



CONCEPTUAL DESIGN TRAFFIC ANALYSIS REPORT



INDEPENDENCE BOULEVARD EXTENSION

*RANDALL PARKWAY TO US 74 (MARTIN LUTHER KING JR. PARKWAY)
CITY OF WILMINGTON, NEW HANOVER COUNTY, NORTH CAROLINA
STATE TRANSPORTATION IMPROVEMENT PROGRAM PROJECT NO. U-4434*



NOVEMBER 2011

PREPARED FOR:
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS

PREPARED BY:
URS CORPORATION—NORTH CAROLINA





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1. Introduction

1.1. Introduction

In accordance with the National Environmental Policy Act of 1969 (NEPA), as amended, and the North Carolina [State] Environmental Policy Act (SEPA), an Environmental Impact Statement (EIS) is being prepared for the proposed Independence Boulevard Extension. The EIS is intended for use as an informational document by the decision-makers and the public. As such, it represents a disclosure of relevant environmental information concerning the proposed action.

1.2. Proposed Action

The North Carolina Department of Transportation (NCDOT) is proposing to construct a multi-lane facility on new location in New Hanover County, North Carolina. Located within the urban core of the City of Wilmington, the proposed 1.7-mile long project would be an extension of existing Independence Boulevard (SR 1209) from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (SR 2649). The proposed action is designated in the Draft 2012-2018 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434 and described as "Independence Boulevard Extension, Randall Parkway to Martin Luther King Jr., Parkway; multi-lanes on new location."

1.3. Purpose of Report

The purpose of this report is to evaluate the Independence Boulevard Extension intersection with Market Street (US 17 Business) to determine the viability of different intersection treatment prior to developing preliminary design plans for the project.



2. Traffic Capacity Analysis Results

2.1. Background

The purpose of this analysis is to determine the viability of different intersection treatment for the proposed crossing of Market Street and Independence Boulevard. The following options, in order of increasing ability to accommodate heavy traffic volumes, are included in the evaluation:

- Conventional at-grade intersection
- At-grade intersection with quadrant connections
- Grade separated crossing with quadrant connections
- Interchange
 - Tight Urban Diamond Interchange
 - Diverging Diamond Interchange

The traffic volumes utilized for the evaluation are based on the Build B traffic forecast for 2035, included in the *Traffic Forecast for NCDOT State TIP Project No. U-4434, Independence Boulevard Extension* (January 2010) prepared for the proposed project.¹ The traffic forecast did not include several of the minor roadway connections in the vicinity of the project; therefore some assumptions were needed to develop the analysis.

The traffic capacity analysis was completed utilizing the methodologies defined in the *Highway Capacity Manual, 2000 Edition* (HCM2000). The analysis of signalized and unsignalized intersections was completed in Synchro; version 7. The analysis was completed based on the guidelines set forth by NCDOT in the *NCDOT Congestion Management Capacity Analysis Guidelines – TIP Project Traffic Analyses* dated February 15, 2006.

In order to perform the analysis the following assumptions were made:

- Redistributed the volumes for each configuration based on the intersection/interchange configuration.
- Did not account for minor side street volumes. Assumed a volume of 10 vehicles per movement on the side streets and for movements that were allowed but currently do not have a forecast volume.

The following sections include a summary the evaluation for each intersection treatment described above.

2.2. Conventional at-grade intersection

The first intersection treatment evaluated was a conventional at-grade intersection. The intersection was analyzed assuming a four-lane, six-lane and eight-lane roadway for Independence Boulevard. In addition to the assumptions for the number of through lanes on Independence Boulevard it was also assumed that all four approaches would also include dual exclusive left turn and single exclusive right turn lanes, which is the maximum number typically used.

¹ North Carolina Department of Transportation. *Traffic Forecast for NCDOT State TIP Project No. U-4434, Independence Boulevard Extension*. Prepared by Martin/Alexiou/Bryson. January 2010.



The results of the analysis are included in Figure 1 and show that none of the conventional at-grade intersection options would operate at an acceptable LOS, with all but the eight-lane roadway operating at LOS F during both the AM and PM peak periods. The PM peak period for the eight-lane roadway option resulted in LOS E, which would still not meet the design LOS threshold of LOS D or better.

2.3. At-grade intersection with quadrant connections

The second intersection treatment studied was an at-grade intersection with quadrant connections. For this analysis a total of eight (8) configurations were evaluated that included two quadrant connections, one on the east side of Independence Boulevard and one on the west side of Independence Boulevard. All of the configurations were evaluated with both right-in/right-out intersections and with right-in/right-out with major street left turns at Independence Boulevard.

In order to perform the analysis the following assumptions were made:

- Independence Boulevard would include three through lanes in each direction, making it a six-lane typical section.
- Eliminated all single quadrant and two double quadrant configurations that would have required left turns from the quadrant roadway onto Independence Boulevard, thus requiring a signalized intersection on Independence Boulevard.
- Assumed 1/3 of the vehicles turning right would use the quadrant, leaving 2/3 of the right turn volume traveling through the main intersection if the quadrant roadway was located in advance of the main intersection.
- Assumed a 500 foot offset for the intersections to allow adequate spacing to connect quadrants.
- Quadrant roadway intersection at Independence Boulevard would be unsignalized with stop controlled entry to Independence. The stop controlled entrance will be used to determine if the free flow acceleration lanes along Independence are needed.
- Non-quadrant side streets would be widened to allow for two lanes to enter the signalized intersection.
- Quadrant roadways would have a maximum of three lanes approaching the signalized intersection.
- A maximum of dual lefts would be provided for left turn movements from Market Street.
- For quadrant roadways with a surface street opposite the connection at Market Street would operate with split phasing due to the likely traffic patterns at the intersection.

The results of the analysis are included in Figure 2 and show that all eight (8) of the configurations would include intersections that operate at LOS F in the AM peak hour, PM peak hour or both. Therefore, none of the at-grade intersections with quadrant connections would meet the design LOS threshold of LOS D or better.

2.4. Grade separated crossing with quadrant connections

Based on the results shown in Sections 2.2 and 2.3 it was concluded that at-grade intersection options would not be viable at the Market Street/Independence Boulevard intersection. Therefore, grade separated options were investigated including the evaluation of the eight (8) quadrant configurations in Section 2.3 with a grade separation of Independence Boulevard over Market Street. In addition to the eight (8) configurations, two (2) additional configurations were evaluated that included three-leg intersections at Market Street.



The results of the analysis are included in Figure 3 and show that seven (7) of the ten (10) configurations would operate at LOS D or better for both the AM and PM peak hours. The three (3) configurations that operated at LOS E allowed left turn movements from Independence Boulevard to the quadrant roadways.

2.5. Tight Urban Diamond Interchange

In addition to the grade separated quadrant options, interchange options were also evaluated. The first interchange option evaluated was a tight-urban diamond interchange (TUDI) with Independence Boulevard crossing over Market Street with the ramp terminal spacing being approximately 375 feet along Market Street.

The results of the analysis are included in Figure 3 and show that both intersections would operate at LOS D or better for both the AM and PM peak hours.

2.6. Diverging Diamond Interchange

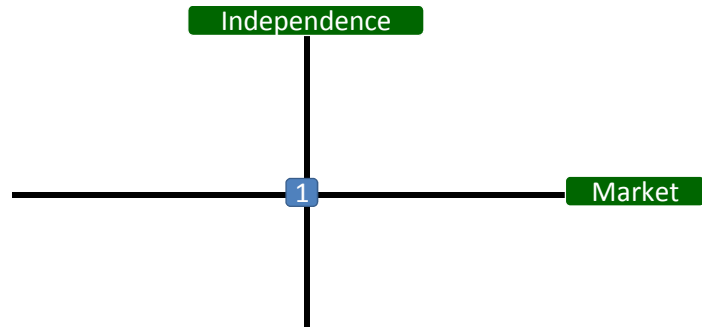
The second interchange option evaluated was for a Diverging Diamond Interchange (DDI). The analysis of a DDI in Synchro requires the analysis to be completed by splitting the signal into a series of three separate signals that are clustered together to make one signalized ramp terminal. Therefore, determining an overall LOS for the intersection is not possible; however, review of the results for each individual intersection shows that each operates at LOS C or better.



3. Traffic Simulation Results

Section 2 determined that only grade separated options are viable for the Market Street/Independence Boulevard intersection. Therefore, in order to compare the traffic operations of the viable alternatives the ten (10) quadrant configurations and two (2) interchange options were evaluated using simulation in SimTraffic. In order to develop the simulations, each of the options was developed to include identical geographic extents and simulated for each of the AM and PM peak hours. Each analysis was run utilizing five (5) random seeds with the results averaged to determine the average travel time for each option. The results of the analysis are included in Figure 4.

Conventional At-Grade Intersection



Conventional At-Grade - 4-Lane Typical Section

Intersection	LOS	V/C Ratio*	Delay
1	F (F)	1.42 (1.25)	134.9 (121.8)

Conventional At-Grade - 6-Lane Typical Section

Intersection	LOS	V/C Ratio*	Delay
1	F (F)	1.21 (1.09)	100.5 (82.6)

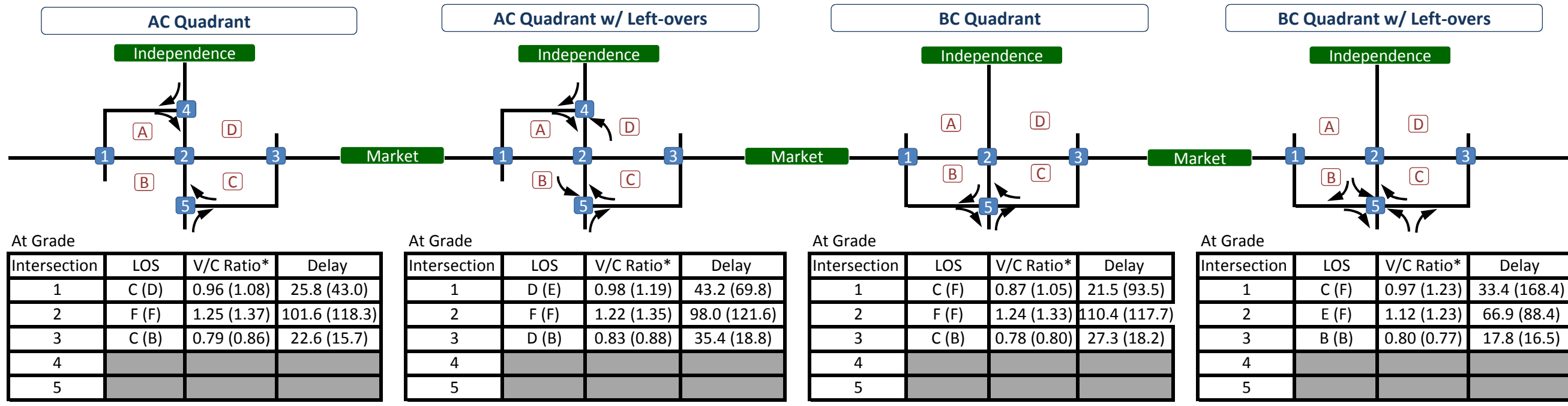
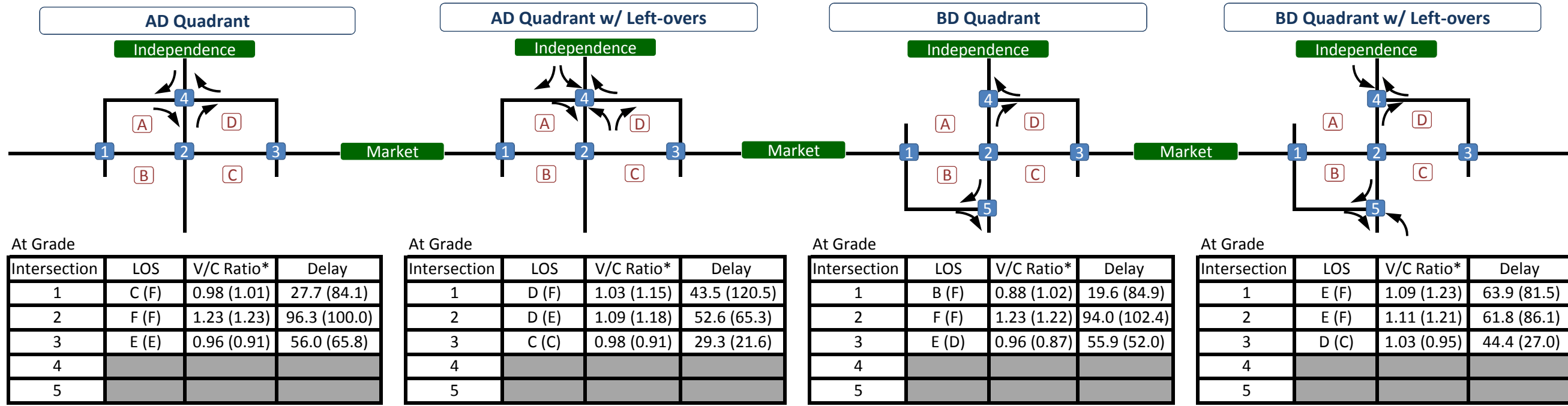
Conventional At-Grade - 8-Lane Typical Section

Intersection	LOS	V/C Ratio*	Delay
1	F (E)	1.15 (1.05)	88.6 (68.2)

* - Denotes V/C ratio for the worst movement

Independence Boulevard Extension (U-4434) - Conceptual Traffic Capacity Analysis Results

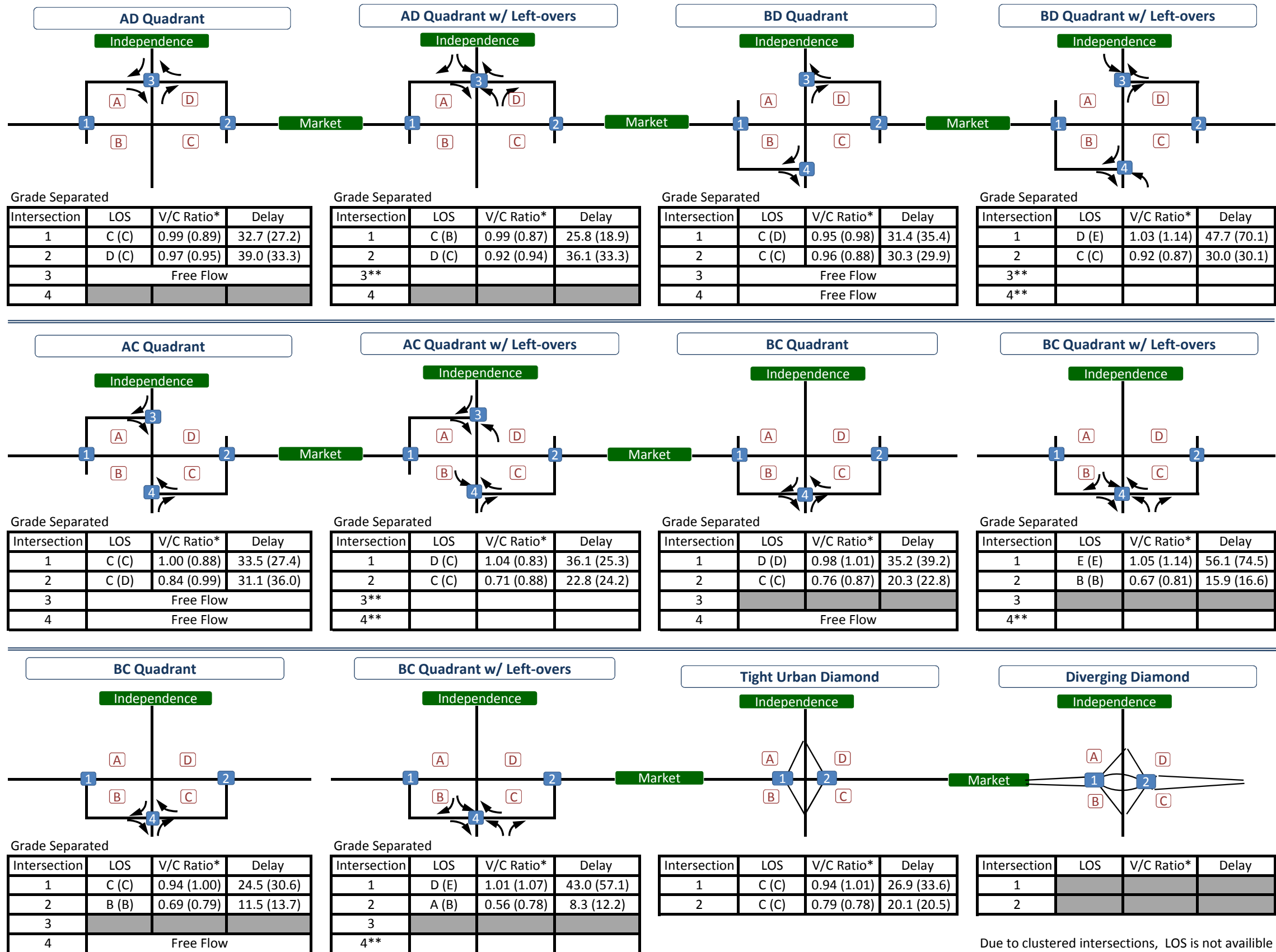
Figure 1 - Conventional At-Grade Intersection Results



* - Denotes V/C ratio for the worst movement

Independence Boulevard Extension (U-4434) - Conceptual Traffic Capacity Analysis

Figure 2 - At-Grade Quadrant Intersection Conceptual Traffic Capacity Analysis Results



* - Denotes V/C ratio for the worst movement

** - Denotes LOS not available due intersection sign configurations not being allowed in HCM analysis

Independence Boulevard Extension (U-4434) - Conceptual Traffic Capacity Analysis

Figure 3 - Grade Separated Quadrant Interchange Conceptual Traffic Capacity Analysis Results

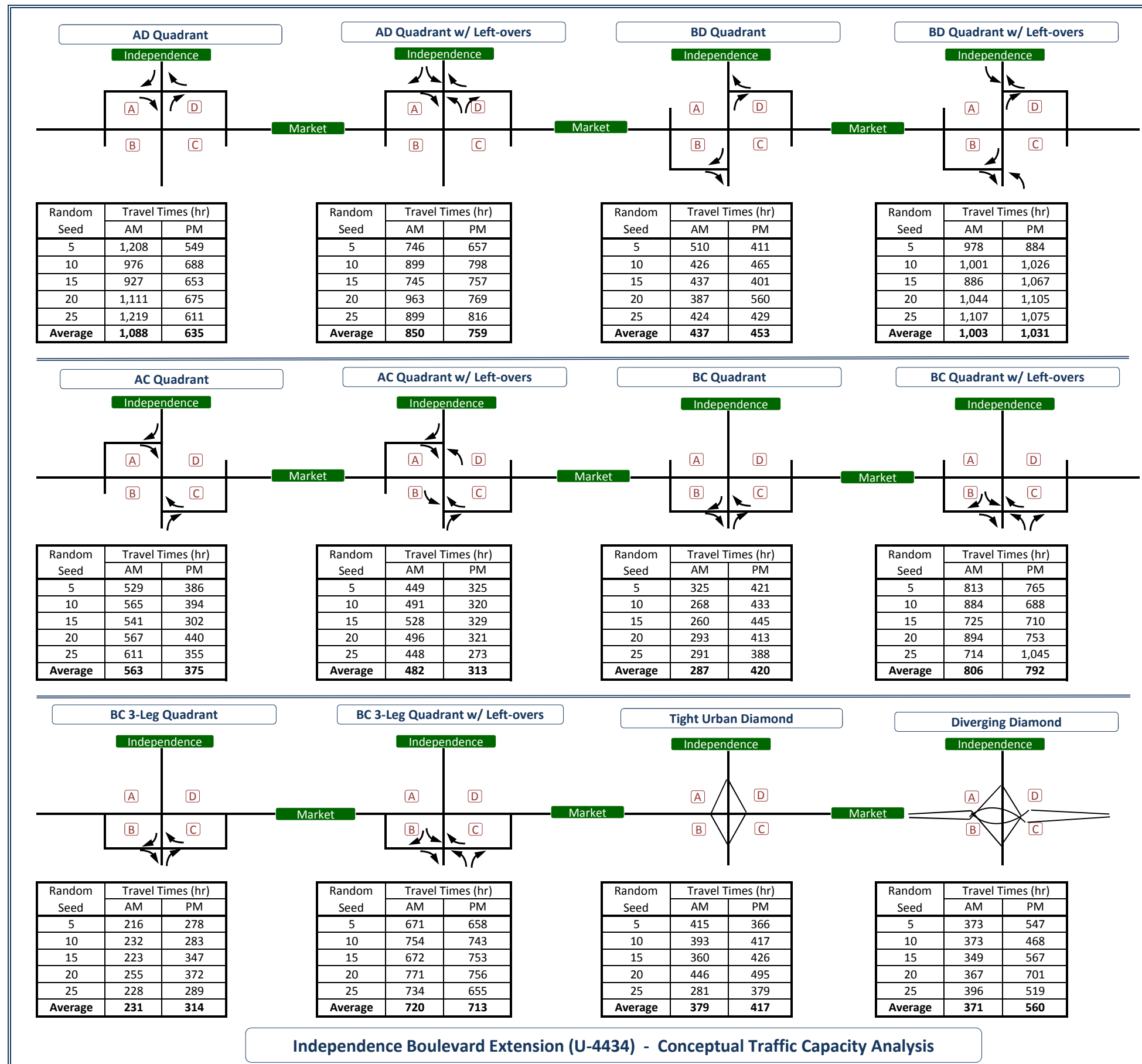


Figure 4 - Interchange Conceptual Travel Time Results

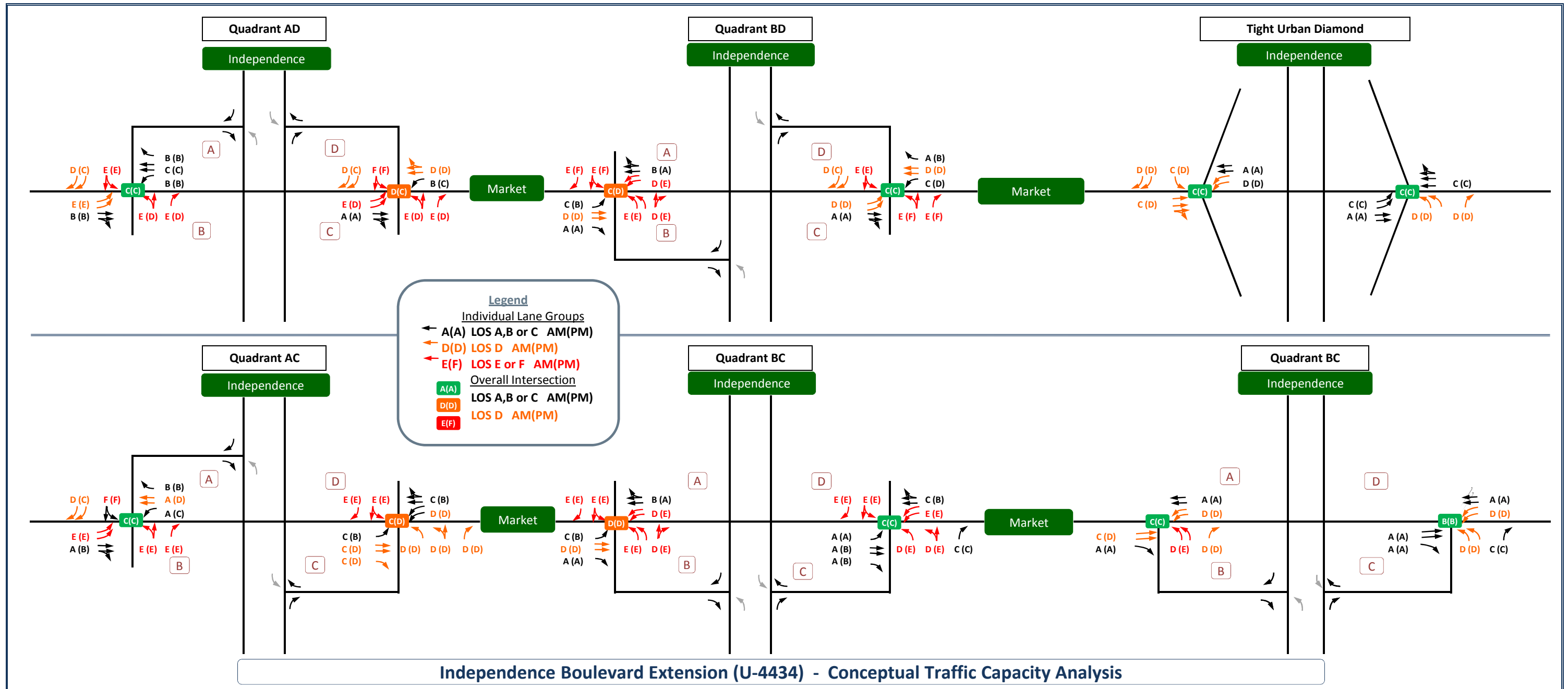


Figure 5 - Conceptual Traffic Capacity Analysis Lane Group Level of Service (LOS) Results

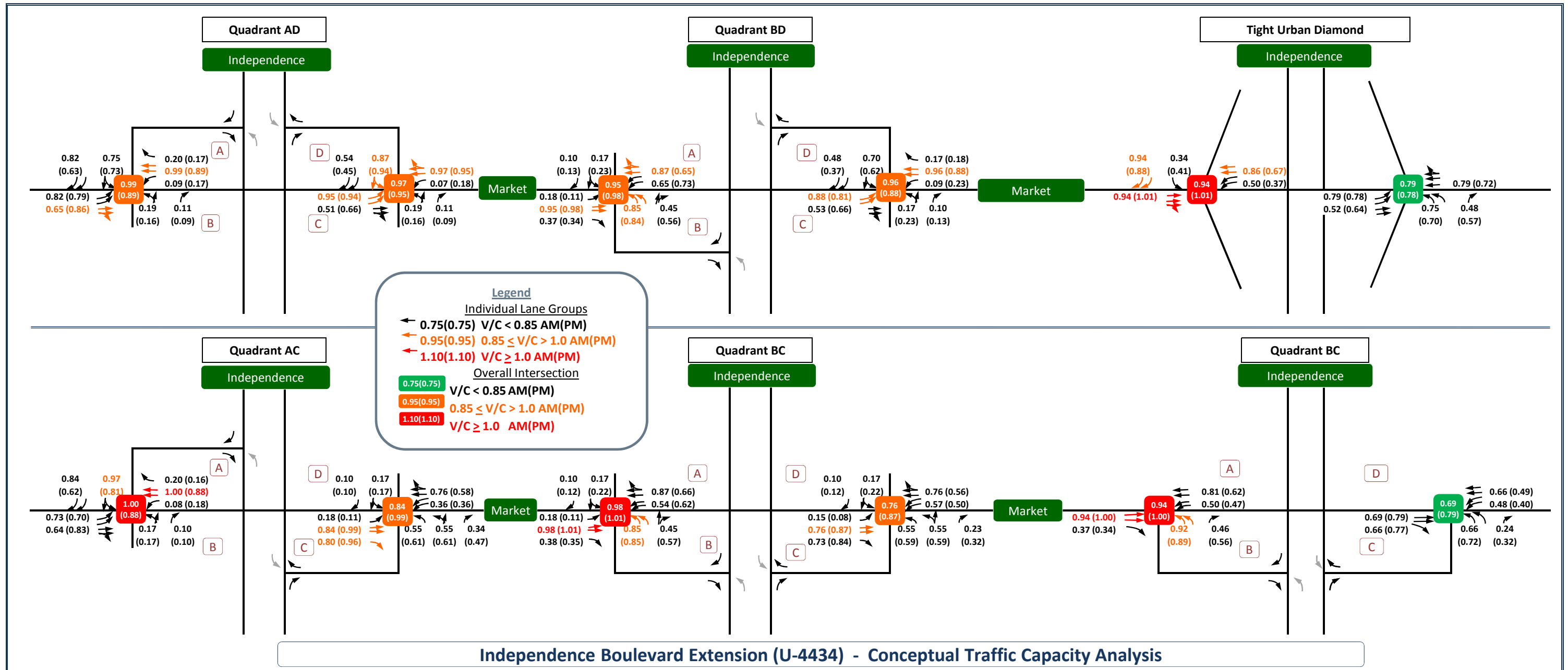
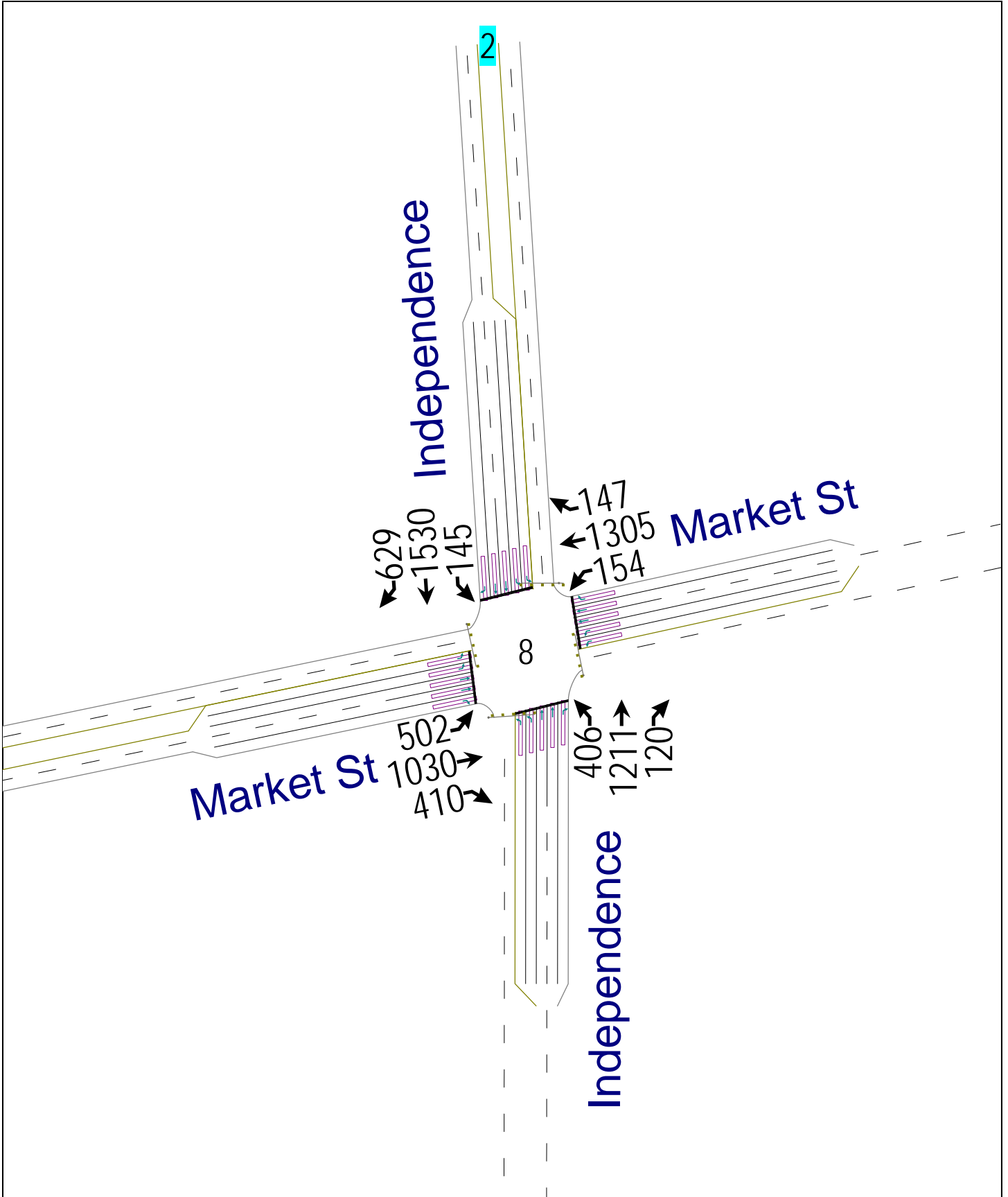


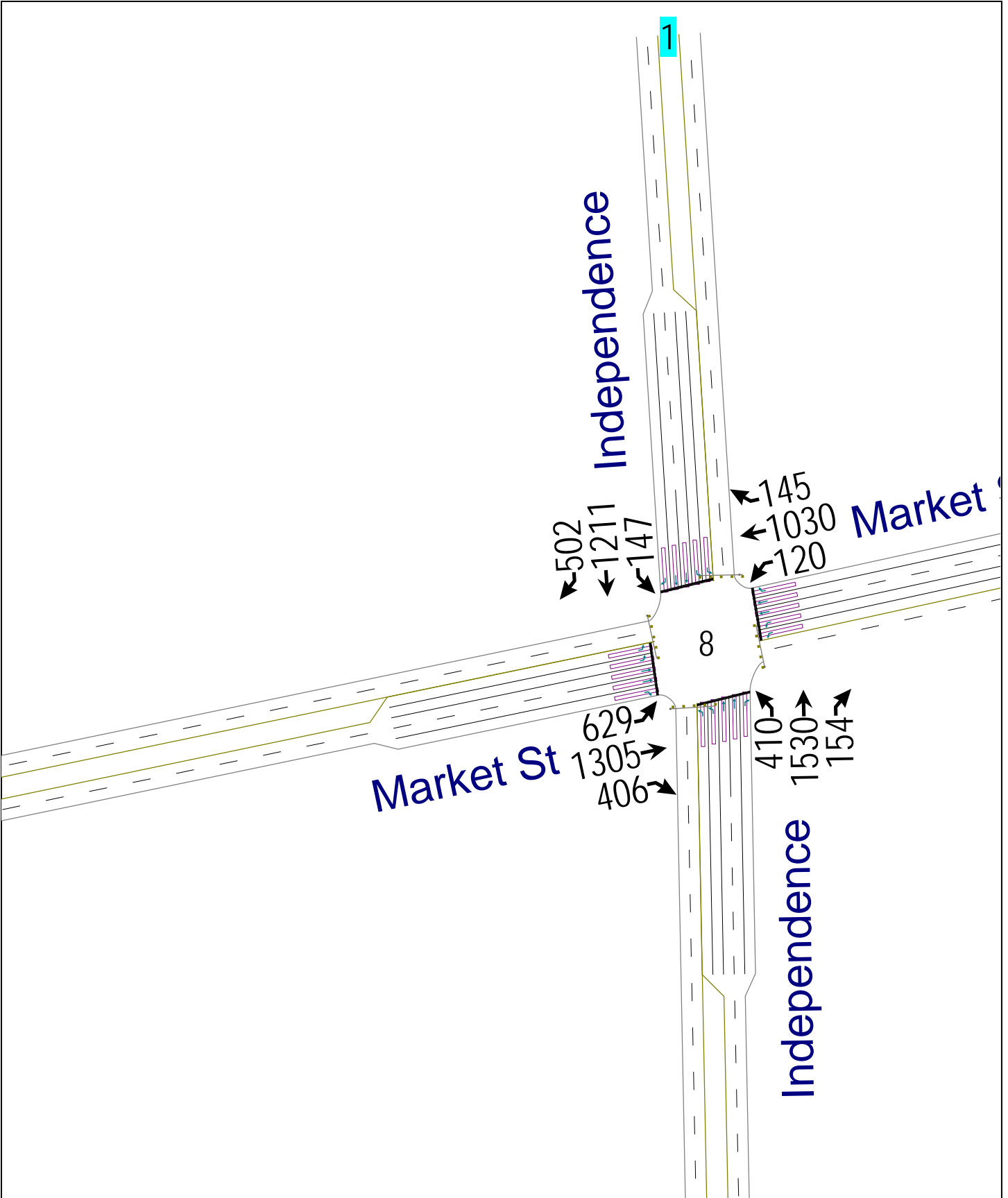
Figure 6 - Conceptual Traffic Capacity Analysis Lane Group Volume to Capacity Ratio Results



Appendix A: Conventional At-Grade Intersection Results

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Lanes, Volumes, Timings
8: Market St & Montgomery Ave

11/2/2011



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1030	410	154	1305	147	406	1211	120	145	1530	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	3438	1538	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	3438	1538	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			3523			684	
Travel Time (s)		48.3			91.0			68.6			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1144	456	171	1450	163	451	1346	133	161	1700	699
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	28.0	74.0	24.0	16.0	62.0	14.0	24.0	76.0	16.0	14.0	66.0	28.0
Total Split (%)	15.6%	41.1%	13.3%	8.9%	34.4%	7.8%	13.3%	42.2%	8.9%	7.8%	36.7%	15.6%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	None	None	None	Min	None
Act Effect Green (s)	23.0	69.0	88.0	11.0	57.0	66.0	19.0	71.0	82.0	9.0	61.0	84.0
Actuated g/C Ratio	0.13	0.38	0.49	0.06	0.32	0.37	0.11	0.39	0.46	0.05	0.34	0.47
v/c Ratio	1.27	0.84	0.59	0.81	1.29	0.28	1.28	0.99	0.19	0.94	1.42	0.95
Control Delay	197.4	57.6	29.2	110.7	186.1	27.9	205.7	76.1	20.9	136.0	235.0	50.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	197.4	57.6	29.2	110.7	186.1	27.9	205.7	76.1	20.9	136.0	235.0	50.4
LOS	F	E	C	F	F	C	F	E	C	F	F	D

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

11/2/2011

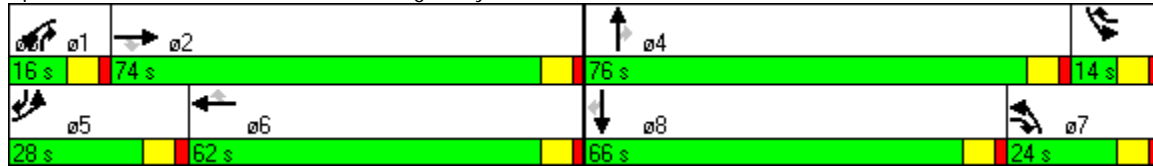


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		87.7			164.4			102.6			178.4	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~426	648	289	105	~1144	95	~346	833	74	100	~1415	530
Queue Length 95th (ft)	#554	745	383	#170	#1282	141	#466	#998	114	#180	#1548	#808
Internal Link Dist (ft)		2397			4593			3443			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	439	1357	774	210	1121	580	352	1356	701	172	1199	739
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.27	0.84	0.59	0.81	1.29	0.28	1.28	0.99	0.19	0.94	1.42	0.95

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Natural Cycle: 180
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.42
 Intersection Signal Delay: 134.9
 Intersection LOS: F
 Intersection Capacity Utilization 120.9%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 8: Market St & Montgomery Ave



Lanes, Volumes, Timings
8: Market St & Montgomery Ave

11/2/2011



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕	↖	↖↗	↕	↖	↖↗	↕	↖	↖↗	↕	↖
Volume (vph)	629	1305	406	120	1030	145	410	1530	154	147	1211	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	3438	1538	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	3438	1538	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			1534			684	
Travel Time (s)		48.3			91.0			29.9			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1450	451	133	1144	161	456	1700	171	163	1346	558
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	35.0	76.0	26.0	14.0	55.0	14.0	26.0	76.0	14.0	14.0	64.0	35.0
Total Split (%)	19.4%	42.2%	14.4%	7.8%	30.6%	7.8%	14.4%	42.2%	7.8%	7.8%	35.6%	19.4%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Min	None	None	None	None	None	Min	None
Act Effect Green (s)	30.0	71.0	97.0	9.0	50.0	64.0	21.0	71.0	85.0	9.0	59.0	94.0
Actuated g/C Ratio	0.17	0.39	0.54	0.05	0.28	0.36	0.12	0.39	0.47	0.05	0.33	0.52
v/c Ratio	1.22	1.04	0.53	0.77	1.16	0.29	1.17	1.25	0.24	0.95	1.16	0.67
Control Delay	173.9	86.8	29.6	111.6	140.1	43.4	166.3	164.7	29.3	138.5	134.0	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.9	86.8	29.6	111.6	140.1	43.4	166.3	164.7	29.3	138.5	134.0	36.8
LOS	F	F	C	F	F	D	F	F	C	F	F	D

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

11/2/2011

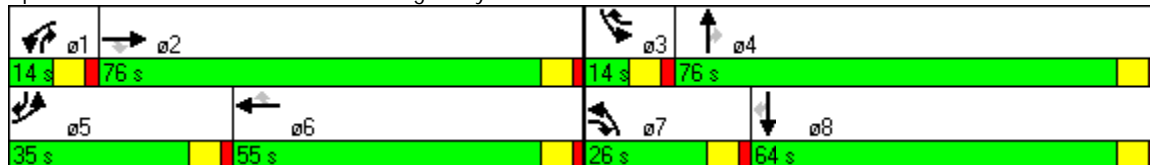


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		100.3			126.6			155.1			108.1	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~520	~967	337	81	~839	137	~329	~1315	119	101	~985	479
Queue Length 95th (ft)	#652	#1105	446	#138	#981	205	#450	#1447	176	#182	#1124	628
Internal Link Dist (ft)		2397			4593			1454			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	572	1396	853	172	983	563	389	1356	726	172	1160	827
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	1.04	0.53	0.77	1.16	0.29	1.17	1.25	0.24	0.95	1.16	0.67

Intersection Summary

Area Type:	Other
Cycle Length:	180
Actuated Cycle Length:	180
Offset:	0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle:	180
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.25
Intersection Signal Delay:	121.8
Intersection LOS:	F
Intersection Capacity Utilization	111.2%
ICU Level of Service	H
Analysis Period (min)	15
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 8: Market St & Montgomery Ave



Lanes, Volumes, Timings
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↑↑	↗	↖↖	↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑↑	↗
Volume (vph)	502	1030	410	154	1305	147	406	1211	120	145	1530	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	4940	1538	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	4940	1538	3433	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			3523			684	
Travel Time (s)		48.3			91.0			68.6			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1144	456	171	1450	163	451	1346	133	161	1700	699
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	29.0	76.0	24.0	18.0	65.0	15.0	24.0	61.0	18.0	15.0	52.0	29.0
Total Split (%)	17.1%	44.7%	14.1%	10.6%	38.2%	8.8%	14.1%	35.9%	10.6%	8.8%	30.6%	17.1%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	None	None	None	Min	None
Act Effect Green (s)	24.0	71.2	90.2	12.8	60.0	72.0	19.0	54.0	66.8	12.0	47.0	71.0
Actuated g/C Ratio	0.14	0.42	0.53	0.08	0.35	0.42	0.11	0.32	0.39	0.07	0.28	0.42
v/c Ratio	1.15	0.77	0.54	0.66	1.16	0.24	1.21	0.86	0.22	0.66	1.21	1.06
Control Delay	150.8	46.8	20.9	89.3	129.5	19.3	176.4	60.7	23.7	90.6	151.6	81.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	150.8	46.8	20.9	89.3	129.5	19.3	176.4	60.7	23.7	90.6	151.6	81.5
LOS	F	D	C	F	F	B	F	E	C	F	F	F

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

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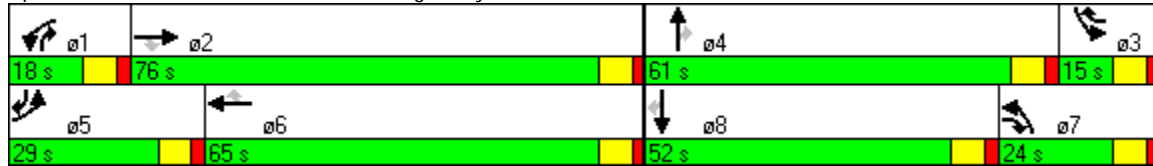


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		68.2			115.6			85.2			128.6	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	~375	574	227	97	~1002	76	~314	509	76	93	~842	~586
Queue Length 95th (ft)	#500	665	304	141	#1140	115	#433	570	118	#154	#936	#837
Internal Link Dist (ft)		2397			4593			3443			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	485	1482	840	263	1249	671	373	1627	606	243	1406	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	0.77	0.54	0.65	1.16	0.24	1.21	0.83	0.22	0.66	1.21	1.06

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Natural Cycle: 170
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 100.5
 Intersection LOS: F
 Intersection Capacity Utilization 108.2%
 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.

Splits and Phases: 8: Market St & Montgomery Ave



Lanes, Volumes, Timings
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↗↗	↖	↖↖	↗↗	↖	↖↖	↗↗↗	↖	↖↖	↗↗↗	↖
Volume (vph)	629	1305	406	120	1030	145	410	1530	154	147	1211	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	4940	1538	3433	5085	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	4940	1538	3433	5085	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			1534			684	
Travel Time (s)		48.3			91.0			29.9			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1450	451	133	1144	161	456	1700	171	163	1346	558
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	35.0	76.0	25.0	14.0	55.0	14.0	25.0	56.0	14.0	14.0	45.0	35.0
Total Split (%)	21.9%	47.5%	15.6%	8.8%	34.4%	8.8%	15.6%	35.0%	8.8%	8.8%	28.1%	21.9%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Min	None	None	None	None	None	Min	None
Act Effect Green (s)	30.0	71.0	96.0	9.0	50.0	64.0	20.0	51.0	65.0	9.0	40.0	75.0
Actuated g/C Ratio	0.19	0.44	0.60	0.06	0.31	0.40	0.12	0.32	0.41	0.06	0.25	0.47
v/c Ratio	1.09	0.92	0.47	0.69	1.03	0.25	1.09	1.08	0.27	0.84	1.06	0.75
Control Delay	119.8	52.7	20.0	92.5	89.1	33.4	134.2	98.1	33.3	108.0	98.7	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.8	52.7	20.0	92.5	89.1	33.4	134.2	98.1	33.3	108.0	98.7	42.7
LOS	F	D	B	F	F	C	F	F	C	F	F	D

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		65.1			83.2			100.4			84.3	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	~421	745	254	71	~674	112	~276	~724	119	88	~564	473
Queue Length 95th (ft)	#551	#860	344	#116	#814	172	#393	#819	181	#156	#661	634
Internal Link Dist (ft)		2397			4593			1454			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	644	1570	950	193	1106	633	417	1575	625	193	1271	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.09	0.92	0.47	0.69	1.03	0.25	1.09	1.08	0.27	0.84	1.06	0.75

Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 160
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 82.6
 Intersection LOS: F
 Intersection Capacity Utilization 98.5%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 8: Market St & Montgomery Ave



Lanes, Volumes, Timings
8: Market St & Montgomery Ave

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1030	410	154	1305	147	406	1211	120	145	1530	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	6225	1538	3433	6408	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	6225	1538	3433	6408	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			3523			684	
Travel Time (s)		48.3			91.0			68.6			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1144	456	171	1450	163	451	1346	133	161	1700	699
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	31.0	81.0	25.0	19.0	69.0	17.0	25.0	53.0	19.0	17.0	45.0	31.0
Total Split (%)	18.2%	47.6%	14.7%	11.2%	40.6%	10.0%	14.7%	31.2%	11.2%	10.0%	26.5%	18.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	None	None	None	Min	None
Act Effect Green (s)	26.0	76.4	96.4	13.6	64.0	78.4	20.0	45.6	59.2	14.4	40.0	66.0
Actuated g/C Ratio	0.15	0.45	0.57	0.08	0.38	0.46	0.12	0.27	0.35	0.08	0.24	0.39
v/c Ratio	1.06	0.72	0.51	0.62	1.09	0.22	1.15	0.81	0.25	0.55	1.13	1.14
Control Delay	123.1	41.4	16.2	86.1	101.4	15.6	156.1	62.3	27.1	83.3	123.4	112.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.1	41.4	16.2	86.1	101.4	15.6	156.1	62.3	27.1	83.3	123.4	112.4
LOS	F	D	B	F	F	B	F	E	C	F	F	F

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

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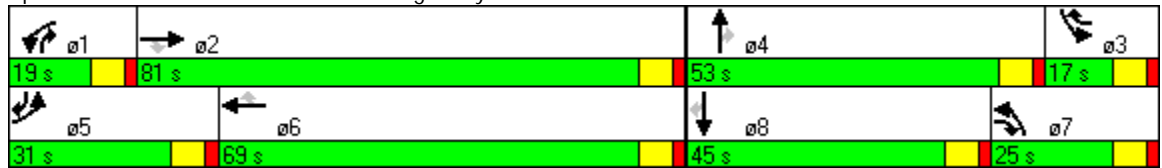


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		57.2			92.1			81.8			117.9	
Approach LOS		E			F			F			F	
Queue Length 50th (ft)	~351	544	196	96	~951	64	~303	406	81	91	~634	~617
Queue Length 95th (ft)	#476	629	262	140	#1090	99	#421	447	126	134	#708	#868
Internal Link Dist (ft)		2397			4593			3443			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	525	1590	898	283	1332	730	392	1758	539	291	1508	615
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.72	0.51	0.60	1.09	0.22	1.15	0.77	0.25	0.55	1.13	1.14

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Natural Cycle: 160
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 88.6
 Intersection LOS: F
 Intersection Capacity Utilization 100.8%
 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.

Splits and Phases: 8: Market St & Montgomery Ave



Lanes, Volumes, Timings
8: Market St & Montgomery Ave

11/2/2011



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	629	1305	406	120	1030	145	410	1530	154	147	1211	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	300		300	300		300	300		300	300		300
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3335	6225	1538	3433	6408	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3335	6225	1538	3433	6408	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2477			4673			1534			684	
Travel Time (s)		48.3			91.0			29.9			13.3	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1450	451	133	1144	161	456	1700	171	163	1346	558
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2	7	1	6	3	7	4	1	3	8	5
Permitted Phases			2			6			4		8	8
Detector Phase	5	2	7	1	6	3	7	4	1	3	8	5
Switch Phase												
Minimum Initial (s)	7.0	10.0	7.0	7.0	10.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	17.0	14.0	14.0	17.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	31.0	62.0	23.0	14.0	45.0	14.0	23.0	40.0	14.0	14.0	31.0	31.0
Total Split (%)	23.8%	47.7%	17.7%	10.8%	34.6%	10.8%	17.7%	30.8%	10.8%	10.8%	23.8%	23.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Min	None	None	None	None	None	Min	None
Act Effect Green (s)	26.0	57.0	80.0	9.0	40.0	54.0	18.0	35.0	49.0	9.0	26.0	57.0
Actuated g/C Ratio	0.20	0.44	0.62	0.07	0.31	0.42	0.14	0.27	0.38	0.07	0.20	0.44
v/c Ratio	1.02	0.93	0.46	0.56	1.05	0.24	0.99	1.01	0.29	0.68	1.05	0.80
Control Delay	89.9	46.9	15.4	68.1	85.0	26.0	94.5	72.5	30.2	74.3	89.1	42.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.9	46.9	15.4	68.1	85.0	26.0	94.5	72.5	30.2	74.3	89.1	42.2
LOS	F	D	B	E	F	C	F	E	C	E	F	D

Lanes, Volumes, Timings
 8: Market St & Montgomery Ave

11/2/2011

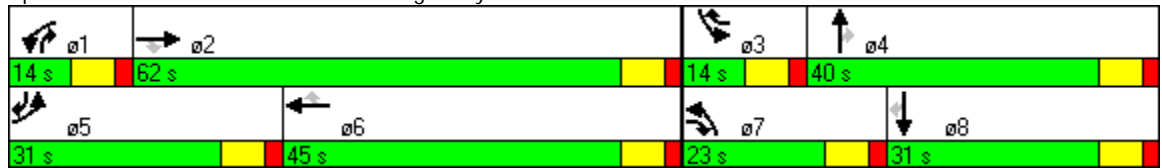


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		53.0			76.8			73.7			75.3	
Approach LOS		D			E			E			E	
Queue Length 50th (ft)	~321	601	193	57	~552	87	200	~428	100	70	~359	401
Queue Length 95th (ft)	#443	#761	274	92	#689	140	#312	#515	160	#115	#436	564
Internal Link Dist (ft)		2397			4593			1454			604	
Turn Bay Length (ft)	300		300	300		300	300		300	300		300
Base Capacity (vph)	687	1552	974	238	1089	658	462	1676	580	238	1282	694
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.93	0.46	0.56	1.05	0.24	0.99	1.01	0.29	0.68	1.05	0.80

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 68.2
 Intersection LOS: E
 Intersection Capacity Utilization 92.3%
 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.

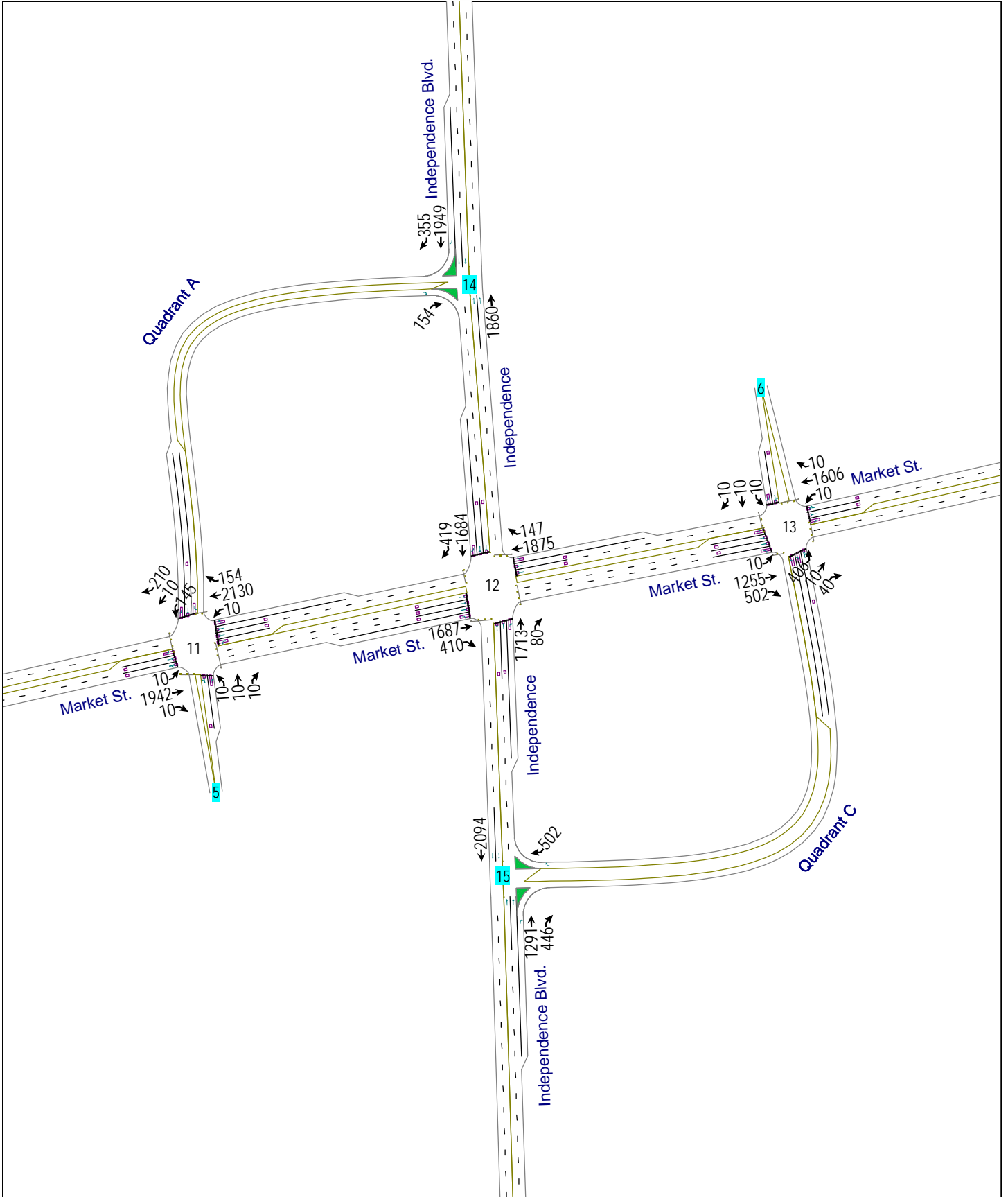
Splits and Phases: 8: Market St & Montgomery Ave





Appendix B: At-grade Quadrant Results

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AC AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑	↑		↑	↑	↑	↑	↑
Volume (vph)	10	1942	10	10	2130	154	10	10	10	145	10	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		250	0		100	300		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.042			0.042				0.976		0.950		
Satd. Flow (perm)	78	3536	0	78	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			274			1119	
Travel Time (s)		17.5			9.8			6.2			25.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	11	2367	171	0	22	11	161	11	233
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		pm+ov	Split		Perm	Split		Perm
Protected Phases		2			6	4	8	8		4	4	
Permitted Phases		2			6	6				4	4	
Detector Phase		2	2		6	6	4	8	8	8	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	96.0	96.0	0.0	96.0	96.0	29.0	15.0	15.0	15.0	29.0	29.0	29.0
Total Split (%)	68.6%	68.6%	0.0%	68.6%	68.6%	20.7%	10.7%	10.7%	10.7%	20.7%	20.7%	20.7%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	97.8	97.8		97.8	97.8	128.2		9.4	9.4	23.4	23.4	23.4
Actuated g/C Ratio	0.70	0.70		0.70	0.70	0.92		0.07	0.07	0.17	0.17	0.17
v/c Ratio	0.20	0.88		0.20	0.96	0.12		0.18	0.10	0.54	0.04	0.88
Control Delay	20.8	23.5		6.3	14.9	0.6		65.0	63.4	60.9	48.9	88.7
Queue Delay	0.0	0.2		0.0	5.4	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	23.7		6.3	20.3	0.6		65.0	63.4	60.9	48.9	88.7
LOS	C	C		A	C	A		E	E	E	D	F
Approach Delay		23.7			19.0			64.5			76.6	
Approach LOS		C			B			E			E	
Queue Length 50th (ft)	4	864		2	~390	9		19	10	135	8	209
Queue Length 95th (ft)	19	#1040		m2	m213	m8		49	31	212	27	#356
Internal Link Dist (ft)		945			493			194			1039	
Turn Bay Length (ft)	100			100		250			100	300		300
Base Capacity (vph)	55	2469		55	2472	1445		130	113	303	319	271
Starvation Cap Reductn	0	0		0	98	0		0	0	0	0	0
Spillback Cap Reductn	0	30		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	0.20	0.89		0.20	1.00	0.12		0.17	0.10	0.53	0.03	0.86

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 120 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 25.8
 Intersection LOS: C
 Intersection Capacity Utilization 90.2%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑	↑↑		↑	↑↑	↑↑	↑	↑↑
Volume (vph)	10	2340	10	10	1775	120	10	10	10	147	10	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		250	0		100	300		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.068			0.068				0.976		0.950		
Satd. Flow (perm)	127	3536	0	127	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			250			1119	
Travel Time (s)		17.5			9.8			5.7			25.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	11	1972	133	0	22	11	163	11	186
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		pm-ov	Split		Perm		Split	Perm
Protected Phases		2			6	4	8	8		8	4	4
Permitted Phases	2			6		6				8		4
Detector Phase	2	2		6	6	4	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	61.0	61.0	0.0	61.0	61.0	15.0	14.0	14.0	14.0	15.0	15.0	15.0
Total Split (%)	67.8%	67.8%	0.0%	67.8%	67.8%	16.7%	15.6%	15.6%	15.6%	16.7%	16.7%	16.7%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	61.6	61.6		61.6	61.6	78.6		9.0	9.0	10.0	10.0	10.0
Actuated g/C Ratio	0.68	0.68		0.68	0.68	0.87		0.10	0.10	0.11	0.11	0.11
v/c Ratio	0.13	1.08		0.13	0.81	0.10		0.12	0.07	0.83	0.05	1.06
Control Delay	11.4	61.6		3.3	11.1	0.6		38.7	37.9	72.5	36.6	125.0
Queue Delay	0.0	0.0		0.0	0.4	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	61.6		3.3	11.6	0.6		38.7	37.9	72.5	36.6	125.0
LOS	B	E		A	B	A		D	D	E	D	F
Approach Delay		61.4			10.8			38.4			98.5	
Approach LOS		E			B			D			F	
Queue Length 50th (ft)	2	-950		1	171	3		12	6	92	6	-117
Queue Length 95th (ft)	12	#1087		m1	m78	m5		35	22	#200	22	#247
Internal Link Dist (ft)		945			493			170			1039	
Turn Bay Length (ft)	100			100		250			100	300		300
Base Capacity (vph)	87	2420		87	2422	1383		182	158	197	207	176
Starvation Cap Reductn	0	0		0	128	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	0.13	1.08		0.13	0.86	0.10		0.12	0.07	0.83	0.05	1.06

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 84 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 43.0
 Intersection LOS: D
 Intersection Capacity Utilization 91.5%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Market St. & Quadrant A

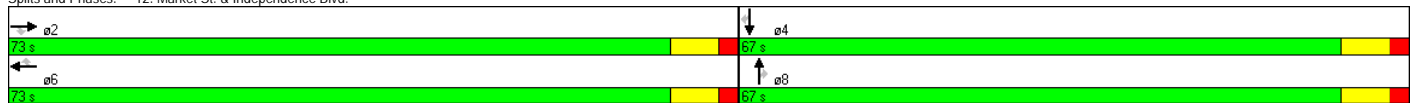


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1687	410	0	1875	147	0	1713	80	0	1684	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	0	250	0	250	0	250	0	250	0	250
Storage Lanes	0	1	0	1	0	1	0	1	0	1	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1874	456	0	2083	163	0	1903	89	0	1871	466
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type		Perm			Perm			Perm			Perm	
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	73.0	73.0	0.0	73.0	73.0	0.0	67.0	67.0	0.0	67.0	67.0
Total Split (%)	0.0%	52.1%	52.1%	0.0%	52.1%	52.1%	0.0%	47.9%	47.9%	0.0%	47.9%	47.9%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		68.0	68.0		68.0	68.0		62.0	62.0		62.0	62.0
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.44	0.44		0.44	0.44
v/c Ratio		0.76	0.59		1.21	0.21		1.25	0.13		1.19	0.66
Control Delay		21.1	19.2		125.4	17.1		151.1	20.1		128.9	35.8
Queue Delay		2.3	1.4		19.2	0.0		0.0	0.0		0.0	0.6
Total Delay		23.4	20.6		144.6	17.1		151.1	20.1		128.9	36.4
LOS		C	C		F	B		F	C		F	D
Approach Delay		22.8			135.4			145.3			110.4	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)		301	157		-1209	60		-1147	47		-1086	331
Queue Length 95th (ft)		403	m235		#1346	m91		#1286	81		#1226	464
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2470	769		1719	769		1523	681		1567	701
Starvation Cap Reductn		440	152		59	0		0	0		0	0
Spillback Cap Reductn		0	0		17	0		0	0		0	55
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.92	0.74		1.25	0.21		1.25	0.13		1.19	0.72

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 136 (97%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.25
 Intersection Signal Delay: 101.6
 Intersection LOS: F
 Intersection Capacity Utilization 107.5%
 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: 12: Market St. & Independence Blvd.

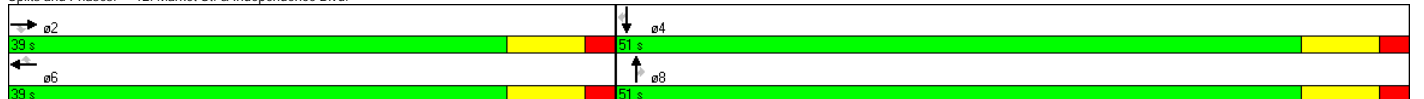


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	2091	406	0	1570	145	0	2159	103	0	1331	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	250	0	250	250	0	250	250	0	250	250
Storage Lanes	0	1	1	0	1	1	0	1	1	0	1	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2323	451	0	1744	161	0	2399	114	0	1479	372
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	39.0	39.0	0.0	39.0	39.0	0.0	51.0	51.0	0.0	51.0	51.0
Total Split (%)	0.0%	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		34.0	34.0		34.0	34.0		46.0	46.0		46.0	46.0
Actuated g/C Ratio		0.38	0.38		0.38	0.38		0.51	0.51		0.51	0.51
v/c Ratio		1.21	0.75		1.30	0.27		1.37	0.15		0.82	0.46
Control Delay		119.8	23.0		163.3	15.1		189.3	10.0		22.3	15.7
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		119.8	23.0		163.3	15.1		189.3	10.0		22.3	15.7
LOS		F	C		F	B		F	A		C	B
Approach Delay		104.1			150.8			181.1			21.0	
Approach LOS		F			F			F			C	
Queue Length 50th (ft)		-588	163		-669	43		-973	24		343	121
Queue Length 95th (ft)		m#523	m148		#806	m76		#1115	54		446	194
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		1921	598		1337	598		1757	786		1809	809
Starvation Cap Reductn		0	0		0	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.21	0.75		1.30	0.27		1.37	0.15		0.82	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.37
 Intersection Signal Delay: 118.3 Intersection LOS: F
 Intersection Capacity Utilization 111.4% 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.

Splits and Phases: 12: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1255	502	10	1606	10	406	10	40	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		0	0		100
Storage Lanes	1		0	1		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	3433	1639	0	0	1818	1583
Flt Permitted	0.050			0.124			0.950				0.976	
Satd. Flow (perm)	93	3539	1583	231	3536	0	3433	1639	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			266	
Travel Time (s)		9.7			17.1			26.0			6.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1394	558	11	1795	0	451	55	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split			Split		Perm
Protected Phases		2	8		6		8	8		4	4	
Permitted Phases		2	2		6							4
Detector Phase		2	2		8		6	6			4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	95.0	95.0	31.0	95.0	95.0	0.0	31.0	31.0	0.0	14.0	14.0	14.0
Total Split (%)	67.9%	67.9%	22.1%	67.9%	67.9%	0.0%	22.1%	22.1%	0.0%	10.0%	10.0%	10.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max		None	None	None
Act Effct Green (s)	90.0	90.0	128.6	90.0	90.0		31.6	31.6		9.0	9.0	9.0
Actuated g/C Ratio	0.64	0.64	0.92	0.64	0.64		0.23	0.23		0.06	0.06	0.06
v/c Ratio	0.18	0.61	0.38	0.07	0.79		0.58	0.15		0.19	0.11	0.11
Control Delay	4.9	1.6	0.6	11.0	21.4		53.3	47.8		66.1	64.3	64.3
Queue Delay	0.0	0.5	0.1	0.0	14.5		0.6	0.0		0.0	0.0	0.0
Total Delay	4.9	2.1	0.8	11.0	35.9		53.8	47.8		66.1	64.3	64.3
LOS	A	A	A	B	D		D	D		E	E	E
Approach Delay		1.7			35.8			53.2			65.5	
Approach LOS		A			D			D			E	
Queue Length 50th (ft)	0	10	3	4	586		201	43		19	10	10
Queue Length 95th (ft)	m0	11	3	13	685		261	84		49	31	31
Internal Link Dist (ft)		489			924			1062			186	
Turn Bay Length (ft)	100			100			300					100
Base Capacity (vph)	60	2275	1454	149	2273		775	370		117	102	102
Starvation Cap Reductn	0	438	236	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	503		94	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.18	0.76	0.46	0.07	1.01		0.66	0.15		0.19	0.11	0.11

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 2 (1%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 22.6
 Intersection LOS: C
 Intersection Capacity Utilization 74.6%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.



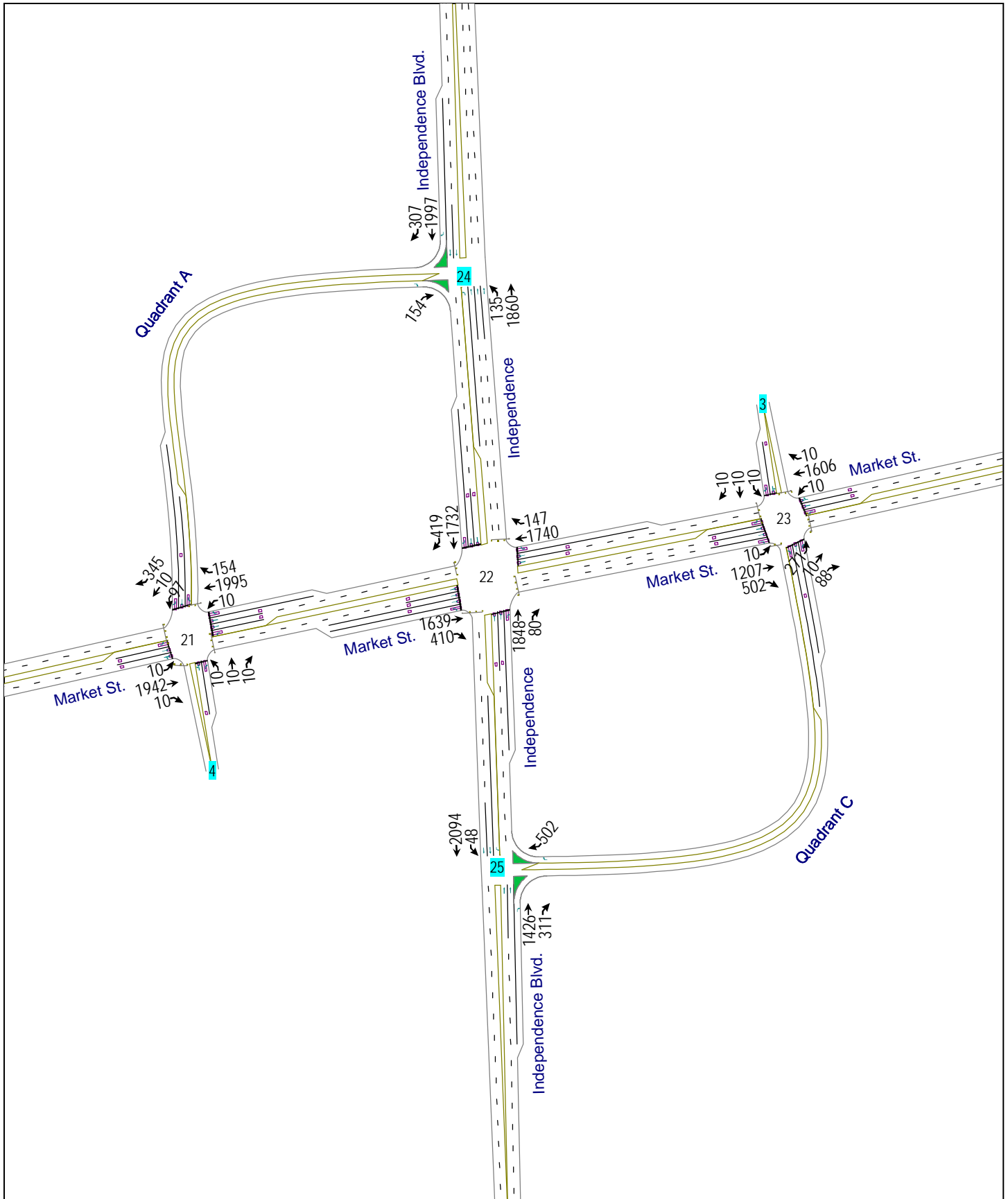
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑		↑↑	↑			↑	↑
Volume (vph)	10	1555	629	10	1295	10	410	10	51	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		0	0		100
Storage Lanes	1		0	1		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	3433	1628	0	0	1818	1583
Flt Permitted	0.085			0.083			0.950				0.976	
Satd. Flow (perm)	158	3539	1583	155	3536	0	3433	1628	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1728	699	11	1450	0	456	68	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split			Split		Perm
Protected Phases		2	8		6		8	8		4	4	
Permitted Phases		2	2		6							4
Detector Phase		2	2		8		6	6		8	8	
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	56.0	56.0	20.0	56.0	56.0	0.0	20.0	20.0	0.0	14.0	14.0	14.0
Total Split (%)	62.2%	62.2%	22.2%	62.2%	62.2%	0.0%	22.2%	22.2%	0.0%	15.6%	15.6%	15.6%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max		None	None	None
Act Effct Green (s)	51.0	51.0	78.6	51.0	51.0		20.6	20.6			9.0	9.0
Actuated g/C Ratio	0.57	0.57	0.87	0.57	0.57		0.23	0.23			0.10	0.10
v/c Ratio	0.12	0.86	0.51	0.12	0.72		0.58	0.18			0.12	0.07
Control Delay	1.3	10.6	5.5	13.3	17.0		36.5	33.0			38.7	37.9
Queue Delay	0.0	1.5	0.1	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	1.3	12.1	5.6	13.3	17.0		36.5	33.0			38.7	37.9
LOS	A	B	A	B	B		D	C			D	D
Approach Delay		10.2			17.0			36.0			38.4	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	0	103	40	3	296		129	34			12	6
Queue Length 95th (ft)	m0	m18	m10	13	377		#199	73			35	22
Internal Link Dist (ft)		489			924			1062			138	
Turn Bay Length (ft)	100			100			300					100
Base Capacity (vph)	90	2005	1383	88	2004		786	373			182	158
Starvation Cap Reductn	0	130	80	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	0.12	0.92	0.54	0.13	0.72		0.58	0.18			0.12	0.07

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 15.7
 Intersection LOS: B
 Intersection Capacity Utilization 69.7%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Market St. &





AC AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑	↑		↑	↑↑	↑	↑	↑
Volume (vph)	10	1942	10	10	1995	154	10	10	10	97	10	345
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		200	0		100	200		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.038			0.038				0.976		0.950		
Satd. Flow (perm)	71	3536	0	71	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			250			1119	
Travel Time (s)		17.5			9.8			5.7			25.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	11	2217	171	0	22	11	108	11	383
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		pm+ov	Split		Perm		Split	Perm
Protected Phases		2			6	4	8	8		8	4	4
Permitted Phases	2			6		6			8		4	4
Detector Phase	2	2		6	6	4	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	107.0	107.0	0.0	107.0	107.0	48.0	15.0	15.0	15.0	48.0	48.0	48.0
Total Split (%)	62.9%	62.9%	0.0%	62.9%	62.9%	28.2%	8.8%	8.8%	8.8%	28.2%	28.2%	28.2%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	108.3	108.3		108.3	108.3	158.1		9.5	9.5	42.8	42.8	42.8
Actuated g/C Ratio	0.64	0.64		0.64	0.64	0.93		0.06	0.06	0.25	0.25	0.25
v/c Ratio	0.24	0.96		0.24	0.98	0.12		0.22	0.12	0.24	0.02	0.96
Control Delay	32.6	41.5		11.0	20.9	0.3		81.8	79.4	60.1	56.3	104.7
Queue Delay	0.0	3.1		0.0	12.4	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	44.6		11.0	33.3	0.3		81.8	79.4	60.1	56.3	104.7
LOS	C	D		B	C	A		F	E	E	E	F
Approach Delay		44.5			30.9			81.0			94.1	
Approach LOS		D			C			F			F	
Queue Length 50th (ft)	6	-1338		3	-495	3		24	12	100	10	414
Queue Length 95th (ft)	25	#1467		m3	m281	m8		57	35	m137	m23	m#536
Internal Link Dist (ft)		945			493			170			1039	
Turn Bay Length (ft)	100			100		200			100	200		300
Base Capacity (vph)	45	2254		45	2255	1465		107	93	448	471	400
Starvation Cap Reductn	0	0		0	103	0		0	0	0	0	0
Spillback Cap Reductn	0	56		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	0.24	0.99		0.24	1.03	0.12		0.21	0.12	0.24	0.02	0.96

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 150 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 170
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 43.2
 Intersection LOS: D
 Intersection Capacity Utilization 94.8%
 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: 21: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔		↔	↔↔	↔		↔	↔	↔	↔	↔
Volume (vph)	10	2340	10	10	1638	120	10	10	10	98	10	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		200	0		100	200		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.066			0.066				0.976		0.950		
Satd. Flow (perm)	123	3536	0	123	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			250			1119	
Travel Time (s)		17.5			9.8			5.7			25.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	11	1820	133	0	22	11	109	11	338
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		pm-ov	Split		Perm	Split		Perm
Protected Phases		2			6	4	8	8		8	4	4
Permitted Phases	2			6		6			8		4	4
Detector Phase	2	2		6	6	4	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	63.0	63.0	0.0	63.0	63.0	23.0	14.0	14.0	14.0	23.0	23.0	23.0
Total Split (%)	63.0%	63.0%	0.0%	63.0%	63.0%	23.0%	14.0%	14.0%	14.0%	23.0%	23.0%	23.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	63.6	63.6		63.6	63.6	88.6	9.0	9.0	18.0	18.0	18.0	18.0
Actuated g/C Ratio	0.64	0.64		0.64	0.64	0.89	0.09	0.09	0.18	0.18	0.18	0.18
v/c Ratio	0.14	1.16		0.14	0.81	0.09	0.13	0.08	0.34	0.03	1.19	
Control Delay	15.1	98.8		13.2	21.2	0.8	44.0	43.2	40.4	35.4	150.1	
Queue Delay	0.0	0.0		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	98.8		13.2	21.4	0.8	44.0	43.2	40.4	35.4	150.1	
LOS	B	F		B	C	A	D	D	D	D	F	
Approach Delay		98.4			20.0		43.8			121.2		
Approach LOS		F			B		D			F		
Queue Length 50th (ft)	3	-1113		3	342	6	13	7	66	6	-265	
Queue Length 95th (ft)	15	#1248		m3	m228	m7	37	24	m96	m18	m#349	
Internal Link Dist (ft)		945			493		170			1039		
Turn Bay Length (ft)	100			100		200		100	200			300
Base Capacity (vph)	78	2249		78	2251	1402	164	142	319	335	285	
Starvation Cap Reductn	0	0		0	52	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	1.16		0.14	0.83	0.09	0.13	0.08	0.34	0.03	1.19	

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 82 (82%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.19
 Intersection Signal Delay: 69.8
 Intersection LOS: E
 Intersection Capacity Utilization 89.2%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Market St. & Quadrant A

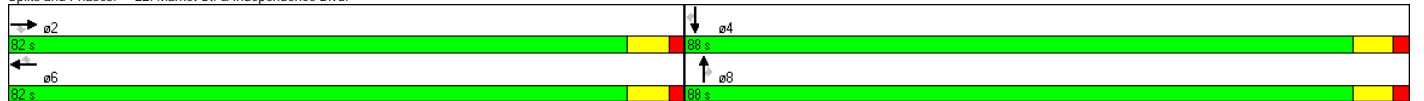


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1639	410	0	1740	147	0	1848	80	0	1732	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	0	0	250	0	0	250	0	0	250	0
Storage Lanes	0	2	0	0	1	0	0	1	0	0	1	0
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1821	456	0	1933	163	0	2053	89	0	1924	466
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	82.0	82.0	0.0	82.0	82.0	0.0	88.0	88.0	0.0	88.0	88.0
Total Split (%)	0.0%	48.2%	48.2%	0.0%	48.2%	48.2%	0.0%	51.8%	51.8%	0.0%	51.8%	51.8%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		77.0	77.0		77.0	77.0		83.0	83.0		83.0	83.0
Actuated g/C Ratio		0.45	0.45		0.45	0.45		0.49	0.49		0.49	0.49
v/c Ratio		0.79	0.64		1.21	0.23		1.22	0.12		1.11	0.60
Control Delay		23.4	21.3		126.2	22.0		144.2	21.7		99.9	35.1
Queue Delay		11.1	3.2		23.1	0.0		0.0	0.0		0.0	1.2
Total Delay		34.5	24.5		149.3	22.0		144.2	21.7		99.9	36.3
LOS		C	C		F	C		F	C		F	D
Approach Delay		32.5			139.4			139.1			87.5	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)		416	227		-1357	64		-1484	56		-1290	375
Queue Length 95th (ft)		m451	m245		#1494	m98		#1611	91		#1421	504
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2303	717		1603	717		1679	751		1728	773
Starvation Cap Reductn		485	168		66	0		0	0		0	0
Spillback Cap Reductn		0	0		14	0		0	0		0	136
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.00	0.83		1.26	0.23		1.22	0.12		1.11	0.73

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 98.0 Intersection LOS: F
 Intersection Capacity Utilization 107.5% 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: 22: Market St. & Independence Blvd.

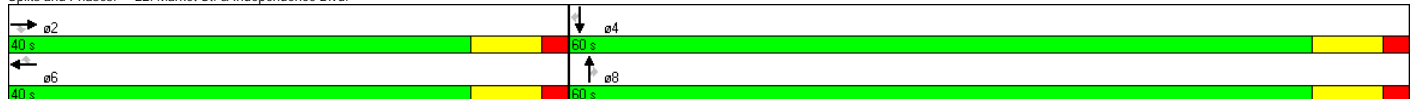


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	2042	406	0	1433	145	0	2296	103	0	1380	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	250	0	250	250	0	250	250	0	250	250
Storage Lanes	0	2	2	0	1	1	0	1	1	0	1	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2269	451	0	1592	161	0	2551	114	0	1533	372
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	40.0	40.0	0.0	40.0	40.0	0.0	60.0	60.0	0.0	60.0	60.0
Total Split (%)	0.0%	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		35.0	35.0		35.0	35.0		55.0	55.0		55.0	55.0
Actuated g/C Ratio		0.35	0.35		0.35	0.35		0.55	0.55		0.55	0.55
v/c Ratio		1.27	0.81		1.28	0.29		1.35	0.13		0.79	0.43
Control Delay		147.1	20.6		156.1	18.1		183.1	10.3		20.8	14.5
Queue Delay		0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		147.1	20.6		156.1	18.1		183.1	10.3		20.8	14.5
LOS		F	C		F	B		F	B		C	B
Approach Delay		126.1			143.4			175.7			19.6	
Approach LOS		F			F			F			B	
Queue Length 50th (ft)		-663	191		-664	41		-1146	27		379	125
Queue Length 95th (ft)		m#520	m152		#810	m73		#1285	57		483	194
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		1780	554		1239	554		1891	846		1946	871
Starvation Cap Reductn		0	0		0	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.27	0.81		1.28	0.29		1.35	0.13		0.79	0.43

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 6 (6%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.35
 Intersection Signal Delay: 121.6 Intersection LOS: F
 Intersection Capacity Utilization 111.4% 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.

Splits and Phases: 22: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1207	502	10	1606	10	271	10	88	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		200	0		100
Storage Lanes	1		0	1		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	1770	1863	1583	0	1818	1583
Flt Permitted	0.040			0.124			0.950				0.976	
Satd. Flow (perm)	75	3539	1583	231	3536	0	1770	1863	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1341	558	11	1795	0	301	11	98	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split		Perm	Split		Perm
Protected Phases		2	8		6		8	8		4	4	
Permitted Phases		2	2	6	6		8	8		4	4	4
Detector Phase		2	2	8	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	109.0	109.0	47.0	109.0	109.0	0.0	47.0	47.0	47.0	14.0	14.0	14.0
Total Split (%)	64.1%	64.1%	27.6%	64.1%	64.1%	0.0%	27.6%	27.6%	27.6%	8.2%	8.2%	8.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	104.0	104.0	158.6	104.0	104.0		47.6	47.6	47.6		9.0	9.0
Actuated g/C Ratio	0.61	0.61	0.93	0.61	0.61		0.28	0.28	0.28		0.05	0.05
v/c Ratio	0.24	0.62	0.38	0.08	0.83		0.61	0.02	0.22		0.23	0.13
Control Delay	8.2	1.7	0.7	15.3	30.4		60.5	49.1	50.5		83.2	80.5
Queue Delay	0.0	0.4	0.2	0.0	34.8		0.9	0.0	0.0		0.0	0.0
Total Delay	8.2	2.1	0.9	15.3	65.2		61.4	49.1	50.5		83.2	80.5
LOS	A	A	A	B	E		E	D	D		F	F
Approach Delay		1.8			64.9			58.5			82.3	
Approach LOS		A			E			E			F	
Queue Length 50th (ft)	0	13	3	5	799		302	9	86		24	12
Queue Length 95th (ft)	m0	14	4	15	905		m401	m24	m136		58	35
Internal Link Dist (ft)		489			924			1062			138	
Turn Bay Length (ft)	100			100			300		200			100
Base Capacity (vph)	46	2165	1477	141	2163		495	522	443		96	84
Starvation Cap Reductn	0	343	304	0	0		0	0	0		0	0
Spillback Cap Reductn	0	0	0	0	486		55	0	0		0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	0
Reduced v/c Ratio	0.24	0.74	0.48	0.08	1.07		0.68	0.02	0.22		0.23	0.13

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 35.4
 Intersection LOS: D
 Intersection Capacity Utilization 78.1%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.



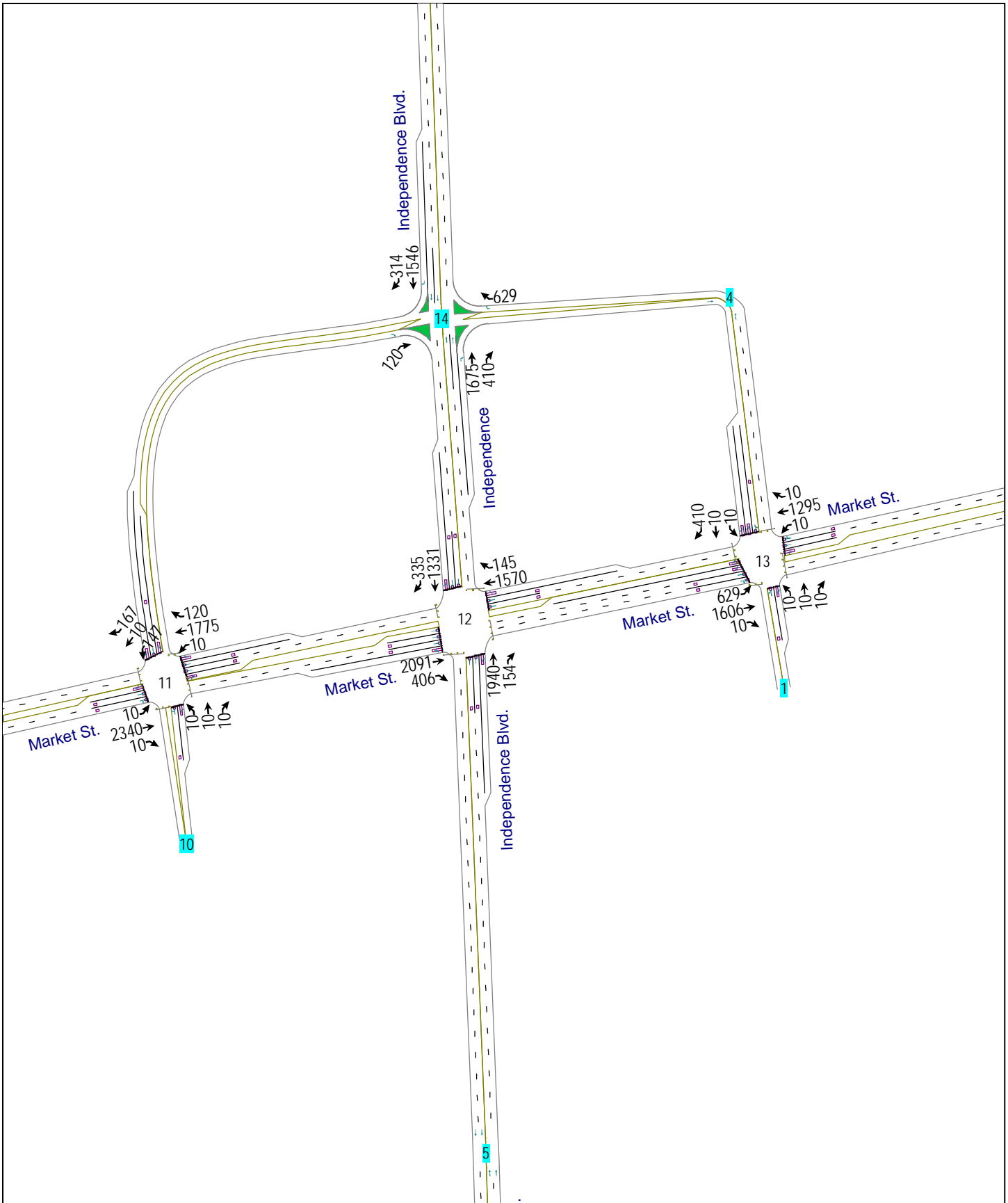
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑		↑	↑	↑		↑	↑
Volume (vph)	10	1506	629	10	1295	10	273	10	100	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		200	0		100
Storage Lanes	1		0	1		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	1770	1863	1583	0	1818	1583
Flt Permitted	0.078			0.078			0.950				0.976	
Satd. Flow (perm)	145	3539	1583	145	3536	0	1770	1863	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1673	699	11	1450	0	303	11	111	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split		Perm	Split		Perm
Protected Phases		2	8		6		8	8		4	4	
Permitted Phases		2	2		6					8	8	
Detector Phase		2	2		8		6	6		8	8	
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	59.0	59.0	27.0	59.0	59.0	0.0	27.0	27.0	27.0	14.0	14.0	14.0
Total Split (%)	59.0%	59.0%	27.0%	59.0%	59.0%	0.0%	27.0%	27.0%	27.0%	14.0%	14.0%	14.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	54.0	54.0	88.6	54.0	54.0		27.6	27.6	27.6		9.0	9.0
Actuated g/C Ratio	0.54	0.54	0.89	0.54	0.54		0.28	0.28	0.28		0.09	0.09
v/c Ratio	0.14	0.88	0.50	0.14	0.76		0.62	0.02	0.25		0.13	0.08
Control Delay	1.7	14.1	7.5	16.9	21.2		41.0	31.2	33.4		44.0	43.2
Queue Delay	0.0	1.8	0.1	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	1.7	15.9	7.6	16.9	21.2		41.0	31.2	33.4		44.0	43.2
LOS	A	B	A	B	C		D	C	C		D	D
Approach Delay		13.4			21.2			38.7			43.8	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	0	129	77	3	359		179	6	59		13	7
Queue Length 95th (ft)	m0	m20	m10	15	449		m#304	m18	m105		37	24
Internal Link Dist (ft)		489			924			1062			138	
Turn Bay Length (ft)	100			100			300		200			100
Base Capacity (vph)	78	1911	1402	78	1909		488	514	437		164	142
Starvation Cap Reductn	0	116	72	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	0.14	0.93	0.53	0.14	0.76		0.62	0.02	0.25		0.13	0.08

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 18.8
 Intersection LOS: B
 Intersection Capacity Utilization 71.8%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 23: Market St. &





AD PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗	↗	↖	↖↗	↗	↖	↖	↖	↖	↖	↖
Volume (vph)	10	1942	10	10	2130	154	10	10	10	145	10	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		200	0		100	250		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.047			0.047				0.976		0.950		
Satd. Flow (perm)	88	3536	0	88	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1025			573			305			1085	
Travel Time (s)		17.5			9.8			6.9			29.6	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	11	2367	171	0	22	11	161	11	233
Turn Type	Perm			Perm		Perm	Split		Perm	Split		Perm
Protected Phases		2			6		8	8		4		4
Permitted Phases	2			6		6			8			4
Detector Phase	2	2		6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	88.0	88.0	0.0	88.0	88.0	88.0	14.0	14.0	14.0	28.0	28.0	28.0
Total Split (%)	67.7%	67.7%	0.0%	67.7%	67.7%	67.7%	10.8%	10.8%	10.8%	21.5%	21.5%	21.5%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	Max
Act Elct Green (s)	88.6	88.6		88.6	88.6	88.6	9.0	9.0	9.0	23.0	23.0	23.0
Actuated g/C Ratio	0.68	0.68		0.68	0.68	0.68	0.07	0.07	0.18	0.18	0.18	0.18
v/c Ratio	0.18	0.90		0.18	0.98	0.16	0.17	0.10	0.51	0.03	0.83	0.83
Control Delay	18.5	25.0		6.9	16.0	5.4	60.5	59.0	55.1	44.8	76.3	76.3
Queue Delay	0.0	0.0		0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	25.0		6.9	24.8	5.4	60.5	59.0	55.1	44.8	76.3	76.3
LOS	B	C		A	C	A	E	E	E	D	E	E
Approach Delay		25.0			23.4		60.0			67.0		
Approach LOS		C			C		E			E		
Queue Length 50th (ft)	4	841		2	-1118	33	18	9	124	8	192	
Queue Length 95th (ft)	17	#1093		m2	m232	m27	47	29	199	26	#331	
Internal Link Dist (ft)		945			493		225			1005		
Turn Bay Length (ft)	100			100		200		100	250		300	
Base Capacity (vph)	60	2410		60	2412	1079	126	110	313	330	280	
Starvation Cap Reductn	0	0		0	89	0	0	0	0	0	0	0
Spillback Cap Reductn	0	5		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.90		0.18	1.02	0.16	0.17	0.10	0.51	0.03	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 114 (88%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 27.7 Intersection LOS: C
 Intersection Capacity Utilization 90.2% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Market St. & Quadrant A

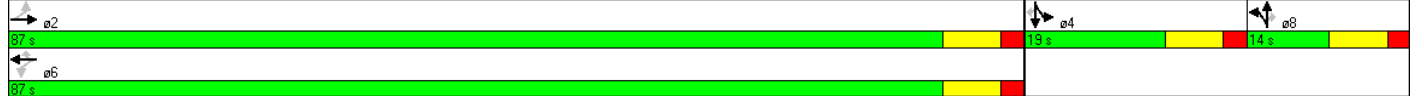


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑	↑		↑	↑↑	↑	↑	↑
Volume (vph)	10	2340	10	10	1775	120	10	10	10	147	10	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		200	0		100	250		300
Storage Lanes	1		0	1		1	0		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	1770	1863	1583
Flt Permitted	0.053			0.047				0.976		0.950		
Satd. Flow (perm)	99	3536	0	88	3539	1583	0	1818	1583	1770	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1025			573			305			1085	
Travel Time (s)		17.5			9.8			6.9			29.6	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	11	1972	133	0	22	11	163	11	186
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		Perm	Split		Perm	Split		Perm
Protected Phases		2			6		8	8		4	4	
Permitted Phases		2			6		6	6		8	8	
Detector Phase		2	2		6	6	6	8	8	8	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	87.0	87.0	0.0	87.0	87.0	87.0	14.0	14.0	14.0	19.0	19.0	19.0
Total Split (%)	72.5%	72.5%	0.0%	72.5%	72.5%	72.5%	11.7%	11.7%	11.7%	15.8%	15.8%	15.8%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	Max
Act Effct Green (s)	87.6	87.6		87.6	87.6	87.6	9.0	9.0	14.0	14.0	14.0	14.0
Actuated g/C Ratio	0.73	0.73		0.73	0.73	0.73	0.08	0.08	0.12	0.12	0.12	0.12
v/c Ratio	0.15	1.01		0.17	0.76	0.12	0.16	0.09	0.79	0.05	1.01	
Control Delay	12.6	38.6		3.7	10.4	2.6	55.0	53.7	77.7	47.9	120.8	
Queue Delay	0.0	104.2		0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	142.8		3.7	10.6	2.6	55.0	53.7	77.7	47.9	120.8	
LOS	B	F		A	B	A	D	D	E	D	F	
Approach Delay		142.3			10.0		54.6			99.1		
Approach LOS		F			B		D			F		
Queue Length 50th (ft)	3	-1190		1	194	14	16	8	125	8	-148	
Queue Length 95th (ft)	13	#1320		m1	m106	m14	44	28	#237	26	#299	
Internal Link Dist (ft)		945			493		225			1005		
Turn Bay Length (ft)	100			100		200		100	250		300	
Base Capacity (vph)	72	2581		64	2583	1156	136	119	207	217	185	
Starvation Cap Reductn	0	0		0	123	0	0	0	0	0	0	0
Spillback Cap Reductn	0	504		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	1.26		0.17	0.80	0.12	0.16	0.09	0.79	0.05	1.01	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 96 (80%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 84.1
 Intersection LOS: F
 Intersection Capacity Utilization 91.5%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 11: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1687	410	0	1875	147	0	1617	120	0	1684	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			1001			565	
Travel Time (s)		9.8			9.7			15.2			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1874	456	0	2083	163	0	1797	133	0	1871	466
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	69.0	69.0	0.0	69.0	69.0	0.0	61.0	61.0	0.0	61.0	61.0
Total Split (%)	0.0%	53.1%	53.1%	0.0%	53.1%	53.1%	0.0%	46.9%	46.9%	0.0%	46.9%	46.9%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		64.0	64.0		64.0	64.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.43	0.43		0.43	0.43
v/c Ratio		0.75	0.59		1.20	0.21		1.21	0.20		1.23	0.68
Control Delay		18.5	16.8		113.8	13.4		136.3	24.1		141.9	35.8
Queue Delay		1.4	1.0		17.3	0.0		0.0	0.0		0.0	0.4
Total Delay		19.9	17.9		131.1	13.4		136.3	24.1		141.9	36.2
LOS		B	B		F	B		F	C		F	D
Approach Delay		19.5			122.6			128.6			120.8	
Approach LOS		B			F			F			F	
Queue Length 50th (ft)		258	135		-1104	37		-973	69		-1028	314
Queue Length 95th (ft)		345	m189		m#1205	m47		#1112	115		#1168	449
Internal Link Dist (ft)		493			489			921			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2503	779		1742	779		1481	663		1524	682
Starvation Cap Reductn		406	136		55	0		0	0		0	0
Spillback Cap Reductn		0	0		18	0		0	0		0	35
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.89	0.71		1.23	0.21		1.21	0.20		1.23	0.72

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 128 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 96.3
 Intersection Capacity Utilization 106.7%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G

~ 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: 12: Market St. & Independence Blvd.

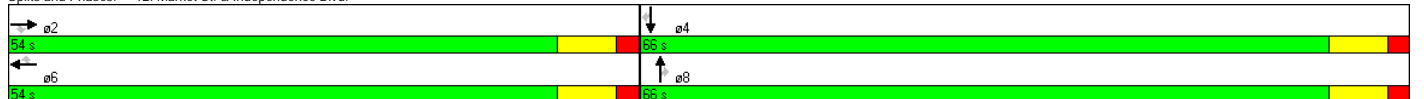


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	2091	406	0	1570	145	0	1940	154	0	1331	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			1001			565	
Travel Time (s)		9.8			9.7			15.2			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2323	451	0	1744	161	0	2156	171	0	1479	372
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	54.0	54.0	0.0	54.0	54.0	0.0	66.0	66.0	0.0	66.0	66.0
Total Split (%)	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%	55.0%	55.0%	0.0%	55.0%	55.0%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		49.0	49.0		49.0	49.0		61.0	61.0		61.0	61.0
Actuated g/C Ratio		0.41	0.41		0.41	0.41		0.51	0.51		0.51	0.51
v/c Ratio		1.12	0.70		1.21	0.25		1.23	0.22		0.82	0.46
Control Delay		84.4	25.4		122.0	18.3		138.8	17.3		29.2	20.7
Queue Delay		38.8	0.8		11.0	0.0		0.0	0.0		0.0	0.0
Total Delay		123.2	26.2		133.0	18.3		138.8	17.3		29.2	20.7
LOS		F	C		F	B		F	B		C	C
Approach Delay		107.4			123.3			129.9			27.5	
Approach LOS		F			F			F			C	
Queue Length 50th (ft)		-752	229		-848	41		-1087	71		496	176
Queue Length 95th (ft)		m#743	m231		#993	m58		#1224	115		605	260
Internal Link Dist (ft)		493			489			921			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2076	646		1445	646		1748	782		1799	805
Starvation Cap Reductn		151	47		29	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.21	0.75		1.23	0.25		1.23	0.22		0.82	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 118 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 100.0 Intersection LOS: F
 Intersection Capacity Utilization 105.4% 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: 12: Market St. & Independence Blvd.



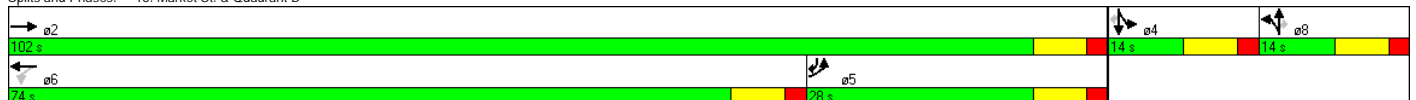


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑			↑	↑		↑	↑↑
Volume (vph)	502	1295	10	10	1606	10	10	10	10	10	10	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	0		200
Storage Lanes	1		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.131				0.976			0.976	
Satd. Flow (perm)	3433	3536	0	244	3536	0	0	1818	1583	0	1818	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			518	
Travel Time (s)		9.7			17.1			5.5			14.1	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1450	0	11	1795	0	0	22	11	0	22	451
Turn Type	Prot			Perm			Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6					8			4
Detector Phase	5	2		6	6		8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	28.0	102.0	0.0	74.0	74.0	0.0	14.0	14.0	14.0	14.0	14.0	28.0
Total Split (%)	21.5%	78.5%	0.0%	56.9%	56.9%	0.0%	10.8%	10.8%	10.8%	10.8%	10.8%	21.5%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	23.0	97.0		69.0	69.0		9.0	9.0	9.0	9.0	9.0	37.0
Actuated g/C Ratio	0.18	0.75		0.53	0.53		0.07	0.07	0.07	0.07	0.07	0.28
v/c Ratio	0.92	0.55		0.08	0.96		0.17	0.10	0.10	0.17	0.17	0.57
Control Delay	56.5	1.4		17.2	42.2		60.5	59.0	59.0	87.3	68.0	68.0
Queue Delay	0.0	0.2		0.0	54.3		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	1.6		17.2	96.5		60.5	59.0	59.0	87.3	68.0	68.0
LOS	E	A		B	F		E	E	E	F	E	E
Approach Delay		16.8			96.0		60.0			68.9		
Approach LOS		B			F		E			E		
Queue Length 50th (ft)	251	11		4	732		18	9	9	20	225	225
Queue Length 95th (ft)	#350	14		16	#928		47	29	29	m21	m197	m197
Internal Link Dist (ft)		489			924		162			438		
Turn Bay Length (ft)	350			100				100				200
Base Capacity (vph)	607	2638		130	1877		126	110	110	126	793	793
Starvation Cap Reductn	0	384		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	282		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.64		0.08	1.13		0.17	0.10	0.10	0.17	0.17	0.57

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 120 (92%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 56.0 Intersection LOS: E
 Intersection Capacity Utilization 79.3% 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: 13: Market St. & Quadrant D

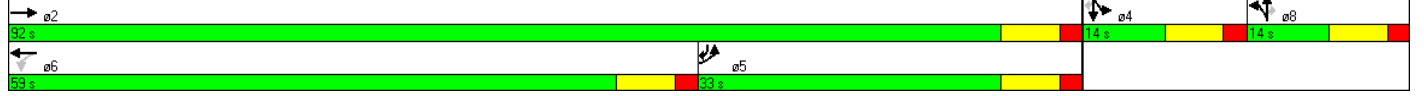


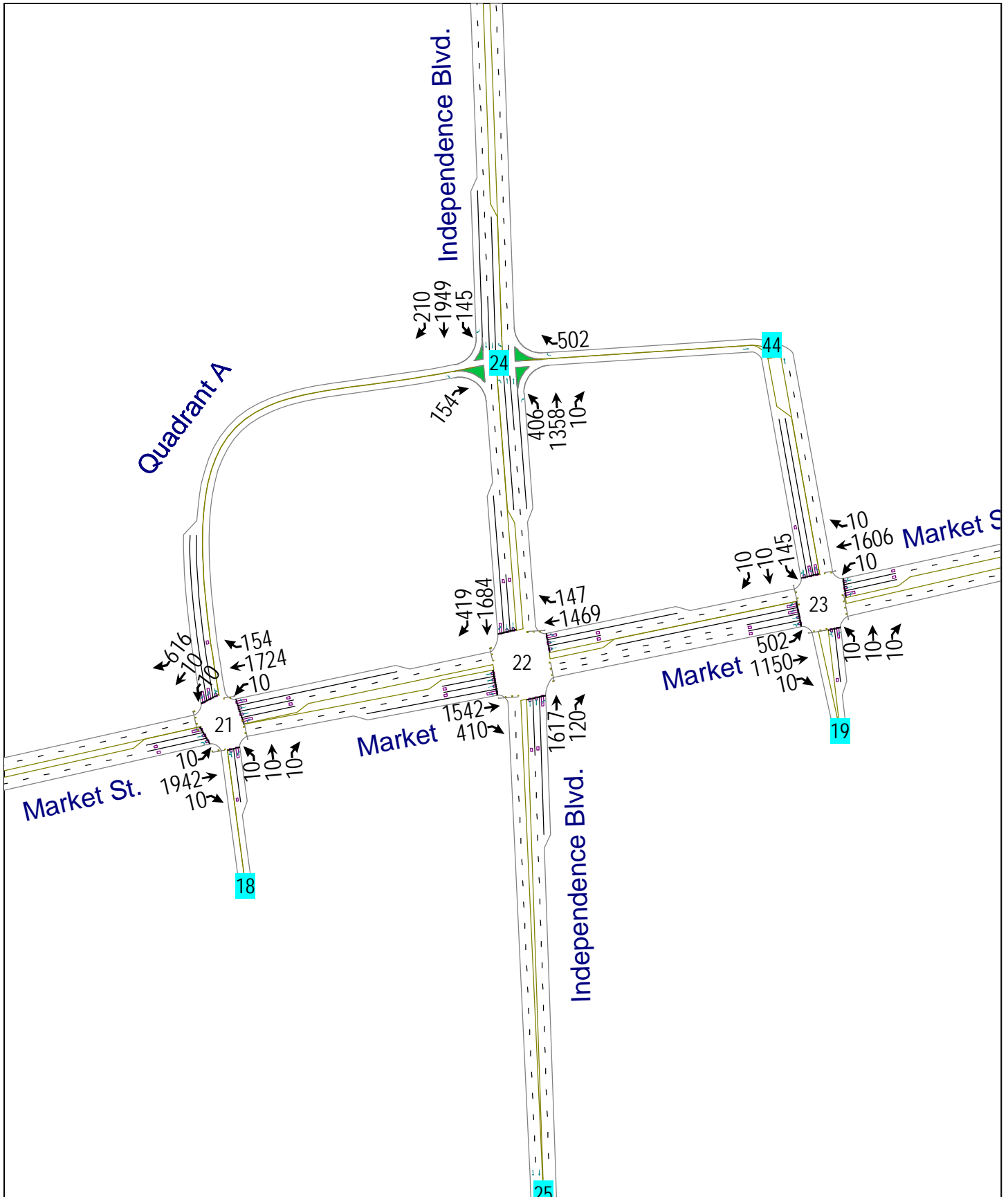
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	629	1606	10	10	1295	10	10	10	10	10	10	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	0		200
Storage Lanes	1		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.074				0.976			0.976	
Satd. Flow (perm)	3433	3536	0	138	3536	0	0	1818	1583	0	1818	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				25
Link Distance (ft)		569			1004			242				498
Travel Time (s)		9.7			17.1			5.5				13.6
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1795	0	11	1450	0	0	22	11	0	22	456
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0				0
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9		15		9		15		9	
Turn Type	Prot			Perm			Split		Perm	Split		pm-ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6			8		8		4	4
Detector Phase	5	2		6	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	33.0	92.0	0.0	59.0	59.0	0.0	14.0	14.0	14.0	14.0	14.0	33.0
Total Split (%)	27.5%	76.7%	0.0%	49.2%	49.2%	0.0%	11.7%	11.7%	11.7%	11.7%	11.7%	27.5%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	28.0	87.0		54.0	54.0			9.0	9.0		9.0	42.0
Actuated g/C Ratio	0.23	0.72		0.45	0.45			0.08	0.08		0.08	0.35
v/c Ratio	0.87	0.70		0.18	0.91			0.16	0.09		0.16	0.47
Control Delay	33.0	4.7		28.6	40.7			55.0	53.7		74.3	51.2
Queue Delay	0.0	2.1		0.0	118.8			0.0	0.0		0.0	0.0
Total Delay	33.0	6.8		28.6	159.5			55.0	53.7		74.3	51.2
LOS	C	A		C	F			D	D		E	D
Approach Delay		14.2			158.5			54.6			52.3	
Approach LOS		B			F			D			D	
Queue Length 50th (ft)	298	101		5	539			16	8		17	196
Queue Length 95th (ft)	m267	m29		21	#668			44	28		m18	m169
Internal Link Dist (ft)		489			924			162			418	
Turn Bay Length (ft)	350			100					100			200
Base Capacity (vph)	801	2564		62	1591			136	119		136	975
Starvation Cap Reductn	0	592		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	446			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.87	0.91		0.18	1.27			0.16	0.09		0.16	0.47

Intersection Summary

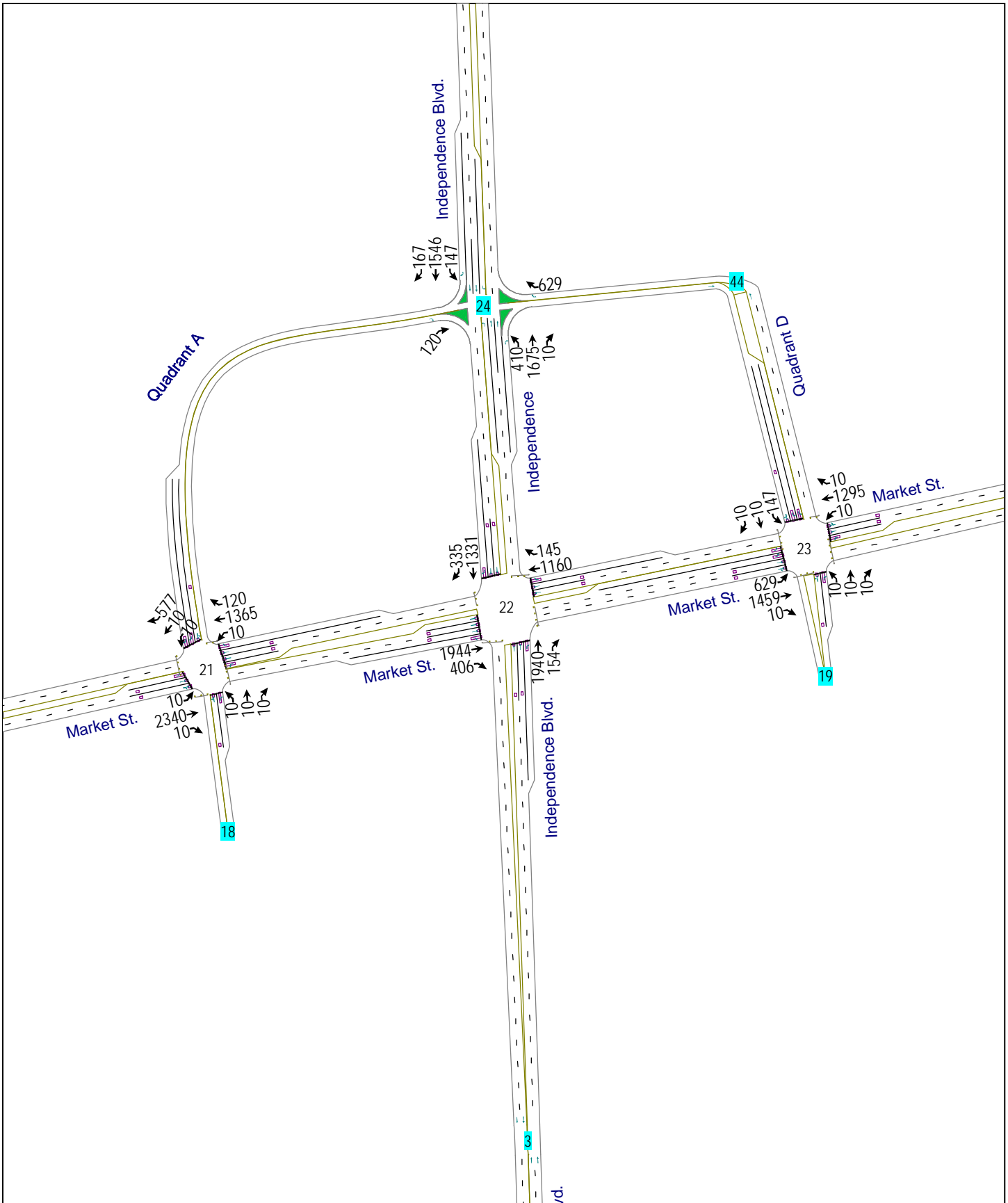
Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 112 (93%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 65.8
 Intersection LOS: E
 Intersection Capacity Utilization 75.0%
 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: 13: Market St. &





AD AM Peak



AD PM Peak

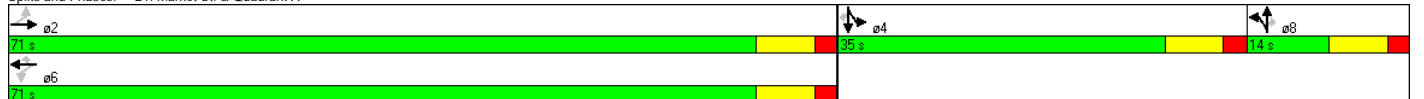
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↕	↔	↕	↕	↔	↕	↔
Volume (vph)	10	1942	10	10	1724	154	10	10	10	10	10	616
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		300	0		100	0		300
Storage Lanes	1		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	0	1818	2787
Flt Permitted	0.058			0.058				0.976			0.976	
Satd. Flow (perm)	108	3536	0	108	3539	1583	0	1818	1583	0	1818	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1025			573			305			1085	
Travel Time (s)		17.5			9.8			6.9			29.6	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	11	1916	171	0	22	11	0	22	684
Turn Type	Perm			Perm		Perm	Split		Perm	Split		Perm
Protected Phases		2			6		8	8		4	4	
Permitted Phases	2			6		6			8			4
Detector Phase	2	2		6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	71.0	71.0	0.0	71.0	71.0	71.0	14.0	14.0	14.0	35.0	35.0	35.0
Total Split (%)	59.2%	59.2%	0.0%	59.2%	59.2%	59.2%	11.7%	11.7%	11.7%	29.2%	29.2%	29.2%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	Max
Act Elct Green (s)	71.6	71.6		71.6	71.6	71.6	9.0	9.0	9.0	30.0	30.0	30.0
Actuated g/C Ratio	0.60	0.60		0.60	0.60	0.60	0.08	0.08	0.08	0.25	0.25	0.25
v/c Ratio	0.17	1.03		0.17	0.91	0.18	0.16	0.09	0.09	0.05	0.98	0.98
Control Delay	21.8	52.6		18.5	22.3	14.5	55.0	53.7	53.7	40.6	78.4	78.4
Queue Delay	0.0	0.0		0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	52.6		18.5	23.6	14.5	55.0	53.7	53.7	40.6	78.4	78.4
LOS	C	D		B	C	B	D	D	D	D	E	E
Approach Delay		52.4			22.8		54.6			77.2		
Approach LOS		D			C		D			E		
Queue Length 50th (ft)	4	-1015		4	398	61	16	8	8	16	314	314
Queue Length 95th (ft)	19	#1151		m4	m380	m61	44	28	28	m26	m#347	m#347
Internal Link Dist (ft)		945			493		225			1005		
Turn Bay Length (ft)	100			100		300			100			300
Base Capacity (vph)	64	2110		64	2111	945	136	119	119	455	697	697
Starvation Cap Reductn	0	0		0	72	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	1.03		0.17	0.94	0.18	0.16	0.09	0.09	0.05	0.98	0.98

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 90 (75%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 160
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 43.5
 Intersection Capacity Utilization 87.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

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

Splits and Phases: 21: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑	↑		↑	↑↑		↑	↑↑
Volume (vph)	10	2340	10	10	1365	120	10	10	10	10	10	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		300	0		100	0		300
Storage Lanes	1		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3539	1583	0	1818	1583	0	1818	2787
Flt Permitted	0.100			0.053				0.976			0.976	
Satd. Flow (perm)	186	3536	0	99	3539	1583	0	1818	1583	0	1818	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1025			573			305			1085	
Travel Time (s)		17.5			9.8			6.9			29.6	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	11	1517	133	0	22	11	0	22	641
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		Perm	Split		Perm	Split		Perm
Protected Phases		2			6		8	8		4	4	
Permitted Phases	2			6		6			8		4	4
Detector Phase	2	2		6	6	6	8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	77.0	77.0	0.0	77.0	77.0	77.0	14.0	14.0	14.0	29.0	29.0	29.0
Total Split (%)	64.2%	64.2%	0.0%	64.2%	64.2%	64.2%	11.7%	11.7%	11.7%	24.2%	24.2%	24.2%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	Max
Act Effct Green (s)	77.6	77.6		77.6	77.6	77.6	9.0	9.0	9.0	24.0	24.0	24.0
Actuated g/C Ratio	0.65	0.65		0.65	0.65	0.65	0.08	0.08	0.08	0.20	0.20	0.20
v/c Ratio	0.09	1.14		0.17	0.66	0.13	0.16	0.09	0.16	0.06	1.15	1.15
Control Delay	12.6	92.4		21.2	18.5	14.1	55.0	53.7	53.7	40.2	125.1	125.1
Queue Delay	0.0	93.9		0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	186.4		21.2	18.8	14.1	55.0	53.7	53.7	40.2	125.1	125.1
LOS	B	F		C	B	B	D	D	D	D	F	F
Approach Delay		185.6			18.4		54.6			122.3		
Approach LOS		F			B		D			F		
Queue Length 50th (ft)	3	-1315		4	331	51	16	8		16	-338	
Queue Length 95th (ft)	14	#1444		m6	m373	m61	44	28		m24	m#328	
Internal Link Dist (ft)		945			493		225			1005		
Turn Bay Length (ft)	100			100		300		100				300
Base Capacity (vph)	120	2287		64	2288	1024	136	119		364	557	
Starvation Cap Reductn	0	0		0	258	0	0	0		0	0	0
Spillback Cap Reductn	0	356		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	0.09	1.35		0.17	0.75	0.13	0.16	0.09		0.06	1.15	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 84 (70%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 120.5
 Intersection LOS: F
 Intersection Capacity Utilization 89.2%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1542	410	0	1469	147	0	1617	120	0	1684	419
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			1001			565	
Travel Time (s)		9.8			9.7			15.2			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1713	456	0	1632	163	0	1797	133	0	1871	466
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	56.0	56.0	0.0	56.0	56.0	0.0	64.0	64.0	0.0	64.0	64.0
Total Split (%)	0.0%	46.7%	46.7%	0.0%	46.7%	46.7%	0.0%	53.3%	53.3%	0.0%	53.3%	53.3%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		51.0	51.0		51.0	51.0		59.0	59.0		59.0	59.0
Actuated g/C Ratio		0.42	0.42		0.42	0.42		0.49	0.49		0.49	0.49
v/c Ratio		0.79	0.68		1.09	0.24		1.06	0.18		1.08	0.60
Control Delay		10.0	8.7		64.2	12.4		71.4	17.8		76.1	26.6
Queue Delay		0.9	0.7		10.6	0.0		0.0	0.0		0.0	0.5
Total Delay		10.9	9.4		74.8	12.4		71.4	17.8		76.1	27.1
LOS		B	A		E	B		E	B		E	C
Approach Delay		10.6			69.2			67.7			66.3	
Approach LOS		B			E			E			E	
Queue Length 50th (ft)		189	112		-725	26		-807	56		-853	260
Queue Length 95th (ft)		m176	m106		#866	m32		#946	95		#994	377
Internal Link Dist (ft)		493			489			921			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2161	673		1504	673		1690	756		1740	778
Starvation Cap Reductn		201	52		34	0		0	0		0	0
Spillback Cap Reductn		0	0		19	0		0	0		0	84
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.87	0.73		1.11	0.24		1.06	0.18		1.08	0.67

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 112 (93%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 52.6

Intersection LOS: D

Intersection Capacity Utilization 95.5%

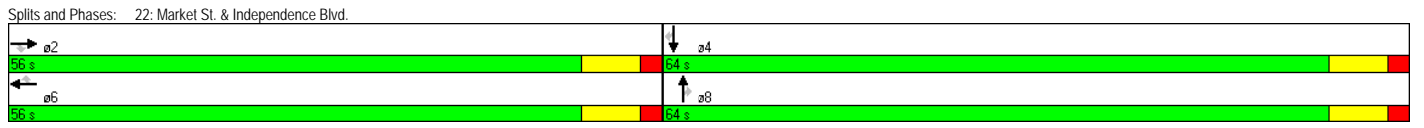
ICU Level of Service F

Analysis Period (min) 15

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

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

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



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1944	406	0	1160	145	0	1940	154	0	1331	335
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			1001			565	
Travel Time (s)		9.8			9.7			15.2			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2160	451	0	1289	161	0	2156	171	0	1479	372
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	51.0	51.0	0.0	51.0	51.0	0.0	69.0	69.0	0.0	69.0	69.0
Total Split (%)	0.0%	42.5%	42.5%	0.0%	42.5%	42.5%	0.0%	57.5%	57.5%	0.0%	57.5%	57.5%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		64.0	64.0		64.0	64.0
Actuated g/C Ratio		0.38	0.38		0.38	0.38		0.53	0.53		0.53	0.53
v/c Ratio		1.11	0.74		0.95	0.27		1.18	0.21		0.78	0.44
Control Delay		68.9	13.1		20.8	4.2		113.0	15.6		26.8	19.6
Queue Delay		27.7	0.5		1.9	0.0		0.0	0.0		0.0	0.0
Total Delay		96.6	13.7		22.7	4.2		113.0	15.6		26.8	19.6
LOS		F	B		C	A		F	B		C	B
Approach Delay		82.3			20.7			105.8			25.4	
Approach LOS		F			C			F			C	
Queue Length 50th (ft)		-689	202		142	5		-1051	67		483	174
Queue Length 95th (ft)		m430	m161		#631	m10		#1187	109		578	258
Internal Link Dist (ft)		493			489			921			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		1949	607		1357	607		1834	820		1887	844
Starvation Cap Reductn		105	23		25	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.17	0.77		0.97	0.27		1.18	0.21		0.78	0.44

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 65.3 Intersection LOS: E
 Intersection Capacity Utilization 99.5% ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 22: Market St. & Independence Blvd.

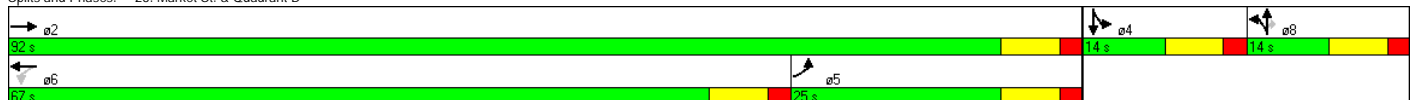


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1150	10	10	1606	10	10	10	10	145	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	300		0
Storage Lanes	1		0	1		0	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.171				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	319	3536	0	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			496	
Travel Time (s)		9.7			17.1			5.5			13.5	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1289	0	11	1795	0	0	22	11	161	22	0
Turn Type	Prot			Perm			Split		Perm	Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases				6				8				
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	
Total Split (s)	25.0	92.0	0.0	67.0	67.0	0.0	14.0	14.0	14.0	14.0	14.0	0.0
Total Split (%)	20.8%	76.7%	0.0%	55.8%	55.8%	0.0%	11.7%	11.7%	11.7%	11.7%	11.7%	0.0%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max		None	None	None	Max	Max	
Act Effct Green (s)	20.0	92.6		67.6	67.6		9.0	9.0		9.0	9.0	
Actuated g/C Ratio	0.17	0.77		0.56	0.56		0.08	0.08		0.08	0.08	
v/c Ratio	0.98	0.47		0.06	0.90		0.16	0.09		0.63	0.17	
Control Delay	62.9	0.8		15.8	32.2		55.0	53.7		66.8	57.1	
Queue Delay	0.0	0.2		0.0	2.9		0.0	0.0		0.0	0.0	
Total Delay	62.9	0.9		15.8	35.1		55.0	53.7		66.8	57.1	
LOS	E	A		B	D		D	D		E	E	
Approach Delay		19.7			34.9		54.6				65.7	
Approach LOS		B			C		D				E	
Queue Length 50th (ft)	238	9		4	692		16	8		63	16	
Queue Length 95th (ft)	#348	11		15	#886		44	28		m98	m42	
Internal Link Dist (ft)		489			924		162				416	
Turn Bay Length (ft)	350			100				100		300		
Base Capacity (vph)	572	2729		180	1992		136	119		257	129	
Starvation Cap Reductn	0	500		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	120		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.98	0.58		0.06	0.96		0.16	0.09		0.63	0.17	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 29.3 Intersection LOS: C
 Intersection Capacity Utilization 82.3% 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: 23: Market St. & Quadrant D



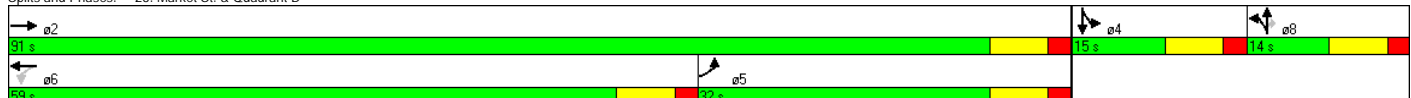


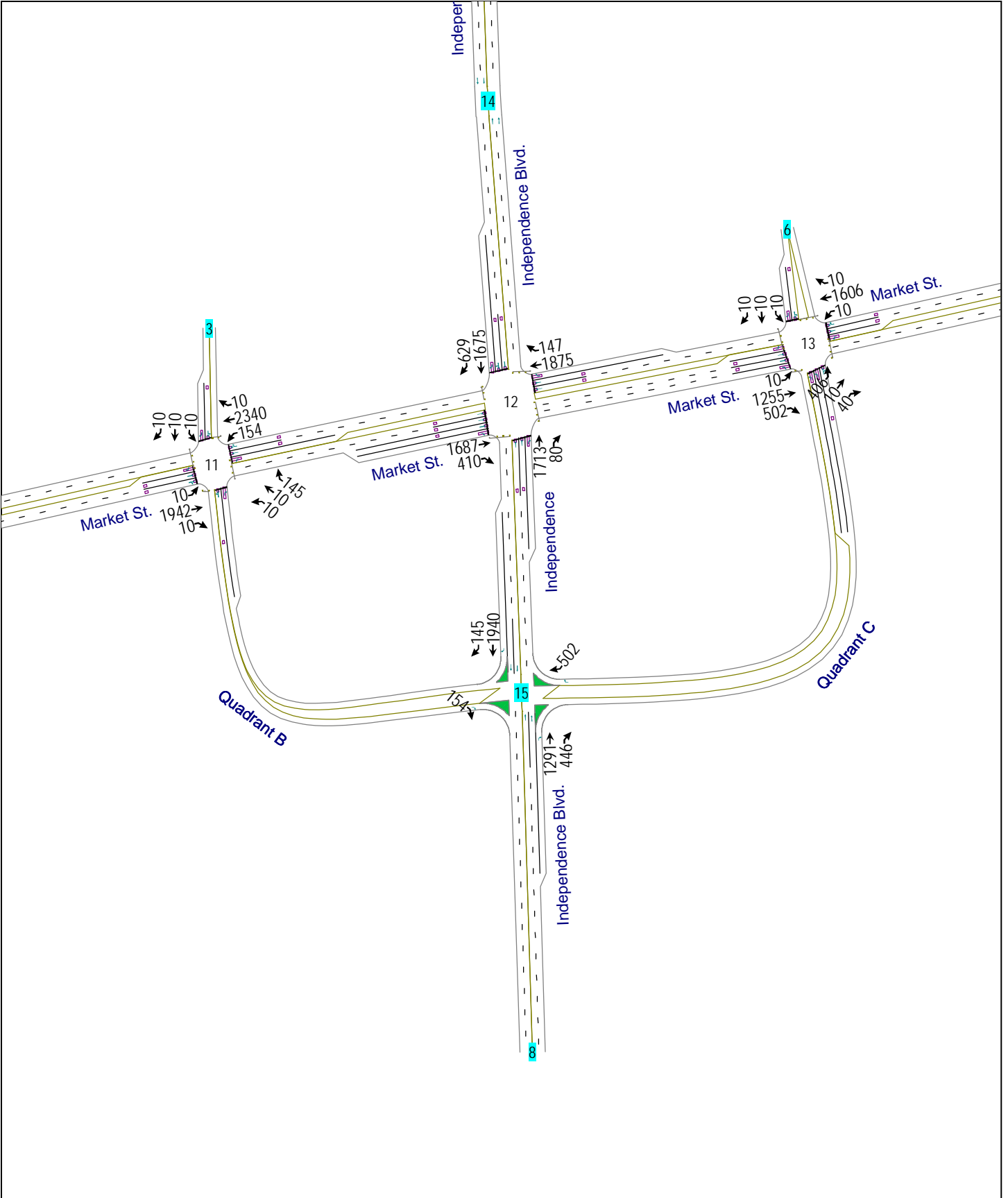
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔			↔	↔	↔	↔	↔
Volume (vph)	629	1459	10	10	1295	10	10	10	10	147	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	300		0
Storage Lanes	1		0	1		0	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.089				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	166	3536	0	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			516	
Travel Time (s)		9.7			17.1			5.5			14.1	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1632	0	11	1450	0	0	22	11	163	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm			Split		Perm	Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases				6				8		4		4
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	
Total Split (s)	32.0	91.0	0.0	59.0	59.0	0.0	14.0	14.0		14.0	15.0	15.0
Total Split (%)	26.7%	75.8%	0.0%	49.2%	49.2%	0.0%	11.7%	11.7%		11.7%	12.5%	12.5%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max		None	None	None	Max	Max	
Act Effct Green (s)	27.0	91.6		59.6	59.6		9.0	9.0		10.0	10.0	
Actuated g/C Ratio	0.22	0.76		0.50	0.50		0.08	0.08		0.08	0.08	
v/c Ratio	0.91	0.60		0.13	0.83		0.16	0.09		0.57	0.15	
Control Delay	26.5	3.9		24.8	32.1		55.0	53.7		62.8	55.2	
Queue Delay	0.0	0.3		0.0	0.9		0.0	0.0		0.0	0.0	
Total Delay	26.5	4.1		24.8	33.0		55.0	53.7		62.8	55.2	
LOS	C	A		C	C		D	D		E	E	
Approach Delay		10.8			32.9		54.6				61.9	
Approach LOS		B			C		D				E	
Queue Length 50th (ft)	288	68		5	539		16	8		63	16	
Queue Length 95th (ft)	m268	m16		20	#668		44	28		m98	m42	
Internal Link Dist (ft)		489			924		162				436	
Turn Bay Length (ft)	350			100				100		300		
Base Capacity (vph)	772	2699		83	1756		136	119		286	144	
Starvation Cap Reductn	0	389		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	108		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.91	0.71		0.13	0.88		0.16	0.09		0.57	0.15	

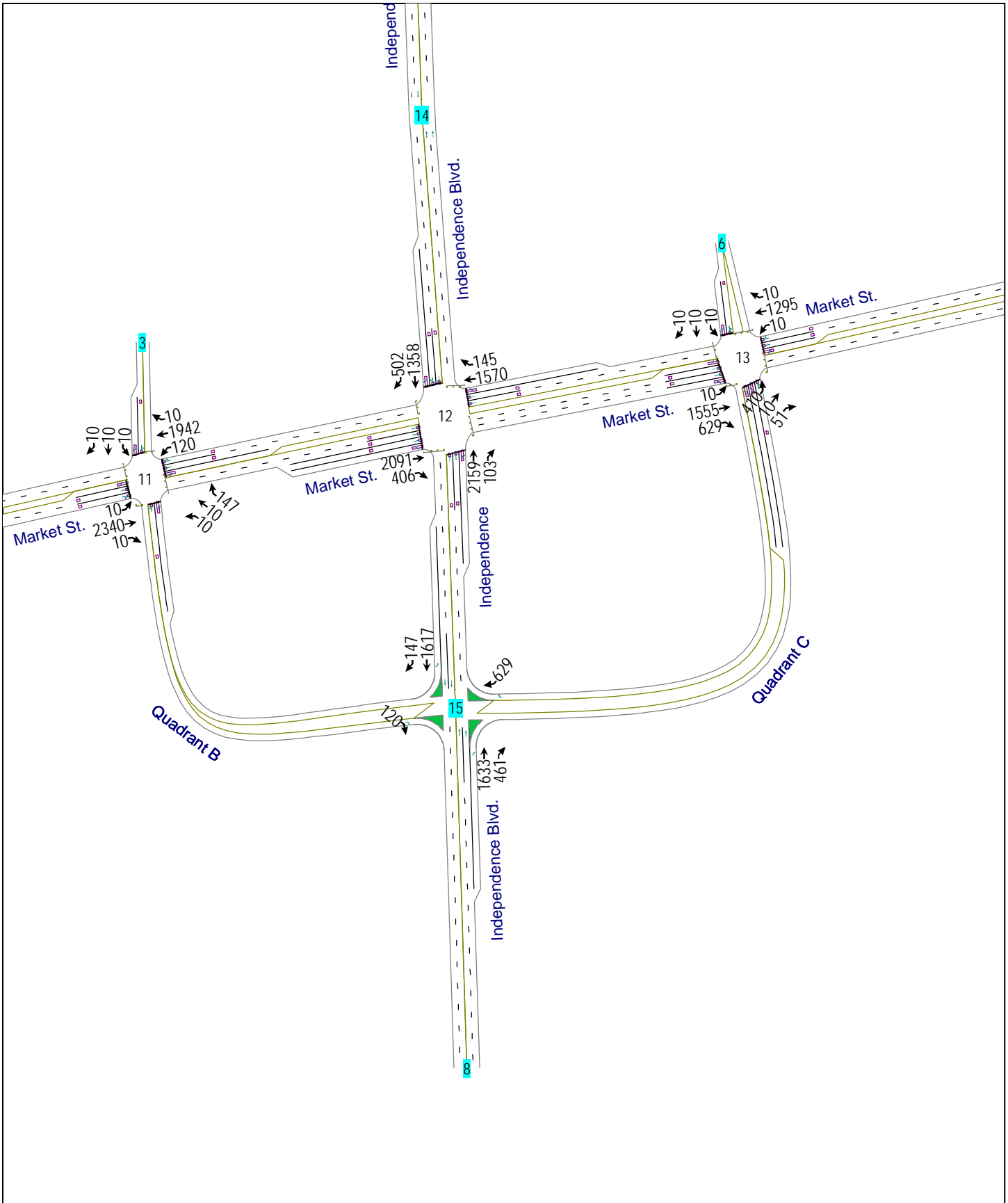
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 21.6
 Intersection LOS: C
 Intersection Capacity Utilization 77.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 23: Market St. & Quadrant D







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔		↔	↔↔			↔	↔		↔	↔
Volume (vph)	10	1942	10	154	2340	10	10	10	145	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	0		200	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.040			0.950				0.976			0.976	
Satd. Flow (perm)	75	3536	0	1770	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			940			256	
Travel Time (s)		17.5			9.8			21.4			5.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	171	2611	0	0	22	161	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases									8			4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	98.0	98.0	0.0	22.0	120.0	0.0	14.0	14.0	22.0	16.0	16.0	16.0
Total Split (%)	65.3%	65.3%	0.0%	14.7%	80.0%	0.0%	9.3%	9.3%	14.7%	10.7%	10.7%	10.7%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	105.3	105.3		17.0	129.3		9.2	22.6		9.7	9.7	
Actuated g/C Ratio	0.70	0.70		0.11	0.86		0.06	0.15		0.06	0.06	
v/c Ratio	0.21	0.87		0.85	0.86		0.20	0.68		0.19	0.11	
Control Delay	24.6	25.5		57.1	9.8		82.9	66.0		70.0	68.1	
Queue Delay	0.0	0.3		0.0	2.1		0.0	0.0		0.0	0.0	
Total Delay	24.6	25.7		57.1	11.9		82.9	66.0		70.0	68.1	
LOS	C	C		E	B		F	E		E	E	
Approach Delay		25.7			14.7		68.1			69.3		
Approach LOS		C			B		E			E		
Queue Length 50th (ft)	4	1014		175	342		20	132		21	10	
Queue Length 95th (ft)	22	#1274		m149	m198		m21	m129		51	32	
Internal Link Dist (ft)		945			493		860			176		
Turn Bay Length (ft)	100			200				200			100	
Base Capacity (vph)	53	2483		201	3049		112	238		133	116	
Starvation Cap Reductn	0	0		0	293		0	0		0	0	
Spillback Cap Reductn	0	44		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.21	0.89		0.85	0.95		0.20	0.68		0.17	0.09	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 124 (83%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 21.5 Intersection LOS: C
 Intersection Capacity Utilization 95.2% 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: 11: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔		↔	↔↔			↔	↔		↔	↔
Volume (vph)	10	2340	10	120	1942	10	10	10	147	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	0		200	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.051			0.950				0.976			0.976	
Satd. Flow (perm)	95	3536	0	1770	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			940			256	
Travel Time (s)		17.5			9.8			21.4			5.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	133	2169	0	0	22	163	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases								8				4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	78.0	78.0	0.0	14.0	92.0	0.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (%)	65.0%	65.0%	0.0%	11.7%	76.7%	0.0%	11.7%	11.7%	11.7%	11.7%	11.7%	11.7%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	84.2	84.2		9.0	100.2		9.0	14.4		9.0	9.0	
Actuated g/C Ratio	0.70	0.70		0.08	0.84		0.08	0.12		0.08	0.08	
v/c Ratio	0.16	1.05		1.00	0.73		0.16	0.86		0.16	0.09	
Control Delay	17.9	54.6		64.2	10.3		66.0	78.5		55.0	53.7	
Queue Delay	0.0	111.3		0.0	0.1		0.0	0.0		0.0	0.0	
Total Delay	17.9	165.9		64.2	10.5		66.0	78.5		55.0	53.7	
LOS	B	F		E	B		E	E		D	D	
Approach Delay		165.2			13.6		77.0			54.6		
Approach LOS		F			B		E			D		
Queue Length 50th (ft)	4	-1302		-103	282		17	114		16	8	
Queue Length 95th (ft)	17	#1432		m98	m119		m24	m138		44	28	
Internal Link Dist (ft)		945			493		860			176		
Turn Bay Length (ft)	100			200				200			100	
Base Capacity (vph)	67	2481		133	2953		136	190		136	119	
Starvation Cap Reductn	0	0		0	148		0	0		0	0	
Spillback Cap Reductn	0	481		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.16	1.31		1.00	0.77		0.16	0.86		0.16	0.09	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 90 (75%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 93.5
 Intersection LOS: F
 Intersection Capacity Utilization 92.4%
 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: 11: Market St. &

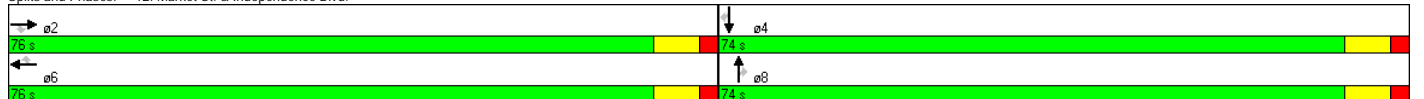


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1687	410	0	1875	147	0	1713	80	0	1675	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	0	250	0	250	0	200	0	250	0	250
Storage Lanes	0	2	0	1	0	1	0	1	0	1	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	1874	456	0	2083	163	0	1903	89	0	1931	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type		Perm			Perm			Perm			Perm	
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	76.0	76.0	0.0	76.0	76.0	0.0	74.0	74.0	0.0	74.0	74.0
Total Split (%)	0.0%	50.7%	50.7%	0.0%	50.7%	50.7%	0.0%	49.3%	49.3%	0.0%	49.3%	49.3%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		71.0	71.0		71.0	71.0		69.0	69.0		69.0	69.0
Actuated g/C Ratio		0.47	0.47		0.47	0.47		0.46	0.46		0.46	0.46
v/c Ratio		0.78	0.61		1.24	0.22		1.20	0.13		1.24	0.95
Control Delay		22.3	19.6		141.3	18.3		133.5	20.5		151.1	63.5
Queue Delay		4.4	1.9		20.6	0.0		0.0	0.0		8.7	4.8
Total Delay		26.7	21.5		161.9	18.3		133.5	20.5		159.9	68.4
LOS		C	C		F	B		F	C		F	E
Approach Delay		25.7			151.5			128.4			137.4	
Approach LOS		C			F			F			F	
Queue Length 50th (ft)		361	188		-1341	68		-1199	50		-1287	639
Queue Length 95th (ft)		429	m251		#1457	m101		#1337	85		#1428	#928
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			200			250
Base Capacity (vph)		2407	749		1675	749		1581	707		1552	663
Starvation Cap Reductn		456	159		60	0		0	0		0	0
Spillback Cap Reductn		0	0		15	0		0	0		24	21
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.96	0.77		1.29	0.22		1.20	0.13		1.26	0.98

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 148 (99%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay: 110.4 Intersection LOS: F
 Intersection Capacity Utilization 113.1% 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.

Splits and Phases: 12: Market St. & Independence Blvd.

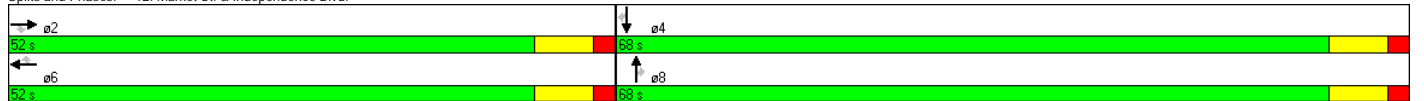


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	2091	406	0	1570	145	0	2159	103	0	1358	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	250	0	250	250	0	250	200	0	250	250
Storage Lanes	0	2	2	0	1	1	0	1	1	0	1	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	2323	451	0	1744	161	0	2399	114	0	1565	502
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type		Perm		Perm		Perm		Perm		Perm		Perm
Protected Phases		2		6		8		4				4
Permitted Phases			2		6		8		8		4	4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	52.0	52.0	0.0	52.0	52.0	0.0	68.0	68.0	0.0	68.0	68.0
Total Split (%)	0.0%	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	56.7%	56.7%	0.0%	56.7%	56.7%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		47.0	47.0		47.0	47.0		63.0	63.0		63.0	63.0
Actuated g/C Ratio		0.39	0.39		0.39	0.39		0.52	0.52		0.52	0.52
v/c Ratio		1.17	0.73		1.26	0.26		1.33	0.14		0.88	0.66
Control Delay		102.2	21.6		147.5	17.7		177.4	12.1		32.7	26.1
Queue Delay		32.1	0.6		9.5	0.0		0.0	0.0		0.0	0.0
Total Delay		134.3	22.2		157.0	17.7		177.4	12.1		32.7	26.1
LOS		F	C		F	B		F	B		C	C
Approach Delay		116.0			145.2			169.9			31.1	
Approach LOS		F			F			F			C	
Queue Length 50th (ft)		-773	213		-902	58		-1287	34		568	300
Queue Length 95th (ft)		m#716	m201		#1022	m87		#1422	66		691	440
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			200			250
Base Capacity (vph)		1992	620		1386	620		1805	807		1771	757
Starvation Cap Reductn		116	31		23	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.24	0.77		1.28	0.26		1.33	0.14		0.88	0.66

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 118 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.33
 Intersection Signal Delay: 117.7 Intersection LOS: F
 Intersection Capacity Utilization 111.4% 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.

Splits and Phases: 12: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1255	502	10	1606	10	406	10	40	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		0	0		100
Storage Lanes	1		0	1		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	3433	1639	0	0	1818	1583
Flt Permitted	0.053			0.127			0.950				0.976	
Satd. Flow (perm)	99	3539	1583	237	3536	0	3433	1639	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1394	558	11	1795	0	451	55	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split			Split		Perm
Protected Phases		2	8		6		8	8		4	4	
Permitted Phases		2	2		6							4
Detector Phase		2	2		8		6	6		8	8	
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	103.0	103.0	33.0	103.0	103.0	0.0	33.0	33.0	0.0	14.0	14.0	14.0
Total Split (%)	68.7%	68.7%	22.0%	68.7%	68.7%	0.0%	22.0%	22.0%	0.0%	9.3%	9.3%	9.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max		None	None	None
Act Effct Green (s)	98.0	98.0	138.6	98.0	98.0		33.6	33.6		9.0	9.0	9.0
Actuated g/C Ratio	0.65	0.65	0.92	0.65	0.65		0.22	0.22		0.06	0.06	0.06
v/c Ratio	0.17	0.60	0.38	0.07	0.78		0.59	0.15		0.20	0.12	0.12
Control Delay	4.1	1.5	0.6	10.9	21.3		57.0	51.0		71.8	69.7	69.7
Queue Delay	0.0	0.5	0.1	0.0	25.1		0.6	0.0		0.0	0.0	0.0
Total Delay	4.1	2.0	0.7	10.9	46.4		57.5	51.0		71.8	69.7	69.7
LOS	A	A	A	B	D		E	D		E	E	E
Approach Delay		1.6			46.2			56.8			71.1	
Approach LOS		A			D			E			E	
Queue Length 50th (ft)	0	10	3	4	613		215	46		21	10	10
Queue Length 95th (ft)	m0	11	3	13	708		277	89		52	33	33
Internal Link Dist (ft)		489			924			1062			138	
Turn Bay Length (ft)	100			100			300					100
Base Capacity (vph)	65	2312	1462	155	2310		769	367		109	95	95
Starvation Cap Reductn	0	431	236	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	592		90	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.17	0.74	0.46	0.07	1.04		0.66	0.15		0.20	0.12	0.12

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 27.3
 Intersection LOS: C
 Intersection Capacity Utilization 74.6%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

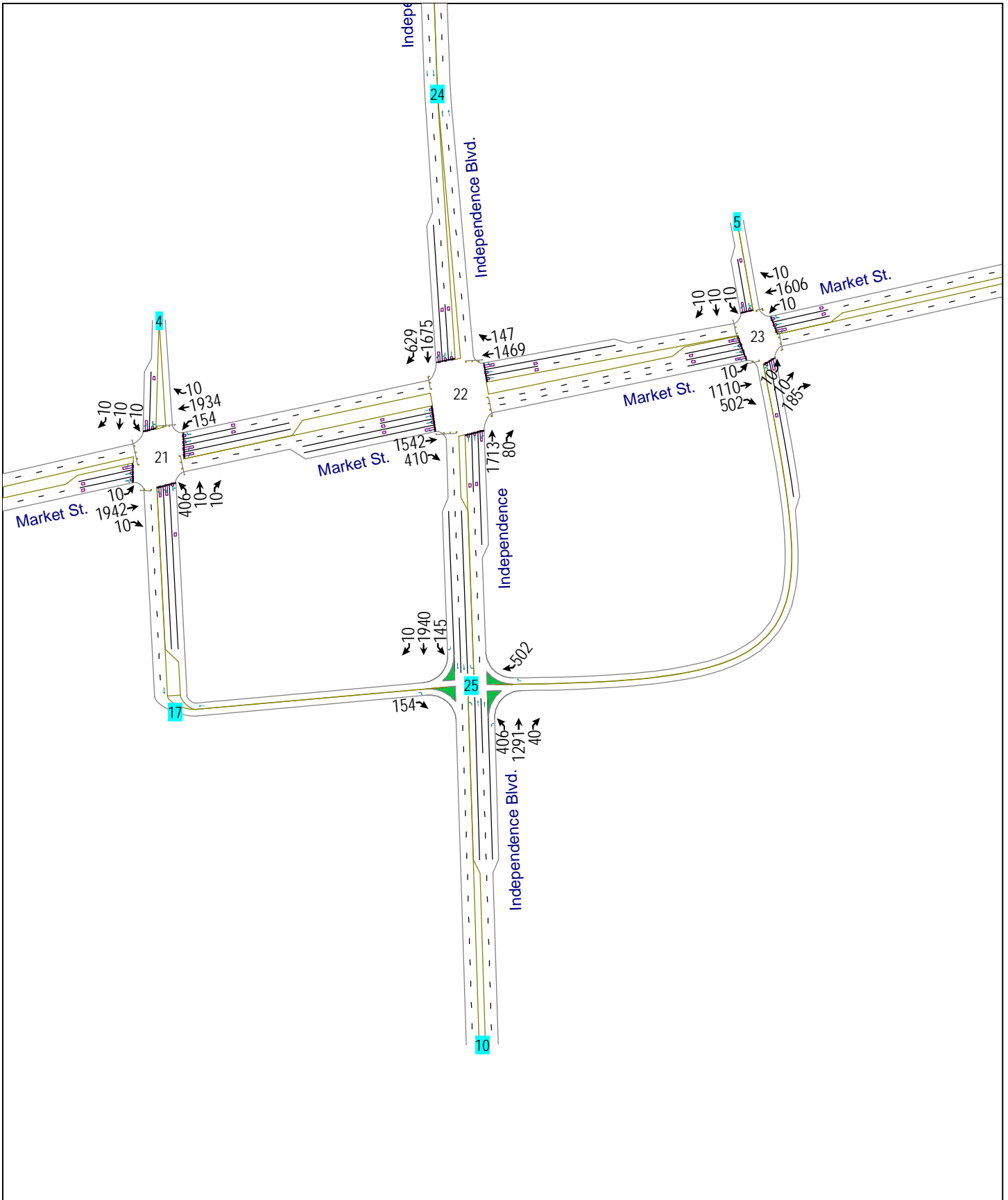


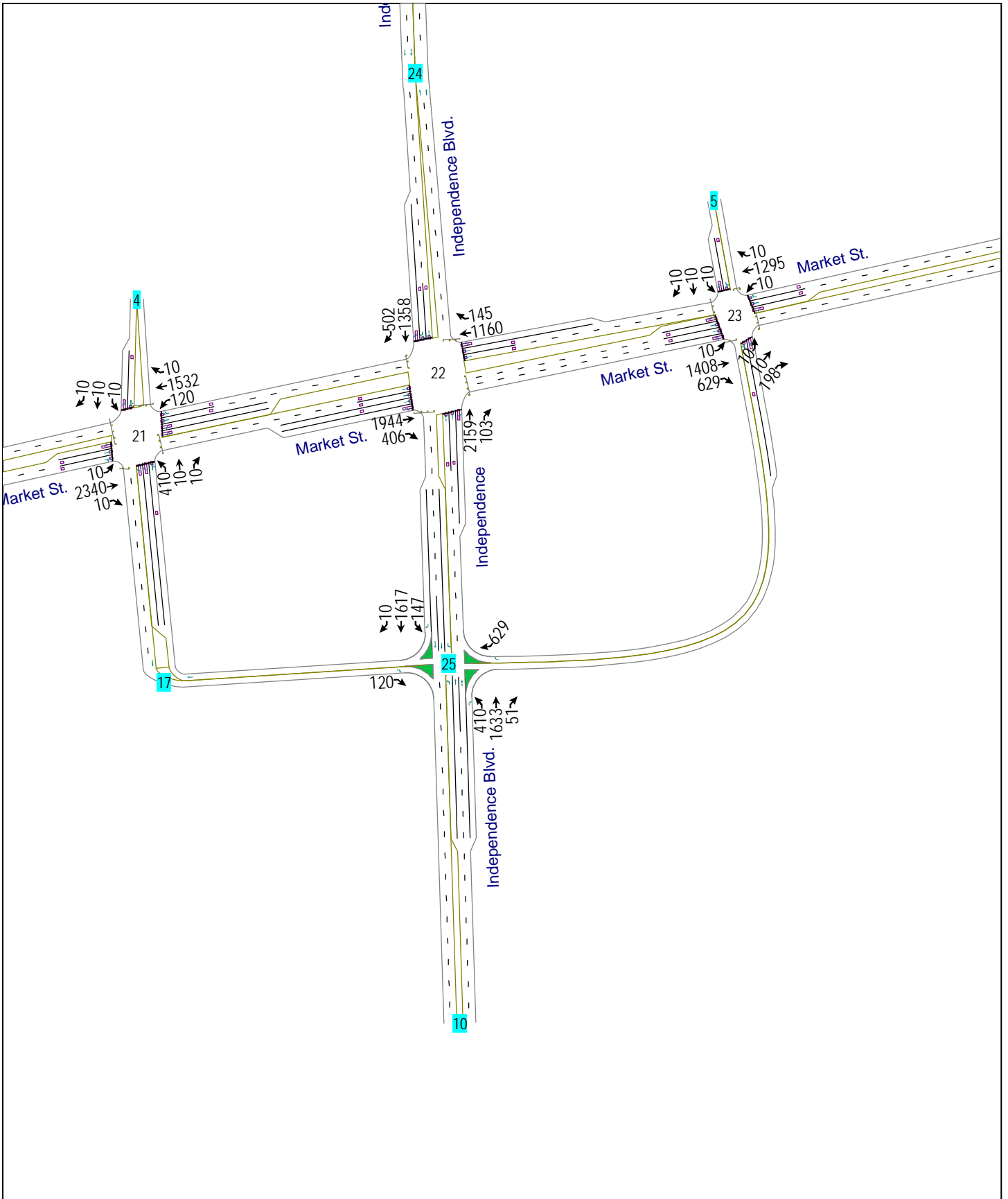
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	1555	629	10	1295	10	410	10	51	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	300		0	0		100
Storage Lanes	1		0	1		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	3433	1628	0	0	1818	1583
Flt Permitted	0.100			0.057			0.950				0.976	
Satd. Flow (perm)	186	3539	1583	106	3536	0	3433	1628	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1728	699	11	1450	0	456	68	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split			Split		Perm
Protected Phases	2	2	8	6	6		8	8		4	4	4
Permitted Phases			2	6								4
Detector Phase	2	2	8	6	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	78.0	78.0	28.0	78.0	78.0	0.0	28.0	28.0	0.0	14.0	14.0	14.0
Total Split (%)	65.0%	65.0%	23.3%	65.0%	65.0%	0.0%	23.3%	23.3%	0.0%	11.7%	11.7%	11.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max		None	None	None
Act Effct Green (s)	73.0	73.0	108.6	73.0	73.0		28.6	28.6		None	9.0	9.0
Actuated g/C Ratio	0.61	0.61	0.90	0.61	0.61		0.24	0.24		0.08	0.08	0.08
v/c Ratio	0.10	0.80	0.49	0.17	0.67		0.56	0.18		0.16	0.09	0.09
Control Delay	0.8	7.8	4.2	18.0	17.6		44.7	40.8		55.0	53.7	53.7
Queue Delay	0.0	2.4	0.2	0.0	6.7		0.0	0.0		0.0	0.0	0.0
Total Delay	0.8	10.2	4.3	18.0	24.3		44.7	40.8		55.0	53.7	53.7
LOS	A	B	A	B	C		D	D		D	D	D
Approach Delay		8.5			24.3			44.2			54.6	
Approach LOS		A			C			D			D	
Queue Length 50th (ft)	0	115	36	4	368		171	45		16	8	8
Queue Length 95th (ft)	m0	m18	m6	16	445		228	88		44	28	28
Internal Link Dist (ft)		489			924			1062			138	
Turn Bay Length (ft)	100			100			300				100	
Base Capacity (vph)	113	2153	1432	64	2151		818	388		136	119	119
Starvation Cap Reductn	0	291	169	0	0		0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	653		0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	0
Reduced v/c Ratio	0.10	0.93	0.55	0.17	0.97		0.56	0.18		0.16	0.09	0.09

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 112 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 18.2 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.







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖↗	↖↗		↖↗	↖			↖↗	↖
Volume (vph)	10	1942	10	154	1934	10	406	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	300		0	0		100
Storage Lanes	1		0	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.044			0.950			0.950				0.976	
Satd. Flow (perm)	82	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		1025			573			479				256
Travel Time (s)		17.5			9.8			10.9				5.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	171	2160	0	451	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split			Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2											4
Detector Phase	2	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	98.0	98.0	0.0	14.0	112.0	0.0	24.0	24.0	0.0	14.0	14.0	14.0
Total Split (%)	65.3%	65.3%	0.0%	9.3%	74.7%	0.0%	16.0%	16.0%	0.0%	9.3%	9.3%	9.3%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	94.4	94.4		9.0	108.4		23.2	23.2		9.0	9.0	9.0
Actuated g/C Ratio	0.63	0.63		0.06	0.72		0.15	0.15		0.06	0.06	0.06
v/c Ratio	0.21	0.97		0.83	0.85		0.85	0.08		0.20	0.12	0.12
Control Delay	24.7	40.9		56.3	8.9		77.3	58.2		71.8	69.7	69.7
Queue Delay	0.0	3.4		0.0	1.8		0.0	0.0		0.0	0.0	0.0
Total Delay	24.7	44.4		56.3	10.7		77.3	58.2		71.8	69.7	69.7
LOS	C	D		E	B		E	E		E	E	E
Approach Delay		44.3			14.1			76.4			71.1	
Approach LOS		D			B			E			E	
Queue Length 50th (ft)	5	1046		86	305		-244	20		21	10	
Queue Length 95th (ft)	21	#1274		m84	m226		m#357	m48		52	33	
Internal Link Dist (ft)		945			493			399			176	
Turn Bay Length (ft)	100			200			300					100
Base Capacity (vph)	52	2225		206	2555		531	266		109	95	
Starvation Cap Reductn	0	0		0	241		0	0		0	0	0
Spillback Cap Reductn	0	46		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.21	1.00		0.83	0.93		0.85	0.08		0.20	0.12	0.12

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 118 (79%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 33.4 Intersection LOS: C
 Intersection Capacity Utilization 92.5% ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Market St. &

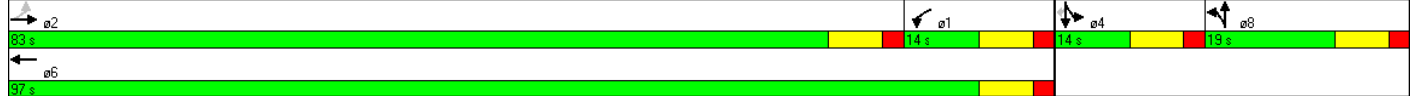


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	2340	10	120	1532	10	410	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	300		0	0		100
Storage Lanes	1		0	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.073			0.950			0.950				0.976	
Satd. Flow (perm)	136	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		1025			573			465				256
Travel Time (s)		17.5			9.8			10.6				5.8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	133	1713	0	456	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split			Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2											4
Detector Phase	2	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	83.0	83.0	0.0	14.0	97.0	0.0	19.0	19.0	0.0	14.0	14.0	14.0
Total Split (%)	63.8%	63.8%	0.0%	10.8%	74.6%	0.0%	14.6%	14.6%	0.0%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	78.0	78.0		9.0	92.0		19.6	19.6		9.0	9.0	9.0
Actuated g/C Ratio	0.60	0.60		0.07	0.71		0.15	0.15		0.07	0.07	0.07
v/c Ratio	0.13	1.23		0.56	0.68		0.88	0.08		0.17	0.10	0.10
Control Delay	16.1	134.4		45.8	8.5		73.7	53.2		60.5	59.0	59.0
Queue Delay	0.0	164.5		0.0	0.4		0.0	0.0		0.0	0.0	0.0
Total Delay	16.1	298.8		45.8	9.0		73.7	53.2		60.5	59.0	59.0
LOS	B	F		D	A		E	D		E	E	E
Approach Delay		297.6			11.6			72.7			60.0	
Approach LOS		F			B			E			E	
Queue Length 50th (ft)	4	-1428		52	227		-245	17		18	9	
Queue Length 95th (ft)	16	#1554		m59	m210		m#357	m44		47	29	
Internal Link Dist (ft)		945			493			385			176	
Turn Bay Length (ft)	100			200			300				100	
Base Capacity (vph)	82	2122		238	2502		518	260		126	110	
Starvation Cap Reductn	0	0		0	326		0	0		0	0	
Spillback Cap Reductn	0	487		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.13	1.60		0.56	0.79		0.88	0.08		0.17	0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 98 (75%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 168.4
 Intersection LOS: F
 Intersection Capacity Utilization 91.7%
 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: 21: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1542	410	0	1469	147	0	1713	80	0	1675	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	250	0	250	250	0	200	200	0	250	250
Storage Lanes	0	2	2	0	1	1	0	1	1	0	1	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	1713	456	0	1632	163	0	1903	89	0	1931	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	68.0	68.0	0.0	68.0	68.0	0.0	82.0	82.0	0.0	82.0	82.0
Total Split (%)	0.0%	45.3%	45.3%	0.0%	45.3%	45.3%	0.0%	54.7%	54.7%	0.0%	54.7%	54.7%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)	63.0	63.0		63.0	63.0		77.0	77.0		77.0	77.0	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.51	0.51		0.51	0.51	
v/c Ratio	0.80	0.69		1.10	0.25		1.08	0.11		1.12	0.85	
Control Delay	16.9	16.0		76.8	18.0		80.7	16.1		95.4	44.3	
Queue Delay	4.2	2.3		17.8	0.0		0.0	0.0		0.3	0.0	
Total Delay	21.0	18.4		94.7	18.0		80.7	16.1		95.7	44.3	
LOS	C	B		F	B		F	B		F	D	
Approach Delay	20.5			87.7			77.8			83.1		
Approach LOS	C			F			E			F		
Queue Length 50th (ft)	365	227		-951	37		-1098	43		-1187	571	
Queue Length 95th (ft)	m394	m243		#1072	m59		#1236	72		#1327	#814	
Internal Link Dist (ft)	493			489			467			485		
Turn Bay Length (ft)		250			250			200			250	
Base Capacity (vph)	2136	665		1486	665		1765	790		1731	740	
Starvation Cap Reductn	344	106		54	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		1	1	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.96	0.82		1.14	0.25		1.08	0.11		1.12	0.85	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 66.9 Intersection LOS: E
 Intersection Capacity Utilization 101.9% 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: 22: Market St. & Independence Blvd.



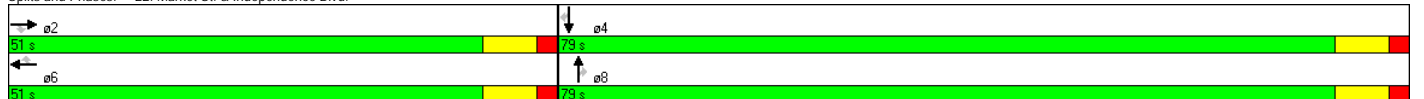


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1944	406	0	1160	145	0	2159	103	0	1358	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	250	0	0	250	0	0	200	0	0	250
Storage Lanes	0	0	2	0	0	1	0	0	1	0	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3373	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	2160	451	0	1289	161	0	2399	114	0	1565	502
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	51.0	51.0	0.0	51.0	51.0	0.0	79.0	79.0	0.0	79.0	79.0
Total Split (%)	0.0%	39.2%	39.2%	0.0%	39.2%	39.2%	0.0%	60.8%	60.8%	0.0%	60.8%	60.8%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		46.0	46.0		46.0	46.0		74.0	74.0		74.0	74.0
Actuated g/C Ratio		0.35	0.35		0.35	0.35		0.57	0.57		0.57	0.57
v/c Ratio		1.20	0.81		1.03	0.29		1.23	0.13		0.82	0.61
Control Delay		111.2	16.4		53.8	18.1		132.2	10.8		26.9	22.6
Queue Delay		28.8	0.9		6.8	0.0		0.0	0.0		0.0	0.0
Total Delay		140.1	17.3		60.6	18.1		132.2	10.8		26.9	22.6
LOS		F	B		E	B		F	B		C	C
Approach Delay		118.9			55.9			126.7			25.9	
Approach LOS		F			E			F			C	
Queue Length 50th (ft)		-797	260		-610	33		-1324	33		557	294
Queue Length 95th (ft)		m460	m182		#730	m55		#1439	63		666	423
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			200			250
Base Capacity (vph)		1799	560		1252	560		1957	875		1920	820
Starvation Cap Reductn		92	20		23	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.27	0.84		1.05	0.29		1.23	0.13		0.82	0.61

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 8 (6%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 88.4 Intersection LOS: F
 Intersection Capacity Utilization 105.6% 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: 22: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↕	↔	↕	↕	↔	↕	↕	↔	↕	↕
Volume (vph)	10	1110	502	10	1606	10	10	10	185	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		250	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.046			0.159				0.976			0.976	
Satd. Flow (perm)	86	3539	1583	296	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1233	558	11	1795	0	0	22	206	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split		Perm		Split	Perm
Protected Phases		2	8		6		8	8		8	4	4
Permitted Phases		2	2	6	6		8	8		8	4	4
Detector Phase		2	2	8	6	6	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	100.0	100.0	36.0	100.0	100.0	0.0	36.0	36.0	36.0	14.0	14.0	14.0
Total Split (%)	66.7%	66.7%	24.0%	66.7%	66.7%	0.0%	24.0%	24.0%	24.0%	9.3%	9.3%	9.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	95.0	95.0	138.6	95.0	95.0		36.6	36.6		9.0	9.0	
Actuated g/C Ratio	0.63	0.63	0.92	0.63	0.63		0.24	0.24		0.06	0.06	
v/c Ratio	0.20	0.55	0.38	0.06	0.80		0.05	0.53		0.20	0.12	
Control Delay	5.8	1.2	1.2	11.6	24.1		51.5	59.0		71.8	69.7	
Queue Delay	0.0	0.2	0.2	0.0	4.2		0.0	0.0		0.0	0.0	
Total Delay	5.8	1.4	1.4	11.6	28.2		51.5	59.0		71.8	69.7	
LOS	A	A	A	B	C		D	E		E	E	
Approach Delay		1.4			28.1		58.2			71.1		
Approach LOS		A			C		E			E		
Queue Length 50th (ft)	0	11	3	4	653		16	172		21	10	
Queue Length 95th (ft)	m0	14	22	13	754		m22	m196		52	33	
Internal Link Dist (ft)		489			924		1062			138		
Turn Bay Length (ft)	100			100				250				100
Base Capacity (vph)	54	2241	1462	187	2239		444	386		109	95	
Starvation Cap Reductn	0	291	254	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	365		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.63	0.46	0.06	0.96		0.05	0.53		0.20	0.12	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 140 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 17.8
 Intersection LOS: B
 Intersection Capacity Utilization 68.9%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

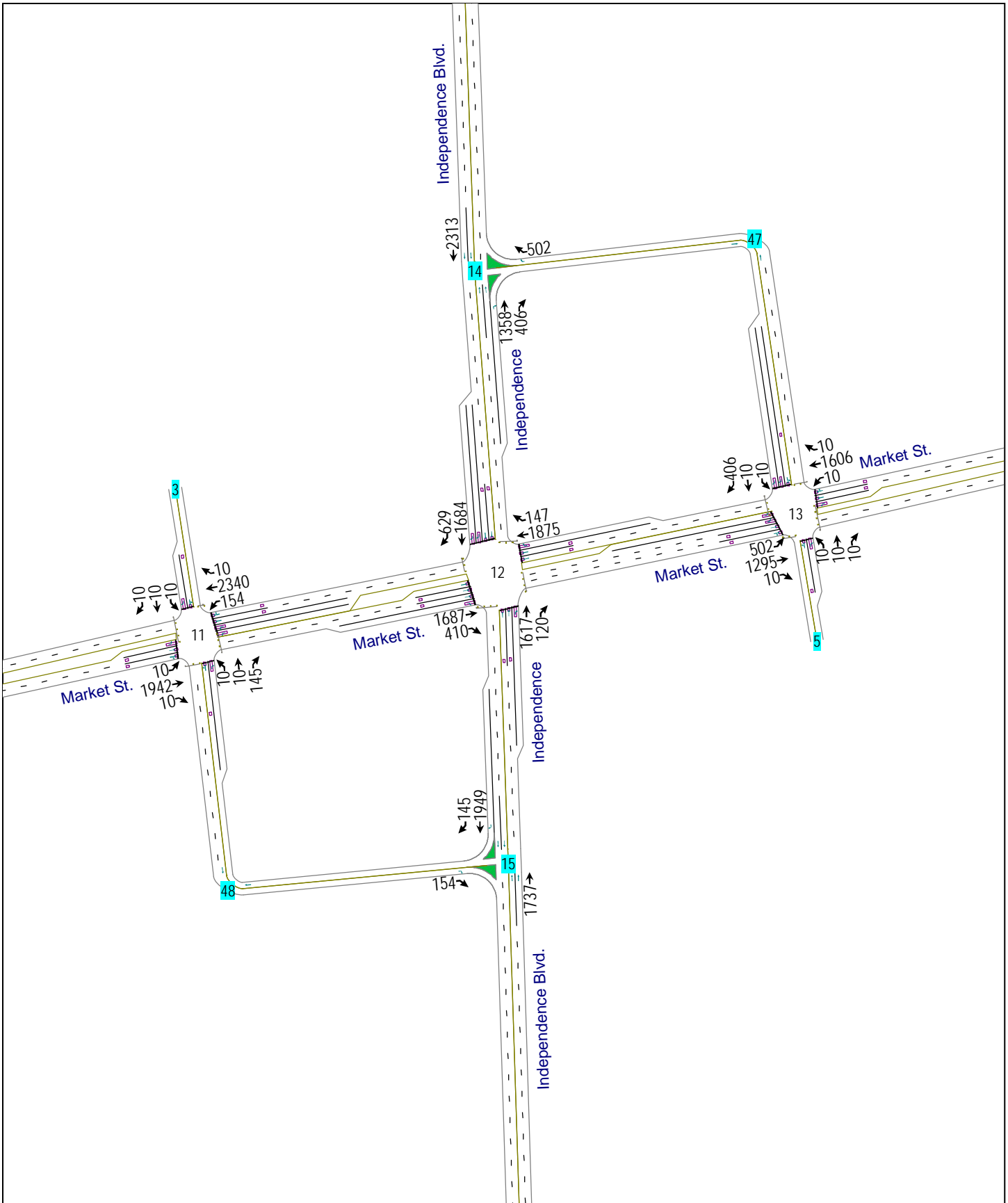


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1408	629	10	1295	10	10	10	198	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		250	0		100
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.088			0.064				0.976			0.976	
Satd. Flow (perm)	164	3539	1583	119	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		569			1004			1142			218	
Travel Time (s)		9.7			17.1			26.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1564	699	11	1450	0	0	22	220	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Perm			Split		Perm		Split	Perm
Protected Phases		2	8		6		8	8		8	4	4
Permitted Phases		2	2	6	6		8	8		8	4	4
Detector Phase		2	2	8	6	6	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	80.0	80.0	36.0	80.0	80.0	0.0	36.0	36.0	36.0	14.0	14.0	14.0
Total Split (%)	61.5%	61.5%	27.7%	61.5%	61.5%	0.0%	27.7%	27.7%	27.7%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	C-Max	C-Max	Max	C-Max	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	75.0	75.0	118.6	75.0	75.0		36.6	36.6		9.0	9.0	
Actuated g/C Ratio	0.58	0.58	0.91	0.58	0.58		0.28	0.28		0.07	0.07	
v/c Ratio	0.12	0.77	0.48	0.16	0.71		0.04	0.49		0.17	0.10	
Control Delay	1.1	8.5	7.0	19.7	22.2		39.4	44.9		60.5	59.0	
Queue Delay	0.0	1.1	0.3	0.0	0.6		0.0	0.0		0.0	0.0	
Total Delay	1.1	9.6	7.3	19.7	22.8		39.4	44.9		60.5	59.0	
LOS	A	A	A	B	C		D	D		E	E	
Approach Delay		8.9			22.8		44.4			60.0		
Approach LOS		A			C		D			E		
Queue Length 50th (ft)	0	111	94	4	440		13	147		18	9	
Queue Length 95th (ft)	m0	m18	m7	18	524		m23	m212		47	29	
Internal Link Dist (ft)		489			924		1062			138		
Turn Bay Length (ft)	100			100				250			100	
Base Capacity (vph)	95	2042	1444	69	2040		512	445		126	110	
Starvation Cap Reductn	0	250	260	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	246		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.87	0.59	0.16	0.81		0.04	0.49		0.17	0.10	

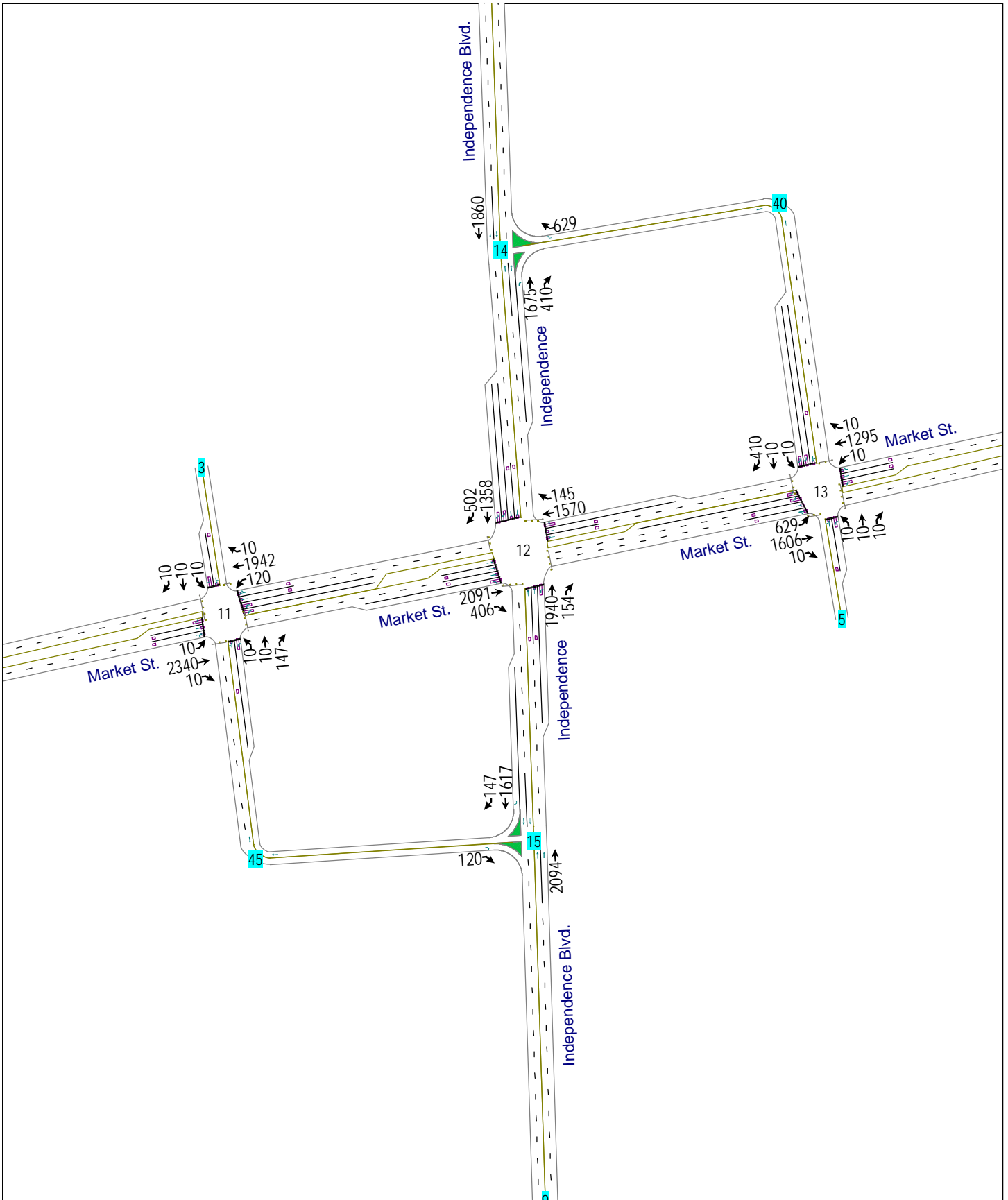
Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 128 (98%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 16.5
 Intersection LOS: B
 Intersection Capacity Utilization 69.5%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.





BD AM Peak



BD PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔↔		↔↔	↔↔			↔	↔		↔	↔
Volume (vph)	10	1942	10	154	2340	10	10	10	145	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	250		0	0		200	0		100
Storage Lanes	1		0	2		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.045			0.950				0.976			0.976	
Satd. Flow (perm)	84	3536	0	3433	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			481			277	
Travel Time (s)		17.5			9.8			10.9			6.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	171	2611	0	0	22	161	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases		2						8				4
Detector Phase		2	2		1	6		8	8	1	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	86.0	86.0	0.0	14.0	100.0	0.0	16.0	16.0	14.0	14.0	14.0	14.0
Total Split (%)	66.2%	66.2%	0.0%	10.8%	76.9%	0.0%	12.3%	12.3%	10.8%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	93.6	93.6		9.0	109.6		9.6	15.0		9.0	9.0	
Actuated g/C Ratio	0.72	0.72		0.07	0.84		0.07	0.12		0.07	0.07	
v/c Ratio	0.18	0.85		0.72	0.88		0.16	0.88		0.17	0.10	
Control Delay	19.2	21.2		48.4	11.2		78.0	80.6		60.5	59.0	
Queue Delay	0.0	0.0		0.0	0.5		0.0	0.0		0.0	0.0	
Total Delay	19.2	21.2		48.4	11.7		78.0	80.6		60.5	59.0	
LOS	B	C		D	B		E	F		E	E	
Approach Delay		21.1			14.0		80.3			60.0		
Approach LOS		C			B		F			E		
Queue Length 50th (ft)	4	841		71	443		20	134		18	9	
Queue Length 95th (ft)	19	#1117		m71	m287		m23	m135		47	29	
Internal Link Dist (ft)		945			493		401			197		
Turn Bay Length (ft)	100			250				200			100	
Base Capacity (vph)	61	2546		238	2982		154	183		126	110	
Starvation Cap Reductn	0	0		0	102		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.85		0.72	0.91		0.14	0.88		0.17	0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 106 (82%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 19.6
 Intersection LOS: B
 Intersection Capacity Utilization 89.2%
 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: 11: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	2340	10	120	1942	10	10	10	147	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	250		0	0		200	0		100
Storage Lanes	1		0	2		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	0	1818	1583	0	1818	1583
Flt Permitted	0.045			0.950				0.976			0.976	
Satd. Flow (perm)	84	3536	0	3433	3536	0	0	1818	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1025			573			466			277	
Travel Time (s)		17.5			9.8			10.6			6.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	133	2169	0	0	22	163	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases								8				4
Detector Phase	2	2		1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	88.0	88.0	0.0	14.0	102.0	0.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (%)	67.7%	67.7%	0.0%	10.8%	78.5%	0.0%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes		Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	94.2	94.2		9.0	110.2		9.0	14.4		9.0	9.0	
Actuated g/C Ratio	0.72	0.72		0.07	0.85		0.07	0.11		0.07	0.07	
v/c Ratio	0.18	1.02		0.56	0.72		0.17	0.93		0.17	0.10	
Control Delay	18.4	43.2		43.2	11.5		74.0	100.9		60.5	59.0	
Queue Delay	0.0	104.4		0.0	0.3		0.0	0.0		0.0	0.0	
Total Delay	18.4	147.5		43.2	11.8		74.0	100.9		60.5	59.0	
LOS	B	F		D	B		E	F		E	E	
Approach Delay		147.0			13.6		97.7			60.0		
Approach LOS		F			B		F			E		
Queue Length 50th (ft)	4	-1365		52	353		20	133		18	9	
Queue Length 95th (ft)	18	#1492		m52	m223		m27	m169		47	29	
Internal Link Dist (ft)		945			493		386			197		
Turn Bay Length (ft)	100			250				200			100	
Base Capacity (vph)	61	2562		238	2997		126	175		126	110	
Starvation Cap Reductn	0	0		0	267		0	0		0	0	
Spillback Cap Reductn	0	494		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.18	1.26		0.56	0.79		0.17	0.93		0.17	0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 90 (69%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 170
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 84.9
 Intersection LOS: F
 Intersection Capacity Utilization 92.4%
 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: 11: Market St. &

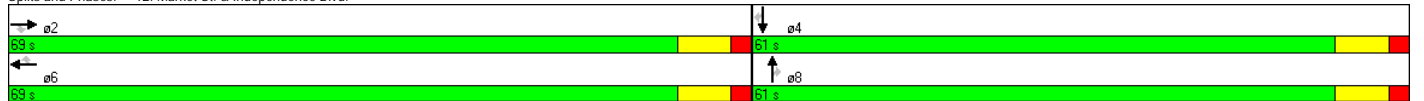


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑↑
Volume (vph)	0	1687	410	0	1875	147	0	1617	120	0	1684	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	2787
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1874	456	0	2083	163	0	1797	133	0	1871	699
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	69.0	69.0	0.0	69.0	69.0	0.0	61.0	61.0	0.0	61.0	61.0
Total Split (%)	0.0%	53.1%	53.1%	0.0%	53.1%	53.1%	0.0%	46.9%	46.9%	0.0%	46.9%	46.9%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		64.0	64.0		64.0	64.0		56.0	56.0		56.0	56.0
Actuated g/C Ratio		0.49	0.49		0.49	0.49		0.43	0.43		0.43	0.43
v/c Ratio		0.75	0.59		1.20	0.21		1.21	0.20		1.23	0.58
Control Delay		17.1	14.9		113.7	13.4		136.3	24.1		142.1	30.5
Queue Delay		1.4	1.0		17.3	0.0		0.0	0.0		0.0	0.6
Total Delay		18.5	15.9		131.1	13.4		136.3	24.1		142.1	31.2
LOS		B	B		F	B		F	C		F	C
Approach Delay		18.0			122.5			128.6			111.9	
Approach LOS		B			F			F			F	
Queue Length 50th (ft)		295	153		-1103	36		-973	69		-1021	250
Queue Length 95th (ft)		326	m192		m#1204	m47		#1112	115		#1160	319
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2503	779		1742	779		1481	663		1524	1201
Starvation Cap Reductn		406	136		55	0		0	0		0	0
Spillback Cap Reductn		0	0		18	0		0	0		0	202
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.89	0.71		1.23	0.21		1.21	0.20		1.23	0.70

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 94.0 Intersection LOS: F
 Intersection Capacity Utilization 106.7% 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: 12: Market St. & Independence Blvd.

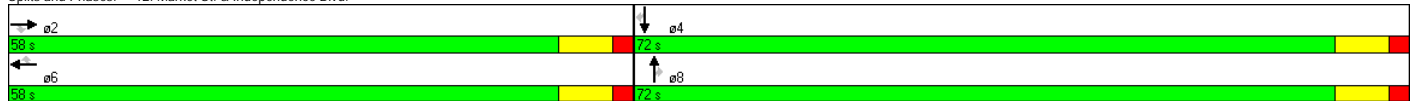


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑↑
Volume (vph)	0	2091	406	0	1570	145	0	1940	154	0	1358	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		250	0		250	0		250	0		250
Storage Lanes	1		1	0		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	2787
Fill Permitted												
Satd. Flow (perm)	0	5085	1583	0	3539	1583	0	3438	1538	0	3539	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2323	451	0	1744	161	0	2156	171	0	1509	558
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type			Perm			Perm			Perm			Perm
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	58.0	58.0	0.0	58.0	58.0	0.0	72.0	72.0	0.0	72.0	72.0
Total Split (%)	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%	0.0%	55.4%	55.4%	0.0%	55.4%	55.4%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		53.0	53.0		53.0	53.0		67.0	67.0		67.0	67.0
Actuated g/C Ratio		0.41	0.41		0.41	0.41		0.52	0.52		0.52	0.52
v/c Ratio		1.12	0.70		1.21	0.25		1.22	0.22		0.83	0.39
Control Delay		82.3	20.5		128.7	27.4		133.0	18.1		31.6	20.1
Queue Delay		54.5	1.5		13.7	0.0		0.0	0.0		0.0	0.1
Total Delay		136.7	22.0		142.5	27.4		133.0	18.1		31.6	20.2
LOS		F	C		F	C		F	B		C	C
Approach Delay		118.1			132.8			124.5			28.5	
Approach LOS		F			F			F			C	
Queue Length 50th (ft)		-816	233		-925	73		-1170	76		548	156
Queue Length 95th (ft)		m#795	m228		#1071	m102		#1304	122		652	204
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		2073	645		1443	645		1772	793		1824	1436
Starvation Cap Reductn		205	73		36	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	113
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.24	0.79		1.24	0.25		1.22	0.22		0.83	0.42

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 128 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 102.4 Intersection LOS: F
 Intersection Capacity Utilization 105.4% 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: 12: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1295	10	10	1606	10	10	10	10	10	10	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		0	0		100	0		300
Storage Lanes	1		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.131				0.976			0.333	
Satd. Flow (perm)	3433	3536	0	244	3536	0	0	1818	1583	0	620	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			520	
Travel Time (s)		9.7			17.1			5.5			14.2	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1450	0	11	1795	0	0	22	11	0	22	451
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm			Split		Perm	Perm		pm-ov
Protected Phases	5	2		6	6		8	8		8	4	5
Permitted Phases												
Detector Phase	5	2		6	6		8	8		8	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	28.0	102.0	0.0	74.0	74.0	0.0	14.0	14.0		14.0	14.0	28.0
Total Split (%)	21.5%	78.5%	0.0%	56.9%	56.9%	0.0%	10.8%	10.8%		10.8%	10.8%	21.5%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	23.0	97.0		69.0	69.0			9.0	9.0		9.0	37.0
Actuated g/C Ratio	0.18	0.75		0.53	0.53			0.07	0.07		0.07	0.28
v/c Ratio	0.92	0.55		0.08	0.96			0.17	0.10		0.51	0.57
Control Delay	56.6	1.4		17.2	42.2			60.5	59.0		89.5	67.1
Queue Delay	0.0	0.2		0.0	54.3			0.0	0.0		0.0	0.0
Total Delay	56.6	1.6		17.2	96.5			60.5	59.0		89.5	67.1
LOS	E	A		B	F			E	E		F	E
Approach Delay		16.9			96.0			60.0			68.1	
Approach LOS		B			F			E			E	
Queue Length 50th (ft)	251	13		4	732			18	9		20	225
Queue Length 95th (ft)	#350	14		16	#928			47	29		m22	m197
Internal Link Dist (ft)		489			924			162			440	
Turn Bay Length (ft)	300			100					100			300
Base Capacity (vph)	607	2638		130	1877			126	110		43	793
Starvation Cap Reductn	0	384		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	282			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.92	0.64		0.08	1.13			0.17	0.10		0.51	0.57

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 122 (94%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 55.9
 Intersection LOS: E
 Intersection Capacity Utilization 79.3%
 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: 13: Market St. &

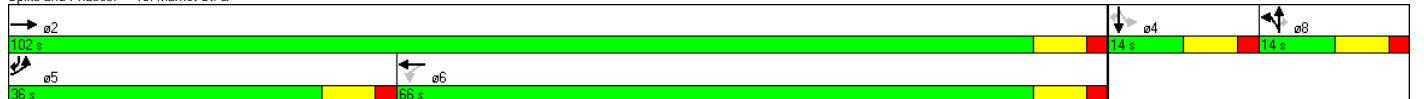


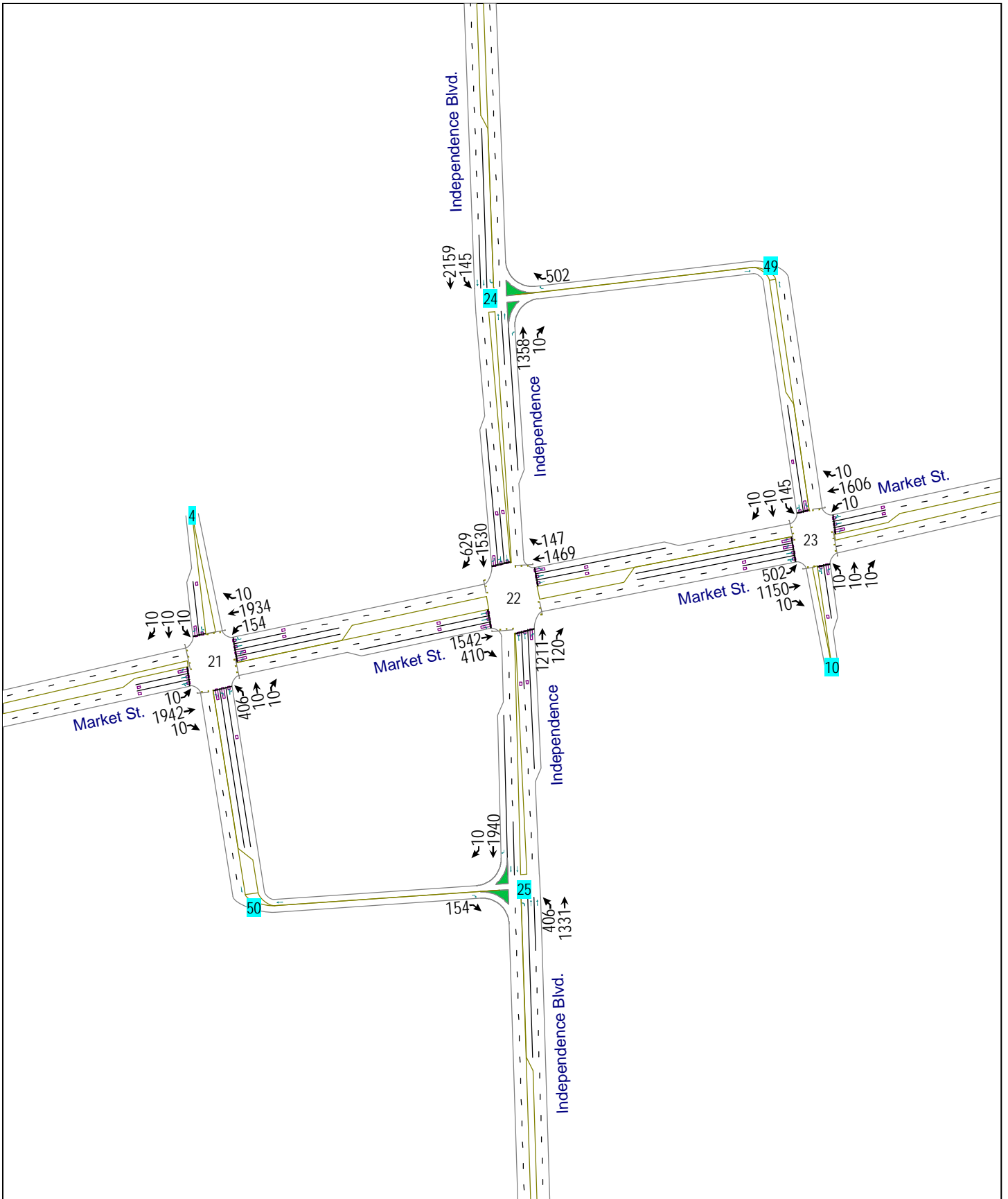
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	629	1606	10	10	1295	10	10	10	10	10	10	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		0	0		100	0		300
Storage Lanes	1		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.128				0.976			0.333	
Satd. Flow (perm)	3433	3536	0	238	3536	0	0	1818	1583	0	620	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			547	
Travel Time (s)		9.7			17.1			5.5			14.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1795	0	11	1450	0	0	22	11	0	22	456
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm			Split		Perm	Perm		pm-ov
Protected Phases	5	2		6	6		8	8		8	4	5
Permitted Phases												
Detector Phase	5	2		6	6		8	8		8	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	36.0	102.0	0.0	66.0	66.0	0.0	14.0	14.0	14.0	14.0	14.0	36.0
Total Split (%)	27.7%	78.5%	0.0%	50.8%	50.8%	0.0%	10.8%	10.8%	10.8%	10.8%	10.8%	27.7%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag							Lead
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	30.4	97.0		61.6	61.6		9.0	9.0		9.0	9.0	39.4
Actuated g/C Ratio	0.23	0.75		0.47	0.47		0.07	0.07		0.07	0.07	0.30
v/c Ratio	0.87	0.68		0.10	0.87		0.17	0.10		0.17	0.10	0.54
Control Delay	80.8	6.7		22.2	37.5		60.5	59.0		80.0	27.3	
Queue Delay	0.0	0.3		0.0	63.5		0.0	0.0		0.0	0.7	
Total Delay	80.8	6.9		22.2	100.9		60.5	59.0		80.0	28.1	
LOS	F	A		C	F		E	E		E	C	
Approach Delay		27.6			100.3		60.0			30.5		
Approach LOS		C			F		E			C		
Queue Length 50th (ft)	323	110		5	566		18	9		20	100	
Queue Length 95th (ft)	m295	m32		19	674		47	29		m21	m86	
Internal Link Dist (ft)		489			924		162			467		
Turn Bay Length (ft)	300			100				100			300	
Base Capacity (vph)	819	2638		113	1674		126	110		43	858	
Starvation Cap Reductn	0	262		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	400		0	0		0	161	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.85	0.76		0.10	1.14		0.17	0.10		0.51	0.65	

Intersection Summary

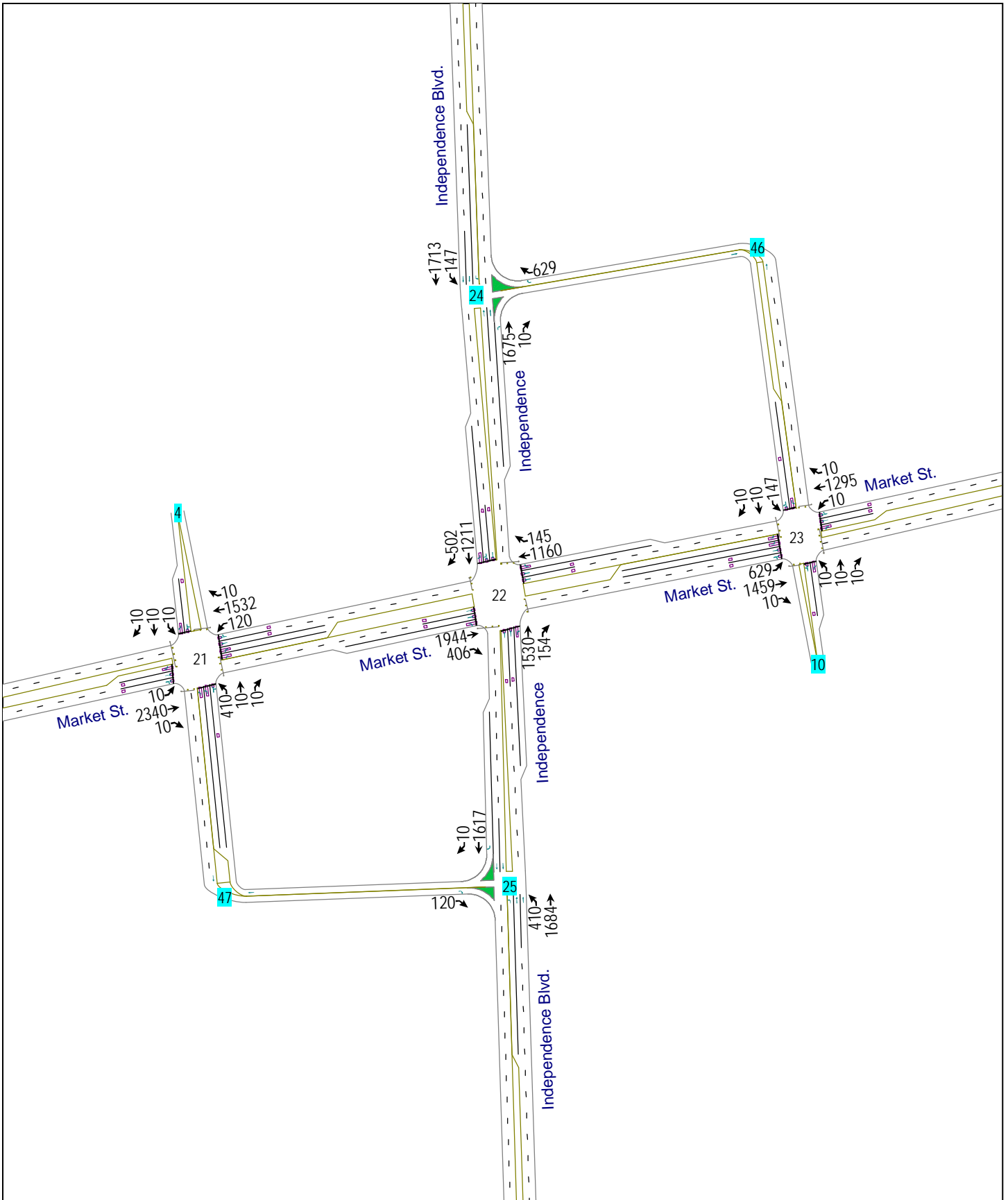
Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 104 (80%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 52.0 Intersection LOS: D
 Intersection Capacity Utilization 75.0% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 13: Market St. &





BD AM Peak



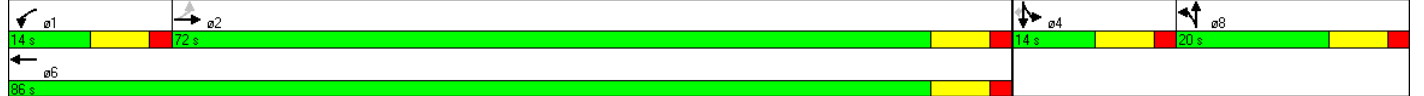
BD PM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑↑	↑↑		↑↑	↑			↑	↑
Volume (vph)	10	1942	10	154	1934	10	406	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		100	300		0	0		100
Storage Lanes	1		0	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.062			0.950			0.950				0.976	
Satd. Flow (perm)	115	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		1025			573			469				277
Travel Time (s)		17.5			9.8			10.7				6.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2169	0	171	2160	0	451	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split			Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2											4
Detector Phase	2	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	72.0	72.0	0.0	14.0	86.0	0.0	20.0	20.0	0.0	14.0	14.0	14.0
Total Split (%)	60.0%	60.0%	0.0%	11.7%	71.7%	0.0%	16.7%	16.7%	0.0%	11.7%	11.7%	11.7%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	67.5	67.5		9.9	82.3		19.3	19.3		9.0	9.0	9.0
Actuated g/C Ratio	0.56	0.56		0.08	0.69		0.16	0.16		0.08	0.08	0.08
v/c Ratio	0.17	1.09		0.61	0.89		0.82	0.08		0.16	0.09	0.09
Control Delay	20.9	76.6		57.5	9.1		63.2	47.7		55.0	53.7	53.7
Queue Delay	0.0	42.1		0.0	1.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.9	118.6		57.5	10.1		63.2	47.7		55.0	53.7	53.7
LOS	C	F		E	B		E	D		D	D	D
Approach Delay		118.2			13.6			62.5			54.6	
Approach LOS		F			B			E			D	
Queue Length 50th (ft)	4	-1002		69	304		-196	16			16	8
Queue Length 95th (ft)	18	#1138		m69	m268		m#300	m41			44	28
Internal Link Dist (ft)		945			493			389			197	
Turn Bay Length (ft)	100			200			300					100
Base Capacity (vph)	65	1988		282	2426		551	276		136	119	119
Starvation Cap Reductn	0	0		0	97		0	0		0	0	0
Spillback Cap Reductn	0	161		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.17	1.19		0.61	0.93		0.82	0.08		0.16	0.09	0.09

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 98 (82%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 63.9
 Intersection LOS: E
 Intersection Capacity Utilization 92.5%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 21: Market St. &

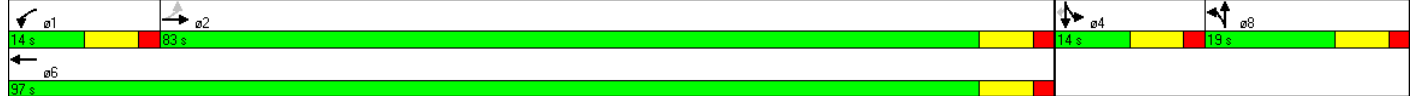


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	2340	10	120	1532	10	410	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		100	300		0	0		100
Storage Lanes	1		0	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.099			0.950			0.950				0.976	
Satd. Flow (perm)	184	3536	0	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		1025			573			450				277
Travel Time (s)		17.5			9.8			10.2				6.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2611	0	133	1713	0	456	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Prot			Split			Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2											4
Detector Phase	2	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0		7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0		14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	83.0	83.0	0.0	14.0	97.0	0.0	19.0	19.0	0.0	14.0	14.0	14.0
Total Split (%)	63.8%	63.8%	0.0%	10.8%	74.6%	0.0%	14.6%	14.6%	0.0%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max		None	C-Max		None	None		None	None	None
Act Effct Green (s)	78.0	78.0		9.0	92.0		19.6	19.6		9.0	9.0	9.0
Actuated g/C Ratio	0.60	0.60		0.07	0.71		0.15	0.15		0.07	0.07	0.07
v/c Ratio	0.10	1.23		0.56	0.68		0.88	0.08		0.17	0.10	0.10
Control Delay	13.8	134.4		69.5	4.9		73.8	53.5		60.5	59.0	59.0
Queue Delay	0.0	0.0		0.0	0.1		0.0	0.0		0.0	0.0	0.0
Total Delay	13.8	134.4		69.5	5.0		73.8	53.5		60.5	59.0	59.0
LOS	B	F		E	A		E	D		E	E	E
Approach Delay		133.9			9.6			72.9			60.0	
Approach LOS		F			A			E			E	
Queue Length 50th (ft)	4	-1428		57	184		-245	17		18	9	9
Queue Length 95th (ft)	14	#1554		m78	m167		m#355	m44		47	29	29
Internal Link Dist (ft)		945			493			370			197	
Turn Bay Length (ft)	100			200			300					100
Base Capacity (vph)	110	2122		238	2502		518	260		126	110	110
Starvation Cap Reductn	0	0		0	113		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.10	1.23		0.56	0.72		0.88	0.08		0.17	0.10	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 108 (83%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 81.5
 Intersection LOS: F
 Intersection Capacity Utilization 91.7%
 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: 21: Market St. &

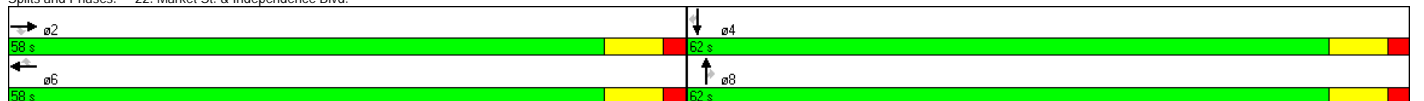


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1542	410	0	1469	147	0	1211	120	0	1530	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	250	0	250	0	250	0	250	0	250	0	250
Storage Lanes	0	1	0	1	0	1	0	1	0	1	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	3539	1583	0	3539	1583	0	3438	1538	0	3370	1441
Fill Permitted												
Satd. Flow (perm)	0	3539	1583	0	3539	1583	0	3438	1538	0	3370	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	1713	456	0	1632	163	0	1346	133	0	1770	629
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type		Perm			Perm			Perm			Perm	
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	58.0	58.0	0.0	58.0	58.0	0.0	62.0	62.0	0.0	62.0	62.0
Total Split (%)	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%	51.7%	51.7%	0.0%	51.7%	51.7%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		53.0	53.0		53.0	53.0		57.0	57.0		57.0	57.0
Actuated g/C Ratio		0.44	0.44		0.44	0.44		0.48	0.48		0.48	0.48
v/c Ratio		1.10	0.65		1.04	0.23		0.82	0.18		1.11	0.92
Control Delay		64.9	15.7		39.2	9.3		32.5	19.0		88.3	50.0
Queue Delay		28.7	0.7		10.8	0.0		0.0	0.0		0.0	0.0
Total Delay		93.5	16.4		50.0	9.3		32.5	19.0		88.3	50.0
LOS		F	B		D	A		C	B		F	D
Approach Delay		77.3			46.3			31.3			78.2	
Approach LOS		E			D			C			E	
Queue Length 50th (ft)		-772	97		-700	22		461	58		-858	485
Queue Length 95th (ft)		m#434	m83		m#703	m22		560	98		#1003	#758
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		1563	699		1563	699		1633	731		1601	684
Starvation Cap Reductn		89	65		40	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.16	0.72		1.07	0.23		0.82	0.18		1.11	0.92

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 61.8 Intersection LOS: E
 Intersection Capacity Utilization 99.9% 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: 22: Market St. & Independence Blvd.

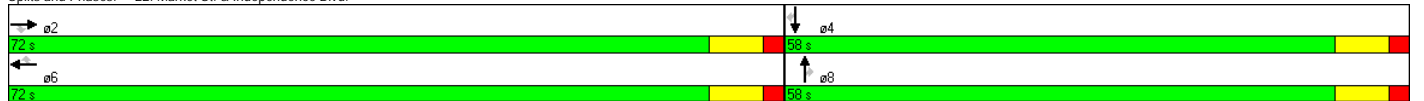


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑		↑↑	↑		↑↑	↑
Volume (vph)	0	1944	406	0	1160	145	0	1530	154	0	1211	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	250	0	0	250	0	0	250	0	0	250
Storage Lanes	0	0	1	0	0	1	0	0	1	0	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	3539	1583	0	3539	1583	0	3438	1538	0	3370	1441
Fill Permitted												
Satd. Flow (perm)	0	3539	1583	0	3539	1583	0	3438	1538	0	3370	1441
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			45			45	
Link Distance (ft)		573			569			547			565	
Travel Time (s)		9.8			9.7			8.3			8.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	5%	5%	5%	2%	2%	2%
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	0	2160	451	0	1289	161	0	1700	171	0	1402	502
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type		Perm			Perm			Perm			Perm	
Protected Phases		2			6			8			4	
Permitted Phases			2			6			8			4
Detector Phase		2	2		6	6		8	8		4	4
Switch Phase												
Minimum Initial (s)		12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0
Minimum Split (s)		19.0	19.0		19.0	19.0		19.0	19.0		19.0	19.0
Total Split (s)	0.0	72.0	72.0	0.0	72.0	72.0	0.0	58.0	58.0	0.0	58.0	58.0
Total Split (%)	0.0%	55.4%	55.4%	0.0%	55.4%	55.4%	0.0%	44.6%	44.6%	0.0%	44.6%	44.6%
Yellow Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
All-Red Time (s)		2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Max	C-Max		C-Max	C-Max		None	None		None	None
Act Effct Green (s)		67.0	67.0		67.0	67.0		53.0	53.0		53.0	53.0
Actuated g/C Ratio		0.52	0.52		0.52	0.52		0.41	0.41		0.41	0.41
v/c Ratio		1.18	0.55		0.71	0.20		1.21	0.27		1.02	0.86
Control Delay		101.4	10.5		1.3	0.5		137.3	27.2		67.7	50.7
Queue Delay		41.2	1.1		1.1	0.0		0.0	0.0		0.0	0.0
Total Delay		142.6	11.6		2.4	0.5		137.3	27.2		67.7	50.7
LOS		F	B		A	A		F	C		E	D
Approach Delay		120.0			2.2			127.3			63.2	
Approach LOS		F			A			F			E	
Queue Length 50th (ft)		-1133	68		4	1		-920	95		-687	417
Queue Length 95th (ft)		m327	m55		m4	m1		#1060	151		#832	#639
Internal Link Dist (ft)		493			489			467			485	
Turn Bay Length (ft)			250			250			250			250
Base Capacity (vph)		1824	816		1824	816		1402	627		1374	587
Starvation Cap Reductn		132	172		288	0		0	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		1.28	0.70		0.84	0.20		1.21	0.27		1.02	0.86

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 86.1 Intersection LOS: F
 Intersection Capacity Utilization 104.4% 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: 22: Market St. & Independence Blvd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1150	10	10	1606	10	10	10	10	145	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		0	0		100	200		0
Storage Lanes	2		0	1		0	0		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	1770	1723	0
Flt Permitted	0.950			0.158				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	294	3536	0	0	1818	1583	1770	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			520	
Travel Time (s)		9.7			17.1			5.5			14.2	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1289	0	11	1795	0	0	22	11	161	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm			Split		Perm	Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases				6				8				
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	
Total Split (s)	24.0	90.0	0.0	66.0	66.0	0.0	14.0	14.0		14.0	16.0	16.0
Total Split (%)	20.0%	75.0%	0.0%	55.0%	55.0%	0.0%	11.7%	11.7%		11.7%	13.3%	13.3%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	
Act Effct Green (s)	19.0	85.0		61.0	61.0		9.0	9.0	11.0	11.0		
Actuated g/C Ratio	0.16	0.71		0.51	0.51		0.08	0.08	0.09	0.09		
v/c Ratio	1.03	0.51		0.07	1.00		0.16	0.09	0.99	0.14		
Control Delay	52.0	0.5		16.9	50.8		55.0	53.7	125.4	54.0		
Queue Delay	0.0	0.5		0.0	15.2		0.0	0.0	0.0	0.0		
Total Delay	52.0	0.9		16.9	66.0		55.0	53.7	125.4	54.0		
LOS	D	A		B	E		D	D	F	D		
Approach Delay		16.4			65.7		54.6			116.8		
Approach LOS		B			E		D			F		
Queue Length 50th (ft)	-244	10		4	706		16	8	127	16		
Queue Length 95th (ft)	m217	m11		16	#899		44	28	m#267	m42		
Internal Link Dist (ft)		489			924		162			440		
Turn Bay Length (ft)	300			100				100	200			
Base Capacity (vph)	544	2505		149	1797		136	119	162	158		
Starvation Cap Reductn	0	672		0	0		0	0	0	0		
Spillback Cap Reductn	0	0		0	82		0	0	0	0		
Storage Cap Reductn	0	0		0	0		0	0	0	0		
Reduced v/c Ratio	1.03	0.70		0.07	1.05		0.16	0.09	0.99	0.14		

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 112 (93%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 44.4 Intersection LOS: D
 Intersection Capacity Utilization 86.2% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 23: Market St. &

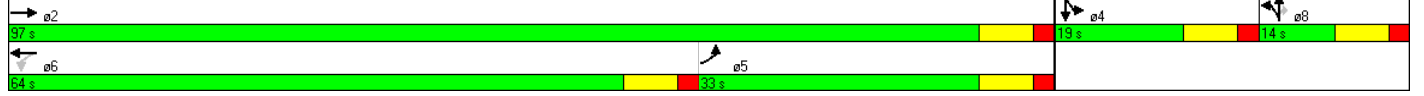


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	629	1459	10	10	1295	10	10	10	10	147	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		0	0		100	200		0
Storage Lanes	2		0	1		0	0		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3536	0	0	1818	1583	1770	1723	0
Flt Permitted	0.950			0.075				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	140	3536	0	0	1818	1583	1770	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		569			1004			242			549	
Travel Time (s)		9.7			17.1			5.5			15.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1632	0	11	1450	0	0	22	11	163	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm			Split		Perm	Split		
Protected Phases	5	2			6		8	8		4	4	
Permitted Phases				6				8				
Detector Phase	5	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	
Total Split (s)	33.0	97.0	0.0	64.0	64.0	0.0	14.0	14.0		14.0	19.0	19.0
Total Split (%)	25.4%	74.6%	0.0%	49.2%	49.2%	0.0%	10.8%	10.8%		10.8%	14.6%	14.6%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	
Act Effct Green (s)	28.0	92.0		59.0	59.0			9.0	9.0	14.0	14.0	
Actuated g/C Ratio	0.22	0.71		0.45	0.45			0.07	0.07	0.11	0.11	
v/c Ratio	0.95	0.65		0.17	0.90			0.17	0.10	0.85	0.12	
Control Delay	34.0	2.0		29.4	42.0			60.5	59.0	94.2	56.0	
Queue Delay	0.0	0.9		0.0	0.0			0.0	0.0	0.0	0.0	
Total Delay	34.0	2.9		29.4	42.0			60.5	59.0	94.2	56.0	
LOS	C	A		C	D			E	E	F	E	
Approach Delay		12.2			41.9			60.0			89.7	
Approach LOS		B			D			E			F	
Queue Length 50th (ft)	308	48		5	584			18	9	138	17	
Queue Length 95th (ft)	m250	m42		22	696			47	29	m#257	m44	
Internal Link Dist (ft)		489			924			162			469	
Turn Bay Length (ft)	300			100					100	200		
Base Capacity (vph)	739	2502		64	1605			126	110	191	186	
Starvation Cap Reductn	0	528		0	0			0	0	0	0	
Spillback Cap Reductn	0	0		0	0			0	0	0	0	
Storage Cap Reductn	0	0		0	0			0	0	0	0	
Reduced v/c Ratio	0.95	0.83		0.17	0.90			0.17	0.10	0.85	0.12	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 120 (92%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 27.0 Intersection LOS: C
 Intersection Capacity Utilization 81.4% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

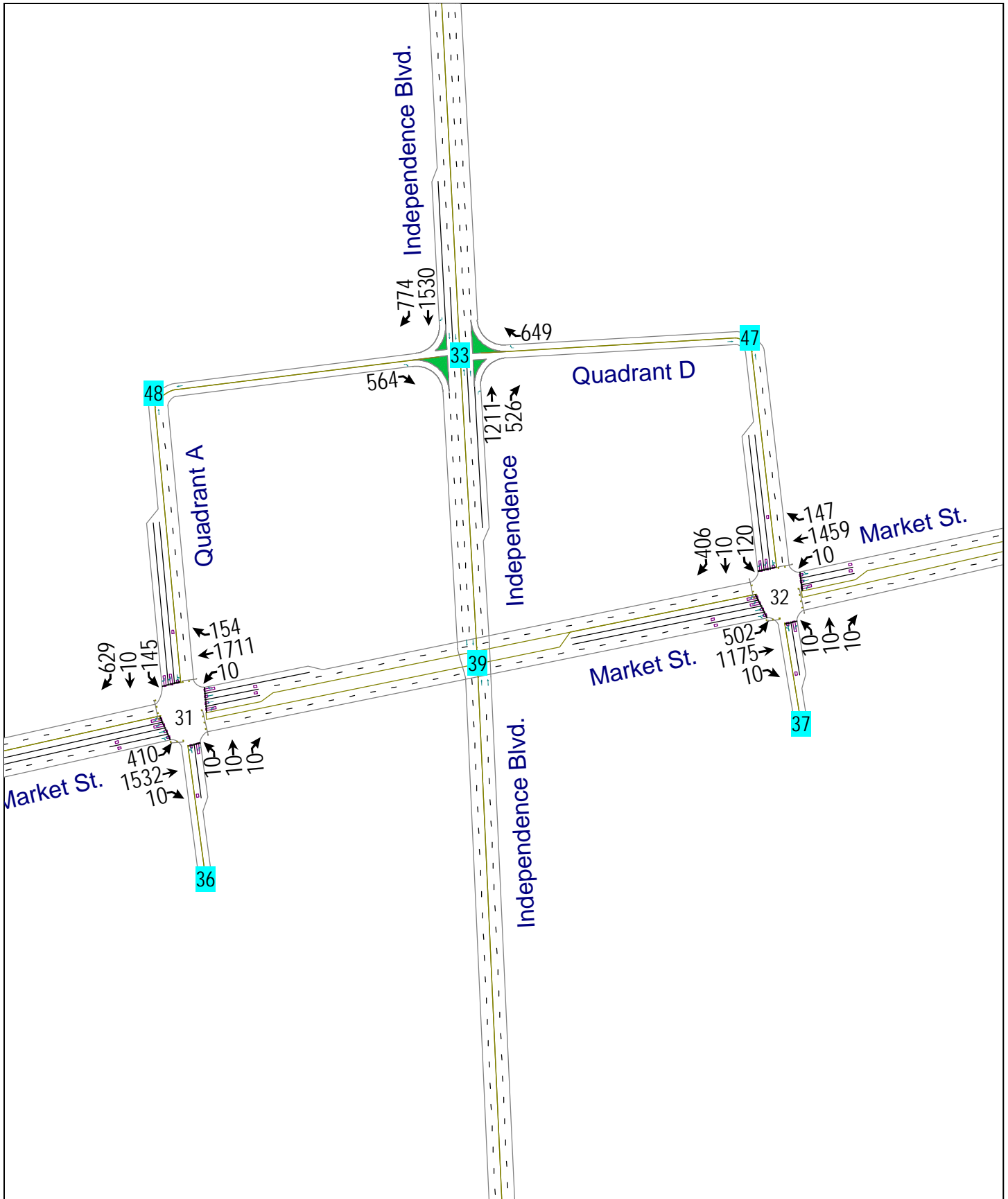
Splits and Phases: 23: Market St. &

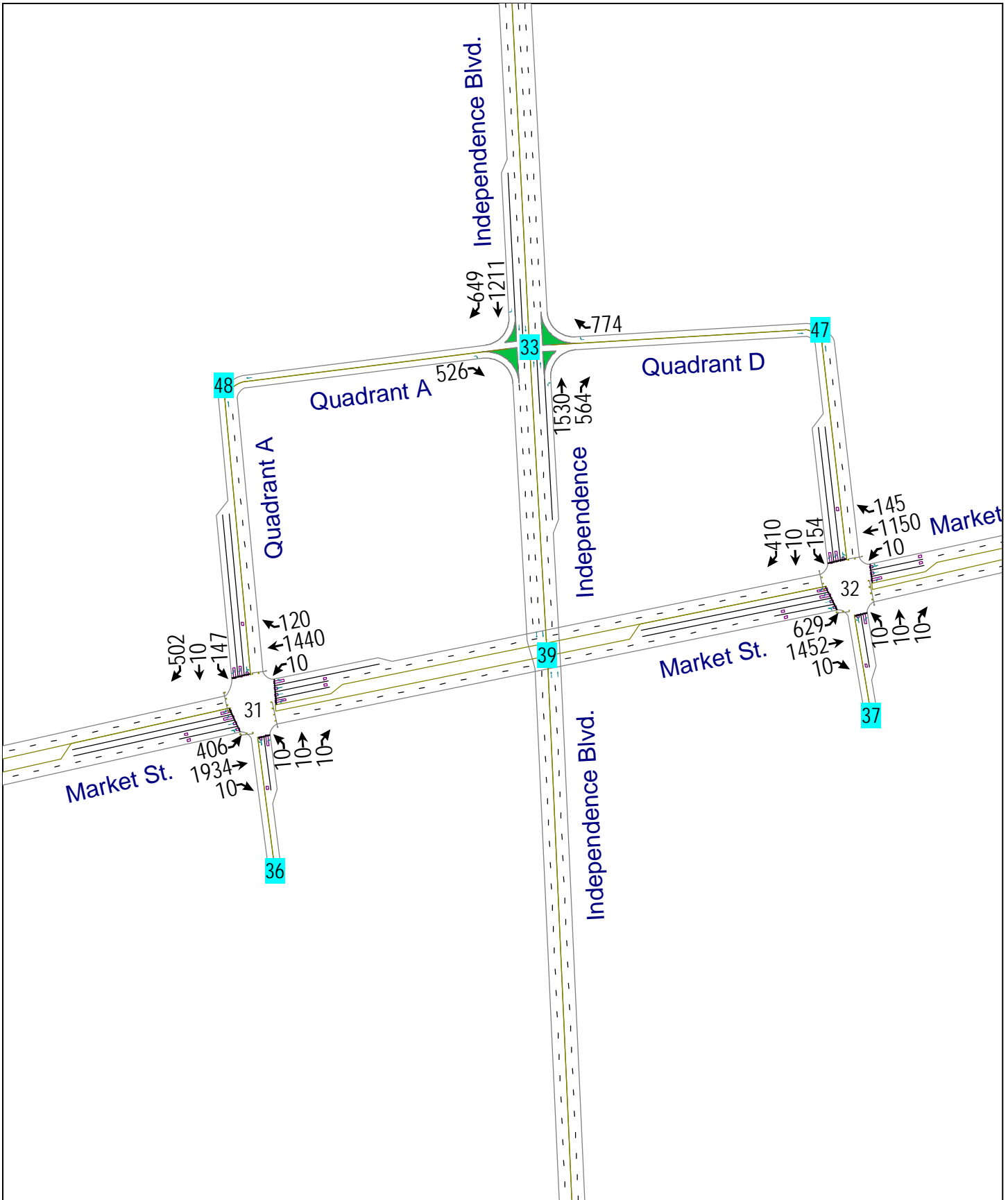




Appendix C: Grade Separated Quadrant Results

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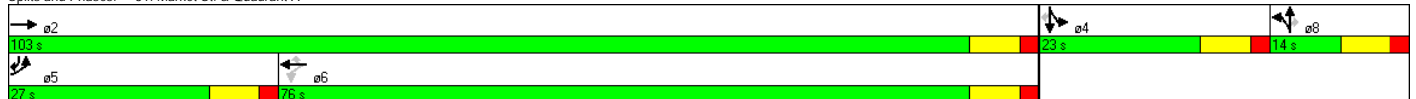


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↕	↔	↕	↕	↔	↕	↕
Volume (vph)	410	1532	10	10	1711	154	10	10	10	145	10	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.127				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	237	3539	1583	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		935			1142			305			613	
Travel Time (s)		18.2			22.2			8.3			16.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	1713	0	11	1901	171	0	22	11	0	172	699
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6		6			8			4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	27.0	103.0	0.0	76.0	76.0	76.0	14.0	14.0	14.0	23.0	23.0	27.0
Total Split (%)	19.3%	73.6%	0.0%	54.3%	54.3%	54.3%	10.0%	10.0%	10.0%	16.4%	16.4%	19.3%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	None
Act Elct Green (s)	22.7	103.6		75.9	75.9	75.9	9.0	9.0	9.0	18.0	18.0	42.7
Actuated g/C Ratio	0.16	0.74		0.54	0.54	0.54	0.06	0.06	0.06	0.13	0.13	0.30
v/c Ratio	0.82	0.65		0.09	0.99	0.20	0.19	0.11	0.11	0.75	0.75	0.82
Control Delay	69.8	11.6		15.4	33.8	14.0	66.1	64.3	64.3	79.4	79.4	49.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.8	11.6		15.4	33.8	14.0	66.1	64.3	64.3	79.4	79.4	49.1
LOS	E	B		B	C	B	E	E	E	E	E	D
Approach Delay		23.8			32.0		65.5				55.0	
Approach LOS		C			C		E				E	
Queue Length 50th (ft)	210	437		3	-984	47	19	10	10		153	276
Queue Length 95th (ft)	#293	511		m4	m#1068	m58	49	31	31		#262	#372
Internal Link Dist (ft)		855			1062		225				533	
Turn Bay Length (ft)	300			100		200			100			300
Base Capacity (vph)	557	2617		129	1920	859	117	102	102		229	851
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	0.82	0.65		0.09	0.99	0.20	0.19	0.11	0.11		0.75	0.82

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 126 (90%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 32.7
 Intersection LOS: C
 Intersection Capacity Utilization 87.6%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 31: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	406	1934	10	10	1440	120	10	10	10	147	10	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.069				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	129	3539	1583	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		935			1142			305			613	
Travel Time (s)		18.2			22.2			8.3			16.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	451	2160	0	11	1600	133	0	22	11	0	174	558
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6		6			8			4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	25.0	85.0	0.0	60.0	60.0	60.0	14.0	14.0	14.0	21.0	21.0	25.0
Total Split (%)	20.8%	70.8%	0.0%	50.0%	50.0%	50.0%	11.7%	11.7%	11.7%	17.5%	17.5%	20.8%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	None
Act Effct Green (s)	20.0	85.6		60.6	60.6	60.6	9.0	9.0		16.0	16.0	38.0
Actuated g/C Ratio	0.17	0.71		0.50	0.50	0.50	0.08	0.08		0.13	0.13	0.32
v/c Ratio	0.79	0.86		0.17	0.89	0.17	0.16	0.09		0.73	0.63	0.63
Control Delay	59.0	18.8		19.9	24.0	15.0	55.0	53.7		68.9	31.8	31.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	59.0	18.8		19.9	24.0	15.0	55.0	53.7		68.9	31.8	31.8
LOS	E	B		B	C	B	D	D		E	C	C
Approach Delay		25.7			23.3		54.6			40.6		
Approach LOS		C			C		D			D		
Queue Length 50th (ft)	174	690		3	347	36	16	8		131	162	162
Queue Length 95th (ft)	#237	840		m4	m#737	m47	44	28		#234	215	215
Internal Link Dist (ft)		855			1062		225			533		
Turn Bay Length (ft)	300			100		200		100				300
Base Capacity (vph)	582	2522		65	1788	800	136	119		237	891	891
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	0.77	0.86		0.17	0.89	0.17	0.16	0.09		0.73	0.63	0.63

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 108 (90%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 27.2 Intersection LOS: C
 Intersection Capacity Utilization 91.6% 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: 31: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	502	1175	10	10	1459	147	10	10	10	120	10	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	0		250
Storage Lanes	2		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3490	0	0	1818	1583	0	1781	2787
Flt Permitted	0.950			0.157				0.976			0.956	
Satd. Flow (perm)	3433	3536	0	292	3490	0	0	1818	1583	0	1781	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1142			923			242			489	
Travel Time (s)		22.2			18.0			6.6			13.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1317	0	11	1784	0	0	22	11	0	144	451
Turn Type	Prot			Perm			Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6					8			4
Detector Phase	5	2		6	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	29.0	108.0	0.0	79.0	79.0	0.0	14.0	14.0	14.0	18.0	18.0	29.0
Total Split (%)	20.7%	77.1%	0.0%	56.4%	56.4%	0.0%	10.0%	10.0%	10.0%	12.9%	12.9%	20.7%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	24.0	103.0		74.0	74.0		9.0	9.0		13.0	13.0	42.0
Actuated g/C Ratio	0.17	0.74		0.53	0.53		0.06	0.06		0.09	0.09	0.30
v/c Ratio	0.95	0.51		0.07	0.97		0.19	0.11		0.87	0.54	
Control Delay	73.9	4.7		17.9	46.5		66.1	64.3		105.1	43.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	73.9	4.7		17.9	46.5		66.1	64.3		105.1	43.8	
LOS	E	A		B	D		E	E		F	D	
Approach Delay		25.2			46.3		65.5			58.6		
Approach LOS		C			D		E			E		
Queue Length 50th (ft)	264	90		5	801		19	10		132	195	
Queue Length 95th (ft)	#376	100		17	#994		49	31		#259	257	
Internal Link Dist (ft)		1062			843		162			409		
Turn Bay Length (ft)	350			100				100				250
Base Capacity (vph)	589	2601		154	1845		117	102		165	836	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.95	0.51		0.07	0.97		0.19	0.11		0.87	0.54	

Intersection Summary

Area Type: Other
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 136 (97%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 39.0 Intersection LOS: D
 Intersection Capacity Utilization 85.7% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 32: Market St. & Quadrant D

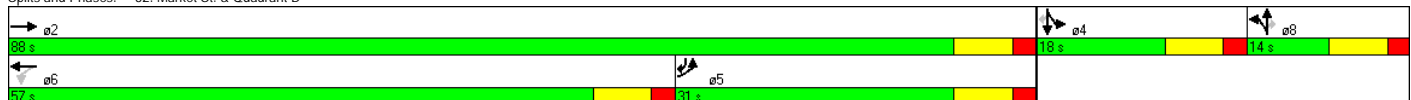


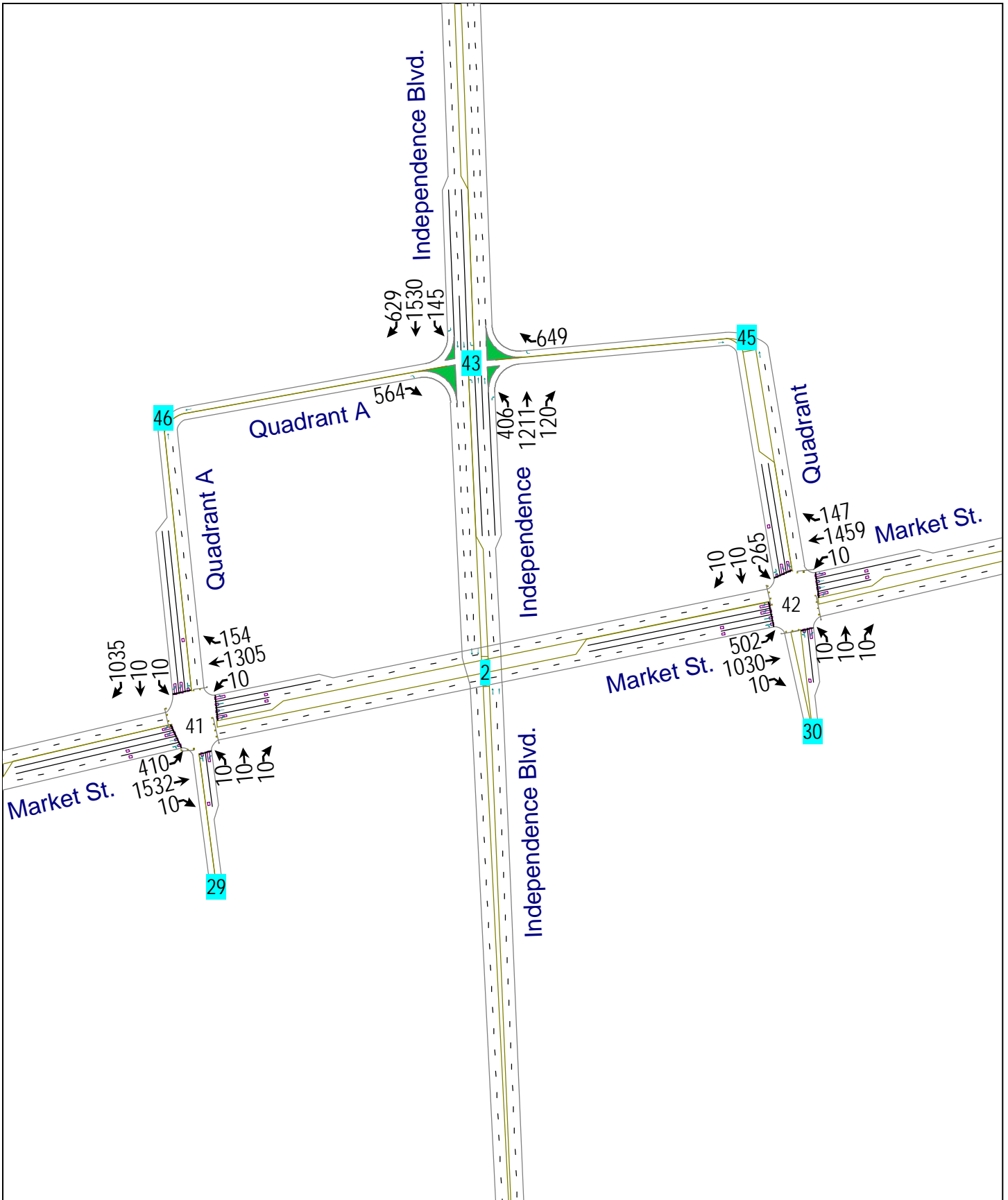
	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖		↖	↖			↖	↖		↖	↖
Volume (vph)	629	1452	10	10	1150	145	10	10	10	154	10	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		0	0		100	0		250
Storage Lanes	2		0	1		0	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3479	0	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.077				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	143	3479	0	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1142			923			242			489	
Travel Time (s)		22.2			18.0			6.6			13.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1624	0	11	1439	0	0	22	11	0	182	456
Turn Type	Prot			Perm			Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6					8			4
Detector Phase	5	2		6	6		8	8		4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	31.0	88.0	0.0	57.0	57.0	0.0	14.0	14.0	14.0	18.0	18.0	31.0
Total Split (%)	25.8%	73.3%	0.0%	47.5%	47.5%	0.0%	11.7%	11.7%	11.7%	15.0%	15.0%	25.8%
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	None
Act Effct Green (s)	26.0	83.0		52.0	52.0		9.0	9.0		13.0	13.0	44.0
Actuated g/C Ratio	0.22	0.69		0.43	0.43		0.08	0.08		0.11	0.11	0.37
v/c Ratio	0.94	0.66		0.18	0.95		0.16	0.09		0.94	0.45	0.45
Control Delay	50.4	5.5		29.8	47.9		55.0	53.7		105.0	30.5	30.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	50.4	5.5		29.8	47.9		55.0	53.7		105.0	30.5	30.5
LOS	D	A		C	D		D	D		F	C	C
Approach Delay		19.0			47.7		54.6			51.8		
Approach LOS		B			D		D			D		
Queue Length 50th (ft)	278	90		5	556		16	8		142	150	150
Queue Length 95th (ft)	m#367	121		22	#720		44	28		#286	203	203
Internal Link Dist (ft)		1062			843		162			409		
Turn Bay Length (ft)	350			100				100				250
Base Capacity (vph)	744	2446		62	1508		136	119		193	1022	1022
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.94	0.66		0.18	0.95		0.16	0.09		0.94	0.45	0.45

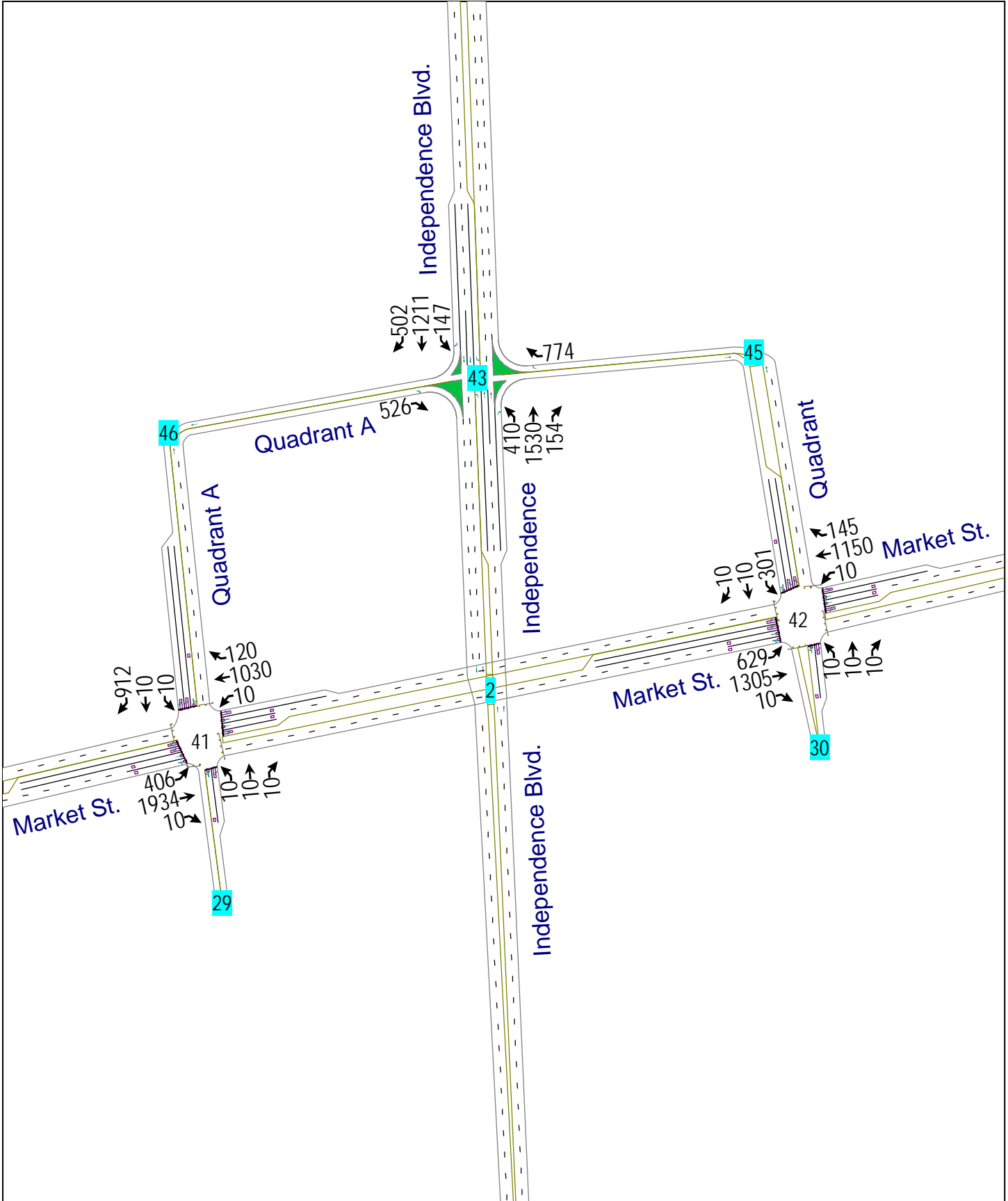
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 33.3 Intersection LOS: C
 Intersection Capacity Utilization 82.6% 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: 32: Market St. & Quadrant D







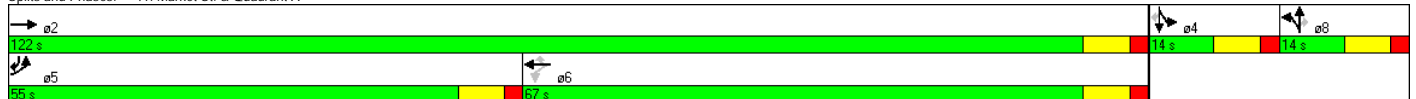


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↕	↔	↕	↕	↔	↕	↕
Volume (vph)	410	1532	10	10	1305	154	10	10	10	10	10	1035
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.140				0.976			0.976	
Satd. Flow (perm)	3433	3536	0	261	3539	1583	0	1818	1583	0	1818	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		937			1142			305			581	
Travel Time (s)		18.3			22.2			6.9			15.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	1713	0	11	1450	171	0	22	11	0	22	1150
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2			6		8	8		4	4	5
Permitted Phases				6		6			8			4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	55.0	122.0	0.0	67.0	67.0	67.0	14.0	14.0	14.0	14.0	14.0	55.0
Total Split (%)	36.7%	81.3%	0.0%	44.7%	44.7%	44.7%	9.3%	9.3%	9.3%	9.3%	9.3%	36.7%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	None
Act Elct Green (s)	55.6	122.6		62.0	62.0	62.0	9.0	9.0	9.0	9.0	9.0	66.6
Actuated g/C Ratio	0.37	0.82		0.41	0.41	0.41	0.06	0.06	0.06	0.06	0.06	0.44
v/c Ratio	0.36	0.59		0.10	0.99	0.26	0.20	0.12	0.20	0.20	0.20	0.93
Control Delay	36.4	6.5		2.6	25.5	2.8	71.8	69.7	71.8	71.8	52.0	52.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	6.5		2.6	25.5	2.8	71.8	69.7	71.8	71.8	52.0	52.0
LOS	D	A		A	C	A	E	E	E	E	D	D
Approach Delay		12.8			23.0		71.1				52.4	
Approach LOS		B			C		E				D	
Queue Length 50th (ft)	176	328		2	751	31	21	10			21	-578
Queue Length 95th (ft)	227	380		m2	#906	m32	52	33			52	#805
Internal Link Dist (ft)		857			1062		225				501	
Turn Bay Length (ft)	300			100		200			100			300
Base Capacity (vph)	1272	2890		108	1463	654	109	95		109	1237	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.59		0.10	0.99	0.26	0.20	0.12	0.20	0.20	0.93	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 132 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 25.8 Intersection LOS: C
 Intersection Capacity Utilization 90.6% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 41: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	406	1934	10	10	1030	120	10	10	10	10	10	912
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		0	100		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1818	2787
Flt Permitted	0.950			0.087				0.976			0.300	
Satd. Flow (perm)	3433	3536	0	162	3539	1583	0	1818	1583	0	559	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		937			1142			305			581	
Travel Time (s)		18.3			22.2			6.9			15.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	451	2160	0	11	1144	133	0	22	11	0	22	1013
Turn Type	Prot			Perm		Perm	Split		Perm	Perm		pm+ov
Protected Phases	5	2			6		8	8			4	5
Permitted Phases				6		6			8	4		4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	44.0	91.0	0.0	47.0	47.0	47.0	14.0	14.0	14.0	15.0	15.0	44.0
Total Split (%)	36.7%	75.8%	0.0%	39.2%	39.2%	39.2%	11.7%	11.7%	11.7%	12.5%	12.5%	36.7%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	Max	Max	None
Act Effct Green (s)	38.0	91.6		48.6	48.6	48.6	9.0	9.0		10.0	10.0	50.0
Actuated g/C Ratio	0.32	0.76		0.40	0.40	0.40	0.08	0.08		0.08	0.08	0.42
v/c Ratio	0.41	0.80		0.17	0.80	0.21	0.16	0.09		0.09	0.09	0.87
Control Delay	33.4	13.0		3.1	6.1	1.1	55.0	53.7		84.2	39.3	39.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	33.4	13.0		3.1	6.1	1.1	55.0	53.7		84.2	39.3	39.3
LOS	C	B		A	A	A	D	D		F	D	D
Approach Delay		16.5			5.6			54.6			40.3	
Approach LOS		B			A			D			D	
Queue Length 50th (ft)	139	568		0	29	1	16	8		17	289	289
Queue Length 95th (ft)	186	691		m0	m36	m1	44	28		#56	#389	#389
Internal Link Dist (ft)		857			1062			225			501	
Turn Bay Length (ft)	300			100		200			100			300
Base Capacity (vph)	1117	2699		66	1433	641	136	119		47	1185	1185
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	0.40	0.80		0.17	0.80	0.21	0.16	0.09		0.09	0.47	0.85

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 18.9
 Intersection Capacity Utilization 84.0%
 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: 41: Market St. & Quadrant A



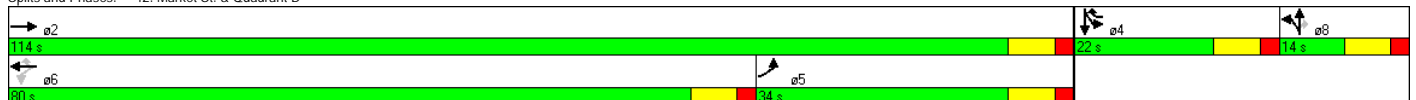


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔	↔		↔	↔	↔	↔	↔
Volume (vph)	502	1030	10	10	1459	147	10	10	10	265	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		200	0		100	200		0
Storage Lanes	2		0	1		1	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.193				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	360	3539	1583	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1142			922			242			508	
Travel Time (s)		22.2			18.0			6.6			13.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1155	0	11	1621	163	0	22	11	294	22	0
Turn Type	Prot			Perm	pm+ov	Split		Perm	Split			
Protected Phases	5	2			6	4		8	8		4	4
Permitted Phases				6		6			8			
Detector Phase	5	2		6	6	4	8	8	8	4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	
Total Split (s)	34.0	114.0	0.0	80.0	80.0	22.0	14.0	14.0	14.0	22.0	22.0	0.0
Total Split (%)	22.7%	76.0%	0.0%	53.3%	53.3%	14.7%	9.3%	9.3%	9.3%	14.7%	14.7%	0.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Elct Green (s)	29.0	109.0		75.0	75.0	92.0		9.0	9.0	17.0	17.0	
Actuated g/C Ratio	0.19	0.73		0.50	0.50	0.61		0.06	0.06	0.11	0.11	
v/c Ratio	0.84	0.45		0.06	0.92	0.17		0.20	0.12	0.76	0.11	
Control Delay	63.0	4.5		20.7	43.9	7.5		71.8	69.7	77.6	61.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	63.0	4.5		20.7	43.9	7.5		71.8	69.7	77.6	61.4	
LOS	E	A		C	D	A		E	E	E	E	
Approach Delay		23.5			40.5			71.1			76.4	
Approach LOS		C			D			E			E	
Queue Length 50th (ft)	274	53		5	754	42		21	10	146	20	
Queue Length 95th (ft)	#357	58		18	874	65		52	33	199	49	
Internal Link Dist (ft)		1062			842			162			428	
Turn Bay Length (ft)	350			100		200			100	200		
Base Capacity (vph)	664	2569		180	1770	971		109	95	389	195	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.84	0.45		0.06	0.92	0.17		0.20	0.12	0.76	0.11	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 36.1
 Intersection LOS: D
 Intersection Capacity Utilization 81.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 42: Market St. & Quadrant D





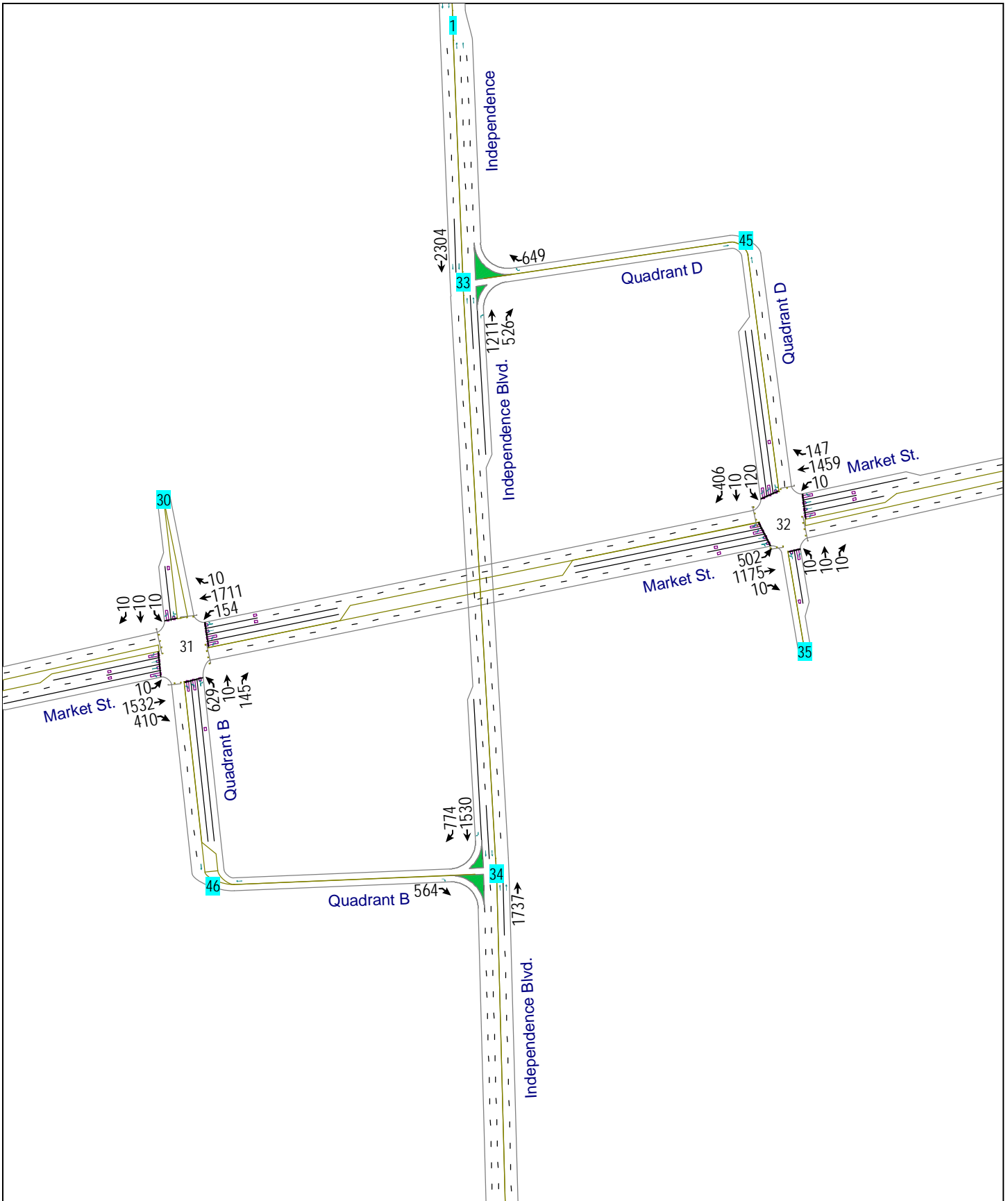
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑	↑↑	↑		↑	↑	↑↑	↑	↑
Volume (vph)	629	1305	10	10	1150	145	10	10	10	301	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	100		200	0		100	200		0
Storage Lanes	2		0	1		1	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.087				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	162	3539	1583	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		1142			922			242			508	
Travel Time (s)		22.2			18.0			6.6			13.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1461	0	11	1278	161	0	22	11	334	22	0
Turn Type	Prot			Perm		pm+ov	Split		Perm	Split		
Protected Phases	5	2			6	4	8	8		4	4	
Permitted Phases				6		6			8			
Detector Phase	5	2		6	6	4	8	8		4	4	
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	
Total Split (s)	31.0	82.0	0.0	51.0	51.0	24.0	14.0	14.0	14.0	24.0	24.0	0.0
Total Split (%)	25.8%	68.3%	0.0%	42.5%	42.5%	20.0%	11.7%	11.7%	11.7%	20.0%	20.0%	0.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	
Act Elct Green (s)	26.0	77.0		46.0	46.0	65.0		9.0	9.0	19.0	19.0	
Actuated g/C Ratio	0.22	0.64		0.38	0.38	0.54		0.08	0.08	0.16	0.16	
v/c Ratio	0.94	0.64		0.18	0.94	0.19		0.16	0.09	0.61	0.08	
Control Delay	51.9	7.4		33.4	50.1	8.3		55.0	53.7	52.6	44.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	51.9	7.4		33.4	50.1	8.3		55.0	53.7	52.6	44.0	
LOS	D	A		C	D	A		D	D	D	D	
Approach Delay		21.8			45.4			54.6			52.0	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	276	82		6	497	37		16	8	125	15	
Queue Length 95th (ft)	#388	116		23	#646	61		44	28	175	40	
Internal Link Dist (ft)		1062			842			162			428	
Turn Bay Length (ft)	350			100		200			100	200		
Base Capacity (vph)	744	2269		62	1357	857		136	119	544	273	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.94	0.64		0.18	0.94	0.19		0.16	0.09	0.61	0.08	

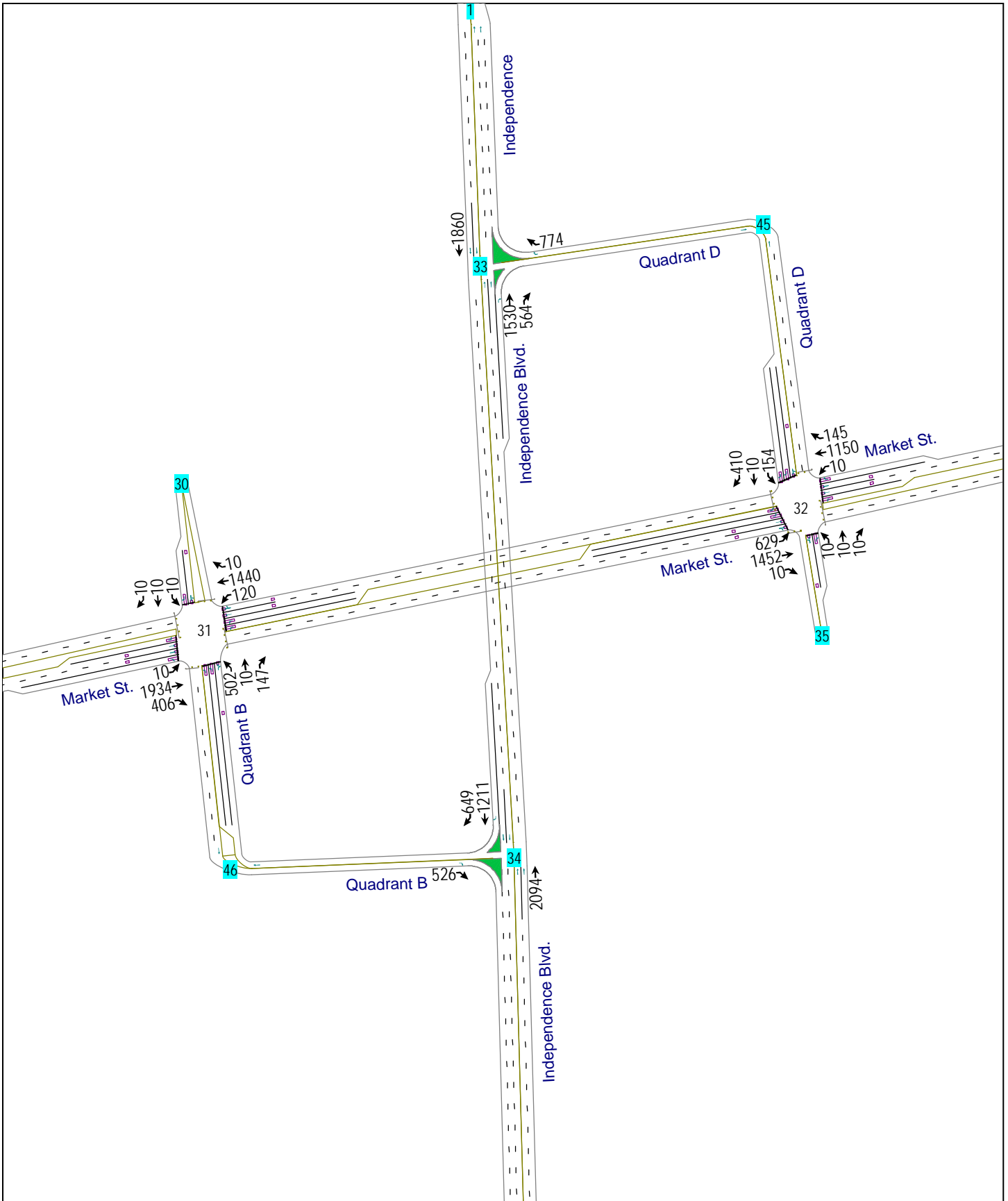
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 33.3 Intersection LOS: C
 Intersection Capacity Utilization 77.5% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 42: Market St. & Quadrant D





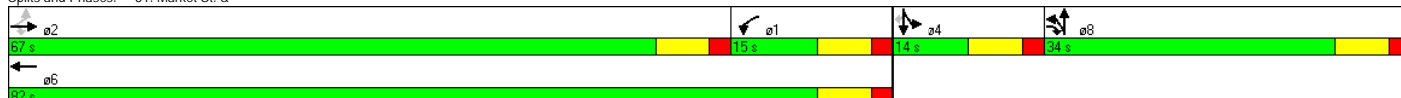


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	1532	410	154	1711	10	629	10	145	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		300	250		0	300		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1602	0	0	1818	1583
Flt Permitted	0.064			0.950			0.950				0.976	
Satd. Flow (perm)	119	3539	1583	3433	3536	0	3433	1602	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		935			1142			453				277
Travel Time (s)		15.9			19.5			10.3				6.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1702	456	171	1912	0	699	172	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase		2	2	8	1	6		8	8		4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	67.0	67.0	34.0	15.0	82.0	0.0	34.0	34.0	0.0	14.0	14.0	14.0
Total Split (%)	51.5%	51.5%	26.2%	11.5%	63.1%	0.0%	26.2%	26.2%	0.0%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	65.6	65.6	101.6	10.0	80.6		31.0	31.0			9.0	9.0
Actuated g/C Ratio	0.50	0.50	0.78	0.08	0.62		0.24	0.24			0.07	0.07
v/c Ratio	0.18	0.95	0.37	0.65	0.87		0.85	0.45			0.17	0.10
Control Delay	29.0	44.5	6.1	49.7	12.3		58.8	47.3			60.5	59.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	29.0	44.5	6.1	49.7	12.3		58.8	47.3			60.5	59.0
LOS	C	D	A	D	B		E	D			E	E
Approach Delay		36.3			15.4			56.6			60.0	
Approach LOS		D			B			E			E	
Queue Length 50th (ft)	5	-755	125	72	198		298	127			18	9
Queue Length 95th (ft)	22	#930	177	m80	m208		#407	202			47	29
Internal Link Dist (ft)		855			1062			373			197	
Turn Bay Length (ft)	200		300	250			300					100
Base Capacity (vph)	60	1785	1237	264	2191		819	382			126	110
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	0.18	0.95	0.37	0.65	0.87		0.85	0.45			0.17	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 5 (4%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 31.4
 Intersection LOS: C
 Intersection Capacity Utilization 94.7%
 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: 31: Market St. &



	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖	↖	↖↖	↖↖		↖↖	↖			↖	↖
Volume (vph)	10	1934	406	120	1440	10	502	10	147	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		300	250		0	300		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		0	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1600	0	0	1818	1583
Flt Permitted	0.090			0.950			0.950				0.976	
Satd. Flow (perm)	168	3539	1583	3433	3536	0	3433	1600	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		935			1142			453			277	
Travel Time (s)		15.9			19.5			10.3			6.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2149	451	133	1611	0	558	174	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase	2	2	8	1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	105.0	105.0	37.0	14.0	119.0	0.0	37.0	37.0	0.0	14.0	14.0	14.0
Total Split (%)	61.8%	61.8%	21.8%	8.2%	70.0%	0.0%	21.8%	21.8%	0.0%	8.2%	8.2%	8.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	104.9	104.9	142.6	9.0	118.9		32.7	32.7		9.0	9.0	9.0
Actuated g/C Ratio	0.62	0.62	0.84	0.05	0.70		0.19	0.19		0.05	0.05	0.05
v/c Ratio	0.11	0.98	0.34	0.73	0.65		0.84	0.56		0.23	0.13	0.13
Control Delay	18.6	47.7	4.4	72.5	4.6		78.7	70.4		83.2	80.5	80.5
Queue Delay	0.0	0.0	0.0	0.0	0.3		0.0	0.0		0.0	0.0	0.0
Total Delay	18.6	47.7	4.4	72.5	4.9		78.7	70.4		83.2	80.5	80.5
LOS	B	D	A	E	A		E	E		F	F	F
Approach Delay		40.1			10.0			76.7			82.3	
Approach LOS		D			B			E			F	
Queue Length 50th (ft)	5	-1345	118	74	105		314	179		24	12	
Queue Length 95th (ft)	18	#1467	159	m94	152		#404	268		58	35	
Internal Link Dist (ft)		855			1062			373			197	
Turn Bay Length (ft)	200		300	250			300				100	
Base Capacity (vph)	104	2183	1320	182	2472		665	310		96	84	
Starvation Cap Reductn	0	0	0	0	280		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.98	0.34	0.73	0.73		0.84	0.56		0.23	0.13	

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 167 (98%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 160
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 35.4 Intersection LOS: D
 Intersection Capacity Utilization 82.8% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 31: Market St. &



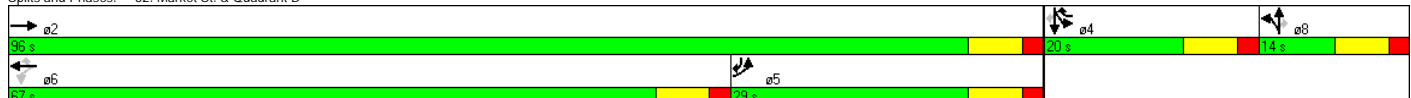


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	[Lane Configuration Diagram]											
Volume (vph)	502	1175	10	10	1459	147	10	10	10	120	10	406
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1781	2787
Flt Permitted	0.950			0.143				0.976			0.956	
Satd. Flow (perm)	3433	3536	0	266	3539	1583	0	1818	1583	0	1781	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1142			925			242			538	
Travel Time (s)		19.5			15.8			5.5			14.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1317	0	11	1621	163	0	22	11	0	144	451
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		pm+ov	Split		Perm	Split		pm+ov
Protected Phases	5	2			6	4	8	8		4	4	5
Permitted Phases					6	6			8		4	4
Detector Phase	5	2		6	6	4	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	29.0	96.0	0.0	67.0	67.0	20.0	14.0	14.0	14.0	20.0	20.0	29.0
Total Split (%)	22.3%	73.8%	0.0%	51.5%	51.5%	15.4%	10.8%	10.8%	10.8%	15.4%	15.4%	22.3%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	None
Act Effct Green (s)	24.0	91.0		62.0	62.0	77.0		9.0	9.0		15.0	44.0
Actuated g/C Ratio	0.18	0.70		0.48	0.48	0.59		0.07	0.07		0.12	0.34
v/c Ratio	0.88	0.53		0.09	0.96	0.17		0.17	0.10		0.70	0.48
Control Delay	38.9	1.1		20.9	47.4	7.0		60.5	59.0		73.9	36.0
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	38.9	1.1		20.9	47.4	7.0		60.5	59.0		73.9	36.0
LOS	D	A		C	D	A		E	E		E	D
Approach Delay		12.4			43.6			60.0			45.2	
Approach LOS		B			D			E			D	
Queue Length 50th (ft)	236	21		5	677	35		18	9		119	169
Queue Length 95th (ft)	m258	m13		18	#856	57		47	29		#211	227
Internal Link Dist (ft)		1062			845			162			458	
Turn Bay Length (ft)	350			150		200			100			300
Base Capacity (vph)	634	2475		127	1688	938		126	110		206	943
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.88	0.53		0.09	0.96	0.17		0.17	0.10		0.70	0.48

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 30.3
 Intersection LOS: C
 Intersection Capacity Utilization 81.0%
 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: 32: Market St. & Quadrant D

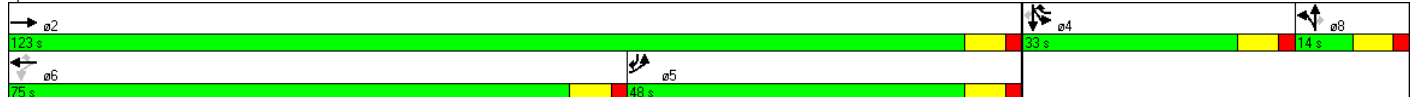


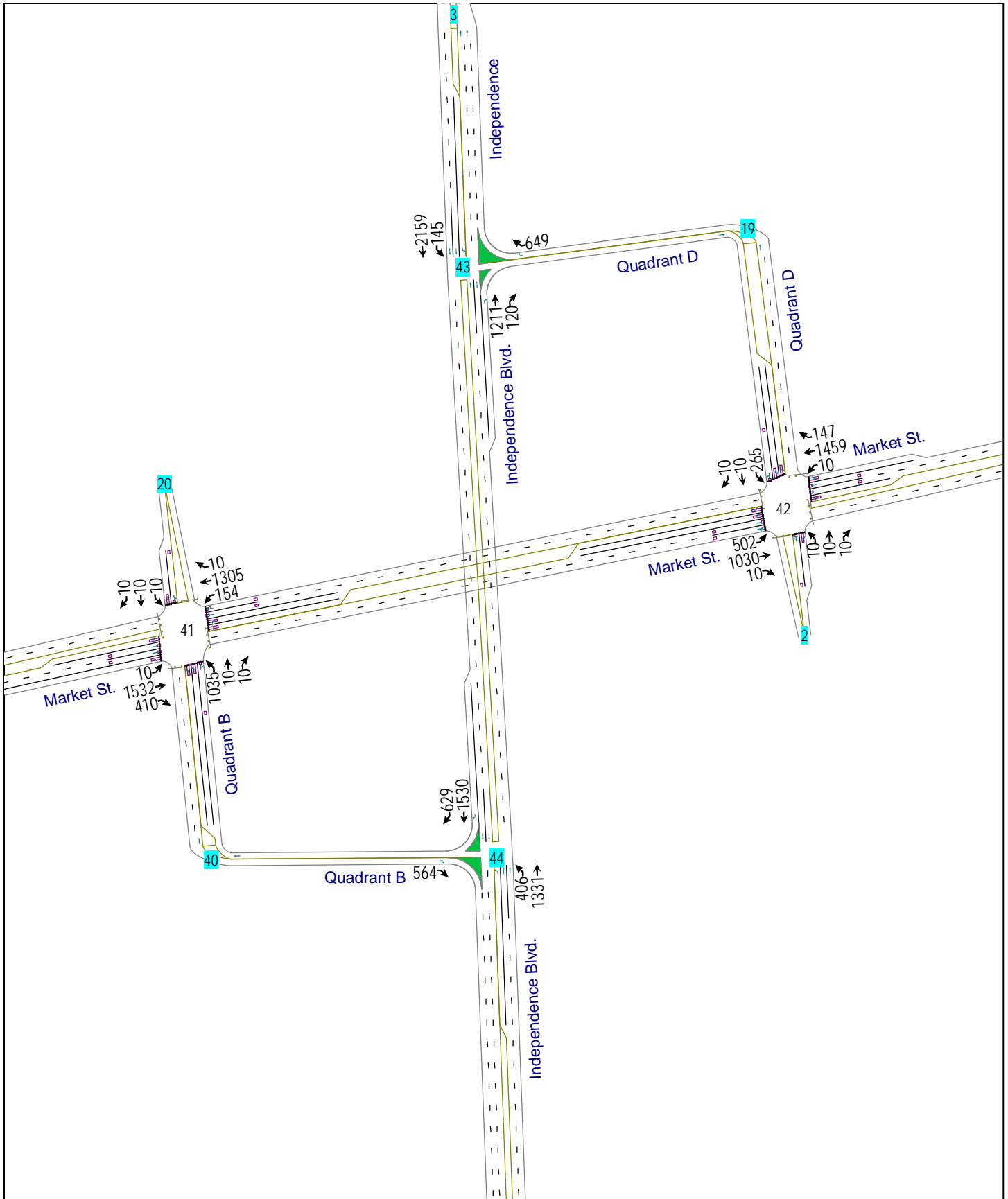
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	629	1452	10	10	1150	145	10	10	10	154	10	410
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		200
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.061				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	114	3539	1583	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1142			925			242			538	
Travel Time (s)		19.5			15.8			5.5			14.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1624	0	11	1278	161	0	22	11	0	182	456
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		pm+ov	Split		Perm	Split		pm+ov
Protected Phases	5	2			6	4	8	8		8	4	4
Permitted Phases												
Detector Phase	5	2		6	6	4	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	48.0	123.0	0.0	75.0	75.0	33.0	14.0	14.0	14.0	33.0	33.0	48.0
Total Split (%)	28.2%	72.4%	0.0%	44.1%	44.1%	19.4%	8.2%	8.2%	8.2%	19.4%	19.4%	28.2%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag			Lead	Lead							Lag
Lead-Lag Optimize?	Yes			Yes	Yes							Yes
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	None
Act Effct Green (s)	43.0	118.0		70.0	70.0	98.0		9.0	9.0		28.0	76.0
Actuated g/C Ratio	0.25	0.69		0.41	0.41	0.58		0.05	0.05		0.16	0.45
v/c Ratio	0.81	0.66		0.23	0.88	0.18		0.23	0.13		0.62	0.37
Control Delay	38.6	1.8		48.4	54.1	10.9		83.2	80.5		76.3	32.2
Queue Delay	0.0	0.2		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	38.6	2.0		48.4	54.1	10.9		83.2	80.5		76.3	32.2
LOS	D	A		D	D	B		F	F		E	C
Approach Delay		13.0			49.3			82.3			44.8	
Approach LOS		B			D			F			D	
Queue Length 50th (ft)	350	67		8	687	59		24	12		191	189
Queue Length 95th (ft)	m362	m51		29	790	88		58	35		282	241
Internal Link Dist (ft)		1062			845			162			458	
Turn Bay Length (ft)	350			150		200			100			200
Base Capacity (vph)	868	2454		47	1457	913		96	84		293	1246
Starvation Cap Reductn	0	220		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.81	0.73		0.23	0.88	0.18		0.23	0.13		0.62	0.37

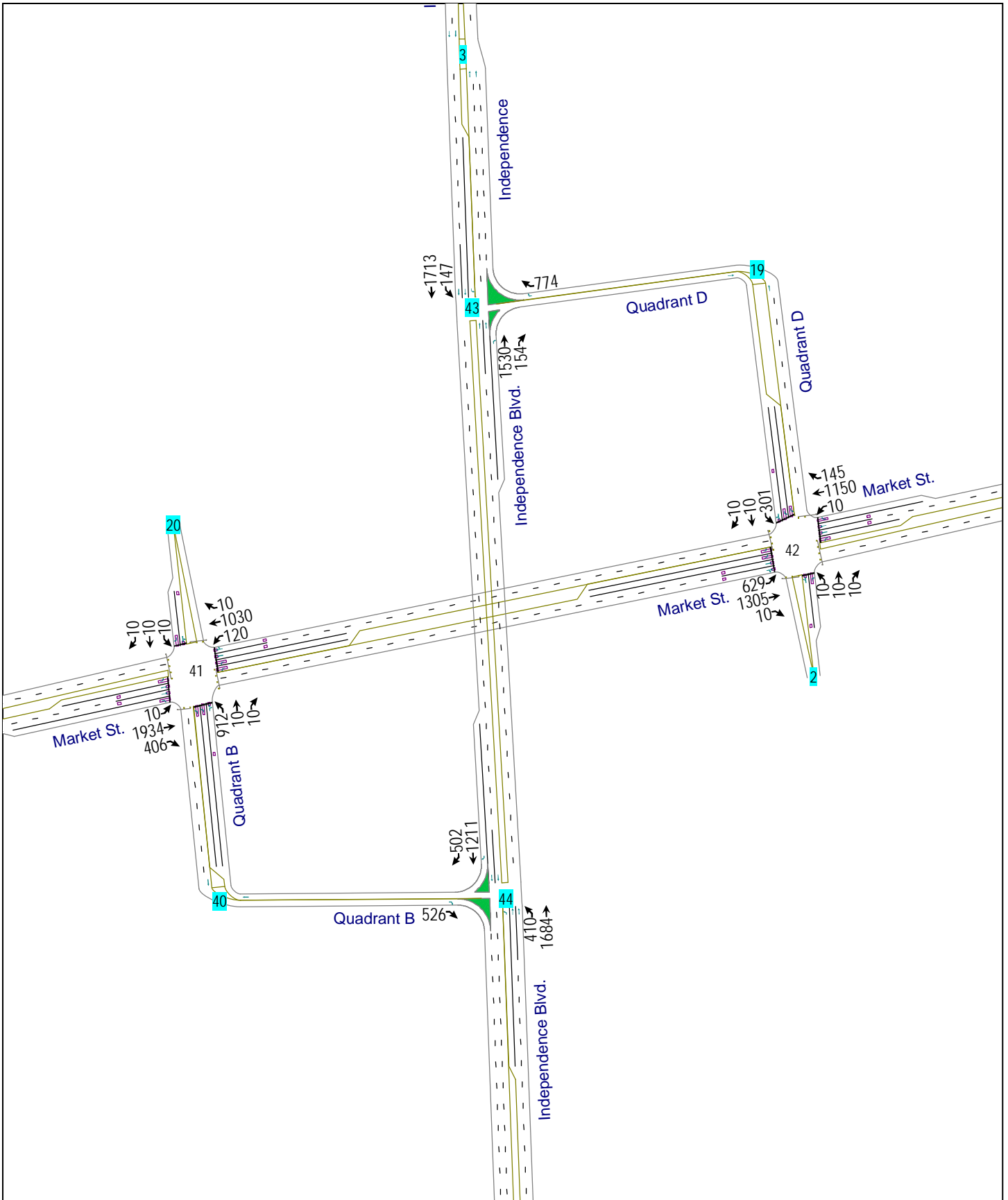
Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 29.9
 Intersection LOS: C
 Intersection Capacity Utilization 78.7%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. & Quadrant D





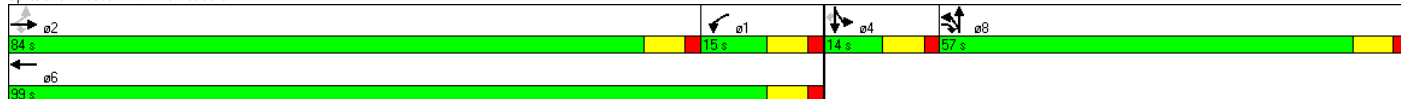


	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	10	1532	410	154	1305	10	1035	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		300	250		0	300		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.053			0.950			0.950				0.976	
Satd. Flow (perm)	99	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		933			1142			434				277
Travel Time (s)		15.9			19.5			9.9				6.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1702	456	171	1461	0	1150	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase	2	2	8	1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	84.0	84.0	57.0	15.0	99.0	0.0	57.0	57.0	0.0	14.0	14.0	14.0
Total Split (%)	49.4%	49.4%	33.5%	8.8%	58.2%	0.0%	33.5%	33.5%	0.0%	8.2%	8.2%	8.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	79.0	79.0	141.6	10.0	94.0		57.6	57.6		9.0	9.0	9.0
Actuated g/C Ratio	0.46	0.46	0.83	0.06	0.55		0.34	0.34		0.05	0.05	0.05
v/c Ratio	0.24	1.03	0.35	0.85	0.75		0.99	0.04		0.23	0.13	0.13
Control Delay	43.9	75.6	4.7	68.6	1.7		78.0	41.0		83.2	80.5	80.5
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	75.6	4.7	68.6	1.7		78.0	41.0		83.2	80.5	80.5
LOS	D	E	A	E	A		E	D		F	F	F
Approach Delay		60.6			8.7			77.3			82.3	
Approach LOS		E			A			E			F	
Queue Length 50th (ft)	7	-1067	125	103	5		-742	17		24	12	
Queue Length 95th (ft)	28	#1202	167	m119	5		#880	42		58	35	
Internal Link Dist (ft)		853			1062			354			197	
Turn Bay Length (ft)	200		300	250			300					100
Base Capacity (vph)	46	1645	1318	202	1955		1163	584		96	84	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.24	1.03	0.35	0.85	0.75		0.99	0.04		0.23	0.13	

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 19 (11%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 47.7
 Intersection LOS: D
 Intersection Capacity Utilization 96.9%
 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: 41: Market St. &

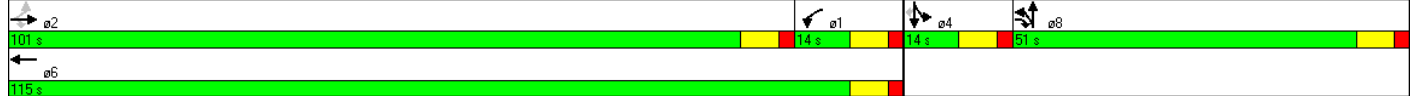


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	1934	406	120	1030	10	912	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		300	250		0	300		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.161			0.950			0.950				0.976	
Satd. Flow (perm)	300	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30				30
Link Distance (ft)		933			1142			434				277
Travel Time (s)		15.9			19.5			9.9				6.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2149	451	133	1155	0	1013	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase		2	2	8	1	6		8	8		4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	101.0	101.0	51.0	14.0	115.0	0.0	51.0	51.0	0.0	14.0	14.0	14.0
Total Split (%)	56.1%	56.1%	28.3%	7.8%	63.9%	0.0%	28.3%	28.3%	0.0%	7.8%	7.8%	7.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	96.0	96.0	152.6	9.0	110.0		51.6	51.6			9.0	9.0
Actuated g/C Ratio	0.53	0.53	0.85	0.05	0.61		0.29	0.29			0.05	0.05
v/c Ratio	0.07	1.14	0.34	0.77	0.53		1.03	0.04			0.24	0.14
Control Delay	22.0	108.3	4.1	83.0	0.8		96.3	50.1			89.0	86.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	22.0	108.3	4.1	83.0	0.8		96.3	50.1			89.0	86.0
LOS	C	F	A	F	A		F	D			F	F
Approach Delay		89.9			9.3			95.3			88.0	
Approach LOS		F			A			F			F	
Queue Length 50th (ft)	6	-1551	118	85	4		-723	20			26	13
Queue Length 95th (ft)	19	#1669	156	m104	5		#861	47			60	37
Internal Link Dist (ft)		853			1062			354			197	
Turn Bay Length (ft)	200		300	250			300					100
Base Capacity (vph)	160	1887	1342	172	2161		984	494			91	79
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	0.07	1.14	0.34	0.77	0.53		1.03	0.04			0.24	0.14

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 15 (8%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 70.1
 Intersection LOS: E
 Intersection Capacity Utilization 94.5%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 41: Market St. &





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	502	1030	10	10	1459	147	10	10	10	265	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	200		0
Storage Lanes	2		0	1		1	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.195				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	363	3539	1583	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1142			925			242			530	
Travel Time (s)		19.5			15.8			5.5			14.5	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1155	0	11	1621	163	0	22	11	294	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		pm+ov	Split		Perm	Split		
Protected Phases	5	2			6	4	8	8		8	4	4
Permitted Phases												
Detector Phase	5	2			6	4	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	35.0	129.0	0.0	94.0	94.0	27.0	14.0	14.0	14.0	27.0	27.0	0.0
Total Split (%)	20.6%	75.9%	0.0%	55.3%	55.3%	15.9%	8.2%	8.2%	8.2%	15.9%	15.9%	0.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	30.0	124.0		89.0	89.0	111.0		9.0	9.0	22.0	22.0	
Actuated g/C Ratio	0.18	0.73		0.52	0.52	0.65		0.05	0.05	0.13	0.13	
v/c Ratio	0.92	0.45		0.06	0.87	0.16		0.23	0.13	0.66	0.10	
Control Delay	32.9	0.1		21.2	42.3	6.8		83.2	80.5	78.4	66.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	32.9	0.1		21.2	42.3	6.8		83.2	80.5	78.4	66.7	
LOS	C	A		C	D	A		F	F	E	E	
Approach Delay		10.8			38.9			82.3			77.6	
Approach LOS		B			D			F			E	
Queue Length 50th (ft)	314	2		6	820	43		24	12	163	22	
Queue Length 95th (ft)	m298	m2		18	931	65		58	35	218	53	
Internal Link Dist (ft)		1062			845			162			450	
Turn Bay Length (ft)	350			150		200			100	200		
Base Capacity (vph)	606	2579		190	1853	1034		96	84	444	223	
Starvation Cap Reductn	0	0		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.92	0.45		0.06	0.87	0.16		0.23	0.13	0.66	0.10	

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 168 (99%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 30.0
 Intersection LOS: C
 Intersection Capacity Utilization 81.4%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. & Quadrant D



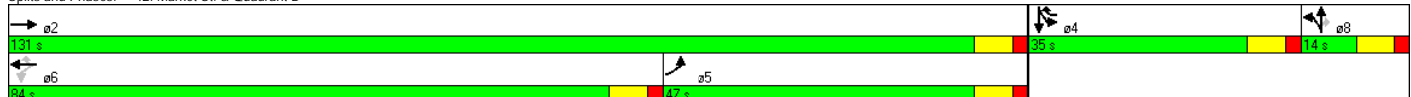


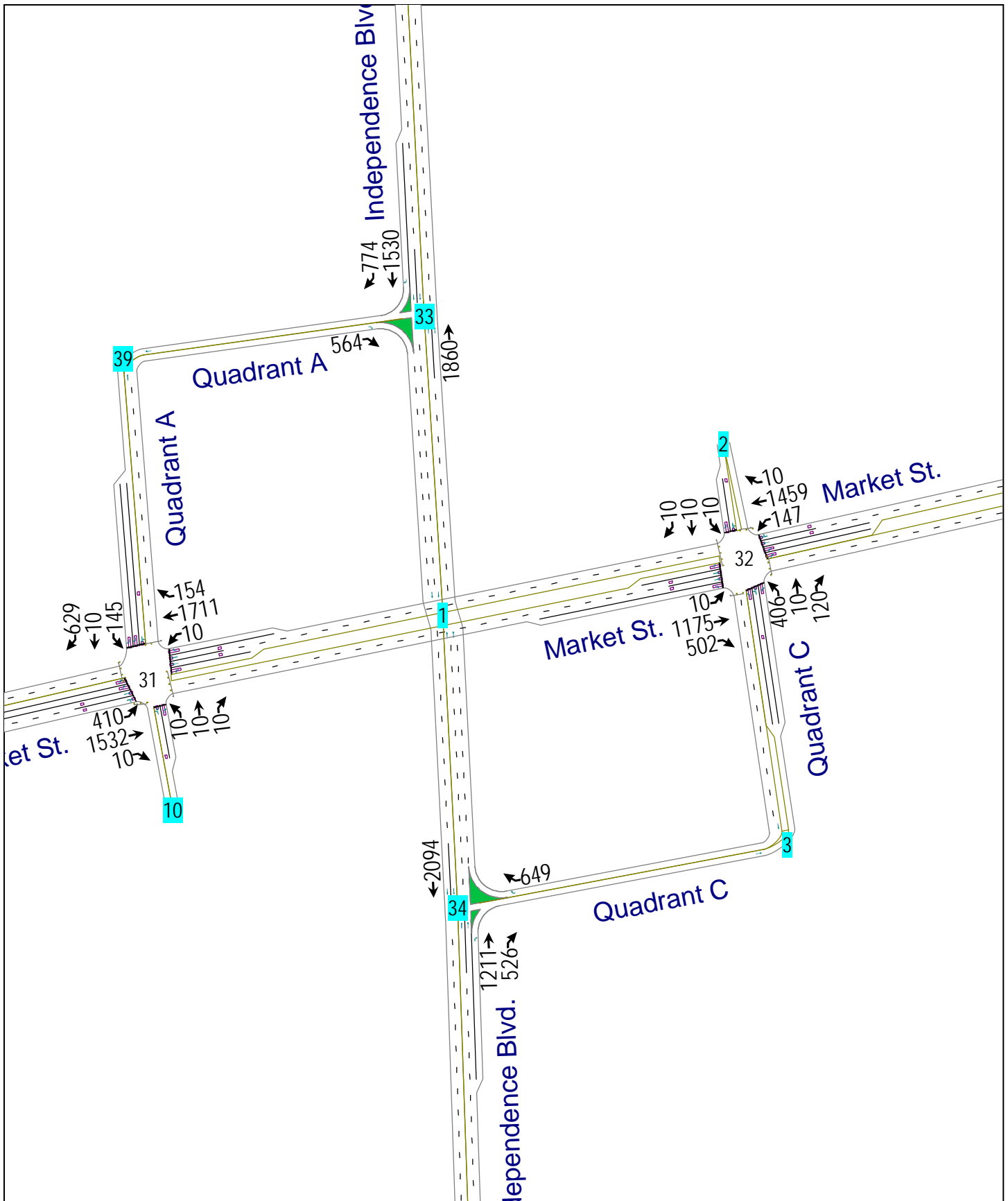
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	629	1305	10	10	1150	145	10	10	10	301	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	200		0
Storage Lanes	2		0	1		1	0		1	2		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	3433	1723	0
Flt Permitted	0.950			0.100				0.976		0.950		
Satd. Flow (perm)	3433	3536	0	186	3539	1583	0	1818	1583	3433	1723	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		1142			925			242			530	
Travel Time (s)		19.5			15.8			5.5			14.5	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1461	0	11	1278	161	0	22	11	334	22	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		pm+ov	Split		Perm	Split		
Protected Phases	5	2			6	4	8	8		8	4	4
Permitted Phases												
Detector Phase	5	2			6	4	8	8		8	4	4
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	47.0	131.0	0.0	84.0	84.0	35.0	14.0	14.0	14.0	35.0	35.0	0.0
Total Split (%)	26.1%	72.8%	0.0%	46.7%	46.7%	19.4%	7.8%	7.8%	7.8%	19.4%	19.4%	0.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0
Lead/Lag	Lag			Lead	Lead							
Lead-Lag Optimize?	Yes			Yes	Yes							
Recall Mode	None	C-Max		C-Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	42.0	126.0		79.0	79.0	109.0		9.0	9.0	30.0	30.0	
Actuated g/C Ratio	0.23	0.70		0.44	0.44	0.61		0.05	0.05	0.17	0.17	
v/c Ratio	0.87	0.59		0.13	0.82	0.17		0.24	0.14	0.58	0.08	
Control Delay	30.8	2.6		35.6	49.9	10.0		89.0	86.0	73.9	64.3	
Queue Delay	0.0	0.2		0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	30.8	2.8		35.6	49.9	10.0		89.0	86.0	73.9	64.3	
LOS	C	A		D	D	A		F	F	E	E	
Approach Delay		11.8			45.3			88.0			73.3	
Approach LOS		B			D			F			E	
Queue Length 50th (ft)	364	46		8	694	57		26	13	190	22	
Queue Length 95th (ft)	m299	m41		26	792	85		60	37	247	53	
Internal Link Dist (ft)		1062			845			162			450	
Turn Bay Length (ft)	350			150		200			100	200		
Base Capacity (vph)	801	2475		82	1553	959		91	79	572	287	
Starvation Cap Reductn	0	252		0	0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0	0		0	0	0	0	
Reduced v/c Ratio	0.87	0.66		0.13	0.82	0.17		0.24	0.14	0.58	0.08	

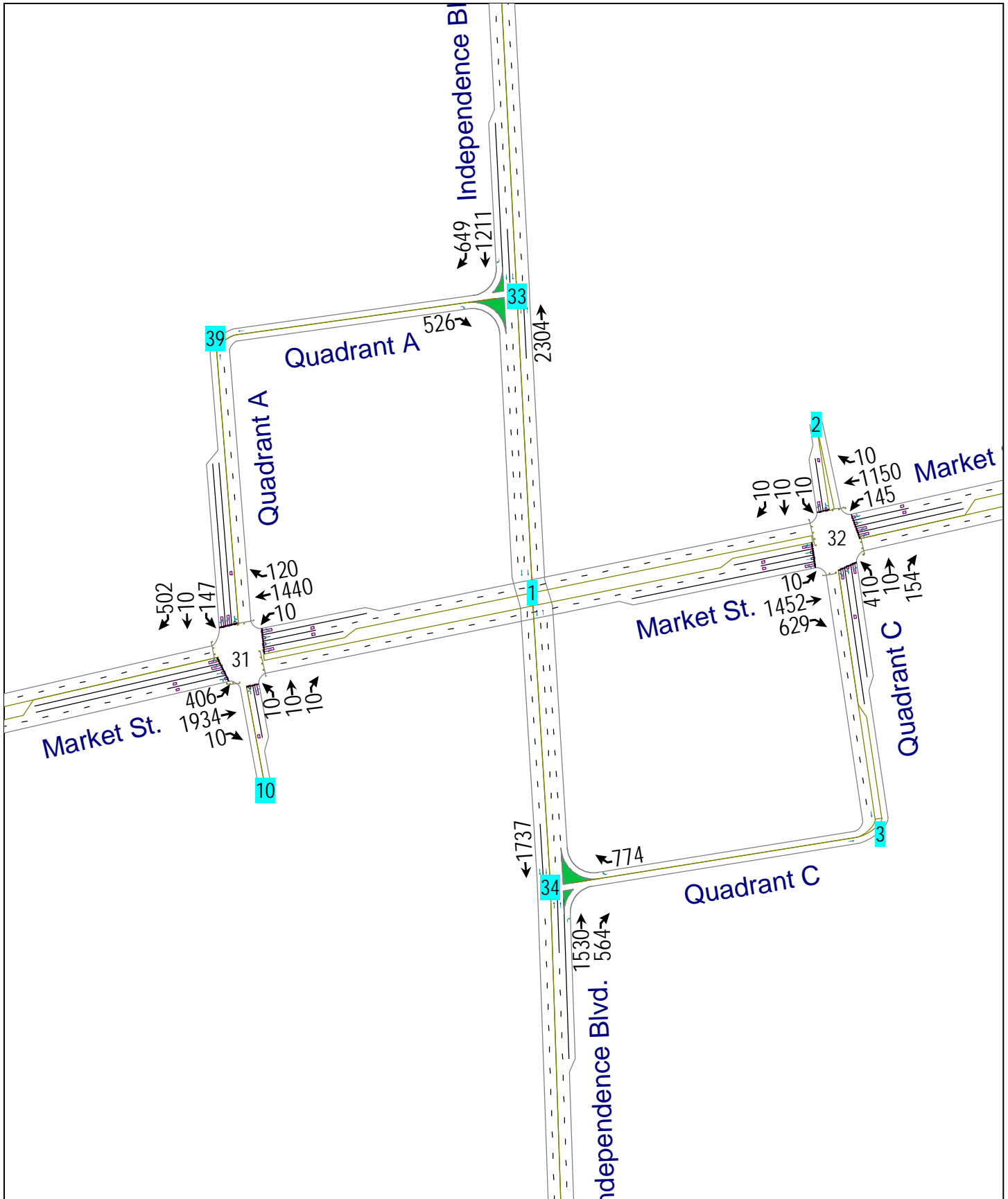
Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 30.1
 Intersection LOS: C
 Intersection Capacity Utilization 77.5%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. & Quadrant D







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	410	1532	10	10	1711	154	10	10	10	145	10	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.138				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	257	3539	1583	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			25	
Link Distance (ft)		935			1142			250			605	
Travel Time (s)		15.9			19.5			5.7			16.5	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	1713	0	11	1901	171	0	22	11	0	172	699
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2		6		6	8	8	8	4	4	5
Permitted Phases				6		6	8	8	8	4	4	5
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	23.0	98.0	0.0	75.0	75.0	75.0	14.0	14.0	14.0	18.0	18.0	23.0
Total Split (%)	17.7%	75.4%	0.0%	57.7%	57.7%	57.7%	10.8%	10.8%	10.8%	13.8%	13.8%	17.7%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	23.6	98.6		70.0	70.0	70.0	9.0	9.0	9.0	13.0	13.0	38.6
Actuated g/C Ratio	0.18	0.76		0.54	0.54	0.54	0.07	0.07	0.07	0.10	0.10	0.30
v/c Ratio	0.73	0.64		0.08	1.00	0.20	0.17	0.10	0.10	0.97	0.84	0.84
Control Delay	59.0	9.6		9.8	36.9	10.3	60.5	59.0	59.0	117.3	50.3	50.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	9.6		9.8	36.9	10.3	60.5	59.0	59.0	117.3	50.3	50.3
LOS	E	A		A	D	B	E	E	E	F	D	D
Approach Delay		20.0			34.6		60.0			63.5		
Approach LOS		B			C		E			E		
Queue Length 50th (ft)	199	376		3	844	50	18	9	9	147	-294	-294
Queue Length 95th (ft)	#306	447		m4	#1000	m62	47	29	29	#294	#463	#463
Internal Link Dist (ft)		855			1062		170			525		
Turn Bay Length (ft)	350			150		200			100			300
Base Capacity (vph)	623	2682		138	1906	852	126	110	110	178	828	828
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.64		0.08	1.00	0.20	0.17	0.10	0.10	0.97	0.84	0.84

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 114 (88%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 33.5 Intersection LOS: C
 Intersection Capacity Utilization 87.6% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 31: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗	↖ ↗		↖ ↗	↖ ↗	↖ ↗		↖ ↗	↖ ↗		↖ ↗	↖ ↗
Volume (vph)	406	1934	10	10	1440	120	10	10	10	147	10	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1779	2787
Flt Permitted	0.950			0.063				0.976			0.955	
Satd. Flow (perm)	3433	3536	0	117	3539	1583	0	1818	1583	0	1779	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		935			1142			250			605	
Travel Time (s)		15.9			19.5			5.7			13.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	451	2160	0	11	1600	133	0	22	11	0	174	558
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2		6		6	8	8	8	4	4	5
Permitted Phases												4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	32.0	95.0	0.0	63.0	63.0	63.0	14.0	14.0	14.0	21.0	21.0	32.0
Total Split (%)	24.6%	73.1%	0.0%	48.5%	48.5%	48.5%	10.8%	10.8%	10.8%	16.2%	16.2%	24.6%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	24.3	95.9		66.6	66.6	66.6	9.0	9.0	9.0	15.7	15.7	42.0
Actuated g/C Ratio	0.19	0.74		0.51	0.51	0.51	0.07	0.07	0.07	0.12	0.12	0.32
v/c Ratio	0.70	0.83		0.18	0.88	0.16	0.17	0.10	0.10	0.81	0.81	0.62
Control Delay	55.5	16.7		21.0	26.4	13.2	60.5	59.0	59.0	83.2	83.2	33.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	16.7		21.0	26.4	13.2	60.5	59.0	59.0	83.2	83.2	33.6
LOS	E	B		C	C	B	E	E	E	F	F	C
Approach Delay		23.4			25.4		60.0			45.4		
Approach LOS		C			C		E			D		
Queue Length 50th (ft)	182	690		3	602	37	18	9	9	145	145	173
Queue Length 95th (ft)	238	824		m6	#871	65	47	29	29	#262	#262	222
Internal Link Dist (ft)		855			1062		170			525		
Turn Bay Length (ft)	350			150		200			100			300
Base Capacity (vph)	713	2609		60	1813	811	126	110	110	219	219	958
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.83		0.18	0.88	0.16	0.17	0.10	0.10	0.79	0.79	0.58

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 95 (73%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 27.4
 Intersection LOS: C
 Intersection Capacity Utilization 91.6%
 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: 31: Market St. & Quadrant A

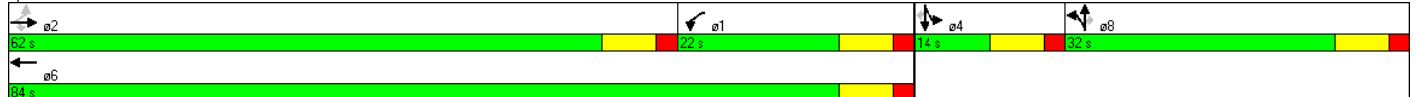


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	1175	502	147	1459	10	406	10	120	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		350	200		0	250		250	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Flt Permitted	0.074			0.950			0.950	0.955			0.976	
Satd. Flow (perm)	138	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		1142			920			545			218	
Travel Time (s)		19.5			15.7			14.9			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	11	1306	558	163	1632	0	230	232	133	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		Perm	Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2		2						8		4	4
Detector Phase	2	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	62.0	62.0	62.0	22.0	84.0	0.0	32.0	32.0	32.0	14.0	14.0	14.0
Total Split (%)	47.7%	47.7%	47.7%	16.9%	64.6%	0.0%	24.6%	24.6%	24.6%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	57.0	57.0	57.0	17.0	79.0		32.6	32.6	32.6	9.0	9.0	9.0
Actuated g/C Ratio	0.44	0.44	0.44	0.13	0.61		0.25	0.25	0.25	0.07	0.07	0.07
v/c Ratio	0.18	0.84	0.80	0.36	0.76		0.55	0.55	0.34	0.17	0.10	0.10
Control Delay	23.5	30.6	33.1	54.2	21.5		49.9	49.9	45.0	60.5	59.0	59.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	30.6	33.1	54.2	21.5		49.9	49.9	45.0	60.5	59.0	59.0
LOS	C	C	C	D	C		D	D	D	E	E	E
Approach Delay		31.3			24.5			48.8			60.0	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)	4	433	320	65	498		189	190	98		18	9
Queue Length 95th (ft)	m6	m481	m470	102	592		285	288	163		47	29
Internal Link Dist (ft)		1062			840			465			138	
Turn Bay Length (ft)	150		350	200			250		250			100
Base Capacity (vph)	61	1552	694	449	2149		421	424	397		126	110
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	0.18	0.84	0.80	0.36	0.76		0.55	0.55	0.34		0.17	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 128 (98%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 31.1
 Intersection LOS: C
 Intersection Capacity Utilization 81.3%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. &

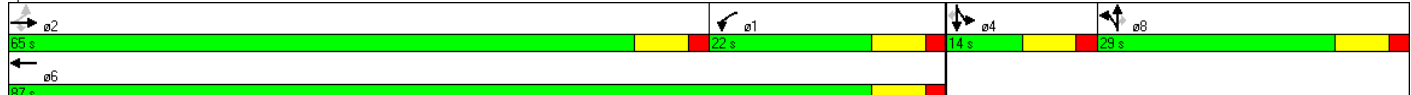


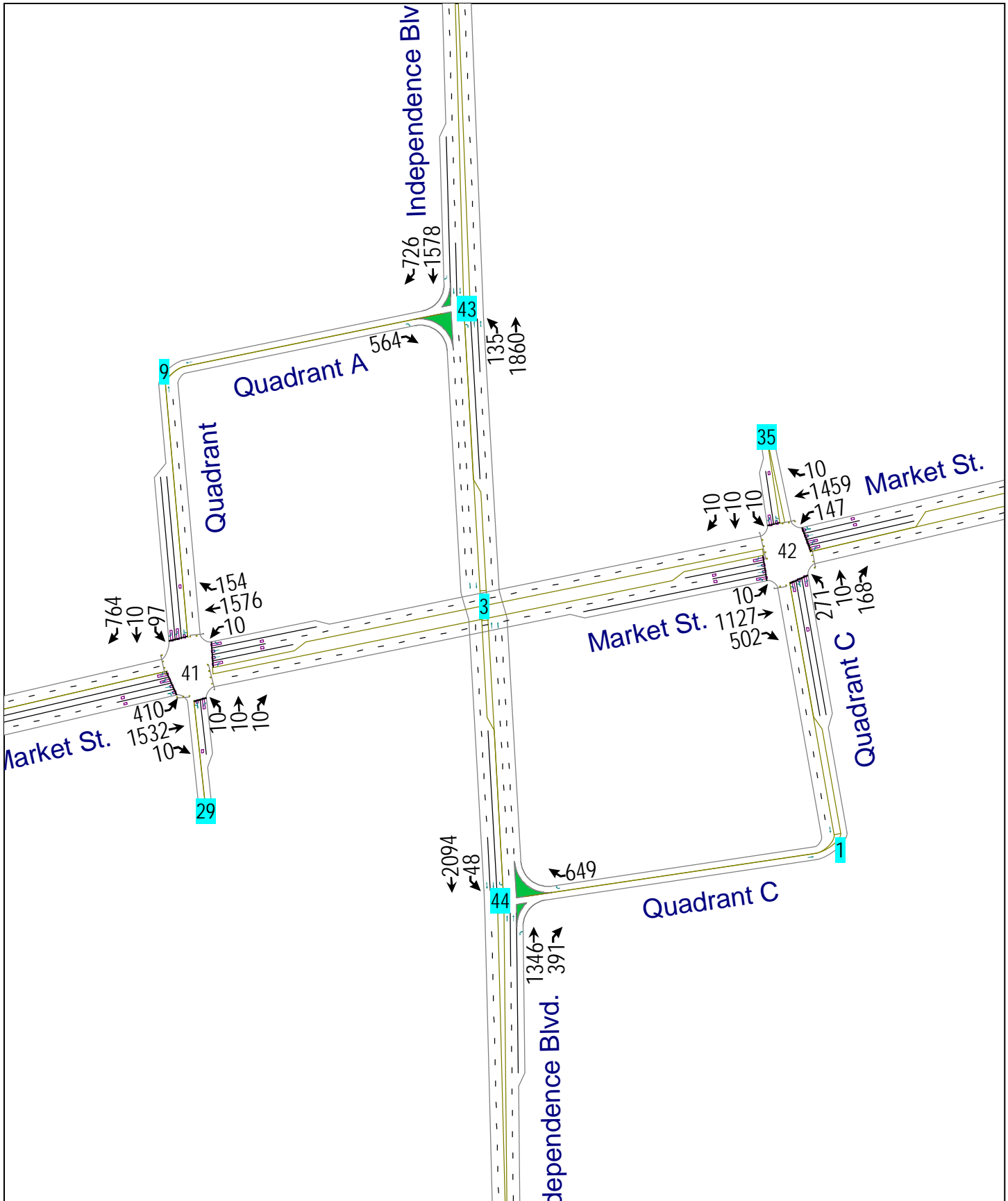
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑↑	↑↑		↑	↑	↑		↑	↑
Volume (vph)	10	1452	629	145	1150	10	410	10	154	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		350	200		0	250		200	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Flt Permitted	0.118			0.950			0.950	0.955			0.976	
Satd. Flow (perm)	220	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1142			920			562			218	
Travel Time (s)		19.5			15.7			12.8			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	11	1613	699	161	1289	0	233	234	171	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		Perm	Split		Perm
Protected Phases		2		1	6		8	8		4	4	
Permitted Phases	2		2						8		4	4
Detector Phase	2	2	2	1	6		8	8	8	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	65.0	65.0	65.0	22.0	87.0	0.0	29.0	29.0	29.0	14.0	14.0	14.0
Total Split (%)	50.0%	50.0%	50.0%	16.9%	66.9%	0.0%	22.3%	22.3%	22.3%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	Max	None	None	None
Act Effct Green (s)	60.0	60.0	60.0	17.0	82.0		29.6	29.6	29.6	None	9.0	9.0
Actuated g/C Ratio	0.46	0.46	0.46	0.13	0.63		0.23	0.23	0.23	None	0.07	0.07
v/c Ratio	0.11	0.99	0.96	0.36	0.58		0.61	0.61	0.47	None	0.17	0.10
Control Delay	14.8	40.6	42.4	54.1	15.2		54.7	54.6	50.7	None	60.5	59.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	None	0.0	0.0
Total Delay	14.8	40.6	42.4	54.1	15.2		54.7	54.6	50.7	None	60.5	59.0
LOS	B	D	D	D	B		D	D	D	None	E	E
Approach Delay		41.1			19.6			53.6			60.0	
Approach LOS		D			B			D			E	
Queue Length 50th (ft)	3	703	549	64	311		197	198	133		18	9
Queue Length 95th (ft)	m4	#866	#818	100	373		#320	#318	212		47	29
Internal Link Dist (ft)		1062			840			482			138	
Turn Bay Length (ft)	150		350	200			250		200			100
Base Capacity (vph)	102	1633	731	449	2230		382	385	360		126	110
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	0.11	0.99	0.96	0.36	0.58		0.61	0.61	0.47		0.17	0.10

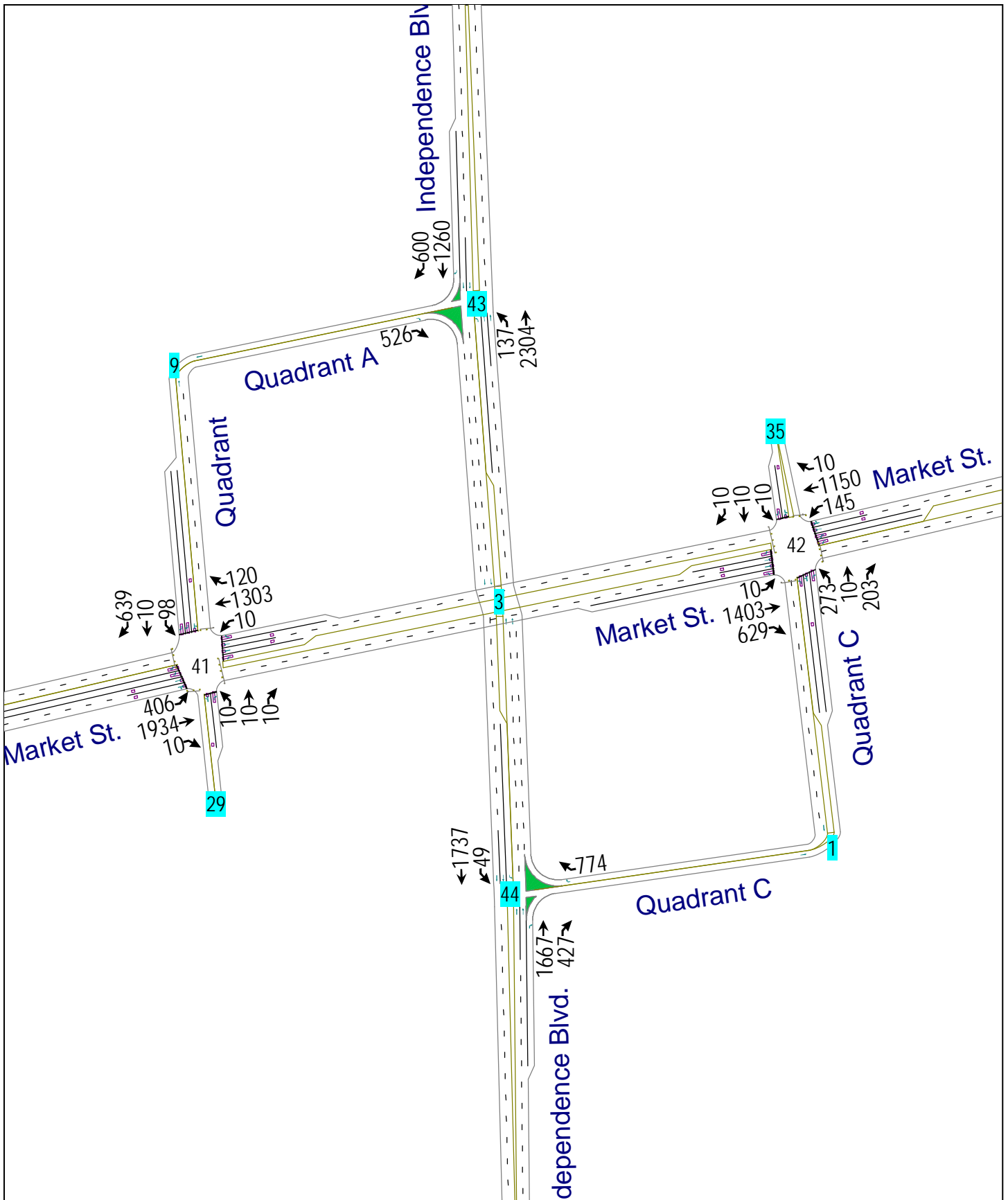
Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 36.0
 Intersection LOS: D
 Intersection Capacity Utilization 76.8%
 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: 32: Market St. &







Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	410	1532	10	10	1576	154	10	10	10	97	10	764
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1783	2787
Flt Permitted	0.950			0.140				0.976			0.957	
Satd. Flow (perm)	3433	3536	0	261	3539	1583	0	1818	1583	0	1783	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		935			1142			261			567	
Travel Time (s)		15.9			19.5			5.9			12.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	456	1713	0	11	1751	171	0	22	11	0	119	849
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2		6	6	6	8	8	8	4	4	5
Permitted Phases				6	6	6	8	8	8	4	4	4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	30.0	92.0	0.0	62.0	62.0	62.0	14.0	14.0	14.0	14.0	14.0	30.0
Total Split (%)	25.0%	76.7%	0.0%	51.7%	51.7%	51.7%	11.7%	11.7%	11.7%	11.7%	11.7%	25.0%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	30.6	92.6		57.0	57.0	57.0	9.0	9.0	9.0	9.0	9.0	41.6
Actuated g/C Ratio	0.26	0.77		0.48	0.48	0.48	0.08	0.08	0.08	0.08	0.08	0.35
v/c Ratio	0.52	0.63		0.09	1.04	0.23	0.16	0.09	0.09	0.09	0.09	0.88
Control Delay	42.4	8.2		12.9	53.4	13.1	55.0	53.7	53.7	108.6	46.9	46.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	8.2		12.9	53.4	13.1	55.0	53.7	53.7	108.6	46.9	46.9
LOS	D	A		B	D	B	D	D	D	F	D	D
Approach Delay		15.4			49.6		54.6			54.5		
Approach LOS		B			D		D			D		
Queue Length 50th (ft)	167	328		3	-776	50	16	8		93	-332	
Queue Length 95th (ft)	223	395		m4	#898	m70	44	28		m#204	#527	
Internal Link Dist (ft)		855			1062		181			487		
Turn Bay Length (ft)	350			150		200		100				300
Base Capacity (vph)	875	2729		124	1681	752	136	119		134	966	
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	0.52	0.63		0.09	1.04	0.23	0.16	0.09		0.09	0.88	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 102 (85%), Referenced to phase 2:EBT and 6:WBTL, Start of 1st Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 36.1
 Intersection LOS: D
 Intersection Capacity Utilization 88.6%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 41: Market St. & Quadrant A



	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	406	1934	10	10	1303	120	10	10	10	98	10	639
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		0	150		200	0		100	0		300
Storage Lanes	2		0	1		1	0		1	0		2
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3536	0	1770	3539	1583	0	1818	1583	0	1783	2787
Flt Permitted	0.950			0.068				0.976			0.957	
Satd. Flow (perm)	3433	3536	0	127	3539	1583	0	1818	1583	0	1783	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		935			1142			261			567	
Travel Time (s)		15.9			19.5			5.9			12.9	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	451	2160	0	11	1448	133	0	22	11	0	120	710
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Prot			Perm		Perm	Split		Perm	Split		pm+ov
Protected Phases	5	2		6		6	8	8	8	4	4	5
Permitted Phases												4
Detector Phase	5	2		6	6	6	8	8	8	4	4	5
Switch Phase												
Minimum Initial (s)	7.0	12.0		12.0	12.0	12.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	14.0	19.0		19.0	19.0	19.0	14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	28.0	89.0	0.0	61.0	61.0	61.0	14.0	14.0	14.0	17.0	17.0	28.0
Total Split (%)	23.3%	74.2%	0.0%	50.8%	50.8%	50.8%	11.7%	11.7%	11.7%	14.2%	14.2%	23.3%
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag						Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						Yes
Recall Mode	None	C-Max		C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	22.9	89.9		62.0	62.0	62.0	9.0	9.0	9.0	11.7	11.7	36.6
Actuated g/C Ratio	0.19	0.75		0.52	0.52	0.52	0.08	0.08	0.08	0.10	0.10	0.30
v/c Ratio	0.69	0.82		0.17	0.79	0.16	0.16	0.09	0.09	0.69	0.69	0.83
Control Delay	51.4	14.6		19.7	20.2	13.4	55.0	53.7	53.7	74.2	74.2	44.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	14.6		19.7	20.2	13.4	55.0	53.7	53.7	74.2	74.2	44.7
LOS	D	B		B	C	B	D	D	D	E	E	D
Approach Delay		21.0			19.6		54.6			49.0		
Approach LOS		C			B		D			D		
Queue Length 50th (ft)	169	610		3	337	38	16	8		92	219	
Queue Length 95th (ft)	226	741		m6	385	62	44	28		m#170	m#311	
Internal Link Dist (ft)		855			1062		181			487		
Turn Bay Length (ft)	350			150		200		100				300
Base Capacity (vph)	666	2648		66	1828	818	136	119		178	859	
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	0.68	0.82		0.17	0.79	0.16	0.16	0.09		0.67	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 85 (71%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 25.3 Intersection LOS: C
 Intersection Capacity Utilization 88.9% 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: 41: Market St. & Quadrant A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔		↔	↔	↔		↔	↔
Volume (vph)	10	1127	502	147	1459	10	271	10	168	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		350	200		0	250		250	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1692	1583	0	1818	1583
Flt Permitted	0.070			0.950			0.950	0.956			0.976	
Satd. Flow (perm)	130	3539	1583	3433	3536	0	1681	1692	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1142			922			570			218	
Travel Time (s)		19.5			15.7			13.0			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)							48%					
Lane Group Flow (vph)	11	1252	558	163	1632	0	157	155	187	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases		2		2			8		8		4	4
Detector Phase		2	2	2	1	6	8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	65.0	65.0	65.0	18.0	83.0	0.0	23.0	23.0	18.0	14.0	14.0	14.0
Total Split (%)	54.2%	54.2%	54.2%	15.0%	69.2%	0.0%	19.2%	19.2%	15.0%	11.7%	11.7%	11.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	60.0	60.0	60.0	13.0	78.0		23.6	23.6	38.6		9.0	9.0
Actuated g/C Ratio	0.50	0.50	0.50	0.11	0.65		0.20	0.20	0.32		0.08	0.08
v/c Ratio	0.17	0.71	0.70	0.44	0.71		0.48	0.47	0.37		0.16	0.09
Control Delay	17.2	19.9	22.3	54.2	15.8		50.4	50.1	27.2		55.0	53.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	17.2	19.9	22.3	54.2	15.8		50.4	50.1	27.2		55.0	53.7
LOS	B	B	C	D	B		D	D	C		D	D
Approach Delay		20.6			19.3			41.6			54.6	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	3	285	239	61	399		122	120	94		16	8
Queue Length 95th (ft)	m4	332	m376	97	480		200	196	151		44	28
Internal Link Dist (ft)		1062			842			490			138	
Turn Bay Length (ft)	150		350	200			250		250			100
Base Capacity (vph)	65	1770	792	372	2298		330	333	509		136	119
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	0.17	0.71	0.70	0.44	0.71		0.48	0.47	0.37		0.16	0.09

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 22.8
 Intersection LOS: C
 Intersection Capacity Utilization 77.6%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. &



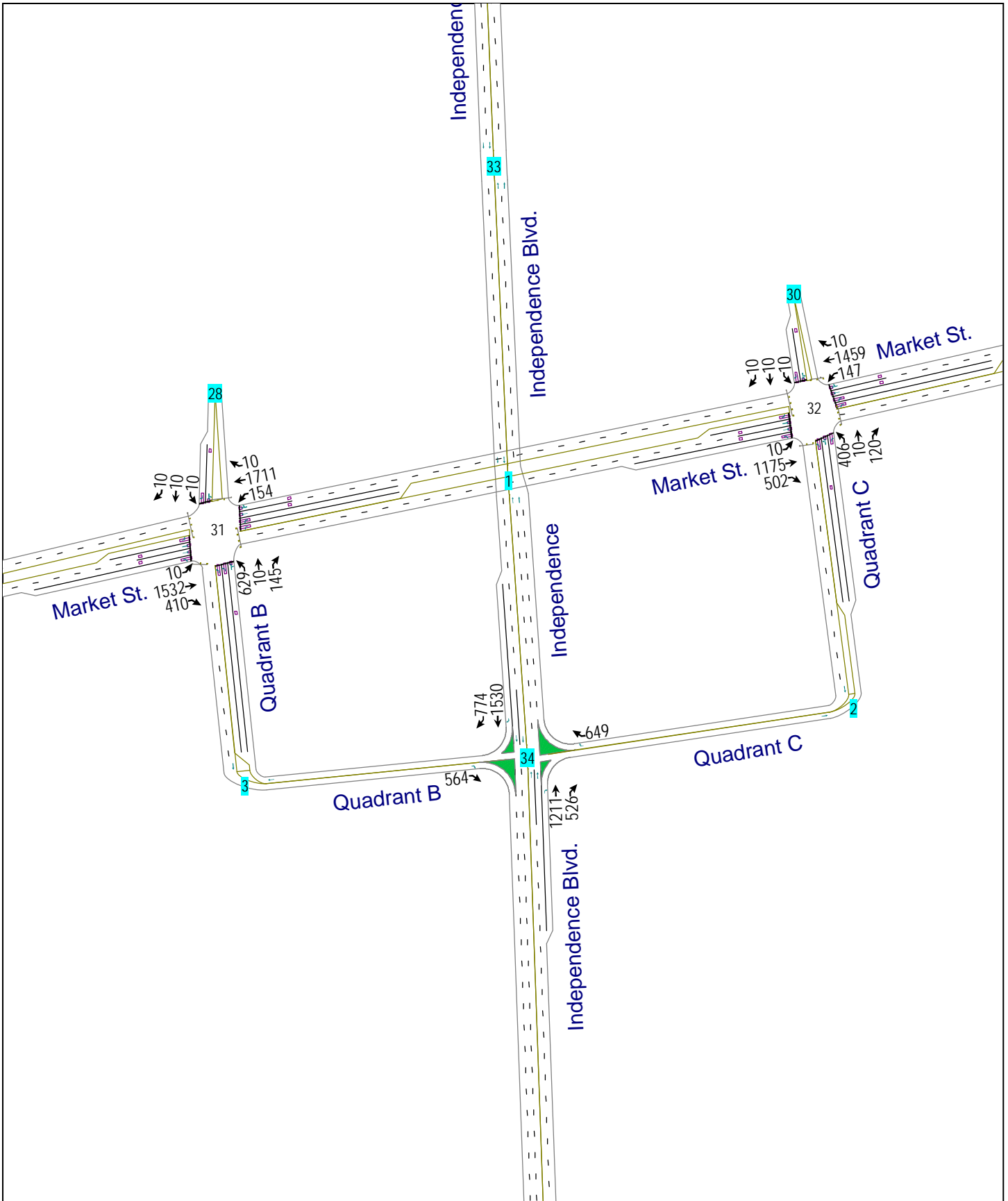
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1403	629	145	1150	10	273	10	203	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		350	200		0	250		250	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1692	1583	0	1818	1583
Flt Permitted	0.136			0.950			0.950	0.956			0.976	
Satd. Flow (perm)	253	3539	1583	3433	3536	0	1681	1692	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			30	
Link Distance (ft)		1142			922			573			218	
Travel Time (s)		19.5			15.7			15.6			5.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)							48%					
Lane Group Flow (vph)	11	1559	699	161	1289	0	158	156	226	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases		2		2				8				4
Detector Phase		2	2	2	1	6		8	8	1	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	65.0	65.0	65.0	20.0	85.0	0.0	21.0	21.0	20.0	14.0	14.0	14.0
Total Split (%)	54.2%	54.2%	54.2%	16.7%	70.8%	0.0%	17.5%	17.5%	16.7%	11.7%	11.7%	11.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag				Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes				
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	60.0	60.0	60.0	15.0	80.0		21.6	21.6	38.6		9.0	9.0
Actuated g/C Ratio	0.50	0.50	0.50	0.12	0.67		0.18	0.18	0.32		0.08	0.08
v/c Ratio	0.09	0.88	0.88	0.38	0.55		0.52	0.51	0.44		0.16	0.09
Control Delay	9.5	23.0	28.0	51.0	11.6		54.0	53.7	29.3		55.0	53.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	9.5	23.0	28.0	51.0	11.6		54.0	53.7	29.3		55.0	53.7
LOS	A	C	C	D	B		D	D	C		D	D
Approach Delay		24.5			15.9			43.6			54.6	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	2	521	447	59	252		125	124	119		16	8
Queue Length 95th (ft)	m3	566	#713	94	306		m#225	m#221	184		44	28
Internal Link Dist (ft)		1062			842			493			138	
Turn Bay Length (ft)	150		350	200			250		250			100
Base Capacity (vph)	127	1770	792	429	2357		302	305	509		136	119
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	0.09	0.88	0.88	0.38	0.55		0.52	0.51	0.44		0.16	0.09

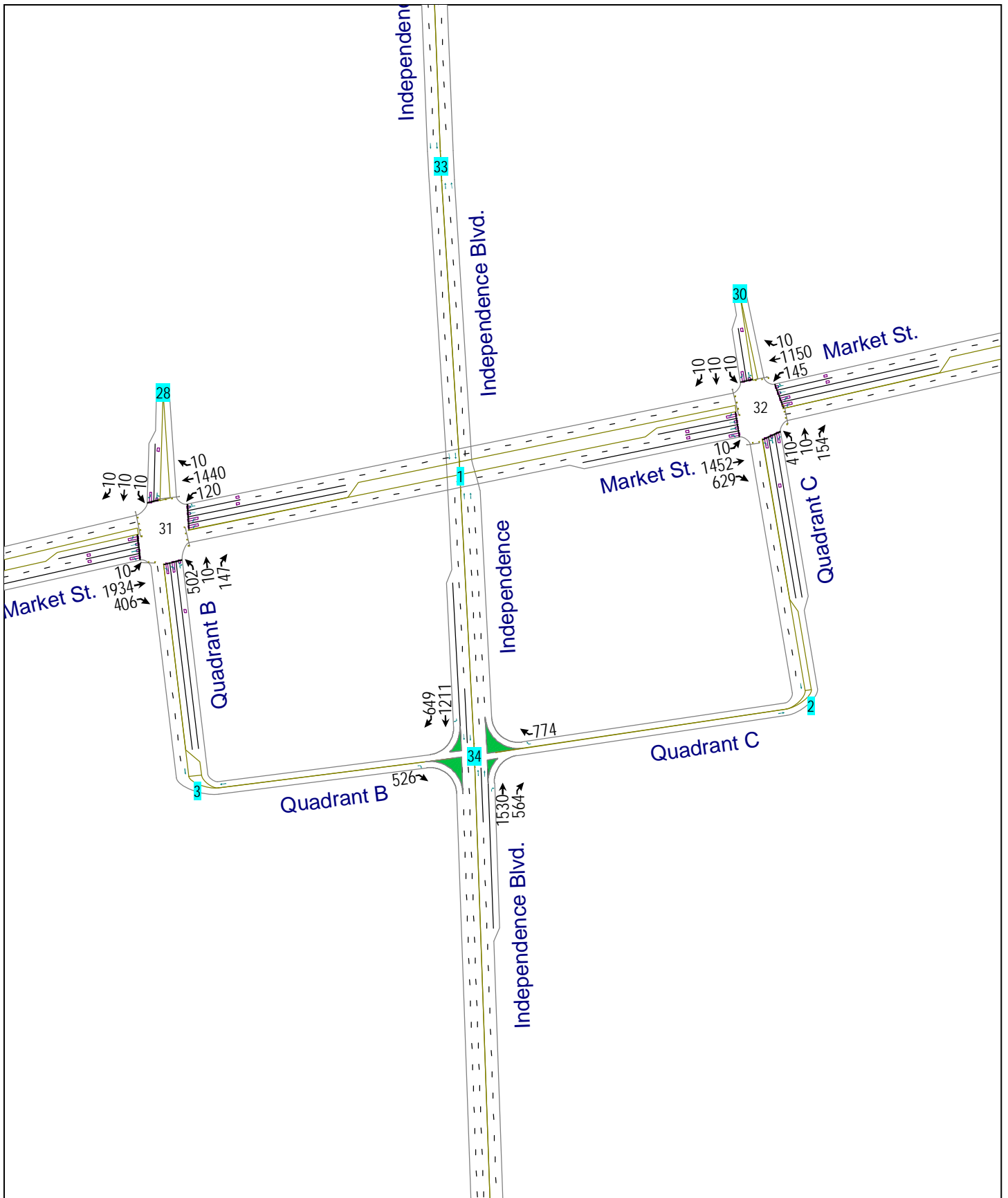
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 24.2
 Intersection LOS: C
 Intersection Capacity Utilization 71.6%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. &





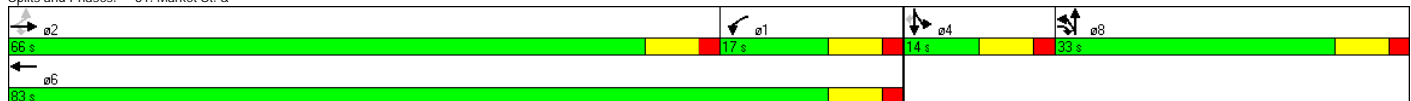


	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	10	1532	410	154	1711	10	629	10	145	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	350		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1602	0	0	1818	1583
Flt Permitted	0.066			0.950			0.950				0.976	
Satd. Flow (perm)	123	3539	1583	3433	3536	0	3433	1602	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25				25
Link Distance (ft)		934			1142			484				256
Travel Time (s)		15.9			19.5			13.2				7.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1702	456	171	1912	0	699	172	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase		2	2	8	1	6		8	8		4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	66.0	66.0	33.0	17.0	83.0	0.0	33.0	33.0	0.0	14.0	14.0	14.0
Total Split (%)	50.8%	50.8%	25.4%	13.1%	63.8%	0.0%	25.4%	25.4%	0.0%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	63.5	63.5	99.6	12.0	80.5		31.1	31.1			9.0	9.0
Actuated g/C Ratio	0.49	0.49	0.77	0.09	0.62		0.24	0.24			0.07	0.07
v/c Ratio	0.18	0.98	0.38	0.54	0.87		0.85	0.45			0.17	0.10
Control Delay	29.6	51.7	6.8	50.1	15.9		58.7	47.5			60.5	59.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	29.6	51.7	6.8	50.1	15.9		58.7	47.5			60.5	59.0
LOS	C	D	A	D	B		E	D			E	E
Approach Delay		42.1			18.7			56.5			60.0	
Approach LOS		D			B			E			E	
Queue Length 50th (ft)	5	#803	134	72	337		301	128			18	9
Queue Length 95th (ft)	22	#942	189	m95	407		#420	204			47	29
Internal Link Dist (ft)		854			1062			404			176	
Turn Bay Length (ft)	150		300	300			350					100
Base Capacity (vph)	60	1728	1213	317	2189		822	384			126	110
Starvation Cap Reductn	0	0	0	0	0		0	0			0	0
Spillback Cap Reductn	0	0	0	0	0		0	0			0	0
Storage Cap Reductn	0	0	0	0	0		0	0			0	0
Reduced v/c Ratio	0.18	0.98	0.38	0.54	0.87		0.85	0.45			0.17	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 115 (88%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 35.2 Intersection LOS: D
 Intersection Capacity Utilization 94.7% 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: 31: Market St. &



	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	10	1934	406	120	1440	10	502	10	147	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	350		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1600	0	0	1818	1583
Flt Permitted	0.087			0.950			0.950				0.976	
Satd. Flow (perm)	162	3539	1583	3433	3536	0	3433	1600	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25				25
Link Distance (ft)		934			1142			498				256
Travel Time (s)		15.9			19.5			13.6				7.0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2149	451	133	1611	0	558	174	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases	2	2	8	1	6		8	8		4	4	4
Permitted Phases	2	2	2									4
Detector Phase	2	2	8	1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	101.0	101.0	30.0	15.0	116.0	0.0	30.0	30.0	0.0	14.0	14.0	14.0
Total Split (%)	63.1%	63.1%	18.8%	9.4%	72.5%	0.0%	18.8%	18.8%	0.0%	8.8%	8.8%	8.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	96.0	96.0	131.6	10.0	111.0		30.6	30.6		9.0	9.0	9.0
Actuated g/C Ratio	0.60	0.60	0.82	0.06	0.69		0.19	0.19		0.06	0.06	0.06
v/c Ratio	0.11	1.01	0.35	0.62	0.66		0.85	0.57		0.22	0.12	0.12
Control Delay	17.3	54.2	4.9	76.0	9.5		75.0	68.8		77.5	75.1	75.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	17.3	54.2	4.9	76.0	9.5		75.0	68.8		77.5	75.1	75.1
LOS	B	D	A	E	A		E	E		E	E	E
Approach Delay		45.5			14.6			73.5			76.7	
Approach LOS		D			B			E			E	
Queue Length 50th (ft)	5	-1197	123	72	167		-323	175		22	11	
Queue Length 95th (ft)	17	#1366	166	111	181		#446	264		55	34	
Internal Link Dist (ft)		854			1062			418			176	
Turn Bay Length (ft)	150		300	300			350					100
Base Capacity (vph)	97	2123	1302	215	2453		656	306		102	89	
Starvation Cap Reductn	0	0	0	0	49		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.11	1.01	0.35	0.62	0.67		0.85	0.57		0.22	0.12	

Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 150 (94%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 160
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 39.2 Intersection LOS: D
 Intersection Capacity Utilization 82.8% ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 31: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	10	1175	502	147	1459	10	406	10	120	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	300		300	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Flt Permitted	0.081			0.950			0.950	0.955			0.976	
Satd. Flow (perm)	151	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1142			923			569			218	
Travel Time (s)		19.5			15.7			15.5			5.9	
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
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	11	1306	558	163	1632	0	230	232	133	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases		2		2			8		8		4	4
Detector Phase		2	2	2	1	6	8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	68.0	68.0	68.0	16.0	84.0	0.0	32.0	32.0	16.0	14.0	14.0	14.0
Total Split (%)	52.3%	52.3%	52.3%	12.3%	64.6%	0.0%	24.6%	24.6%	12.3%	10.8%	10.8%	10.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lead		Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	63.1	63.1	63.1	10.9	79.0		32.6	32.6	48.5		9.0	9.0
Actuated g/C Ratio	0.49	0.49	0.49	0.08	0.61		0.25	0.25	0.37		0.07	0.07
v/c Ratio	0.15	0.76	0.73	0.57	0.76		0.55	0.55	0.23		0.17	0.10
Control Delay	3.9	6.2	6.9	65.6	21.5		49.9	49.9	31.1		60.5	59.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	3.9	6.2	6.9	65.6	21.5		49.9	49.9	31.1		60.5	59.0
LOS	A	A	A	E	C		D	D	C		E	E
Approach Delay		6.4			25.5			45.7			60.0	
Approach LOS		A			C			D			E	
Queue Length 50th (ft)	1	55	45	69	498		189	190	82		18	9
Queue Length 95th (ft)	m1	m56	m47	107	592		285	288	136		47	29
Internal Link Dist (ft)		1062			843			489			138	
Turn Bay Length (ft)	150		300	300			300		300			100
Base Capacity (vph)	73	1719	769	290	2149		421	424	592		126	110
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	0.15	0.76	0.73	0.56	0.76		0.55	0.55	0.22		0.17	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 120 (92%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 20.3
 Intersection LOS: C
 Intersection Capacity Utilization 81.3%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. &

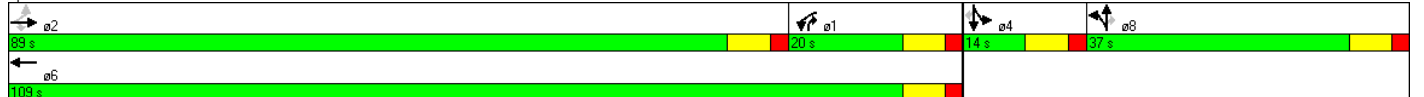


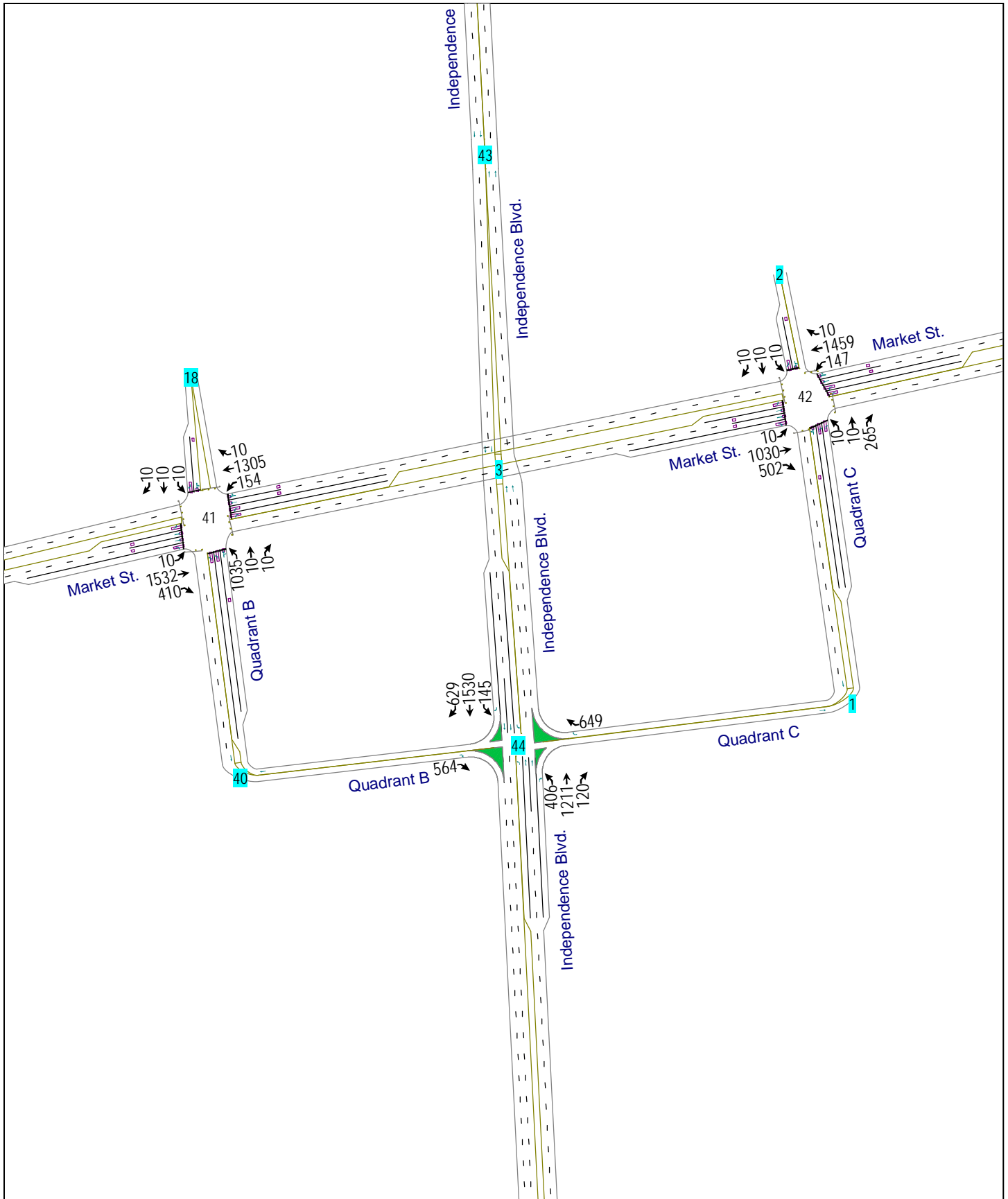
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1452	629	145	1150	10	410	10	154	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	300		300	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Flt Permitted	0.134			0.950			0.950	0.955			0.976	
Satd. Flow (perm)	250	3539	1583	3433	3536	0	1681	1690	1583	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			52	
Link Distance (ft)		1142			923			570			218	
Travel Time (s)		19.5			15.7			15.5			2.9	
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
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	11	1613	699	161	1289	0	233	234	171	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases		2		1	6		8	8	1	4	4	
Permitted Phases		2		2			8		8		4	4
Detector Phase		2	2	2	1	6	8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	89.0	89.0	89.0	20.0	109.0	0.0	37.0	37.0	20.0	14.0	14.0	14.0
Total Split (%)	55.6%	55.6%	55.6%	12.5%	68.1%	0.0%	23.1%	23.1%	12.5%	8.8%	8.8%	8.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	84.0	84.0	84.0	15.0	104.0		37.6	37.6	54.6		9.0	9.0
Actuated g/C Ratio	0.52	0.52	0.52	0.09	0.65		0.24	0.24	0.34		0.06	0.06
v/c Ratio	0.08	0.87	0.84	0.50	0.56		0.59	0.59	0.32		0.22	0.12
Control Delay	6.4	12.4	13.9	74.8	16.6		63.2	63.1	34.5		77.5	75.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	6.4	12.4	13.9	74.8	16.6		63.2	63.1	34.5		77.5	75.1
LOS	A	B	B	E	B		E	E	C		E	E
Approach Delay		12.9			23.1			55.5			76.7	
Approach LOS		B			C			E			E	
Queue Length 50th (ft)	2	416	319	84	371		241	242	117		22	11
Queue Length 95th (ft)	m2	m408	m319	125	429		348	349	178		55	34
Internal Link Dist (ft)		1062			843			490			138	
Turn Bay Length (ft)	150		300	300			300		300			100
Base Capacity (vph)	131	1858	831	322	2298		395	397	540		102	89
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	0.08	0.87	0.84	0.50	0.56		0.59	0.59	0.32		0.22	0.12

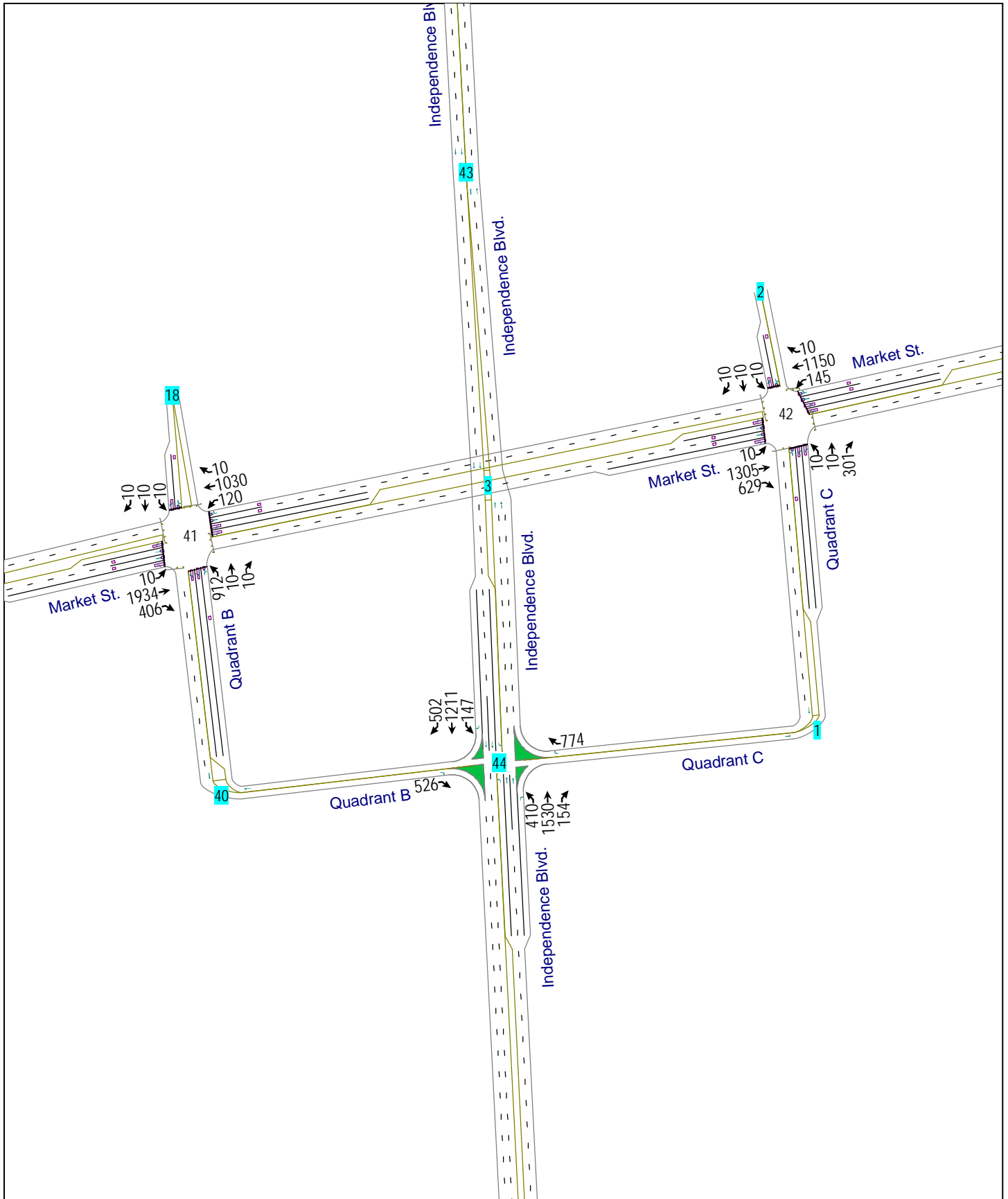
Intersection Summary

Area Type: Other
 Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 16 (10%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 22.8
 Intersection LOS: C
 Intersection Capacity Utilization 76.8%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. &





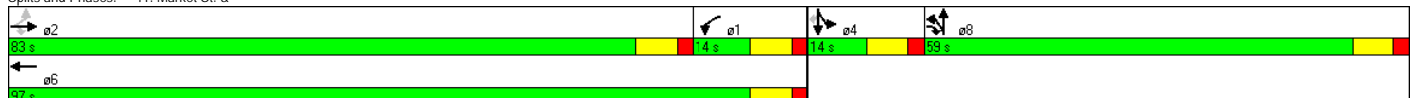


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑↑	↑↑		↑↑	↑			↑	↑
Volume (vph)	10	1532	410	154	1305	10	1035	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	350		300	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.053			0.950			0.950				0.976	
Satd. Flow (perm)	99	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25				25
Link Distance (ft)		936			1142			492				265
Travel Time (s)		16.0			19.5			13.4				7.2
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1702	456	171	1461	0	1150	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase		2	2	8	1	6		8	8		4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	83.0	83.0	59.0	14.0	97.0	0.0	59.0	59.0	0.0	14.0	14.0	14.0
Total Split (%)	48.8%	48.8%	34.7%	8.2%	57.1%	0.0%	34.7%	34.7%	0.0%	8.2%	8.2%	8.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	78.0	78.0	142.6	9.0	92.0		59.6	59.6		9.0	9.0	9.0
Actuated g/C Ratio	0.46	0.46	0.84	0.05	0.54		0.35	0.35		0.05	0.05	0.05
v/c Ratio	0.24	1.05	0.34	0.94	0.76		0.96	0.04		0.23	0.13	0.13
Control Delay	45.2	80.2	4.4	117.1	25.4		70.3	39.6		83.2	80.5	80.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	45.2	80.2	4.4	117.1	25.4		70.3	39.6		83.2	80.5	80.5
LOS	D	F	A	F	C		E	D		F	F	F
Approach Delay		64.1			35.0			69.7			82.3	
Approach LOS		E			D			E			F	
Queue Length 50th (ft)	7	-1080	120	100	589		-719	17		24	12	12
Queue Length 95th (ft)	28	#1215	161	#181	616		#856	41		58	35	35
Internal Link Dist (ft)		856			1062			412			185	
Turn Bay Length (ft)	150		300	300			350					100
Base Capacity (vph)	45	1624	1328	182	1914		1203	604		96	84	84
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	0.24	1.05	0.34	0.94	0.76		0.96	0.04		0.23	0.13	0.13

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 4 (2%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 56.1
 Intersection LOS: E
 Intersection Capacity Utilization 96.9%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 41: Market St. &

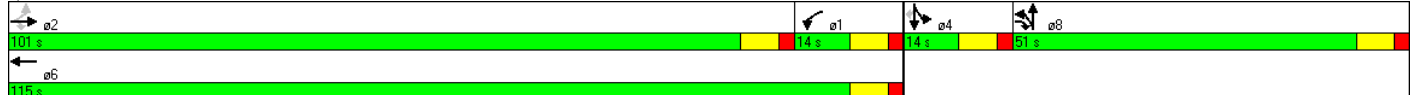


	↖	→	↗	↖	←	↖	↖	↖	↖	↖	↖	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	10	1934	406	120	1030	10	912	10	10	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	300		0	350		0	0		100
Storage Lanes	1		1	2		0	2		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Flt Permitted	0.161			0.950			0.950				0.976	
Satd. Flow (perm)	300	3539	1583	3433	3536	0	3433	1723	0	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25				25
Link Distance (ft)		936			1142			492				265
Travel Time (s)		16.0			19.5			13.4				7.2
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	2149	451	133	1155	0	1013	22	0	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		pm+ov	Prot			Split			Split		Perm
Protected Phases		2	8	1	6		8	8		4	4	
Permitted Phases		2	2									4
Detector Phase	2	2	8	1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	7.0	7.0	12.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	14.0	19.0		14.0	14.0		14.0	14.0	14.0
Total Split (s)	101.0	101.0	51.0	14.0	115.0	0.0	51.0	51.0	0.0	14.0	14.0	14.0
Total Split (%)	56.1%	56.1%	28.3%	7.8%	63.9%	0.0%	28.3%	28.3%	0.0%	7.8%	7.8%	7.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	2.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead		Lag								
Lead-Lag Optimize?	Yes	Yes		Yes								
Recall Mode	C-Max	C-Max	None	None	C-Max		None	None		None	None	None
Act Effct Green (s)	96.0	96.0	152.6	9.0	110.0		51.6	51.6		9.0	9.0	9.0
Actuated g/C Ratio	0.53	0.53	0.85	0.05	0.61		0.29	0.29		0.05	0.05	0.05
v/c Ratio	0.07	1.14	0.34	0.77	0.53		1.03	0.04		0.24	0.14	0.14
Control Delay	22.0	108.3	4.1	105.0	17.0		96.3	50.1		89.0	86.0	86.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	22.0	108.3	4.1	105.0	17.0		96.3	50.1		89.0	86.0	86.0
LOS	C	F	A	F	B		F	D		F	F	F
Approach Delay		89.9			26.1			95.3			88.0	
Approach LOS		F			C			F			F	
Queue Length 50th (ft)	6	-1551	118	81	240		-723	20		26	13	
Queue Length 95th (ft)	19	#1669	156	#139	263		#861	47		60	37	
Internal Link Dist (ft)		856			1062			412			185	
Turn Bay Length (ft)	150		300	300			350				100	
Base Capacity (vph)	160	1887	1342	172	2161		984	494		91	79	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.07	1.14	0.34	0.77	0.53		1.03	0.04		0.24	0.14	

Intersection Summary

Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 180
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 74.5
 Intersection LOS: E
 Intersection Capacity Utilization 94.5%
 ICU Level of Service F
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

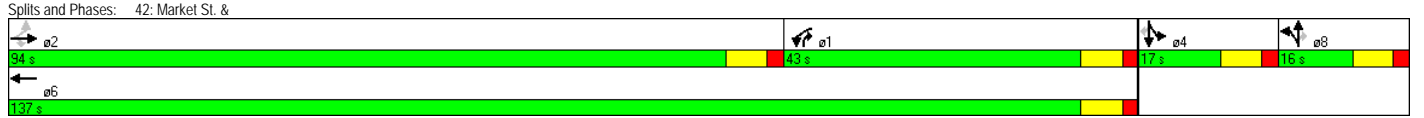
Splits and Phases: 41: Market St. &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	10	1030	502	147	1459	10	10	10	265	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	250		0	300		300	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	0	1818	2787	0	1818	1583
Flt Permitted	0.095			0.950				0.976			0.976	
Satd. Flow (perm)	177	3539	1583	3433	3536	0	0	1818	2787	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1142			922			585			234	
Travel Time (s)		19.5			15.7			16.0			6.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1144	558	163	1632	0	0	22	294	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases	2	2		1	6		8	8	1	4	4	
Permitted Phases	2		2					8				4
Detector Phase	2	2	2	1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	94.0	94.0	94.0	43.0	137.0	0.0	16.0	16.0	43.0	17.0	17.0	17.0
Total Split (%)	55.3%	55.3%	55.3%	25.3%	80.6%	0.0%	9.4%	9.4%	25.3%	10.0%	10.0%	10.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag				Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				Yes				
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	89.0	89.0	89.0	38.0	132.0			18.6	58.6		10.0	10.0
Actuated g/C Ratio	0.52	0.52	0.52	0.22	0.78			0.11	0.34		0.06	0.06
v/c Ratio	0.12	0.62	0.67	0.21	0.59			0.11	0.31		0.21	0.12
Control Delay	14.2	13.6	14.0	54.7	9.0			74.7	34.3		80.3	78.0
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	14.2	13.6	14.0	54.7	9.0			74.7	34.3		80.3	78.0
LOS	B	B	B	D	A			E	C		F	E
Approach Delay		13.7			13.1			37.1			79.6	
Approach LOS		B			B			D			E	
Queue Length 50th (ft)	2	135	125	77	354			23	120		24	12
Queue Length 95th (ft)	m2	m128	m120	113	402			57	162		57	34
Internal Link Dist (ft)		1062			842			505			154	
Turn Bay Length (ft)	150		300	250					300			100
Base Capacity (vph)	93	1853	829	767	2746			199	961		128	112
Starvation Cap Reductn	0	0	0	0	0			0	0		0	0
Spillback Cap Reductn	0	0	0	0	0			0	0		0	0
Storage Cap Reductn	0	0	0	0	0			0	0		0	0
Reduced v/c Ratio	0.12	0.62	0.67	0.21	0.59			0.11	0.31		0.17	0.10

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 168 (99%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 15.9
 Intersection LOS: B
 Intersection Capacity Utilization 70.9%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

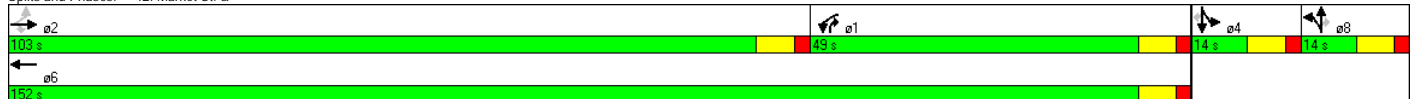


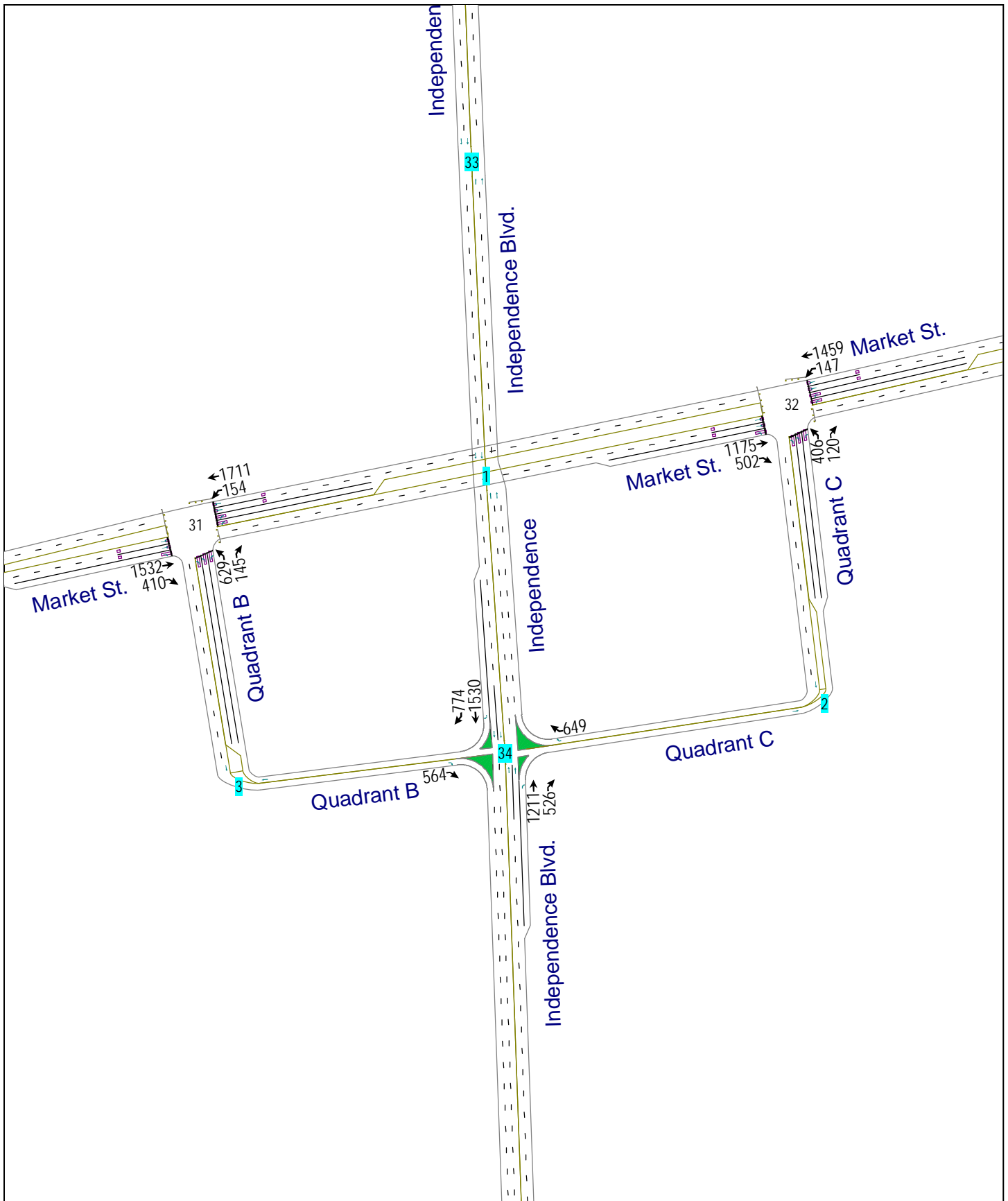
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	10	1305	629	145	1150	10	10	10	301	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		300	250		0	300		300	0		100
Storage Lanes	1		1	2		0	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	3433	3536	0	0	1818	2787	0	1818	1583
Flt Permitted	0.177			0.950				0.976			0.976	
Satd. Flow (perm)	330	3539	1583	3433	3536	0	0	1818	2787	0	1818	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		1142			922			598			234	
Travel Time (s)		19.5			15.7			16.3			6.4	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	1450	699	161	1289	0	0	22	334	0	22	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm	Prot			Split		pm+ov	Split		Perm
Protected Phases	2	2		1	6		8	8	1	4	4	
Permitted Phases			2					8				4
Detector Phase	2	2	2	1	6		8	8	1	4	4	4
Switch Phase												
Minimum Initial (s)	12.0	12.0	12.0	7.0	12.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	19.0	19.0	19.0	14.0	19.0		14.0	14.0	14.0	14.0	14.0	14.0
Total Split (s)	103.0	103.0	103.0	49.0	152.0	0.0	14.0	14.0	49.0	14.0	14.0	14.0
Total Split (%)	57.2%	57.2%	57.2%	27.2%	84.4%	0.0%	7.8%	7.8%	27.2%	7.8%	7.8%	7.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag			Lag		Lag		Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes		Yes	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max	None	None	None	None
Act Effct Green (s)	98.0	98.0	98.0	44.0	147.0		14.6	60.6		9.0	9.0	
Actuated g/C Ratio	0.54	0.54	0.54	0.24	0.82		0.08	0.34		0.05	0.05	
v/c Ratio	0.06	0.75	0.81	0.19	0.45		0.15	0.36		0.24	0.14	
Control Delay	13.5	14.9	15.7	54.7	5.3		83.7	38.9		89.0	86.0	
Queue Delay	0.0	0.2	0.1	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.5	15.1	15.7	54.7	5.3		83.7	38.9		89.0	86.0	
LOS	B	B	B	D	A		F	D		F	F	
Approach Delay		15.3			10.8		41.7			88.0		
Approach LOS		B			B		D			F		
Queue Length 50th (ft)	2	176	162	78	200		26	152		26	13	
Queue Length 95th (ft)	m2	m155	m142	114	227		60	199		60	37	
Internal Link Dist (ft)		1062			842		518			154		
Turn Bay Length (ft)	150		300	250				300			100	
Base Capacity (vph)	180	1927	862	839	2888		147	939		91	79	
Starvation Cap Reductn	0	79	5	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.06	0.78	0.82	0.19	0.45		0.15	0.36		0.24	0.14	

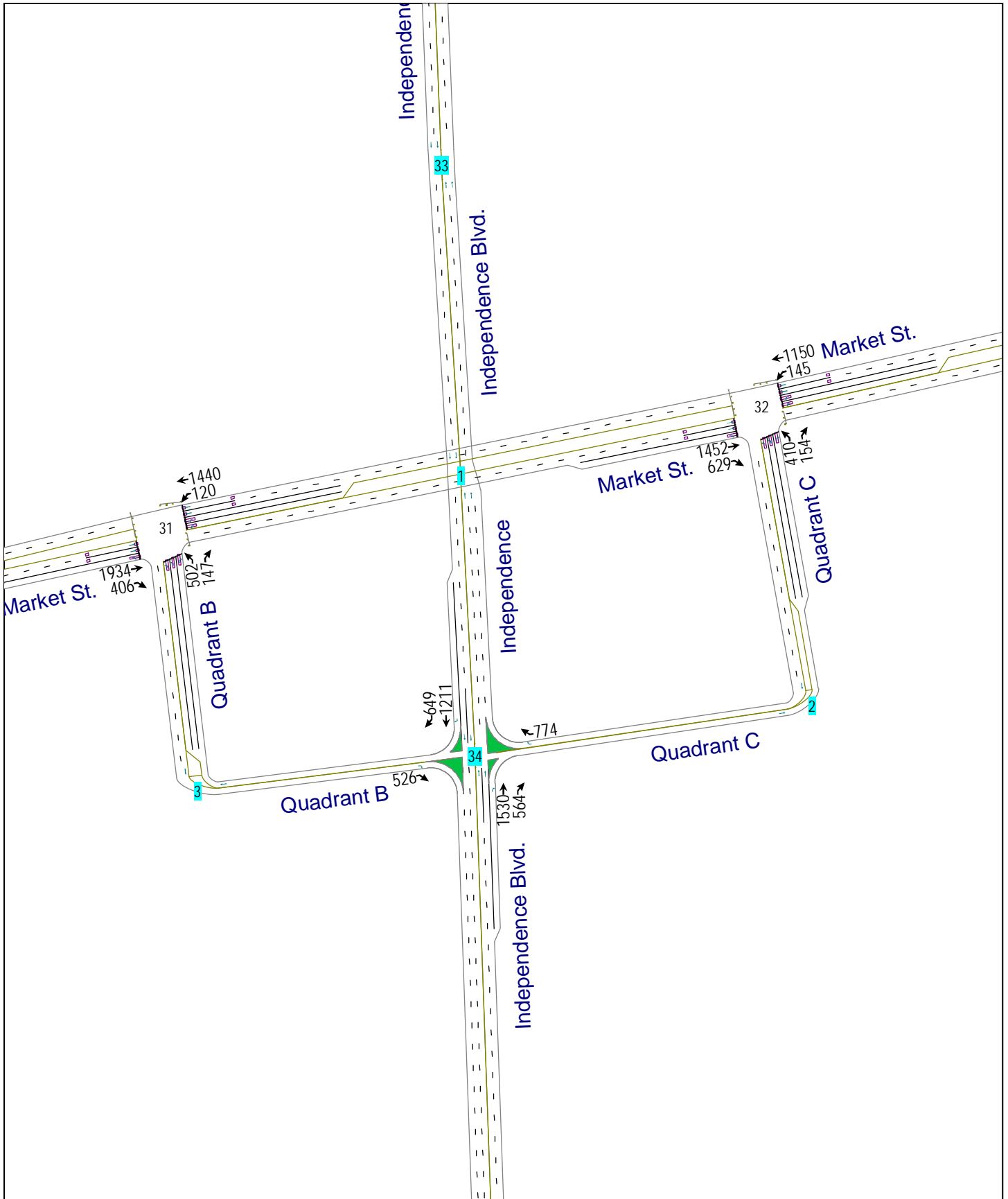
Intersection Summary

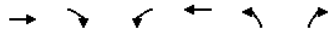
Area Type: Other
 Cycle Length: 180
 Actuated Cycle Length: 180
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 16.6
 Intersection LOS: B
 Intersection Capacity Utilization 64.9%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. &







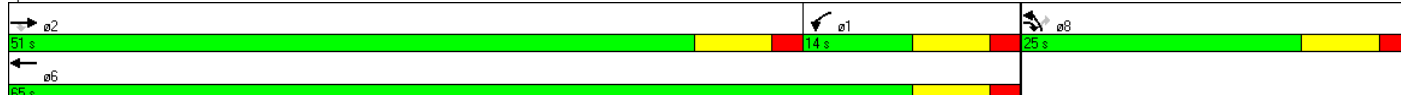


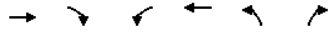
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑↑	↑
Volume (vph)	1532	410	154	1711	629	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		350	0
Storage Lanes		1	2		2	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	934			1142	498	
Travel Time (s)	15.9			19.5	13.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1702	456	171	1901	699	161
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		pm+ov	Prot			Perm
Protected Phases	2	8	1	6	8	
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	51.0	25.0	14.0	65.0	25.0	25.0
Total Split (%)	56.7%	27.8%	15.6%	72.2%	27.8%	27.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	46.0	71.0	9.0	60.0	20.0	20.0
Actuated g/C Ratio	0.51	0.79	0.10	0.67	0.22	0.22
v/c Ratio	0.94	0.37	0.50	0.81	0.92	0.46
Control Delay	32.8	3.7	37.5	9.4	52.9	35.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	3.7	37.5	9.4	52.9	35.3
LOS	C	A	D	A	D	D
Approach Delay	26.7			11.7	49.6	
Approach LOS	C			B	D	
Queue Length 50th (ft)	455	58	50	269	201	80
Queue Length 95th (ft)	#637	90	m72	304	#305	141
Internal Link Dist (ft)	854			1062	418	
Turn Bay Length (ft)		300	300		350	
Base Capacity (vph)	1809	1249	343	2359	763	352
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.94	0.37	0.50	0.81	0.92	0.46

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 84 (93%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 24.5 Intersection LOS: C
 Intersection Capacity Utilization 78.6% 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: 31: Market St. & Quadrant B



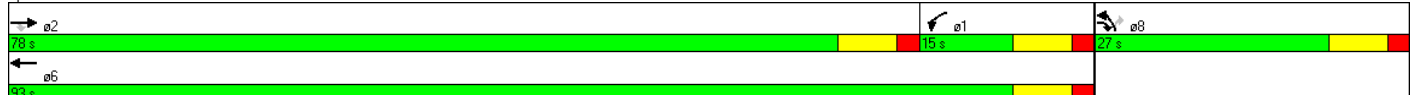


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑↑	↑
Volume (vph)	1934	406	120	1440	502	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		350	0
Storage Lanes		1	2		2	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	934			1142	498	
Travel Time (s)	15.9			19.5	13.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2149	451	133	1600	558	163
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		pm+ov	Prot			Perm
Protected Phases	2	8	1	6	8	
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	78.0	27.0	15.0	93.0	27.0	27.0
Total Split (%)	65.0%	22.5%	12.5%	77.5%	22.5%	22.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	73.0	100.0	10.0	88.0	22.0	22.0
Actuated g/C Ratio	0.61	0.83	0.08	0.73	0.18	0.18
v/c Ratio	1.00	0.34	0.47	0.62	0.89	0.56
Control Delay	42.8	3.1	53.4	5.6	65.0	53.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.8	3.1	53.4	5.6	65.0	53.1
LOS	D	A	D	A	E	D
Approach Delay	35.9			9.3	62.3	
Approach LOS	D			A	E	
Queue Length 50th (ft)	820	61	53	168	219	116
Queue Length 95th (ft)	#1046	89	m82	195	#314	190
Internal Link Dist (ft)	854			1062	418	
Turn Bay Length (ft)		300	300		350	
Base Capacity (vph)	2153	1319	286	2595	629	290
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.34	0.47	0.62	0.89	0.56

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 98 (82%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 30.6 Intersection LOS: C
 Intersection Capacity Utilization 76.1% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 31: Market St. & Quadrant B



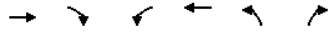
	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Volume (vph)	1175	502	147	1459	406	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		300	300
Storage Lanes		1	2		1	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Fill Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	1142			923	567	
Travel Time (s)	19.5			15.7	15.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1306	558	163	1621	451	133
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	12.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	14.0	14.0
Total Split (s)	53.0	53.0	14.0	67.0	23.0	14.0
Total Split (%)	58.9%	58.9%	15.6%	74.4%	25.6%	15.6%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead			Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	None	C-Max	Max	None
Act Effct Green (s)	48.0	48.0	9.0	62.0	18.0	32.0
Actuated g/C Ratio	0.53	0.53	0.10	0.69	0.20	0.36
v/c Ratio	0.69	0.66	0.48	0.66	0.66	0.24
Control Delay	2.7	3.5	43.3	9.7	38.4	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.7	3.5	43.3	9.7	38.4	21.9
LOS	A	A	D	A	D	C
Approach Delay	2.9			12.8	34.6	
Approach LOS	A			B	C	
Queue Length 50th (ft)	37	30	45	241	122	53
Queue Length 95th (ft)	m40	m33	77	306	173	96
Internal Link Dist (ft)	1062			843	487	
Turn Bay Length (ft)		300	300		300	300
Base Capacity (vph)	1887	844	343	2438	687	563
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	0.69	0.66	0.48	0.66	0.66	0.24

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 88 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 11.5 Intersection LOS: B
 Intersection Capacity Utilization 62.4% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. & Quadrant C



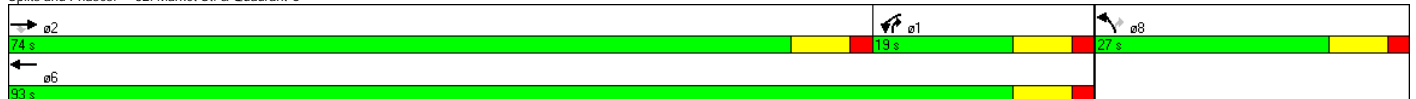


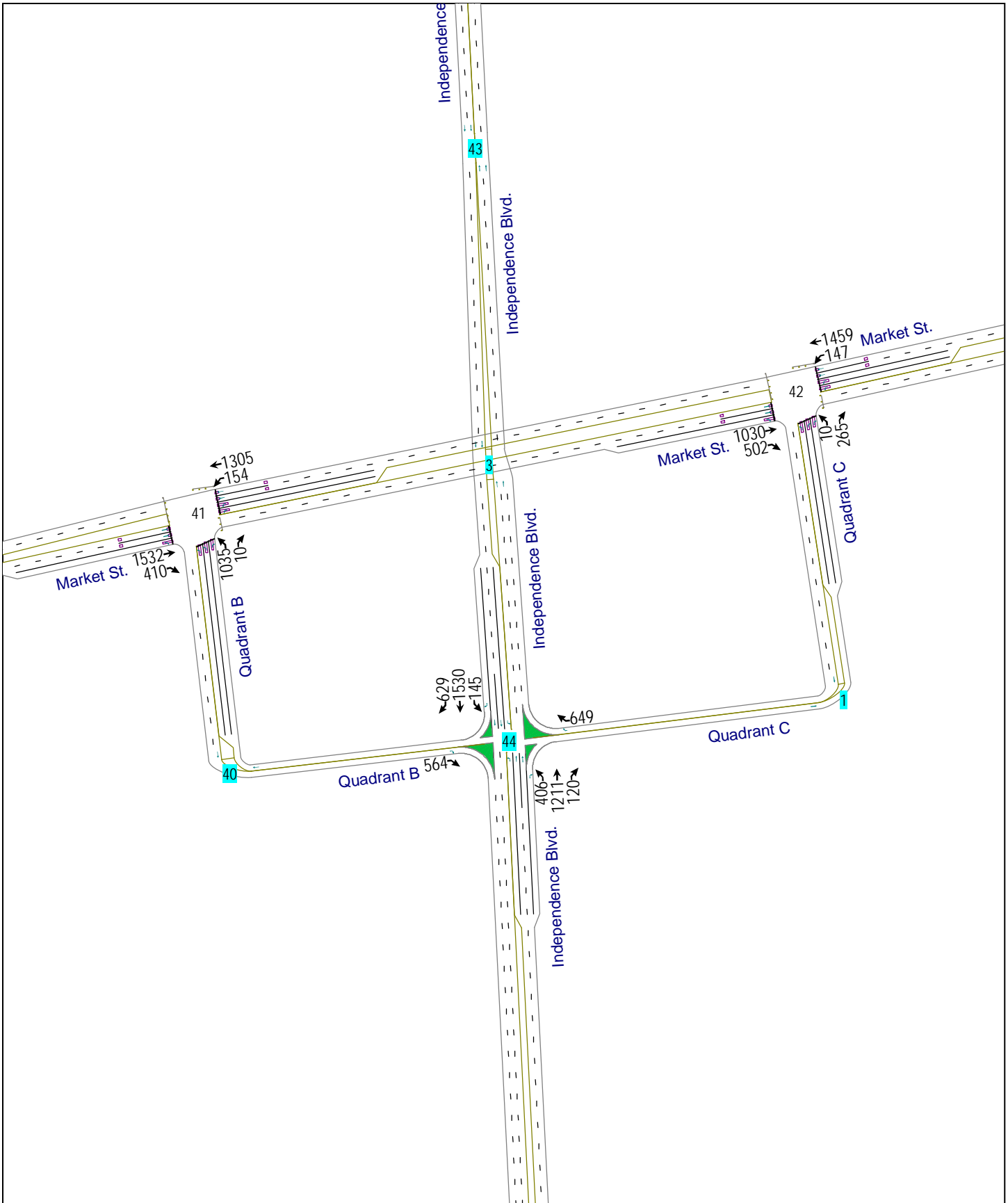
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↓	↑↑	↑↓	↑
Volume (vph)	1452	629	145	1150	410	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		300	300
Storage Lanes		1	2		1	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Fill Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	1142			923	570	
Travel Time (s)	19.5			15.7	15.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1613	699	161	1278	456	171
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	12.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	14.0	14.0
Total Split (s)	74.0	74.0	19.0	93.0	27.0	19.0
Total Split (%)	61.7%	61.7%	15.8%	77.5%	22.5%	15.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	None	C-Max	Max	None
Act Effct Green (s)	69.0	69.0	14.0	88.0	22.0	41.0
Actuated g/C Ratio	0.58	0.58	0.12	0.73	0.18	0.34
v/c Ratio	0.79	0.77	0.40	0.49	0.72	0.32
Control Delay	5.0	6.0	52.4	7.4	53.7	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	6.0	52.4	7.4	53.7	31.2
LOS	A	A	D	A	D	C
Approach Delay	5.3			12.5	47.5	
Approach LOS	A			B	D	
Queue Length 50th (ft)	102	78	60	190	173	97
Queue Length 95th (ft)	m110	m86	95	231	231	158
Internal Link Dist (ft)	1062			843	490	
Turn Bay Length (ft)		300	300		300	300
Base Capacity (vph)	2035	910	401	2595	629	541
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	0.79	0.77	0.40	0.49	0.72	0.32

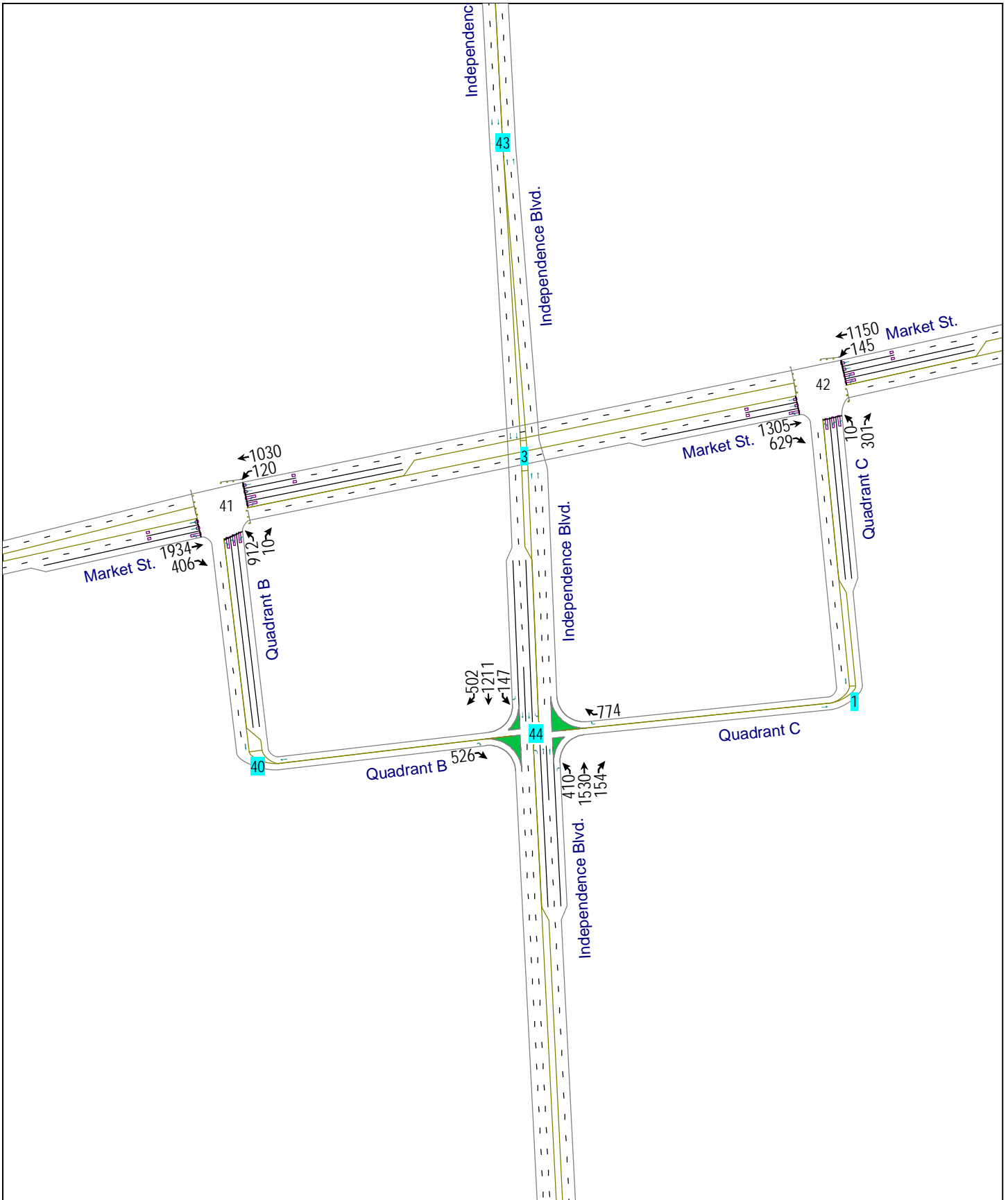
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 70.2%
 ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 32: Market St. & Quadrant C





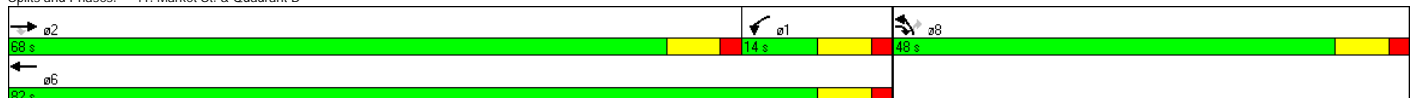


	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑↑	↑
Volume (vph)	1532	410	154	1305	1035	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		350	0
Storage Lanes		1	2		2	0
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	936			1142	492	
Travel Time (s)	16.0			19.5	13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1702	456	171	1450	1150	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		pm+ov	Prot			Perm
Protected Phases	2	8	1	6	8	
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	68.0	48.0	14.0	82.0	48.0	48.0
Total Split (%)	52.3%	36.9%	10.8%	63.1%	36.9%	36.9%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	63.0	111.0	9.0	77.0	43.0	43.0
Actuated g/C Ratio	0.48	0.85	0.07	0.59	0.33	0.33
v/c Ratio	0.99	0.34	0.72	0.69	1.01	0.02
Control Delay	53.4	2.7	70.3	16.5	72.9	29.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.4	2.7	70.3	16.5	72.9	29.6
LOS	D	A	E	B	E	C
Approach Delay	42.7			22.1	72.5	
Approach LOS	D			C	E	
Queue Length 50th (ft)	731	58	74	242	-511	6
Queue Length 95th (ft)	#917	82	#124	267	#660	21
Internal Link Dist (ft)	856			1062	412	
Turn Bay Length (ft)		300	300		350	
Base Capacity (vph)	1715	1352	238	2096	1136	524
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	0.99	0.34	0.72	0.69	1.01	0.02

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 2 (2%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 43.0
 Intersection LOS: D
 Intersection Capacity Utilization 90.2%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 41: Market St. & Quadrant B



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↓	↑↑	↑↓	↑
Volume (vph)	1934	406	120	1030	912	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	300		350	0
Storage Lanes		1	2		2	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	936			1142	492	
Travel Time (s)	16.0			19.5	13.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2149	451	133	1144	1013	11
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		pm+ov	Prot			Perm
Protected Phases	2	8	1	6	8	
Permitted Phases		2				8
Detector Phase	2	8	1	6	8	8
Switch Phase						
Minimum Initial (s)	12.0	7.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	14.0	14.0	19.0	14.0	14.0
Total Split (s)	104.0	52.0	14.0	118.0	52.0	52.0
Total Split (%)	61.2%	30.6%	8.2%	69.4%	30.6%	30.6%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	C-Max	None	None	C-Max	None	None
Act Effct Green (s)	99.0	151.0	9.0	113.0	47.0	47.0
Actuated g/C Ratio	0.58	0.89	0.05	0.66	0.28	0.28
v/c Ratio	1.04	0.32	0.73	0.49	1.07	0.03
Control Delay	66.7	2.1	98.1	13.0	105.9	45.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.7	2.1	98.1	13.0	105.9	45.2
LOS	E	A	F	B	F	D
Approach Delay	55.5			21.9	105.3	
Approach LOS	E			C	F	
Queue Length 50th (ft)	-1357	57	76	220	-640	9
Queue Length 95th (ft)	#1480	77	#127	242	#777	27
Internal Link Dist (ft)	856			1062	412	
Turn Bay Length (ft)		300	300		350	
Base Capacity (vph)	2061	1406	182	2352	949	438
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.04	0.32	0.73	0.49	1.07	0.03

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 1 (1%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 170
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 57.1
 Intersection LOS: E
 Intersection Capacity Utilization 87.8%
 ICU Level of Service E
 Analysis Period (min) 15
 - Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 41: Market St. & Quadrant B

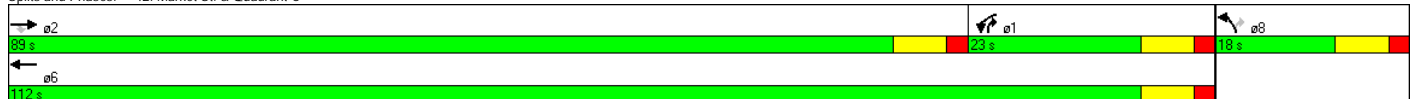


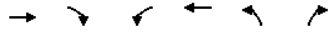
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↓	↑↑	↓	↓↓
Volume (vph)	1030	502	147	1459	10	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	250		300	300
Storage Lanes		1	2		1	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	1770	2787
Fill Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	1142			922	585	
Travel Time (s)	19.5			15.7	16.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1144	558	163	1621	11	294
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	12.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	14.0	14.0
Total Split (s)	89.0	89.0	23.0	112.0	18.0	23.0
Total Split (%)	68.5%	68.5%	17.7%	86.2%	13.8%	17.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	None	C-Max	Max	None
Act Effct Green (s)	84.0	84.0	18.0	107.0	13.0	36.0
Actuated g/C Ratio	0.65	0.65	0.14	0.82	0.10	0.28
v/c Ratio	0.50	0.55	0.34	0.56	0.06	0.38
Control Delay	1.6	2.0	52.9	4.6	54.1	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	2.0	52.9	4.6	54.1	39.8
LOS	A	A	D	A	D	D
Approach Delay	1.8			9.0	40.3	
Approach LOS	A			A	D	
Queue Length 50th (ft)	18	17	64	186	9	114
Queue Length 95th (ft)	m22	m21	101	221	28	161
Internal Link Dist (ft)	1062			842	505	
Turn Bay Length (ft)		300	250		300	300
Base Capacity (vph)	2287	1023	475	2913	177	772
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	0.50	0.55	0.34	0.56	0.06	0.38

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 128 (98%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 8.3
 Intersection LOS: A
 Intersection Capacity Utilization 54.5%
 ICU Level of Service A
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 42: Market St. & Quadrant C



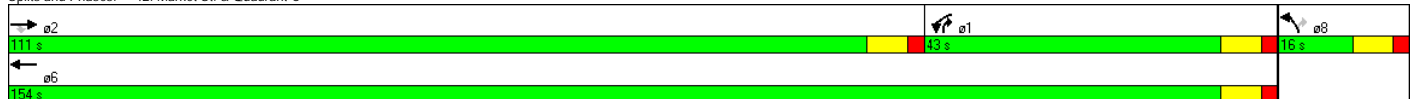


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↓	↑↑	↓	↓↓
Volume (vph)	1305	629	145	1150	10	301
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		300	250		300	300
Storage Lanes		1	2		1	1
Taper Length (ft)		25	25		25	25
Satd. Flow (prot)	3539	1583	3433	3539	1770	2787
Fill Permitted			0.950		0.950	
Satd. Flow (perm)	3539	1583	3433	3539	1770	2787
Right Turn on Red		No				No
Satd. Flow (RTOR)						
Link Speed (mph)	40			40	25	
Link Distance (ft)	1142			922	598	
Travel Time (s)	19.5			15.7	16.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1450	699	161	1278	11	334
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(ft)	24			24	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases		2				8
Detector Phase	2	2	1	6	8	1
Switch Phase						
Minimum Initial (s)	12.0	12.0	7.0	12.0	7.0	7.0
Minimum Split (s)	19.0	19.0	14.0	19.0	14.0	14.0
Total Split (s)	111.0	111.0	43.0	154.0	16.0	43.0
Total Split (%)	65.3%	65.3%	25.3%	90.6%	9.4%	25.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lag			Lag
Lead-Lag Optimize?	Yes	Yes	Yes			Yes
Recall Mode	C-Max	C-Max	None	C-Max	Max	None
Act Effct Green (s)	106.0	106.0	38.0	149.0	11.0	54.0
Actuated g/C Ratio	0.62	0.62	0.22	0.88	0.06	0.32
v/c Ratio	0.66	0.71	0.21	0.41	0.10	0.38
Control Delay	9.0	9.4	54.6	2.5	77.0	46.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	9.4	54.6	2.5	77.0	46.5
LOS	A	A	D	A	E	D
Approach Delay	9.2			8.3	47.5	
Approach LOS	A			A	D	
Queue Length 50th (ft)	142	130	76	110	12	164
Queue Length 95th (ft)	m136	m125	111	126	35	217
Internal Link Dist (ft)	1062			842	518	
Turn Bay Length (ft)		300	250		300	300
Base Capacity (vph)	2207	987	767	3102	115	885
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	0.66	0.71	0.21	0.41	0.10	0.38

Intersection Summary

Area Type: Other
 Cycle Length: 170
 Actuated Cycle Length: 170
 Offset: 168 (99%), Referenced to phase 2:EBT and 6:WBT, Start of 1st Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 12.2
 Intersection LOS: B
 Intersection Capacity Utilization 60.2%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

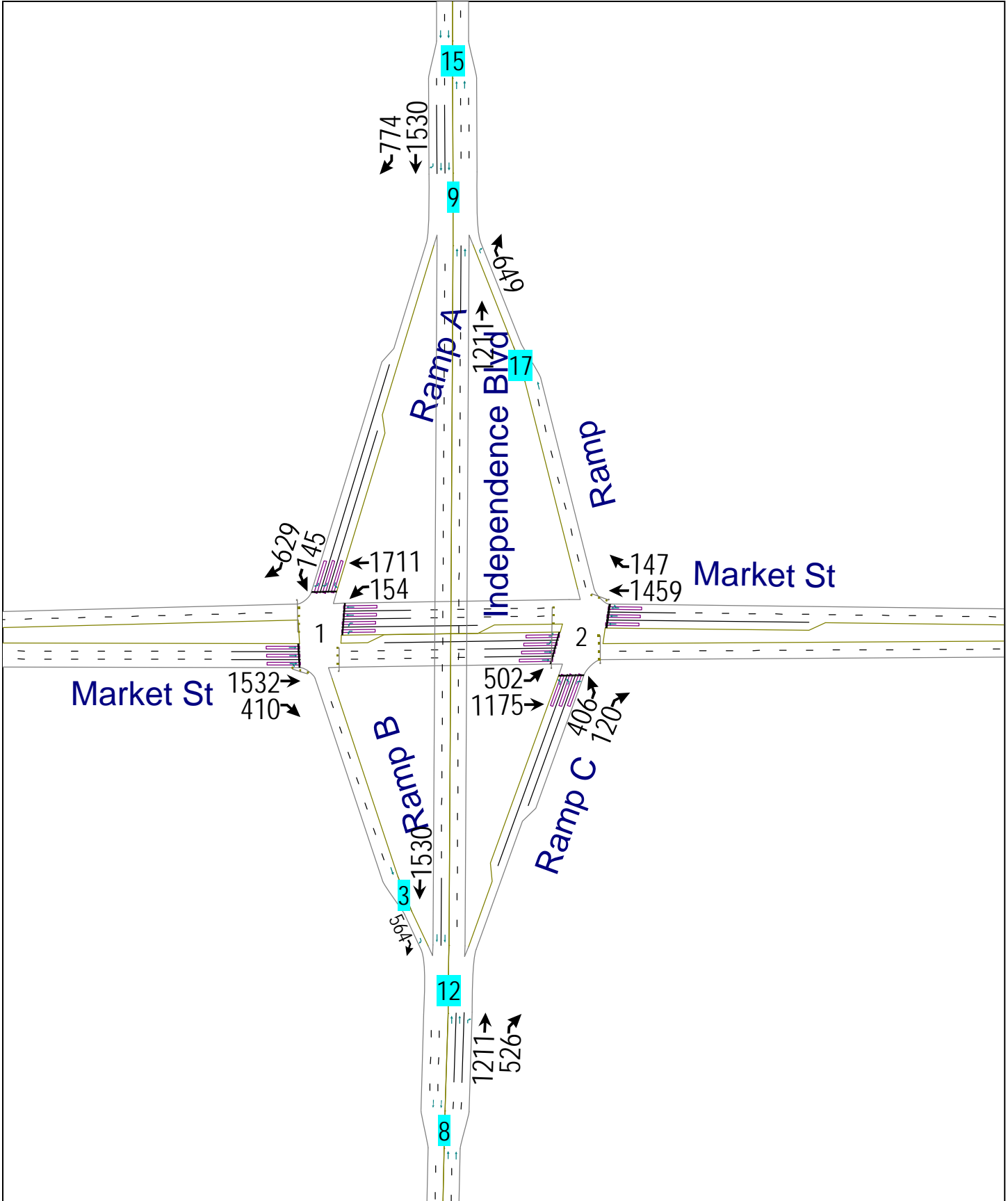
Splits and Phases: 42: Market St. & Quadrant C

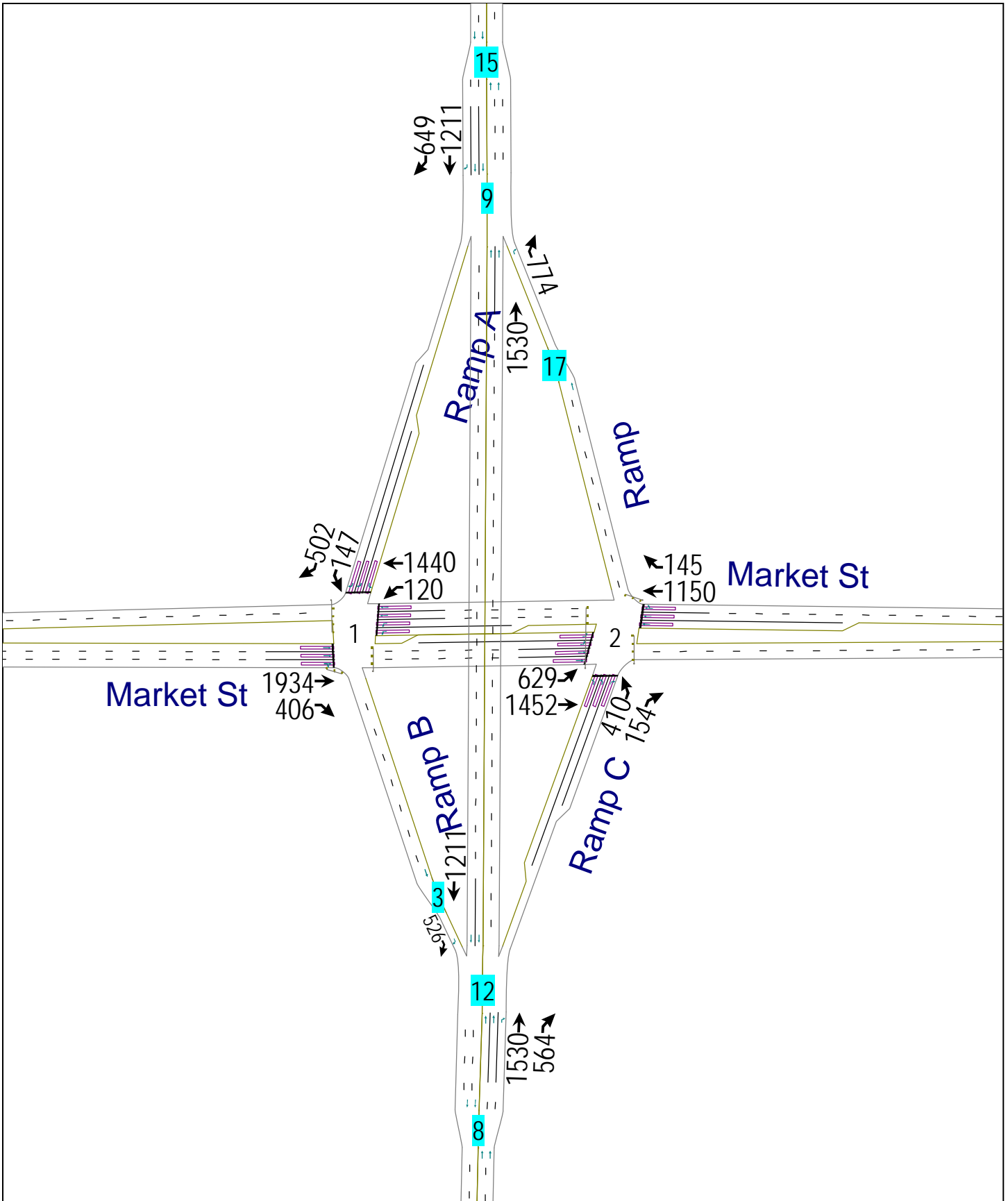




Appendix D: Interchange Results

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↑↑	↑↑					↑		↑↑
Volume (vph)	0	1532	410	154	1711	0	0	0	0	145	0	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0	200	0	0	0	0	0	250	0	350
Storage Lanes	0	0	0	1	0	0	0	0	0	1	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Satd. Flow (prot)	0	4923	0	3433	3539	0	0	0	0	1770	0	2787
Fill Permitted				0.950						0.950		
Satd. Flow (perm)	0	4923	0	3433	3539	0	0	0	0	1770	0	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			50				45
Link Distance (ft)		1312			391			412				683
Travel Time (s)		25.6			7.6			5.6				10.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2158	0	171	1901	0	0	0	0	161	0	699
Turn Type				Prot						custom		custom
Protected Phases		6		5	2							
Permitted Phases										8		8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0					7.0		7.0
Minimum Split (s)		22.0		14.0	14.0					14.0		14.0
Total Split (s)	0.0	47.0	0.0	14.0	61.0	0.0	0.0	0.0	0.0	29.0	0.0	29.0
Total Split (%)	0.0%	52.2%	0.0%	15.6%	67.8%	0.0%	0.0%	0.0%	0.0%	32.2%	0.0%	32.2%
Yellow Time (s)		5.0		5.0	5.0					5.0		5.0
All-Red Time (s)		2.0		2.0	2.0					2.0		2.0
Lost Time Adjust (s)	1.0	-2.0	1.0	-2.0	-2.0	1.0	1.0	1.0	1.0	-2.0	1.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		Min		None	C-Min					None		None
Act Effct Green (s)		42.0		9.0	56.0					24.0		24.0
Actuated g/C Ratio		0.47		0.10	0.62					0.27		0.27
v/c Ratio		0.94		0.50	0.86					0.34		0.94
Control Delay		32.6		50.9	7.5					29.1		55.0
Queue Delay		0.0		0.0	0.1					0.0		0.0
Total Delay		32.6		50.9	7.6					29.1		55.0
LOS		C		D	A					C		D
Approach Delay		32.6			11.2							
Approach LOS		C			B							
Queue Length 50th (ft)		410		46	62					74		221
Queue Length 95th (ft)		#537		m61	46					129		#343
Internal Link Dist (ft)		1232			311			332			603	
Turn Bay Length (ft)				200						250		350
Base Capacity (vph)		2297		343	2202					472		743
Starvation Cap Reductn		0		0	16					0		0
Spillback Cap Reductn		0		0	0					0		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		0.94		0.50	0.87					0.34		0.94

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 26.9
 Intersection Capacity Utilization 77.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

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: 1: Market St & Ramp A





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↑↑	↑↑					↑		↑↑
Volume (vph)	0	1934	406	120	1440	0	0	0	0	147	0	502
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		0	0		0	250		350
Storage Lanes	0		0	1		0	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	4953	0	3433	3539	0	0	0	0	1770	0	2787
Fill Permitted				0.950						0.950		
Satd. Flow (perm)	0	4953	0	3433	3539	0	0	0	0	1770	0	2787
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			50				45
Link Distance (ft)		1312			391			415				683
Travel Time (s)		25.6			7.6			5.7				10.3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2600	0	133	1600	0	0	0	0	163	0	558
Turn Type				Prot						custom		custom
Protected Phases		6		5	2							
Permitted Phases										8		8
Detector Phase		6		5	2					8		8
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0					7.0		7.0
Minimum Split (s)		22.0		14.0	22.0					22.0		22.0
Total Split (s)	0.0	56.0	0.0	16.0	72.0	0.0	0.0	0.0	0.0	28.0	0.0	28.0
Total Split (%)	0.0%	56.0%	0.0%	16.0%	72.0%	0.0%	0.0%	0.0%	0.0%	28.0%	0.0%	28.0%
Yellow Time (s)		5.0		5.0	5.0					5.0		5.0
All-Red Time (s)		2.0		2.0	2.0					2.0		2.0
Lost Time Adjust (s)	1.0	-2.0	1.0	-2.0	-2.0	1.0	1.0	1.0	1.0	-2.0	1.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		Min		None	C-Min					None		None
Act Effct Green (s)		51.8		10.4	67.3					22.7		22.7
Actuated g/C Ratio		0.52		0.10	0.67					0.23		0.23
v/c Ratio		1.01		0.37	0.67					0.41		0.88
Control Delay		46.1		54.3	3.6					36.3		54.1
Queue Delay		0.1		0.0	0.2					0.1		0.0
Total Delay		46.2		54.3	3.8					36.5		54.1
LOS		D		D	A					D		D
Approach Delay		46.2			7.7							
Approach LOS		D			A							
Queue Length 50th (ft)		-653		37	47					89		195
Queue Length 95th (ft)		#747		m57	31					150		#296
Internal Link Dist (ft)		1232			311			335			603	
Turn Bay Length (ft)				200						250		350
Base Capacity (vph)		2567		378	2380					407		641
Starvation Cap Reductn		0		0	199					0		0
Spillback Cap Reductn		1		0	0					22		0
Storage Cap Reductn		0		0	0					0		0
Reduced v/c Ratio		1.01		0.35	0.73					0.42		0.87

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 33.6 Intersection LOS: C
 Intersection Capacity Utilization 72.9% ICU Level of Service C
 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: 1: Market St & Ramp A



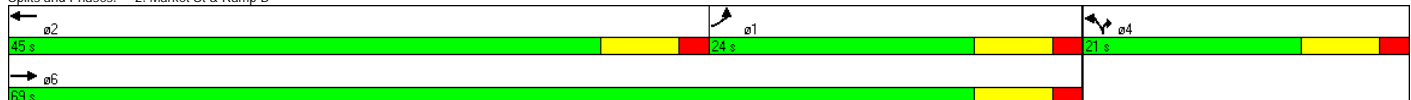


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑			↑↑↑		↑↑		↑			
Volume (vph)	502	1175	0	0	1459	147	406	0	120	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	300		0	300		200	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	0	0	5014	0	3433	0	1583	0	0	0
Flt Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	5014	0	3433	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			50	
Link Distance (ft)		391			1297			566			417	
Travel Time (s)		7.6			25.3			8.6			5.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	558	1306	0	0	1784	0	451	0	133	0	0	0
Turn Type	Prot						Prot		custom			
Protected Phases	1	6			2		4		4			
Permitted Phases												
Detector Phase	1	6			2		4		4			
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0		7.0			
Minimum Split (s)	14.0	14.0			14.0		14.0		14.0			
Total Split (s)	24.0	69.0	0.0	0.0	45.0	0.0	21.0	0.0	21.0	0.0	0.0	0.0
Total Split (%)	26.7%	76.7%	0.0%	0.0%	50.0%	0.0%	23.3%	0.0%	23.3%	0.0%	0.0%	0.0%
Yellow Time (s)	5.0	5.0			5.0		5.0		5.0			
All-Red Time (s)	2.0	2.0			2.0		2.0		2.0			
Lost Time Adjust (s)	-2.0	-2.0	1.0	1.0	-2.0	1.0	-2.0	1.0	-2.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag		Lead					
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	Min			C-Min		None		None			
Act Effct Green (s)	18.6	64.3			40.7		15.7		15.7			
Actuated g/C Ratio	0.21	0.71			0.45		0.17		0.17			
v/c Ratio	0.79	0.52			0.79		0.75		0.48			
Control Delay	25.1	1.6			24.3		44.1		39.9			
Queue Delay	0.0	0.3			0.0		0.0		0.0			
Total Delay	25.1	1.9			24.3		44.1		39.9			
LOS	C	A			C		D		D			
Approach Delay		8.8			24.3							
Approach LOS		A			C							
Queue Length 50th (ft)	168	21			310		126		69			
Queue Length 95th (ft)	m184	m30			373		178		126			
Internal Link Dist (ft)		311			1217		486		337			
Turn Bay Length (ft)	250						300		200			
Base Capacity (vph)	725	2528			2267		610		281			
Starvation Cap Reductn	0	571			0		0		0			
Spillback Cap Reductn	0	0			0		0		0			
Storage Cap Reductn	0	0			0		0		0			
Reduced v/c Ratio	0.77	0.67			0.79		0.74		0.47			

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 8 (9%), Referenced to phase 2:WBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 20.1 Intersection LOS: C
 Intersection Capacity Utilization 77.6% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Market St & Ramp D

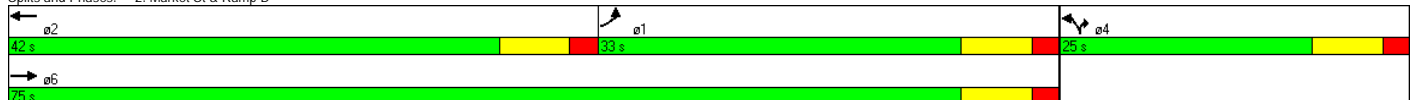


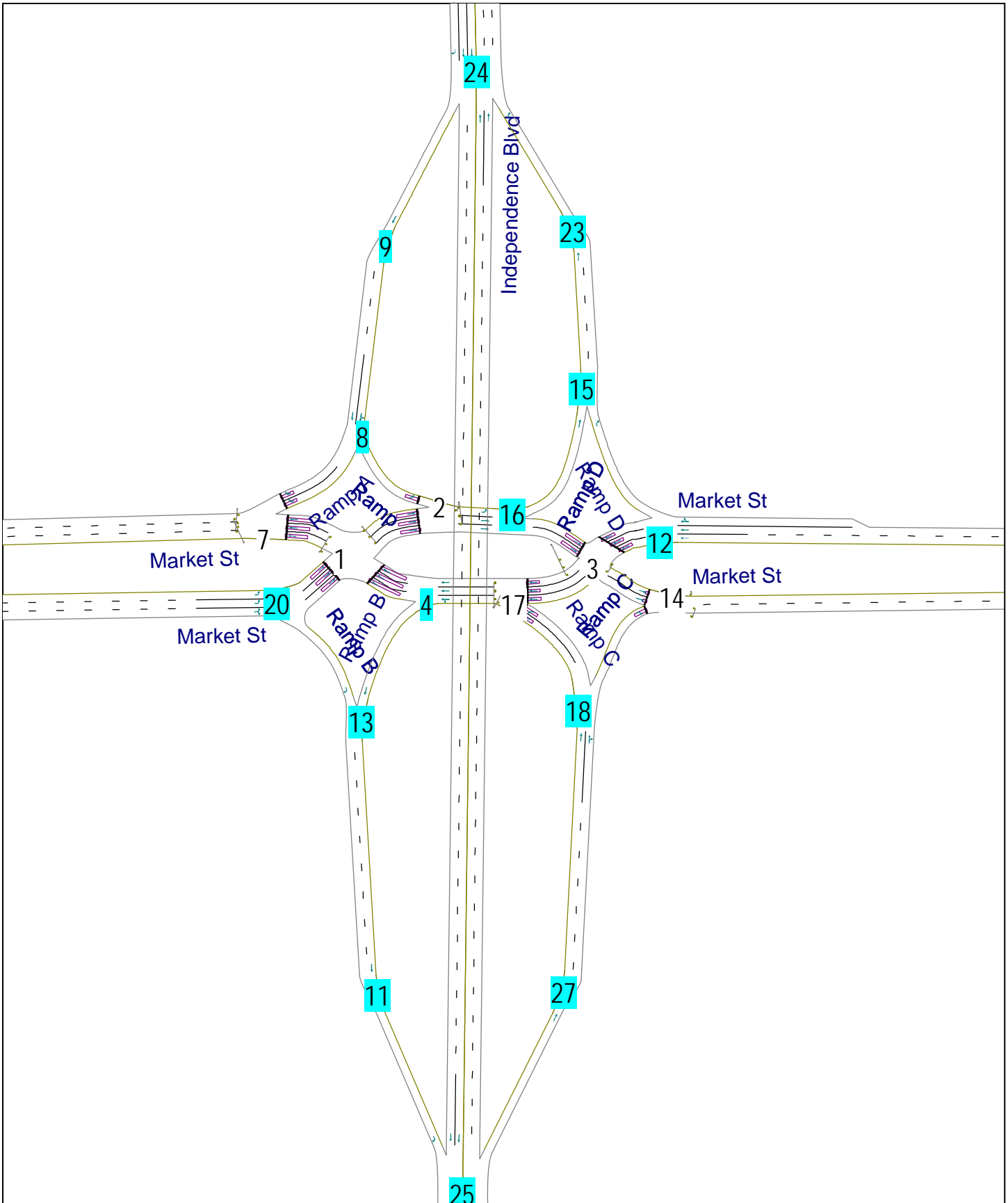
	↖	→	↘	↙	←	↖	↗	↘	↙	↘	↙	↘
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↖	↖↖			↖↖↖		↖↖		↖			
Volume (vph)	629	1452	0	0	1150	145	410	0	154	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	300		0	300		200	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3539	0	0	4999	0	3433	0	1583	0	0	0
Fill Permitted	0.950						0.950					
Satd. Flow (perm)	3433	3539	0	0	4999	0	3433	0	1583	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			45			50	
Link Distance (ft)		391			1297			566			417	
Travel Time (s)		7.6			25.3			8.6			5.7	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	699	1613	0	0	1439	0	456	0	171	0	0	0
Turn Type	Prot						Prot		custom			
Protected Phases	1	6			2		4		4			
Permitted Phases												
Detector Phase	1	6			2		4		4			
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0		7.0		7.0			
Minimum Split (s)	14.0	22.0			22.0		22.0		22.0			
Total Split (s)	33.0	75.0	0.0	0.0	42.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0
Total Split (%)	33.0%	75.0%	0.0%	0.0%	42.0%	0.0%	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%
Yellow Time (s)	5.0	5.0			5.0		5.0		5.0			
All-Red Time (s)	2.0	2.0			2.0		2.0		2.0			
Lost Time Adjust (s)	-2.0	-2.0	1.0	1.0	-2.0	1.0	-2.0	1.0	-2.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag					Lag		Lead					
Lead-Lag Optimize?	Yes				Yes							
Recall Mode	None	Min			C-Min		None		None			
Act Effct Green (s)	26.1	71.2			40.0		18.8		18.8			
Actuated g/C Ratio	0.26	0.71			0.40		0.19		0.19			
v/c Ratio	0.78	0.64			0.72		0.70		0.57			
Control Delay	23.7	1.2			28.5		44.3		44.9			
Queue Delay	0.9	1.1			0.0		0.0		0.0			
Total Delay	24.6	2.3			28.5		44.3		44.9			
LOS	C	A			C		D		D			
Approach Delay		9.1			28.5							
Approach LOS		A			C							
Queue Length 50th (ft)	225	6			293		139		99			
Queue Length 95th (ft)	m234	m17			351		192		167			
Internal Link Dist (ft)		311			1217		486		337			
Turn Bay Length (ft)	250						300		200			
Base Capacity (vph)	961	2518			2001		687		317			
Starvation Cap Reductn	84	607			0		0		0			
Spillback Cap Reductn	0	0			0		0		0			
Storage Cap Reductn	0	0			0		0		0			
Reduced v/c Ratio	0.80	0.84			0.72		0.66		0.54			

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 18 (18%), Referenced to phase 2:WBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 20.5 Intersection LOS: C
 Intersection Capacity Utilization 72.9% ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Market St & Ramp D





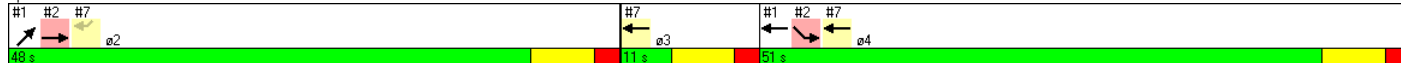
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø3
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	1711	0	0	1532	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0	
Flt Permitted													
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes	
Satd. Flow (RTOR)													
Link Speed (mph)		30			25			25			30		
Link Distance (ft)		114			142			112			162		
Travel Time (s)		2.6			3.9			3.1			3.7		
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	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1901	0	0	1702	0	0	0	0	
Turn Type													
Protected Phases					4			2					3
Permitted Phases													
Detector Phase					4			2					
Switch Phase													
Minimum Initial (s)					7.0			12.0					4.0
Minimum Split (s)					20.0			25.5					11.0
Total Split (s)	0.0	0.0	0.0	0.0	51.0	0.0	0.0	48.0	0.0	0.0	0.0	0.0	11.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	46.4%	0.0%	0.0%	43.6%	0.0%	0.0%	0.0%	0.0%	10%
Yellow Time (s)					5.0			5.0					5.0
All-Red Time (s)					2.0			2.0					2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	2.0	2.0	2.0	2.0	5.0	2.0	2.0	5.0	2.0	2.0	2.0	2.0	
Lead/Lag					Lag								Lead
Lead-Lag Optimize?					Yes								Yes
Recall Mode					None			C-Min					None
Act Effct Green (s)					46.0			43.0					
Actuated g/C Ratio					0.42			0.39					
v/c Ratio					0.89			0.86					
Control Delay					20.0			36.0					
Queue Delay					3.5			0.0					
Total Delay					23.5			36.0					
LOS					C			D					
Approach Delay					23.5			36.0					
Approach LOS					C			D					
Queue Length 50th (ft)					145			397					
Queue Length 95th (ft)					193			463					
Internal Link Dist (ft)		34			62			32			82		
Turn Bay Length (ft)													
Base Capacity (vph)					2126			1988					
Starvation Cap Reductn					156			0					
Spillback Cap Reductn					44			0					
Storage Cap Reductn					0			0					
Reduced v/c Ratio					0.96			0.86					

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 29.4 Intersection LOS: C
 Intersection Capacity Utilization 71.0% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 1: WB Market St & EB Market St



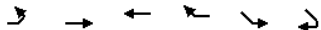
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR	ø3
Lane Configurations					↑↑↑			↑↑↑					
Volume (vph)	0	0	0	0	1440	0	0	1934	0	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	0	0	0	5085	0	0	5085	0	0	0	0	
Flt Permitted													
Satd. Flow (perm)	0	0	0	0	5085	0	0	5085	0	0	0	0	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes	
Satd. Flow (RTOR)													
Link Speed (mph)		30			25			25			30		
Link Distance (ft)		114			142			112			162		
Travel Time (s)		2.6			3.9			3.1			3.7		
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	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	0	0	0	1600	0	0	2149	0	0	0	0	
Turn Type													
Protected Phases					4			2					3
Permitted Phases													
Detector Phase					4			2					
Switch Phase													
Minimum Initial (s)					7.0			12.0					4.0
Minimum Split (s)					20.0			25.5					11.0
Total Split (s)	0.0	0.0	0.0	0.0	51.0	0.0	0.0	68.0	0.0	0.0	0.0	0.0	11.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	39.2%	0.0%	0.0%	52.3%	0.0%	0.0%	0.0%	0.0%	8%
Yellow Time (s)					5.0			5.0					5.0
All-Red Time (s)					2.0			2.0					2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	2.0	2.0	2.0	2.0	5.0	2.0	2.0	5.0	2.0	2.0	2.0	2.0	
Lead/Lag					Lead								Lag
Lead-Lag Optimize?					Yes								Yes
Recall Mode					None			C-Min					None
Act Effct Green (s)					46.0			63.0					
Actuated g/C Ratio					0.35			0.48					
v/c Ratio					0.89			0.87					
Control Delay					26.5			34.9					
Queue Delay					3.5			0.0					
Total Delay					30.1			34.9					
LOS					C			C					
Approach Delay					30.1			34.9					
Approach LOS					C			C					
Queue Length 50th (ft)					171			577					
Queue Length 95th (ft)					234			649					
Internal Link Dist (ft)		34			62			32			82		
Turn Bay Length (ft)													
Base Capacity (vph)					1799			2464					
Starvation Cap Reductn					132			0					
Spillback Cap Reductn					0			0					
Storage Cap Reductn					0			0					
Reduced v/c Ratio					0.96			0.87					

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 32.8 Intersection LOS: C
 Intersection Capacity Utilization 73.5% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: WB Market St & EB Market St



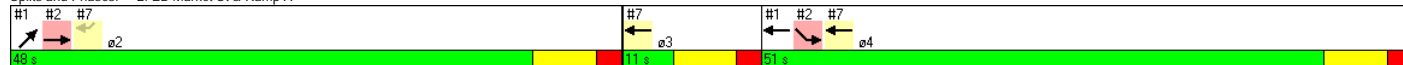


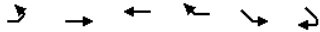
Lane Group	EBL	EBT	WBT	WBR	SEL	SER	ø3
Lane Configurations		↑↑↑			↓		
Volume (vph)	0	1532	0	0	145	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	5085	0	0	1770	0	
Flt Permitted					0.950		
Satd. Flow (perm)	0	5085	0	0	1770	0	
Right Turn on Red				Yes	No	Yes	
Satd. Flow (RTOR)							
Link Speed (mph)		25	30		45		
Link Distance (ft)		162	105		153		
Travel Time (s)		4.4	2.4		2.3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	1702	0	0	161	0	
Turn Type							
Protected Phases		2			4		3
Permitted Phases							
Detector Phase		2			4		
Switch Phase							
Minimum Initial (s)		12.0			7.0		4.0
Minimum Split (s)		25.5			20.0		11.0
Total Split (s)	0.0	48.0	0.0	0.0	51.0	0.0	11.0
Total Split (%)	0.0%	43.6%	0.0%	0.0%	46.4%	0.0%	10%
Yellow Time (s)		5.0			5.0		5.0
All-Red Time (s)		2.0			2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	2.0	5.0	2.0	2.0	5.0	2.0	
Lead/Lag					Lag		Lead
Lead-Lag Optimize?					Yes		Yes
Recall Mode		C-Min			None		None
Act Effct Green (s)		43.0			46.0		
Actuated g/C Ratio		0.39			0.42		
v/c Ratio		0.86			0.22		
Control Delay		6.3			21.5		
Queue Delay		0.0			0.0		
Total Delay		6.3			21.5		
LOS		A			C		
Approach Delay		6.3			21.5		
Approach LOS		A			C		
Queue Length 50th (ft)		19			71		
Queue Length 95th (ft)		53			118		
Internal Link Dist (ft)		82	25		73		
Turn Bay Length (ft)							
Base Capacity (vph)		1988			740		
Starvation Cap Reductn		0			0		
Spillback Cap Reductn		0			0		
Storage Cap Reductn		0			0		
Reduced v/c Ratio		0.86			0.22		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization 58.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 2: EB Market St & Ramp A





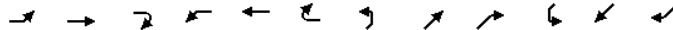
Lane Group	EBL	EBT	WBT	WBR	SEL	SER	ø3
Lane Configurations		↑↑↑			↓		
Volume (vph)	0	1934	0	0	147	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	0	5085	0	0	1770	0	
Flt Permitted					0.950		
Satd. Flow (perm)	0	5085	0	0	1770	0	
Right Turn on Red				Yes	No	Yes	
Satd. Flow (RTOR)							
Link Speed (mph)		25	30		45		
Link Distance (ft)		162	105		153		
Travel Time (s)		4.4	2.4		2.3		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	2149	0	0	163	0	
Turn Type							
Protected Phases		2			4		3
Permitted Phases							
Detector Phase		2			4		
Switch Phase							
Minimum Initial (s)		12.0			7.0		4.0
Minimum Split (s)		25.5			20.0		11.0
Total Split (s)	0.0	68.0	0.0	0.0	51.0	0.0	11.0
Total Split (%)	0.0%	52.3%	0.0%	0.0%	39.2%	0.0%	8%
Yellow Time (s)		5.0			5.0		5.0
All-Red Time (s)		2.0			2.0		2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	2.0	5.0	2.0	2.0	5.0	2.0	
Lead/Lag					Lead		Lag
Lead-Lag Optimize?					Yes		Yes
Recall Mode		C-Min			None		None
Act Effct Green (s)		63.0			46.0		
Actuated g/C Ratio		0.48			0.35		
v/c Ratio		0.87			0.26		
Control Delay		5.0			31.3		
Queue Delay		0.0			0.0		
Total Delay		5.0			31.3		
LOS		A			C		
Approach Delay		5.0			31.3		
Approach LOS		A			C		
Queue Length 50th (ft)		24			97		
Queue Length 95th (ft)		52			156		
Internal Link Dist (ft)		82	25		73		
Turn Bay Length (ft)							
Base Capacity (vph)		2464			626		
Starvation Cap Reductn		0			0		
Spillback Cap Reductn		0			0		
Storage Cap Reductn		0			0		
Reduced v/c Ratio		0.87			0.26		

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 6.9
 Intersection Capacity Utilization 63.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 2: EB Market St & Ramp A



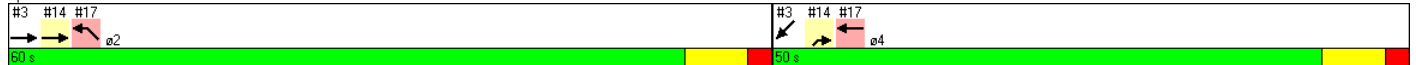


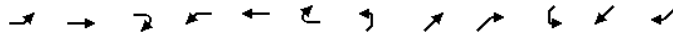
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑									↑↑↑	
Volume (vph)	0	1175	0	0	0	0	0	0	0	0	1459	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	3539	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		140			121			130			102	
Travel Time (s)		3.8			3.3			3.5			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1306	0	0	0	0	0	0	0	0	1621	0
Turn Type												
Protected Phases		2									4	
Permitted Phases												
Detector Phase		2									4	
Switch Phase												
Minimum Initial (s)		7.0									7.0	
Minimum Split (s)		20.0									20.0	
Total Split (s)	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0
Total Split (%)	0.0%	54.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	45.5%	0.0%
Yellow Time (s)		5.0									5.0	
All-Red Time (s)		2.0									2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min									None	
Act Effct Green (s)		54.4									45.6	
Actuated g/C Ratio		0.49									0.41	
v/c Ratio		0.75									0.77	
Control Delay		4.9									30.8	
Queue Delay		0.0									0.0	
Total Delay		4.9									30.8	
LOS		A									C	
Approach Delay		4.9									30.8	
Approach LOS		A									C	
Queue Length 50th (ft)		43									357	
Queue Length 95th (ft)		48									418	
Internal Link Dist (ft)		60			41			50			22	
Turn Bay Length (ft)												
Base Capacity (vph)		1770									2110	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.74									0.77	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 108 (98%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 19.2
 Intersection LOS: B
 Intersection Capacity Utilization 69.0%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 3: EB Market St & WB Market St





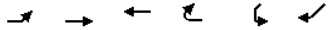
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑									↑↑↑	
Volume (vph)	0	1452	0	0	0	0	0	0	0	0	1150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3539	0	0	0	0	0	0	0	0	5085	0
Flt Permitted												
Satd. Flow (perm)	0	3539	0	0	0	0	0	0	0	0	5085	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		140			121			130			102	
Travel Time (s)		3.8			3.3			3.5			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1613	0	0	0	0	0	0	0	0	1278	0
Turn Type												
Protected Phases		2									4	
Permitted Phases												
Detector Phase		2									4	
Switch Phase												
Minimum Initial (s)		7.0									7.0	
Minimum Split (s)		20.0									20.0	
Total Split (s)	0.0	82.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.0	0.0
Total Split (%)	0.0%	63.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.9%	0.0%
Yellow Time (s)		5.0									5.0	
All-Red Time (s)		2.0									2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	5.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min									None	
Act Effct Green (s)		77.3									42.7	
Actuated g/C Ratio		0.59									0.33	
v/c Ratio		0.77									0.77	
Control Delay		6.5									42.8	
Queue Delay		0.0									0.0	
Total Delay		6.5									42.8	
LOS		A									D	
Approach Delay		6.5									42.8	
Approach LOS		A									D	
Queue Length 50th (ft)		73									352	
Queue Length 95th (ft)		105									409	
Internal Link Dist (ft)		60			41			50			22	
Turn Bay Length (ft)												
Base Capacity (vph)		2105									1682	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		8									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.77									0.76	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 119 (92%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 22.6 Intersection LOS: C
 Intersection Capacity Utilization 70.7% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 3: EB Market St & WB Market St





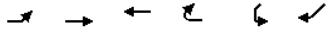
Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	ø3	ø4
Lane Configurations			↑↑↑			↑↑		
Volume (vph)	0	0	1711	0	0	629		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Satd. Flow (prot)	0	0	5085	0	0	2787		
Flt Permitted								
Satd. Flow (perm)	0	0	5085	0	0	2787		
Right Turn on Red				Yes		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	25		45			
Link Distance (ft)		1236	114		209			
Travel Time (s)		28.1	3.1		3.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	0	1901	0	0	699		
Turn Type						custom		
Protected Phases			4 3				3	4
Permitted Phases							2	
Detector Phase			4 3				2	
Switch Phase								
Minimum Initial (s)						12.0	4.0	7.0
Minimum Split (s)						25.5	11.0	20.0
Total Split (s)	0.0	0.0	62.0	0.0	0.0	48.0	11.0	51.0
Total Split (%)	0.0%	0.0%	56.4%	0.0%	0.0%	43.6%	10%	46%
Yellow Time (s)						5.0	5.0	5.0
All-Red Time (s)						2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		
Total Lost Time (s)	2.0	2.0	5.0	2.0	2.0	5.0		
Lead/Lag							Lead	Lag
Lead-Lag Optimize?							Yes	Yes
Recall Mode						C-Min	None	None
Act Effct Green (s)			57.0			43.0		
Actuated g/C Ratio			0.52			0.39		
v/c Ratio			0.72			0.64		
Control Delay			3.3			30.6		
Queue Delay			2.1			0.0		
Total Delay			5.3			30.6		
LOS			A			C		
Approach Delay			5.3					
Approach LOS			A					
Queue Length 50th (ft)			11			224		
Queue Length 95th (ft)			39			296		
Internal Link Dist (ft)		1156	34		129			
Turn Bay Length (ft)								
Base Capacity (vph)			2635			1089		
Starvation Cap Reductn			555			0		
Spillback Cap Reductn			0			0		
Storage Cap Reductn			0			0		
Reduced v/c Ratio			0.91			0.64		

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 12.1
 Intersection LOS: B
 Intersection Capacity Utilization 71.0%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 7: WB Market St & Ramp A





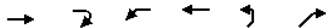
Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	ø3	ø4
Lane Configurations			↑↑↑			↑↑		
Volume (vph)	0	0	1440	0	0	502		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Satd. Flow (prot)	0	0	5085	0	0	2787		
Flt Permitted								
Satd. Flow (perm)	0	0	5085	0	0	2787		
Right Turn on Red				Yes		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	25		45			
Link Distance (ft)		1236	114		209			
Travel Time (s)		28.1	3.1		3.2			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	0	1600	0	0	558		
Turn Type						custom		
Protected Phases			4 3				3	4
Permitted Phases						2		
Detector Phase			4 3			2		
Switch Phase								
Minimum Initial (s)						12.0	4.0	7.0
Minimum Split (s)						25.5	11.0	20.0
Total Split (s)	0.0	0.0	62.0	0.0	0.0	68.0	11.0	51.0
Total Split (%)	0.0%	0.0%	47.7%	0.0%	0.0%	52.3%	8%	39%
Yellow Time (s)						5.0	5.0	5.0
All-Red Time (s)						2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		
Total Lost Time (s)	2.0	2.0	5.0	2.0	2.0	5.0		
Lead/Lag							Lag	Lead
Lead-Lag Optimize?							Yes	Yes
Recall Mode						C-Min	None	None
Act Effct Green (s)			57.0			63.0		
Actuated g/C Ratio			0.44			0.48		
v/c Ratio			0.72			0.41		
Control Delay			1.1			22.8		
Queue Delay			1.0			0.0		
Total Delay			2.1			22.8		
LOS			A			C		
Approach Delay			2.1					
Approach LOS			A					
Queue Length 50th (ft)			0			168		
Queue Length 95th (ft)			0			219		
Internal Link Dist (ft)		1156	34		129			
Turn Bay Length (ft)								
Base Capacity (vph)			2230			1351		
Starvation Cap Reductn			348			0		
Spillback Cap Reductn			0			0		
Storage Cap Reductn			0			0		
Reduced v/c Ratio			0.85			0.41		

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 0 (0%), Referenced to phase 2:NET, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 7.4 Intersection LOS: A
 Intersection Capacity Utilization 73.5% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 7: WB Market St & Ramp A



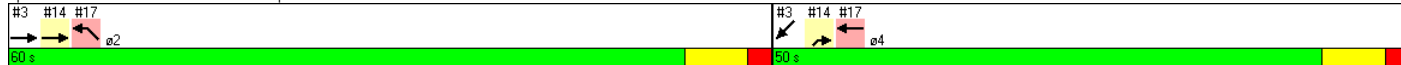


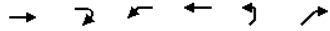
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑					↑
Volume (vph)	1175	0	0	0	0	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	0	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	0	0	0	0	1611
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						32
Link Speed (mph)	30			30	45	
Link Distance (ft)	121			1125	219	
Travel Time (s)	2.8			25.6	3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1306	0	0	0	0	133
Turn Type						custom
Protected Phases	2					4
Permitted Phases						4
Detector Phase	2					4
Switch Phase						
Minimum Initial (s)	7.0					7.0
Minimum Split (s)	20.0					20.0
Total Split (s)	60.0	0.0	0.0	0.0	0.0	50.0
Total Split (%)	54.5%	0.0%	0.0%	0.0%	0.0%	45.5%
Yellow Time (s)	5.0					5.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	2.0	2.0	2.0	2.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min					None
Act Effct Green (s)	54.4					45.6
Actuated g/C Ratio	0.49					0.41
v/c Ratio	0.75					0.19
Control Delay	2.5					16.5
Queue Delay	0.1					0.0
Total Delay	2.6					16.5
LOS	A					B
Approach Delay	2.6					
Approach LOS	A					
Queue Length 50th (ft)	0					44
Queue Length 95th (ft)	12					87
Internal Link Dist (ft)	41		1045	139		
Turn Bay Length (ft)						
Base Capacity (vph)	1770					687
Starvation Cap Reductn	26					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.75					0.19

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 108 (98%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 3.8 Intersection LOS: A
 Intersection Capacity Utilization 69.0% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 14: EB Market St & Ramp C





Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑					↑
Volume (vph)	1452	0	0	0	0	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	0	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	3539	0	0	0	0	1611
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						27
Link Speed (mph)	30			30	45	
Link Distance (ft)	121			1125	219	
Travel Time (s)	2.8			25.6	3.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1613	0	0	0	0	171
Turn Type						custom
Protected Phases	2					4
Permitted Phases						4
Detector Phase	2					4
Switch Phase						
Minimum Initial (s)	7.0					7.0
Minimum Split (s)	20.0					20.0
Total Split (s)	82.0	0.0	0.0	0.0	0.0	48.0
Total Split (%)	63.1%	0.0%	0.0%	0.0%	0.0%	36.9%
Yellow Time (s)	5.0					5.0
All-Red Time (s)	2.0					2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	2.0	2.0	2.0	2.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Min					None
Act Effct Green (s)	77.3					42.7
Actuated g/C Ratio	0.59					0.33
v/c Ratio	0.77					0.31
Control Delay	3.3					29.0
Queue Delay	0.0					0.0
Total Delay	3.4					29.0
LOS	A					C
Approach Delay	3.4					
Approach LOS	A					
Queue Length 50th (ft)	15					89
Queue Length 95th (ft)	34					152
Internal Link Dist (ft)	41			1045	139	
Turn Bay Length (ft)						
Base Capacity (vph)	2105					551
Starvation Cap Reductn	22					0
Spillback Cap Reductn	0					0
Storage Cap Reductn	0					0
Reduced v/c Ratio	0.77					0.31

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 119 (92%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 5.8 Intersection LOS: A
 Intersection Capacity Utilization 70.7% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 14: EB Market St & Ramp C



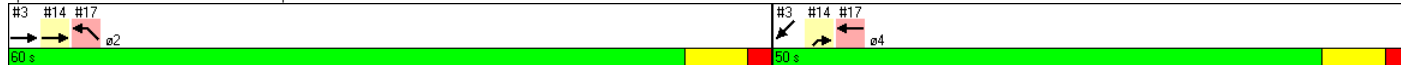


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations				↑↑↑	↑↑	
Volume (vph)	0	0	0	1459	406	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	5085	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	5085	3433	0
Right Turn on Red		Yes			No	Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			25	45	
Link Distance (ft)	124			130	184	
Travel Time (s)	2.8			3.5	2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1621	451	0
Turn Type						
Protected Phases				4	2	
Permitted Phases						
Detector Phase				4	2	
Switch Phase						
Minimum Initial (s)				7.0	7.0	
Minimum Split (s)				20.0	20.0	
Total Split (s)	0.0	0.0	0.0	50.0	60.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	45.5%	54.5%	0.0%
Yellow Time (s)				5.0	5.0	
All-Red Time (s)				2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	2.0	2.0	5.0	5.0	2.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				None	C-Min	
Act Effct Green (s)				45.6	54.4	
Actuated g/C Ratio				0.41	0.49	
v/c Ratio				0.77	0.27	
Control Delay				3.7	16.6	
Queue Delay				0.3	0.0	
Total Delay				4.0	16.6	
LOS				A	B	
Approach Delay				4.0	16.6	
Approach LOS				A	B	
Queue Length 50th (ft)				14	91	
Queue Length 95th (ft)				16	124	
Internal Link Dist (ft)	44			50	104	
Turn Bay Length (ft)						
Base Capacity (vph)				2110	1717	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				103	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.81	0.26	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 108 (98%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 6.8
 Intersection LOS: A
 Intersection Capacity Utilization 66.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 17: WB Market St & Ramp C





Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations				↑↑↑	↑↑	
Volume (vph)	0	0	0	1150	410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	0	0	5085	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	5085	3433	0
Right Turn on Red		Yes			No	Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			25	45	
Link Distance (ft)	124			130	184	
Travel Time (s)	2.8			3.5	2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1278	456	0
Turn Type						
Protected Phases				4	2	
Permitted Phases						
Detector Phase				4	2	
Switch Phase						
Minimum Initial (s)				7.0	7.0	
Minimum Split (s)				20.0	20.0	
Total Split (s)	0.0	0.0	0.0	48.0	82.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.9%	63.1%	0.0%
Yellow Time (s)				5.0	5.0	
All-Red Time (s)				2.0	2.0	
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	2.0	2.0	2.0	5.0	5.0	2.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode				None	C-Min	
Act Effct Green (s)				42.7	77.3	
Actuated g/C Ratio				0.33	0.59	
v/c Ratio				0.77	0.22	
Control Delay				4.5	12.7	
Queue Delay				0.0	0.0	
Total Delay				4.5	12.7	
LOS				A	B	
Approach Delay				4.5	12.7	
Approach LOS				A	B	
Queue Length 50th (ft)				11	88	
Queue Length 95th (ft)				12	117	
Internal Link Dist (ft)	44			50	104	
Turn Bay Length (ft)						
Base Capacity (vph)				1682	2042	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				11	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.76	0.22	

Intersection Summary

Area Type: Other
 Cycle Length: 130
 Actuated Cycle Length: 130
 Offset: 119 (92%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 6.7
 Intersection LOS: A
 Intersection Capacity Utilization 61.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 17: WB Market St & Ramp C



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