Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30	30	30	30	30	30	30		30	30	
Trailing Detector (ft)	5	5	5	5	5	5	5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.96	0.99		0.96	0.99	0.99		1.00	1.00	
Frt			0.850			0.850		0.980			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1818	1546	1728	1818	1546	1728	3359	0	1728	3363	0
Flt Permitted	0.289			0.156			0.273			0.083		
Satd. Flow (perm)	520	1818	1484	281	1818	1480	493	3359	0	150	3363	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			171			168		17			20	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		612			1310			767			1141	
Travel Time (s)		13.9			29.8			17.4			25.9	
Volume (vph)	143	455	248	116	313	151	116	920	141	184	589	100
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	159	506	276	129	348	168	129	1022	157	204	654	111
Lane Group Flow (vph)	159	506	276	129	348	168	129	1179	0	204	765	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	8.0	20.0		8.0	22.0	
Total Split (s)	13.0	41.0	41.0	10.0	38.0	38.0	12.0	48.0	0.0	16.0	52.0	0.0
Total Split (%)	11.3%	35.7%	35.7%	8.7%	33.0%	33.0%	10.4%	41.7%	0.0%	13.9%	45.2%	0.0%
Maximum Green (s)	9.0	37.0	37.0	6.0	34.0	34.0	8.0	44.0		12.0	48.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	43.0	33.3	33.3	37.6	30.6	30.6	53.0	46.6		63.5	50.3	
Actuated g/C Ratio	0.37	0.29	0.29	0.33	0.27	0.27	0.46	0.41		0.55	0.44	
v/c Ratio	0.55	0.96	0.50	0.77	0.72	0.32	0.43	0.86		0.82	0.52	
Control Delay	31.3	70.8	15.5	32.4	37.0	5.8	19.7	39.5		50.7	25.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	31.3	70.8	15.5	32.4	37.0	5.8	19.7	39.5		50.7	25.1	
LOS	C	E	B	C	D	A	B	D		D	C	
Approach Delay		47.9			28.0			37.5			30.5	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		D			C			D			C	
90th %ile Green (s)	9.0	37.0	37.0	6.0	34.0	34.0	8.0	44.0		12.0	48.0	
90th %ile Term Code	Max	Max	Max	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	9.0	37.0	37.0	6.0	34.0	34.0	8.0	44.0		12.0	48.0	
70th %ile Term Code	Max	Max	Max	Max	Hold	Hold	Max	Coord		Max	Coord	
50th %ile Green (s)	9.0	37.0	37.0	6.0	34.0	34.0	8.0	44.0		12.0	48.0	
50th %ile Term Code	Max	Max	Max	Max	Hold	Hold	Max	Coord		Max	Coord	
30th %ile Green (s)	9.0	33.5	33.5	6.0	30.5	30.5	7.4	48.0		11.5	52.1	
30th %ile Term Code	Max	Gap	Gap	Max	Hold	Hold	Gap	Coord		Gap	Coord	
10th %ile Green (s)	7.6	27.1	27.1	6.0	25.5	25.5	5.7	57.9		8.0	60.2	
10th %ile Term Code	Gap	Gap	Gap	Max	Hold	Hold	Gap	Coord		Gap	Coord	
Stops (vph)	94	416	79	78	273	63	65	899		113	478	
Fuel Used(gal)	2	11	2	3	9	3	2	20		4	12	
CO Emissions (g/hr)	148	771	168	228	661	225	106	1387		291	859	
NOx Emissions (g/hr)	29	150	33	44	129	44	21	270		57	167	
VOC Emissions (g/hr)	34	179	39	53	153	52	25	321		67	199	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (ft)	75	355	57	54	225	22	48	431		98	217	
Queue Length 95th (ft)	125	#551	138	m56	m232	m24	84	#575		#218	279	
Internal Link Dist (ft)		532			1230			687			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	291	569	582	167	522	544	305	1371		262	1481	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.55	0.89	0.47	0.77	0.67	0.31	0.42	0.86		0.78	0.52	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:SETL and 6:NWTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 36.7 **Intersection LOS: D**

Intersection Capacity Utilization 85.9% ICU Level of Service E

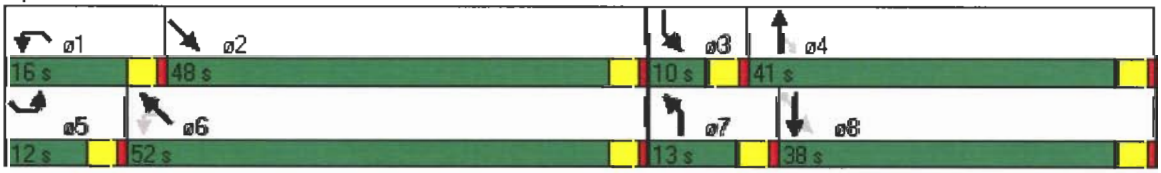
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 118: Jefferson St & Elm St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.98			1.00			0.97			0.96	
Frt		0.977			0.995			0.985			0.926	
Flt Protected	0.950			0.950				0.962			0.986	
Satd. Flow (prot)	1728	3310	0	1728	3422	0	0	1709	0	0	1592	0
Flt Permitted	0.262			0.070				0.550			0.879	
Satd. Flow (perm)	465	3310	0	127	3422	0	0	953	0	0	1419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			5			5			53	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1270			536	
Travel Time (s)		14.3			11.2			28.9			12.2	
Volume (vph)	96	1348	245	349	877	32	231	30	32	52	32	103
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	107	1498	272	388	974	36	257	33	36	58	36	114
Lane Group Flow (vph)	107	1770	0	388	1010	0	0	326	0	0	208	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	9.0	57.0	0.0	22.0	70.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0
Total Split (%)	7.8%	49.6%	0.0%	19.1%	60.9%	0.0%	31.3%	31.3%	0.0%	31.3%	31.3%	0.0%
Maximum Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	60.0	54.0		76.0	67.0			33.0			33.0	
Actuated g/C Ratio	0.52	0.47		0.66	0.58			0.29			0.29	
v/c Ratio	0.35	1.13		1.11	0.51			1.18			0.47	
Control Delay	11.9	89.6		116.3	15.2			147.8			28.8	
Queue Delay	0.0	14.6		0.0	0.0			0.0			0.0	
Total Delay	11.9	104.3		116.3	15.2			147.8			28.8	
LOS	B	F		F	B			F			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		99.0			43.3			147.8			28.8	
Approach LOS		F			D			F			C	
90th %ile Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
70th %ile Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
70th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
50th %ile Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
50th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
30th %ile Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
30th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
10th %ile Green (s)	5.0	53.0		18.0	66.0		32.0	32.0		32.0	32.0	
10th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
Stops (vph)	45	1118		234	510			232			115	
Fuel Used(gal)	1	43		13	15			13			3	
CO Emissions (g/hr)	67	3010		910	1025			909			176	
NOx Emissions (g/hr)	13	586		177	199			177			34	
VOC Emissions (g/hr)	15	698		211	238			211			41	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	37	~784		~281	218			~288			93	
Queue Length 95th (ft)	m39	m#822		#475	272			#471			168	
Internal Link Dist (ft)		549			411			1190			456	
Turn Bay Length (ft)												
Base Capacity (vph)	309	1567		348	1996			277			445	
Starvation Cap Reductn	0	45		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	1.16		1.11	0.51			1.18			0.47	

Intersection Summary

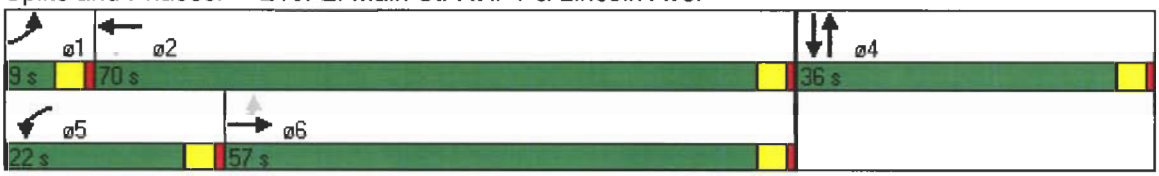
Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 78.9 Intersection LOS: E
Intersection Capacity Utilization 107.8% ICU Level of Service G
Analysis Period (min) 15

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	1.00	0.95	0.97	1.00
Ped Bike Factor	0.99		1.00		0.90	0.93
Frt	0.969					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3330	0	1728	3455	3351	1546
Flt Permitted			0.055		0.950	
Satd. Flow (perm)	3330	0	100	3455	3030	1440
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	51					237
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	1447	372	303	900	344	258
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1608	413	337	1000	382	287
Lane Group Flow (vph)	2021	0	337	1000	382	287
Turn Type			pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			8
Detector Phases	2		1	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		8.0	21.0	21.0	21.0
Total Split (s)	73.0	0.0	21.0	94.0	21.0	21.0
Total Split (%)	63.5%	0.0%	18.3%	81.7%	18.3%	18.3%
Maximum Green (s)	69.0		17.0	90.0	17.0	17.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		None	C-Max	None	None
Act Effct Green (s)	70.0		92.2	92.2	16.8	16.8
Actuated g/C Ratio	0.61		0.80	0.80	0.15	0.15
v/c Ratio	0.99		0.96	0.36	0.78	0.69
Control Delay	37.1		83.4	3.5	64.7	35.2
Queue Delay	54.2		0.0	0.1	0.0	0.5
Total Delay	91.3		83.4	3.6	64.7	35.7
LOS	F		F	A	E	D
Approach Delay	91.3			23.7	52.2	
Approach LOS	F			C	D	
90th %ile Green (s)	69.0		17.0	90.0	17.0	17.0

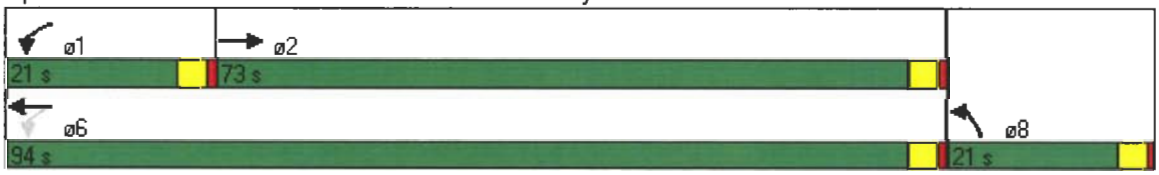
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Max	Coord	Max	Max
70th %ile Green (s)	69.0		17.0	90.0	17.0	17.0
70th %ile Term Code	Coord		Max	Coord	Max	Max
50th %ile Green (s)	69.0		17.0	90.0	17.0	17.0
50th %ile Term Code	Coord		Max	Coord	Max	Max
30th %ile Green (s)	69.0		18.5	91.5	15.5	15.5
30th %ile Term Code	Coord		Max	Coord	Gap	Gap
10th %ile Green (s)	69.0		21.4	94.4	12.6	12.6
10th %ile Term Code	Coord		Max	Coord	Gap	Gap
Stops (vph)	1534		379	198	338	285
Fuel Used(gal)	26		9	6	13	8
CO Emissions (g/hr)	1805		610	430	876	561
NOx Emissions (g/hr)	351		119	84	170	109
VOC Emissions (g/hr)	418		141	100	203	130
Dilemma Vehicles (#)	0		0	0	0	0
Queue Length 50th (ft)	720		~220	83	152	104
Queue Length 95th (ft)	#944		m#359	m98	m172	m130
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2047		352	2769	525	425
Starvation Cap Reductn	167		0	0	0	0
Spillback Cap Reductn	264		0	462	0	19
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	1.13		0.96	0.43	0.73	0.71

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 62.4 Intersection LOS: E
Intersection Capacity Utilization 91.3% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.



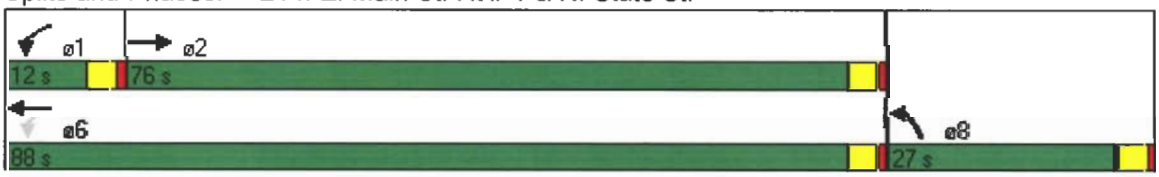
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.95	
Frt	0.996				0.881	
Flt Protected				0.999	0.994	
Satd. Flow (prot)	3437	0	0	3452	1516	0
Flt Permitted				0.706	0.994	
Satd. Flow (perm)	3437	0	0	2439	1508	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	5				126	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	1641	46	40	1384	23	178
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1823	51	44	1538	26	198
Lane Group Flow (vph)	1874	0	0	1582	224	0
Turn Type			pm+pt			
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phases	2		1	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		8.0	21.0	21.0	
Total Split (s)	76.0	0.0	12.0	88.0	27.0	0.0
Total Split (%)	66.1%	0.0%	10.4%	76.5%	23.5%	0.0%
Maximum Green (s)	72.0		8.0	84.0	23.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	95.7			95.7	13.3	
Actuated g/C Ratio	0.83			0.83	0.12	
v/c Ratio	0.66			0.78	0.78	
Control Delay	5.7			14.0	39.5	
Queue Delay	1.6			0.0	0.4	
Total Delay	7.3			14.0	39.9	
LOS	A			B	D	
Approach Delay	7.3			14.0	39.9	
Approach LOS	A			B	D	
90th %ile Green (s)	86.2		0.0	86.2	20.8	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Skip	Coord	Gap	
70th %ile Green (s)	91.4		0.0	91.4	15.6	
70th %ile Term Code	Coord		Skip	Coord	Gap	
50th %ile Green (s)	94.9		0.0	94.9	12.1	
50th %ile Term Code	Coord		Skip	Coord	Gap	
30th %ile Green (s)	98.4		0.0	98.4	8.6	
30th %ile Term Code	Coord		Skip	Coord	Gap	
10th %ile Green (s)	102.5		0.0	102.5	4.5	
10th %ile Term Code	Coord		Skip	Coord	Gap	
Stops (vph)	595			1037	89	
Fuel Used(gal)	17			11	5	
CO Emissions (g/hr)	1198			766	357	
NOx Emissions (g/hr)	233			149	69	
VOC Emissions (g/hr)	278			178	83	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	196			509	71	
Queue Length 95th (ft)	402			666	148	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	2860			2029	416	
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	747			0	27	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.89			0.78	0.58	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 88.4% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30	30	30	30	30	30	30		30	30	
Trailing Detector (ft)	5	5	5	5	5	5	5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.96	0.99		0.96	0.99	0.99		1.00	1.00	
Frt			0.850			0.850		0.980			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1818	1546	1728	1818	1546	1728	3359	0	1728	3362	0
Flt Permitted	0.307			0.152			0.262			0.083		
Satd. Flow (perm)	552	1818	1484	274	1818	1481	473	3359	0	150	3362	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			171			168		17			20	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		612			1310			767			1141	
Travel Time (s)		13.9			29.8			17.4			25.9	
Volume (vph)	143	455	248	116	313	151	116	920	141	184	589	100
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	159	506	276	129	348	168	129	1022	157	204	654	111
Lane Group Flow (vph)	159	506	276	129	348	168	129	1179	0	204	765	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	8.0	20.0		8.0	22.0	
Total Split (s)	13.0	41.0	41.0	11.0	39.0	39.0	12.0	48.0	0.0	15.0	51.0	0.0
Total Split (%)	11.3%	35.7%	35.7%	9.6%	33.9%	33.9%	10.4%	41.7%	0.0%	13.0%	44.3%	0.0%
Maximum Green (s)	9.0	37.0	37.0	7.0	35.0	35.0	8.0	44.0		11.0	47.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	43.0	33.3	33.3	39.3	31.4	31.4	52.5	46.0		62.8	49.4	
Actuated g/C Ratio	0.37	0.29	0.29	0.34	0.27	0.27	0.46	0.40		0.55	0.43	
v/c Ratio	0.54	0.96	0.50	0.72	0.70	0.32	0.45	0.87		0.84	0.53	
Control Delay	30.0	70.8	15.5	33.7	35.4	4.9	20.7	40.5		53.6	25.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	30.0	70.8	15.5	33.7	35.4	4.9	20.7	40.5		53.6	25.9	
LOS	C	E	B	C	D	A	C	D		D	C	
Approach Delay		47.7			27.1			38.6			31.7	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		D			C			D			C	
90th %ile Green (s)	9.0	37.0	37.0	7.0	35.0	35.0	8.0	44.0		11.0	47.0	
90th %ile Term Code	Max	Max	Max	Max	Hold	Hold	Max	Coord		Max	Coord	
70th %ile Green (s)	9.0	37.0	37.0	7.0	35.0	35.0	8.0	44.0		11.0	47.0	
70th %ile Term Code	Max	Max	Max	Max	Hold	Hold	Max	Coord		Max	Coord	
50th %ile Green (s)	9.0	37.0	37.0	7.0	35.0	35.0	8.0	44.0		11.0	47.0	
50th %ile Term Code	Max	Max	Max	Max	Hold	Hold	Max	Coord		Max	Coord	
30th %ile Green (s)	9.0	33.5	33.5	7.0	31.5	31.5	7.5	46.1		12.4	51.0	
30th %ile Term Code	Max	Gap	Gap	Max	Hold	Hold	Gap	Coord		Gap	Coord	
10th %ile Green (s)	7.6	27.1	27.1	6.2	25.7	25.7	5.7	57.0		8.7	60.0	
10th %ile Term Code	Gap	Gap	Gap	Gap	Hold	Hold	Gap	Coord		Gap	Coord	
Stops (vph)	94	416	79	53	245	27	65	906		110	487	
Fuel Used(gal)	2	11	2	3	9	3	2	20		4	12	
CO Emissions (g/hr)	145	771	168	221	643	209	108	1405		297	869	
NOx Emissions (g/hr)	28	150	33	43	125	41	21	273		58	169	
VOC Emissions (g/hr)	34	179	39	51	149	49	25	326		69	202	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (ft)	74	355	57	35	182	5	49	431		99	221	
Queue Length 95th (ft)	123	#551	138	m46	m227	m18	85	#575		#230	284	
Internal Link Dist (ft)		532			1230			687			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	300	569	582	183	537	556	295	1355		251	1456	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.53	0.89	0.47	0.70	0.65	0.30	0.44	0.87		0.81	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 115

Actuated Cycle Length: 115

Offset: 0 (0%), Referenced to phase 2:SETL and 6:NWTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 37.2 **Intersection LOS: D**

Intersection Capacity Utilization 85.9% ICU Level of Service E

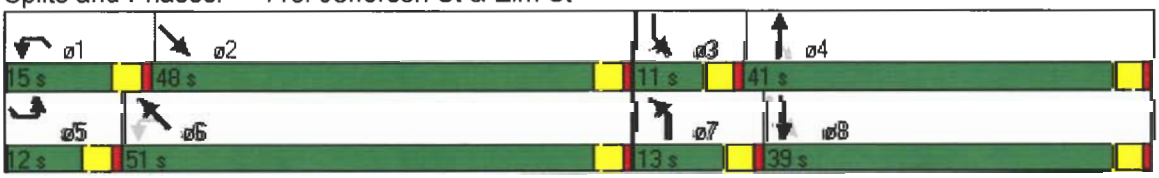
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 118: Jefferson St & Elm St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	0.98			1.00			0.97			0.96	
Frt		0.977			0.995			0.985			0.926	
Flt Protected	0.950			0.950				0.962			0.986	
Satd. Flow (prot)	1728	3310	0	1728	3422	0	0	1709	0	0	1592	0
Flt Permitted	0.257			0.069				0.550			0.879	
Satd. Flow (perm)	457	3310	0	125	3422	0	0	953	0	0	1419	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			5			5			53	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1270			536	
Travel Time (s)		14.3			11.2			28.9			12.2	
Volume (vph)	96	1348	245	349	877	32	231	30	32	52	32	103
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	107	1498	272	388	974	36	257	33	36	58	36	114
Lane Group Flow (vph)	107	1770	0	388	1010	0	0	326	0	0	208	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	9.0	58.0	0.0	21.0	70.0	0.0	36.0	36.0	0.0	36.0	36.0	0.0
Total Split (%)	7.8%	50.4%	0.0%	18.3%	60.9%	0.0%	31.3%	31.3%	0.0%	31.3%	31.3%	0.0%
Maximum Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	61.0	55.0		76.0	67.0			33.0			33.0	
Actuated g/C Ratio	0.53	0.48		0.66	0.58			0.29			0.29	
v/c Ratio	0.35	1.11		1.16	0.51			1.18			0.47	
Control Delay	9.9	79.6		133.3	15.2			147.8			28.8	
Queue Delay	0.0	19.8		0.0	0.0			0.0			0.0	
Total Delay	9.9	99.4		133.3	15.2			147.8			28.8	
LOS	A	F		F	B			F			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		94.3			48.0			147.8			28.8	
Approach LOS		F			D			F			C	
90th %ile Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
70th %ile Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
70th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
50th %ile Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
50th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
30th %ile Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
30th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
10th %ile Green (s)	5.0	54.0		17.0	66.0		32.0	32.0		32.0	32.0	
10th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
Stops (vph)	39	1301		228	510			232			115	
Fuel Used(gal)	1	41		14	15			13			3	
CO Emissions (g/hr)	62	2854		993	1025			909			176	
NOx Emissions (g/hr)	12	555		193	199			177			34	
VOC Emissions (g/hr)	14	661		230	238			211			41	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	23	~775		~292	218			~288			93	
Queue Length 95th (ft)	m37	#921		#487	272			#471			168	
Internal Link Dist (ft)		549			411			1190			456	
Turn Bay Length (ft)												
Base Capacity (vph)	309	1596		334	1996			277			445	
Starvation Cap Reductn	0	63		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	1.15		1.16	0.51			1.18			0.47	

Intersection Summary

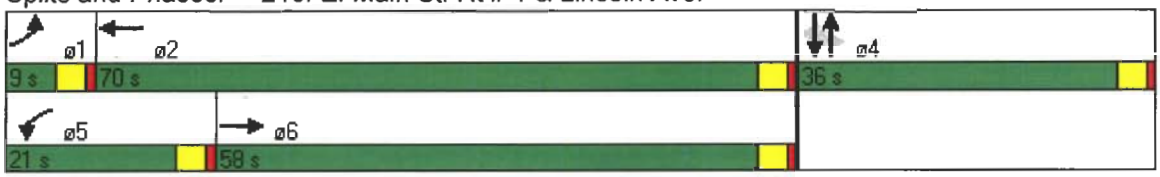
Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.18
Intersection Signal Delay: 78.3 Intersection LOS: E
Intersection Capacity Utilization 107.8% ICU Level of Service G
Analysis Period (min) 15

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.96	0.95
Frt	0.969					0.850
Flt Protected				0.992	0.950	
Satd. Flow (prot)	3332	0	0	3427	1728	1546
Flt Permitted				0.490	0.950	
Satd. Flow (perm)	3332	0	0	1693	1656	1464
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	74					51
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	1447	372	203	1000	344	258
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1608	413	226	1111	382	287
Lane Group Flow (vph)	2021	0	0	1337	382	287
Turn Type			Perm			Perm
Protected Phases	2			6	8	
Permitted Phases			6			8
Detector Phases	2		6	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		21.0	21.0	21.0	21.0
Total Split (s)	87.0	0.0	87.0	87.0	28.0	28.0
Total Split (%)	75.7%	0.0%	75.7%	75.7%	24.3%	24.3%
Maximum Green (s)	83.0		83.0	83.0	24.0	24.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		C-Max	C-Max	None	None
Act Effct Green (s)	84.0			84.0	25.0	25.0
Actuated g/C Ratio	0.73			0.73	0.22	0.22
v/c Ratio	0.82			3.32dl	1.02	0.80
Control Delay	11.3			66.4	104.2	68.5
Queue Delay	2.3			87.7	6.6	0.4
Total Delay	13.6			154.1	110.8	68.8
LOS	B			F	F	E
Approach Delay	13.6			154.1	92.8	
Approach LOS	B			F	F	
90th %ile Green (s)	83.0		83.0	83.0	24.0	24.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Max	Max
70th %ile Green (s)	83.0		83.0	83.0	24.0	24.0
70th %ile Term Code	Coord		Coord	Coord	Max	Max
50th %ile Green (s)	83.0		83.0	83.0	24.0	24.0
50th %ile Term Code	Coord		Coord	Coord	Max	Max
30th %ile Green (s)	83.0		83.0	83.0	24.0	24.0
30th %ile Term Code	Coord		Coord	Coord	Max	Max
10th %ile Green (s)	83.0		83.0	83.0	24.0	24.0
10th %ile Term Code	Coord		Coord	Coord	Max	Max
Stops (vph)	1175			995	310	392
Fuel Used(gal)	14			28	15	10
CO Emissions (g/hr)	999			1934	1059	725
NOx Emissions (g/hr)	194			376	206	141
VOC Emissions (g/hr)	231			448	245	168
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (ft)	496			~581	~310	199
Queue Length 95th (ft)	294			m#666	m#389	m234
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2454			1237	376	358
Starvation Cap Reductn	244			0	0	0
Spillback Cap Reductn	297			194	8	4
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.94			1.28	1.04	0.81

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 110 (96%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 73.4 Intersection LOS: E
Intersection Capacity Utilization 115.0% ICU Level of Service H
Analysis Period (min) 15

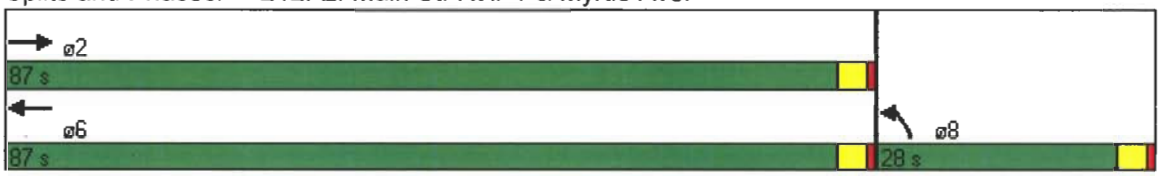
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

m Volume for 95th percentile queue is metered by upstream signal.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.



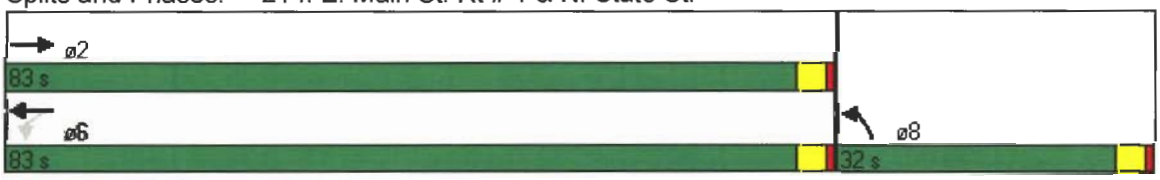
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.95	
Frt	0.996				0.881	
Flt Protected				0.999	0.994	
Satd. Flow (prot)	3437	0	0	3452	1526	0
Flt Permitted				0.739	0.994	
Satd. Flow (perm)	3437	0	0	2553	1520	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	6				28	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	1641	46	40	1484	23	178
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1823	51	44	1649	26	198
Lane Group Flow (vph)	1874	0	0	1693	224	0
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phases	2		6	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	83.0	0.0	83.0	83.0	32.0	0.0
Total Split (%)	72.2%	0.0%	72.2%	72.2%	27.8%	0.0%
Maximum Green (s)	79.0		79.0	79.0	28.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	89.2			89.2	19.8	
Actuated g/C Ratio	0.78			0.78	0.17	
v/c Ratio	0.70			0.86	0.78	
Control Delay	9.2			12.6	57.8	
Queue Delay	0.4			51.0	0.0	
Total Delay	9.5			63.6	57.9	
LOS	A			E	E	
Approach Delay	9.5			63.6	57.9	
Approach LOS	A			E	E	
90th %ile Green (s)	79.9		79.9	79.9	27.1	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Gap	
70th %ile Green (s)	84.8		84.8	84.8	22.2	
70th %ile Term Code	Coord		Coord	Coord	Gap	
50th %ile Green (s)	88.3		88.3	88.3	18.7	
50th %ile Term Code	Coord		Coord	Coord	Gap	
30th %ile Green (s)	91.7		91.7	91.7	15.3	
30th %ile Term Code	Coord		Coord	Coord	Gap	
10th %ile Green (s)	96.3		96.3	96.3	10.7	
10th %ile Term Code	Coord		Coord	Coord	Gap	
Stops (vph)	808			920	168	
Fuel Used(gal)	20			10	6	
CO Emissions (g/hr)	1363			717	440	
NOx Emissions (g/hr)	265			139	86	
VOC Emissions (g/hr)	316			166	102	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	295			344	141	
Queue Length 95th (ft)	517			m450	211	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	2667			1980	406	
Starvation Cap Reductn	0			454	0	
Spillback Cap Reductn	293			0	2	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.79			1.11	0.55	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 110 (96%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 36.5 Intersection LOS: D
Intersection Capacity Utilization 91.1% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.



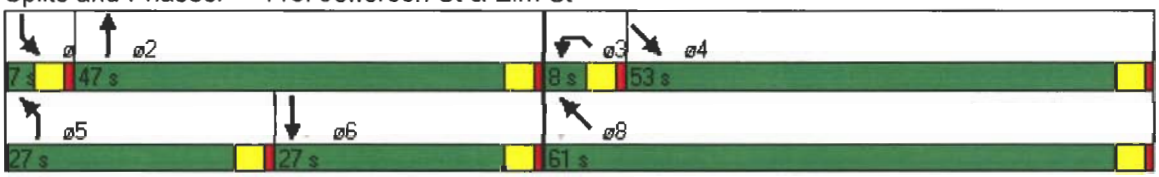
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30		30	30		30	30		30	30	
Trailing Detector (ft)	5	5		5	5		5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor	0.99	0.99		0.98	0.97			0.99			1.00	
Frt		0.944			0.923			0.981			0.983	
Flt Protected	0.950			0.950				0.995			0.997	
Satd. Flow (prot)	1728	1694	0	1728	1629	0	0	3349	0	0	3374	0
Flt Permitted	0.237			0.502				0.700			0.703	
Satd. Flow (perm)	426	1694	0	893	1629	0	0	2354	0	0	2379	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			40			17			17	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		612			1310			767			1141	
Travel Time (s)		13.9			29.8			17.4			25.9	
Volume (vph)	357	256	151	99	123	129	98	708	119	45	599	84
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	397	284	168	110	137	143	109	787	132	50	666	93
Lane Group Flow (vph)	397	452	0	110	280	0	0	1028	0	0	809	0
Turn Type	pm+pt			pm+pt			Perm			pm+pt		
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2			6			4			8		
Detector Phases	5	2		1	6		4	4		3	8	
Minimum Initial (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		20.0	20.0		8.0	22.0	
Total Split (s)	27.0	47.0	0.0	7.0	27.0	0.0	53.0	53.0	0.0	8.0	61.0	0.0
Total Split (%)	23.5%	40.9%	0.0%	6.1%	23.5%	0.0%	46.1%	46.1%	0.0%	7.0%	53.0%	0.0%
Maximum Green (s)	23.0	43.0		3.0	23.0		49.0	49.0		4.0	57.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		Max	Max		None	Max	
Act Effct Green (s)	50.0	42.0		26.9	22.9			56.0			56.0	
Actuated g/C Ratio	0.43	0.37		0.23	0.20			0.49			0.49	
v/c Ratio	0.91	0.71		0.48	0.78			0.89			0.69	
Control Delay	52.1	36.4		28.6	45.5			37.5			26.2	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	52.1	36.4		28.6	45.5			37.5			26.2	
LOS	D	D		C	D			D			C	
Approach Delay		43.8			40.7			37.5			26.2	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		D			D			D			C	
90th %ile Green (s)	23.0	43.0		3.0	23.0		57.0	57.0		0.0	57.0	
90th %ile Term Code	Max	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
70th %ile Green (s)	23.0	43.0		3.0	23.0		57.0	57.0		0.0	57.0	
70th %ile Term Code	Max	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
50th %ile Green (s)	23.0	43.0		3.0	23.0		57.0	57.0		0.0	57.0	
50th %ile Term Code	Max	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
30th %ile Green (s)	23.0	43.0		3.0	23.0		57.0	57.0		0.0	57.0	
30th %ile Term Code	Max	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
10th %ile Green (s)	18.3	43.0		3.0	27.7		57.0	57.0		0.0	57.0	
10th %ile Term Code	Gap	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
Stops (vph)	242	326		75	262			779			540	
Fuel Used(gal)	7	7		3	8			17			13	
CO Emissions (g/hr)	477	473		193	579			1181			933	
NOx Emissions (g/hr)	93	92		38	113			230			182	
VOC Emissions (g/hr)	111	110		45	134			274			216	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	211	267		33	170			346			232	
Queue Length 95th (ft)	#384	392		54	#303			#494			307	
Internal Link Dist (ft)		532			1230			687			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	446	637		231	357			1155			1167	
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	0.89	0.71		0.48	0.78			0.89			0.69	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 43 (37%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 36.7 Intersection LOS: D
Intersection Capacity Utilization 98.8% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 118: Jefferson St & Elm St



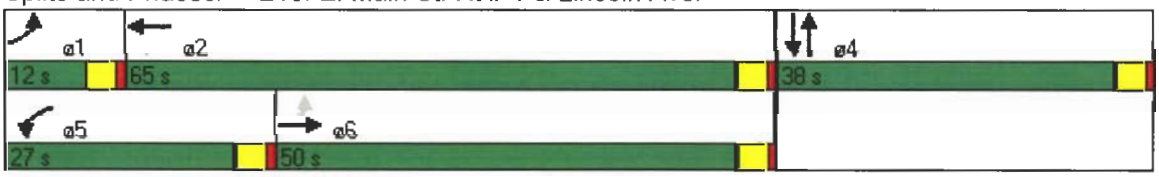
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96	0.98			1.00			0.96			0.95	
Frt		0.977			0.995			0.985			0.926	
Flt Protected	0.950			0.950				0.962			0.986	
Satd. Flow (prot)	1728	3310	0	1728	3423	0	0	1709	0	0	1592	0
Flt Permitted	0.401			0.080				0.638			0.888	
Satd. Flow (perm)	698	3310	0	145	3423	0	0	1096	0	0	1421	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			5			5			55	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1270			536	
Travel Time (s)		14.3			11.2			28.9			12.2	
Volume (vph)	63	881	160	228	573	21	151	20	21	34	21	67
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	70	979	178	253	637	23	168	22	23	38	23	74
Lane Group Flow (vph)	70	1157	0	253	660	0	0	213	0	0	135	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	12.0	50.0	0.0	27.0	65.0	0.0	38.0	38.0	0.0	38.0	38.0	0.0
Total Split (%)	10.4%	43.5%	0.0%	23.5%	56.5%	0.0%	33.0%	33.0%	0.0%	33.0%	33.0%	0.0%
Maximum Green (s)	8.0	46.0		23.0	61.0		34.0	34.0		34.0	34.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	70.9	64.4		83.2	75.3			25.8			25.8	
Actuated g/C Ratio	0.62	0.56		0.72	0.65			0.22			0.22	
v/c Ratio	0.14	0.62		0.79	0.29			0.85			0.37	
Control Delay	6.2	17.2		40.4	10.4			69.4			23.2	
Queue Delay	0.0	0.1		0.0	0.0			0.0			0.0	
Total Delay	6.2	17.3		40.4	10.4			69.4			23.2	
LOS	A	B		D	B			E			C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		16.7			18.7			69.4			23.2	
Approach LOS		B			B			E			C	
90th %ile Green (s)	6.6	46.0		23.0	62.4		34.0	34.0		34.0	34.0	
90th %ile Term Code	Gap	Coord		Max	Coord		Max	Max		Max	Max	
70th %ile Green (s)	6.0	54.2		18.7	66.9		30.1	30.1		30.1	30.1	
70th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
50th %ile Green (s)	5.6	62.8		14.9	72.1		25.3	25.3		25.3	25.3	
50th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
30th %ile Green (s)	5.1	71.3		11.1	77.3		20.6	20.6		20.6	20.6	
30th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
10th %ile Green (s)	0.0	82.5		6.3	92.8		14.2	14.2		14.2	14.2	
10th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
Stops (vph)	21	695		137	250			176			58	
Fuel Used(gal)	1	13		5	9			6			1	
CO Emissions (g/hr)	35	880		342	597			391			98	
NOx Emissions (g/hr)	7	171		67	116			76			19	
VOC Emissions (g/hr)	8	204		79	138			91			23	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	11	320		113	106			148			49	
Queue Length 95th (ft)	25	504		204	174			220			96	
Internal Link Dist (ft)		549			411			1190			456	
Turn Bay Length (ft)												
Base Capacity (vph)	526	1862		436	2243			337			471	
Starvation Cap Reductn	0	82		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	0.13	0.65		0.58	0.29			0.63			0.29	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 22.3 Intersection LOS: C
Intersection Capacity Utilization 70.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.



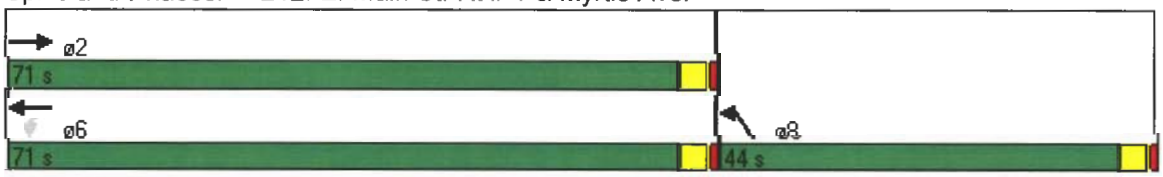
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	0.99			1.00	0.97	0.96
Frt	0.969					0.850
Flt Protected				0.995	0.950	
Satd. Flow (prot)	3317	0	0	3438	1728	1546
Flt Permitted				0.617	0.950	
Satd. Flow (perm)	3317	0	0	2131	1684	1489
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	49					90
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	946	243	77	713	225	168
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1051	270	86	792	250	187
Lane Group Flow (vph)	1321	0	0	878	250	187
Turn Type			Perm			Perm
Protected Phases	2			6	8	
Permitted Phases			6			8
Detector Phases	2		6	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		21.0	21.0	21.0	21.0
Total Split (s)	71.0	0.0	71.0	71.0	44.0	44.0
Total Split (%)	61.7%	0.0%	61.7%	61.7%	38.3%	38.3%
Maximum Green (s)	67.0		67.0	67.0	40.0	40.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		C-Max	C-Max	None	None
Act Effct Green (s)	86.2			86.2	22.8	22.8
Actuated g/C Ratio	0.75			0.75	0.20	0.20
v/c Ratio	0.53			0.55	0.73	0.51
Control Delay	6.7			8.2	62.4	34.6
Queue Delay	0.1			0.0	0.0	0.0
Total Delay	6.8			8.2	62.4	34.6
LOS	A			A	E	C
Approach Delay	6.8			8.2	50.5	
Approach LOS	A			A	D	
90th %ile Green (s)	75.1		75.1	75.1	31.9	31.9

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Gap	Gap
70th %ile Green (s)	82.5		82.5	82.5	24.5	24.5
70th %ile Term Code	Coord		Coord	Coord	Gap	Gap
50th %ile Green (s)	85.9		85.9	85.9	21.1	21.1
50th %ile Term Code	Coord		Coord	Coord	Gap	Gap
30th %ile Green (s)	88.9		88.9	88.9	18.1	18.1
30th %ile Term Code	Coord		Coord	Coord	Gap	Gap
10th %ile Green (s)	93.4		93.4	93.4	13.6	13.6
10th %ile Term Code	Coord		Coord	Coord	Gap	Gap
Stops (vph)	497			351	204	140
Fuel Used(gal)	7			7	8	5
CO Emissions (g/hr)	470			499	559	346
NOx Emissions (g/hr)	91			97	109	67
VOC Emissions (g/hr)	109			116	130	80
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (ft)	197			110	188	79
Queue Length 95th (ft)	345			m137	m215	m107
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2498			1596	616	589
Starvation Cap Reductn	284			0	0	0
Spillback Cap Reductn	37			0	0	1
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.60			0.55	0.41	0.32

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 14.5 Intersection LOS: B
Intersection Capacity Utilization 79.4% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.



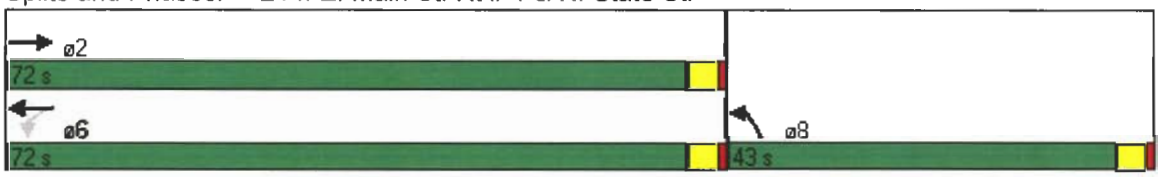
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.96	
Frt	0.996				0.881	
Flt Protected				0.999	0.994	
Satd. Flow (prot)	3437	0	0	3452	1540	0
Flt Permitted				0.889	0.994	
Satd. Flow (perm)	3437	0	0	3071	1535	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	4				68	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	1068	30	26	1002	15	116
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1187	33	29	1113	17	129
Lane Group Flow (vph)	1220	0	0	1142	146	0
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phases	2		6	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	72.0	0.0	72.0	72.0	43.0	0.0
Total Split (%)	62.6%	0.0%	62.6%	62.6%	37.4%	0.0%
Maximum Green (s)	68.0		68.0	68.0	39.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	98.1			98.1	10.9	
Actuated g/C Ratio	0.85			0.85	0.09	
v/c Ratio	0.42			0.44	0.71	
Control Delay	2.7			2.4	44.7	
Queue Delay	0.0			0.3	0.0	
Total Delay	2.7			2.8	44.7	
LOS	A			A	D	
Approach Delay	2.7			2.8	44.7	
Approach LOS	A			A	D	
90th %ile Green (s)	91.1		91.1	91.1	15.9	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Gap	
70th %ile Green (s)	94.9		94.9	94.9	12.1	
70th %ile Term Code	Coord		Coord	Coord	Gap	
50th %ile Green (s)	97.3		97.3	97.3	9.7	
50th %ile Term Code	Coord		Coord	Coord	Gap	
30th %ile Green (s)	99.7		99.7	99.7	7.3	
30th %ile Term Code	Coord		Coord	Coord	Gap	
10th %ile Green (s)	102.5		102.5	102.5	4.5	
10th %ile Term Code	Coord		Coord	Coord	Gap	
Stops (vph)	222			210	70	
Fuel Used(gal)	10			3	4	
CO Emissions (g/hr)	669			177	246	
NOx Emissions (g/hr)	130			34	48	
VOC Emissions (g/hr)	155			41	57	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	74			63	56	
Queue Length 95th (ft)	143			121	120	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	2932			2620	580	
Starvation Cap Reductn	0			781	0	
Spillback Cap Reductn	146			0	20	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.44			0.62	0.26	

Intersection Summary

Area Type: Other
Cycle Length: 115
Actuated Cycle Length: 115
Offset: 100 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 5.2 Intersection LOS: A
Intersection Capacity Utilization 65.3% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.



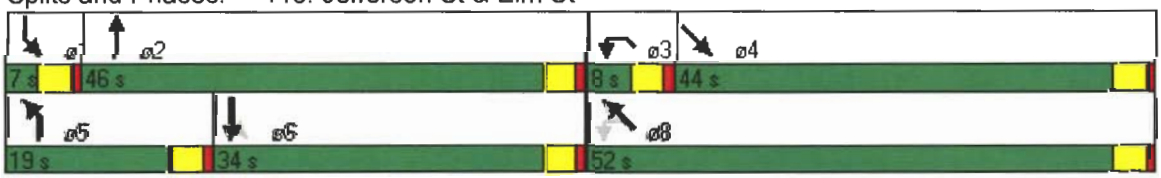
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30		30	30		30	30		30	30	
Trailing Detector (ft)	5	5		5	5		5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor	0.99	0.99		0.98	0.99			0.98			1.00	
Frt		0.964			0.955			0.957			0.995	
Flt Protected	0.950			0.950				0.997			0.997	
Satd. Flow (prot)	1728	1739	0	1728	1714	0	0	3240	0	0	3424	0
Flt Permitted	0.231			0.629				0.728			0.741	
Satd. Flow (perm)	416	1739	0	1119	1714	0	0	2365	0	0	2543	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			20			66			4	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		612			1310			767			1141	
Travel Time (s)		13.9			29.8			17.4			25.9	
Volume (vph)	278	141	44	7	240	102	40	411	182	65	959	37
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	309	157	49	8	267	113	44	457	202	72	1066	41
Lane Group Flow (vph)	309	206	0	8	380	0	0	703	0	0	1179	0
Turn Type	pm+pt			pm+pt			Perm			pm+pt		
Protected Phases	5	2		1	6			4		3	8	
Permitted Phases	2			6			4			8		
Detector Phases	5	2		1	6		4	4		3	8	
Minimum Initial (s)	3.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0		7.0	21.0		20.0	20.0		8.0	22.0	
Total Split (s)	19.0	46.0	0.0	7.0	34.0	0.0	44.0	44.0	0.0	8.0	52.0	0.0
Total Split (%)	18.1%	43.8%	0.0%	6.7%	32.4%	0.0%	41.9%	41.9%	0.0%	7.6%	49.5%	0.0%
Maximum Green (s)	15.0	42.0		3.0	30.0		40.0	40.0		4.0	48.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead		
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Min		None	C-Min		Max	Max		None	Max	
Act Effct Green (s)	43.8	41.4		28.2	24.2			52.2			52.2	
Actuated g/C Ratio	0.42	0.39		0.27	0.23			0.50			0.50	
v/c Ratio	0.87	0.30		0.03	0.93			0.58			0.93	
Control Delay	45.9	20.5		15.3	59.2			20.2			40.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	45.9	20.5		15.3	59.2			20.2			40.3	
LOS	D	C		B	E			C			D	
Approach Delay		35.7			58.3			20.2			40.3	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		D			E			C			D	
90th %ile Green (s)	15.0	42.0		3.0	30.0		48.0	48.0		0.0	48.0	
90th %ile Term Code	Max	Coord		Max	Coord		MaxR	MaxR		Skip	MaxR	
70th %ile Green (s)	15.0	49.0		0.0	30.0		48.0	48.0		0.0	48.0	
70th %ile Term Code	Max	Coord		Skip	Coord		MaxR	MaxR		Skip	MaxR	
50th %ile Green (s)	15.0	45.1		0.0	26.1		51.9	51.9		0.0	51.9	
50th %ile Term Code	Max	Coord		Skip	Coord		MaxR	MaxR		Skip	MaxR	
30th %ile Green (s)	15.0	40.8		0.0	21.8		56.2	56.2		0.0	56.2	
30th %ile Term Code	Max	Coord		Skip	Coord		MaxR	MaxR		Skip	MaxR	
10th %ile Green (s)	13.3	35.3		0.0	18.0		61.7	61.7		0.0	61.7	
10th %ile Term Code	Gap	Coord		Skip	Coord		MaxR	MaxR		Skip	MaxR	
Stops (vph)	180	110		4	301			407			840	
Fuel Used(gal)	5	2		0	12			9			23	
CO Emissions (g/hr)	344	158		12	831			604			1592	
NOx Emissions (g/hr)	67	31		2	162			117			310	
VOC Emissions (g/hr)	80	37		3	193			140			369	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	141	80		2	235			157			385	
Queue Length 95th (ft)	#239	142		m6	#361			235			#584	
Internal Link Dist (ft)		532			1230			687			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	361	723		318	488			1208			1266	
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	0.86	0.28		0.03	0.78			0.58			0.93	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 43 (41%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 36.9 **Intersection LOS: D**
Intersection Capacity Utilization 99.7% **ICU Level of Service F**
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 118: Jefferson St & Elm St



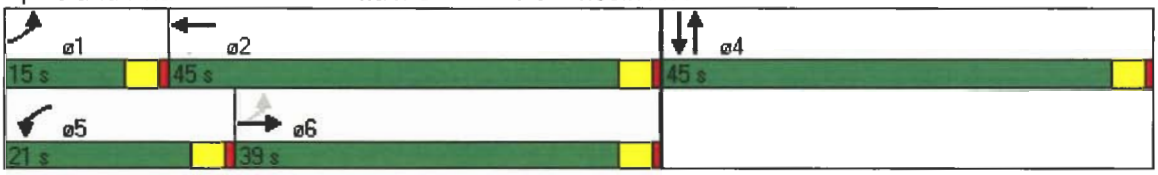
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97	0.99			1.00			0.95			0.95	
Frt		0.982			0.996			0.928			0.923	
Flt Protected	0.950			0.950				0.978			0.986	
Satd. Flow (prot)	1728	3347	0	1728	3431	0	0	1589	0	0	1589	0
Flt Permitted	0.320			0.179				0.793			0.859	
Satd. Flow (perm)	564	3347	0	326	3431	0	0	1266	0	0	1376	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			3			64			75	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1270			536	
Travel Time (s)		14.3			11.2			28.9			12.2	
Volume (vph)	48	605	80	138	597	16	133	8	159	38	20	76
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	53	672	89	153	663	18	148	9	177	42	22	84
Lane Group Flow (vph)	53	761	0	153	681	0	0	334	0	0	148	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	15.0	39.0	0.0	21.0	45.0	0.0	45.0	45.0	0.0	45.0	45.0	0.0
Total Split (%)	14.3%	37.1%	0.0%	20.0%	42.9%	0.0%	42.9%	42.9%	0.0%	42.9%	42.9%	0.0%
Maximum Green (s)	11.0	35.0		17.0	41.0		41.0	41.0		41.0	41.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	66.1	59.5		71.2	63.7			27.4			27.4	
Actuated g/C Ratio	0.63	0.57		0.68	0.61			0.26			0.26	
v/c Ratio	0.12	0.40		0.45	0.33			0.89			0.36	
Control Delay	7.8	12.3		11.8	12.8			53.6			16.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	7.8	12.3		11.8	12.8			53.6			16.3	
LOS	A	B		B	B			D			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		12.0			12.6			53.6			16.3	
Approach LOS		B			B			D			B	
90th %ile Green (s)	7.0	42.5		12.0	47.5		38.5	38.5		38.5	38.5	
90th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
70th %ile Green (s)	6.0	52.4		9.2	55.6		31.4	31.4		31.4	31.4	
70th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
50th %ile Green (s)	5.5	59.1		7.7	61.3		26.2	26.2		26.2	26.2	
50th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
30th %ile Green (s)	5.0	65.2		6.5	66.7		21.3	21.3		21.3	21.3	
30th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
10th %ile Green (s)	0.0	73.3		5.2	82.5		14.5	14.5		14.5	14.5	
10th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
Stops (vph)	16	283		50	302			236			50	
Fuel Used(gal)	0	7		2	9			8			1	
CO Emissions (g/hr)	28	464		138	654			529			89	
NOx Emissions (g/hr)	5	90		27	127			103			17	
VOC Emissions (g/hr)	6	108		32	151			123			21	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	10	100		32	113			179			38	
Queue Length 95th (ft)	28	145		78	204			252			78	
Internal Link Dist (ft)		549			411			1190			456	
Turn Bay Length (ft)												
Base Capacity (vph)	512	1903		463	2083			545			595	
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	0.10	0.40		0.33	0.33			0.61			0.25	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 19.1 Intersection LOS: B
Intersection Capacity Utilization 62.9% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	0.99			1.00	0.97	0.96
Frt	0.962					0.850
Flt Protected				0.993	0.950	
Satd. Flow (prot)	3286	0	0	3431	1728	1546
Flt Permitted				0.654	0.950	
Satd. Flow (perm)	3286	0	0	2258	1683	1488
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	78					137
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	612	208	111	701	218	123
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	680	231	123	779	242	137
Lane Group Flow (vph)	911	0	0	902	242	137
Turn Type			Perm			Perm
Protected Phases	2			6	8	
Permitted Phases			6			8
Detector Phases	2		6	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		21.0	21.0	21.0	21.0
Total Split (s)	65.0	0.0	65.0	65.0	40.0	40.0
Total Split (%)	61.9%	0.0%	61.9%	61.9%	38.1%	38.1%
Maximum Green (s)	61.0		61.0	61.0	36.0	36.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		C-Max	C-Max	None	None
Act Effct Green (s)	77.6			77.6	21.4	21.4
Actuated g/C Ratio	0.74			0.74	0.20	0.20
v/c Ratio	0.37			0.54	0.69	0.33
Control Delay	5.1			6.5	50.2	8.9
Queue Delay	0.3			0.0	0.0	0.0
Total Delay	5.4			6.5	50.2	8.9
LOS	A			A	D	A
Approach Delay	5.4			6.5	35.2	
Approach LOS	A			A	D	
90th %ile Green (s)	70.3		70.3	70.3	26.7	26.7

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Gap	Gap
70th %ile Green (s)	69.6		69.6	69.6	27.4	27.4
70th %ile Term Code	Coord		Coord	Coord	Gap	Gap
50th %ile Green (s)	77.6		77.6	77.6	19.4	19.4
50th %ile Term Code	Coord		Coord	Coord	Gap	Gap
30th %ile Green (s)	80.6		80.6	80.6	16.4	16.4
30th %ile Term Code	Coord		Coord	Coord	Gap	Gap
10th %ile Green (s)	84.9		84.9	84.9	12.1	12.1
10th %ile Term Code	Coord		Coord	Coord	Gap	Gap
Stops (vph)	262			320	179	27
Fuel Used(gal)	4			7	7	3
CO Emissions (g/hr)	275			477	497	179
NOx Emissions (g/hr)	53			93	97	35
VOC Emissions (g/hr)	64			111	115	42
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (ft)	84			52	139	1
Queue Length 95th (ft)	158			m79	m210	m46
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2449			1669	609	613
Starvation Cap Reductn	771			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.54			0.54	0.40	0.22

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 100 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 11.0 **Intersection LOS: B**
Intersection Capacity Utilization 69.7% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.

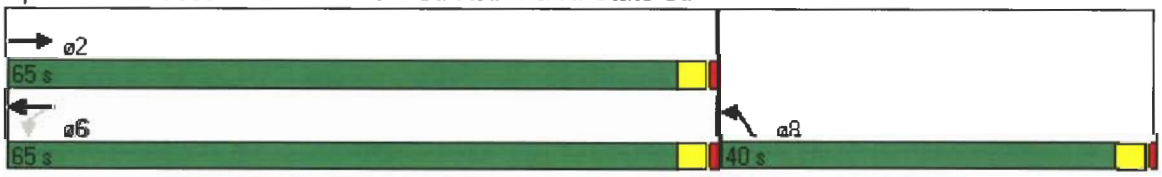
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.96	
Frt	0.999				0.877	
Flt Protected				0.999	0.996	
Satd. Flow (prot)	3451	0	0	3452	1535	0
Flt Permitted				0.931	0.996	
Satd. Flow (perm)	3451	0	0	3216	1531	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	1				61	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	765	5	18	976	5	55
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	850	6	20	1084	6	61
Lane Group Flow (vph)	856	0	0	1104	67	0
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phases	2		6	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	65.0	0.0	65.0	65.0	40.0	0.0
Total Split (%)	61.9%	0.0%	61.9%	61.9%	38.1%	0.0%
Maximum Green (s)	61.0		61.0	61.0	36.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	94.6			94.6	6.7	
Actuated g/C Ratio	0.90			0.90	0.06	
v/c Ratio	0.28			0.38	0.43	
Control Delay	1.2			1.1	22.8	
Queue Delay	0.0			0.2	0.0	
Total Delay	1.2			1.3	22.8	
LOS	A			A	C	
Approach Delay	1.2			1.3	22.8	
Approach LOS	A			A	C	
90th %ile Green (s)	88.5		88.5	88.5	8.5	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Gap	
70th %ile Green (s)	90.7		90.7	90.7	6.3	
70th %ile Term Code	Coord		Coord	Coord	Gap	
50th %ile Green (s)	92.2		92.2	92.2	4.8	
50th %ile Term Code	Coord		Coord	Coord	Gap	
30th %ile Green (s)	92.5		92.5	92.5	4.5	
30th %ile Term Code	Coord		Coord	Coord	Gap	
10th %ile Green (s)	101.0		101.0	101.0	0.0	
10th %ile Term Code	Coord		Coord	Coord	Skip	
Stops (vph)	88			94	18	
Fuel Used(gal)	6			2	1	
CO Emissions (g/hr)	427			110	88	
NOx Emissions (g/hr)	83			21	17	
VOC Emissions (g/hr)	99			25	20	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	24			24	4	
Queue Length 95th (ft)	50			38	46	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	3109			2897	580	
Starvation Cap Reductn	0			932	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.28			0.56	0.12	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 100 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay: 2.0 Intersection LOS: A
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.



Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30	30	30	30	30	30	30		30	30	
Trailing Detector (ft)	5	5	5	5	5	5	5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.96	0.98		0.96	1.00	0.96		0.99	1.00	
Frt			0.850			0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1881	1599	1787	1881	1599	1787	3174	0	1787	3543	0
Flt Permitted	0.155			0.572			0.148			0.325		
Satd. Flow (perm)	290	1881	1543	1058	1881	1538	277	3174	0	602	3543	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			86			133		193			5	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		338			1310			846			1141	
Travel Time (s)		7.7			29.8			19.2			25.9	
Volume (vph)	146	241	77	15	462	120	50	209	214	294	977	47
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	162	268	86	17	513	133	56	232	238	327	1086	52
Lane Group Flow (vph)	162	268	86	17	513	133	56	470	0	327	1138	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	8.0	20.0		8.0	22.0	
Total Split (s)	12.0	45.0	45.0	7.0	40.0	40.0	9.0	32.0	0.0	21.0	44.0	0.0
Total Split (%)	11.4%	42.9%	42.9%	6.7%	38.1%	38.1%	8.6%	30.5%	0.0%	20.0%	41.9%	0.0%
Maximum Green (s)	8.0	41.0	41.0	3.0	36.0	36.0	5.0	28.0		17.0	40.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	43.8	40.0	40.0	34.8	30.8	30.8	37.8	33.7		54.2	44.7	
Actuated g/C Ratio	0.42	0.38	0.38	0.33	0.29	0.29	0.36	0.32		0.52	0.43	
v/c Ratio	0.69	0.37	0.13	0.05	0.93	0.24	0.35	0.41		0.67	0.75	
Control Delay	35.1	25.1	5.3	17.1	54.4	4.9	23.2	18.5		23.6	30.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	35.1	25.1	5.3	17.1	54.4	4.9	23.2	18.5		23.6	30.9	
LOS	D	C	A	B	D	A	C	B		C	C	
Approach Delay		25.0			43.5			19.0			29.3	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		C			D			B			C	
90th %ile Green (s)	8.0	41.0	41.0	3.0	36.0	36.0	5.0	28.0		17.0	40.0	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	8.0	41.0	41.0	3.0	36.0	36.0	5.0	28.0		17.0	40.0	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	8.0	43.9	43.9	0.0	31.9	31.9	6.1	33.3		15.8	43.0	
50th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Coord		Gap	Coord	
30th %ile Green (s)	8.0	42.4	42.4	0.0	30.4	30.4	5.3	37.4		13.2	45.3	
30th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Coord		Gap	Coord	
10th %ile Green (s)	8.0	36.8	36.8	0.0	24.8	24.8	0.0	46.6		9.6	60.2	
10th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Skip	Coord		Gap	Coord	
Stops (vph)	88	167	12	9	411	12	34	197		174	836	
Fuel Used(gal)	2	3	0	0	16	2	1	5		5	20	
CO Emissions (g/hr)	134	195	25	26	1093	163	53	383		349	1410	
NOx Emissions (g/hr)	26	38	5	5	213	32	10	74		68	274	
VOC Emissions (g/hr)	31	45	6	6	253	38	12	89		81	327	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (ft)	68	122	0	6	303	5	19	74		125	347	
Queue Length 95th (ft)	#114	197	31	m11	m376	m22	44	131		206	458	
Internal Link Dist (ft)		258			1230			766			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	235	732	653	372	627	601	161	1149		514	1511	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.69	0.37	0.13	0.05	0.82	0.22	0.35	0.41		0.64	0.75	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 29.8 **Intersection LOS: C**
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 118: Jefferson St & Elm St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			1.00			0.95			0.96	
Frt		0.982			0.996			0.930			0.923	
Flt Protected	0.950			0.950				0.979			0.986	
Satd. Flow (prot)	1787	3462	0	1787	3549	0	0	1650	0	0	1644	0
Flt Permitted	0.175			0.100				0.732			0.799	
Satd. Flow (perm)	325	3462	0	188	3549	0	0	1216	0	0	1332	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			3			66			80	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1317			536	
Travel Time (s)		14.3			11.2			29.9			12.2	
Volume (vph)	70	877	116	200	865	23	192	20	230	55	29	110
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	78	974	129	222	961	26	213	22	256	61	32	122
Lane Group Flow (vph)	78	1103	0	222	987	0	0	491	0	0	215	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	9.0	40.0	0.0	16.0	47.0	0.0	49.0	49.0	0.0	49.0	49.0	0.0
Total Split (%)	8.6%	38.1%	0.0%	15.2%	44.8%	0.0%	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%
Maximum Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	49.2	43.0		57.8	50.3			41.2			41.2	
Actuated g/C Ratio	0.47	0.41		0.55	0.48			0.39			0.39	
v/c Ratio	0.33	0.77		0.79	0.58			0.95			0.38	
Control Delay	15.0	26.2		41.0	23.2			55.3			14.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	15.0	26.2		41.0	23.2			55.3			14.7	
LOS	B	C		D	C			E			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		25.4			26.4			55.3			14.7	
Approach LOS		C			C			E			B	
90th %ile Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
70th %ile Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
70th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
50th %ile Green (s)	5.2	36.0		12.2	43.0		44.8	44.8		44.8	44.8	
50th %ile Term Code	Max	Coord		Max	Coord		Gap	Gap		Gap	Gap	
30th %ile Green (s)	5.9	45.0		10.0	49.1		38.0	38.0		38.0	38.0	
30th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
10th %ile Green (s)	0.0	57.2		7.4	68.6		28.4	28.4		28.4	28.4	
10th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
Stops (vph)	31	693		118	635			354			81	
Fuel Used(gal)	1	14		4	17			11			2	
CO Emissions (g/hr)	51	978		301	1155			802			129	
NOx Emissions (g/hr)	10	190		59	225			156			25	
VOC Emissions (g/hr)	12	227		70	268			186			30	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	23	252		92	274			259			56	
Queue Length 95th (ft)	m42	#473		#205	345			#465			112	
Internal Link Dist (ft)		549			411			1237			456	
Turn Bay Length (ft)												
Base Capacity (vph)	239	1428		302	1703			570			628	
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	0.77		0.74	0.58			0.86			0.34	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 29.8 Intersection LOS: C
Intersection Capacity Utilization 92.1% ICU Level of Service F
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.

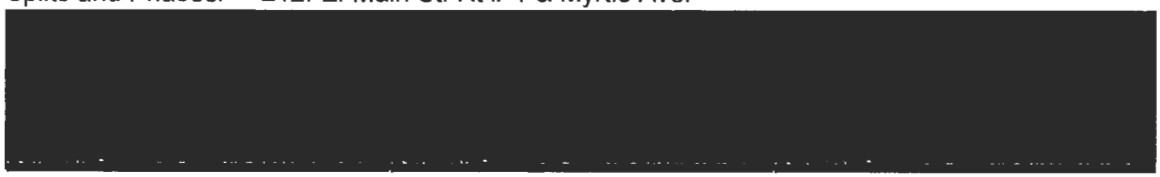
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	0.99			1.00	0.96	0.95
Frt	0.962					0.850
Flt Protected				0.993	0.950	
Satd. Flow (prot)	3417	0	0	3549	1787	1599
Flt Permitted				0.546	0.950	
Satd. Flow (perm)	3417	0	0	1951	1725	1525
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	102					146
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	887	302	160	1007	316	178
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	986	336	178	1119	351	198
Lane Group Flow (vph)	1322	0	0	1297	351	198
Turn Type			Perm			Perm
Protected Phases	2			6	8	
Permitted Phases			6			8
Detector Phases	2		6	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		21.0	21.0	21.0	21.0
Total Split (s)	75.0	0.0	75.0	75.0	30.0	30.0
Total Split (%)	71.4%	0.0%	71.4%	71.4%	28.6%	28.6%
Maximum Green (s)	71.0		71.0	71.0	26.0	26.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		C-Max	C-Max	None	None
Act Effct Green (s)	73.7			73.7	25.3	25.3
Actuated g/C Ratio	0.70			0.70	0.24	0.24
v/c Ratio	0.54			0.95	0.81	0.41
Control Delay	7.4			25.3	52.0	14.9
Queue Delay	0.2			0.0	0.0	0.0
Total Delay	7.6			25.3	52.0	14.9
LOS	A			C	D	B
Approach Delay	7.6			25.3	38.6	
Approach LOS	A			C	D	
90th %ile Green (s)	71.0		71.0	71.0	26.0	26.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Coord	Coord	Max	Max
70th %ile Green (s)	71.0		71.0	71.0	26.0	26.0
70th %ile Term Code	Coord		Coord	Coord	Max	Max
50th %ile Green (s)	71.0		71.0	71.0	26.0	26.0
50th %ile Term Code	Coord		Coord	Coord	Max	Max
30th %ile Green (s)	71.0		71.0	71.0	26.0	26.0
30th %ile Term Code	Coord		Coord	Coord	Max	Max
10th %ile Green (s)	79.6		79.6	79.6	17.4	17.4
10th %ile Term Code	Coord		Coord	Coord	Gap	Gap
Stops (vph)	514			735	228	92
Fuel Used(gal)	7			16	10	4
CO Emissions (g/hr)	489			1105	716	295
NOx Emissions (g/hr)	95			215	139	57
VOC Emissions (g/hr)	113			256	166	68
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (ft)	196			222	149	2
Queue Length 95th (ft)	262			m#593	m#305	m88
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2429			1370	460	501
Starvation Cap Reductn	308			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.62			0.95	0.76	0.40

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 100 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 20.2 **Intersection LOS: C**
Intersection Capacity Utilization 94.8% **ICU Level of Service F**
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.



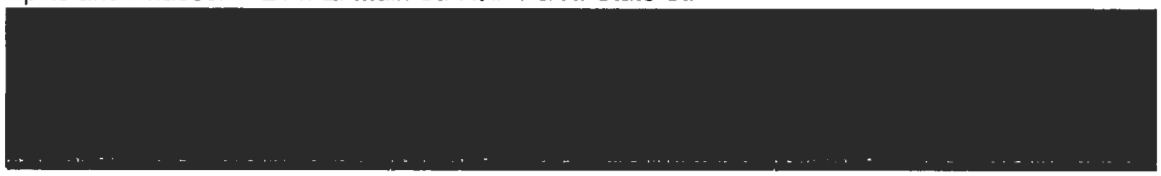
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.96	
Frt	0.999				0.880	
Flt Protected				0.999	0.995	
Satd. Flow (prot)	3450	0	0	3452	1527	0
Flt Permitted				0.912	0.995	
Satd. Flow (perm)	3450	0	0	3151	1521	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				89	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	1009	10	26	1389	10	80
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1121	11	29	1543	11	89
Lane Group Flow (vph)	1132	0	0	1572	100	0
Turn Type			Perm			
Protected Phases	2			6	8	
Permitted Phases			6			
Detector Phases	2		6	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		21.0	21.0	21.0	
Total Split (s)	75.0	0.0	75.0	75.0	30.0	0.0
Total Split (%)	71.4%	0.0%	71.4%	71.4%	28.6%	0.0%
Maximum Green (s)	71.0		71.0	71.0	26.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		C-Max	C-Max	None	
Act Effct Green (s)	94.0			94.0	7.3	
Actuated g/C Ratio	0.90			0.90	0.07	
v/c Ratio	0.37			0.56	0.53	
Control Delay	1.6			1.8	22.8	
Queue Delay	0.0			1.0	0.0	
Total Delay	1.6			2.8	22.8	
LOS	A			A	C	
Approach Delay	1.6			2.8	22.8	
Approach LOS	A			A	C	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Green (s)	86.8		86.8	86.8	10.2	
90th %ile Term Code	Coord		Coord	Coord	Gap	
70th %ile Green (s)	89.8		89.8	89.8	7.2	
70th %ile Term Code	Coord		Coord	Coord	Gap	
50th %ile Green (s)	91.8		91.8	91.8	5.2	
50th %ile Term Code	Coord		Coord	Coord	Gap	
30th %ile Green (s)	92.5		92.5	92.5	4.5	
30th %ile Term Code	Coord		Coord	Coord	Gap	
10th %ile Green (s)	101.0		101.0	101.0	0.0	
10th %ile Term Code	Coord		Coord	Coord	Skip	
Stops (vph)	142			214	23	
Fuel Used(gal)	8			3	2	
CO Emissions (g/hr)	580			201	131	
NOx Emissions (g/hr)	113			39	25	
VOC Emissions (g/hr)	134			47	30	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	38			54	7	
Queue Length 95th (ft)	86			m114	56	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	3088			2820	459	
Starvation Cap Reductn	0			892	0	
Spillback Cap Reductn	66			0	1	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.37			0.82	0.22	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 100 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 3.0 Intersection LOS: A
Intersection Capacity Utilization 74.9% **ICU Level of Service D**
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.



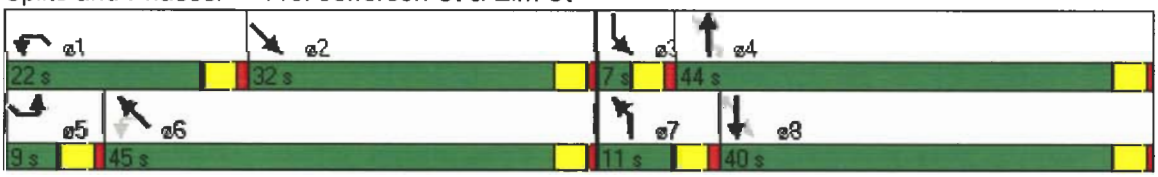
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0	0		0	0		0
Storage Lanes	1		1	1		1	1		0	1		0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0
Leading Detector (ft)	30	30	30	30	30	30	30	30		30	30	
Trailing Detector (ft)	5	5	5	5	5	5	5	5		5	5	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.96	0.98		0.96	1.00	0.96		0.99	1.00	
Frt			0.850			0.850		0.924			0.993	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1728	1818	1546	1728	1818	1546	1728	3068	0	1728	3425	0
Flt Permitted	0.155			0.552			0.148			0.325		
Satd. Flow (perm)	280	1818	1490	988	1818	1486	268	3068	0	582	3425	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			86			133		178			5	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		612			1310			767			1141	
Travel Time (s)		13.9			29.8			17.4			25.9	
Volume (vph)	146	241	77	15	462	120	50	209	214	294	977	47
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	162	268	86	17	513	133	56	232	238	327	1086	52
Lane Group Flow (vph)	162	268	86	17	513	133	56	470	0	327	1138	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phases	7	4	4	3	8	8	5	2		1	6	
Minimum Initial (s)	3.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	8.0	20.0		8.0	22.0	
Total Split (s)	11.0	44.0	44.0	7.0	40.0	40.0	9.0	32.0	0.0	22.0	45.0	0.0
Total Split (%)	10.5%	41.9%	41.9%	6.7%	38.1%	38.1%	8.6%	30.5%	0.0%	21.0%	42.9%	0.0%
Maximum Green (s)	7.0	40.0	40.0	3.0	36.0	36.0	5.0	28.0		18.0	41.0	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	43.6	39.8	39.8	35.6	31.6	31.6	37.4	33.2		54.4	44.9	
Actuated g/C Ratio	0.42	0.38	0.38	0.34	0.30	0.30	0.36	0.32		0.52	0.43	
v/c Ratio	0.76	0.39	0.14	0.05	0.94	0.25	0.36	0.43		0.68	0.78	
Control Delay	43.9	25.7	5.4	16.9	50.8	4.3	23.8	19.9		23.9	31.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	43.9	25.7	5.4	16.9	50.8	4.3	23.8	19.9		23.9	31.7	
LOS	D	C	A	B	D	A	C	B		C	C	
Approach Delay		28.0			40.6			20.3			29.9	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		C			D			C			C	
90th %ile Green (s)	7.0	40.0	40.0	3.0	36.0	36.0	5.0	28.0		18.0	41.0	
90th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
70th %ile Green (s)	7.0	40.0	40.0	3.0	36.0	36.0	5.0	28.0		18.0	41.0	
70th %ile Term Code	Max	Hold	Hold	Max	Max	Max	Max	Coord		Max	Coord	
50th %ile Green (s)	7.0	44.6	44.6	0.0	33.6	33.6	6.1	32.0		16.4	42.3	
50th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Coord		Gap	Coord	
30th %ile Green (s)	7.0	42.5	42.5	0.0	31.5	31.5	5.4	36.9		13.6	45.1	
30th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Gap	Coord		Gap	Coord	
10th %ile Green (s)	7.0	37.0	37.0	0.0	26.0	26.0	0.0	46.2		9.8	60.0	
10th %ile Term Code	Max	Hold	Hold	Skip	Gap	Gap	Skip	Coord		Gap	Coord	
Stops (vph)	87	171	12	8	410	15	34	212		174	843	
Fuel Used(gal)	2	3	1	0	15	2	1	5		5	20	
CO Emissions (g/hr)	173	235	36	25	1069	163	51	378		350	1424	
NOx Emissions (g/hr)	34	46	7	5	208	32	10	74		68	277	
VOC Emissions (g/hr)	40	54	8	6	248	38	12	88		81	330	
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0		0	0	
Queue Length 50th (ft)	68	121	0	5	316	6	19	81		128	357	
Queue Length 95th (ft)	#136	202	32	m7	m360	m16	43	137		204	#465	
Internal Link Dist (ft)		532			1230			687			1061	
Turn Bay Length (ft)	200			150								
Base Capacity (vph)	213	700	626	356	606	584	156	1092		509	1467	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.76	0.38	0.14	0.05	0.85	0.23	0.36	0.43		0.64	0.78	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:SETL and 6:NWTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 30.3 **Intersection LOS: C**
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 118: Jefferson St & Elm St



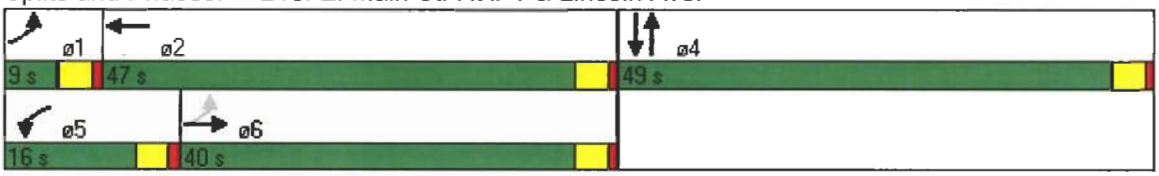
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.99			1.00			0.95			0.96	
Frt		0.982			0.996			0.930			0.923	
Flt Protected	0.950			0.950				0.979			0.986	
Satd. Flow (prot)	1728	3347	0	1728	3431	0	0	1595	0	0	1589	0
Flt Permitted	0.175			0.100				0.732			0.799	
Satd. Flow (perm)	314	3347	0	182	3431	0	0	1176	0	0	1288	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			3			66			80	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		629			491			1270			536	
Travel Time (s)		14.3			11.2			28.9			12.2	
Volume (vph)	70	877	116	200	865	23	192	20	230	55	29	110
Confl. Peds. (#/hr)	30		30	30		30	30		30	30		30
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
Adj. Flow (vph)	78	974	129	222	961	26	213	22	256	61	32	122
Lane Group Flow (vph)	78	1103	0	222	987	0	0	491	0	0	215	0
Turn Type	pm+pt			pm+pt			Perm			Perm		
Protected Phases	1	6		5	2			4			4	
Permitted Phases	6			2			4			4		
Detector Phases	1	6		5	2		4	4		4	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	9.0	21.0		9.0	21.0		21.0	21.0		21.0	21.0	
Total Split (s)	9.0	40.0	0.0	16.0	47.0	0.0	49.0	49.0	0.0	49.0	49.0	0.0
Total Split (%)	8.6%	38.1%	0.0%	15.2%	44.8%	0.0%	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%
Maximum Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	C-Max		None	C-Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		50			50		50	50		50	50	
Act Effct Green (s)	48.0	41.8		56.7	49.3			42.3			42.3	
Actuated g/C Ratio	0.46	0.40		0.54	0.47			0.40			0.40	
v/c Ratio	0.35	0.82		0.81	0.61			0.96			0.38	
Control Delay	15.6	29.5		44.8	24.3			57.1			14.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	15.6	29.5		44.8	24.3			57.1			14.6	
LOS	B	C		D	C			E			B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		28.6			28.1			57.1			14.6	
Approach LOS		C			C			E			B	
90th %ile Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
90th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
70th %ile Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
70th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
50th %ile Green (s)	5.0	36.0		12.0	43.0		45.0	45.0		45.0	45.0	
50th %ile Term Code	Max	Coord		Max	Coord		Max	Max		Max	Max	
30th %ile Green (s)	6.0	41.6		10.7	46.3		40.7	40.7		40.7	40.7	
30th %ile Term Code	Gap	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
10th %ile Green (s)	0.0	54.5		7.8	66.3		30.7	30.7		30.7	30.7	
10th %ile Term Code	Skip	Coord		Gap	Coord		Gap	Gap		Gap	Gap	
Stops (vph)	30	775		119	654			349			80	
Fuel Used(gal)	1	15		4	17			11			2	
CO Emissions (g/hr)	51	1057		312	1176			800			128	
NOx Emissions (g/hr)	10	206		61	229			156			25	
VOC Emissions (g/hr)	12	245		72	273			185			30	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (ft)	22	368		94	277			264			56	
Queue Length 95th (ft)	m42	#506		#214	352			#477			113	
Internal Link Dist (ft)		549			411			1190			456	
Turn Bay Length (ft)												
Base Capacity (vph)	227	1342		290	1613			552			609	
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	0.34	0.82		0.77	0.61			0.89			0.35	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 32.0 Intersection LOS: C
Intersection Capacity Utilization 92.1% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 210: E. Main St. Rt # 1 & Lincoln Ave.



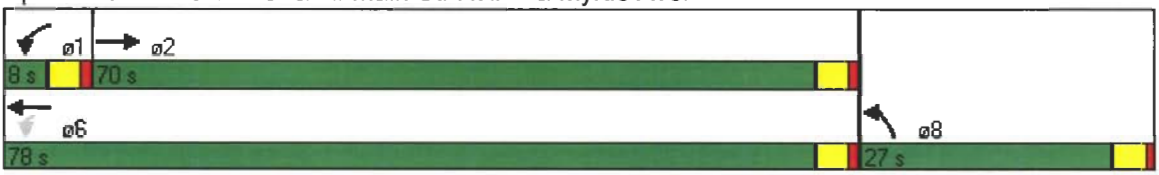
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	0.99			1.00	0.96	0.95
Frt	0.962					0.850
Flt Protected				0.988	0.950	
Satd. Flow (prot)	3302	0	0	3414	1728	1546
Flt Permitted				0.497	0.950	
Satd. Flow (perm)	3302	0	0	1716	1660	1468
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	88					180
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	254			629	979	
Travel Time (s)	5.8			14.3	22.3	
Volume (vph)	887	302	280	887	316	178
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	986	336	311	986	351	198
Lane Group Flow (vph)	1322	0	0	1297	351	198
Turn Type			pm+pt			Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			8
Detector Phases	2		1	6	8	8
Minimum Initial (s)	4.0		4.0	4.0	4.0	4.0
Minimum Split (s)	21.0		8.0	21.0	21.0	21.0
Total Split (s)	70.0	0.0	8.0	78.0	27.0	27.0
Total Split (%)	66.7%	0.0%	7.6%	74.3%	25.7%	25.7%
Maximum Green (s)	66.0		4.0	74.0	23.0	23.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes					
Vehicle Extension (s)	2.0		2.0	2.0	2.0	2.0
Recall Mode	C-Max		None	C-Max	None	None
Act Effct Green (s)	76.0			76.0	23.0	23.0
Actuated g/C Ratio	0.72			0.72	0.22	0.22
v/c Ratio	0.55			1.73dl	0.93	0.43
Control Delay	6.4			52.5	81.9	19.9
Queue Delay	0.1			0.0	0.0	0.0
Total Delay	6.5			52.5	81.9	19.9
LOS	A			D	F	B
Approach Delay	6.5			52.5	59.5	
Approach LOS	A			D	E	
90th %ile Green (s)	74.0		0.0	74.0	23.0	23.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Skip	Coord	Max	Max
70th %ile Green (s)	74.0		0.0	74.0	23.0	23.0
70th %ile Term Code	Coord		Skip	Coord	Max	Max
50th %ile Green (s)	74.0		0.0	74.0	23.0	23.0
50th %ile Term Code	Coord		Skip	Coord	Max	Max
30th %ile Green (s)	74.0		0.0	74.0	23.0	23.0
30th %ile Term Code	Coord		Skip	Coord	Max	Max
10th %ile Green (s)	79.0		0.0	79.0	18.0	18.0
10th %ile Term Code	Coord		Skip	Coord	Gap	Gap
Stops (vph)	478			804	273	101
Fuel Used(gal)	7			23	12	4
CO Emissions (g/hr)	458			1583	868	312
NOx Emissions (g/hr)	89			308	169	61
VOC Emissions (g/hr)	106			367	201	72
Dilemma Vehicles (#)	0			0	0	0
Queue Length 50th (ft)	181			~325	205	0
Queue Length 95th (ft)	106			m#635	m#401	m96
Internal Link Dist (ft)	174			549	899	
Turn Bay Length (ft)						
Base Capacity (vph)	2415			1242	395	474
Starvation Cap Reductn	266			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.62			1.04	0.89	0.42

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 100 (95%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 34.5 **Intersection LOS: C**
Intersection Capacity Utilization 95.0% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

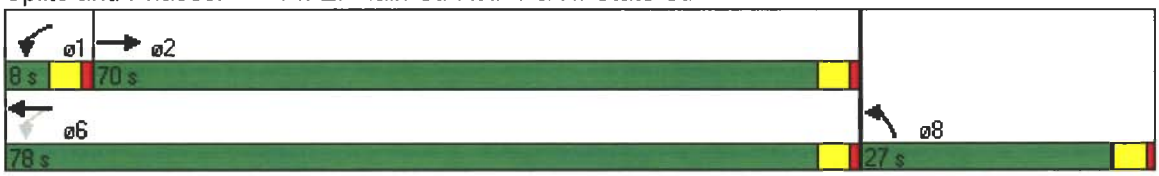
Splits and Phases: 212: E. Main St. Rt # 1 & Myrtle Ave.



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Leading Detector (ft)	50		50	50	50	
Trailing Detector (ft)	0		0	0	0	
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Ped Bike Factor	1.00			1.00	0.95	
Frt	0.999				0.880	
Flt Protected				0.999	0.995	
Satd. Flow (prot)	3450	0	0	3452	1521	0
Flt Permitted				0.912	0.995	
Satd. Flow (perm)	3450	0	0	3151	1514	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				89	
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04
Link Speed (mph)	30			30	30	
Link Distance (ft)	904			107	203	
Travel Time (s)	20.5			2.4	4.6	
Volume (vph)	1009	10	26	1269	10	80
Confl. Peds. (#/hr)		30	30		30	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1121	11	29	1410	11	89
Lane Group Flow (vph)	1132	0	0	1439	100	0
Turn Type			pm+pt			
Protected Phases	2		1	6	8	
Permitted Phases			6			
Detector Phases	2		1	6	8	
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	21.0		8.0	21.0	21.0	
Total Split (s)	70.0	0.0	8.0	78.0	27.0	0.0
Total Split (%)	66.7%	0.0%	7.6%	74.3%	25.7%	0.0%
Maximum Green (s)	66.0		4.0	74.0	23.0	
Yellow Time (s)	3.0		3.0	3.0	3.0	
All-Red Time (s)	1.0		1.0	1.0	1.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes					
Vehicle Extension (s)	2.0		2.0	2.0	2.0	
Recall Mode	C-Max		None	C-Max	None	
Act Effct Green (s)	94.0			94.0	7.3	
Actuated g/C Ratio	0.90			0.90	0.07	
v/c Ratio	0.37			0.51	0.53	
Control Delay	1.6			1.8	22.7	
Queue Delay	0.0			1.3	0.0	
Total Delay	1.6			3.1	22.7	
LOS	A			A	C	
Approach Delay	1.6			3.1	22.7	
Approach LOS	A			A	C	
90th %ile Green (s)	86.7		0.0	86.7	10.3	

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
90th %ile Term Code	Coord		Skip	Coord	Gap	
70th %ile Green (s)	89.8		0.0	89.8	7.2	
70th %ile Term Code	Coord		Skip	Coord	Gap	
50th %ile Green (s)	91.8		0.0	91.8	5.2	
50th %ile Term Code	Coord		Skip	Coord	Gap	
30th %ile Green (s)	92.5		0.0	92.5	4.5	
30th %ile Term Code	Coord		Skip	Coord	Gap	
10th %ile Green (s)	101.0		0.0	101.0	0.0	
10th %ile Term Code	Coord		Skip	Coord	Skip	
Stops (vph)	142			230	23	
Fuel Used(gal)	8			3	2	
CO Emissions (g/hr)	580			198	131	
NOx Emissions (g/hr)	113			38	25	
VOC Emissions (g/hr)	134			46	30	
Dilemma Vehicles (#)	0			0	0	
Queue Length 50th (ft)	38			54	7	
Queue Length 95th (ft)	87			m109	56	
Internal Link Dist (ft)	824			27	123	
Turn Bay Length (ft)						
Base Capacity (vph)	3087			2820	416	
Starvation Cap Reductn	0			1089	0	
Spillback Cap Reductn	47			0	1	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.37			0.83	0.24	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 3 (3%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay: 3.2 Intersection LOS: A
Intersection Capacity Utilization 71.6% ICU Level of Service C
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 214: E. Main St. Rt # 1 & N. State St.