.06		0.27		0.47				c0.67	0.24
v/c Ratio		1.33	0.19		0.90		1.02	0.84			1.56	0.56
Uniform Delay, d1		39.0	21.0		37.4		46.6	19.8			32.0	24.1
Progression Factor		1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2		167.6	0.1		40.4		62.0	6.2			258.9	1.1
Delay (s)		206.6	21.2		77.8		108.7	26.0			290.9	25.1
Level of Service		F	C		E		F	C			F	C
Approach Delay (s)		136.9			77.8			44.7			208.1	
Approach LOS		F			E			D			F	
Intersection Summary												
HCM 2000 Control Delay			128.0				HCM 2000 Level of Service				F	
HCM 2000 Volume to Capacity ratio			1.38									
Actuated Cycle Length (s)			112.1				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			127.6%				ICU Level of Service			H		
Analysis Period (min)			15									
c Critical Lane Group												

ATTACHMENT M

Intersection #18: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	468	0	302	1	605	178	183	394	1
Future Volume (vph)	8	2	1	468	0	302	1	605	178	183	394	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	1	0	520	336	1	658	193	203	439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	20.0	41.0	41.0	20.0	41.0	
Total Split (%)	22.8%	22.8%	22.8%	22.8%	22.8%	22.8%	17.5%	36.0%	36.0%	17.5%	36.0%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	15.0	35.0	35.0	15.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	3.0	3.0	2.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05	0.00		1.45	0.60	0.00	0.83	0.26	0.62	0.55	
Control Delay		31.4	0.0		245.1	18.2	37.0	34.7	8.2	23.2	24.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	3.3	0.0	0.0	0.0	
Total Delay		31.4	0.0		245.1	18.2	37.0	38.0	8.2	23.2	24.5	
Queue Length 50th (ft)		4	0		~356	54	0	272	16	38	154	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 NB
Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		24	0		#800	200	6	#774	87	163	407	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		224	506		359	556	348	797	754	434	797	
Starvation Cap Reductn		0	0		0	0	0	73	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.00		1.45	0.60	0.00	0.91	0.26	0.47	0.55	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 87.3

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	468	0	302	1	605	178	183	394	1
Future Volume (vph)	8	2	1	468	0	302	1	605	178	183	394	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1790	1583		1770	1583	1752	1845	1568	1752	1844	
Flt Permitted		0.47	1.00		0.75	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		873	1583		1398	1583	1752	1845	1568	211	1844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	9	2	1	520	0	336	1	658	193	203	438	1
RTOR Reduction (vph)	0	0	1	0	0	153	0	0	79	0	0	0
Lane Group Flow (vph)	0	11	0	0	520	183	1	658	114	203	439	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		20.4	20.4		20.4	20.4	9.7	35.7	35.7	45.4	35.7	
Effective Green, g (s)		22.4	22.4		22.4	22.4	11.7	37.7	37.7	49.4	37.7	
Actuated g/C Ratio		0.24	0.24		0.24	0.24	0.13	0.41	0.41	0.54	0.41	
Clearance Time (s)		6.0	6.0		6.0	6.0	5.0	6.0	6.0	5.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)		212	385		340	385	222	756	642	309	755	
v/s Ratio Prot							0.00	c0.36		c0.08	0.24	
v/s Ratio Perm		0.01	0.00		c0.37	0.12			0.07	0.27		
v/c Ratio		0.05	0.00		1.53	0.48	0.00	0.87	0.18	0.66	0.58	
Uniform Delay, d1		26.7	26.3		34.8	29.8	35.1	24.9	17.3	16.7	21.0	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		252.7	0.9	0.0	10.7	0.1	3.8	1.1	
Delay (s)		26.8	26.3		287.5	30.7	35.1	35.6	17.4	20.5	22.2	
Level of Service		C	C		F	C	D	D	B	C	C	
Approach Delay (s)		26.7			186.7			31.5			21.6	
Approach LOS		C			F			C			C	
Intersection Summary												
HCM 2000 Control Delay			85.0									
HCM 2000 Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			92.0									
Intersection Capacity Utilization			84.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	272	8	287	1	714	374	230	673	10
Future Volume (vph)	3	20	1	272	8	287	1	714	374	230	673	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	1	0	298	305	1	729	382	242	719	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	20.0	71.0	71.0	20.0	71.0	
Total Split (%)	23.4%	23.4%	23.4%	23.4%	23.4%	23.4%	13.0%	46.1%	46.1%	13.0%	46.1%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0	15.0	65.0	65.0	15.0	65.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	3.0	3.0	2.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05	0.00		0.87	0.52	0.00	0.80	0.45	0.70	0.79	
Control Delay		42.0	0.0		71.8	14.3	56.0	36.0	14.8	31.9	35.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	24.3	0.7	0.0	0.0	
Total Delay		42.0	0.0		71.8	14.3	56.0	60.3	15.5	31.9	35.4	
Queue Length 50th (ft)		16	0		237	41	1	447	105	85	437	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	18%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		49	0		#526	156	7	#919	258	#282	#897	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		460	478		343	589	243	1008	927	348	1006	
Starvation Cap Reductn		0	0		0	0	0	298	271	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.00		0.87	0.52	0.00	1.03	0.58	0.70	0.71	

Intersection Summary

Area Type: Other

Cycle Length: 154

Actuated Cycle Length: 126.8

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	272	8	287	1	714	374	230	673	10
Future Volume (vph)	3	20	1	272	8	287	1	714	374	230	673	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1852	1583		1794	1599	1787	1881	1599	1787	1877	
Flt Permitted		0.97	1.00		0.71	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1798	1583		1344	1599	1787	1881	1599	215	1877	
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	3	22	1	289	9	305	1	729	382	242	708	11
RTOR Reduction (vph)	0	0	1	0	0	182	0	0	81	0	1	0
Lane Group Flow (vph)	0	25	0	0	298	123	1	729	301	242	718	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		30.4	30.4		30.4	30.4	15.0	59.7	59.7	74.7	59.7	
Effective Green, g (s)		32.4	32.4		32.4	32.4	17.0	61.7	61.7	78.7	61.7	
Actuated g/C Ratio		0.25	0.25		0.25	0.25	0.13	0.47	0.47	0.60	0.47	
Clearance Time (s)		6.0	6.0		6.0	6.0	5.0	6.0	6.0	5.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)		442	389		330	393	230	881	749	331	880	
v/s Ratio Prot							0.00	c0.39		c0.09	0.38	
v/s Ratio Perm		0.01	0.00		c0.22	0.08			0.19	0.34		
v/c Ratio		0.06	0.00		0.90	0.31	0.00	0.83	0.40	0.73	0.82	
Uniform Delay, d1		37.9	37.4		48.1	40.5	49.9	30.3	22.9	26.3	30.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		26.5	0.5	0.0	6.4	0.4	7.0	5.9	
Delay (s)		38.0	37.4		74.6	41.0	49.9	36.8	23.2	33.3	36.0	
Level of Service		D	D		E	D	D	D	C	C	D	
Approach Delay (s)		37.9			57.6			32.1			35.3	
Approach LOS		D			E			C			D	
Intersection Summary												
HCM 2000 Control Delay			39.0									
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			131.6									
Intersection Capacity Utilization			82.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	195	8	199	3	721	220	139	606	5
Future Volume (vph)	9	8	4	195	8	199	3	721	220	139	606	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	4	0	226	221	3	801	244	154	679	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	20.0	41.0	41.0	20.0	41.0	
Total Split (%)	22.8%	22.8%	22.8%	22.8%	22.8%	22.8%	17.5%	36.0%	36.0%	17.5%	36.0%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	15.0	35.0	35.0	15.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	3.0	3.0	2.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05	0.01		0.68	0.40	0.01	0.95	0.31	0.50	0.80	
Control Delay		29.6	0.0		43.4	7.2	37.0	46.0	10.2	17.8	31.8	
Queue Delay		0.0	0.0		0.0	0.0	0.0	20.1	0.0	0.0	0.0	
Total Delay		29.6	0.0		43.4	7.2	37.0	66.1	10.2	17.8	31.8	
Queue Length 50th (ft)		7	0		97	0	1	351	30	27	268	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 NB
 Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		33	0		#305	64	11	#996	128	116	#800	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		420	522		359	585	369	847	794	451	846	
Starvation Cap Reductn		0	0		0	0	0	75	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.01		0.63	0.38	0.01	1.04	0.31	0.34	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 84.3

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	195	8	199	3	721	220	139	606	5
Future Volume (vph)	9	8	4	195	8	199	3	721	220	139	606	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583		1777	1583	1787	1881	1599	1787	1879	
Flt Permitted		0.84	1.00		0.72	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1569	1583		1343	1583	1787	1881	1599	199	1879	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	10	9	4	217	9	221	3	801	244	154	673	6
RTOR Reduction (vph)	0	0	3	0	0	170	0	0	77	0	0	0
Lane Group Flow (vph)	0	19	1	0	226	51	3	801	167	154	679	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		18.7	18.7		18.7	18.7	8.2	35.9	35.9	44.1	35.9	
Effective Green, g (s)		20.7	20.7		20.7	20.7	10.2	37.9	37.9	48.1	37.9	
Actuated g/C Ratio		0.23	0.23		0.23	0.23	0.11	0.43	0.43	0.54	0.43	
Clearance Time (s)		6.0	6.0		6.0	6.0	5.0	6.0	6.0	5.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)		365	368		312	368	205	801	681	289	801	
v/s Ratio Prot							0.00	c0.43		c0.06	0.36	
v/s Ratio Perm		0.01	0.00		c0.17	0.03			0.10	0.23		
v/c Ratio		0.05	0.00		0.72	0.14	0.01	1.00	0.25	0.53	0.85	
Uniform Delay, d1		26.5	26.2		31.5	27.0	34.9	25.5	16.3	17.3	22.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		8.1	0.2	0.0	31.8	0.2	0.9	8.3	
Delay (s)		26.5	26.2		39.6	27.2	34.9	57.3	16.5	18.2	31.2	
Level of Service		C	C		D	C	C	E	B	B	C	
Approach Delay (s)		26.5			33.5			47.7			28.8	
Approach LOS		C			C			D			C	
Intersection Summary												
HCM 2000 Control Delay			38.1									
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			88.9									
Intersection Capacity Utilization			73.5%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	1	0	524	340	1	668	20	216	453	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2			
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	20.0	41.0	41.0	20.0	41.0	
Total Split (%)	22.8%	22.8%	22.8%	22.8%	22.8%	22.8%	17.5%	36.0%	36.0%	17.5%	36.0%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	14.0	35.0	35.0	14.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	3.0	3.0	2.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05	0.00		1.55	0.63	0.00	0.89	0.03	0.72	0.60	
Control Delay		32.4	0.0		289.9	19.7	37.0	42.6	0.1	52.7	27.6	
Queue Delay		0.0	0.0		0.0	0.0	0.0	9.4	0.0	0.0	0.0	
Total Delay		32.4	0.0		289.9	19.7	37.0	52.0	0.1	52.7	27.6	
Queue Length 50th (ft)		5	0		~401	62	0	320	0	111	184	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B
 Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		24	0		#806	204	6	#790	0	#297	422	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		207	492		338	537	308	751	724	308	751	
Starvation Cap Reductn		0	0		0	0	0	69	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.00		1.55	0.63	0.00	0.98	0.03	0.70	0.60	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 91.9

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1790	1583		1770	1583	1752	1845	1568	1752	1844	
Flt Permitted		0.46	1.00		0.75	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		856	1583		1398	1583	1752	1845	1568	1752	1844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	9	2	1	524	0	340	1	668	20	216	452	1
RTOR Reduction (vph)	0	0	1	0	0	156	0	0	12	0	0	0
Lane Group Flow (vph)	0	11	0	0	524	184	1	668	8	216	453	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	Prot	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2			
Actuated Green, G (s)		20.2	20.2		20.2	20.2	13.7	35.4	35.4	13.7	35.4	
Effective Green, g (s)		22.2	22.2		22.2	22.2	15.7	37.4	37.4	15.7	37.4	
Actuated g/C Ratio		0.23	0.23		0.23	0.23	0.16	0.39	0.39	0.16	0.39	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)		196	363		320	363	284	713	606	284	713	
v/s Ratio Prot							0.00	c0.36		c0.12	0.25	
v/s Ratio Perm		0.01	0.00		c0.37	0.12			0.00			
v/c Ratio		0.06	0.00		1.64	0.51	0.00	0.94	0.01	0.76	0.64	
Uniform Delay, d1		29.1	28.7		37.2	32.5	33.9	28.5	18.3	38.7	24.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		300.7	1.1	0.0	19.7	0.0	10.3	1.9	
Delay (s)		29.2	28.7		337.9	33.6	33.9	48.2	18.3	49.0	26.0	
Level of Service		C	C		F	C	C	D	B	D	C	
Approach Delay (s)		29.2			218.2			47.3			33.4	
Approach LOS		C			F			D			C	
Intersection Summary												
HCM 2000 Control Delay			109.1									
HCM 2000 Volume to Capacity ratio			1.06									
Actuated Cycle Length (s)			96.7									
Intersection Capacity Utilization			85.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	1	0	337	332	1	739	420	283	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	20.0	71.0	71.0	20.0	71.0	
Total Split (%)	23.4%	23.4%	23.4%	23.4%	23.4%	23.4%	13.0%	46.1%	46.1%	13.0%	46.1%	
Maximum Green (s)	30.0	30.0	30.0	30.0	30.0	30.0	15.0	65.0	65.0	15.0	65.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	3.0	3.0	2.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.06	0.00		0.99	0.57	0.00	0.80	0.48	0.83	0.79	
Control Delay		42.1	0.0		95.8	18.5	56.0	36.2	15.4	45.2	35.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	33.3	0.9	0.0	0.0	
Total Delay		42.1	0.0		95.8	18.5	56.0	69.6	16.3	45.2	35.5	
Queue Length 50th (ft)		16	0		278	65	1	457	120	127	444	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B
 Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	18%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		49	0		#616	203	7	#940	291	#385	#914	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		453	474		339	578	240	996	924	343	995	
Starvation Cap Reductn		0	0		0	0	0	295	262	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.06	0.00		0.99	0.57	0.00	1.05	0.63	0.83	0.73	

Intersection Summary

Area Type: Other

Cycle Length: 154

Actuated Cycle Length: 128

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

PM 2037 B

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	3.0	4.0	4.0	3.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1852	1583		1794	1599	1787	1881	1599	1787	1877	
Flt Permitted		0.96	1.00		0.71	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1793	1583		1342	1599	1787	1881	1599	207	1877	
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	3	22	1	328	9	332	1	739	420	283	716	11
RTOR Reduction (vph)	0	0	1	0	0	176	0	0	87	0	1	0
Lane Group Flow (vph)	0	25	0	0	337	156	1	739	333	283	726	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		30.4	30.4		30.4	30.4	15.2	60.8	60.8	76.0	60.8	
Effective Green, g (s)		32.4	32.4		32.4	32.4	17.2	62.8	62.8	80.0	62.8	
Actuated g/C Ratio		0.24	0.24		0.24	0.24	0.13	0.47	0.47	0.60	0.47	
Clearance Time (s)		6.0	6.0		6.0	6.0	5.0	6.0	6.0	5.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	2.0	3.0	3.0	2.0	3.0	
Lane Grp Cap (vph)		437	385		327	389	231	888	755	329	886	
v/s Ratio Prot							0.00	0.39		0.11	0.39	
v/s Ratio Perm		0.01	0.00		0.25	0.10			0.21	0.41		
v/c Ratio		0.06	0.00		1.03	0.40	0.00	0.83	0.44	0.86	0.82	
Uniform Delay, d1		38.5	38.0		50.2	42.1	50.4	30.5	23.4	32.4	30.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		57.9	0.7	0.0	6.7	0.4	19.3	6.0	
Delay (s)		38.6	38.0		108.1	42.8	50.4	37.2	23.8	51.7	36.2	
Level of Service		D	D		F	D	D	D	C	D	D	
Approach Delay (s)		38.6			75.7			32.3			40.5	
Approach LOS		D			E			C			D	
Intersection Summary												
HCM 2000 Control Delay			45.4									
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			132.9									
Intersection Capacity Utilization			87.2%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	4	0	265	251	3	807	269	192	685	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	4.0	10.0	10.0	4.0	10.0	
Minimum Split (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	16.0	16.0	11.0	16.0	
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	20.0	41.0	41.0	20.0	41.0	
Total Split (%)	22.8%	22.8%	22.8%	22.8%	22.8%	22.8%	17.5%	36.0%	36.0%	17.5%	36.0%	
Maximum Green (s)	20.0	20.0	20.0	20.0	20.0	20.0	14.0	35.0	35.0	14.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?	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	2.0	2.0	3.0	2.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05	0.01		0.78	0.43	0.01	1.01	0.35	0.58	0.86	
Control Delay		30.5	0.0		50.8	7.1	37.0	62.4	11.1	23.3	37.6	
Queue Delay		0.0	0.0		0.0	0.0	0.0	32.1	0.0	0.0	0.0	
Total Delay		30.5	0.0		50.8	7.1	37.0	94.6	11.1	23.3	37.6	
Queue Length 50th (ft)		7	0		126	0	1	391	38	39	298	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B
Timing Plan: NHDOT/City

Lane Group	Ø4
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Right Turn on Red	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	27.0
Total Split (s)	27.0
Total Split (%)	24%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	14.0
Pedestrian Calls (#/hr)	5
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
Queue Length 50th (ft)	

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B
Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		33	0		#374	68	11	#1005	144	159	#809	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		393	507		338	587	328	799	762	410	798	
Starvation Cap Reductn		0	0		0	0	0	71	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.01		0.78	0.43	0.01	1.11	0.35	0.47	0.86	

Intersection Summary

Area Type: Other

Cycle Length: 114

Actuated Cycle Length: 88.6

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø4

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583		1777	1583	1787	1881	1599	1787	1879	
Flt Permitted		0.84	1.00		0.72	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1556	1583		1340	1583	1787	1881	1599	200	1879	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	10	9	4	256	9	251	3	807	269	192	679	6
RTOR Reduction (vph)	0	0	3	0	0	191	0	0	86	0	0	0
Lane Group Flow (vph)	0	19	1	0	265	60	3	807	183	192	685	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		20.4	20.4		20.4	20.4	10.1	35.6	35.6	45.7	35.6	
Effective Green, g (s)		22.4	22.4		22.4	22.4	12.1	37.6	37.6	49.7	37.6	
Actuated g/C Ratio		0.24	0.24		0.24	0.24	0.13	0.40	0.40	0.53	0.40	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	2.0	2.0	3.0	2.0	
Lane Grp Cap (vph)		373	379		321	379	231	757	643	312	756	
v/s Ratio Prot							0.00	c0.43		c0.08	0.36	
v/s Ratio Perm		0.01	0.00		c0.20	0.04			0.11	0.25		
v/c Ratio		0.05	0.00		0.83	0.16	0.01	1.07	0.28	0.62	0.91	
Uniform Delay, d1		27.3	27.0		33.6	28.1	35.4	27.9	18.8	18.2	26.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.1	0.0		15.7	0.2	0.0	51.8	0.1	3.6	14.1	
Delay (s)		27.4	27.0		49.4	28.3	35.5	79.7	18.9	21.8	40.4	
Level of Service		C	C		D	C	D	E	B	C	D	
Approach Delay (s)		27.3			39.1			64.4			36.3	
Approach LOS		C			D			E			D	
Intersection Summary												
HCM 2000 Control Delay			48.9									
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			93.4									
Intersection Capacity Utilization			77.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	1	0	524	340	1	668	20	216	453	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	24.0	24.0	11.0	24.0	
Total Split (s)	47.0	47.0	47.0	47.0	47.0	47.0	14.0	45.0	45.0	14.0	45.0	
Total Split (%)	39.2%	39.2%	39.2%	39.2%	39.2%	39.2%	11.7%	37.5%	37.5%	11.7%	37.5%	
Maximum Green (s)	41.0	41.0	41.0	41.0	41.0	41.0	8.0	39.0	39.0	8.0	39.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	2	2	2	2	2	2		3	3		3	
v/c Ratio		0.02	0.00		0.95	0.44	0.01	0.96	0.03	0.94	0.65	
Control Delay		22.2	0.0		60.7	9.3	48.0	59.7	0.1	88.0	34.1	
Queue Delay		0.0	0.0		0.0	0.0	0.0	42.0	0.0	0.0	0.0	
Total Delay		22.2	0.0		60.7	9.3	48.0	101.7	0.1	88.0	34.1	
Queue Length 50th (ft)		4	0		332	41	1	429	0	96	246	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		19	0		#656	133	7	#799	0	#290	430	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		562	698		553	773	161	696	665	229	696	
Starvation Cap Reductn		0	0		0	0	0	99	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.02	0.00		0.95	0.44	0.01	1.12	0.03	0.94	0.65	

Intersection Summary

Area Type: Other

Cycle Length: 120

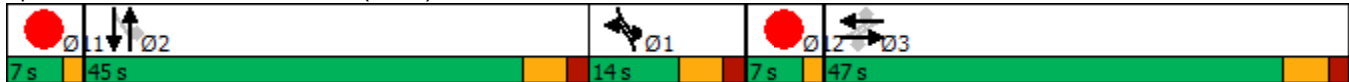
Actuated Cycle Length: 108.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1790	1583		1770	1583	1752	1845	1568	1752	1844	
Flt Permitted		0.76	1.00		0.75	1.00	0.95	1.00	1.00	0.10	1.00	
Satd. Flow (perm)		1420	1583		1398	1583	1752	1845	1568	180	1844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	9	2	1	524	0	340	1	668	20	216	452	1
RTOR Reduction (vph)	0	0	1	0	0	149	0	0	13	0	0	0
Lane Group Flow (vph)	0	11	0	0	524	191	1	668	7	216	453	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		41.1	41.1		41.1	41.1	8.0	39.1	39.1	47.1	39.1	
Effective Green, g (s)		43.1	43.1		43.1	43.1	10.0	41.1	41.1	51.1	41.1	
Actuated g/C Ratio		0.38	0.38		0.38	0.38	0.09	0.37	0.37	0.46	0.37	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		546	609		537	609	156	677	575	222	676	
v/s Ratio Prot							0.00	c0.36		c0.09	0.25	
v/s Ratio Perm		0.01	0.00		c0.37	0.12			0.00	0.36		
v/c Ratio		0.02	0.00		0.98	0.31	0.01	0.99	0.01	0.97	0.67	
Uniform Delay, d1		21.4	21.2		33.9	24.1	46.5	35.2	22.5	47.5	29.8	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0	0.0		32.4	0.3	0.0	30.9	0.0	52.4	2.6	
Delay (s)		21.4	21.2		66.3	24.4	46.5	66.1	22.6	99.9	32.4	
Level of Service		C	C		E	C	D	E	C	F	C	
Approach Delay (s)		21.4			49.8			64.8			54.2	
Approach LOS		C			D			E			D	
Intersection Summary												
HCM 2000 Control Delay			55.6									
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			112.0									
Intersection Capacity Utilization			85.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT
Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	1	0	337	332	1	739	420	283	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	21.0	21.0	11.0	21.0	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	14.0	41.0	41.0	14.0	41.0	
Total Split (%)	31.0%	31.0%	31.0%	31.0%	31.0%	31.0%	14.0%	41.0%	41.0%	14.0%	41.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0	25.0	8.0	35.0	35.0	8.0	35.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		5	5		5	
v/c Ratio		0.05	0.00		0.83	0.46	0.00	0.92	0.52	0.97	0.91	
Control Delay		22.5	0.0		47.5	5.3	36.0	42.9	10.9	77.6	41.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	16.8	0.0	0.0	0.0	
Total Delay		22.5	0.0		47.5	5.3	36.0	59.7	11.0	77.6	41.0	
Queue Length 50th (ft)		9	0		166	0	1	364	66	102	354	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	7%	7%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	5	0
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		30	0		#344	61	5	#669	169	#290	#659	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		558	591		418	726	206	803	813	293	802	
Starvation Cap Reductn		0	0		0	0	0	78	12	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.04	0.00		0.81	0.46	0.00	1.02	0.52	0.97	0.91	

Intersection Summary

Area Type: Other

Cycle Length: 100

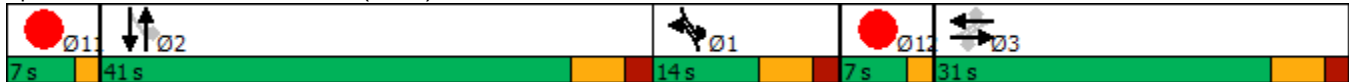
Actuated Cycle Length: 86.7

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1852	1583		1794	1599	1787	1881	1599	1787	1877	
Flt Permitted		0.96	1.00		0.71	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1792	1583		1342	1599	1787	1881	1599	203	1877	
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	3	22	1	328	9	332	1	739	420	283	716	11
RTOR Reduction (vph)	0	0	1	0	0	233	0	0	132	0	1	0
Lane Group Flow (vph)	0	25	0	0	337	99	1	739	288	283	726	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		24.3	24.3		24.3	24.3	8.0	35.1	35.1	43.1	35.1	
Effective Green, g (s)		26.3	26.3		26.3	26.3	10.0	37.1	37.1	47.1	37.1	
Actuated g/C Ratio		0.30	0.30		0.30	0.30	0.11	0.42	0.42	0.53	0.42	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		533	471		399	476	202	790	671	287	788	
v/s Ratio Prot							0.00	0.39		c0.11	0.39	
v/s Ratio Perm		0.01	0.00		c0.25	0.06			0.18	c0.41		
v/c Ratio		0.05	0.00		0.84	0.21	0.00	0.94	0.43	0.99	0.92	
Uniform Delay, d1		22.1	21.8		29.1	23.2	34.7	24.5	18.1	35.2	24.2	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0	0.0		15.0	0.2	0.0	18.1	0.4	48.9	16.1	
Delay (s)		22.1	21.8		44.1	23.4	34.7	42.5	18.6	84.0	40.3	
Level of Service		C	C		D	C	C	D	B	F	D	
Approach Delay (s)		22.1			33.8			33.8			52.6	
Approach LOS		C			C			C			D	
Intersection Summary												
HCM 2000 Control Delay			40.3				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			88.3				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			87.2%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	4	0	265	251	3	807	269	192	685	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	21.0	21.0	11.0	21.0	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	44.0	44.0	11.0	44.0	
Total Split (%)	31.0%	31.0%	31.0%	31.0%	31.0%	31.0%	11.0%	44.0%	44.0%	11.0%	44.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0	25.0	5.0	38.0	38.0	5.0	38.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	2	2	2	2	2	2		3	3		3	
v/c Ratio		0.05	0.01		0.74	0.41	0.02	0.90	0.32	0.81	0.76	
Control Delay		24.3	0.0		42.5	5.9	40.7	37.3	8.9	54.7	27.4	
Queue Delay		0.0	0.0		0.0	0.0	0.0	18.3	0.0	0.0	0.0	
Total Delay		24.3	0.0		42.5	5.9	40.7	55.6	8.9	54.7	27.4	
Queue Length 50th (ft)		7	0		122	0	2	370	36	48	282	

Lanes, Volumes, Timings
 18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT

Timing Plan: MIT

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	7%	7%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		27	0		#269	58	11	#803	114	#213	#633	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		503	606		432	680	149	897	837	238	897	
Starvation Cap Reductn		0	0		0	0	0	107	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.04	0.01		0.61	0.37	0.02	1.02	0.32	0.81	0.76	

Intersection Summary

Area Type: Other

Cycle Length: 100

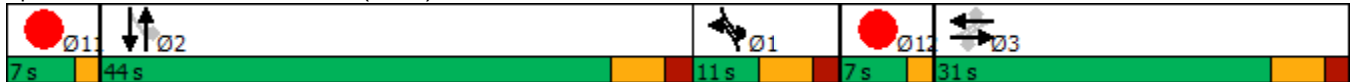
Actuated Cycle Length: 84.6

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

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

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583		1777	1583	1787	1881	1599	1787	1879	
Flt Permitted		0.84	1.00		0.72	1.00	0.95	1.00	1.00	0.10	1.00	
Satd. Flow (perm)		1563	1583		1340	1583	1787	1881	1599	186	1879	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	10	9	4	256	9	251	3	807	269	192	679	6
RTOR Reduction (vph)	0	0	3	0	0	186	0	0	77	0	1	0
Lane Group Flow (vph)	0	19	1	0	265	65	3	807	192	192	684	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		20.7	20.7		20.7	20.7	5.0	38.4	38.4	43.4	38.4	
Effective Green, g (s)		22.7	22.7		22.7	22.7	7.0	40.4	40.4	47.4	40.4	
Actuated g/C Ratio		0.26	0.26		0.26	0.26	0.08	0.46	0.46	0.54	0.46	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		404	409		346	409	142	866	736	228	865	
v/s Ratio Prot							0.00	c0.43		c0.07	0.36	
v/s Ratio Perm		0.01	0.00		c0.20	0.04			0.12	0.39		
v/c Ratio		0.05	0.00		0.77	0.16	0.02	0.93	0.26	0.84	0.79	
Uniform Delay, d1		24.4	24.1		30.0	25.1	37.2	22.3	14.5	35.6	20.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.0	0.0		9.7	0.2	0.1	16.4	0.2	23.5	5.0	
Delay (s)		24.4	24.1		39.8	25.3	37.3	38.8	14.7	59.1	25.1	
Level of Service		C	C		D	C	D	D	B	E	C	
Approach Delay (s)		24.4			32.7			32.8			32.5	
Approach LOS		C			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			32.6									
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			87.7									
Intersection Capacity Utilization			77.6%									
Analysis Period (min)			15									
c Critical Lane Group												

ATTACHMENT N

Intersection #21: Synchro (AM/PM/SAT)

2037 No-Build

2037 Build

2037 Build Mit

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	138	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	138	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0			0		0
Storage Lanes		0		0	0		0			0		0
Taper Length (ft)		25			25					25		
Right Turn on Red				Yes				Yes				Yes
Link Speed (mph)			30			30					30	
Link Distance (ft)			283			639					1635	
Travel Time (s)			6.4			14.5					37.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	180	0	0	45	0	0	0	0	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)			0			0					0	
Link Offset(ft)			0			0					0	
Crosswalk Width(ft)			16			16					16	
Two way Left Turn Lane												
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
Turning Speed (mph)	15	15		9	15		9	9	15	15		9
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Detector Phase	3	3	3		8	8			2	2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0	10.0	
Minimum Split (s)	10.0	10.0	10.0		10.0	10.0			16.0	16.0	16.0	
Total Split (s)	30.0	30.0	30.0		20.0	20.0			51.0	51.0	51.0	
Total Split (%)	21.3%	21.3%	21.3%		14.2%	14.2%			36.2%	36.2%	36.2%	
Maximum Green (s)	25.0	25.0	25.0		15.0	15.0			45.0	45.0	45.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)			-2.0			-2.0					-2.0	
Total Lost Time (s)			3.0			3.0					4.0	
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio			1.33			0.21					0.66	
Control Delay			221.3			40.0					30.1	
Queue Delay			0.0			0.0					0.0	
Total Delay			221.3			40.0					30.1	
Queue Length 50th (ft)			~102			15					168	

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 NB
Timing Plan: NHDOT/City

								
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø9
Lane Configurations								
Traffic Volume (vph)	2	390	138	2	6	2	6	
Future Volume (vph)	2	390	138	2	6	2	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		200			0	0	
Storage Lanes	0		1			1	0	
Taper Length (ft)	25					25		
Right Turn on Red				Yes				
Link Speed (mph)		30				30		
Link Distance (ft)		501				271		
Travel Time (s)		11.4				6.2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	435	155	0	0	16	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	
Median Width(ft)		0				12		
Link Offset(ft)		0				0		
Crosswalk Width(ft)		16				16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	15		9	9	15	15	9	
Turn Type	Perm	NA	Perm		Perm	Perm		
Protected Phases		6						9
Permitted Phases	6		6		4	4		
Detector Phase	6	6	6		4	4		
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0		5.0
Minimum Split (s)	16.0	16.0	16.0		10.0	10.0		20.0
Total Split (s)	51.0	51.0	51.0		20.0	20.0		20.0
Total Split (%)	36.2%	36.2%	36.2%		14.2%	14.2%		14%
Maximum Green (s)	45.0	45.0	45.0		15.0	15.0		15.0
Yellow Time (s)	4.0	4.0	4.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0
Lost Time Adjust (s)		-2.0	-2.0			-2.0		
Total Lost Time (s)		4.0	4.0			3.0		
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0
Recall Mode	Min	Min	Min		None	None		None
Walk Time (s)								7.0
Flash Dont Walk (s)								8.0
Pedestrian Calls (#/hr)								5
v/c Ratio		0.63	0.23			0.08		
Control Delay		28.9	7.4			46.5		
Queue Delay		0.0	0.0			0.0		
Total Delay		28.9	7.4			46.5		
Queue Length 50th (ft)		159	7			6		

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 NB

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Queue Length 95th (ft)			#407			71					452	
Internal Link Dist (ft)			203			559					1555	
Turn Bay Length (ft)												
Base Capacity (vph)			135			383					1156	
Starvation Cap Reductn			0			0					0	
Spillback Cap Reductn			0			0					0	
Storage Cap Reductn			0			0					0	
Reduced v/c Ratio			1.33			0.12					0.39	

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 81.9

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

								
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø9
Queue Length 95th (ft)		429	60			37		
Internal Link Dist (ft)		421				191		
Turn Bay Length (ft)			200					
Base Capacity (vph)		1180	1053			392		
Starvation Cap Reductn		52	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.39	0.15			0.04		
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	138	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	138	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0					4.0	
Lane Util. Factor			1.00			1.00					1.00	
Frt			0.99			0.97					1.00	
Flt Protected			0.96			0.99					1.00	
Satd. Flow (prot)			1756			1793					1824	
Flt Permitted			0.20			0.91					1.00	
Satd. Flow (perm)			371			1651					1822	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Adj. Flow (vph)	6	153	13	8	7	28	2	8	1	1	445	4
RTOR Reduction (vph)	0	0	1	0	0	6	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	179	0	0	39	0	0	0	0	451	0
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Actuated Green, G (s)			27.7			4.7					28.4	
Effective Green, g (s)			29.7			6.7					30.4	
Actuated g/C Ratio			0.33			0.07					0.33	
Clearance Time (s)			5.0			5.0					6.0	
Vehicle Extension (s)			3.0			3.0					3.0	
Lane Grp Cap (vph)			121			121					608	
v/s Ratio Prot												
v/s Ratio Perm			c0.48			c0.02					c0.25	
v/c Ratio			1.48			0.33					0.74	
Uniform Delay, d1			30.6			40.0					26.8	
Progression Factor			1.00			1.00					1.00	
Incremental Delay, d2			255.7			1.6					4.9	
Delay (s)			286.4			41.6					31.7	
Level of Service			F			D					C	
Approach Delay (s)			286.4			41.6					31.7	
Approach LOS			F			D					C	
Intersection Summary												
HCM 2000 Control Delay			66.1			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			91.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			56.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 NB
Timing Plan: NHDOT/City

							
Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER
Lane Configurations							
Traffic Volume (vph)	2	390	138	2	6	2	6
Future Volume (vph)	2	390	138	2	6	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			3.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.85			0.94	
Flt Protected		1.00	1.00			0.97	
Satd. Flow (prot)		1862	1583			1705	
Flt Permitted		1.00	1.00			0.97	
Satd. Flow (perm)		1860	1583			1705	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	433	153	2	7	2	7
RTOR Reduction (vph)	0	0	88	0	0	0	0
Lane Group Flow (vph)	0	435	67	0	0	16	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm		Perm	Perm	
Protected Phases		6					
Permitted Phases	6		6		4	4	
Actuated Green, G (s)		28.4	28.4			2.3	
Effective Green, g (s)		30.4	30.4			4.3	
Actuated g/C Ratio		0.33	0.33			0.05	
Clearance Time (s)		6.0	6.0			5.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		621	528			80	
v/s Ratio Prot							
v/s Ratio Perm		0.23	0.04			c0.01	
v/c Ratio		0.70	0.13			0.20	
Uniform Delay, d1		26.3	21.1			41.7	
Progression Factor		1.00	1.00			1.00	
Incremental Delay, d2		3.6	0.1			1.2	
Delay (s)		29.9	21.2			42.9	
Level of Service		C	C			D	
Approach Delay (s)		27.6				42.9	
Approach LOS		C				D	
Intersection Summary							

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 NB
Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	272	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	272	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0				0	0
Storage Lanes		0		0	0		0				0	0
Taper Length (ft)		25			25							25
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30			30				30		
Link Distance (ft)			283			639				1635		
Travel Time (s)			6.4			14.5				37.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	342	0	0	68	0	0	0	613	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Left
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		60	60		60	60	60		60	60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Detector Phase	3	3	3		8	8			2	2		6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0		10.0
Minimum Split (s)	10.0	10.0	10.0		10.0	10.0			16.0	16.0		16.0
Total Split (s)	30.0	30.0	30.0		20.0	20.0			51.0	51.0		51.0
Total Split (%)	21.3%	21.3%	21.3%		14.2%	14.2%			36.2%	36.2%		36.2%
Maximum Green (s)	25.0	25.0	25.0		15.0	15.0			45.0	45.0		45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0		2.0
Lost Time Adjust (s)			-2.0			-2.0				-2.0		
Total Lost Time (s)			3.0			3.0				4.0		
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min		Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio			2.83			0.37				0.78		
Control Delay			866.5			49.9				37.7		
Queue Delay			0.0			0.0				0.0		
Total Delay			866.5			49.9				37.7		
Queue Length 50th (ft)			~406			38				334		

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 NB
Timing Plan: NHDOT/City

								
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø9
Lane Configurations								
Traffic Volume (vph)	506	186	2	6	4	9	8	
Future Volume (vph)	506	186	2	6	4	9	8	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		200			0	0		
Storage Lanes		1			1	0		
Taper Length (ft)					25			
Right Turn on Red			Yes				Yes	
Link Speed (mph)	30				30			
Link Distance (ft)	501				271			
Travel Time (s)	11.4				6.2			
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	
Shared Lane Traffic (%)								
Lane Group Flow (vph)	526	194	0	0	30	0	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Right	Left	Left	Right	Right	
Median Width(ft)	0				12			
Link Offset(ft)	0				0			
Crosswalk Width(ft)	16				16			
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		60	60	60	60	60	60	
Turn Type	NA	Perm		Perm	Prot			
Protected Phases	6				4			9
Permitted Phases		6		4				
Detector Phase	6	6		4	4			
Switch Phase								
Minimum Initial (s)	10.0	10.0		5.0	5.0			5.0
Minimum Split (s)	16.0	16.0		10.0	10.0			20.0
Total Split (s)	51.0	51.0		20.0	20.0			20.0
Total Split (%)	36.2%	36.2%		14.2%	14.2%			14%
Maximum Green (s)	45.0	45.0		15.0	15.0			15.0
Yellow Time (s)	4.0	4.0		3.0	3.0			3.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0			
Total Lost Time (s)	4.0	4.0			3.0			
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0
Recall Mode	Min	Min		None	None			None
Walk Time (s)								7.0
Flash Dont Walk (s)								8.0
Pedestrian Calls (#/hr)								15
v/c Ratio	0.66	0.26			0.12			
Control Delay	33.2	10.3			0.9			
Queue Delay	1.2	0.0			0.0			
Total Delay	34.4	10.3			0.9			
Queue Length 50th (ft)	268	24			0			

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 NB

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Queue Length 95th (ft)			#658			95				#720		
Internal Link Dist (ft)			203			559				1555		
Turn Bay Length (ft)												
Base Capacity (vph)			121			278				910		
Starvation Cap Reductn			0			0				0		
Spillback Cap Reductn			0			0				0		
Storage Cap Reductn			0			0				0		
Reduced v/c Ratio			2.83			0.24				0.67		

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 103.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

								
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø9
Queue Length 95th (ft)	542	93			0			
Internal Link Dist (ft)	421				191			
Turn Bay Length (ft)		200						
Base Capacity (vph)	910	844			408			
Starvation Cap Reductn	187	0			0			
Spillback Cap Reductn	0	0			0			
Storage Cap Reductn	0	0			0			
Reduced v/c Ratio	0.73	0.23			0.07			
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	272	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	272	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0				4.0		
Lane Util. Factor			1.00			1.00				1.00		
Frt			1.00			0.96				1.00		
Flt Protected			0.96			0.99				1.00		
Satd. Flow (prot)			1779			1771				1872		
Flt Permitted			0.23			0.86				1.00		
Satd. Flow (perm)			433			1546				1871		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Adj. Flow (vph)	7	299	31	5	14	34	4	16	1	590	22	4
RTOR Reduction (vph)	0	0	0	0	0	8	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	342	0	0	60	0	0	0	612	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Actuated Green, G (s)			26.8			7.9				41.6		
Effective Green, g (s)			28.8			9.9				43.6		
Actuated g/C Ratio			0.26			0.09				0.40		
Clearance Time (s)			5.0			5.0				6.0		
Vehicle Extension (s)			3.0			3.0				3.0		
Lane Grp Cap (vph)			113			139				742		
v/s Ratio Prot												
v/s Ratio Perm			c0.79			c0.04				c0.33		
v/c Ratio			3.03			0.43				0.83		
Uniform Delay, d1			40.6			47.3				29.7		
Progression Factor			1.00			1.00				1.00		
Incremental Delay, d2			935.1			2.1				7.5		
Delay (s)			975.7			49.5				37.2		
Level of Service			F			D				D		
Approach Delay (s)			975.7			49.5				37.2		
Approach LOS			F			D				D		
Intersection Summary												
HCM 2000 Control Delay			215.4			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.38									
Actuated Cycle Length (s)			109.9			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			74.7%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 NB
 Timing Plan: NHDOT/City

							
Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2
Lane Configurations							
Traffic Volume (vph)	506	186	2	6	4	9	8
Future Volume (vph)	506	186	2	6	4	9	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			3.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	0.85			0.91		
Flt Protected	1.00	1.00			0.98		
Satd. Flow (prot)	1880	1599			1673		
Flt Permitted	1.00	1.00			0.98		
Satd. Flow (perm)	1874	1599			1673		
Peak-hour factor, PHF	0.97	0.97	0.97	0.90	0.90	0.90	0.90
Adj. Flow (vph)	522	192	2	7	4	10	9
RTOR Reduction (vph)	0	80	0	0	29	0	0
Lane Group Flow (vph)	526	114	0	0	1	0	0
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%
Turn Type	NA	Perm		Perm	Prot		
Protected Phases	6				4		
Permitted Phases		6		4			
Actuated Green, G (s)	41.6	41.6			2.8		
Effective Green, g (s)	43.6	43.6			4.8		
Actuated g/C Ratio	0.40	0.40			0.04		
Clearance Time (s)	6.0	6.0			5.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	743	634			73		
v/s Ratio Prot							
v/s Ratio Perm	0.28	0.07			0.00		
v/c Ratio	0.71	0.18			0.02		
Uniform Delay, d1	27.8	21.5			50.3		
Progression Factor	1.00	1.00			1.00		
Incremental Delay, d2	3.1	0.1			0.1		
Delay (s)	30.9	21.7			50.4		
Level of Service	C	C			D		
Approach Delay (s)	28.4				50.4		
Approach LOS	C				D		
Intersection Summary							

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 NB

Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	179	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	179	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0				0		0	0	
Storage Lanes	0		0	0				0		0	0	
Taper Length (ft)	25			25				25			25	
Right Turn on Red			Yes			Yes				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		283			639				1635			501
Travel Time (s)		6.4			14.5				37.2			11.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	0	0	31	0	0	0	575	0	0	477
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Left	Right	Left	Left
Median Width(ft)		0			0				0			0
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60	60		60	60	
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Detector Phase	3	3		8	8		2	2	2		6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	10.0	10.0		10.0	10.0		16.0	16.0	16.0		16.0	16.0
Total Split (s)	30.0	30.0		20.0	20.0		51.0	51.0	51.0		51.0	51.0
Total Split (%)	21.3%	21.3%		14.2%	14.2%		36.2%	36.2%	36.2%		36.2%	36.2%
Maximum Green (s)	25.0	25.0		15.0	15.0		45.0	45.0	45.0		45.0	45.0
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0				-2.0			-2.0
Total Lost Time (s)		3.0			3.0				4.0			4.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	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
Recall Mode	None	None		None	None		Min	Min	Min		Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.15			0.12				0.62			0.51
Control Delay		143.7			1.0				23.7			21.0
Queue Delay		0.0			0.0				0.0			0.5
Total Delay		143.7			1.0				23.7			21.4
Queue Length 50th (ft)		~162			0				223			171

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 NB
Timing Plan: NHDOT/City

						
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø9
Lane Configurations						
Traffic Volume (vph)	104	2	2	0	1	
Future Volume (vph)	104	2	2	0	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)	200			0	0	
Storage Lanes	1			1	0	
Taper Length (ft)				25		
Right Turn on Red		Yes				
Link Speed (mph)				30		
Link Distance (ft)				271		
Travel Time (s)				6.2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	1%	2%	2%	2%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	118	0	0	3	0	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Right	Right	Left	Left	Right	
Median Width(ft)				12		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60	60	60	60	
Turn Type	Perm		Perm	Prot		
Protected Phases				4		9
Permitted Phases	6		4			
Detector Phase	6		4	4		
Switch Phase						
Minimum Initial (s)	10.0		5.0	5.0		5.0
Minimum Split (s)	16.0		10.0	10.0		20.0
Total Split (s)	51.0		20.0	20.0		20.0
Total Split (%)	36.2%		14.2%	14.2%		14%
Maximum Green (s)	45.0		15.0	15.0		15.0
Yellow Time (s)	4.0		3.0	3.0		3.0
All-Red Time (s)	2.0		2.0	2.0		2.0
Lost Time Adjust (s)	-2.0			-2.0		
Total Lost Time (s)	4.0			3.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Recall Mode	Min		None	None		None
Walk Time (s)						7.0
Flash Dont Walk (s)						8.0
Pedestrian Calls (#/hr)						10
v/c Ratio	0.14			0.02		
Control Delay	3.4			46.7		
Queue Delay	0.0			0.0		
Total Delay	3.4			46.7		
Queue Length 50th (ft)	0			2		

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 NB

Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		#444			0				#562			434
Internal Link Dist (ft)		203			559				1555			421
Turn Bay Length (ft)												
Base Capacity (vph)		209			391				984			995
Starvation Cap Reductn		0			0				0			195
Spillback Cap Reductn		0			0				0			0
Storage Cap Reductn		0			0				0			0
Reduced v/c Ratio		1.15			0.08				0.58			0.60

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 90.9

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

						
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø9
Queue Length 95th (ft)	31			12		
Internal Link Dist (ft)				191		
Turn Bay Length (ft)	200					
Base Capacity (vph)	913			331		
Starvation Cap Reductn	0			0		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.13			0.01		
Intersection Summary						

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 NB
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	179	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	179	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0				4.0			4.0
Lane Util. Factor		1.00			1.00				1.00			1.00
Frt		1.00			0.97				1.00			1.00
Flt Protected		0.96			0.98				1.00			1.00
Satd. Flow (prot)		1781			1777				1860			1880
Flt Permitted		0.37			0.80				0.99			0.99
Satd. Flow (perm)		681			1446				1848			1869
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	199	34	8	10	14	7	7	1	563	4	6	471
RTOR Reduction (vph)	0	1	0	0	29	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	240	0	0	2	0	0	0	575	0	0	477
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Actuated Green, G (s)		25.8			3.1				43.3			43.3
Effective Green, g (s)		27.8			5.1				45.3			45.3
Actuated g/C Ratio		0.27			0.05				0.45			0.45
Clearance Time (s)		5.0			5.0				6.0			6.0
Vehicle Extension (s)		3.0			3.0				3.0			3.0
Lane Grp Cap (vph)		186			72				826			835
v/s Ratio Prot												
v/s Ratio Perm		c0.35			c0.00				c0.31			0.26
v/c Ratio		1.29			0.02				0.70			0.57
Uniform Delay, d1		36.8			45.7				22.5			20.8
Progression Factor		1.00			1.00				1.00			1.00
Incremental Delay, d2		165.3			0.1				2.6			0.9
Delay (s)		202.1			45.9				25.0			21.7
Level of Service		F			D				C			C
Approach Delay (s)		202.1			45.9				25.0			20.6
Approach LOS		F			D				C			C
Intersection Summary												
HCM 2000 Control Delay			53.2		HCM 2000 Level of Service				D			
HCM 2000 Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			101.3		Sum of lost time (s)				18.0			
Intersection Capacity Utilization			65.6%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 NB
Timing Plan: NHDOT/City

					
Movement	SBR	SBR2	SEL2	SEL	SER
Lane Configurations					
Traffic Volume (vph)	104	2	2	0	1
Future Volume (vph)	104	2	2	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			3.0	
Lane Util. Factor	1.00			1.00	
Frt	0.85			0.95	
Flt Protected	1.00			0.97	
Satd. Flow (prot)	1599			1722	
Flt Permitted	1.00			0.97	
Satd. Flow (perm)	1599			1722	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	116	2	2	0	1
RTOR Reduction (vph)	65	0	0	0	0
Lane Group Flow (vph)	53	0	0	3	0
Heavy Vehicles (%)	1%	1%	2%	2%	2%
Turn Type	Perm		Perm	Prot	
Protected Phases				4	
Permitted Phases	6		4		
Actuated Green, G (s)	43.3			0.9	
Effective Green, g (s)	45.3			2.9	
Actuated g/C Ratio	0.45			0.03	
Clearance Time (s)	6.0			5.0	
Vehicle Extension (s)	3.0			3.0	
Lane Grp Cap (vph)	715			49	
v/s Ratio Prot					
v/s Ratio Perm	0.03			0.00	
v/c Ratio	0.07			0.06	
Uniform Delay, d1	16.0			47.9	
Progression Factor	1.00			1.00	
Incremental Delay, d2	0.0			0.5	
Delay (s)	16.1			48.4	
Level of Service	B			D	
Approach Delay (s)				48.4	
Approach LOS				D	
Intersection Summary					

Lanes, Volumes, Timings

AM 2037 B

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0			0		0
Storage Lanes		0		0	0		0			0		0
Taper Length (ft)		25			25					25		
Right Turn on Red				Yes				Yes				Yes
Link Speed (mph)			30			30					30	
Link Distance (ft)			283			639					1635	
Travel Time (s)			6.4			14.5					37.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	206	0	0	45	0	0	0	0	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)			0			0					0	
Link Offset(ft)			0			0					0	
Crosswalk Width(ft)			16			16					16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		60	60		60	60	60	60		60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Detector Phase	3	3	3		8	8			2	2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0	10.0	
Minimum Split (s)	10.0	10.0	10.0		10.0	10.0			16.0	16.0	16.0	
Total Split (s)	30.0	30.0	30.0		20.0	20.0			51.0	51.0	51.0	
Total Split (%)	21.3%	21.3%	21.3%		14.2%	14.2%			36.2%	36.2%	36.2%	
Maximum Green (s)	25.0	25.0	25.0		15.0	15.0			45.0	45.0	45.0	
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)			-2.0			-2.0					-2.0	
Total Lost Time (s)			3.0			3.0					4.0	
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio			1.62			0.21					0.68	
Control Delay			339.5			40.0					30.9	
Queue Delay			0.0			0.0					0.0	
Total Delay			339.5			40.0					30.9	
Queue Length 50th (ft)			~133			15					168	

Lanes, Volumes, Timings

AM 2037 B

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: NHDOT/City

								
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø9
Lane Configurations								
Traffic Volume (vph)	2	390	158	2	6	2	6	
Future Volume (vph)	2	390	158	2	6	2	6	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	0		200			0	0	
Storage Lanes	0		1			1	0	
Taper Length (ft)	25					25		
Right Turn on Red				Yes				
Link Speed (mph)		30				30		
Link Distance (ft)		501				271		
Travel Time (s)		11.4				6.2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	435	178	0	0	16	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	
Median Width(ft)		0				12		
Link Offset(ft)		0				0		
Crosswalk Width(ft)		16				16		
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60		60	60	60	60	60	
Turn Type	Perm	NA	Perm		Perm	Perm		
Protected Phases		6						9
Permitted Phases	6		6		4	4		
Detector Phase	6	6	6		4	4		
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0		5.0	5.0		5.0
Minimum Split (s)	16.0	16.0	16.0		10.0	10.0		20.0
Total Split (s)	51.0	51.0	51.0		20.0	20.0		20.0
Total Split (%)	36.2%	36.2%	36.2%		14.2%	14.2%		14%
Maximum Green (s)	45.0	45.0	45.0		15.0	15.0		15.0
Yellow Time (s)	4.0	4.0	4.0		3.0	3.0		3.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		2.0
Lost Time Adjust (s)		-2.0	-2.0			-2.0		
Total Lost Time (s)		4.0	4.0			3.0		
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0
Recall Mode	Min	Min	Min		None	None		None
Walk Time (s)								7.0
Flash Dont Walk (s)								8.0
Pedestrian Calls (#/hr)								5
v/c Ratio		0.64	0.27			0.08		
Control Delay		29.5	9.0			46.5		
Queue Delay		0.0	0.0			0.0		
Total Delay		29.5	9.0			46.5		
Queue Length 50th (ft)		159	13			6		

Lanes, Volumes, Timings

AM 2037 B

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Queue Length 95th (ft)			#468			71					453	
Internal Link Dist (ft)			203			559					1555	
Turn Bay Length (ft)												
Base Capacity (vph)			127			389					1181	
Starvation Cap Reductn			0			0					0	
Spillback Cap Reductn			0			0					0	
Storage Cap Reductn			0			0					0	
Reduced v/c Ratio			1.62			0.12					0.38	

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 81

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

								
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø9
Queue Length 95th (ft)		429	80			37		
Internal Link Dist (ft)		421				191		
Turn Bay Length (ft)			200					
Base Capacity (vph)		1206	1073			400		
Starvation Cap Reductn		52	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.38	0.17			0.04		
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0					4.0	
Lane Util. Factor			1.00			1.00					1.00	
Frt			0.99			0.97					1.00	
Flt Protected			0.96			0.99					1.00	
Satd. Flow (prot)			1756			1793					1824	
Flt Permitted			0.18			0.91					1.00	
Satd. Flow (perm)			339			1641					1822	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Adj. Flow (vph)	6	179	13	8	7	28	2	8	1	1	445	4
RTOR Reduction (vph)	0	0	1	0	0	6	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	205	0	0	39	0	0	0	0	451	0
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Actuated Green, G (s)			28.0			4.7					27.2	
Effective Green, g (s)			30.0			6.7					29.2	
Actuated g/C Ratio			0.33			0.07					0.32	
Clearance Time (s)			5.0			5.0					6.0	
Vehicle Extension (s)			3.0			3.0					3.0	
Lane Grp Cap (vph)			112			122					590	
v/s Ratio Prot												
v/s Ratio Perm			c0.61			c0.02					c0.25	
v/c Ratio			1.83			0.32					0.76	
Uniform Delay, d1			30.0			39.6					27.4	
Progression Factor			1.00			1.00					1.00	
Incremental Delay, d2			407.5			1.5					5.9	
Delay (s)			437.6			41.1					33.2	
Level of Service			F			D					C	
Approach Delay (s)			437.6			41.1					33.2	
Approach LOS			F			D					C	
Intersection Summary												
HCM 2000 Control Delay			94.0			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.14									
Actuated Cycle Length (s)			90.1			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			58.5%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B
Timing Plan: NHDOT/City

							
Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER
Lane Configurations							
Traffic Volume (vph)	2	390	158	2	6	2	6
Future Volume (vph)	2	390	158	2	6	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			3.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.85			0.94	
Flt Protected		1.00	1.00			0.97	
Satd. Flow (prot)		1862	1583			1705	
Flt Permitted		1.00	1.00			0.97	
Satd. Flow (perm)		1860	1583			1705	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	433	176	2	7	2	7
RTOR Reduction (vph)	0	0	89	0	0	0	0
Lane Group Flow (vph)	0	435	89	0	0	16	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm		Perm	Perm	
Protected Phases		6					
Permitted Phases	6		6		4	4	
Actuated Green, G (s)		27.2	27.2			2.3	
Effective Green, g (s)		29.2	29.2			4.3	
Actuated g/C Ratio		0.32	0.32			0.05	
Clearance Time (s)		6.0	6.0			5.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		602	513			81	
v/s Ratio Prot							
v/s Ratio Perm		0.23	0.06			c0.01	
v/c Ratio		0.72	0.17			0.20	
Uniform Delay, d1		26.9	21.8			41.2	
Progression Factor		1.00	1.00			1.00	
Incremental Delay, d2		4.3	0.2			1.2	
Delay (s)		31.2	22.0			42.4	
Level of Service		C	C			D	
Approach Delay (s)		28.5				42.4	
Approach LOS		C				D	
Intersection Summary							

Lanes, Volumes, Timings

PM 2037 B

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0				0	0
Storage Lanes		0		0	0		0				0	0
Taper Length (ft)		25			25							25
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30			30				30		
Link Distance (ft)			283			639				1635		
Travel Time (s)			6.4			14.5				37.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	381	0	0	68	0	0	0	613	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Left
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		60	60		60	60	60		60	60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Detector Phase	3	3	3		8	8			2	2		6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0		10.0
Minimum Split (s)	10.0	10.0	10.0		10.0	10.0			16.0	16.0		16.0
Total Split (s)	30.0	30.0	30.0		20.0	20.0			51.0	51.0		51.0
Total Split (%)	21.3%	21.3%	21.3%		14.2%	14.2%			36.2%	36.2%		36.2%
Maximum Green (s)	25.0	25.0	25.0		15.0	15.0			45.0	45.0		45.0
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0		2.0
Lost Time Adjust (s)			-2.0			-2.0				-2.0		
Total Lost Time (s)			3.0			3.0				4.0		
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min		Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio			3.20			0.37				0.78		
Control Delay			1023.7			50.0				37.7		
Queue Delay			0.0			0.0				0.0		
Total Delay			1023.7			50.0				37.7		
Queue Length 50th (ft)			~462			38				334		

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B

Timing Plan: NHDOT/City

								
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø9
Lane Configurations								
Traffic Volume (vph)	506	223	2	6	4	9	8	
Future Volume (vph)	506	223	2	6	4	9	8	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)		200			0	0		
Storage Lanes		1			1	0		
Taper Length (ft)					25			
Right Turn on Red			Yes				Yes	
Link Speed (mph)	30				30			
Link Distance (ft)	501				271			
Travel Time (s)	11.4				6.2			
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%	
Shared Lane Traffic (%)								
Lane Group Flow (vph)	526	232	0	0	30	0	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	
Lane Alignment	Left	Right	Right	Left	Left	Right	Right	
Median Width(ft)	0				12			
Link Offset(ft)	0				0			
Crosswalk Width(ft)	16				16			
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)		60	60	60	60	60	60	
Turn Type	NA	Perm		Perm	Prot			
Protected Phases	6				4			9
Permitted Phases		6		4				
Detector Phase	6	6		4	4			
Switch Phase								
Minimum Initial (s)	10.0	10.0		5.0	5.0			5.0
Minimum Split (s)	16.0	16.0		10.0	10.0			20.0
Total Split (s)	51.0	51.0		20.0	20.0			20.0
Total Split (%)	36.2%	36.2%		14.2%	14.2%			14%
Maximum Green (s)	45.0	45.0		15.0	15.0			15.0
Yellow Time (s)	4.0	4.0		3.0	3.0			3.0
All-Red Time (s)	2.0	2.0		2.0	2.0			2.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0			
Total Lost Time (s)	4.0	4.0			3.0			
Lead/Lag								
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0
Recall Mode	Min	Min		None	None			None
Walk Time (s)								7.0
Flash Dont Walk (s)								8.0
Pedestrian Calls (#/hr)								15
v/c Ratio	0.66	0.31			0.12			
Control Delay	33.2	12.6			0.9			
Queue Delay	1.2	0.0			0.0			
Total Delay	34.4	12.6			0.9			
Queue Length 50th (ft)	268	39			0			

Lanes, Volumes, Timings

PM 2037 B

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: NHDOT/City

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Queue Length 95th (ft)			#737			95				#720		
Internal Link Dist (ft)			203			559				1555		
Turn Bay Length (ft)												
Base Capacity (vph)			119			276				910		
Starvation Cap Reductn			0			0				0		
Spillback Cap Reductn			0			0				0		
Storage Cap Reductn			0			0				0		
Reduced v/c Ratio			3.20			0.25				0.67		

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 103.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

								
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø9
Queue Length 95th (ft)	542	126			0			
Internal Link Dist (ft)	421				191			
Turn Bay Length (ft)		200						
Base Capacity (vph)	910	844			408			
Starvation Cap Reductn	187	0			0			
Spillback Cap Reductn	0	0			0			
Storage Cap Reductn	0	0			0			
Reduced v/c Ratio	0.73	0.27			0.07			
Intersection Summary								

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			3.0			3.0				4.0		
Lane Util. Factor			1.00			1.00				1.00		
Frt			1.00			0.96				1.00		
Flt Protected			0.96			0.99				1.00		
Satd. Flow (prot)			1779			1771				1872		
Flt Permitted			0.23			0.85				1.00		
Satd. Flow (perm)			429			1529				1871		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Adj. Flow (vph)	7	338	31	5	14	34	4	16	1	590	22	4
RTOR Reduction (vph)	0	0	0	0	0	8	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	381	0	0	60	0	0	0	612	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Actuated Green, G (s)			26.8			7.9				41.6		
Effective Green, g (s)			28.8			9.9				43.6		
Actuated g/C Ratio			0.26			0.09				0.40		
Clearance Time (s)			5.0			5.0				6.0		
Vehicle Extension (s)			3.0			3.0				3.0		
Lane Grp Cap (vph)			112			137				742		
v/s Ratio Prot												
v/s Ratio Perm			c0.89			c0.04				c0.33		
v/c Ratio			3.40			0.44				0.83		
Uniform Delay, d1			40.6			47.4				29.7		
Progression Factor			1.00			1.00				1.00		
Incremental Delay, d2			1103.1			2.2				7.5		
Delay (s)			1143.7			49.6				37.2		
Level of Service			F			D				D		
Approach Delay (s)			1143.7			49.6				37.2		
Approach LOS			F			D				D		
Intersection Summary												
HCM 2000 Control Delay			262.1			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.50									
Actuated Cycle Length (s)			109.9			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			79.0%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B
Timing Plan: NHDOT/City

							
Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2
Lane Configurations							
Traffic Volume (vph)	506	223	2	6	4	9	8
Future Volume (vph)	506	223	2	6	4	9	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			3.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	0.85			0.91		
Flt Protected	1.00	1.00			0.98		
Satd. Flow (prot)	1880	1599			1673		
Flt Permitted	1.00	1.00			0.98		
Satd. Flow (perm)	1874	1599			1673		
Peak-hour factor, PHF	0.97	0.97	0.97	0.90	0.90	0.90	0.90
Adj. Flow (vph)	522	230	2	7	4	10	9
RTOR Reduction (vph)	0	80	0	0	29	0	0
Lane Group Flow (vph)	526	152	0	0	1	0	0
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%
Turn Type	NA	Perm		Perm	Prot		
Protected Phases	6				4		
Permitted Phases		6		4			
Actuated Green, G (s)	41.6	41.6			2.8		
Effective Green, g (s)	43.6	43.6			4.8		
Actuated g/C Ratio	0.40	0.40			0.04		
Clearance Time (s)	6.0	6.0			5.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	743	634			73		
v/s Ratio Prot							
v/s Ratio Perm	0.28	0.10			0.00		
v/c Ratio	0.71	0.24			0.02		
Uniform Delay, d1	27.8	22.1			50.3		
Progression Factor	1.00	1.00			1.00		
Incremental Delay, d2	3.1	0.2			0.1		
Delay (s)	30.9	22.3			50.4		
Level of Service	C	C			D		
Approach Delay (s)	28.3				50.4		
Approach LOS	C				D		
Intersection Summary							

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B

Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0				0		0	0	
Storage Lanes	0		0	0				0		0	0	
Taper Length (ft)	25			25				25			25	
Right Turn on Red			Yes			Yes				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		283			639				1635			501
Travel Time (s)		6.4			14.5				37.2			11.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	0	0	31	0	0	0	575	0	0	477
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Left	Right	Left	Left
Median Width(ft)		0			0				0			0
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60	60		60	60	
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Detector Phase	3	3		8	8		2	2	2		6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		10.0	10.0	10.0		10.0	10.0
Minimum Split (s)	10.0	10.0		10.0	10.0		16.0	16.0	16.0		16.0	16.0
Total Split (s)	30.0	30.0		20.0	20.0		51.0	51.0	51.0		51.0	51.0
Total Split (%)	21.3%	21.3%		14.2%	14.2%		36.2%	36.2%	36.2%		36.2%	36.2%
Maximum Green (s)	25.0	25.0		15.0	15.0		45.0	45.0	45.0		45.0	45.0
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0				-2.0			-2.0
Total Lost Time (s)		3.0			3.0				4.0			4.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	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
Recall Mode	None	None		None	None		Min	Min	Min		Min	Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		1.33			0.12				0.62			0.51
Control Delay		209.0			1.0				23.7			21.0
Queue Delay		0.0			0.0				0.0			0.5
Total Delay		209.0			1.0				23.7			21.5
Queue Length 50th (ft)		~204			0				223			171

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B

Timing Plan: NHDOT/City

						
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø9
Lane Configurations						
Traffic Volume (vph)	139	2	2	0	1	
Future Volume (vph)	139	2	2	0	1	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	
Storage Length (ft)	200			0	0	
Storage Lanes	1			1	0	
Taper Length (ft)				25		
Right Turn on Red		Yes				
Link Speed (mph)				30		
Link Distance (ft)				271		
Travel Time (s)				6.2		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	
Heavy Vehicles (%)	1%	1%	2%	2%	2%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	156	0	0	3	0	
Enter Blocked Intersection	No	No	No	No	No	
Lane Alignment	Right	Right	Left	Left	Right	
Median Width(ft)				12		
Link Offset(ft)				0		
Crosswalk Width(ft)				16		
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	
Turning Speed (mph)	60	60	60	60	60	
Turn Type	Perm		Perm	Prot		
Protected Phases				4		9
Permitted Phases	6		4			
Detector Phase	6		4	4		
Switch Phase						
Minimum Initial (s)	10.0		5.0	5.0		5.0
Minimum Split (s)	16.0		10.0	10.0		20.0
Total Split (s)	51.0		20.0	20.0		20.0
Total Split (%)	36.2%		14.2%	14.2%		14%
Maximum Green (s)	45.0		15.0	15.0		15.0
Yellow Time (s)	4.0		3.0	3.0		3.0
All-Red Time (s)	2.0		2.0	2.0		2.0
Lost Time Adjust (s)	-2.0			-2.0		
Total Lost Time (s)	4.0			3.0		
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Recall Mode	Min		None	None		None
Walk Time (s)						7.0
Flash Dont Walk (s)						8.0
Pedestrian Calls (#/hr)						10
v/c Ratio	0.18			0.02		
Control Delay	5.6			46.7		
Queue Delay	0.0			0.0		
Total Delay	5.6			46.7		
Queue Length 50th (ft)	7			2		

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B

Timing Plan: NHDOT/City

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		#510			0				#562			434
Internal Link Dist (ft)		203			559				1555			421
Turn Bay Length (ft)												
Base Capacity (vph)		206			386				986			996
Starvation Cap Reductn		0			0				0			195
Spillback Cap Reductn		0			0				0			0
Storage Cap Reductn		0			0				0			0
Reduced v/c Ratio		1.33			0.08				0.58			0.60

Intersection Summary

Area Type: Other

Cycle Length: 141

Actuated Cycle Length: 90.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

 Ø2	 Ø3	 Ø8	 Ø4	 Ø9
51 s	30 s	20 s	20 s	20 s
 Ø6				
51 s				

						
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø9
Queue Length 95th (ft)	56			12		
Internal Link Dist (ft)				191		
Turn Bay Length (ft)	200					
Base Capacity (vph)	914			332		
Starvation Cap Reductn	0			0		
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.17			0.01		
Intersection Summary						

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B
Timing Plan: NHDOT/City

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0				4.0			4.0
Lane Util. Factor		1.00			1.00				1.00			1.00
Frt		1.00			0.97				1.00			1.00
Flt Protected		0.96			0.98				1.00			1.00
Satd. Flow (prot)		1780			1777				1860			1880
Flt Permitted		0.36			0.79				0.99			0.99
Satd. Flow (perm)		671			1424				1848			1869
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	232	34	8	10	14	7	7	1	563	4	6	471
RTOR Reduction (vph)	0	1	0	0	29	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	273	0	0	2	0	0	0	575	0	0	477
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Actuated Green, G (s)		25.8			3.1				43.2			43.2
Effective Green, g (s)		27.8			5.1				45.2			45.2
Actuated g/C Ratio		0.27			0.05				0.45			0.45
Clearance Time (s)		5.0			5.0				6.0			6.0
Vehicle Extension (s)		3.0			3.0				3.0			3.0
Lane Grp Cap (vph)		184			71				825			834
v/s Ratio Prot												
v/s Ratio Perm		c0.41			c0.00				c0.31			0.26
v/c Ratio		1.49			0.02				0.70			0.57
Uniform Delay, d1		36.7			45.7				22.5			20.8
Progression Factor		1.00			1.00				1.00			1.00
Incremental Delay, d2		245.0			0.1				2.6			1.0
Delay (s)		281.7			45.8				25.1			21.8
Level of Service		F			D				C			C
Approach Delay (s)		281.7			45.8				25.1			20.4
Approach LOS		F			D				C			C
Intersection Summary												
HCM 2000 Control Delay			70.0			HCM 2000 Level of Service			E			
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			101.2			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			67.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B
Timing Plan: NHDOT/City

					
Movement	SBR	SBR2	SEL2	SEL	SER
Lane Configurations					
Traffic Volume (vph)	139	2	2	0	1
Future Volume (vph)	139	2	2	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			3.0	
Lane Util. Factor	1.00			1.00	
Frt	0.85			0.95	
Flt Protected	1.00			0.97	
Satd. Flow (prot)	1599			1722	
Flt Permitted	1.00			0.97	
Satd. Flow (perm)	1599			1722	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	154	2	2	0	1
RTOR Reduction (vph)	73	0	0	0	0
Lane Group Flow (vph)	83	0	0	3	0
Heavy Vehicles (%)	1%	1%	2%	2%	2%
Turn Type	Perm		Perm	Prot	
Protected Phases				4	
Permitted Phases	6		4		
Actuated Green, G (s)	43.2			0.9	
Effective Green, g (s)	45.2			2.9	
Actuated g/C Ratio	0.45			0.03	
Clearance Time (s)	6.0			5.0	
Vehicle Extension (s)	3.0			3.0	
Lane Grp Cap (vph)	714			49	
v/s Ratio Prot					
v/s Ratio Perm	0.05			0.00	
v/c Ratio	0.12			0.06	
Uniform Delay, d1	16.3			47.8	
Progression Factor	1.00			1.00	
Incremental Delay, d2	0.1			0.5	
Delay (s)	16.4			48.4	
Level of Service	B			D	
Approach Delay (s)				48.4	
Approach LOS				D	
Intersection Summary					

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0			0		0
Storage Lanes		0		0	0		0			0		0
Taper Length (ft)		25			25					25		
Right Turn on Red				Yes				Yes				Yes
Link Speed (mph)			30			30					30	
Link Distance (ft)			283			639					1635	
Travel Time (s)			6.4			14.5					37.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	206	0	0	45	0	0	0	0	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)			0			0					0	
Link Offset(ft)			0			0					0	
Crosswalk Width(ft)			16			16					16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		60	60		60	60	60	60		60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Detector Phase	3	3	3		8	8			2	2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0	5.0	
Minimum Split (s)	17.0	17.0	17.0		11.0	11.0			29.0	29.0	29.0	
Total Split (s)	50.0	50.0	50.0		11.0	11.0			34.0	34.0	34.0	
Total Split (%)	41.7%	41.7%	41.7%		9.2%	9.2%			28.3%	28.3%	28.3%	
Maximum Green (s)	44.0	44.0	44.0		5.0	5.0			28.0	28.0	28.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)			-2.0			-2.0					-2.0	
Total Lost Time (s)			4.0			4.0					4.0	
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min	Min	
Walk Time (s)	0.0	0.0	0.0						0.0	0.0	0.0	
Flash Dont Walk (s)	11.0	11.0	11.0						23.0	23.0	23.0	
Pedestrian Calls (#/hr)	2	2	2						3	3	3	
v/c Ratio			1.38			0.37					0.76	
Control Delay			233.3			51.6					42.6	
Queue Delay			0.0			0.0					0.0	
Total Delay			233.3			51.6					42.6	
Queue Length 50th (ft)			~163			22					246	

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT

Timing Plan: MIT

									
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Lane Configurations									
Traffic Volume (vph)	2	390	158	2	6	2	6		
Future Volume (vph)	2	390	158	2	6	2	6		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	0		200			0	0		
Storage Lanes	0		1			1	0		
Taper Length (ft)	25					25			
Right Turn on Red				Yes					
Link Speed (mph)		30				30			
Link Distance (ft)		501				271			
Travel Time (s)		11.4				6.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%		
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	435	178	0	0	16	0		
Enter Blocked Intersection	No	No	No	No	No	No	No		
Lane Alignment	Left	Left	Right	Right	Left	Left	Right		
Median Width(ft)		0				12			
Link Offset(ft)		0				0			
Crosswalk Width(ft)		16				16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	60		60	60	60	60	60		
Turn Type	Perm	NA	Perm		Perm	Perm			
Protected Phases		6						11	12
Permitted Phases	6		6		4	4			
Detector Phase	6	6	6		4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		1.0	1.0
Minimum Split (s)	11.0	11.0	11.0		11.0	11.0		7.0	7.0
Total Split (s)	34.0	34.0	34.0		11.0	11.0		7.0	7.0
Total Split (%)	28.3%	28.3%	28.3%		9.2%	9.2%		6%	6%
Maximum Green (s)	28.0	28.0	28.0		5.0	5.0		5.0	5.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		2.0	2.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		0.0	0.0
Lost Time Adjust (s)		-2.0	-2.0			-2.0			
Total Lost Time (s)		4.0	4.0			4.0			
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Recall Mode	Min	Min	Min		None	None		None	None
Walk Time (s)								5.0	5.0
Flash Dont Walk (s)								0.0	0.0
Pedestrian Calls (#/hr)								3	2
v/c Ratio		0.72	0.28			0.13			
Control Delay		40.5	6.8			51.6			
Queue Delay		0.0	0.0			0.0			
Total Delay		40.5	6.8			51.6			
Queue Length 50th (ft)		233	2			9			

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Queue Length 95th (ft)			#391			69					#565	
Internal Link Dist (ft)			203			559					1555	
Turn Bay Length (ft)												
Base Capacity (vph)			149			122					595	
Starvation Cap Reductn			0			0					0	
Spillback Cap Reductn			0			0					0	
Storage Cap Reductn			0			0					0	
Reduced v/c Ratio			1.38			0.37					0.76	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 99.9

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

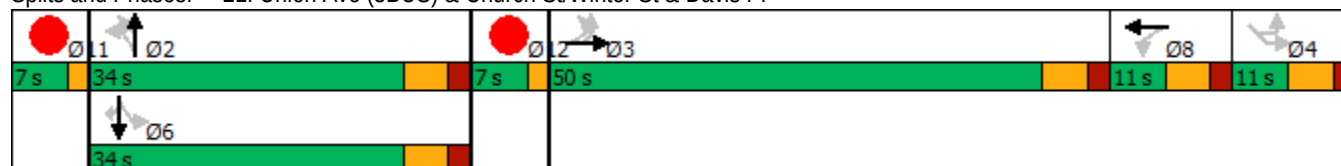
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl



									
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Queue Length 95th (ft)		#530	59			36			
Internal Link Dist (ft)		421				191			
Turn Bay Length (ft)			200						
Base Capacity (vph)		608	634			121			
Starvation Cap Reductn		0	0			0			
Spillback Cap Reductn		0	0			0			
Storage Cap Reductn		0	0			0			
Reduced v/c Ratio		0.72	0.28			0.13			
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0					4.0	
Lane Util. Factor			1.00			1.00					1.00	
Frt			0.99			0.97					1.00	
Flt Protected			0.96			0.99					1.00	
Satd. Flow (prot)			1756			1793					1824	
Flt Permitted			0.17			0.90					1.00	
Satd. Flow (perm)			318			1627					1822	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Adj. Flow (vph)	6	179	13	8	7	28	2	8	1	1	445	4
RTOR Reduction (vph)	0	0	1	0	0	7	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	205	0	0	38	0	0	0	0	451	0
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Actuated Green, G (s)			44.6			2.8					30.7	
Effective Green, g (s)			46.6			4.8					32.7	
Actuated g/C Ratio			0.43			0.04					0.30	
Clearance Time (s)			6.0			6.0					6.0	
Vehicle Extension (s)			3.0			3.0					3.0	
Lane Grp Cap (vph)			135			71					544	
v/s Ratio Prot												
v/s Ratio Perm			c0.64			c0.02					c0.25	
v/c Ratio			1.52			0.54					0.83	
Uniform Delay, d1			31.4			51.3					35.8	
Progression Factor			1.00			1.00					1.00	
Incremental Delay, d2			266.9			7.7					10.1	
Delay (s)			298.4			58.9					45.9	
Level of Service			F			E					D	
Approach Delay (s)			298.4			58.9					45.9	
Approach LOS			F			E					D	
Intersection Summary												
HCM 2000 Control Delay			82.0			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			1.16									
Actuated Cycle Length (s)			109.5			Sum of lost time (s)			22.0			
Intersection Capacity Utilization			58.5%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT

Timing Plan: MIT

							
Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER
Lane Configurations							
Traffic Volume (vph)	2	390	158	2	6	2	6
Future Volume (vph)	2	390	158	2	6	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.85			0.94	
Flt Protected		1.00	1.00			0.97	
Satd. Flow (prot)		1862	1583			1705	
Flt Permitted		1.00	1.00			0.97	
Satd. Flow (perm)		1860	1583			1705	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	433	176	2	7	2	7
RTOR Reduction (vph)	0	0	121	0	0	0	0
Lane Group Flow (vph)	0	435	57	0	0	16	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm		Perm	Perm	
Protected Phases		6					
Permitted Phases	6		6		4	4	
Actuated Green, G (s)		30.7	30.7			1.8	
Effective Green, g (s)		32.7	32.7			3.8	
Actuated g/C Ratio		0.30	0.30			0.03	
Clearance Time (s)		6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		555	472			59	
v/s Ratio Prot							
v/s Ratio Perm		0.23	0.04			c0.01	
v/c Ratio		0.78	0.12			0.27	
Uniform Delay, d1		35.2	27.9			51.5	
Progression Factor		1.00	1.00			1.00	
Incremental Delay, d2		7.1	0.1			2.5	
Delay (s)		42.3	28.0			54.0	
Level of Service		D	C			D	
Approach Delay (s)		38.2				54.0	
Approach LOS		D				D	
Intersection Summary							

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0				0	0
Storage Lanes		0		0	0		0				0	0
Taper Length (ft)		25			25							25
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30			30				30		
Link Distance (ft)			283			639				1635		
Travel Time (s)			6.4			14.5				37.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	381	0	0	68	0	0	0	613	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Left
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		9	15		60	60	60		60	60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Detector Phase	3	3	3		8	8			2	2		6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0		10.0
Minimum Split (s)	17.0	17.0	17.0		11.0	11.0			29.0	29.0		16.0
Total Split (s)	47.0	47.0	47.0		11.0	11.0			37.0	37.0		37.0
Total Split (%)	39.2%	39.2%	39.2%		9.2%	9.2%			30.8%	30.8%		30.8%
Maximum Green (s)	41.0	41.0	41.0		5.0	5.0			31.0	31.0		31.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0		2.0
Lost Time Adjust (s)			-2.0			-2.0				-2.0		
Total Lost Time (s)			4.0			4.0				4.0		
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			Min	Min		Min
Walk Time (s)	0.0	0.0	0.0						0.0	0.0		
Flash Dont Walk (s)	11.0	11.0	11.0						23.0	23.0		
Pedestrian Calls (#/hr)	5	5	5						10	10		
v/c Ratio			2.14			0.61				1.09		
Control Delay			554.7			67.8				101.0		
Queue Delay			0.0			0.0				0.0		
Total Delay			554.7			67.8				101.0		
Queue Length 50th (ft)			~425			39				~492		

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT

Timing Plan: MIT

									
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø11	Ø12
Lane Configurations									
Traffic Volume (vph)	506	223	2	6	4	9	8		
Future Volume (vph)	506	223	2	6	4	9	8		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		200			0	0			
Storage Lanes		1			1	0			
Taper Length (ft)					25				
Right Turn on Red			Yes				Yes		
Link Speed (mph)	30				30				
Link Distance (ft)	501				271				
Travel Time (s)	11.4				6.2				
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%		
Shared Lane Traffic (%)									
Lane Group Flow (vph)	526	232	0	0	30	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0				12				
Link Offset(ft)	0				0				
Crosswalk Width(ft)	16				16				
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		60	60	60	60	60	60		
Turn Type	NA	Perm		Perm	Prot				
Protected Phases	6				4			11	12
Permitted Phases		6		4					
Detector Phase	6	6		4	4				
Switch Phase									
Minimum Initial (s)	10.0	10.0		5.0	5.0			1.0	1.0
Minimum Split (s)	16.0	16.0		11.0	11.0			7.0	7.0
Total Split (s)	37.0	37.0		11.0	11.0			7.0	7.0
Total Split (%)	30.8%	30.8%		9.2%	9.2%			6%	6%
Maximum Green (s)	31.0	31.0		5.0	5.0			5.0	5.0
Yellow Time (s)	4.0	4.0		4.0	4.0			2.0	2.0
All-Red Time (s)	2.0	2.0		2.0	2.0			0.0	0.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0				
Total Lost Time (s)	4.0	4.0			4.0				
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	Min	Min		None	None			None	None
Walk Time (s)								5.0	5.0
Flash Dont Walk (s)								0.0	0.0
Pedestrian Calls (#/hr)								10	5
v/c Ratio	0.86	0.36			0.11				
Control Delay	49.8	10.9			0.8				
Queue Delay	2.0	0.0			0.0				
Total Delay	51.8	10.9			0.8				
Queue Length 50th (ft)	341	29			0				

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Queue Length 95th (ft)			#583			#123				#839		
Internal Link Dist (ft)			203			559				1555		
Turn Bay Length (ft)												
Base Capacity (vph)			178			111				561		
Starvation Cap Reductn			0			0				0		
Spillback Cap Reductn			0			0				0		
Storage Cap Reductn			0			0				0		
Reduced v/c Ratio			2.14			0.61				1.09		

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 102.2

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

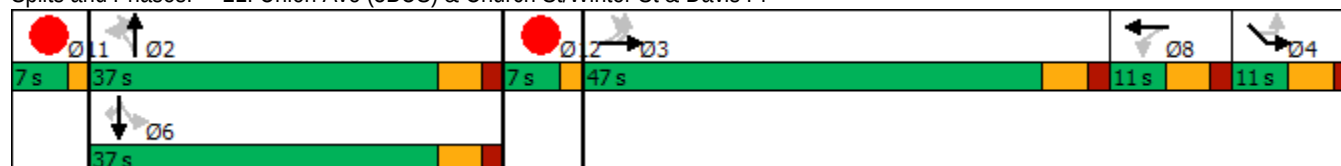
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl



									
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø11	Ø12
Queue Length 95th (ft)	#649	104			0				
Internal Link Dist (ft)	421				191				
Turn Bay Length (ft)		200							
Base Capacity (vph)	613	640			276				
Starvation Cap Reductn	26	0			0				
Spillback Cap Reductn	0	0			0				
Storage Cap Reductn	0	0			0				
Reduced v/c Ratio	0.90	0.36			0.11				
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT
Timing Plan: MIT

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0				4.0		
Lane Util. Factor			1.00			1.00				1.00		
Frt			1.00			0.96				1.00		
Flt Protected			0.96			0.99				1.00		
Satd. Flow (prot)			1779			1771				1872		
Flt Permitted			0.22			0.82				0.91		
Satd. Flow (perm)			417			1473				1710		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Adj. Flow (vph)	7	338	31	5	14	34	4	16	1	590	22	4
RTOR Reduction (vph)	0	0	1	0	0	9	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	380	0	0	59	0	0	0	612	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Actuated Green, G (s)			41.6			3.9				31.4		
Effective Green, g (s)			43.6			5.9				33.4		
Actuated g/C Ratio			0.40			0.05				0.31		
Clearance Time (s)			6.0			6.0				6.0		
Vehicle Extension (s)			3.0			3.0				3.0		
Lane Grp Cap (vph)			166			79				521		
v/s Ratio Prot												
v/s Ratio Perm			c0.91			c0.04				c0.36		
v/c Ratio			2.29			0.74				1.17		
Uniform Delay, d1			33.0			51.0				38.0		
Progression Factor			1.00			1.00				1.00		
Incremental Delay, d2			599.8			30.7				97.1		
Delay (s)			632.8			81.8				135.1		
Level of Service			F			F				F		
Approach Delay (s)			632.8			81.8				135.1		
Approach LOS			F			F				F		
Intersection Summary												
HCM 2000 Control Delay			198.8			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.60									
Actuated Cycle Length (s)			109.5			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			79.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT
Timing Plan: MIT

							
Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2
Lane Configurations							
Traffic Volume (vph)	506	223	2	6	4	9	8
Future Volume (vph)	506	223	2	6	4	9	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	0.85			0.91		
Flt Protected	1.00	1.00			0.98		
Satd. Flow (prot)	1880	1599			1673		
Flt Permitted	0.99	1.00			0.98		
Satd. Flow (perm)	1872	1599			1673		
Peak-hour factor, PHF	0.97	0.97	0.97	0.90	0.90	0.90	0.90
Adj. Flow (vph)	522	230	2	7	4	10	9
RTOR Reduction (vph)	0	120	0	0	29	0	0
Lane Group Flow (vph)	526	112	0	0	1	0	0
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%
Turn Type	NA	Perm		Perm	Prot		
Protected Phases	6				4		
Permitted Phases		6		4			
Actuated Green, G (s)	31.4	31.4			2.8		
Effective Green, g (s)	33.4	33.4			4.8		
Actuated g/C Ratio	0.31	0.31			0.04		
Clearance Time (s)	6.0	6.0			6.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	571	487			73		
v/s Ratio Prot							
v/s Ratio Perm	0.28	0.07			0.00		
v/c Ratio	0.92	0.23			0.02		
Uniform Delay, d1	36.8	28.4			50.1		
Progression Factor	1.00	1.00			1.00		
Incremental Delay, d2	20.4	0.2			0.1		
Delay (s)	57.2	28.7			50.2		
Level of Service	E	C			D		
Approach Delay (s)	48.5				50.2		
Approach LOS	D				D		
Intersection Summary							

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0				0		0	0	
Storage Lanes	0		0	0				0		0	0	
Taper Length (ft)	25			25				25			25	
Right Turn on Red			Yes			Yes				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		283			639				1635			501
Travel Time (s)		6.4			14.5				37.2			11.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	0	0	31	0	0	0	575	0	0	477
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Left	Right	Left	Left
Median Width(ft)		0			0				0			0
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60	60		60	60	
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Detector Phase	3	3		8	8		2	2	2		6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	17.0	17.0		11.0	11.0		29.0	29.0	29.0		11.0	11.0
Total Split (s)	42.0	42.0		11.0	11.0		42.0	42.0	42.0		42.0	42.0
Total Split (%)	35.0%	35.0%		9.2%	9.2%		35.0%	35.0%	35.0%		35.0%	35.0%
Maximum Green (s)	36.0	36.0		5.0	5.0		36.0	36.0	36.0		36.0	36.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0				-2.0			-2.0
Total Lost Time (s)		4.0			4.0				4.0			4.0
Lead/Lag	Lead	Lead		Lag	Lag							
Lead-Lag Optimize?	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
Recall Mode	None	None		None	None		Min	Min	Min		Min	Min
Walk Time (s)	0.0	0.0					0.0	0.0	0.0			
Flash Dont Walk (s)	11.0	11.0					23.0	23.0	23.0			
Pedestrian Calls (#/hr)	4	4					6	6	6			
v/c Ratio		1.02			0.12				0.76			0.63
Control Delay		93.0			0.9				35.1			30.0
Queue Delay		0.0			0.0				0.0			0.8
Total Delay		93.0			0.9				35.1			30.9
Queue Length 50th (ft)		~171			0				296			227

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT

Timing Plan: MIT

							
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Lane Configurations							
Traffic Volume (vph)	139	2	2	0	1		
Future Volume (vph)	139	2	2	0	1		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900		
Storage Length (ft)	200			0	0		
Storage Lanes	1			1	0		
Taper Length (ft)				25			
Right Turn on Red		Yes					
Link Speed (mph)				30			
Link Distance (ft)				271			
Travel Time (s)				6.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	1%	1%	2%	2%	2%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	156	0	0	3	0		
Enter Blocked Intersection	No	No	No	No	No		
Lane Alignment	Right	Right	Left	Left	Right		
Median Width(ft)				12			
Link Offset(ft)				0			
Crosswalk Width(ft)				16			
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	60	60	60	60	60		
Turn Type	Perm		Perm	Prot			
Protected Phases				4		11	12
Permitted Phases	6		4				
Detector Phase	6		4	4			
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0		1.0	1.0
Minimum Split (s)	11.0		11.0	11.0		7.0	7.0
Total Split (s)	42.0		11.0	11.0		7.0	7.0
Total Split (%)	35.0%		9.2%	9.2%		6%	6%
Maximum Green (s)	36.0		5.0	5.0		5.0	5.0
Yellow Time (s)	4.0		4.0	4.0		2.0	2.0
All-Red Time (s)	2.0		2.0	2.0		0.0	0.0
Lost Time Adjust (s)	-2.0			-2.0			
Total Lost Time (s)	4.0			4.0			
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0
Recall Mode	Min		None	None		None	None
Walk Time (s)						5.0	5.0
Flash Dont Walk (s)						0.0	0.0
Pedestrian Calls (#/hr)						6	4
v/c Ratio	0.21			0.02			
Control Delay	3.9			48.3			
Queue Delay	0.0			0.0			
Total Delay	3.9			48.3			
Queue Length 50th (ft)	0			2			

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		#447			0				#676			#502
Internal Link Dist (ft)		203			559				1555			421
Turn Bay Length (ft)												
Base Capacity (vph)		268			265				753			761
Starvation Cap Reductn		0			0				0			95
Spillback Cap Reductn		0			0				0			0
Storage Cap Reductn		0			0				0			0
Reduced v/c Ratio		1.02			0.12				0.76			0.72

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 96.1

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

									
7 s	42 s		7 s	42 s		11 s		11 s	
									
	42 s								

							
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Queue Length 95th (ft)	38			13			
Internal Link Dist (ft)				191			
Turn Bay Length (ft)	200						
Base Capacity (vph)	753			127			
Starvation Cap Reductn	0			0			
Spillback Cap Reductn	0			0			
Storage Cap Reductn	0			0			
Reduced v/c Ratio	0.21			0.02			
Intersection Summary							

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0				4.0			4.0
Lane Util. Factor		1.00			1.00				1.00			1.00
Frt		1.00			0.97				1.00			1.00
Flt Protected		0.96			0.98				1.00			1.00
Satd. Flow (prot)		1780			1777				1860			1880
Flt Permitted		0.36			0.79				0.99			0.99
Satd. Flow (perm)		668			1424				1847			1868
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	232	34	8	10	14	7	7	1	563	4	6	471
RTOR Reduction (vph)	0	1	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	273	0	0	1	0	0	0	575	0	0	477
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Actuated Green, G (s)		36.6			2.8				37.1			37.1
Effective Green, g (s)		38.6			4.8				39.1			39.1
Actuated g/C Ratio		0.36			0.04				0.37			0.37
Clearance Time (s)		6.0			6.0				6.0			6.0
Vehicle Extension (s)		3.0			3.0				3.0			3.0
Lane Grp Cap (vph)		241			63				675			683
v/s Ratio Prot												
v/s Ratio Perm		c0.41			c0.00				c0.31			0.26
v/c Ratio		1.13			0.02				0.85			0.70
Uniform Delay, d1		34.2			48.8				31.2			28.9
Progression Factor		1.00			1.00				1.00			1.00
Incremental Delay, d2		99.0			0.1				10.1			3.1
Delay (s)		133.1			48.9				41.3			32.0
Level of Service		F			D				D			C
Approach Delay (s)		133.1			48.9				41.3			29.6
Approach LOS		F			D				D			C
Intersection Summary												
HCM 2000 Control Delay			53.2		HCM 2000 Level of Service				D			
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			106.9		Sum of lost time (s)				20.0			
Intersection Capacity Utilization			67.3%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT

Timing Plan: MIT

					
Movement	SBR	SBR2	SEL2	SEL	SER
Lane Configurations					
Traffic Volume (vph)	139	2	2	0	1
Future Volume (vph)	139	2	2	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	
Lane Util. Factor	1.00			1.00	
Frt	0.85			0.95	
Flt Protected	1.00			0.97	
Satd. Flow (prot)	1599			1722	
Flt Permitted	1.00			0.97	
Satd. Flow (perm)	1599			1722	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	154	2	2	0	1
RTOR Reduction (vph)	99	0	0	0	0
Lane Group Flow (vph)	57	0	0	3	0
Heavy Vehicles (%)	1%	1%	2%	2%	2%
Turn Type	Perm		Perm	Prot	
Protected Phases				4	
Permitted Phases	6		4		
Actuated Green, G (s)	37.1			0.8	
Effective Green, g (s)	39.1			2.8	
Actuated g/C Ratio	0.37			0.03	
Clearance Time (s)	6.0			6.0	
Vehicle Extension (s)	3.0			3.0	
Lane Grp Cap (vph)	584			45	
v/s Ratio Prot					
v/s Ratio Perm	0.04			0.00	
v/c Ratio	0.10			0.07	
Uniform Delay, d1	22.3			50.8	
Progression Factor	1.00			1.00	
Incremental Delay, d2	0.1			0.6	
Delay (s)	22.4			51.4	
Level of Service	C			D	
Approach Delay (s)				51.4	
Approach LOS				D	
Intersection Summary					

ATTACHMENT O

Intersection #2: Synchro (AM/PM/SAT)

2037 Build Mit Coord

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	11	1	0	524	340	1	668	20	216	453	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	24.0	24.0	11.0	24.0	
Total Split (s)	46.0	46.0	46.0	46.0	46.0	46.0	13.0	47.0	47.0	13.0	47.0	
Total Split (%)	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	10.8%	39.2%	39.2%	10.8%	39.2%	
Maximum Green (s)	40.0	40.0	40.0	40.0	40.0	40.0	7.0	41.0	41.0	7.0	41.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	2	2	2	2	2	2		3	3		3	
v/c Ratio		0.02	0.00		0.95	0.44	0.01	0.89	0.03	1.10	0.61	
Control Delay		23.7	0.0		63.1	10.0	43.0	30.4	0.1	135.8	33.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.7	0.0	0.0	0.6	
Total Delay		23.7	0.0		63.1	10.0	43.0	31.1	0.1	135.8	33.6	
Queue Length 50th (ft)		5	0		379	48	1	501	0	~132	267	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		19	0		#665	137	m1	m#592	m0	#307	418	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		566	699		554	772	131	747	705	196	747	
Starvation Cap Reductn		0	0		0	0	0	10	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	86	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.02	0.00		0.95	0.44	0.01	0.91	0.03	1.10	0.69	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 6 (5%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 150

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

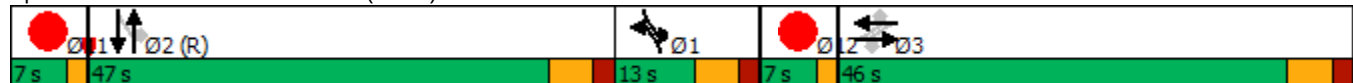
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

AM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Future Volume (vph)	8	2	1	472	0	306	1	615	18	194	407	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.96	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1790	1583		1770	1583	1752	1845	1568	1752	1844	
Flt Permitted		0.77	1.00		0.75	1.00	0.95	1.00	1.00	0.09	1.00	
Satd. Flow (perm)		1428	1583		1398	1583	1752	1845	1568	163	1844	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.90	0.90	0.90
Adj. Flow (vph)	9	2	1	524	0	340	1	668	20	216	452	1
RTOR Reduction (vph)	0	0	1	0	0	145	0	0	12	0	0	0
Lane Group Flow (vph)	0	11	0	0	524	195	1	668	8	216	453	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		45.6	45.6		45.6	45.6	7.0	43.4	43.4	50.4	43.4	
Effective Green, g (s)		47.6	47.6		47.6	47.6	9.0	45.4	45.4	54.4	45.4	
Actuated g/C Ratio		0.40	0.40		0.40	0.40	0.08	0.38	0.38	0.45	0.38	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		566	627		554	627	131	698	593	193	697	
v/s Ratio Prot							0.00	0.36		c0.08	0.25	
v/s Ratio Perm		0.01	0.00		c0.37	0.12			0.00	c0.42		
v/c Ratio		0.02	0.00		0.95	0.31	0.01	0.96	0.01	1.12	0.65	
Uniform Delay, d1		22.0	21.8		35.0	24.9	51.4	36.3	23.3	51.6	30.7	
Progression Factor		1.00	1.00		1.00	1.00	0.83	0.58	1.00	1.00	1.00	
Incremental Delay, d2		0.0	0.0		25.2	0.3	0.0	16.4	0.0	100.4	4.7	
Delay (s)		22.0	21.8		60.2	25.2	42.8	37.4	23.3	152.0	35.4	
Level of Service		C	C		E	C	D	D	C	F	D	
Approach Delay (s)		22.0			46.4			37.0			73.1	
Approach LOS		C			D			D			E	
Intersection Summary												
HCM 2000 Control Delay			51.4									
HCM 2000 Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			120.0									
Intersection Capacity Utilization			85.9%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0			0		0
Storage Lanes		0		0	0		0			0		0
Taper Length (ft)		25			25					25		
Right Turn on Red				Yes				Yes				Yes
Link Speed (mph)			30			30					30	
Link Distance (ft)			283			639					1635	
Travel Time (s)			6.4			14.5					37.2	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	206	0	0	45	0	0	0	0	451	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Left	Right
Median Width(ft)			0			0					0	
Link Offset(ft)			0			0					0	
Crosswalk Width(ft)			16			16					16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		60	60		60	60	60	60		60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Detector Phase	3	3	3		8	8			2	2	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0	5.0	
Minimum Split (s)	17.0	17.0	17.0		11.0	11.0			29.0	29.0	29.0	
Total Split (s)	50.0	50.0	50.0		11.0	11.0			34.0	34.0	34.0	
Total Split (%)	41.7%	41.7%	41.7%		9.2%	9.2%			28.3%	28.3%	28.3%	
Maximum Green (s)	44.0	44.0	44.0		5.0	5.0			28.0	28.0	28.0	
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0	2.0	
Lost Time Adjust (s)			-2.0			-2.0					-2.0	
Total Lost Time (s)			4.0			4.0					4.0	
Lead/Lag	Lead	Lead	Lead		Lag	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	None			C-Min	C-Min	C-Min	
Walk Time (s)	0.0	0.0	0.0						0.0	0.0	0.0	
Flash Dont Walk (s)	11.0	11.0	11.0						23.0	23.0	23.0	
Pedestrian Calls (#/hr)	2	2	2						3	3	3	
v/c Ratio			1.51			0.45					0.67	
Control Delay			292.0			62.1					40.2	
Queue Delay			0.0			0.0					4.5	
Total Delay			292.0			62.1					44.8	
Queue Length 50th (ft)			~220			29					275	

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT-L

Timing Plan: MIT

									
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Lane Configurations									
Traffic Volume (vph)	2	390	158	2	6	2	6		
Future Volume (vph)	2	390	158	2	6	2	6		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	0		200			0	0		
Storage Lanes	0		1			1	0		
Taper Length (ft)	25					25			
Right Turn on Red				Yes					
Link Speed (mph)		30				30			
Link Distance (ft)		501				271			
Travel Time (s)		11.4				6.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%		
Shared Lane Traffic (%)									
Lane Group Flow (vph)	0	435	178	0	0	16	0		
Enter Blocked Intersection	No	No	No	No	No	No	No		
Lane Alignment	Left	Left	Right	Right	Left	Left	Right		
Median Width(ft)		0				12			
Link Offset(ft)		0				0			
Crosswalk Width(ft)		16				16			
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	60		60	60	60	60	60		
Turn Type	Perm	NA	Perm		Perm	Perm			
Protected Phases		6						11	12
Permitted Phases	6		6		4	4			
Detector Phase	6	6	6		4	4			
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		1.0	1.0
Minimum Split (s)	11.0	11.0	11.0		11.0	11.0		7.0	7.0
Total Split (s)	34.0	34.0	34.0		11.0	11.0		7.0	7.0
Total Split (%)	28.3%	28.3%	28.3%		9.2%	9.2%		6%	6%
Maximum Green (s)	28.0	28.0	28.0		5.0	5.0		5.0	5.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0		2.0	2.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0		0.0	0.0
Lost Time Adjust (s)		-2.0	-2.0			-2.0			
Total Lost Time (s)		4.0	4.0			4.0			
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0
Recall Mode	Min	Min	Min		None	None		None	None
Walk Time (s)								5.0	5.0
Flash Dont Walk (s)								0.0	0.0
Pedestrian Calls (#/hr)								3	2
v/c Ratio		0.63	0.26			0.16			
Control Delay		27.4	5.5			57.6			
Queue Delay		1.2	0.0			0.0			
Total Delay		28.6	5.5			57.6			
Queue Length 50th (ft)		217	16			12			

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Queue Length 95th (ft)			#392			69					#565	
Internal Link Dist (ft)			203			559					1555	
Turn Bay Length (ft)												
Base Capacity (vph)			136			101					673	
Starvation Cap Reductn			0			0					0	
Spillback Cap Reductn			0			0					153	
Storage Cap Reductn			0			0					0	
Reduced v/c Ratio			1.51			0.45					0.87	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 8 (7%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

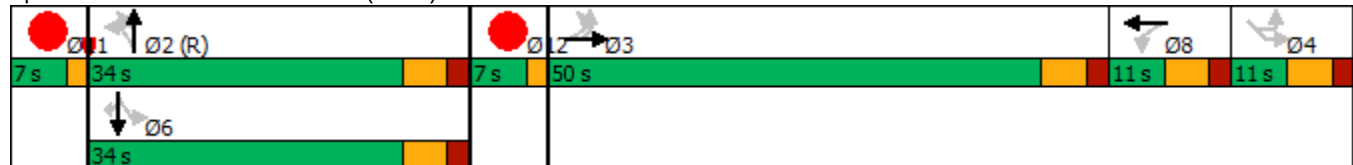
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl



									
Lane Group	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Queue Length 95th (ft)		m#441	m48			36			
Internal Link Dist (ft)		421				191			
Turn Bay Length (ft)			200						
Base Capacity (vph)		687	694			100			
Starvation Cap Reductn		98	0			0			
Spillback Cap Reductn		0	0			0			
Storage Cap Reductn		0	0			0			
Reduced v/c Ratio		0.74	0.26			0.16			
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Future Volume (vph)	5	161	12	7	6	25	2	7	1	1	405	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0					4.0	
Lane Util. Factor			1.00			1.00					1.00	
Frt			0.99			0.97					1.00	
Flt Protected			0.96			0.99					1.00	
Satd. Flow (prot)			1756			1793					1824	
Flt Permitted			0.17			0.90					1.00	
Satd. Flow (perm)			316			1627					1822	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91
Adj. Flow (vph)	6	179	13	8	7	28	2	8	1	1	445	4
RTOR Reduction (vph)	0	0	1	0	0	7	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	205	0	0	38	0	0	0	0	451	0
Heavy Vehicles (%)	3%	3%	3%	3%	2%	2%	2%	2%	4%	4%	4%	4%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	Perm	NA	
Protected Phases			3			8					2	
Permitted Phases	3	3			8				2	2		
Actuated Green, G (s)			49.6			4.0					34.4	
Effective Green, g (s)			51.6			6.0					36.4	
Actuated g/C Ratio			0.43			0.05					0.30	
Clearance Time (s)			6.0			6.0					6.0	
Vehicle Extension (s)			3.0			3.0					3.0	
Lane Grp Cap (vph)			135			81					552	
v/s Ratio Prot												
v/s Ratio Perm			c0.65			c0.02					c0.25	
v/c Ratio			1.52			0.47					0.82	
Uniform Delay, d1			34.2			55.5					38.7	
Progression Factor			1.00			1.00					1.00	
Incremental Delay, d2			267.0			4.3					12.6	
Delay (s)			301.2			59.8					51.3	
Level of Service			F			E					D	
Approach Delay (s)			301.2			59.8					51.3	
Approach LOS			F			E					D	
Intersection Summary												
HCM 2000 Control Delay			80.2			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.14									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			22.0			
Intersection Capacity Utilization			58.5%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

AM 2037 B-MIT-L

Timing Plan: MIT

							
Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER
Lane Configurations							
Traffic Volume (vph)	2	390	158	2	6	2	6
Future Volume (vph)	2	390	158	2	6	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0			4.0	
Lane Util. Factor		1.00	1.00			1.00	
Frt		1.00	0.85			0.94	
Flt Protected		1.00	1.00			0.97	
Satd. Flow (prot)		1862	1583			1705	
Flt Permitted		1.00	1.00			0.97	
Satd. Flow (perm)		1860	1583			1705	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2	433	176	2	7	2	7
RTOR Reduction (vph)	0	0	121	0	0	0	0
Lane Group Flow (vph)	0	435	57	0	0	16	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%
Turn Type	Perm	NA	Perm		Perm	Perm	
Protected Phases		6					
Permitted Phases	6		6		4	4	
Actuated Green, G (s)		34.4	34.4			2.0	
Effective Green, g (s)		36.4	36.4			4.0	
Actuated g/C Ratio		0.30	0.30			0.03	
Clearance Time (s)		6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0			3.0	
Lane Grp Cap (vph)		564	480			56	
v/s Ratio Prot							
v/s Ratio Perm		0.23	0.04			c0.01	
v/c Ratio		0.77	0.12			0.29	
Uniform Delay, d1		38.0	30.2			56.6	
Progression Factor		0.69	0.90			1.00	
Incremental Delay, d2		3.9	0.1			2.8	
Delay (s)		30.1	27.2			59.4	
Level of Service		C	C			E	
Approach Delay (s)		29.3				59.4	
Approach LOS		C				E	
Intersection Summary							

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	1	0	337	332	1	739	420	283	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	31.0	31.0	11.0	31.0	
Total Split (s)	34.0	34.0	34.0	34.0	34.0	34.0	20.0	52.0	52.0	20.0	52.0	
Total Split (%)	28.3%	28.3%	28.3%	28.3%	28.3%	28.3%	16.7%	43.3%	43.3%	16.7%	43.3%	
Maximum Green (s)	28.0	28.0	28.0	28.0	28.0	28.0	14.0	46.0	46.0	14.0	46.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0		5	5		5	
v/c Ratio		0.05	0.00		0.81	0.47	0.00	0.88	0.51	0.94	0.87	
Control Delay		29.5	0.0		55.4	6.6	43.0	25.2	7.9	80.9	42.9	
Queue Delay		0.0	0.0		0.0	0.0	0.0	18.2	0.5	0.0	10.5	
Total Delay		29.5	0.0		55.4	6.6	43.0	43.4	8.4	80.9	53.3	
Queue Length 50th (ft)		14	0		241	9	1	285	66	163	486	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	5	0
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		35	0		#395	79	m2	m278	m62	#347	#804	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		554	569		414	710	238	840	824	302	838	
Starvation Cap Reductn		0	0		0	0	0	113	130	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	98	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.00		0.81	0.47	0.00	1.02	0.61	0.94	0.98	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 114 (95%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 100

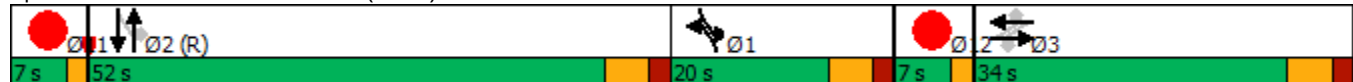
Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)

Internal Link Dist (ft)

Turn Bay Length (ft)

Base Capacity (vph)

Starvation Cap Reductn

Spillback Cap Reductn

Storage Cap Reductn

Reduced v/c Ratio

Intersection Summary

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

PM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Future Volume (vph)	3	20	1	308	8	312	1	724	412	269	680	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.99	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1852	1583		1794	1599	1787	1881	1599	1787	1877	
Flt Permitted		0.97	1.00		0.71	1.00	0.95	1.00	1.00	0.08	1.00	
Satd. Flow (perm)		1799	1583		1342	1599	1787	1881	1599	145	1877	
Peak-hour factor, PHF	0.90	0.90	0.90	0.94	0.94	0.94	0.98	0.98	0.98	0.95	0.95	0.95
Adj. Flow (vph)	3	22	1	328	9	332	1	739	420	283	716	11
RTOR Reduction (vph)	0	0	1	0	0	218	0	0	113	0	1	0
Lane Group Flow (vph)	0	25	0	0	337	114	1	739	307	283	726	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		35.0	35.0		35.0	35.0	14.0	50.0	50.0	64.0	50.0	
Effective Green, g (s)		37.0	37.0		37.0	37.0	16.0	52.0	52.0	68.0	52.0	
Actuated g/C Ratio		0.31	0.31		0.31	0.31	0.13	0.43	0.43	0.57	0.43	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		554	488		413	493	238	815	692	301	813	
v/s Ratio Prot							0.00	0.39		0.13	0.39	
v/s Ratio Perm		0.01	0.00		0.25	0.07			0.19	0.41		
v/c Ratio		0.05	0.00		0.82	0.23	0.00	0.91	0.44	0.94	0.89	
Uniform Delay, d1		29.1	28.7		38.4	30.9	45.1	31.7	23.9	46.1	31.4	
Progression Factor		1.00	1.00		1.00	1.00	0.96	0.73	0.62	1.00	1.00	
Incremental Delay, d2		0.0	0.0		11.8	0.2	0.0	1.9	0.2	36.2	14.3	
Delay (s)		29.1	28.7		50.1	31.2	43.2	25.2	14.9	82.3	45.7	
Level of Service		C	C		D	C	D	C	B	F	D	
Approach Delay (s)		29.1			40.7			21.5			56.0	
Approach LOS		C			D			C			E	
Intersection Summary												
HCM 2000 Control Delay			38.2									
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			120.0									
Intersection Capacity Utilization			87.2%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0		0	0		0				0	0
Storage Lanes		0		0	0		0				0	0
Taper Length (ft)		25			25							25
Right Turn on Red				Yes				Yes			Yes	
Link Speed (mph)			30			30				30		
Link Distance (ft)			283			639				1635		
Travel Time (s)			6.4			14.5				37.2		
Peak Hour Factor	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	381	0	0	68	0	0	0	613	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Left
Median Width(ft)			0			0				0		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
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
Turning Speed (mph)	60	60		9	15		60	60	60		60	60
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Detector Phase	3	3	3		8	8			2	2		6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			10.0	10.0		10.0
Minimum Split (s)	17.0	17.0	17.0		11.0	11.0			29.0	29.0		16.0
Total Split (s)	47.0	47.0	47.0		11.0	11.0			37.0	37.0		37.0
Total Split (%)	39.2%	39.2%	39.2%		9.2%	9.2%			30.8%	30.8%		30.8%
Maximum Green (s)	41.0	41.0	41.0		5.0	5.0			31.0	31.0		31.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0			4.0	4.0		4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0			2.0	2.0		2.0
Lost Time Adjust (s)			-2.0			-2.0				-2.0		
Total Lost Time (s)			4.0			4.0				4.0		
Lead/Lag	Lead	Lead	Lead		Lag	Lag						
Lead-Lag Optimize?	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	None	None	None		None	None			C-Min	C-Min		Min
Walk Time (s)	0.0	0.0	0.0						0.0	0.0		
Flash Dont Walk (s)	11.0	11.0	11.0						23.0	23.0		
Pedestrian Calls (#/hr)	5	5	5						10	10		
v/c Ratio			2.27			0.72				0.89		
Control Delay			609.6			85.1				53.2		
Queue Delay			0.0			0.0				8.2		
Total Delay			609.6			85.1				61.4		
Queue Length 50th (ft)			~480			45				~473		

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT-L

Timing Plan: MIT

									
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø11	Ø12
Lane Configurations									
Traffic Volume (vph)	506	223	2	6	4	9	8		
Future Volume (vph)	506	223	2	6	4	9	8		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900		
Storage Length (ft)		200			0	0			
Storage Lanes		1			1	0			
Taper Length (ft)					25				
Right Turn on Red			Yes				Yes		
Link Speed (mph)	30				30				
Link Distance (ft)	501				271				
Travel Time (s)	11.4				6.2				
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%		
Shared Lane Traffic (%)									
Lane Group Flow (vph)	526	232	0	0	30	0	0		
Enter Blocked Intersection	No	No	No	No	No	No	No		
Lane Alignment	Left	Right	Right	Left	Left	Right	Right		
Median Width(ft)	0				12				
Link Offset(ft)	0				0				
Crosswalk Width(ft)	16				16				
Two way Left Turn Lane									
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)		60	60	60	60	60	60		
Turn Type	NA	Perm		Perm	Prot				
Protected Phases	6				4			11	12
Permitted Phases		6		4					
Detector Phase	6	6		4	4				
Switch Phase									
Minimum Initial (s)	10.0	10.0		5.0	5.0			1.0	1.0
Minimum Split (s)	16.0	16.0		11.0	11.0			7.0	7.0
Total Split (s)	37.0	37.0		11.0	11.0			7.0	7.0
Total Split (%)	30.8%	30.8%		9.2%	9.2%			6%	6%
Maximum Green (s)	31.0	31.0		5.0	5.0			5.0	5.0
Yellow Time (s)	4.0	4.0		4.0	4.0			2.0	2.0
All-Red Time (s)	2.0	2.0		2.0	2.0			0.0	0.0
Lost Time Adjust (s)	-2.0	-2.0			-2.0				
Total Lost Time (s)	4.0	4.0			4.0				
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0
Recall Mode	Min	Min		None	None			None	None
Walk Time (s)								5.0	5.0
Flash Dont Walk (s)								0.0	0.0
Pedestrian Calls (#/hr)								10	5
v/c Ratio	0.75	0.33			0.11				
Control Delay	30.5	7.2			0.9				
Queue Delay	1.2	0.0			0.0				
Total Delay	31.6	7.2			0.9				
Queue Length 50th (ft)	282	19			0				

Lanes, Volumes, Timings

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Queue Length 95th (ft)			#584			#123				#810		
Internal Link Dist (ft)			203			559				1555		
Turn Bay Length (ft)												
Base Capacity (vph)			168			95				691		
Starvation Cap Reductn			0			0				0		
Spillback Cap Reductn			0			0				59		
Storage Cap Reductn			0			0				0		
Reduced v/c Ratio			2.27			0.72				0.97		

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

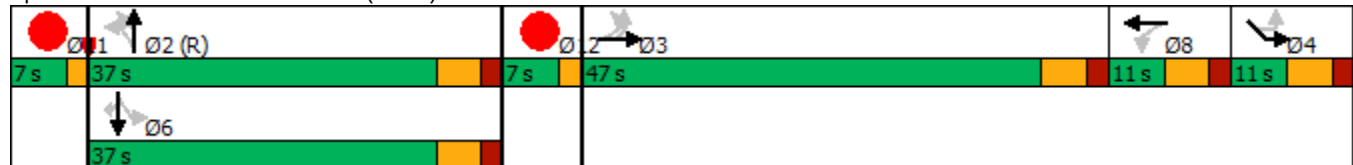
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl



									
Lane Group	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	Ø11	Ø12
Queue Length 95th (ft)	m#576	m38			0				
Internal Link Dist (ft)	421				191				
Turn Bay Length (ft)		200							
Base Capacity (vph)	705	710			261				
Starvation Cap Reductn	54	0			0				
Spillback Cap Reductn	0	0			0				
Storage Cap Reductn	0	0			0				
Reduced v/c Ratio	0.81	0.33			0.11				
Intersection Summary									

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Future Volume (vph)	6	308	28	5	13	31	4	14	1	531	20	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0			4.0				4.0		
Lane Util. Factor			1.00			1.00				1.00		
Frt			1.00			0.96				1.00		
Flt Protected			0.96			0.99				1.00		
Satd. Flow (prot)			1779			1771				1872		
Flt Permitted			0.22			0.82				0.98		
Satd. Flow (perm)			415			1473				1832		
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.97
Adj. Flow (vph)	7	338	31	5	14	34	4	16	1	590	22	4
RTOR Reduction (vph)	0	0	1	0	0	10	0	0	0	1	0	0
Lane Group Flow (vph)	0	0	380	0	0	59	0	0	0	612	0	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		Perm
Protected Phases			3			8				2		
Permitted Phases	3	3			8				2			6
Actuated Green, G (s)			46.6			4.0				36.4		
Effective Green, g (s)			48.6			6.0				38.4		
Actuated g/C Ratio			0.41			0.05				0.32		
Clearance Time (s)			6.0			6.0				6.0		
Vehicle Extension (s)			3.0			3.0				3.0		
Lane Grp Cap (vph)			168			73				586		
v/s Ratio Prot												
v/s Ratio Perm			c0.92			c0.04				c0.33		
v/c Ratio			2.26			0.80				1.04		
Uniform Delay, d1			35.7			56.4				40.8		
Progression Factor			1.00			1.00				1.00		
Incremental Delay, d2			587.5			45.0				49.1		
Delay (s)			623.2			101.4				89.9		
Level of Service			F			F				F		
Approach Delay (s)			623.2			101.4				89.9		
Approach LOS			F			F				F		
Intersection Summary												
HCM 2000 Control Delay			175.5			HCM 2000 Level of Service				F		
HCM 2000 Volume to Capacity ratio			1.55									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			79.0%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

PM 2037 B-MIT-L

Timing Plan: MIT

							
Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2
Lane Configurations							
Traffic Volume (vph)	506	223	2	6	4	9	8
Future Volume (vph)	506	223	2	6	4	9	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		
Lane Util. Factor	1.00	1.00			1.00		
Frt	1.00	0.85			0.91		
Flt Protected	1.00	1.00			0.98		
Satd. Flow (prot)	1880	1599			1673		
Flt Permitted	1.00	1.00			0.98		
Satd. Flow (perm)	1874	1599			1673		
Peak-hour factor, PHF	0.97	0.97	0.97	0.90	0.90	0.90	0.90
Adj. Flow (vph)	522	230	2	7	4	10	9
RTOR Reduction (vph)	0	118	0	0	29	0	0
Lane Group Flow (vph)	526	114	0	0	1	0	0
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	2%
Turn Type	NA	Perm		Perm	Prot		
Protected Phases	6				4		
Permitted Phases		6		4			
Actuated Green, G (s)	36.4	36.4			3.0		
Effective Green, g (s)	38.4	38.4			5.0		
Actuated g/C Ratio	0.32	0.32			0.04		
Clearance Time (s)	6.0	6.0			6.0		
Vehicle Extension (s)	3.0	3.0			3.0		
Lane Grp Cap (vph)	599	511			69		
v/s Ratio Prot							
v/s Ratio Perm	0.28	0.07			0.00		
v/c Ratio	0.88	0.22			0.02		
Uniform Delay, d1	38.6	29.9			55.1		
Progression Factor	0.72	0.70			1.00		
Incremental Delay, d2	7.5	0.1			0.1		
Delay (s)	35.5	21.1			55.3		
Level of Service	D	C			E		
Approach Delay (s)	31.1				55.3		
Approach LOS	C				E		
Intersection Summary							

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		175	150		150	100		75
Storage Lanes	0		1	0		1	1		1	1		0
Taper Length (ft)	25			25			175			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		200			600			501			6259	
Travel Time (s)		4.5			13.6			11.4			142.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	4	0	265	251	3	807	269	192	685	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			20			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60		60	60		60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Detector Phase	3	3	3	3	3	3	1	2	2	1	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	11.0	21.0	21.0	11.0	21.0	
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	13.0	62.0	62.0	13.0	62.0	
Total Split (%)	25.8%	25.8%	25.8%	25.8%	25.8%	25.8%	10.8%	51.7%	51.7%	10.8%	51.7%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0	25.0	7.0	56.0	56.0	7.0	56.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
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	
Lost Time Adjust (s)		-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag							Lag	Lead	Lead	Lag	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	
Walk Time (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	
Flash Dont Walk (s)	25.0	25.0	25.0	25.0	25.0	25.0		15.0	15.0		15.0	
Pedestrian Calls (#/hr)	2	2	2	2	2	2		3	3		3	
v/c Ratio		0.05	0.01		0.81	0.43	0.02	0.79	0.29	0.72	0.67	
Control Delay		34.5	0.0		61.7	7.0	42.7	22.7	6.6	46.6	24.5	
Queue Delay		0.0	0.0		0.0	0.0	0.0	1.5	0.0	0.0	0.3	
Total Delay		34.5	0.0		61.7	7.0	42.7	24.1	6.6	46.6	24.8	
Queue Length 50th (ft)		11	0		184	0	3	282	27	54	367	

Lane Group	Ø11	Ø12
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Turn Type		
Protected Phases	11	12
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	7.0	7.0
Total Split (s)	7.0	7.0
Total Split (%)	6%	6%
Maximum Green (s)	5.0	5.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	5.0	5.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	3	2
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
Queue Length 50th (ft)		

Lanes, Volumes, Timings
18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		33	0		#355	68	m5	m427	m90	#186	576	
Internal Link Dist (ft)		120			520			421			6179	
Turn Bay Length (ft)			25			175	150		150	100		
Base Capacity (vph)		394	487		337	586	153	1025	933	268	1025	
Starvation Cap Reductn		0	0		0	0	0	87	0	0	0	
Spillback Cap Reductn		0	0		0	0	0	0	0	0	57	
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	
Reduced v/c Ratio		0.05	0.01		0.79	0.43	0.02	0.86	0.29	0.72	0.71	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 108 (90%), Referenced to phase 2:NBSB, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 18: Union Ave (3BUS) & Rite Aid/Gilford Ave



Lane Group	Ø11	Ø12

Queue Length 95th (ft)		

Internal Link Dist (ft)		

Turn Bay Length (ft)		

Base Capacity (vph)		

Starvation Cap Reductn		

Spillback Cap Reductn		

Storage Cap Reductn		

Reduced v/c Ratio		

Intersection Summary		

HCM Signalized Intersection Capacity Analysis

18: Union Ave (3BUS) & Rite Aid/Gilford Ave

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Future Volume (vph)	9	8	4	230	8	226	3	726	242	173	611	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85		1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00		0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1815	1583		1777	1583	1787	1881	1599	1787	1879	
Flt Permitted		0.84	1.00		0.72	1.00	0.95	1.00	1.00	0.11	1.00	
Satd. Flow (perm)		1566	1583		1340	1583	1787	1881	1599	210	1879	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	10	9	4	256	9	251	3	807	269	192	679	6
RTOR Reduction (vph)	0	0	3	0	0	189	0	0	65	0	0	0
Lane Group Flow (vph)	0	19	1	0	265	62	3	807	204	192	685	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	1%	1%	1%	1%	1%	1%
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	pm+pt	NA	
Protected Phases		3			3		1	2		1	2	
Permitted Phases	3		3	3		3			2	2		
Actuated Green, G (s)		27.5	27.5		27.5	27.5	8.3	60.2	60.2	68.5	60.2	
Effective Green, g (s)		29.5	29.5		29.5	29.5	10.3	62.2	62.2	72.5	62.2	
Actuated g/C Ratio		0.25	0.25		0.25	0.25	0.09	0.52	0.52	0.60	0.52	
Clearance Time (s)		6.0	6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		384	389		329	389	153	974	828	262	973	
v/s Ratio Prot							0.00	c0.43		c0.06	0.36	
v/s Ratio Perm		0.01	0.00		c0.20	0.04			0.13	0.38		
v/c Ratio		0.05	0.00		0.81	0.16	0.02	0.83	0.25	0.73	0.70	
Uniform Delay, d1		34.5	34.1		42.6	35.5	50.2	24.4	16.0	42.3	21.9	
Progression Factor		1.00	1.00		1.00	1.00	0.83	0.73	0.77	1.00	1.00	
Incremental Delay, d2		0.1	0.0		13.4	0.2	0.0	6.7	0.6	10.1	4.3	
Delay (s)		34.6	34.1		55.9	35.7	41.5	24.5	12.8	52.4	26.2	
Level of Service		C	C		E	D	D	C	B	D	C	
Approach Delay (s)		34.5			46.1			21.7			31.9	
Approach LOS		C			D			C			C	
Intersection Summary												
HCM 2000 Control Delay			30.4									
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			120.0									
Intersection Capacity Utilization			77.6%									
Analysis Period (min)			15									
c Critical Lane Group												

Lanes, Volumes, Timings

SAT 2037 B-MIT-L

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0				0		0	0	
Storage Lanes	0		0	0				0		0	0	
Taper Length (ft)	25			25				25			25	
Right Turn on Red			Yes			Yes				Yes		
Link Speed (mph)		30			30				30			30
Link Distance (ft)		283			639				1635			501
Travel Time (s)		6.4			14.5				37.2			11.4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	274	0	0	31	0	0	0	575	0	0	477
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Left	Right	Left	Left
Median Width(ft)		0			0				0			0
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
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
Turning Speed (mph)	60		60	60		60	60	60		60	60	
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Detector Phase	3	3		8	8		2	2	2		6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0		5.0	5.0
Minimum Split (s)	17.0	17.0		11.0	11.0		29.0	29.0	29.0		11.0	11.0
Total Split (s)	42.0	42.0		11.0	11.0		42.0	42.0	42.0		42.0	42.0
Total Split (%)	35.0%	35.0%		9.2%	9.2%		35.0%	35.0%	35.0%		35.0%	35.0%
Maximum Green (s)	36.0	36.0		5.0	5.0		36.0	36.0	36.0		36.0	36.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		-2.0			-2.0				-2.0			-2.0
Total Lost Time (s)		4.0			4.0				4.0			4.0
Lead/Lag	Lead	Lead		Lag	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	None	None		None	None		C-Min	C-Min	C-Min		Min	Min
Walk Time (s)	0.0	0.0					0.0	0.0	0.0			
Flash Dont Walk (s)	11.0	11.0					23.0	23.0	23.0			
Pedestrian Calls (#/hr)	4	4					6	6	6			
v/c Ratio		1.13			0.13				0.66			0.54
Control Delay		132.6			1.1				31.3			18.3
Queue Delay		0.3			0.0				0.0			0.6
Total Delay		133.0			1.1				31.3			18.9
Queue Length 50th (ft)		~239			0				336			167

Lanes, Volumes, Timings
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT-L

Timing Plan: MIT

							
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Lane Configurations							
Traffic Volume (vph)	139	2	2	0	1		
Future Volume (vph)	139	2	2	0	1		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900		
Storage Length (ft)	200			0	0		
Storage Lanes	1			1	0		
Taper Length (ft)				25			
Right Turn on Red		Yes					
Link Speed (mph)				30			
Link Distance (ft)				271			
Travel Time (s)				6.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90		
Heavy Vehicles (%)	1%	1%	2%	2%	2%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	156	0	0	3	0		
Enter Blocked Intersection	No	No	No	No	No		
Lane Alignment	Right	Right	Left	Left	Right		
Median Width(ft)				12			
Link Offset(ft)				0			
Crosswalk Width(ft)				16			
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00		
Turning Speed (mph)	60	60	60	60	60		
Turn Type	Perm		Perm	Prot			
Protected Phases				4		11	12
Permitted Phases	6		4				
Detector Phase	6		4	4			
Switch Phase							
Minimum Initial (s)	5.0		5.0	5.0		1.0	1.0
Minimum Split (s)	11.0		11.0	11.0		7.0	7.0
Total Split (s)	42.0		11.0	11.0		7.0	7.0
Total Split (%)	35.0%		9.2%	9.2%		6%	6%
Maximum Green (s)	36.0		5.0	5.0		5.0	5.0
Yellow Time (s)	4.0		4.0	4.0		2.0	2.0
All-Red Time (s)	2.0		2.0	2.0		0.0	0.0
Lost Time Adjust (s)	-2.0			-2.0			
Total Lost Time (s)	4.0			4.0			
Lead/Lag							
Lead-Lag Optimize?							
Vehicle Extension (s)	3.0		3.0	3.0		3.0	3.0
Recall Mode	Min		None	None		None	None
Walk Time (s)						5.0	5.0
Flash Dont Walk (s)						0.0	0.0
Pedestrian Calls (#/hr)						6	4
v/c Ratio	0.18			0.03			
Control Delay	2.0			54.0			
Queue Delay	0.0			0.0			
Total Delay	2.0			54.0			
Queue Length 50th (ft)	5			2			

Lanes, Volumes, Timings

SAT 2037 B-MIT-L

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

Timing Plan: MIT

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Queue Length 95th (ft)		#447			0				#676			#494
Internal Link Dist (ft)		203			559				1555			421
Turn Bay Length (ft)												
Base Capacity (vph)		243			245				874			883
Starvation Cap Reductn		0			0				0			146
Spillback Cap Reductn		6			0				0			0
Storage Cap Reductn		0			0				0			0
Reduced v/c Ratio		1.16			0.13				0.66			0.65

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 8 (7%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 145

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

							
Ø1	Ø2 (R)		Ø2	Ø3		Ø8	Ø4
7 s	42 s		7 s	42 s		11 s	11 s
							
	Ø6						
	42 s						

							
Lane Group	SBR	SBR2	SEL2	SEL	SER	Ø11	Ø12
Queue Length 95th (ft)	m16			13			
Internal Link Dist (ft)				191			
Turn Bay Length (ft)	200						
Base Capacity (vph)	848			103			
Starvation Cap Reductn	0			0			
Spillback Cap Reductn	0			0			
Storage Cap Reductn	0			0			
Reduced v/c Ratio	0.18			0.03			
Intersection Summary							

HCM Signalized Intersection Capacity Analysis

21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT-L

Timing Plan: MIT

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR2	NBL2	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Future Volume (vph)	209	31	7	9	13	6	6	1	512	4	5	424
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0				4.0			4.0
Lane Util. Factor		1.00			1.00				1.00			1.00
Frt		1.00			0.97				1.00			1.00
Flt Protected		0.96			0.98				1.00			1.00
Satd. Flow (prot)		1780			1777				1860			1880
Flt Permitted		0.36			0.79				0.99			0.99
Satd. Flow (perm)		668			1424				1847			1868
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.91	0.91	0.91	0.91	0.90	0.90
Adj. Flow (vph)	232	34	8	10	14	7	7	1	563	4	6	471
RTOR Reduction (vph)	0	1	0	0	30	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	273	0	0	1	0	0	0	575	0	0	477
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	1%	1%
Turn Type	Perm	NA		Perm	NA		Perm	Perm	NA		Perm	NA
Protected Phases		3			8				2			6
Permitted Phases	3			8			2	2			6	
Actuated Green, G (s)		41.6			3.0				44.4			44.4
Effective Green, g (s)		43.6			5.0				46.4			46.4
Actuated g/C Ratio		0.36			0.04				0.39			0.39
Clearance Time (s)		6.0			6.0				6.0			6.0
Vehicle Extension (s)		3.0			3.0				3.0			3.0
Lane Grp Cap (vph)		242			59				714			722
v/s Ratio Prot												
v/s Ratio Perm		c0.41			c0.00				c0.31			0.26
v/c Ratio		1.13			0.02				0.81			0.66
Uniform Delay, d1		38.2			55.2				32.8			30.3
Progression Factor		1.00			1.00				1.00			0.63
Incremental Delay, d2		97.2			0.2				9.4			1.6
Delay (s)		135.4			55.3				42.2			20.8
Level of Service		F			E				D			C
Approach Delay (s)		135.4			55.3				42.2			18.8
Approach LOS		F			E				D			B
Intersection Summary												
HCM 2000 Control Delay			49.6			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			20.0			
Intersection Capacity Utilization			67.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
21: Union Ave (3BUS) & Church St/Winter St & Davis Pl

SAT 2037 B-MIT-L

Timing Plan: MIT

					
Movement	SBR	SBR2	SEL2	SEL	SER
Lane Configurations					
Traffic Volume (vph)	139	2	2	0	1
Future Volume (vph)	139	2	2	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	
Lane Util. Factor	1.00			1.00	
Frt	0.85			0.95	
Flt Protected	1.00			0.97	
Satd. Flow (prot)	1599			1722	
Flt Permitted	1.00			0.97	
Satd. Flow (perm)	1599			1722	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	154	2	2	0	1
RTOR Reduction (vph)	96	0	0	0	0
Lane Group Flow (vph)	60	0	0	3	0
Heavy Vehicles (%)	1%	1%	2%	2%	2%
Turn Type	Perm		Perm	Prot	
Protected Phases				4	
Permitted Phases	6		4		
Actuated Green, G (s)	44.4			1.0	
Effective Green, g (s)	46.4			3.0	
Actuated g/C Ratio	0.39			0.02	
Clearance Time (s)	6.0			6.0	
Vehicle Extension (s)	3.0			3.0	
Lane Grp Cap (vph)	618			43	
v/s Ratio Prot					
v/s Ratio Perm	0.04			0.00	
v/c Ratio	0.10			0.07	
Uniform Delay, d1	23.5			57.1	
Progression Factor	0.55			1.00	
Incremental Delay, d2	0.0			0.7	
Delay (s)	12.9			57.8	
Level of Service	B			E	
Approach Delay (s)				57.8	
Approach LOS				E	
Intersection Summary					

ATTACHMENT P

Warrants (#19)

Volumes (Ave)

Diagrams

Turn Warrant Tables

Left Turn Lane Warrants

Right Turn Lane Warrants

Second Lane on a Minor Road Warrant

Background Traffic Volumes - AVERAGE SEASONAL ADJUSTMENT

AM Peak data

Assumed growth rate:		0.01	Site Trips are not Seasonally Adjusted or Grown.															
March 2023 Seasonal Adjust:		1.22																
June 2023 Seasonal Adjust:		0.82																
		NHDOT Group 5 Averages (Int #21 ony)																
AM Peak data		Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal (AVE) Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
19. N.Main Street at New Salem Street		7:15 AM		0		0.00												
Movement				0		0.00												
	EBL	50		50	61.00	61.00	61.61	62.23	62.85	63.48	64.11	64.75	65.40	66.05	66.71	67.38	68.05	68.73
	EBR	4		4	4.88	4.88	4.93	4.98	5.03	5.08	5.13	5.18	5.23	5.28	5.33	5.38	5.43	5.48
	NBL	20		20	24.40	24.40	24.64	24.89	25.14	25.39	25.64	25.90	26.16	26.42	26.68	26.95	27.22	27.49
	NBT	402		402	490.44	490.44	495.34	500.29	505.29	510.34	515.44	520.59	525.80	531.06	536.37	541.73	547.15	552.62
	SBT	384	+2	386	468.48	468.48	473.16	477.89	482.67	487.50	492.38	497.30	502.27	507.29	512.36	517.48	522.65	527.88
	SBR	105		105	128.10	128.10	129.38	130.67	131.98	133.30	134.63	135.98	137.34	138.71	140.10	141.50	142.92	144.35

AM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	2037 Build (Full Build)	FUTURE BUILD PM PHF
19. N.Main Street at New Salem Street				
<u>Movement</u>				
EBL	69	75	144	0.90
EBR	5	0	5	
NBL	27	0	27	
NBT	553	74	627	0.90
SBT	528	111	639	
SBR	144	196	340	

Background Traffic Volumes - AVERAGE SEASONAL ADJUSTMENT

PM Peak data

Assumed growth rate:	0.01	
March 2023 Seasonal Adjust:	1.22	NHDOT Group 5
June 2023 Seasonal Adjust:	0.82	NHDOT Group 5 (Int #21 ony)

Site Trips are not Seasonally Adjusted or Grown.

PM Peak data	Existing 2025 (Raw data) [03/06/2025]	Balance	2025	Existing 2025 w/ Seasonal (AVE) Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
19. N.Main Street at New Salem Street	3:15 PM		1		0.00												
Movement			0		0.00												
EBL	54		54	65.88	65.88	66.54	67.21	67.88	68.56	69.25	69.94	70.64	71.35	72.06	72.78	73.51	74.25
EBR	8		8	9.76	9.76	9.86	9.96	10.06	10.16	10.26	10.36	10.46	10.56	10.67	10.78	10.89	11.00
NBL	14		14	17.08	17.08	17.25	17.42	17.59	17.77	17.95	18.13	18.31	18.49	18.67	18.86	19.05	19.24
NBT	379		379	462.38	462.38	467.00	471.67	476.39	481.15	485.96	490.82	495.73	500.69	505.70	510.76	515.87	521.03
SBT	499		499	608.78	608.78	614.87	621.02	627.23	633.50	639.84	646.24	652.70	659.23	665.82	672.48	679.20	685.99
SBR	176		176	214.72	214.72	216.87	219.04	221.23	223.44	225.67	227.93	230.21	232.51	234.84	237.19	239.56	241.96

PM Peak data	2037 No-Build	Site Trip Distribution (Full Build)	2037 Build (Full Build)	FUTURE BUILD PM PHF
19. N.Main Street at New Salem Street				
<u>Movement</u>				
EBL	74	170	244	0.90
EBR	11	0	11	
NBL	19	0	19	
NBT	521	160	681	0.91
SBT	686	168	854	
SBR	242	124	366	

Background Traffic Volumes - AVERAGE SEASONAL ADJUSTMENT

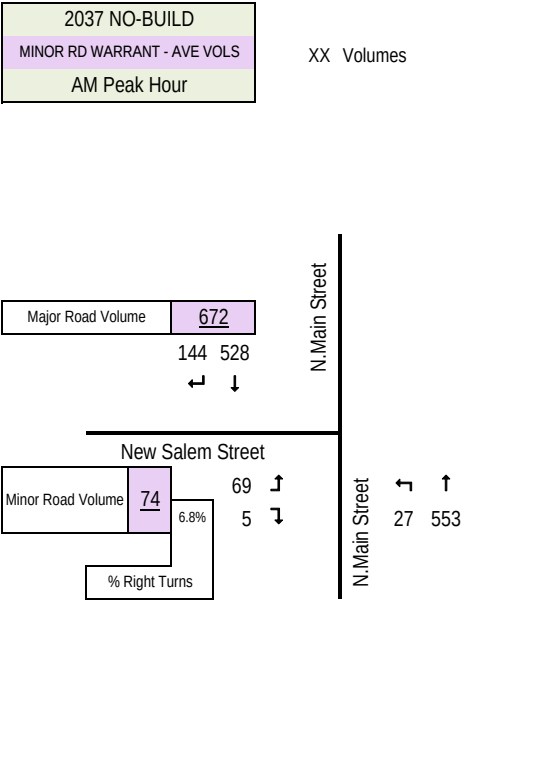
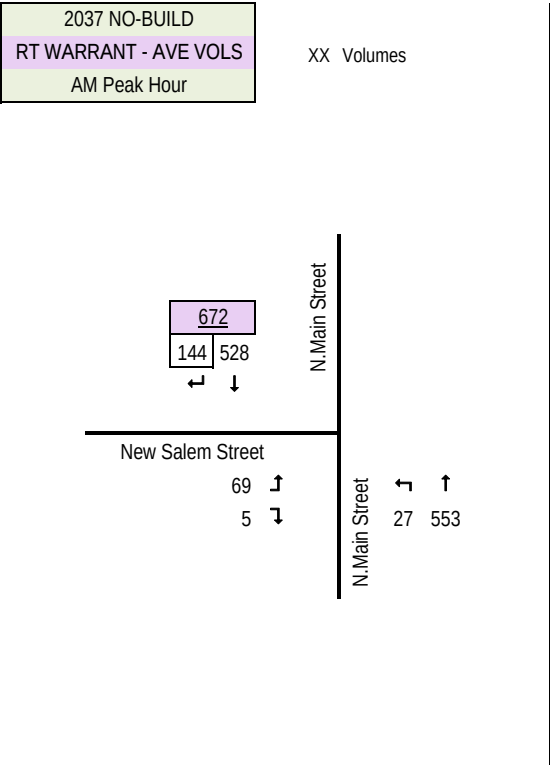
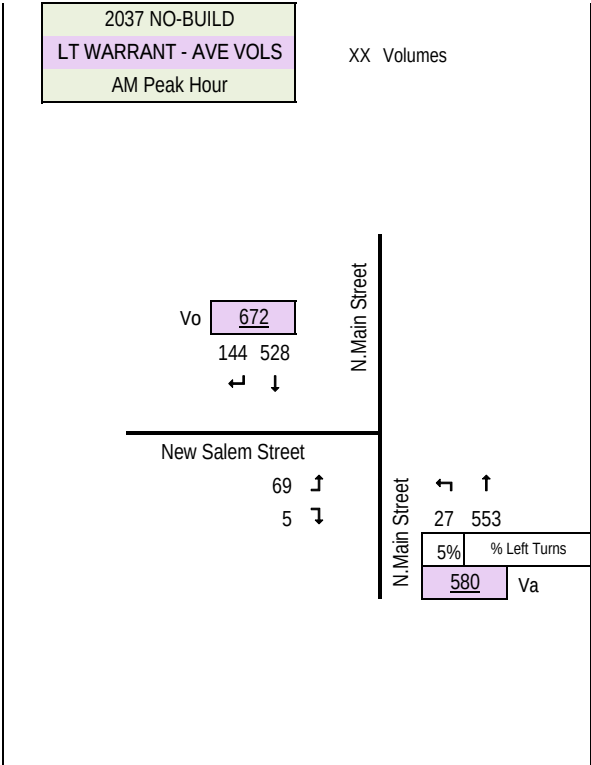
SAT Peak data

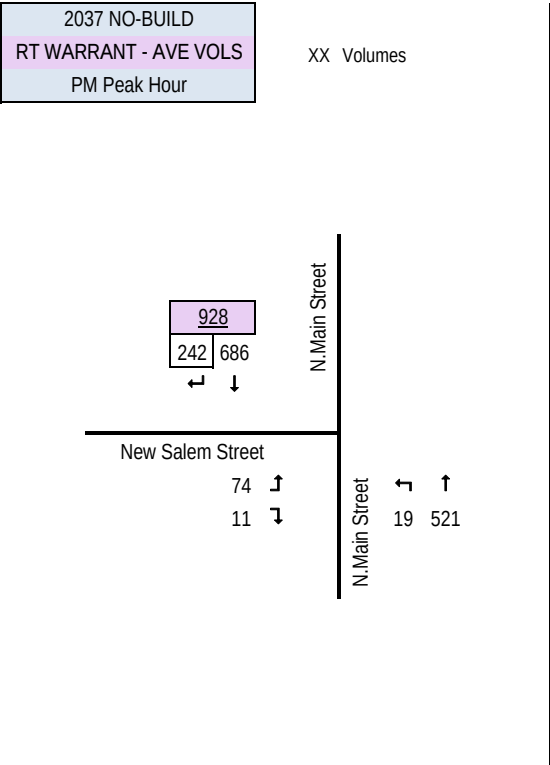
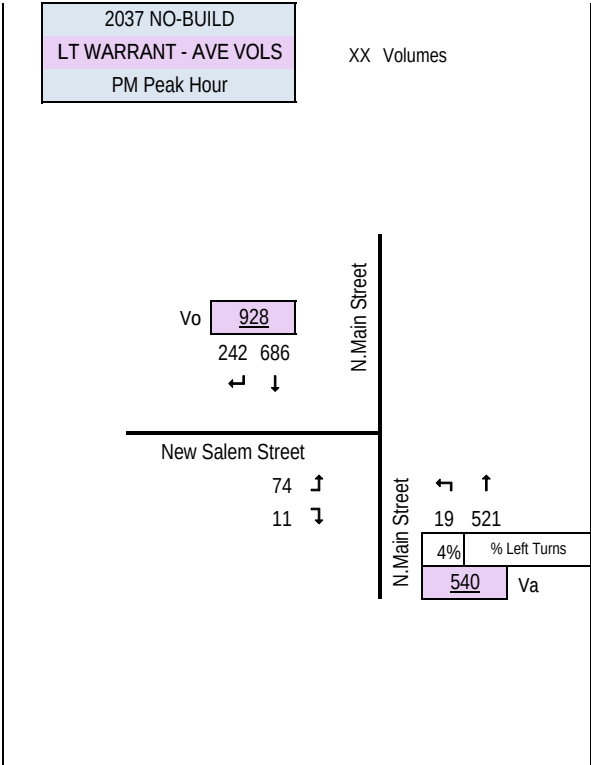
Assumed growth rate:	0.01	
March 2023 Seasonal Adjust:	1.22	NHDOT Group 5
June 2023 Seasonal Adjust:	0.82	NHDOT Group 5 (Int #21 ony)

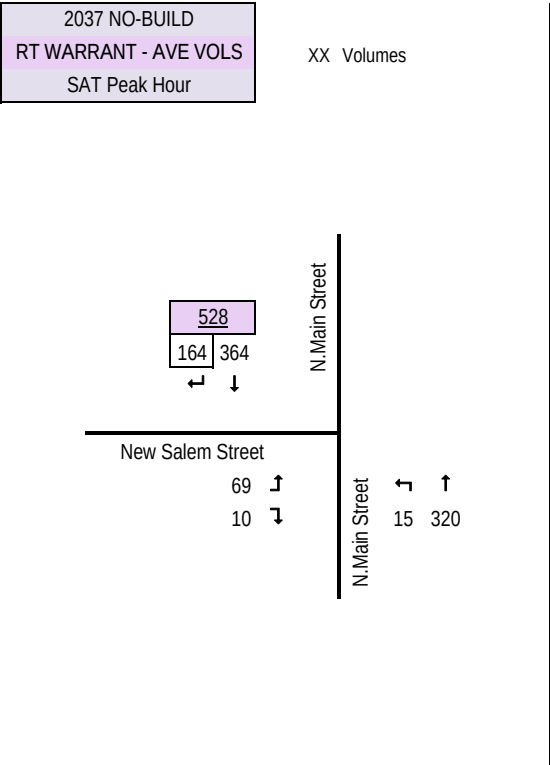
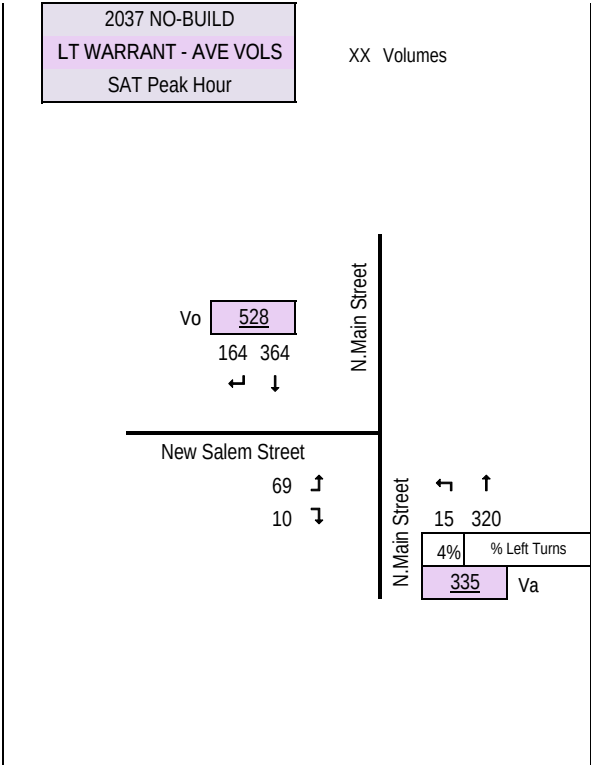
Site Trips are not Seasonally Adjusted or Grown.

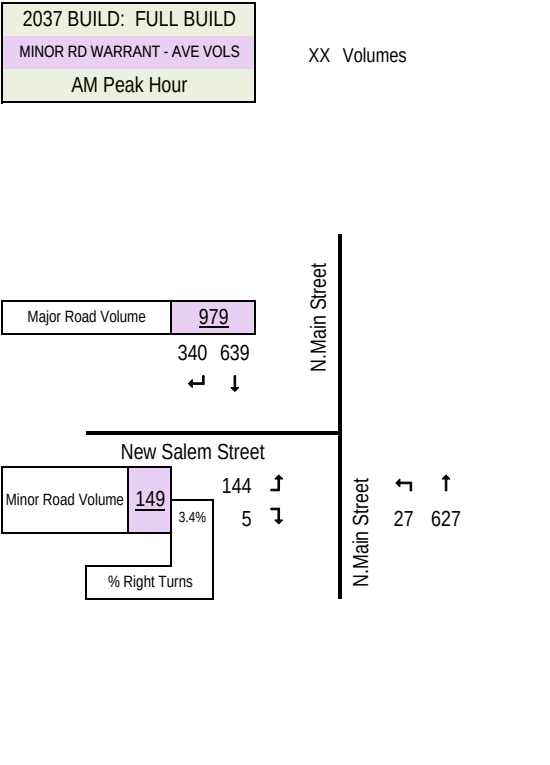
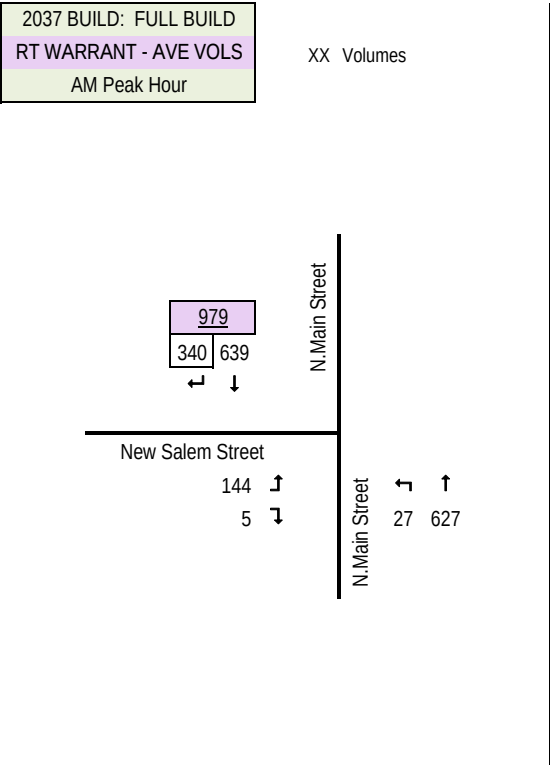
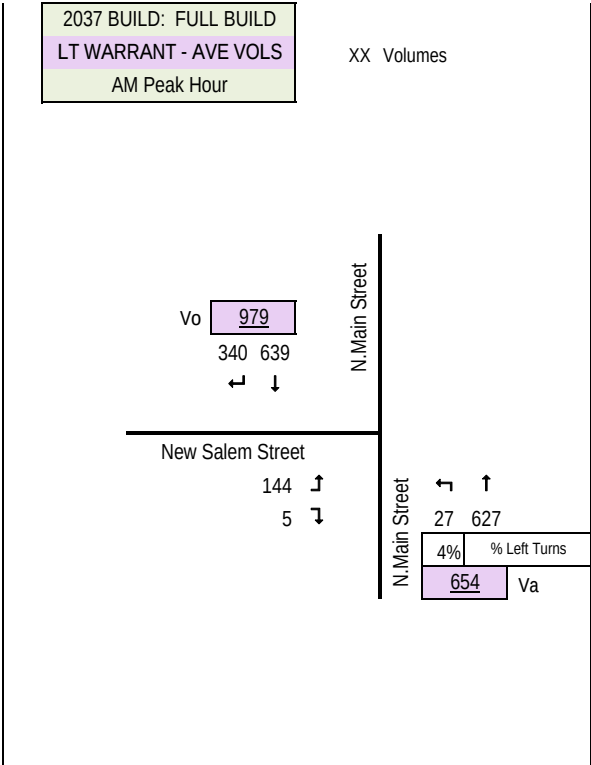
SAT Peak data	Existing 2025 (Raw data) [03/08/2025]	Balance	2025	Existing 2025 w/ Seasonal (AVE) Adjustment	2025 BASE	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
19. N.Main Street at New Salem Street	11:00 AM																
Movement																	
EBL	50		50	61.00	61.00	61.61	62.23	62.85	63.48	64.11	64.75	65.40	66.05	66.71	67.38	68.05	68.73
EBR	7		7	8.54	8.54	8.63	8.72	8.81	8.90	8.99	9.08	9.17	9.26	9.35	9.44	9.53	9.63
NBL	11		11	13.42	13.42	13.55	13.69	13.83	13.97	14.11	14.25	14.39	14.53	14.68	14.83	14.98	15.13
NBT	233		233	284.26	284.26	287.10	289.97	292.87	295.80	298.76	301.75	304.77	307.82	310.90	314.01	317.15	320.32
SBT	265		265	323.30	323.30	326.53	329.80	333.10	336.43	339.79	343.19	346.62	350.09	353.59	357.13	360.70	364.31
SBR	119		119	145.18	145.18	146.63	148.10	149.58	151.08	152.59	154.12	155.66	157.22	158.79	160.38	161.98	163.60

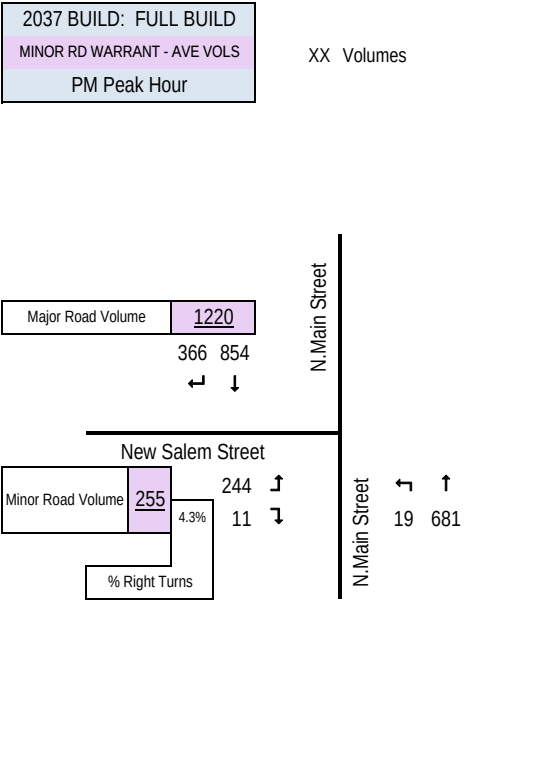
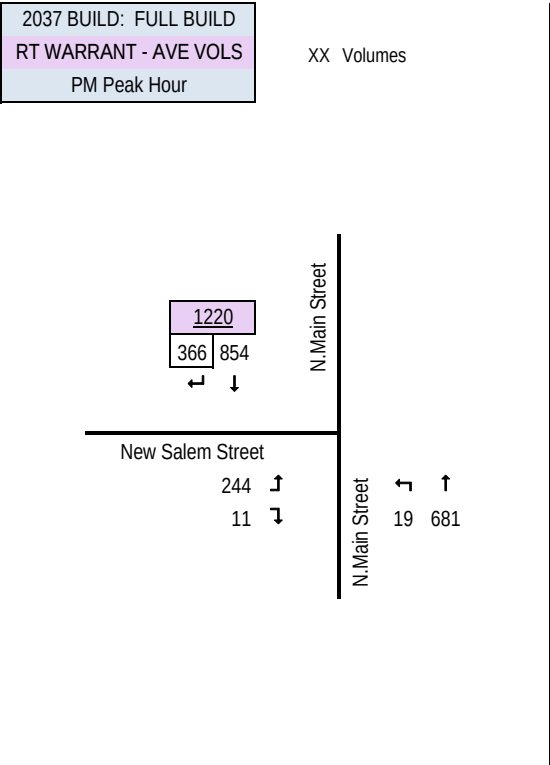
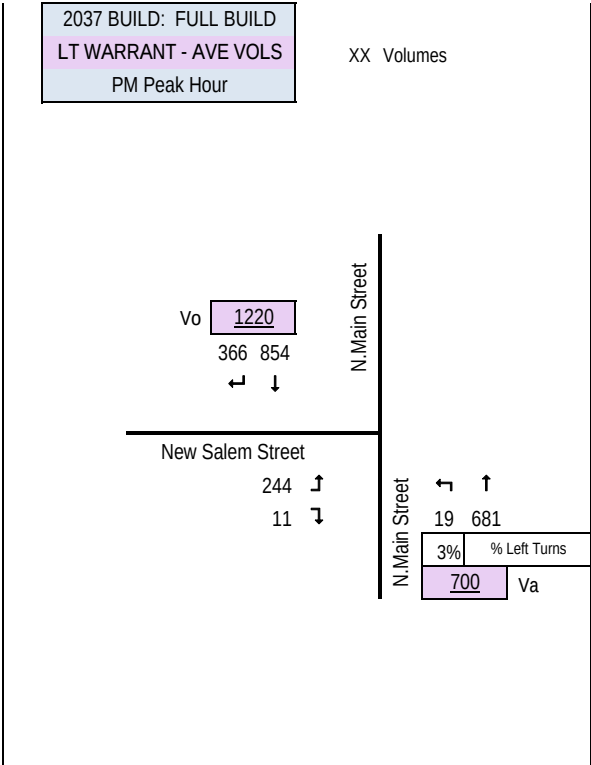
SAT Peak data	2037 No-Build	Site Trip Distribution (Full Build)	2037 Build (Full Build)	FUTURE BUILD PM PHF
19. N.Main Street at New Salem Street				
Movement				
EBL	69	36	105	0.90
EBR	10	0	10	
NBL	15	0	15	0.91
NBT	320	128	448	
SBT	364	117	481	0.90
SBR	164	48	212	





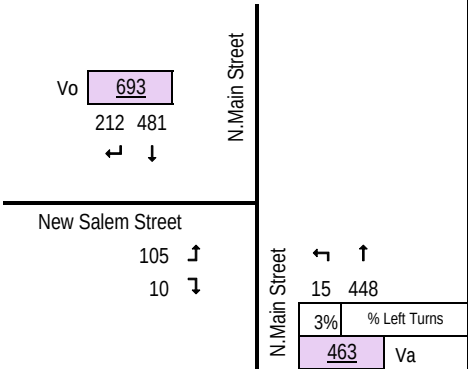






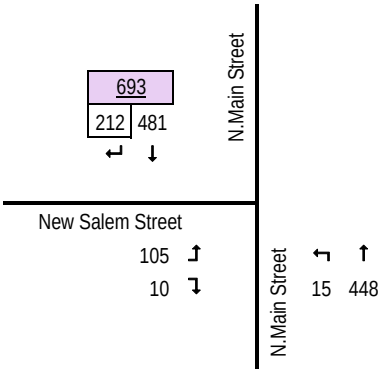
2037 BUILD: FULL BUILD
LT WARRANT - AVE VOLS
SAT Peak Hour

XX Volumes



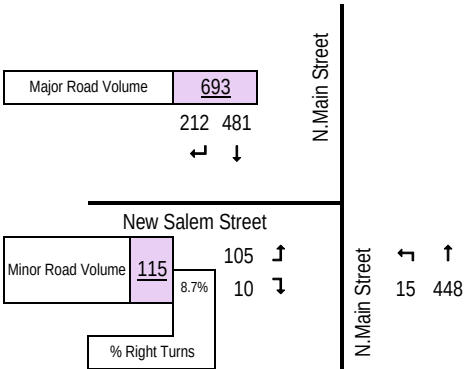
2037 BUILD: FULL BUILD
RT WARRANT - AVE VOLS
SAT Peak Hour

XX Volumes



2037 BUILD: FULL BUILD
MINOR RD WARRANT - AVE VOLS
SAT Peak Hour

XX Volumes



#19 N.Main Street at New Salem Street						
AVERAGE VOLUMES						

	2037 No-Build			2037 Build		
	Left Turn Lane			Left Turn Lane		
	Warrant			Warrant		
	AM	PM	SAT	AM	PM	SAT
Left Turns	27	19	15	27	19	15
Limiting Advancing Volume	428	370	551	352	321	536
Advancing Volume	580	540	335	654	700	463
Is Warrant Met?	YES	YES	NO	YES	YES	NO
Warrant met in Existing Cond.						

	2037 No-Build			2037 Build		
	Right Turn Lane			Right Turn Lane		
	Warrant			Warrant		
	AM	PM	SAT	AM	PM	SAT
Limiting Right Turn Volume	133	28	424	22	7	114
Number of Right Turns	144	242	164	340	366	212
Is Warrant Met?	YES	YES	NO	YES	YES	YES
Warrant met in Existing Cond.						

	2037 No-Build			2037 Build		
	Second Lane on Minor Rd			Second Lane on Minor Rd		
	Warrant			Warrant		
	AM	PM	SAT	AM	PM	SAT
Major Road Volume	672	928	528	979	1220	693
Limiting Minor Rd Volume	201	138	263	119	80	197
Minor Road Volume	74	85	79	149	255	115
Is Warrant Met?	NO	NO	NO	YES	YES	NO
Warrant met in Proposed Cond.						

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

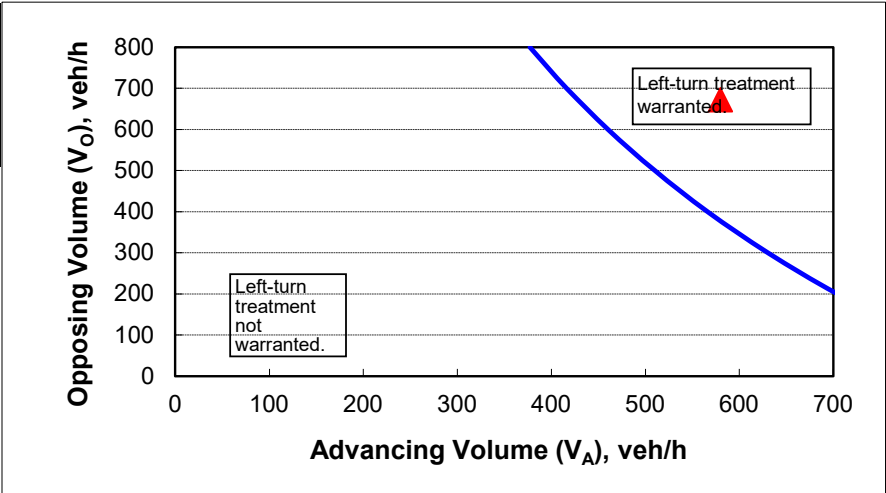
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	5%
Advancing volume (V_A), veh/h:	580
Opposing volume (V_O), veh/h:	672

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	428
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:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

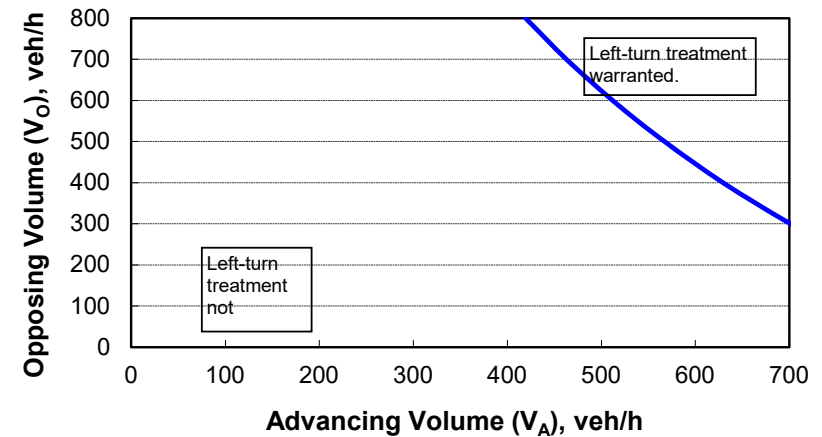
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	540
Opposing volume (V_O), veh/h:	928

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	370
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:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

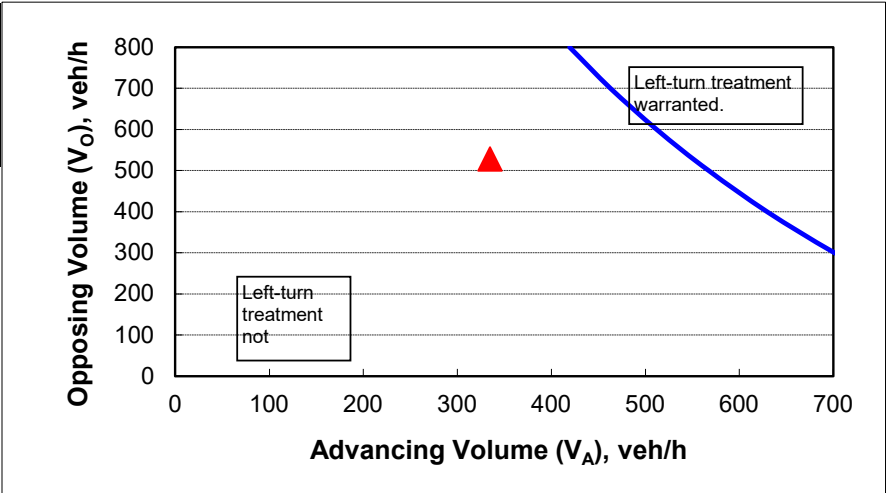
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	335
Opposing volume (V_O), veh/h:	528

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	551
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

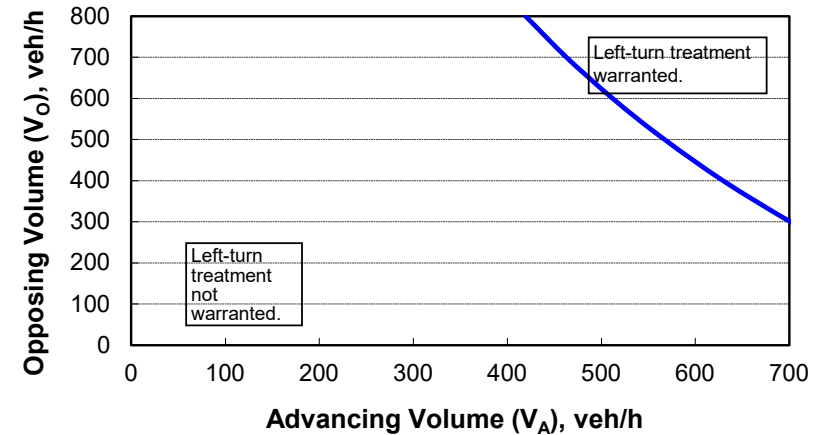
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	4%
Advancing volume (V_A), veh/h:	654
Opposing volume (V_O), veh/h:	979

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	352
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:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

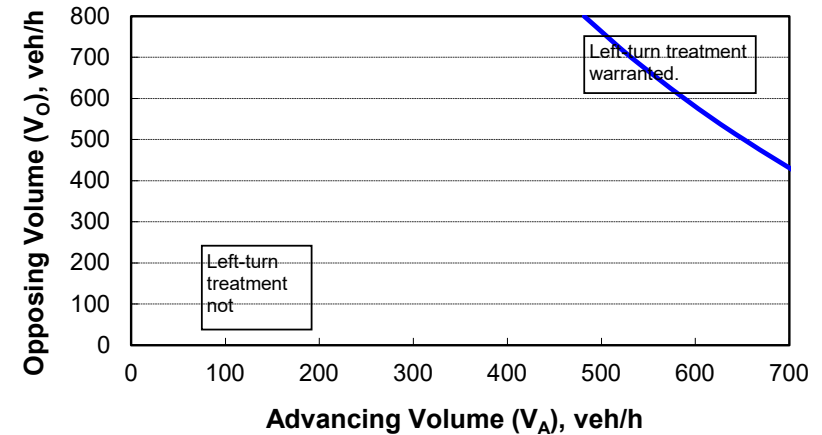
2-lane roadway (English)

INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	700
Opposing volume (V_O), veh/h:	1220

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	321
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:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

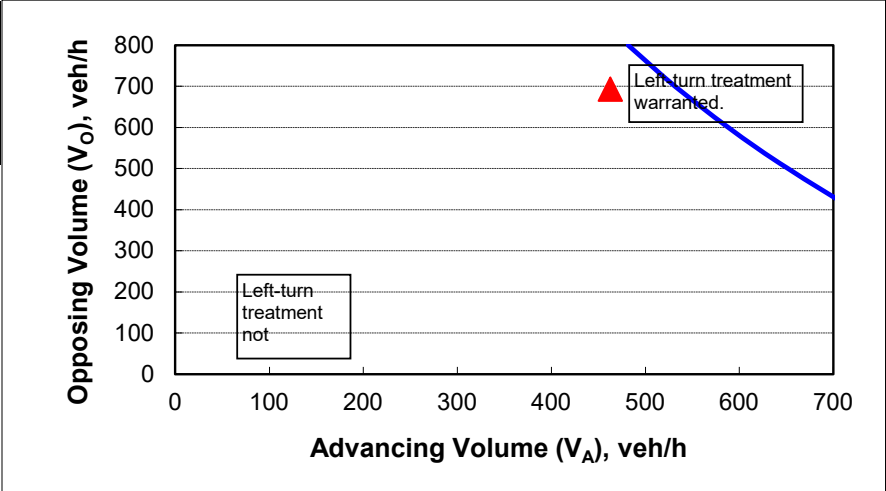
Figure 2 - 5. Guideline for determining the need for a major-road left-turn bay at a two-way stop-controlled intersection.

2-lane roadway (English)
INPUT

Variable	Value
85 th percentile speed, mph:	30
Percent of left-turns in advancing volume (V_A), %:	3%
Advancing volume (V_A), veh/h:	463
Opposing volume (V_O), veh/h:	693

OUTPUT

Variable	Value
Limiting advancing volume (V_A), veh/h:	536
Guidance for determining the need for a major-road left-turn bay:	
Left-turn treatment NOT warranted.	



CALIBRATION CONSTANTS

Variable	Value
Average time for making left-turn, s:	3.0
Critical headway, s:	5.0
Average time for left-turn vehicle to clear the advancing lane, s:	1.9

Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	672
Right-turn volume, veh/h:	144

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	133
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

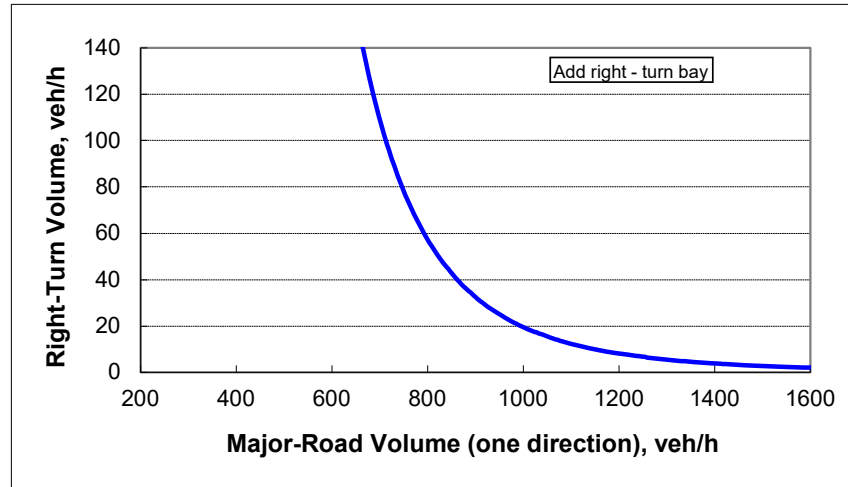


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	928
Right-turn volume, veh/h:	242

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	28
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

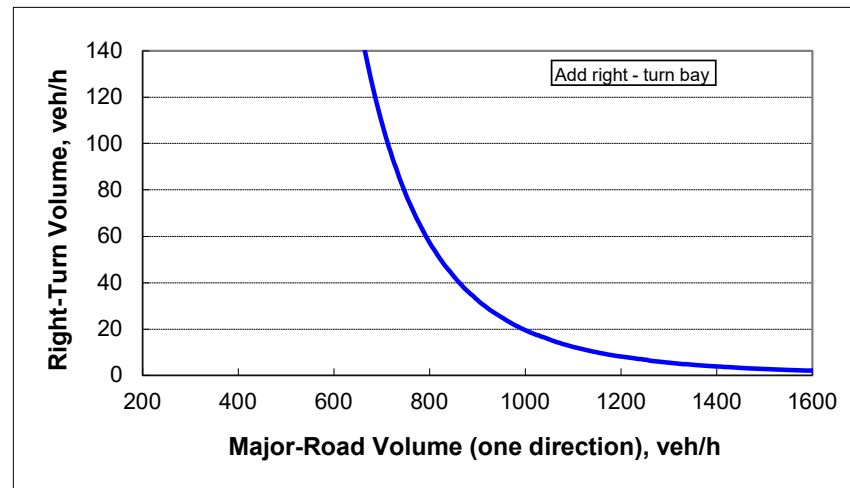


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	528
Right-turn volume, veh/h:	164

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	424
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Do NOT add right-turn bay.	

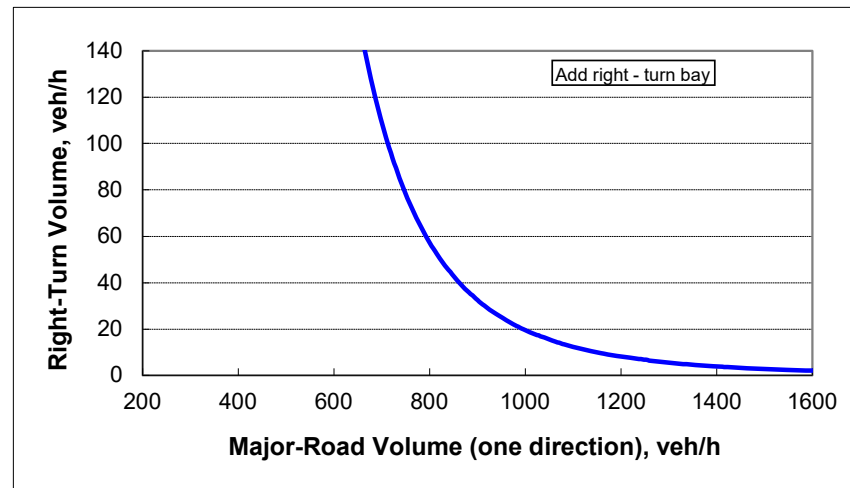


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	979
Right-turn volume, veh/h:	340

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	22
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

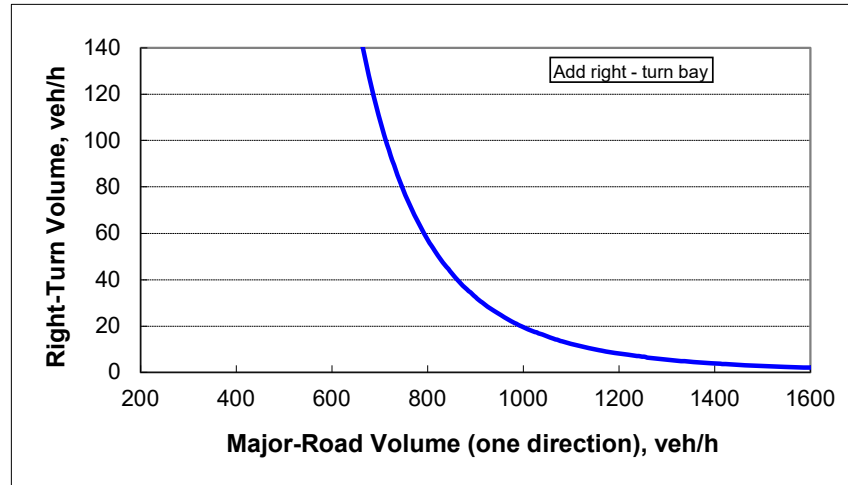


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	1220
Right-turn volume, veh/h:	366

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	7
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

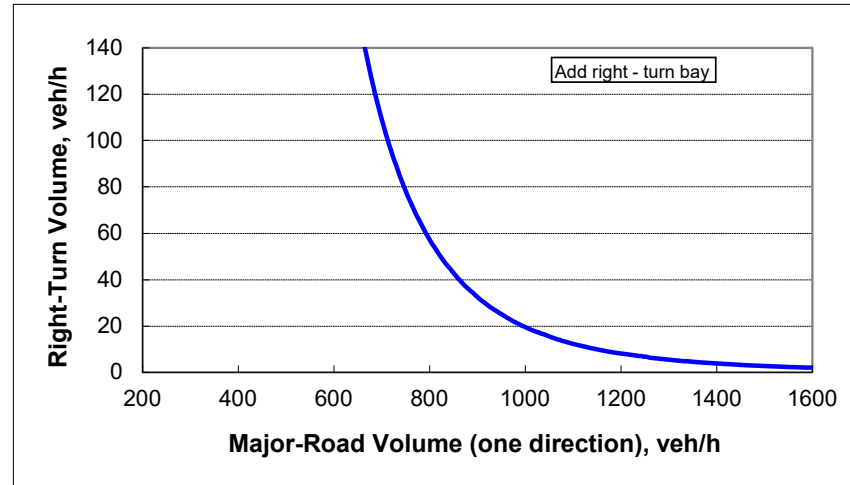


Figure 2 - 6. Guideline for determining the need for a major-road right-turn bay at a two-way stop-controlled intersection.

INPUT

Roadway geometry:	2-lane roadway
Variable	Value
Major-road speed, mph:	30
Major-road volume (one direction), veh/h:	693
Right-turn volume, veh/h:	212

OUTPUT

Variable	Value
Limiting right-turn volume, veh/h:	114
Guidance for determining the need for a major-road right-turn bay for a 2-lane roadway:	
Add right-turn bay.	

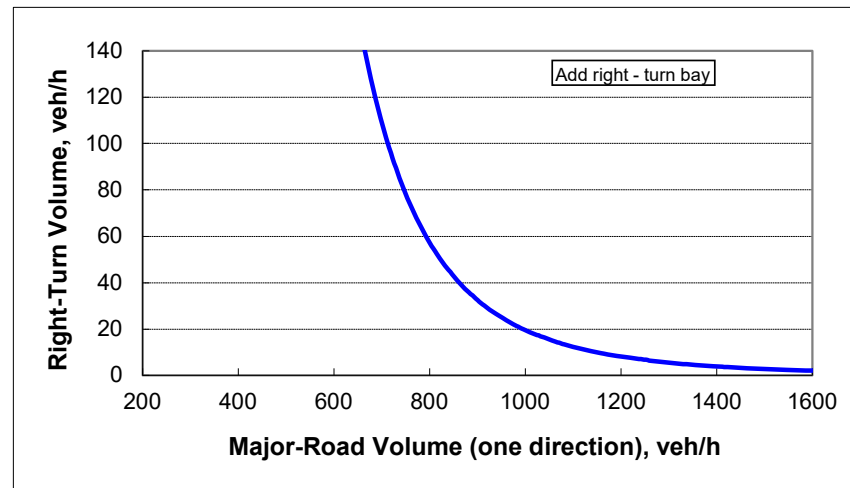


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	672
Percentage of right-turns on minor road, %:	7%
Minor-road volume (one direction), veh/h:	74

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	201
Guidance for determining minor-road approach geometry:	
ONE approach lane is o.k.	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM

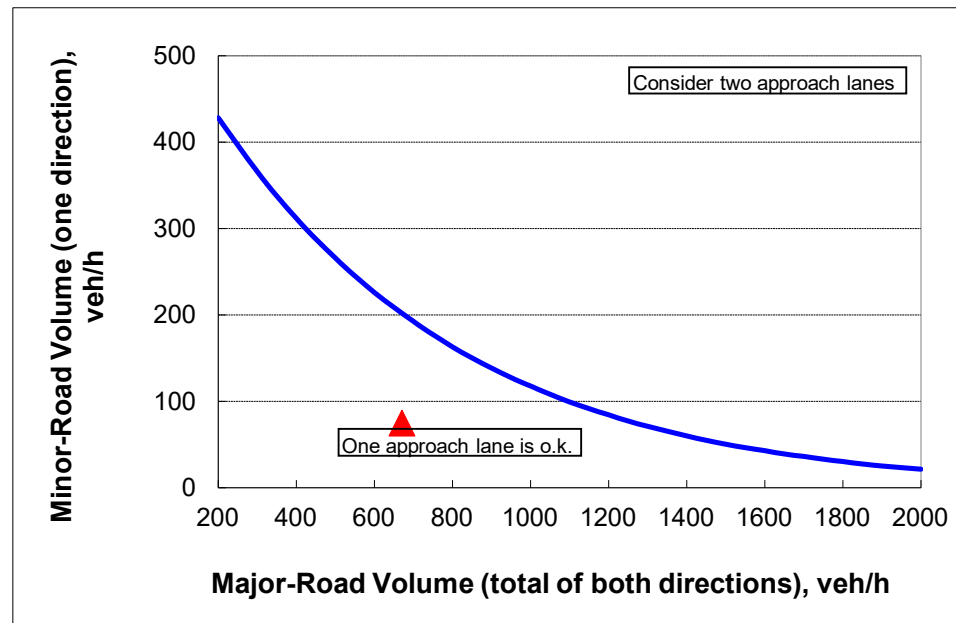


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	928
Percentage of right-turns on minor road, %:	13%
Minor-road volume (one direction), veh/h:	85

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	138
Guidance for determining minor-road approach geometry:	
ONE approach lane is o.k.	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM

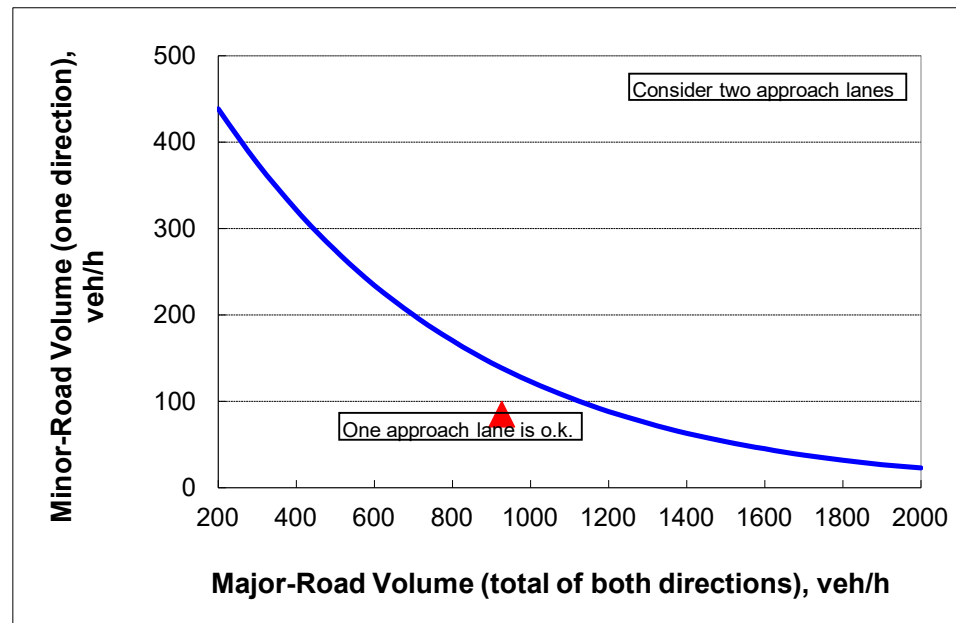


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	528
Percentage of right-turns on minor road, %:	13%
Minor-road volume (one direction), veh/h:	79

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	263
Guidance for determining minor-road approach geometry:	
ONE approach lane is o.k.	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM

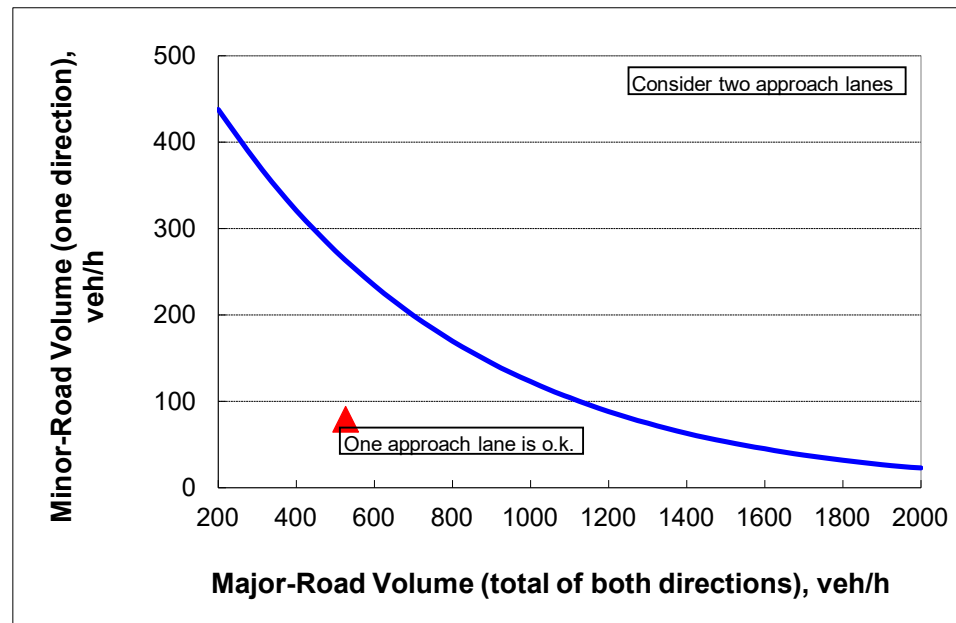


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	979
Percentage of right-turns on minor road, %:	3%
Minor-road volume (one direction), veh/h:	149

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	119
Guidance for determining minor-road approach geometry:	
Consider TWO approach lanes	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM

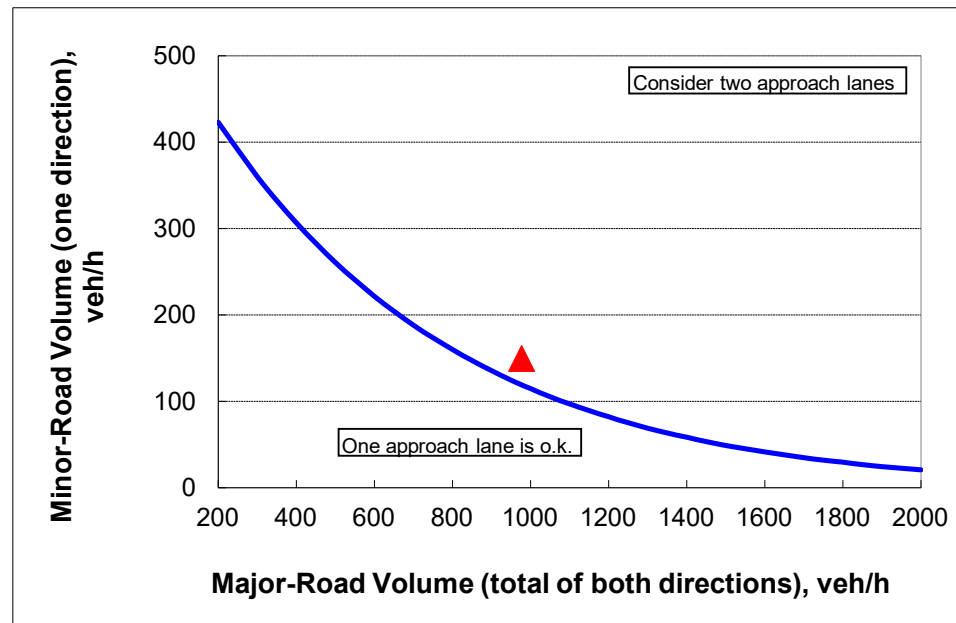


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	1220
Percentage of right-turns on minor road, %:	4%
Minor-road volume (one direction), veh/h:	255

OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	80
Guidance for determining minor-road approach geometry:	
Consider TWO approach lanes	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM

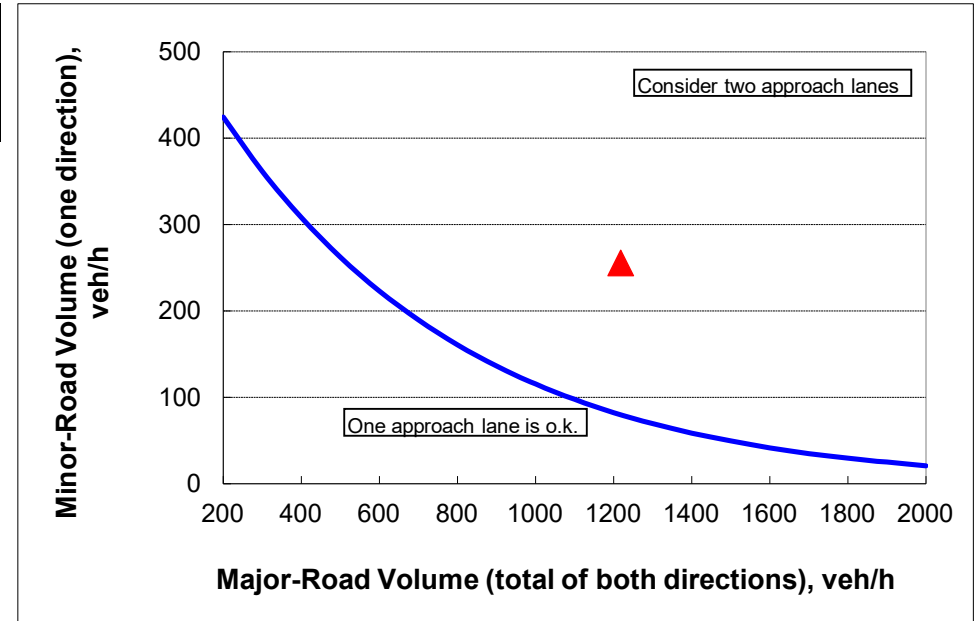


Figure 2 - 4. Guideline for determining minor-road approach geometry at two-way stop-controlled intersections.

INPUT

Variable	Value
Major-road volume (total of both directions), veh/h:	693
Percentage of right-turns on minor road, %:	9%
Minor-road volume (one direction), veh/h:	115

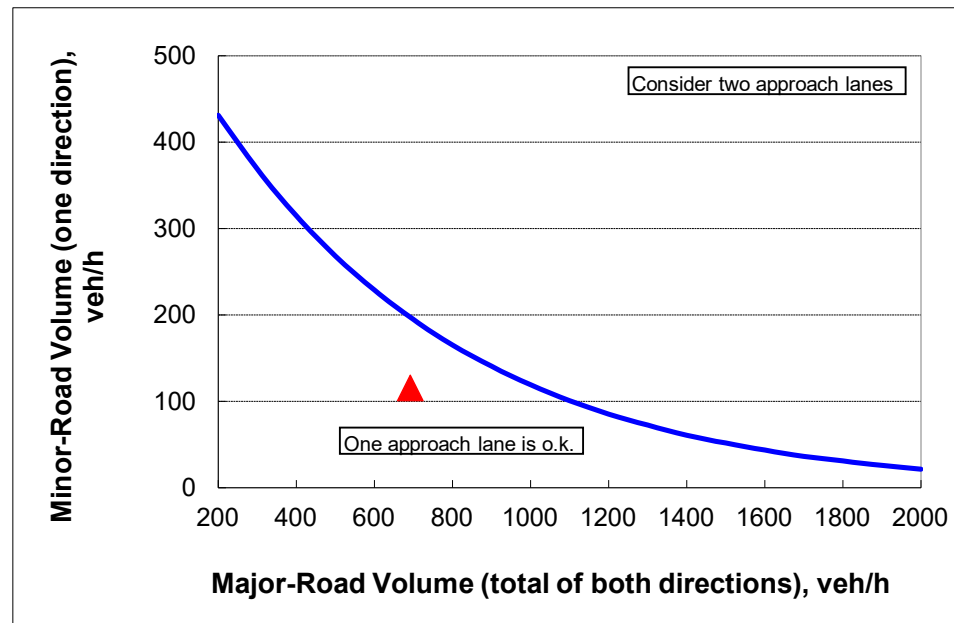
OUTPUT

Variable	Value
Limiting minor-road volume (one direction), veh/h:	197
Guidance for determining minor-road approach geometry:	
ONE approach lane is o.k.	

CALIBRATION CONSTANTS

Minor Road	Critical gap, s:	Follow-up gap, s:
Right-turn capacity, veh/h:	6.9	3.3
Left-turn and through capacity veh/h:	7.5	3.5

* according to Table 17 - 5 of the HCM



Traffic Control Signal Warrant Analysis

N.Main Street at New Salem Street

TABLE 2a - Warrant 3							
2037 Build							
		Approach Volumes (vph)			Volumes Used		Peak Hour Warrant 3
Thursday		N.Main ST		New Salem St			
Hour Begin		NB	SB	EB	Major St	Minor St	3
7:15	AM	654	979	149	1633	149	NO
3:30	PM	700	1220	255	1920	255	YES
11:45	PM	463	693	115	1156	115	NO
[Hours Met] of [# Hours Required]=							1 of 1
Warrant Met:							YES

*Notes:

Warrant 3: Peak Hour

Assumes 2 or more lanes on each approach

Traffic Control Signal Warrant Analysis

N.Main Street at New Salem Street

TABLE 2a - Warrant 3							
2037 No-Build							
		Approach Volumes (vph)			Volumes Used		Peak Hour Warrant 3
Thursday		N.Main ST		New Salem St			
Hour Begin		NB	SB	EB	Major St	Minor St	3
7:15	AM	580	672	74	1252	74	NO
3:30	PM	540	928	85	1468	85	NO
11:45	PM	335	528	79	863	79	NO
[Hours Met] of [# Hours Required]=							0 of 1
Warrant Met:							NO

*Notes:

Warrant 3: Peak Hour

Assumes 2 or more lanes on each approach