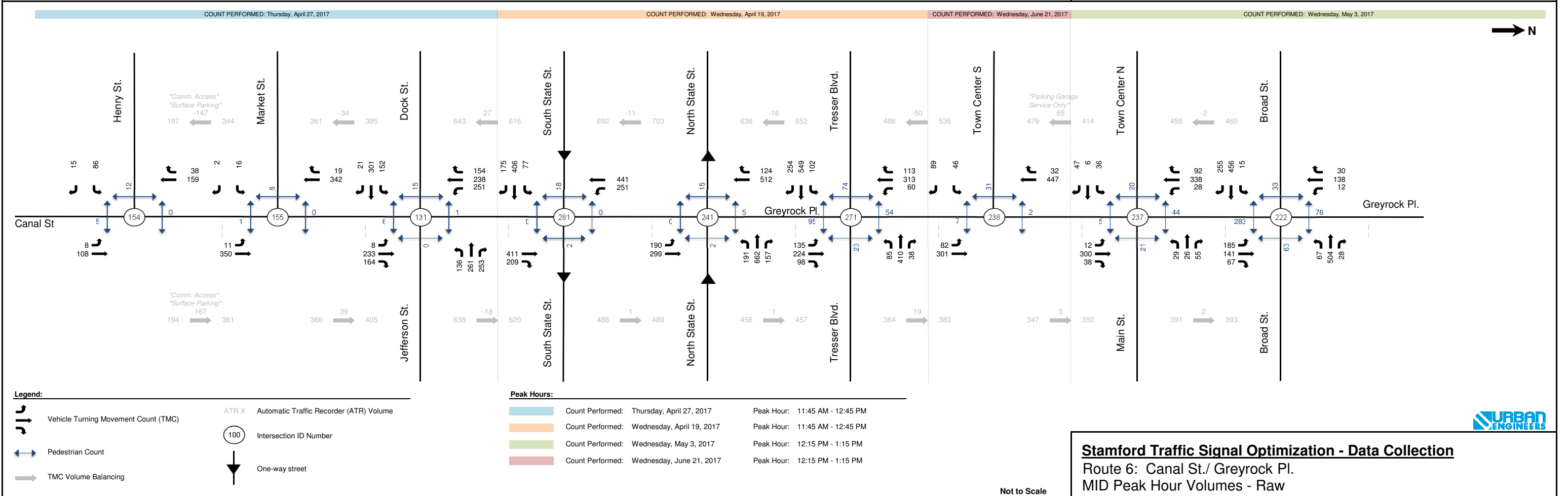
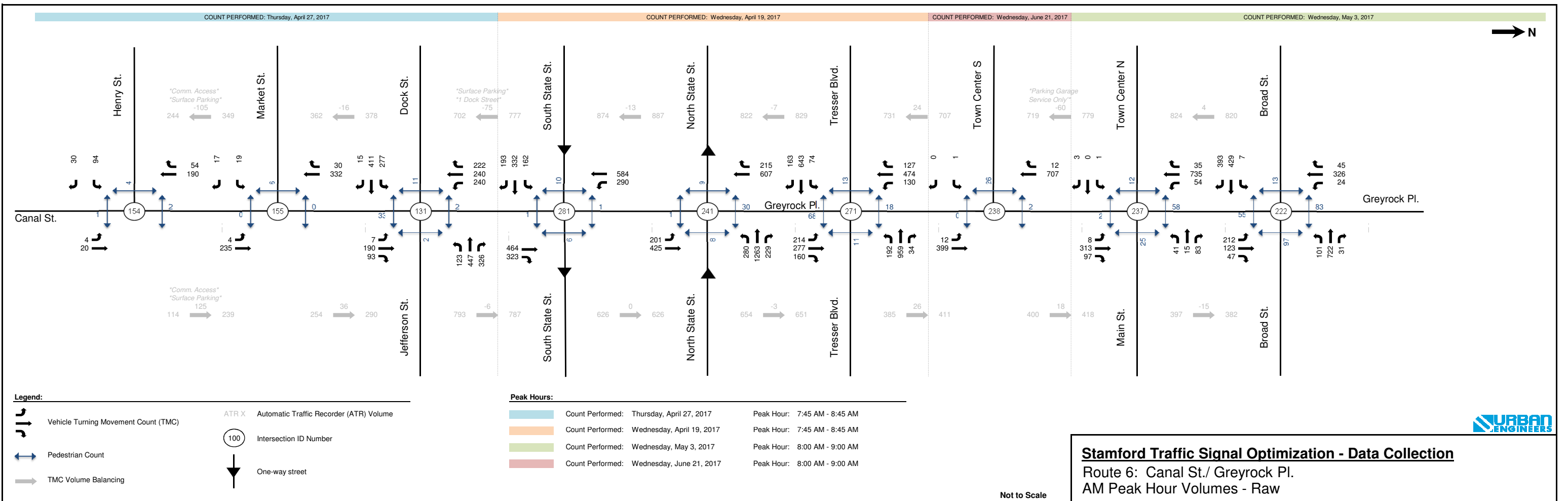
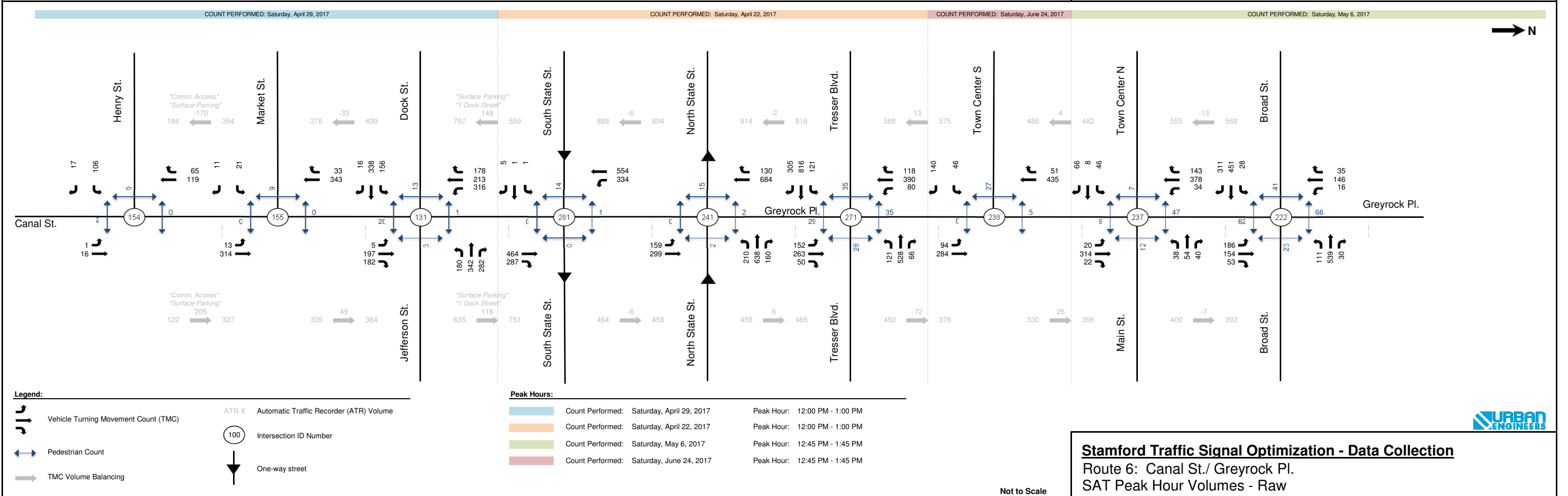
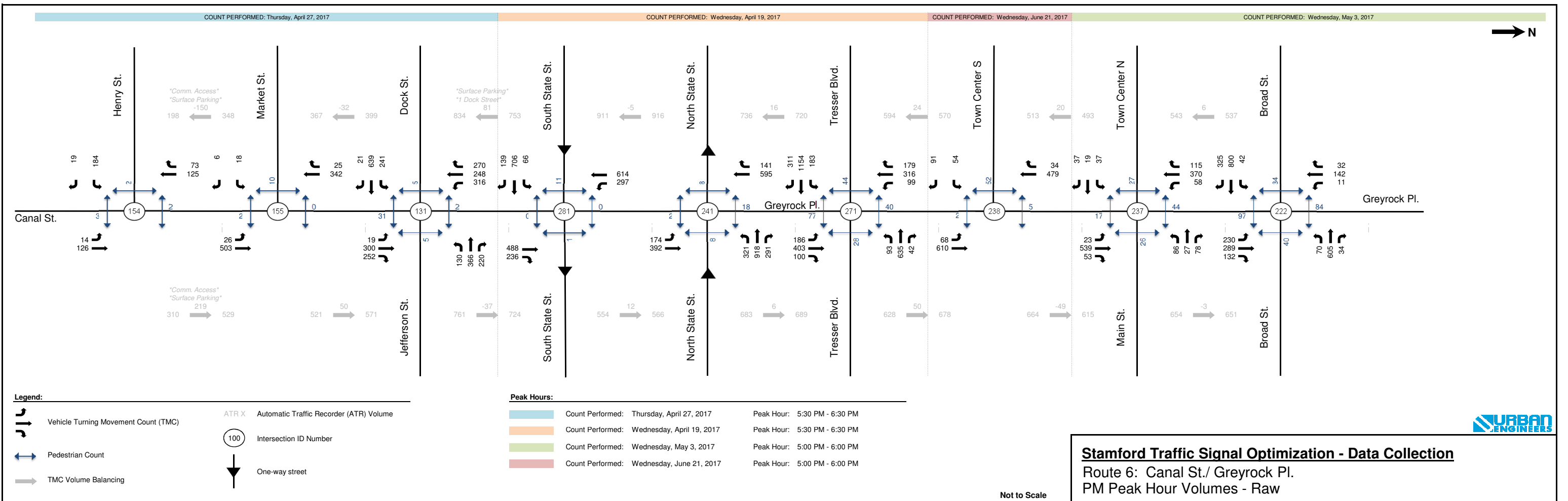
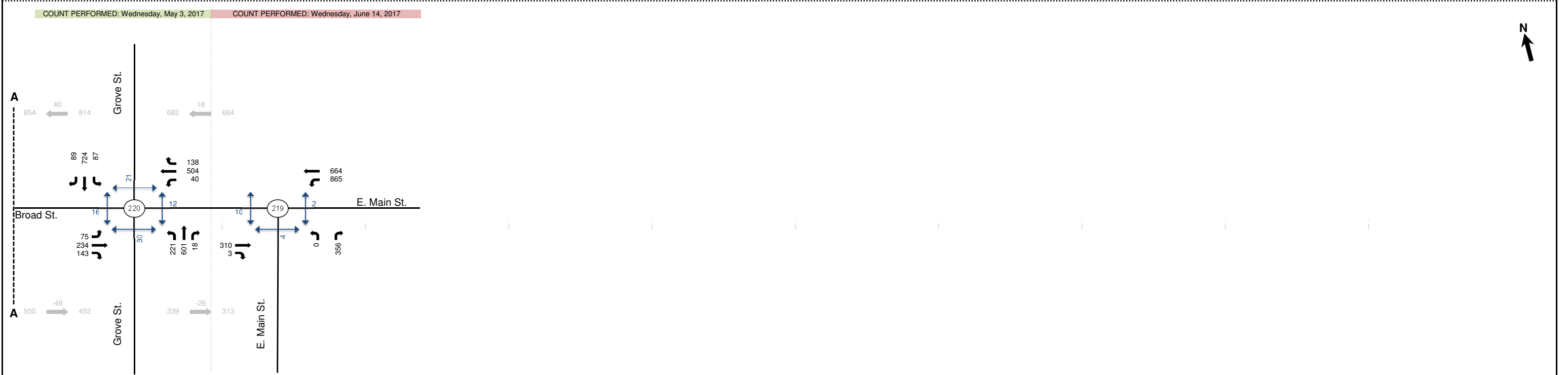
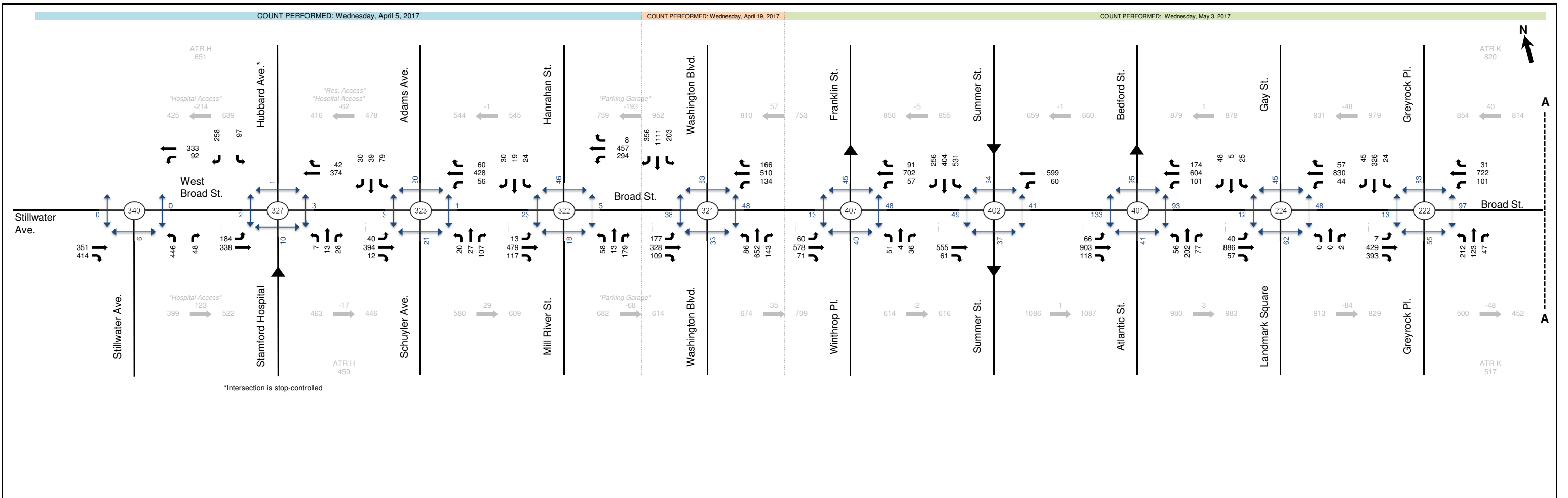


APPENDIX







- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

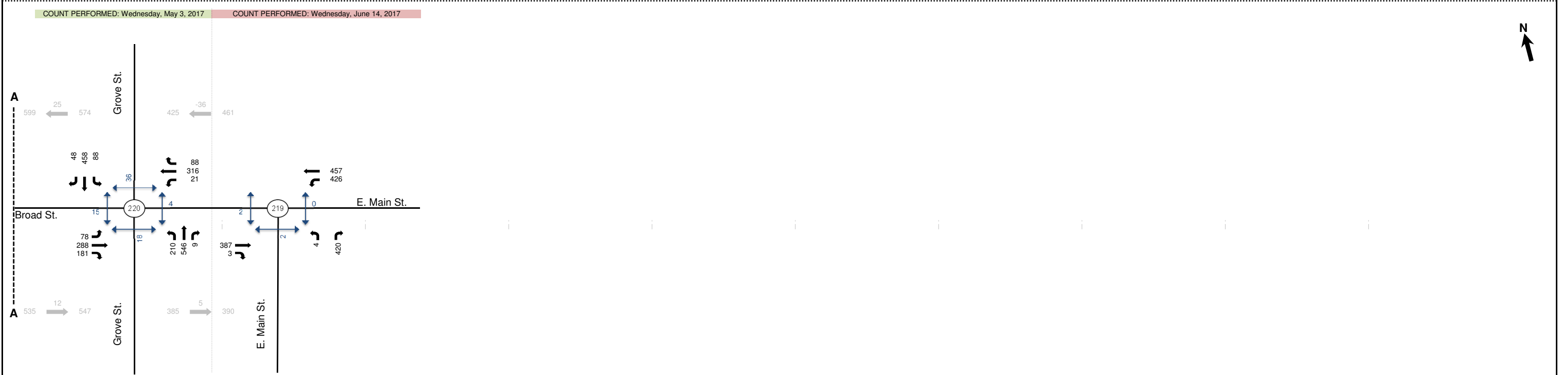
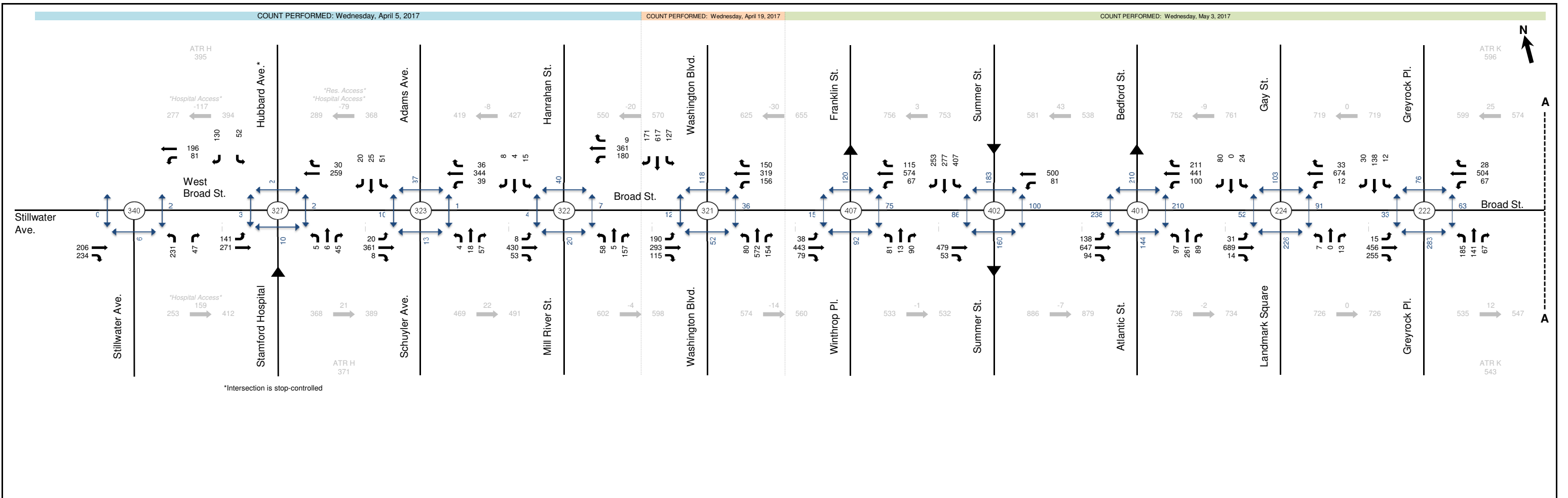
Peak Hours:

	Count Performed: Wednesday, April 5, 2017	Peak Hour: 7:30 AM - 8:30 AM
	Count Performed: Wednesday, April 19, 2017	Peak Hour: 7:45 AM - 8:45 AM
	Count Performed: Wednesday, May 3, 2017	Peak Hour: 8:00 AM - 9:00 AM
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 8:15 AM - 9:15 AM

Stamford Traffic Signal Optimization - Data Collection
 Route 12: Broad St.
 AM Peak Hour Volumes - Raw



Not to Scale



- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

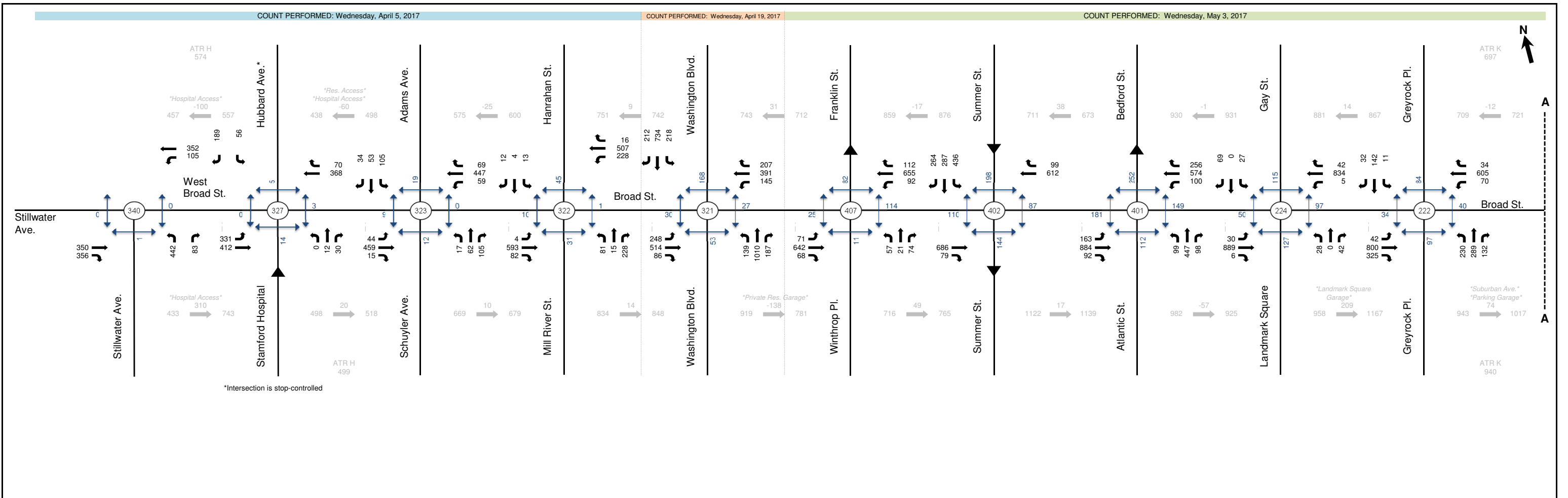
Peak Hours:

	Count Performed: Wednesday, April 5, 2017	Peak Hour: 12:15 PM - 1:15 PM
	Count Performed: Wednesday, April 19, 2017	Peak Hour: 11:45 AM - 12:45 PM
	Count Performed: Wednesday, May 3, 2017	Peak Hour: 12:15 PM - 1:15 PM
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 12:30 PM - 1:30 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 12: Broad St.
 MID Peak Hour Volumes - Raw

Not to Scale





- Legend:**
- Vehicle Turning Movement Count (TMC)
 - Pedestrian Count
 - TMC Volume Balancing
 - ATR X Automatic Traffic Recorder (ATR) Volume
 - Intersection ID Number
 - One-way street

Peak Hours:

	Count Performed: Wednesday, April 5, 2017	Peak Hour: 5:00 PM - 6:00 PM
	Count Performed: Wednesday, April 19, 2017	Peak Hour: 5:30 PM - 6:30 PM
	Count Performed: Wednesday, May 3, 2017	Peak Hour: 5:00 PM - 6:00 PM
	Count Performed: Wednesday, June 14, 2017	Peak Hour: 5:00 PM - 6:00 PM

Stamford Traffic Signal Optimization - Data Collection
 Route 12: Broad St.
 PM Peak Hour Volumes - Raw



Not to Scale

OSTA: 135-1811-03
STARS: 240570

OK

CAK 12/11/18

Administrative Decision Request

Silverback Development
777 Summer Street
Stamford, Connecticut
November 16, 2018

Prepared for:

Mr. David A. Sawicki, Executive Director
Office of the State Traffic Administration
2800 Berlin Turnpike
P.O. Box 317546
Newington, Connecticut 06131-7546

MMI #6391-01-01

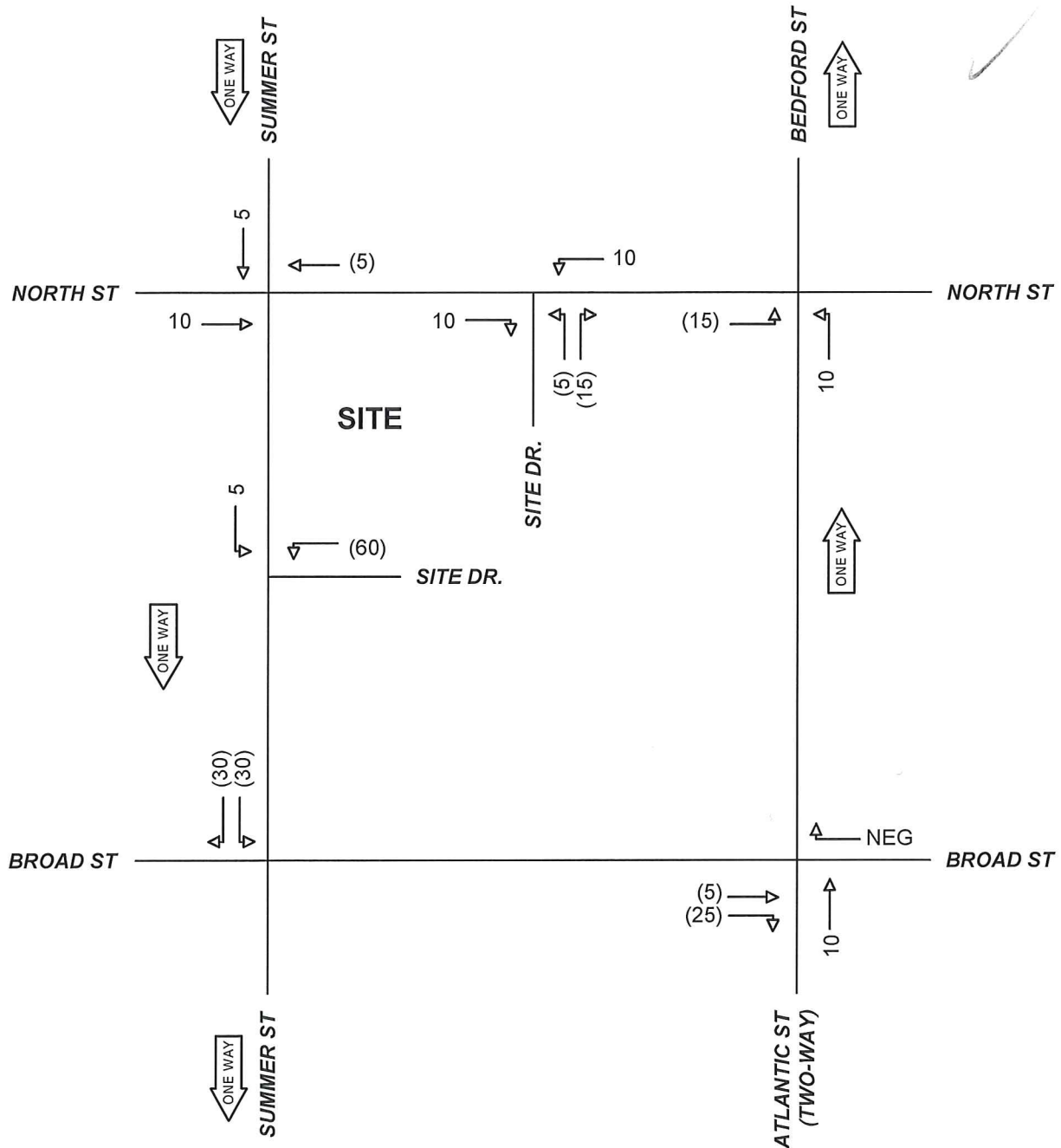
Prepared by:

MILONE & MACBROOM, INC.
99 Realty Drive
Cheshire, Connecticut 06410
(203) 271-1773
www.mminc.com



MILONE & MACBROOM

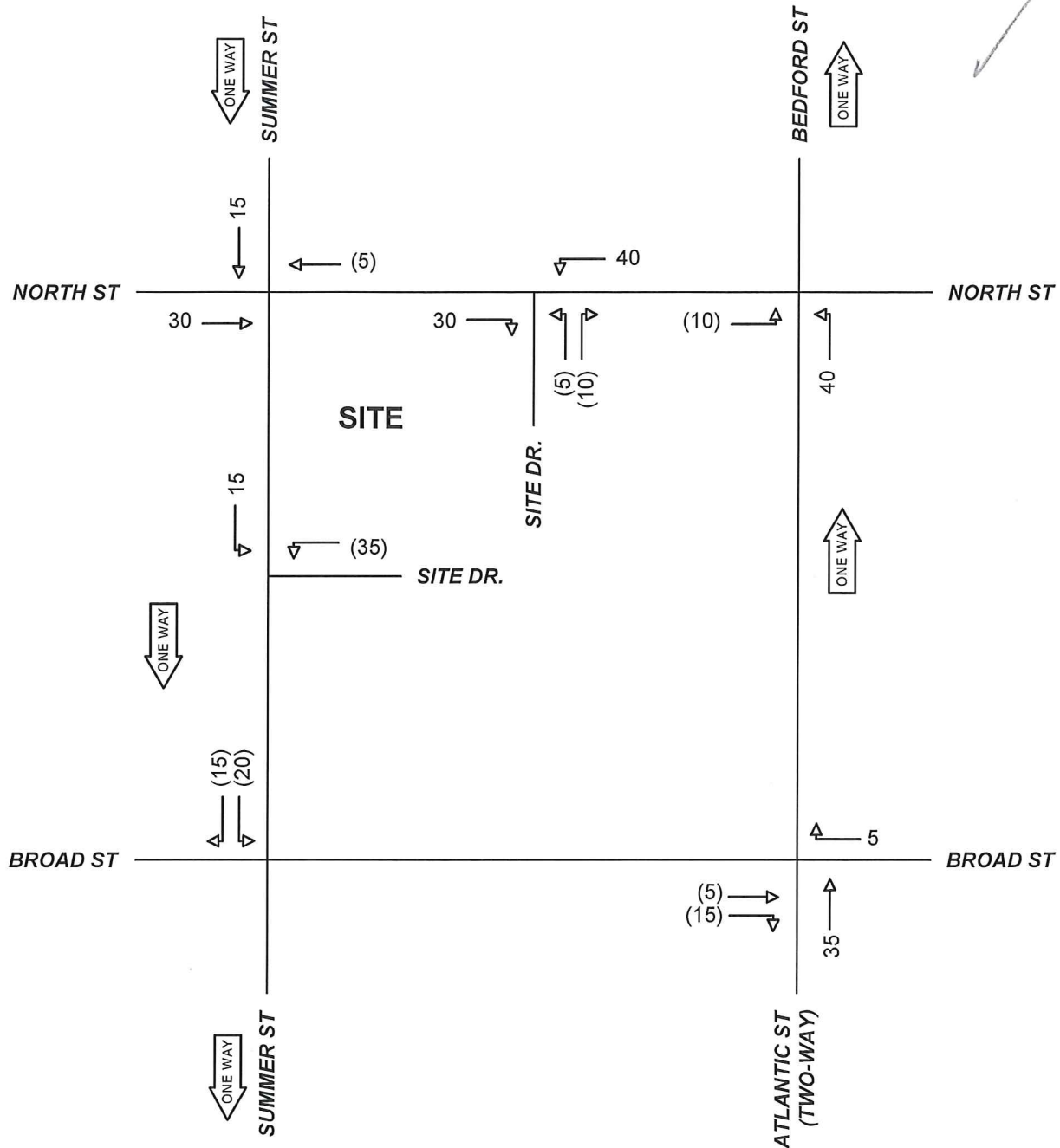
ENGINEERING | PLANNING | LANDSCAPE ARCHITECTURE | ENVIRONMENTAL SCIENCE



**ANTICIPATED SITE TRAFFIC VOLUMES
WEEKDAY MORNING PEAK HOUR**
Proposed Residential Development at 777 Summer Street
Stamford, Connecticut

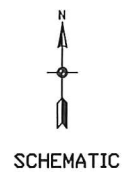


LEGEND
XX - ENTERING
(XX) - EXITING



**ANTICIPATED SITE TRAFFIC VOLUMES
WEEKDAY AFTERNOON PEAK HOUR**

**Proposed Residential Development at 777 Summer Street
Stamford, Connecticut**



LEGEND
XX - ENTERING
(XX) - EXITING

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS (MOTORIZED VEHICLE MODE)

Level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and increased travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions: in the absence of traffic control, geometric delay, any incidents, and any other vehicles. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle, typically for a 15-min analysis period. Delay is a complex measure and depends on a number of variables, including the quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group. The criteria are given below.

LEVEL-OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS MOTORIZED VEHICLE MODE		
LOS By Volume-to-Capacity Ratio¹		CONTROL DELAY (s/veh)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤ 10
B	F	> 10 AND ≤ 20
C	F	> 20 AND ≤ 35
D	F	> 35 AND ≤ 55
E	F	> 55 AND ≤ 80
F	F	> 80

¹ For approach-based and intersection-wide assessments, LOS is defined solely by control delay.

Specific descriptions of each LOS for signalized intersections are provided below:

Level of Service A describes operations with a control delay of 10 s/veh and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If LOS A is the result of favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

Level of Service B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

Level of Service C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

Level of Service D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

Level of Service E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

Level of Service F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Reference: Highway Capacity Manual 6, Transportation Research Board, 2016.

LEVEL OF SERVICE

FOR TWO-WAY

STOP SIGN CONTROLLED INTERSECTIONS

The level of service for a TWSC (two-way stop controlled) intersection is determined by the computed or measured control delay and is defined for each minor movement. Level of service is not defined for the intersection as a whole. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. LOS criteria are given in the Table. LOS criteria are given below:

LEVEL-OF SERVICE CRITERIA FOR AWSC INTERSECTIONS	
LOS¹	CONTROL DELAY (s/veh)
A	≤ 10
B	$> 10 \text{ AND } \leq 15$
C	$> 15 \text{ AND } \leq 25$
D	$> 25 \text{ AND } \leq 35$
E	$> 35 \text{ AND } \leq 50$
F	> 50

Note: LOS criteria apply to each lane on a given approach and to each approach on the minor street.
 LOS is not calculated for major-street approaches or for the intersection as a whole.
 LOS F is assigned to a movement if the volume-to-capacity ratio exceeds 1.0, regardless of the control delay

Reference: Highway Capacity Manual Version 6.0, Transportation Research Board, 2016.

LEVEL OF SERVICE FOR UNSIGNALIZED INTERSECTIONS ALL-WAY STOP-CONTROL (AWSC)

The criteria for AWSC intersections have different threshold values than do those for signalized intersections primarily because drivers expect different levels of performance from distinct types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same LOS. The level-of-service criteria are given below.

LEVEL-OF SERVICE CRITERIA FOR AWSC INTERSECTIONS	
LOS¹	CONTROL DELAY (s/veh)
A	≤ 10
B	$> 10 \text{ AND } \leq 15$
C	$> 15 \text{ AND } \leq 25$
D	$> 25 \text{ AND } \leq 35$
E	$> 35 \text{ AND } \leq 50$
F	> 50

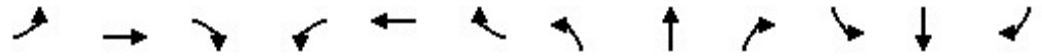
¹ For approaches and intersection-wide assessment, LOS is defined solely by control delay.

Note: LOS F is assigned to a movement if the volume-to-capacity ratio exceeds 1.0, regardless of the control delay.

Reference: Highway Capacity Manual Version 6.0, Transportation Research Board, 2016.

154 Broad Street
1: Greyrock Pl & Forest St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↕				
Traffic Volume (vph)	18	95	252	94	167	7	134	12	34	0	0	0
Future Volume (vph)	18	95	252	94	167	7	134	12	34	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996			0.975				
Flt Protected		0.992			0.983			0.964				
Satd. Flow (prot)	0	1608	1378	0	1587	0	0	1523	0	0	0	0
Flt Permitted		0.992			0.983			0.964				
Satd. Flow (perm)	0	1608	1378	0	1587	0	0	1523	0	0	0	0
Link Speed (mph)		25			25			25				25
Link Distance (ft)		255			299			538				220
Travel Time (s)		7.0			8.2			14.7				6.0
Confl. Peds. (#/hr)	16		27	27		16	5		8	8		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	20	103	274	102	182	8	146	13	37	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	274	0	292	0	0	196	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.7%
ICU Level of Service	A
Analysis Period (min)	15

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕				
Traffic Vol, veh/h	18	95	252	94	167	7	134	12	34	0	0	0
Future Vol, veh/h	18	95	252	94	167	7	134	12	34	0	0	0
Conflicting Peds, #/hr	16	0	27	27	0	16	5	0	8	8	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	103	274	102	182	8	146	13	37	0	0	0



















Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	206	0	0	404	0	0	565	580	138
Stage 1	-	-	-	-	-	-	170	170	-
Stage 2	-	-	-	-	-	-	395	410	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1365	-	-	1155	-	-	486	426	910
Stage 1	-	-	-	-	-	-	860	758	-
Stage 2	-	-	-	-	-	-	681	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1365	-	-	1128	-	-	417	0	882
Mov Cap-2 Maneuver	-	-	-	-	-	-	417	0	-
Stage 1	-	-	-	-	-	-	823	0	-
Stage 2	-	-	-	-	-	-	609	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	3	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	467	1365	-	-	1128	-	-
HCM Lane V/C Ratio	0.419	0.014	-	-	0.091	-	-
HCM Control Delay (s)	18.2	7.7	0	-	8.5	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	2	0	-	-	0.3	-	-

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Background Conditions
AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	941	147	104	626	180	58	219	80	0	0	0
Future Volume (vph)	69	941	147	104	626	180	58	219	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	25		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.97	0.98			0.97		0.83	0.97				
Frt		0.980			0.966			0.960				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1711	3300	0	1711	3198	0	1540	3016	0	0	0	0
Flt Permitted	0.271			0.149			0.950					
Satd. Flow (perm)	474	3300	0	268	3198	0	1285	3016	0	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		360			795			391				244
Travel Time (s)		9.8			21.7			10.7				6.7
Confl. Peds. (#/hr)	98		43	43		98	138		96	96		138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)							0	0	0	0	0	0
Adj. Flow (vph)	75	1023	160	113	680	196	63	238	87	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	1183	0	113	876	0	63	325	0	0	0	0
Number of Detectors	1	0		1	0		0	0				
Detector Template												
Leading Detector (ft)	30	0		24	0		0	0				
Trailing Detector (ft)	0	0		-6	0		0	0				
Detector 1 Position(ft)	0	0		-6	0		0	0				
Detector 1 Size(ft)	30	6		30	6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA				
Protected Phases	1	6		5	2		4	4				
Permitted Phases	6			2								
Detector Phase	1	6		5	2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		7.0	7.0				
Minimum Split (s)	9.0	31.7		9.0	31.7		35.5	35.5				
Total Split (s)	13.0	63.0		13.0	63.0		36.0	36.0				
Total Split (%)	10.8%	52.5%		10.8%	52.5%		30.0%	30.0%				
Maximum Green (s)	9.0	57.3		9.0	57.3		30.5	30.5				
Yellow Time (s)	3.0	3.3		3.0	3.3		3.3	3.3				
All-Red Time (s)	1.0	2.4		1.0	2.4		2.2	2.2				
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				

Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	4.0	4.0
Total Split (s)	4.0	4.0
Total Split (%)	3%	3%
Maximum Green (s)	2.0	2.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	4.0	5.7		4.0	5.7		5.5	5.5				
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Recall Mode	None	C-Min		None	C-Min		None	None				
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		19.0			19.0		23.0	23.0				
Pedestrian Calls (#/hr)		30			30		30	30				
Act Effct Green (s)	75.2	66.8		77.6	69.4		23.5	23.5				
Actuated g/C Ratio	0.63	0.56		0.65	0.58		0.20	0.20				
v/c Ratio	0.21	0.64		0.43	0.47		0.21	0.55				
Control Delay	11.3	23.8		20.8	15.7		39.2	45.9				
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				
Total Delay	11.3	23.8		20.8	15.7		39.2	45.9				
LOS	B	C		C	B		D	D				
Approach Delay		23.0			16.3			44.8				
Approach LOS		C			B			D				
Queue Length 50th (ft)	25	407		34	164		38	111				
Queue Length 95th (ft)	44	474		m64	138		77	157				
Internal Link Dist (ft)		280			715			311			164	
Turn Bay Length (ft)	150			250			25					
Base Capacity (vph)	398	1886		284	1880		391	766				
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	0.19	0.63		0.40	0.47		0.16	0.42				

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 30 (25%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 23.7
 Intersection LOS: C
 Intersection Capacity Utilization 74.0%
 ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

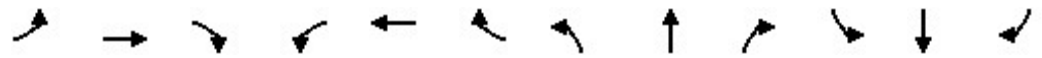
Splits and Phases: 2: Atlantic St/Bedford St & Broad St



Lane Group	Ø9	Ø10
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	2.0	2.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	30	30
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

154 Broad Street
3: Greyrock Pl & Broad St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	449	408	104	748	32	220	128	49	25	338	47
Future Volume (vph)	7	449	408	104	748	32	220	128	49	25	338	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.96		0.91	0.97	0.99		0.99		0.86		0.99	
Frt			0.850		0.994				0.850		0.985	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1540	3250	1378	1540	3201	0	1711	1801	1531	0	1763	0
Flt Permitted	0.228			0.340			0.950				0.975	
Satd. Flow (perm)	357	3250	1250	532	3201	0	1695	1801	1319	0	1713	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			443		4							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		795			656			427				538
Travel Time (s)		21.7			17.9			11.6				14.7
Confl. Peds. (#/hr)	86		57	57		86	13		100	100		13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	8	488	443	113	813	35	239	139	53	27	367	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	488	443	113	848	0	239	139	53	0	445	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template										Left		
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6			2
Detector 2 Size(ft)	6			6			6	6	6			6
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 3 Position(ft)	18			18			18	18	18			14
Detector 3 Size(ft)	6			6			6	6	6			6
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 4 Position(ft)	30			30			30	30	30			26
Detector 4 Size(ft)	6			6			6	6	6			6
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex

154 Broad Street
3: Greyrock Pl & Broad St

Background Conditions
AM Peak



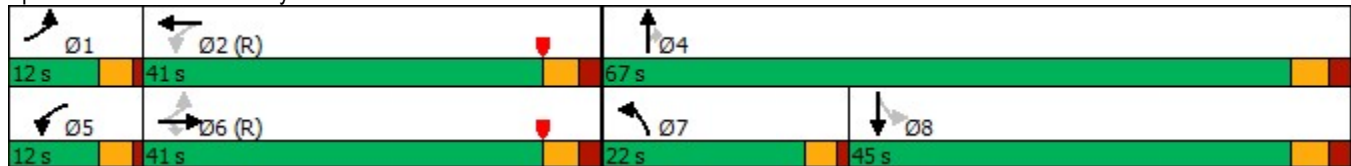
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm		NA
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8		8
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0		7.0
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5		33.5
Total Split (s)	12.0	41.0	41.0	12.0	41.0		22.0	67.0	67.0	45.0		45.0
Total Split (%)	10.0%	34.2%	34.2%	10.0%	34.2%		18.3%	55.8%	55.8%	37.5%		37.5%
Maximum Green (s)	8.0	35.6	35.6	8.0	35.6		18.0	61.5	61.5	39.5		39.5
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3		3.3
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2		2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5			5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes		Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0		2.0
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None		None
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0		7.0
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)		13	13		30			30	30	30		30
Act Effct Green (s)	45.4	38.7	38.7	51.9	48.9		19.5	58.2	58.2			34.7
Actuated g/C Ratio	0.38	0.32	0.32	0.43	0.41		0.16	0.48	0.48			0.29
v/c Ratio	0.04	0.47	0.63	0.38	0.65		0.86	0.16	0.08			0.90
Control Delay	33.6	39.7	15.9	19.1	22.0		74.8	17.4	17.1			62.5
Queue Delay	0.0	0.0	0.1	0.0	0.0		0.0	0.0	0.0			2.8
Total Delay	33.6	39.7	16.0	19.1	22.0		74.8	17.4	17.1			65.4
LOS	C	D	B	B	C		E	B	B			E
Approach Delay		28.5			21.7			49.2				65.4
Approach LOS		C			C			D				E
Queue Length 50th (ft)	3	113	84	38	160		115	26	10			325
Queue Length 95th (ft)	m8	195	191	m60	282		#352	106	50			#454
Internal Link Dist (ft)		715			576			347				458
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	221	1069	708	301	1306		280	927	678			563
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	13	0	0		0	0	0			51
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.04	0.46	0.64	0.38	0.65		0.85	0.15	0.08			0.87

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated

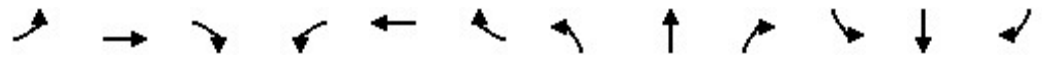
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 35.2	Intersection LOS: D
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: Greyrock Pl & Broad St



154 Broad Street
4: Grove St & Broad St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	248	148	41	522	143	229	623	18	90	751	92
Future Volume (vph)	78	248	148	41	522	143	229	623	18	90	751	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		250	100		0	0		0	150		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.95	0.97	0.99		1.00	1.00		1.00	1.00	
Frt			0.850		0.968			0.996			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3421	1531	1711	3283	0	1711	3405	0	1711	3355	0
Flt Permitted	0.148			0.556			0.178			0.361		
Satd. Flow (perm)	265	3421	1450	974	3283	0	319	3405	0	647	3355	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			161		30							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		656			489			399			308	
Travel Time (s)		17.9			13.3			10.9			8.4	
Confl. Peds. (#/hr)	22		31	31		22	16		12	12		16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	270	161	45	567	155	249	677	20	98	816	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	270	161	45	722	0	249	697	0	98	916	0
Number of Detectors	4	0	0	4	0		4	4		4	4	
Detector Template												
Leading Detector (ft)	36	0	0	36	0		36	36		42	42	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Size(ft)	6	6	20	6	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	6			6			6	6		12	12	
Detector 2 Size(ft)	6			6			6	6		6	6	
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 3 Position(ft)	18			18			18	18		24	24	
Detector 3 Size(ft)	6			6			6	6		6	6	
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 4 Position(ft)	30			30			30	30		36	36	
Detector 4 Size(ft)	6			6			6	6		6	6	
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 4 Channel												

154 Broad Street
4: Grove St & Broad St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	6	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	32.3	32.3	9.0	32.3		9.0	33.5		9.0	33.5	
Total Split (s)	10.0	43.0	43.0	10.0	43.0		23.0	44.0		23.0	44.0	
Total Split (%)	8.3%	35.8%	35.8%	8.3%	35.8%		19.2%	36.7%		19.2%	36.7%	
Maximum Green (s)	6.0	37.7	37.7	6.0	37.7		19.0	38.5		19.0	38.5	
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.2		1.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.3	5.3	4.0	5.3		4.0	5.5		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	3.0	3.0	1.0	3.0		1.0	3.0		1.0	3.0	
Recall Mode	None	Min	Min	None	Min		None	C-Min		None	C-Min	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0			21.0			21.0	
Pedestrian Calls (#/hr)		16	16		12			30			21	
Act Effct Green (s)	38.0	31.5	31.5	36.7	30.9		71.0	59.1		60.6	52.2	
Actuated g/C Ratio	0.32	0.26	0.26	0.31	0.26		0.59	0.49		0.50	0.44	
v/c Ratio	0.54	0.30	0.32	0.14	0.83		0.72	0.42		0.25	0.63	
Control Delay	69.1	62.8	29.0	24.9	49.2		26.3	22.2		14.8	31.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	69.1	62.8	29.0	24.9	49.2		26.3	22.2		14.8	31.6	
LOS	E	E	C	C	D		C	C		B	C	
Approach Delay		53.3			47.7			23.3			29.9	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	65	115	79	23	268		93	185		33	302	
Queue Length 95th (ft)	m101	m110	m87	45	316		170	270		66	433	
Internal Link Dist (ft)		576			409			319			228	
Turn Bay Length (ft)	200		250	100						150		
Base Capacity (vph)	160	1074	565	336	1051		410	1675		546	1459	
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	0.53	0.25	0.28	0.13	0.69		0.61	0.42		0.18	0.63	

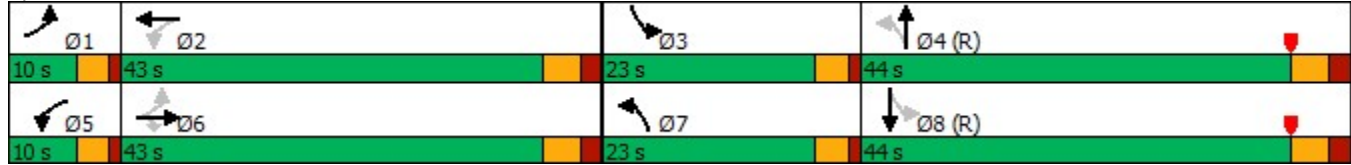
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 67 (56%), Referenced to phase 4:NBTL and 8:SBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83

Intersection Signal Delay: 35.9	Intersection LOS: D
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

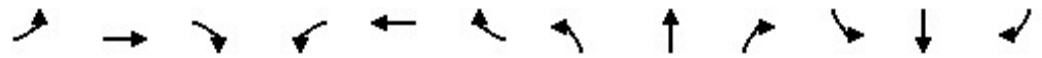
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Grove St & Broad St



154 Broad Street
5: Greyrock Pl & Main St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Traffic Volume (vph)	1	0	3	43	15	86	8	325	100	56	762	36
Future Volume (vph)	1	0	3	43	15	86	8	325	100	56	762	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	150		0	50		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			1.00		0.99	0.98		0.97	1.00	
Frt		0.899				0.850		0.965			0.993	
Flt Protected		0.988			0.964		0.950			0.950		
Satd. Flow (prot)	0	1583	0	0	1736	1531	1711	3236	0	1711	3390	0
Flt Permitted		0.965			0.785		0.276			0.475		
Satd. Flow (perm)	0	1517	0	0	1411	1531	494	3236	0	829	3390	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65				140		42			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		187			320			292			427	
Travel Time (s)		5.1			8.7			8.0			11.6	
Confl. Peds. (#/hr)	60		2	2		60	12		26	26		12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)												0
Adj. Flow (vph)	1	0	3	47	16	93	9	353	109	61	828	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	63	93	9	462	0	61	867	0
Number of Detectors	1	1		1	2	0	1	0		1	0	
Detector Template	Left			Left								
Leading Detector (ft)	20	36		20	8	0	24	0		24	0	
Trailing Detector (ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Position(ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	30	6		24	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)					2							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	D.P+P	NA		Perm	NA	Over	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4 5			5	1	1	2		1	2	
Permitted Phases	5			5			2			2		
Detector Phase	4	4 5		5	5	5	1	2		1	2	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0	5.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	15.0			34.0	34.0	9.0	9.0	30.2		9.0	30.2	
Total Split (s)	15.0			34.0	34.0	14.0	14.0	57.0		14.0	57.0	

154 Broad Street
5: Greyrock Pl & Main St

Background Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	12.5%			28.3%	28.3%	11.7%	11.7%	47.5%		11.7%	47.5%	
Maximum Green (s)	9.0			27.8	27.8	10.0	10.0	50.8		10.0	50.8	
Yellow Time (s)	3.3			3.3	3.3	3.0	3.0	3.3		3.0	3.3	
All-Red Time (s)	2.7			2.9	2.9	1.0	1.0	2.9		1.0	2.9	
Lost Time Adjust (s)					0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)					6.2	4.0	4.0	6.2		4.0	6.2	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0			2.0	2.0	2.0	2.0	0.2		2.0	0.2	
Recall Mode	None			None	None	None	None	C-Min		None	C-Min	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			17.0			17.0	
Pedestrian Calls (#/hr)				25	25			30			30	
Act Effct Green (s)		22.6			21.4	5.3	83.0	75.6		83.0	75.6	
Actuated g/C Ratio		0.19			0.18	0.04	0.69	0.63		0.69	0.63	
v/c Ratio		0.01			0.25	0.46	0.02	0.23		0.10	0.41	
Control Delay		0.0			39.4	9.9	11.5	13.1		7.3	12.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		0.0			39.4	9.9	11.5	13.1		7.3	12.3	
LOS		A			D	A	B	B		A	B	
Approach Delay					21.8			13.1			11.9	
Approach LOS					C			B			B	
Queue Length 50th (ft)		0			40	0	2	76		4	118	
Queue Length 95th (ft)		0			68	16	13	173		m28	358	
Internal Link Dist (ft)		107			240			212			347	
Turn Bay Length (ft)						50	150			50		
Base Capacity (vph)		461			356	201	453	2094		664	2180	
Starvation Cap Reductn		0			0	0	0	0		0	598	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.18	0.46	0.02	0.22		0.09	0.55	

Intersection Summary

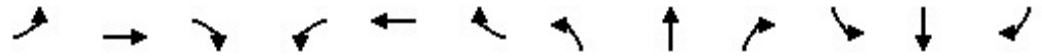
Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 109 (91%), Referenced to phase 2:NBSB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 13.2
 Intersection LOS: B
 Intersection Capacity Utilization 60.6%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Greyrock Pl & Main St



154 Broad Street
1: Greyrock Pl & Forest St

Background Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↕				
Traffic Volume (vph)	37	249	172	32	130	27	246	37	109	0	0	0
Future Volume (vph)	37	249	172	32	130	27	246	37	109	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.981			0.963				
Flt Protected		0.994			0.992			0.970				
Satd. Flow (prot)	0	1611	1378	0	1577	0	0	1514	0	0	0	0
Flt Permitted		0.994			0.992			0.970				
Satd. Flow (perm)	0	1611	1378	0	1577	0	0	1514	0	0	0	0
Link Speed (mph)		25			25			25				25
Link Distance (ft)		255			299			538				220
Travel Time (s)		7.0			8.2			14.7				6.0
Confl. Peds. (#/hr)	12		35	35		12	4		7	7		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	40	271	187	35	141	29	267	40	118	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	311	187	0	205	0	0	425	0	0	0	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	65.6%
ICU Level of Service	C
Analysis Period (min)	15

Intersection												
Int Delay, s/veh	20.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕				
Traffic Vol, veh/h	37	249	172	32	130	27	246	37	109	0	0	0
Future Vol, veh/h	37	249	172	32	130	27	246	37	109	0	0	0
Conflicting Peds, #/hr	12	0	35	35	0	12	4	0	7	7	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	271	187	35	141	29	267	40	118	0	0	0



















Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	182	0	0	493	0	0	616	638	313
Stage 1	-	-	-	-	-	-	386	386	-
Stage 2	-	-	-	-	-	-	230	252	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1393	-	-	1071	-	-	454	394	727
Stage 1	-	-	-	-	-	-	687	610	-
Stage 2	-	-	-	-	-	-	808	698	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1393	-	-	1038	-	-	405	0	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	405	0	-
Stage 1	-	-	-	-	-	-	639	0	-
Stage 2	-	-	-	-	-	-	776	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	1.5	53.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	465	1393	-	-	1038	-	-
HCM Lane V/C Ratio	0.916	0.029	-	-	0.034	-	-
HCM Control Delay (s)	53.5	7.7	0	-	8.6	0	-
HCM Lane LOS	F	A	A	-	A	A	-
HCM 95th %tile Q(veh)	10.4	0.1	-	-	0.1	-	-

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Background Conditions
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	921	110	103	595	270	102	499	101	0	0	0
Future Volume (vph)	169	921	110	103	595	270	102	499	101	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	25		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.95	0.97			0.90		0.78	0.97				
Frt		0.984			0.953			0.975				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1711	3265	0	1711	2937	0	1540	3065	0	0	0	0
Flt Permitted	0.192			0.157			0.950					
Satd. Flow (perm)	330	3265	0	283	2937	0	1194	3065	0	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		360			795			391				244
Travel Time (s)		9.8			21.7			10.7				6.7
Confl. Peds. (#/hr)	261		116	116		261	187		155	155		187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)							0	0	0	0	0	0
Adj. Flow (vph)	184	1001	120	112	647	293	111	542	110	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	1121	0	112	940	0	111	652	0	0	0	0
Number of Detectors	1	0		1	0		0	0				
Detector Template												
Leading Detector (ft)	30	0		24	0		0	0				
Trailing Detector (ft)	0	0		-6	0		0	0				
Detector 1 Position(ft)	0	0		-6	0		0	0				
Detector 1 Size(ft)	30	6		30	6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA				
Protected Phases	1	6		5	2		4	4				
Permitted Phases	6			2								
Detector Phase	1	6		5	2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		7.0	7.0				
Minimum Split (s)	9.0	31.7		9.0	31.7		35.5	35.5				
Total Split (s)	20.0	49.0		20.0	49.0		43.0	43.0				
Total Split (%)	16.7%	40.8%		16.7%	40.8%		35.8%	35.8%				
Maximum Green (s)	16.0	43.3		16.0	43.3		37.5	37.5				
Yellow Time (s)	3.0	3.3		3.0	3.3		3.3	3.3				
All-Red Time (s)	1.0	2.4		1.0	2.4		2.2	2.2				
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				

Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	4.0	4.0
Total Split (s)	4.0	4.0
Total Split (%)	3%	3%
Maximum Green (s)	2.0	2.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Background Conditions
PM Peak

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	4.0	5.7		4.0	5.7		5.5	5.5				
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Recall Mode	None	C-Min		None	C-Min		None	None				
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		19.0			19.0		23.0	23.0				
Pedestrian Calls (#/hr)		30			30		30	30				
Act Effct Green (s)	73.5	60.3		67.5	57.3		30.0	30.0				
Actuated g/C Ratio	0.61	0.50		0.56	0.48		0.25	0.25				
v/c Ratio	0.55	0.68		0.43	0.67		0.29	0.85				
Control Delay	18.0	27.9		24.7	35.5		37.1	53.9				
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				
Total Delay	18.0	27.9		24.7	35.5		37.1	53.9				
LOS	B	C		C	D		D	D				
Approach Delay		26.5			34.4			51.5				
Approach LOS		C			C			D				
Queue Length 50th (ft)	63	361		58	283		70	254				
Queue Length 95th (ft)	112	#553		m104	#364		113	303				
Internal Link Dist (ft)		280			715			311			164	
Turn Bay Length (ft)	150			250			25					
Base Capacity (vph)	388	1641		363	1401		481	957				
Starvation Cap Reductn	0	0		0	0		0	0				
Spillback Cap Reductn	0	0		0	0		0	0				
Storage Cap Reductn	0	0		0	0		0	0				
Reduced v/c Ratio	0.47	0.68		0.31	0.67		0.23	0.68				

Intersection Summary

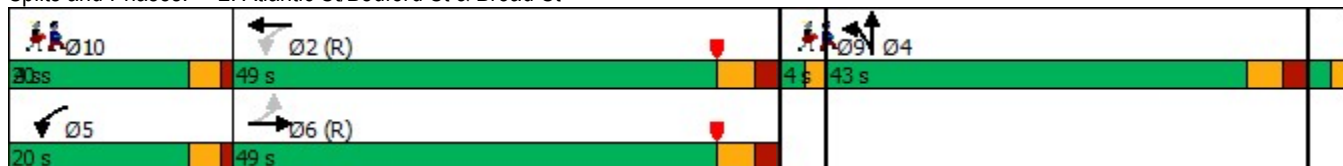
Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 24 (20%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 35.3 Intersection LOS: D
 Intersection Capacity Utilization 74.7% 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: 2: Atlantic St/Bedford St & Broad St



Lane Group	Ø9	Ø10
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	2.0	2.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	30	30
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

154 Broad Street
3: Greyrock Pl & Broad St

Background Conditions

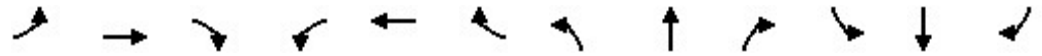
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	834	337	73	632	35	239	300	137	11	147	33
Future Volume (vph)	44	834	337	73	632	35	239	300	137	11	147	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95		0.85	0.98	0.99		0.97		0.94		0.99	
Frt			0.850		0.992				0.850		0.977	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1540	3250	1378	1540	3186	0	1711	1801	1531	0	1737	0
Flt Permitted	0.285			0.191			0.950				0.968	
Satd. Flow (perm)	437	3250	1167	302	3186	0	1653	1801	1433	0	1683	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			366		5							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		795			656			427				538
Travel Time (s)		21.7			17.9			11.6				14.7
Confl. Peds. (#/hr)	87		100	100		87	35		41	41		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	48	907	366	79	687	38	260	326	149	12	160	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	907	366	79	725	0	260	326	149	0	208	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template										Left		
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6			2
Detector 2 Size(ft)	6			6			6	6	6			6
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 3 Position(ft)	18			18			18	18	18			14
Detector 3 Size(ft)	6			6			6	6	6			6
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 4 Position(ft)	30			30			30	30	30			26
Detector 4 Size(ft)	6			6			6	6	6			6
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex

154 Broad Street
3: Greyrock Pl & Broad St

Background Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm		NA
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8		8
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0		7.0
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5		33.5
Total Split (s)	12.0	50.0	50.0	12.0	50.0		24.0	58.0	58.0	34.0		34.0
Total Split (%)	10.0%	41.7%	41.7%	10.0%	41.7%		20.0%	48.3%	48.3%	28.3%		28.3%
Maximum Green (s)	8.0	44.6	44.6	8.0	44.6		20.0	52.5	52.5	28.5		28.5
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3		3.3
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2		2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5			5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes		Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0		2.0
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None		None
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0		7.0
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)		30	30		30			30	30	30		30
Act Effct Green (s)	58.6	51.6	51.6	59.9	52.2		21.5	48.0	48.0			22.5
Actuated g/C Ratio	0.49	0.43	0.43	0.50	0.44		0.18	0.40	0.40			0.19
v/c Ratio	0.18	0.65	0.52	0.35	0.52		0.85	0.45	0.26			0.66
Control Delay	14.0	20.2	3.6	21.0	23.7		58.1	23.5	18.4			54.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	4.2	0.0			0.0
Total Delay	14.0	20.2	3.6	21.0	23.7		58.1	27.6	18.4			54.4
LOS	B	C	A	C	C		E	C	B			D
Approach Delay		15.4			23.4			36.5				54.4
Approach LOS		B			C			D				D
Queue Length 50th (ft)	11	151	0	28	144		198	232	97			142
Queue Length 95th (ft)	m22	187	59	m41	171		#339	127	25			222
Internal Link Dist (ft)		715			576			347				458
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	290	1435	719	236	1414		313	807	642			399
Starvation Cap Reductn	0	0	0	0	0		0	393	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	0.17	0.63	0.51	0.33	0.51		0.83	0.79	0.23			0.52

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 33 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated

154 Broad Street
 3: Greyrock Pl & Broad St

Background Conditions
 PM Peak

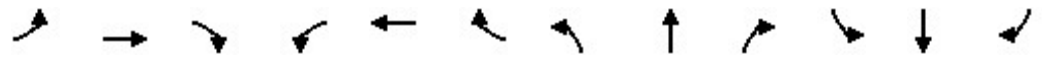
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: Greyrock Pl & Broad St



154 Broad Street
4: Grove St & Broad St

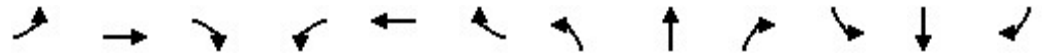
Background Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	244	521	295	20	434	114	281	796	14	110	493	37
Future Volume (vph)	244	521	295	20	434	114	281	796	14	110	493	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		250	100		0	0		0	150		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.98		0.95	0.99	0.99		0.99	1.00		1.00	1.00	
Frt			0.850		0.969			0.997			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3421	1531	1711	3273	0	1711	3410	0	1711	3380	0
Flt Permitted	0.173			0.439			0.301			0.234		
Satd. Flow (perm)	306	3421	1450	779	3273	0	539	3410	0	421	3380	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			321		26							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		656			489			399			308	
Travel Time (s)		17.9			13.3			10.9			8.4	
Confl. Peds. (#/hr)	38		31	31		38	13		6	6		13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	566	321	22	472	124	305	865	15	120	536	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	566	321	22	596	0	305	880	0	120	576	0
Number of Detectors	4	0	0	4	0		4	4		4	4	
Detector Template												
Leading Detector (ft)	36	0	0	36	0		36	36		42	42	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Size(ft)	6	6	20	6	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	6			6			6	6		12	12	
Detector 2 Size(ft)	6			6			6	6		6	6	
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 3 Position(ft)	18			18			18	18		24	24	
Detector 3 Size(ft)	6			6			6	6		6	6	
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 4 Position(ft)	30			30			30	30		36	36	
Detector 4 Size(ft)	6			6			6	6		6	6	
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 4 Channel												

154 Broad Street
4: Grove St & Broad St

Background Conditions
PM Peak











Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	6	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	32.3	32.3	9.0	32.3		9.0	33.5		9.0	33.5	
Total Split (s)	24.0	34.0	34.0	24.0	34.0		25.0	37.0		25.0	37.0	
Total Split (%)	20.0%	28.3%	28.3%	20.0%	28.3%		20.8%	30.8%		20.8%	30.8%	
Maximum Green (s)	20.0	28.7	28.7	20.0	28.7		21.0	31.5		21.0	31.5	
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.2		1.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.3	5.3	4.0	5.3		4.0	5.5		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	3.0	3.0	1.0	3.0		1.0	3.0		1.0	3.0	
Recall Mode	None	Min	Min	None	Min		None	C-Min		None	C-Min	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0			21.0			21.0	
Pedestrian Calls (#/hr)		13	13		6			30			30	
Act Effct Green (s)	47.2	40.3	40.3	31.8	25.4		64.8	51.0		53.6	43.8	
Actuated g/C Ratio	0.39	0.34	0.34	0.26	0.21		0.54	0.42		0.45	0.36	
v/c Ratio	0.85	0.49	0.46	0.09	0.84		0.69	0.61		0.43	0.47	
Control Delay	70.3	42.3	18.0	21.9	54.2		25.5	30.8		21.2	33.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	70.3	42.3	18.0	21.9	54.2		25.5	30.8		21.2	33.2	
LOS	E	D	B	C	D		C	C		C	C	
Approach Delay		42.0			53.1			29.5			31.1	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	197	197	102	10	223		130	276		45	182	
Queue Length 95th (ft)	278	238	154	25	283		214	402		87	272	
Internal Link Dist (ft)		576			409			319			228	
Turn Bay Length (ft)	200		250	100						150		
Base Capacity (vph)	354	1149	700	451	802		496	1450		448	1233	
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	0.75	0.49	0.46	0.05	0.74		0.61	0.61		0.27	0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 79 (66%), Referenced to phase 4:NBTL and 8:SBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85





















Intersection Signal Delay: 37.7	Intersection LOS: D
Intersection Capacity Utilization 88.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Grove St & Broad St

 Ø1 24 s	 Ø2 34 s	 Ø3 25 s	 Ø4 (R) 37 s
 Ø5 24 s	 Ø6 34 s	 Ø7 25 s	 Ø8 (R) 37 s

154 Broad Street
5: Greyrock Pl & Main St

Background Conditions
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	19	38	89	28	81	24	559	55	60	384	119
Future Volume (vph)	38	19	38	89	28	81	24	559	55	60	384	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	150		0	50		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.99		0.97	0.99		0.98	0.98	
Frt		0.946				0.850		0.987			0.965	
Flt Protected		0.980			0.963		0.950			0.950		
Satd. Flow (prot)	0	1651	0	0	1734	1531	1711	3351	0	1711	3232	0
Flt Permitted		0.856			0.710		0.408			0.341		
Satd. Flow (perm)	0	1414	0	0	1260	1531	714	3351	0	601	3232	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30				140		11			42	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		187			320			292			427	
Travel Time (s)		5.1			8.7			8.0			11.6	
Confl. Peds. (#/hr)	46		17	17		46	28		27	27		28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	21	41	97	30	88	26	608	60	65	417	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	0	127	88	26	668	0	65	546	0
Number of Detectors	1	1		1	2	0	1	0		1	0	
Detector Template	Left			Left								
Leading Detector (ft)	20	36		20	8	0	24	0		24	0	
Trailing Detector (ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Position(ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	30	6		24	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)					2							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	D.P+P	NA		Perm	NA	Over	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4 5			5	1	1	2		1	2	
Permitted Phases	5			5			2			2		
Detector Phase	4	4 5		5	5	5	1	2		1	2	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0	5.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	15.0			34.2	34.2	9.0	9.0	30.2		9.0	30.2	
Total Split (s)	15.0			37.0	37.0	12.0	12.0	56.0		12.0	56.0	
Total Split (%)	12.5%			30.8%	30.8%	10.0%	10.0%	46.7%		10.0%	46.7%	

154 Broad Street
5: Greyrock Pl & Main St

Background Conditions
PM Peak

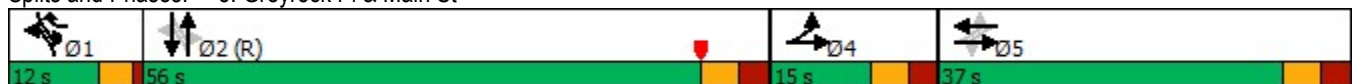


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Maximum Green (s)	9.0			30.8	30.8	8.0	8.0	49.8		8.0	49.8	
Yellow Time (s)	3.3			3.3	3.3	3.0	3.0	3.3		3.0	3.3	
All-Red Time (s)	2.7			2.9	2.9	1.0	1.0	2.9		1.0	2.9	
Lost Time Adjust (s)					0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)					6.2	4.0	4.0	6.2		4.0	6.2	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0			2.0	2.0	2.0	2.0	0.2		2.0	0.2	
Recall Mode	None			None	None	None	None	C-Min		None	C-Min	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				21.0	21.0			17.0			17.0	
Pedestrian Calls (#/hr)				27	27			30			30	
Act Effect Green (s)		32.8			24.4	5.5	68.0	60.3		68.0	60.3	
Actuated g/C Ratio		0.27			0.20	0.05	0.57	0.50		0.57	0.50	
v/c Ratio		0.24			0.50	0.43	0.06	0.40		0.16	0.33	
Control Delay		18.0			45.6	8.3	16.2	23.3		15.1	19.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		18.0			45.6	8.3	16.2	23.3		15.1	19.1	
LOS		B			D	A	B	C		B	B	
Approach Delay		18.0			30.3			23.1			18.7	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)		38			84	0	9	177		21	107	
Queue Length 95th (ft)		58			119	12	31	305		53	241	
Internal Link Dist (ft)		107			240			212			347	
Turn Bay Length (ft)						50	150			50		
Base Capacity (vph)		547			352	203	476	1773		419	1725	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	16		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.19			0.36	0.43	0.05	0.38		0.16	0.32	

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	72 (60%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	22.1
Intersection LOS:	C
Intersection Capacity Utilization	58.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 5: Greyrock Pl & Main St



154 Broad Street
1: Greyrock Pl & Forest St

Combined Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↕				
Traffic Volume (vph)	18	95	255	97	167	7	140	12	41	0	1	0
Future Volume (vph)	18	95	255	97	167	7	140	12	41	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996			0.971				
Flt Protected		0.992			0.983			0.965				
Satd. Flow (prot)	0	1608	1378	0	1587	0	0	1519	0	0	0	0
Flt Permitted		0.992			0.983			0.965				
Satd. Flow (perm)	0	1608	1378	0	1587	0	0	1519	0	0	0	0
Link Speed (mph)		25			25			25				25
Link Distance (ft)		255			299			284				220
Travel Time (s)		7.0			8.2			7.7				6.0
Confl. Peds. (#/hr)	16		27	27		16	5		8	8		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	20	103	277	105	182	8	152	13	45	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	277	0	295	0	0	210	0	0	1	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

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

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔			↔				
Traffic Vol, veh/h	18	95	255	97	167	7	140	12	41	0	1	0
Future Vol, veh/h	18	95	255	97	167	7	140	12	41	0	1	0
Conflicting Peds, #/hr	16	0	27	27	0	16	5	0	8	8	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	103	277	105	182	8	152	13	45	0	1	0



















Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	206	0	0	407	0	0	571	586	138
Stage 1	-	-	-	-	-	-	170	170	-
Stage 2	-	-	-	-	-	-	401	416	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1365	-	-	1152	-	-	482	422	910
Stage 1	-	-	-	-	-	-	860	758	-
Stage 2	-	-	-	-	-	-	676	592	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1365	-	-	1125	-	-	412	0	882
Mov Cap-2 Maneuver	-	-	-	-	-	-	412	0	-
Stage 1	-	-	-	-	-	-	823	0	-
Stage 2	-	-	-	-	-	-	603	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	3.1	18.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	469	1365	-	-	1125	-	-
HCM Lane V/C Ratio	0.447	0.014	-	-	0.094	-	-
HCM Control Delay (s)	18.7	7.7	0	-	8.5	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	2.3	0	-	-	0.3	-	-

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Combined Conditions
AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	947	147	104	639	180	58	219	80	0	0	0
Future Volume (vph)	69	947	147	104	639	180	58	219	80	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	25		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.97	0.98			0.97		0.83	0.97				
Frt		0.980			0.967			0.960				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1711	3300	0	1711	3203	0	1540	3016	0	0	0	0
Flt Permitted	0.265			0.148			0.950					
Satd. Flow (perm)	464	3300	0	266	3203	0	1285	3016	0	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		360			795			391				244
Travel Time (s)		9.8			21.7			10.7				6.7
Confl. Peds. (#/hr)	98		43	43		98	138		96	96		138
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)							0	0	0	0	0	0
Adj. Flow (vph)	75	1029	160	113	695	196	63	238	87	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	75	1189	0	113	891	0	63	325	0	0	0	0
Number of Detectors	1	0		1	0		0	0				
Detector Template												
Leading Detector (ft)	30	0		24	0		0	0				
Trailing Detector (ft)	0	0		-6	0		0	0				
Detector 1 Position(ft)	0	0		-6	0		0	0				
Detector 1 Size(ft)	30	6		30	6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA				
Protected Phases	1	6		5	2		4	4				
Permitted Phases	6			2								
Detector Phase	1	6		5	2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		7.0	7.0				
Minimum Split (s)	9.0	31.7		9.0	31.7		35.5	35.5				
Total Split (s)	13.0	63.0		13.0	63.0		36.0	36.0				
Total Split (%)	10.8%	52.5%		10.8%	52.5%		30.0%	30.0%				
Maximum Green (s)	9.0	57.3		9.0	57.3		30.5	30.5				
Yellow Time (s)	3.0	3.3		3.0	3.3		3.3	3.3				
All-Red Time (s)	1.0	2.4		1.0	2.4		2.2	2.2				
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				

Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	4.0	4.0
Total Split (s)	4.0	4.0
Total Split (%)	3%	3%
Maximum Green (s)	2.0	2.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Combined Conditions
AM Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	4.0	5.7		4.0	5.7		5.5	5.5				
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Recall Mode	None	C-Min		None	C-Min		None	None				
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		19.0			19.0		23.0	23.0				
Pedestrian Calls (#/hr)		30			30		30	30				
Act Effct Green (s)	75.2	66.8		77.6	69.4		23.5	23.5				
Actuated g/C Ratio	0.63	0.56		0.65	0.58		0.20	0.20				
v/c Ratio	0.21	0.65		0.43	0.48		0.21	0.55				
Control Delay	11.4	23.9		22.7	16.0		39.2	45.9				
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				
Total Delay	11.4	23.9		22.7	16.0		39.2	45.9				
LOS	B	C		C	B		D	D				
Approach Delay		23.1			16.7			44.8				
Approach LOS		C			B			D				
Queue Length 50th (ft)	25	411		35	170		38	111				
Queue Length 95th (ft)	44	477		m53	m144		77	157				
Internal Link Dist (ft)		280			715			311			164	
Turn Bay Length (ft)	150			250			25					
Base Capacity (vph)	393	1886		282	1882		391	766				
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	0.19	0.63		0.40	0.47		0.16	0.42				

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 30 (25%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 23.9 Intersection LOS: C
 Intersection Capacity Utilization 74.2% ICU Level of Service D
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

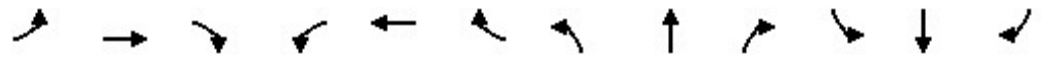
Splits and Phases: 2: Atlantic St/Bedford St & Broad St



Lane Group	Ø9	Ø10
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	2.0	2.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	30	30
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	449	408	104	748	35	220	141	49	31	369	60
Future Volume (vph)	13	449	408	104	748	35	220	141	49	31	369	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.91	0.97	0.99		0.99		0.86		0.99	
Frt			0.850		0.993				0.850		0.982	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1540	3250	1378	1540	3195	0	1711	1801	1531	0	1756	0
Flt Permitted	0.196			0.329			0.950				0.970	
Satd. Flow (perm)	307	3250	1250	515	3195	0	1696	1801	1319	0	1697	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			443		4							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		795			656			427				254
Travel Time (s)		21.7			17.9			11.6				6.9
Confl. Peds. (#/hr)	86		57	57		86	13		100	100		13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	14	488	443	113	813	38	239	153	53	34	401	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	488	443	113	851	0	239	153	53	0	500	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template										Left		
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6			2
Detector 2 Size(ft)	6			6			6	6	6			6
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 3 Position(ft)	18			18			18	18	18			14
Detector 3 Size(ft)	6			6			6	6	6			6
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 4 Position(ft)	30			30			30	30	30			26
Detector 4 Size(ft)	6			6			6	6	6			6
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions
AM Peak



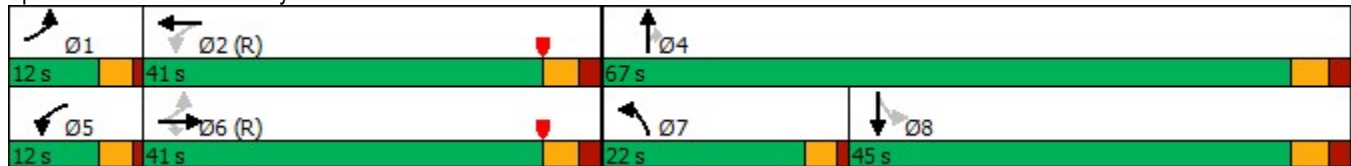
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm		NA
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8		8
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0		7.0
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5		33.5
Total Split (s)	12.0	41.0	41.0	12.0	41.0		22.0	67.0	67.0	45.0		45.0
Total Split (%)	10.0%	34.2%	34.2%	10.0%	34.2%		18.3%	55.8%	55.8%	37.5%		37.5%
Maximum Green (s)	8.0	35.6	35.6	8.0	35.6		18.0	61.5	61.5	39.5		39.5
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3		3.3
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2		2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5			5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes		Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0		2.0
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None		None
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0		7.0
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)		13	13		30			30	30	30		30
Act Effct Green (s)	43.6	36.8	36.8	49.1	44.5		19.1	60.6	60.6			37.5
Actuated g/C Ratio	0.36	0.31	0.31	0.41	0.37		0.16	0.50	0.50			0.31
v/c Ratio	0.08	0.49	0.64	0.41	0.72		0.88	0.17	0.08			0.94
Control Delay	33.4	40.6	16.3	20.1	25.3		78.5	17.0	17.1			67.7
Queue Delay	0.0	0.0	0.1	0.0	0.0		0.0	0.0	0.0			13.4
Total Delay	33.4	40.6	16.4	20.1	25.3		78.5	17.0	17.1			81.1
LOS	C	D	B	C	C		E	B	B			F
Approach Delay		29.2			24.7			50.0				81.1
Approach LOS		C			C			D				F
Queue Length 50th (ft)	5	104	71	38	155		117	26	9			367
Queue Length 95th (ft)	m13	196	193	m60	#316		#354	121	53			#567
Internal Link Dist (ft)		715			576			347				174
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	200	1022	697	280	1187		274	936	685			558
Starvation Cap Reductn	0	0	0	0	0		0	0	0			0
Spillback Cap Reductn	0	0	14	0	0		0	0	0			55
Storage Cap Reductn	0	0	0	0	0		0	0	0			0
Reduced v/c Ratio	0.07	0.48	0.65	0.40	0.72		0.87	0.16	0.08			0.99

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated

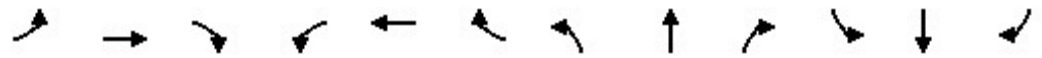
Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 40.0 Intersection LOS: D
 Intersection Capacity Utilization 91.5% ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Greyrock Pl & Broad St



154 Broad Street
4: Grove St & Broad St

Combined Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	254	148	41	525	143	229	623	18	90	751	92
Future Volume (vph)	78	254	148	41	525	143	229	623	18	90	751	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		250	100		0	0		0	150		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99		0.95	0.97	0.99		1.00	1.00		1.00	1.00	
Frt			0.850		0.968			0.996				0.984
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3421	1531	1711	3283	0	1711	3405	0	1711	3355	0
Flt Permitted	0.146			0.549			0.178			0.361		
Satd. Flow (perm)	261	3421	1450	962	3283	0	319	3405	0	647	3355	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			161		30							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		656			489			399				308
Travel Time (s)		17.9			13.3			10.9				8.4
Confl. Peds. (#/hr)	22		31	31		22	16		12	12		16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	276	161	45	571	155	249	677	20	98	816	100
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	276	161	45	726	0	249	697	0	98	916	0
Number of Detectors	4	0	0	4	0		4	4		4	4	
Detector Template												
Leading Detector (ft)	36	0	0	36	0		36	36		42	42	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Size(ft)	6	6	20	6	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	6			6			6	6		12	12	
Detector 2 Size(ft)	6			6			6	6		6	6	
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 3 Position(ft)	18			18			18	18		24	24	
Detector 3 Size(ft)	6			6			6	6		6	6	
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 4 Position(ft)	30			30			30	30		36	36	
Detector 4 Size(ft)	6			6			6	6		6	6	
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 4 Channel												

154 Broad Street
4: Grove St & Broad St

Combined Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	6	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	32.3	32.3	9.0	32.3		9.0	33.5		9.0	33.5	
Total Split (s)	10.0	43.0	43.0	10.0	43.0		23.0	44.0		23.0	44.0	
Total Split (%)	8.3%	35.8%	35.8%	8.3%	35.8%		19.2%	36.7%		19.2%	36.7%	
Maximum Green (s)	6.0	37.7	37.7	6.0	37.7		19.0	38.5		19.0	38.5	
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.2		1.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.3	5.3	4.0	5.3		4.0	5.5		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	3.0	3.0	1.0	3.0		1.0	3.0		1.0	3.0	
Recall Mode	None	Min	Min	None	Min		None	C-Min		None	C-Min	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0			21.0			21.0	
Pedestrian Calls (#/hr)		16	16		12			30			21	
Act Effct Green (s)	38.1	31.6	31.6	36.8	31.0		70.9	58.9		60.5	52.1	
Actuated g/C Ratio	0.32	0.26	0.26	0.31	0.26		0.59	0.49		0.50	0.43	
v/c Ratio	0.54	0.31	0.32	0.14	0.84		0.72	0.42		0.25	0.63	
Control Delay	68.5	61.2	29.2	24.8	49.2		26.3	22.2		14.9	31.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	68.5	61.2	29.2	24.8	49.2		26.3	22.2		14.9	31.7	
LOS	E	E	C	C	D		C	C		B	C	
Approach Delay		52.5			47.7			23.3			30.0	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	66	118	77	23	270		93	185		33	303	
Queue Length 95th (ft)	m100	m112	m84	45	318		170	270		66	433	
Internal Link Dist (ft)		576			409			319			228	
Turn Bay Length (ft)	200		250	100						150		
Base Capacity (vph)	159	1074	565	334	1051		410	1672		545	1455	
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	0.53	0.26	0.28	0.13	0.69		0.61	0.42		0.18	0.63	

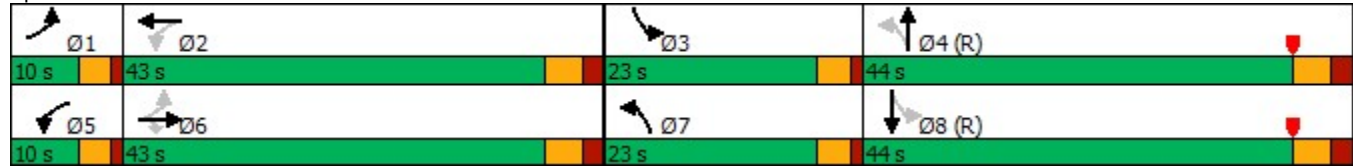
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 67 (56%), Referenced to phase 4:NBTL and 8:SBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84

Intersection Signal Delay: 35.9	Intersection LOS: D
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: 4: Grove St & Broad St



154 Broad Street
5: Greyrock Pl & Main St

Combined Conditions
AM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	3	43	15	92	8	332	100	69	780	36
Future Volume (vph)	1	0	3	43	15	92	8	332	100	69	780	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	150		0	50		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			1.00		0.99	0.98		0.97	1.00	
Frt		0.899				0.850		0.965			0.993	
Flt Protected		0.988			0.964		0.950			0.950		
Satd. Flow (prot)	0	1583	0	0	1736	1531	1711	3237	0	1711	3390	0
Flt Permitted		0.965			0.785		0.268			0.470		
Satd. Flow (perm)	0	1517	0	0	1411	1531	480	3237	0	821	3390	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65				140		41			5	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		187			320			292			427	
Travel Time (s)		5.1			8.7			8.0			11.6	
Confl. Peds. (#/hr)	60		2	2		60	12		26	26		12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	0	3	47	16	100	9	361	109	75	848	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	63	100	9	470	0	75	887	0
Number of Detectors	1	1		1	2	0	1	0		1	0	
Detector Template	Left			Left								
Leading Detector (ft)	20	36		20	8	0	24	0		24	0	
Trailing Detector (ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Position(ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	30	6		24	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)					2							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	D.P+P	NA		Perm	NA	Over	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4 5			5	1	1	2		1	2	
Permitted Phases	5			5			2			2		
Detector Phase	4	4 5		5	5	5	1	2		1	2	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0	5.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	15.0			34.0	34.0	9.0	9.0	30.2		9.0	30.2	
Total Split (s)	15.0			34.0	34.0	14.0	14.0	57.0		14.0	57.0	
Total Split (%)	12.5%			28.3%	28.3%	11.7%	11.7%	47.5%		11.7%	47.5%	

154 Broad Street
5: Greyrock PI & Main St

Combined Conditions
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Maximum Green (s)	9.0			27.8	27.8	10.0	10.0	50.8		10.0	50.8	
Yellow Time (s)	3.3			3.3	3.3	3.0	3.0	3.3		3.0	3.3	
All-Red Time (s)	2.7			2.9	2.9	1.0	1.0	2.9		1.0	2.9	
Lost Time Adjust (s)					0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)					6.2	4.0	4.0	6.2		4.0	6.2	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0			2.0	2.0	2.0	2.0	0.2		2.0	0.2	
Recall Mode	None			None	None	None	None	C-Min		None	C-Min	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				20.0	20.0			17.0			17.0	
Pedestrian Calls (#/hr)				25	25			30			30	
Act Effect Green (s)		22.4			21.2	5.6	83.2	75.4		83.2	75.4	
Actuated g/C Ratio		0.19			0.18	0.05	0.69	0.63		0.69	0.63	
v/c Ratio		0.01			0.25	0.49	0.02	0.23		0.12	0.42	
Control Delay		0.0			39.7	11.2	11.1	13.2		7.3	12.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		0.0			39.7	11.2	11.1	13.2		7.3	13.1	
LOS		A			D	B	B	B		A	B	
Approach Delay					22.2			13.2			12.7	
Approach LOS					C			B			B	
Queue Length 50th (ft)		0			40	0	2	79		6	144	
Queue Length 95th (ft)		0			69	23	12	175		m31	m362	
Internal Link Dist (ft)		107			240			212			347	
Turn Bay Length (ft)						50	150			50		
Base Capacity (vph)		458			354	205	444	2089		658	2174	
Starvation Cap Reductn		0			0	0	0	0		0	600	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.18	0.49	0.02	0.22		0.11	0.56	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 109 (91%), Referenced to phase 2:NBSB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.49
 Intersection Signal Delay: 13.8 Intersection LOS: B
 Intersection Capacity Utilization 61.1% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Greyrock PI & Main St



154 Broad Street
6: Greyrock PI & Driveway

Combined Conditions
AM Peak



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	13	50	22	167	410	6
Future Volume (vph)	13	50	22	167	410	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.893			0.998		
Flt Protected	0.990			0.994		
Satd. Flow (prot)	1592	0	0	1790	1797	0
Flt Permitted	0.990			0.994		
Satd. Flow (perm)	1592	0	0	1790	1797	0
Link Speed (mph)	30			25	25	
Link Distance (ft)	221			254	284	
Travel Time (s)	5.0			6.9	7.7	
Confl. Peds. (#/hr)	13	13	13			13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	54	24	182	446	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	0	0	206	453	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	41.8% ICU Level of Service A
Analysis Period (min)	15

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	13	50	22	167	410	6
Future Vol, veh/h	13	50	22	167	410	6
Conflicting Peds, #/hr	13	13	13	0	0	13
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	54	24	182	446	7

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	706	476	466	0	-	0
Stage 1	463	-	-	-	-	-
Stage 2	243	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	402	589	1095	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	384	576	1083	-	-	-
Mov Cap-2 Maneuver	384	-	-	-	-	-
Stage 1	611	-	-	-	-	-
Stage 2	788	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1083	-	522	-	-
HCM Lane V/C Ratio	0.022	-	0.131	-	-
HCM Control Delay (s)	8.4	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

154 Broad Street
1: Greyrock Pl & Forest St

Combined Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕				
Traffic Volume (vph)	37	249	178	38	130	27	250	37	114	0	3	0
Future Volume (vph)	37	249	178	38	130	27	250	37	114	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.981			0.962				
Flt Protected		0.994			0.990			0.970				
Satd. Flow (prot)	0	1611	1378	0	1574	0	0	1512	0	0	0	0
Flt Permitted		0.994			0.990			0.970				
Satd. Flow (perm)	0	1611	1378	0	1574	0	0	1512	0	0	0	0
Link Speed (mph)		25			25			25				25
Link Distance (ft)		255			299			284				220
Travel Time (s)		7.0			8.2			7.7				6.0
Confl. Peds. (#/hr)	12		35	35		12	4		7	7		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	40	271	193	41	141	29	272	40	124	0	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	311	193	0	211	0	0	436	0	0	3	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

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

Intersection												
Int Delay, s/veh	23.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕				
Traffic Vol, veh/h	37	249	178	38	130	27	250	37	114	0	3	0
Future Vol, veh/h	37	249	178	38	130	27	250	37	114	0	3	0
Conflicting Peds, #/hr	12	0	35	35	0	12	4	0	7	7	0	4
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	100	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	271	193	41	141	29	272	40	124	0	3	0



















Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	182	0	0	499	0	0	628	650	313
Stage 1	-	-	-	-	-	-	386	386	-
Stage 2	-	-	-	-	-	-	242	264	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1393	-	-	1065	-	-	447	388	727
Stage 1	-	-	-	-	-	-	687	610	-
Stage 2	-	-	-	-	-	-	798	690	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1393	-	-	1032	-	-	396	0	700
Mov Cap-2 Maneuver	-	-	-	-	-	-	396	0	-
Stage 1	-	-	-	-	-	-	639	0	-
Stage 2	-	-	-	-	-	-	760	0	-

Approach	EB			WB			NB		
HCM Control Delay, s	0.6			1.7			61		
HCM LOS							F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	458	1393	-	-	1032	-	-
HCM Lane V/C Ratio	0.952	0.029	-	-	0.04	-	-
HCM Control Delay (s)	61	7.7	0	-	8.6	0	-
HCM Lane LOS	F	A	A	-	A	A	-
HCM 95th %tile Q(veh)	11.5	0.1	-	-	0.1	-	-

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Combined Conditions
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	933	110	103	604	270	102	499	101	0	0	0
Future Volume (vph)	169	933	110	103	604	270	102	499	101	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	25		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor	0.95	0.97			0.90		0.78	0.97				
Frt		0.984			0.954			0.975				
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	1711	3266	0	1711	2944	0	1540	3065	0	0	0	0
Flt Permitted	0.188			0.153			0.950					
Satd. Flow (perm)	323	3266	0	276	2944	0	1194	3065	0	0	0	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25				25
Link Distance (ft)		360			795			391				244
Travel Time (s)		9.8			21.7			10.7				6.7
Confl. Peds. (#/hr)	261		116	116		261	187		155	155		187
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)							0	0	0	0	0	0
Adj. Flow (vph)	184	1014	120	112	657	293	111	542	110	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	1134	0	112	950	0	111	652	0	0	0	0
Number of Detectors	1	0		1	0		0	0				
Detector Template												
Leading Detector (ft)	30	0		24	0		0	0				
Trailing Detector (ft)	0	0		-6	0		0	0				
Detector 1 Position(ft)	0	0		-6	0		0	0				
Detector 1 Size(ft)	30	6		30	6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0				
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA				
Protected Phases	1	6		5	2		4	4				
Permitted Phases	6			2								
Detector Phase	1	6		5	2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		7.0	7.0				
Minimum Split (s)	9.0	31.7		9.0	31.7		35.5	35.5				
Total Split (s)	20.0	49.0		20.0	49.0		43.0	43.0				
Total Split (%)	16.7%	40.8%		16.7%	40.8%		35.8%	35.8%				
Maximum Green (s)	16.0	43.3		16.0	43.3		37.5	37.5				
Yellow Time (s)	3.0	3.3		3.0	3.3		3.3	3.3				
All-Red Time (s)	1.0	2.4		1.0	2.4		2.2	2.2				
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0				

Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	1.0	1.0
Minimum Split (s)	4.0	4.0
Total Split (s)	4.0	4.0
Total Split (%)	3%	3%
Maximum Green (s)	2.0	2.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		

154 Broad Street
2: Atlantic St/Bedford St & Broad St

Combined Conditions
PM Peak

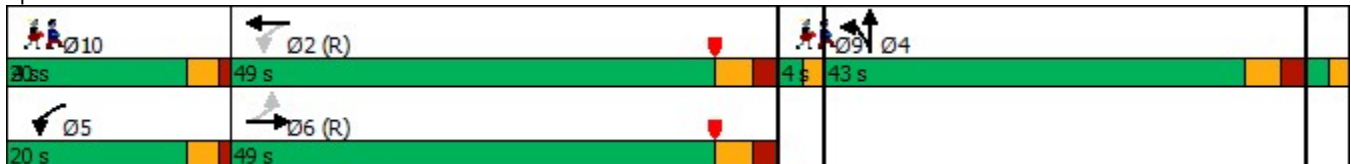


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	4.0	5.7		4.0	5.7		5.5	5.5				
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0				
Recall Mode	None	C-Min		None	C-Min		None	None				
Walk Time (s)		7.0			7.0		7.0	7.0				
Flash Dont Walk (s)		19.0			19.0		23.0	23.0				
Pedestrian Calls (#/hr)		30			30		30	30				
Act Effct Green (s)	73.5	60.3		67.5	57.3		30.0	30.0				
Actuated g/C Ratio	0.61	0.50		0.56	0.48		0.25	0.25				
v/c Ratio	0.56	0.69		0.44	0.68		0.29	0.85				
Control Delay	18.2	28.1		25.0	36.0		37.1	53.9				
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0				
Total Delay	18.2	28.1		25.0	36.0		37.1	53.9				
LOS	B	C		C	D		D	D				
Approach Delay		26.7			34.8			51.5				
Approach LOS		C			C			D				
Queue Length 50th (ft)	63	366		57	287		70	254				
Queue Length 95th (ft)	112	#563		m104	#467		113	303				
Internal Link Dist (ft)		280			715			311			164	
Turn Bay Length (ft)	150			250			25					
Base Capacity (vph)	385	1641		360	1405		481	957				
Starvation Cap Reductn	0	0		0	0		0	0				
Spillback Cap Reductn	0	0		0	0		0	0				
Storage Cap Reductn	0	0		0	0		0	0				
Reduced v/c Ratio	0.48	0.69		0.31	0.68		0.23	0.68				

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 24 (20%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 35.5
 Intersection LOS: D
 Intersection Capacity Utilization 74.9%
 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.

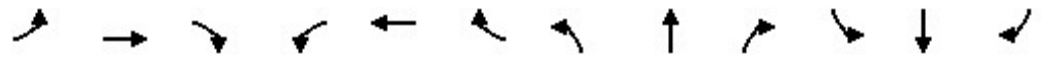
Splits and Phases: 2: Atlantic St/Bedford St & Broad St



Lane Group	Ø9	Ø10
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	2.0	2.0
Recall Mode	None	None
Walk Time (s)	2.0	2.0
Flash Dont Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	30	30
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

154 Broad Street
3: Greyrock Pl & Broad St

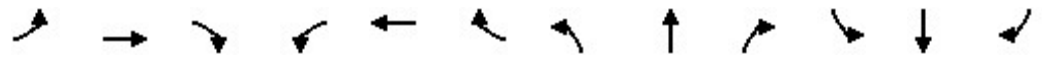
Combined Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	834	337	73	632	41	239	332	137	16	171	42
Future Volume (vph)	56	834	337	73	632	41	239	332	137	16	171	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95		0.85	0.98	0.99		0.97		0.94		0.99	
Frt			0.850		0.991				0.850		0.975	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1540	3250	1378	1540	3176	0	1711	1801	1531	0	1732	0
Flt Permitted	0.273			0.187			0.950				0.956	
Satd. Flow (perm)	419	3250	1167	296	3176	0	1656	1801	1433	0	1657	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			366		6							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		795			656			427				254
Travel Time (s)		21.7			17.9			11.6				6.9
Confl. Peds. (#/hr)	87		100	100		87	35		41	41		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	61	907	366	79	687	45	260	361	149	17	186	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	907	366	79	732	0	260	361	149	0	249	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template										Left		
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6			2
Detector 2 Size(ft)	6			6			6	6	6			6
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 3 Position(ft)	18			18			18	18	18			14
Detector 3 Size(ft)	6			6			6	6	6			6
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 4 Position(ft)	30			30			30	30	30			26
Detector 4 Size(ft)	6			6			6	6	6			6
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm		NA
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8		8
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0		7.0
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5		33.5
Total Split (s)	12.0	50.0	50.0	12.0	50.0		24.0	58.0	58.0	34.0		34.0
Total Split (%)	10.0%	41.7%	41.7%	10.0%	41.7%		20.0%	48.3%	48.3%	28.3%		28.3%
Maximum Green (s)	8.0	44.6	44.6	8.0	44.6		20.0	52.5	52.5	28.5		28.5
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3		3.3
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2		2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5			5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes		Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0		2.0
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None		None
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0		7.0
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)		30	30		30			30	30	30		30
Act Effct Green (s)	57.8	50.5	50.5	58.5	50.8		21.5	49.2	49.2			23.7
Actuated g/C Ratio	0.48	0.42	0.42	0.49	0.42		0.18	0.41	0.41			0.20
v/c Ratio	0.23	0.66	0.52	0.36	0.54		0.85	0.49	0.25			0.76
Control Delay	14.7	21.0	3.7	21.6	24.0		57.4	28.3	22.2			60.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	9.4	0.0			0.0
Total Delay	14.7	21.0	3.7	21.6	24.0		57.4	37.7	22.2			60.3
LOS	B	C	A	C	C		E	D	C			E
Approach Delay		15.9			23.8			41.4				60.3
Approach LOS		B			C			D				E
Queue Length 50th (ft)	14	150	0	27	144		197	261	97			175
Queue Length 95th (ft)	m27	187	59	m40	173		#361	373	163			265
Internal Link Dist (ft)		715			576			347				174
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	278	1407	712	229	1381		313	807	642			393
Starvation Cap Reductn	0	0	0	0	0		0	406	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	0.22	0.64	0.51	0.34	0.53		0.83	0.90	0.23			0.63

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 33 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated

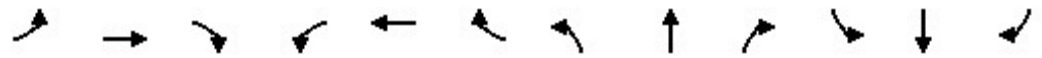
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 86.2%	ICU Level of Service E
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: Greyrock Pl & Broad St



154 Broad Street
4: Grove St & Broad St

Combined Conditions
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	244	526	295	20	440	114	281	796	14	110	493	37
Future Volume (vph)	244	526	295	20	440	114	281	796	14	110	493	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		250	100		0	0		0	150		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.98		0.95	0.99	0.99		0.99	1.00		1.00	1.00	
Frt			0.850		0.969			0.997			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1711	3421	1531	1711	3273	0	1711	3410	0	1711	3380	0
Flt Permitted	0.171			0.437			0.300			0.233		
Satd. Flow (perm)	303	3421	1450	776	3273	0	537	3410	0	419	3380	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			321		25							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		656			489			399			308	
Travel Time (s)		17.9			13.3			10.9			8.4	
Confl. Peds. (#/hr)	38		31	31		38	13		6	6		13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	265	572	321	22	478	124	305	865	15	120	536	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	572	321	22	602	0	305	880	0	120	576	0
Number of Detectors	4	0	0	4	0		4	4		4	4	
Detector Template												
Leading Detector (ft)	36	0	0	36	0		36	36		42	42	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6		0	0	
Detector 1 Size(ft)	6	6	20	6	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)	6			6			6	6		12	12	
Detector 2 Size(ft)	6			6			6	6		6	6	
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 3 Position(ft)	18			18			18	18		24	24	
Detector 3 Size(ft)	6			6			6	6		6	6	
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Detector 4 Position(ft)	30			30			30	30		36	36	
Detector 4 Size(ft)	6			6			6	6		6	6	
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 4 Channel												

154 Broad Street
4: Grove St & Broad St

Combined Conditions
PM Peak











Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Extend (s)	0.0			0.0			0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	6	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	9.0	32.3	32.3	9.0	32.3		9.0	33.5		9.0	33.5	
Total Split (s)	24.0	34.0	34.0	24.0	34.0		25.0	37.0		25.0	37.0	
Total Split (%)	20.0%	28.3%	28.3%	20.0%	28.3%		20.8%	30.8%		20.8%	30.8%	
Maximum Green (s)	20.0	28.7	28.7	20.0	28.7		21.0	31.5		21.0	31.5	
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3		3.0	3.3	
All-Red Time (s)	1.0	2.0	2.0	1.0	2.0		1.0	2.2		1.0	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	5.3	5.3	4.0	5.3		4.0	5.5		4.0	5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	1.0	3.0	3.0	1.0	3.0		1.0	3.0		1.0	3.0	
Recall Mode	None	Min	Min	None	Min		None	C-Min		None	C-Min	
Walk Time (s)		7.0	7.0		7.0			7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0			21.0			21.0	
Pedestrian Calls (#/hr)		13	13		6			30			30	
Act Effct Green (s)	47.3	40.4	40.4	32.0	25.6		64.7	50.9		53.5	43.7	
Actuated g/C Ratio	0.39	0.34	0.34	0.27	0.21		0.54	0.42		0.45	0.36	
v/c Ratio	0.85	0.50	0.46	0.09	0.84		0.69	0.61		0.43	0.47	
Control Delay	71.4	42.1	17.7	21.8	54.5		25.7	30.9		21.3	33.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	71.4	42.1	17.7	21.8	54.5		25.7	30.9		21.3	33.3	
LOS	E	D	B	C	D		C	C		C	C	
Approach Delay		42.0			53.3			29.6			31.2	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	196	198	99	10	225		131	276		45	182	
Queue Length 95th (ft)	278	240	152	25	287		214	402		87	272	
Internal Link Dist (ft)		576			409			319			228	
Turn Bay Length (ft)	200		250	100						150		
Base Capacity (vph)	354	1152	701	451	802		495	1447		447	1229	
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	0.75	0.50	0.46	0.05	0.75		0.62	0.61		0.27	0.47	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 79 (66%), Referenced to phase 4:NBTL and 8:SBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85






















Intersection Signal Delay: 37.9	Intersection LOS: D
Intersection Capacity Utilization 88.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: Grove St & Broad St

 Ø1 24 s	 Ø2 34 s	 Ø3 25 s	 Ø4 (R) 37 s
 Ø5 24 s	 Ø6 34 s	 Ø7 25 s	 Ø8 (R) 37 s

154 Broad Street
5: Greyrock Pl & Main St

Combined Conditions
PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	19	38	89	28	93	24	579	55	69	399	119
Future Volume (vph)	38	19	38	89	28	93	24	579	55	69	399	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	150		0	50		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.97			0.99		0.97	0.99		0.98	0.98	
Frt		0.946				0.850		0.987			0.966	
Flt Protected		0.980			0.963		0.950			0.950		
Satd. Flow (prot)	0	1651	0	0	1734	1531	1711	3351	0	1711	3238	0
Flt Permitted		0.853			0.710		0.402			0.334		
Satd. Flow (perm)	0	1409	0	0	1260	1531	704	3351	0	590	3238	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30				140		10			40	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		187			320			292			427	
Travel Time (s)		5.1			8.7			8.0			11.6	
Confl. Peds. (#/hr)	46		17	17		46	28		27	27		28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	41	21	41	97	30	101	26	629	60	75	434	129
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	103	0	0	127	101	26	689	0	75	563	0
Number of Detectors	1	1		1	2	0	1	0		1	0	
Detector Template	Left			Left								
Leading Detector (ft)	20	36		20	8	0	24	0		24	0	
Trailing Detector (ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Position(ft)	0	30		0	-10	0	-6	0		0	0	
Detector 1 Size(ft)	20	6		20	6	20	30	6		24	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)					2							
Detector 2 Size(ft)					6							
Detector 2 Type					Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)					0.0							
Turn Type	D.P+P	NA		Perm	NA	Over	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4 5			5	1	1	2		1	2	
Permitted Phases	5			5			2			2		
Detector Phase	4	4 5		5	5	1	1	2		1	2	
Switch Phase												
Minimum Initial (s)	5.0			5.0	5.0	5.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	15.0			34.2	34.2	9.0	9.0	30.2		9.0	30.2	
Total Split (s)	15.0			37.0	37.0	12.0	12.0	56.0		12.0	56.0	
Total Split (%)	12.5%			30.8%	30.8%	10.0%	10.0%	46.7%		10.0%	46.7%	

154 Broad Street
5: Greyrock PI & Main St

Combined Conditions
PM Peak

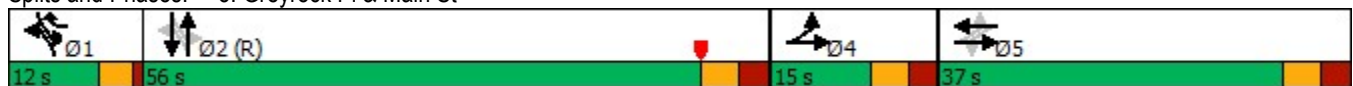


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Maximum Green (s)	9.0			30.8	30.8	8.0	8.0	49.8		8.0	49.8	
Yellow Time (s)	3.3			3.3	3.3	3.0	3.0	3.3		3.0	3.3	
All-Red Time (s)	2.7			2.9	2.9	1.0	1.0	2.9		1.0	2.9	
Lost Time Adjust (s)					0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)					6.2	4.0	4.0	6.2		4.0	6.2	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0			2.0	2.0	2.0	2.0	0.2		2.0	0.2	
Recall Mode	None			None	None	None	None	C-Min		None	C-Min	
Walk Time (s)				7.0	7.0			7.0			7.0	
Flash Dont Walk (s)				21.0	21.0			17.0			17.0	
Pedestrian Calls (#/hr)				27	27			30			30	
Act Effct Green (s)		29.8			21.1	7.0	70.2	61.0		70.2	61.0	
Actuated g/C Ratio		0.25			0.18	0.06	0.58	0.51		0.58	0.51	
v/c Ratio		0.26			0.57	0.46	0.06	0.40		0.18	0.34	
Control Delay		20.9			53.8	10.0	12.6	21.1		11.3	16.7	
Queue Delay		0.0			0.0	0.1	0.0	0.0		0.0	0.2	
Total Delay		20.9			53.8	10.1	12.6	21.2		11.3	16.9	
LOS		C			D	B	B	C		B	B	
Approach Delay		20.9			34.4			20.9			16.2	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)		38			84	0	9	186		26	116	
Queue Length 95th (ft)		75			147	24	24	263		m54	166	
Internal Link Dist (ft)		107			240			212			347	
Turn Bay Length (ft)						50	150			50		
Base Capacity (vph)		518			323	235	489	1718		428	1675	
Starvation Cap Reductn		0			0	0	0	0		0	423	
Spillback Cap Reductn		0			0	4	0	94		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.20			0.39	0.44	0.05	0.42		0.18	0.45	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 2:NBSB, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 20.9 Intersection LOS: C
 Intersection Capacity Utilization 58.6% ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Greyrock PI & Main St



154 Broad Street
6: Greyrock PI & Driveway

Combined Conditions
PM Peak



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	9	38	50	379	191	12
Future Volume (vph)	9	38	50	379	191	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.891			0.992		
Flt Protected	0.990			0.994		
Satd. Flow (prot)	1588	0	0	1790	1786	0
Flt Permitted	0.990			0.994		
Satd. Flow (perm)	1588	0	0	1790	1786	0
Link Speed (mph)	30			25	25	
Link Distance (ft)	263			254	284	
Travel Time (s)	6.0			6.9	7.7	
Confl. Peds. (#/hr)	35	35	35			35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	41	54	412	208	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	0	466	221	0
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.1%
Analysis Period (min)	15
	ICU Level of Service B

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		
Traffic Vol, veh/h	9	38	50	379	191	12
Future Vol, veh/h	9	38	50	379	191	12
Conflicting Peds, #/hr	35	35	35	0	0	35
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	41	54	412	208	13

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	805	285	256	0	0
Stage 1	250	-	-	-	-
Stage 2	555	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-
Pot Cap-1 Maneuver	352	754	1309	-	-
Stage 1	792	-	-	-	-
Stage 2	575	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	312	709	1269	-	-
Mov Cap-2 Maneuver	312	-	-	-	-
Stage 1	725	-	-	-	-
Stage 2	557	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1269	-	570	-	-
HCM Lane V/C Ratio	0.043	-	0.09	-	-
HCM Control Delay (s)	8	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

154 Broad Street
1: Greyrock Pl & Forest St

Combined Conditions MITIGATION

AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↖	↗			
Traffic Volume (vph)	18	95	255	97	167	7	140	12	41	0	1	0
Future Volume (vph)	18	95	255	97	167	7	140	12	41	0	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.996				0.850			
Flt Protected		0.992			0.983			0.956				
Satd. Flow (prot)	0	1608	1378	0	1587	0	0	1549	1378	0	0	0
Flt Permitted		0.992			0.983			0.956				
Satd. Flow (perm)	0	1608	1378	0	1587	0	0	1549	1378	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			299			284			220	
Travel Time (s)		7.0			8.2			7.7			6.0	
Confl. Peds. (#/hr)	16		27	27		16	5		8	8		5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	20	103	277	105	182	8	152	13	45	0	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	277	0	295	0	0	165	45	0	1	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

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

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↖	↗			
Traffic Vol, veh/h	18	95	255	97	167	7	140	12	41	0	1	0
Future Vol, veh/h	18	95	255	97	167	7	140	12	41	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	20	103	277	105	182	8	152	13	45	0	1	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	10.4	13.9	11.7
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	92%	0%	16%	0%	36%
Vol Thru, %	8%	0%	84%	0%	62%
Vol Right, %	0%	100%	0%	100%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	152	41	113	255	271
LT Vol	140	0	18	0	97
Through Vol	12	0	95	0	167
RT Vol	0	41	0	255	7
Lane Flow Rate	165	45	123	277	295
Geometry Grp	7	7	7	7	6
Degree of Util (X)	0.309	0.069	0.194	0.378	0.473
Departure Headway (Hd)	6.741	5.566	5.699	4.911	5.78
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	534	644	633	737	627
Service Time	4.471	3.295	3.406	2.618	3.788
HCM Lane V/C Ratio	0.309	0.07	0.194	0.376	0.47
HCM Control Delay	12.5	8.7	9.8	10.6	13.9
HCM Lane LOS	B	A	A	B	B
HCM 95th-tile Q	1.3	0.2	0.7	1.8	2.5

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions MITIGATION
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	449	408	104	748	35	220	141	49	31	369	60
Future Volume (vph)	13	449	408	104	748	35	220	141	49	31	369	60
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
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.97		0.91	0.97	0.99		0.99		0.86		0.99	
Frt			0.850		0.993				0.850		0.982	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1593	3362	1425	1593	3306	0	1770	1863	1583	0	1817	0
Flt Permitted	0.196			0.338			0.950				0.970	
Satd. Flow (perm)	317	3362	1293	547	3306	0	1755	1863	1365	0	1755	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			443		4							
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		795			656			427			254	
Travel Time (s)		21.7			17.9			11.6			6.9	
Confl. Peds. (#/hr)	86		57	57		86	13		100	100		13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	14	488	443	113	813	38	239	153	53	34	401	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	488	443	113	851	0	239	153	53	0	500	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template												Left
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6		2	
Detector 2 Size(ft)	6			6			6	6	6		6	
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	
Detector 3 Position(ft)	18			18			18	18	18		14	
Detector 3 Size(ft)	6			6			6	6	6		6	
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	
Detector 4 Position(ft)	30			30			30	30	30		26	
Detector 4 Size(ft)	6			6			6	6	6		6	

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions MITIGATION
AM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0		0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0	7.0	
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5	33.5	
Total Split (s)	9.0	41.6	41.6	9.0	41.6		23.0	69.4	69.4	46.4	46.4	
Total Split (%)	7.5%	34.7%	34.7%	7.5%	34.7%		19.2%	57.8%	57.8%	38.7%	38.7%	
Maximum Green (s)	5.0	36.2	36.2	5.0	36.2		19.0	63.9	63.9	40.9	40.9	
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3	3.3	
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2	2.2	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5		5.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None	None	
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0	21.0	
Pedestrian Calls (#/hr)		13	13		30			30	30	30	30	
Act Effct Green (s)	45.0	38.6	38.6	48.8	45.4		18.9	60.1	60.1		37.3	
Actuated g/C Ratio	0.38	0.32	0.32	0.41	0.38		0.16	0.50	0.50		0.31	
v/c Ratio	0.08	0.45	0.62	0.41	0.68		0.86	0.16	0.08		0.92	
Control Delay	30.9	35.5	12.9	20.8	24.2		75.0	15.2	14.6		62.7	
Queue Delay	0.0	0.0	0.1	0.0	0.0		0.0	0.0	0.0		4.8	
Total Delay	30.9	35.5	13.0	20.8	24.2		75.0	15.2	14.6		67.6	
LOS	C	D	B	C	C		E	B	B		E	
Approach Delay		24.9			23.8			47.3			67.6	
Approach LOS		C			C			D			E	
Queue Length 50th (ft)	5	93	51	38	154		116	25	9		362	
Queue Length 95th (ft)	m12	174	148	m63	#296		#334	100	44		#535	
Internal Link Dist (ft)		715			576			347			174	
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	172	1107	722	278	1252		290	998	731		598	
Starvation Cap Reductn	0	0	0	0	0		0	0	0		0	
Spillback Cap Reductn	0	0	13	0	0		0	0	0		55	
Storage Cap Reductn	0	0	0	0	0		0	0	0		0	
Reduced v/c Ratio	0.08	0.44	0.62	0.41	0.68		0.82	0.15	0.07		0.92	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 10 (8%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 35.5 Intersection LOS: D

Intersection Capacity Utilization 91.5% ICU Level of Service F

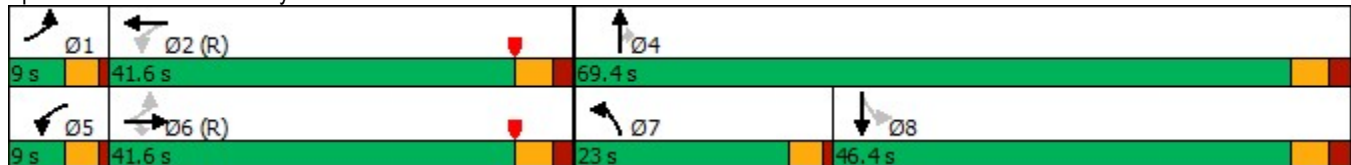
Analysis Period (min) 15

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.

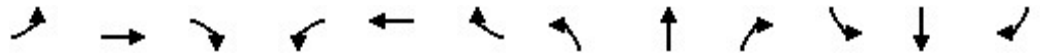
Splits and Phases: 3: Greyrock Pl & Broad St



154 Broad Street
1: Greyrock Pl & Forest St

Combined Conditions MITIGATION

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	249	178	38	130	27	250	37	114	0	3	0
Future Volume (vph)	37	249	178	38	130	27	250	37	114	0	3	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		100	0		0	0		100	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850		0.981				0.850			
Flt Protected		0.994			0.990			0.958				
Satd. Flow (prot)	0	1611	1378	0	1574	0	0	1553	1378	0	0	0
Flt Permitted		0.994			0.990			0.958				
Satd. Flow (perm)	0	1611	1378	0	1574	0	0	1553	1378	0	0	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		255			299			284			220	
Travel Time (s)		7.0			8.2			7.7			6.0	
Confl. Peds. (#/hr)	12		35	35		12	4		7	7		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Adj. Flow (vph)	40	271	193	41	141	29	272	40	124	0	3	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	311	193	0	211	0	0	312	124	0	3	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

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

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

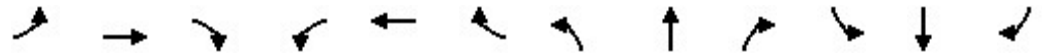
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔			↖	↗			
Traffic Vol, veh/h	37	249	178	38	130	27	250	37	114	0	3	0
Future Vol, veh/h	37	249	178	38	130	27	250	37	114	0	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	271	193	41	141	29	272	40	124	0	3	0
Number of Lanes	0	1	1	0	1	0	0	1	1	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	1
HCM Control Delay	14.3	13.7	16.9
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1
Vol Left, %	87%	0%	13%	0%	19%
Vol Thru, %	13%	0%	87%	0%	67%
Vol Right, %	0%	100%	0%	100%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	287	114	286	178	195
LT Vol	250	0	37	0	38
Through Vol	37	0	249	0	130
RT Vol	0	114	0	178	27
Lane Flow Rate	312	124	311	193	212
Geometry Grp	7	7	7	7	6
Degree of Util (X)	0.6	0.199	0.549	0.3	0.386
Departure Headway (Hd)	6.926	5.775	6.352	5.575	6.556
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	521	620	566	642	547
Service Time	4.675	3.523	4.104	3.327	4.612
HCM Lane V/C Ratio	0.599	0.2	0.549	0.301	0.388
HCM Control Delay	19.6	10	16.6	10.7	13.7
HCM Lane LOS	C	A	C	B	B
HCM 95th-tile Q	3.9	0.7	3.3	1.3	1.8

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions MITIGATION
PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	834	337	73	632	41	239	332	137	16	171	42
Future Volume (vph)	56	834	337	73	632	41	239	332	137	16	171	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		300	150		0	150		0	0		0
Storage Lanes	1		1	1		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.95		0.85	0.98	0.99		0.97		0.94		0.99	
Frt			0.850		0.991				0.850		0.975	
Flt Protected	0.950			0.950			0.950				0.997	
Satd. Flow (prot)	1540	3250	1378	1540	3176	0	1711	1801	1531	0	1732	0
Flt Permitted	0.274			0.194			0.950				0.956	
Satd. Flow (perm)	422	3250	1167	307	3176	0	1656	1801	1433	0	1657	0
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)			366		6							
Link Speed (mph)		25			25			25				25
Link Distance (ft)		795			656			427				254
Travel Time (s)		21.7			17.9			11.6				6.9
Confl. Peds. (#/hr)	87		100	100		87	35		41	41		35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)	0	0	0	0	0	0						
Adj. Flow (vph)	61	907	366	79	687	45	260	361	149	17	186	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	907	366	79	732	0	260	361	149	0	249	0
Number of Detectors	4	0	0	4	0		4	4	4	1	4	
Detector Template										Left		
Leading Detector (ft)	36	0	0	36	0		36	36	36	20	32	
Trailing Detector (ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Position(ft)	-6	0	0	-6	0		-6	-6	-6	0	-10	
Detector 1 Size(ft)	6	6	20	0	6		6	6	6	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)	6			6			6	6	6			2
Detector 2 Size(ft)	6			6			6	6	6			6
Detector 2 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 2 Channel												
Detector 2 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 3 Position(ft)	18			18			18	18	18			14
Detector 3 Size(ft)	6			6			6	6	6			6
Detector 3 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex
Detector 3 Channel												
Detector 3 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Detector 4 Position(ft)	30			30			30	30	30			26
Detector 4 Size(ft)	6			6			6	6	6			6
Detector 4 Type	Cl+Ex			Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex

154 Broad Street
3: Greyrock Pl & Broad St

Combined Conditions MITIGATION

PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 4 Channel												
Detector 4 Extend (s)	0.0			0.0			0.0	0.0	0.0			0.0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Perm		NA
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2					4	8		
Detector Phase	1	6	6	5	2		7	4	4	8		8
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0		5.0	7.0	7.0	7.0		7.0
Minimum Split (s)	9.0	30.4	30.4	9.0	30.4		9.0	33.5	33.5	33.5		33.5
Total Split (s)	10.0	49.0	49.0	9.0	48.0		28.0	62.0	62.0	34.0		34.0
Total Split (%)	8.3%	40.8%	40.8%	7.5%	40.0%		23.3%	51.7%	51.7%	28.3%		28.3%
Maximum Green (s)	6.0	43.6	43.6	5.0	42.6		24.0	56.5	56.5	28.5		28.5
Yellow Time (s)	3.0	3.3	3.3	3.0	3.3		3.0	3.3	3.3	3.3		3.3
All-Red Time (s)	1.0	2.1	2.1	1.0	2.1		1.0	2.2	2.2	2.2		2.2
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0
Total Lost Time (s)	4.0	5.4	5.4	4.0	5.4		4.0	5.5	5.5			5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lead			Lag		Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes			Yes		Yes
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0		2.0
Recall Mode	None	C-Min	C-Min	None	C-Min		None	None	None	None		None
Walk Time (s)		7.0	7.0		7.0			7.0	7.0	7.0		7.0
Flash Dont Walk (s)		18.0	18.0		18.0			21.0	21.0	21.0		21.0
Pedestrian Calls (#/hr)		30	30		30			30	30	30		30
Act Effct Green (s)	58.1	51.6	51.6	57.9	51.5		21.6	49.3	49.3			23.7
Actuated g/C Ratio	0.48	0.43	0.43	0.48	0.43		0.18	0.41	0.41			0.20
v/c Ratio	0.23	0.65	0.52	0.38	0.54		0.84	0.49	0.25			0.76
Control Delay	10.2	17.4	3.1	22.3	23.8		53.6	24.4	18.0			60.3
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	3.6	0.0			0.0
Total Delay	10.2	17.4	3.1	22.3	23.8		53.6	28.0	18.0			60.3
LOS	B	B	A	C	C		D	C	B			E
Approach Delay		13.1			23.7			34.7				60.3
Approach LOS		B			C			C				E
Queue Length 50th (ft)	10	250	3	27	144		197	261	97			175
Queue Length 95th (ft)	m19	314	m3	m42	173		#290	191	27			265
Internal Link Dist (ft)		715			576			347				174
Turn Bay Length (ft)	100		300	150			150					
Base Capacity (vph)	263	1416	715	209	1376		347	851	677			393
Starvation Cap Reductn	0	0	0	0	0		0	390	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	0.23	0.64	0.51	0.38	0.53		0.75	0.78	0.22			0.63

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 33 (28%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 24.8 Intersection LOS: C

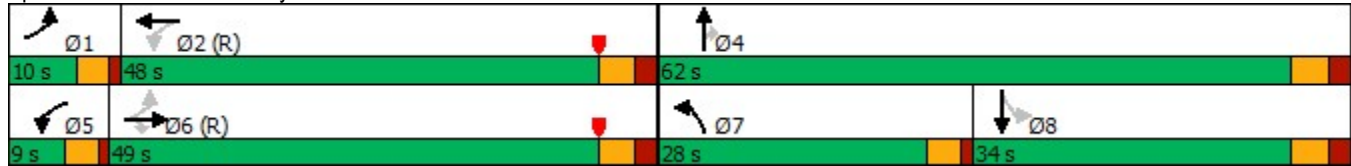
Intersection Capacity Utilization 86.2% ICU Level of Service E

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: 3: Greyrock Pl & Broad St



OVERNIGHT RESIDENTIAL PARKING USE DATA - STAMFORD CENTER

	Date	Approx. Number of Occupied Residential Units	Number of Parked Cars	Approx. Number of Parking Spaces	Parking Space Utilization	Parking Demand Ratio (parked cars per occupied unit)	Approximate % of Single Bedroom Units	Distance to Train Station (in miles)	Distance to Downtown: Main & Atlantic (in miles)	Is the First Parking Space Included in the Rent (1 for yes and 0 for no)?
Park Square West - Phase I (2)	7/12/06	143	122	165	74%	0.85	53%	0.46	0.07	0
	7/13/06	143	123	165	75%	0.86	53%	0.46	0.07	0
	11/19/09	138	121	165	73%	0.88	53%	0.46	0.07	0
Park Square West - Phase I (1)	12/3/09	138	110	165	67%	0.80	53%	0.46	0.07	0
	6/21/11	136	118	165	72%	0.87	53%	0.46	0.07	0
	10/6/11	136	112	165	68%	0.82	53%	0.46	0.07	0
Park Square West - Phase I (1)	10/7/11	136	101	165	61%	0.74	53%	0.46	0.07	0
	10/8/11	136	104	165	63%	0.76	53%	0.46	0.07	0
	5/4/14	135	133	165	81%	0.99	53%	0.46	0.07	0
Canterbury Green (2)	5/6/14	135	134	165	81%	0.99	53%	0.46	0.07	0
	11/19/09	104	93	400	23%	0.89	88%	0.62	0.25	0
	12/2/09	104	90	400	23%	0.87	88%	0.62	0.25	0
BLVD (1)	6/21/11	75	70	119	59%	0.93	44%	0.65	0.27	0
	3/6/14	90	84	119	71%	0.93	44%	0.65	0.27	0
	3/7/14	90	75	119	63%	0.83	44%	0.65	0.27	0
Biltmore (2)	5/4/14	90	84	119	71%	0.93	44%	0.65	0.27	0
	5/6/14	90	80	119	67%	0.89	44%	0.65	0.27	0
	11/19/09	161	161	450	36%	1.00	55%	0.58	0.20	0
Parallel 41 (1)	12/3/09	161	155	450	34%	0.96	55%	0.58	0.20	0
	3/6/14	118	147	170	86%	1.25	49%	0.73	0.37	0
	3/7/14	118	148	170	86%	1.25	49%	0.73	0.37	0
The Fairfield Apartments (1)	4/24/14	118	132	170	78%	1.12	49%	0.73	0.37	0
	4/25/14	118	126	170	74%	1.07	49%	0.73	0.37	0
	5/4/14	118	140	170	82%	1.19	49%	0.73	0.37	0
Newbury Commons (2)	5/6/14	118	119	170	70%	1.01	49%	0.73	0.37	0
	11/19/09	242	244	350	70%	1.01	58%	0.82	0.46	1
	12/3/09	242	237	350	68%	0.98	58%	0.85	0.46	1
100 Prospect (1)	9/2/14	82	75	187	40%	0.91	100%	0.85	0.42	1
	9/4/14	82	74	187	40%	0.90	100%	0.85	0.42	1
	9/7/14	82	75	187	40%	0.91	100%	0.85	0.42	1
Avalon Greyrock (2)	7/12/06	302	246	460	53%	0.81	34%	0.74	0.32	1
	7/13/06	302	247	460	54%	0.82	34%	0.74	0.32	1
	11/19/09	306	309	460	67%	1.01	34%	0.74	0.32	1
Avalon Greyrock (1)	12/2/09	306	309	460	67%	1.01	34%	0.74	0.32	1
	6/21/11	295	326	460	71%	1.11	34%	0.74	0.32	1
	7/9/11	295	327	460	71%	1.11	34%	0.74	0.32	1
Eastside Commons (1)	7/10/11	295	345	460	75%	1.17	34%	0.74	0.32	1
	7/12/11	295	343	460	75%	1.16	34%	0.74	0.32	1
	7/12/11	108	150	240	63%	1.39	5%	0.97	0.66	1
Glenview House Apartments (1)	7/12/11	135	180	300	60%	1.33	11%	0.87	0.54	1
	6/12/12	135	188	300	63%	1.39	11%	0.87	0.54	1
	7/11/12	135	179	300	60%	1.32	11%	0.87	0.54	1
	7/12/12	135	184	300	61%	1.36	11%	0.87	0.54	1
	8/23/12	135	187	300	62%	1.38	11%	0.87	0.54	1
	8/29/12	135	192	300	64%	1.42	11%	0.87	0.54	1
	9/6/12	135	167	300	56%	1.24	11%	0.87	0.54	1
	9/7/12	135	174	300	58%	1.29	11%	0.87	0.54	1

(1) Milione and MacRoom Data

(2) Tighe & Bond Data

MULTIPLE REGRESSION SUMMARY OUTPUT

Regression Statistics

Multiple R	0.864631582
R Square	0.747587773
Adjusted R Square	0.737070597
Standard Error	0.095087198
Observations	51

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	2	1.285396579	0.642698289	71.08255713	4.47352E-15
Residual	48	0.433995612	0.009041575		
Total	50	1.719392191			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	0.980128777	0.04025478	24.34813396	1.15664E-28	0.899191117	1.061066437
Log Transformation of % 1BR	-0.173998224	0.02122201	-8.19895114	1.10391E-10	-0.216667936	-0.131328513
Log Transformation of Dist in mi to Main & Atlantic	0.090736579	0.019460205	4.662673226	2.51671E-05	0.051609213	0.129863944

Table A-1 Shared Parking Analysis Weekday Time-of-Day Adjustments

Land Use	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM	
Office																				
Visitors	0%	1%	20%	60%	100%	45%	15%	45%	95%	45%	15%	10%	5%	2%	1%	0%	0%	0%	0%	0%
Employees Unreserved	3%	15%	50%	90%	100%	100%	85%	85%	95%	95%	85%	60%	25%	15%	5%	3%	1%	0%	0%	0%
Residential																				
Unreserved Residents (Urban)	95%	85%	75%	65%	60%	55%	50%	50%	50%	55%	60%	65%	70%	75%	80%	85%	95%	97%	100%	100%
Guests	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%	50%

Notes
Adjustments from Figure 2-4, UU Shared Parking 3rd Edition

Table A-2 Shared Parking Analysis Weekday Time-of-Day Totals(Using City of Stamford Zoning Regulation Rates)

Land Use	Peak Weekday Totals	Time-of-Day																				
		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM		
Office																						
Visitors	1.00	0.00	0.01	0.20	0.60	1.00	0.45	0.15	0.45	0.95	0.45	0.15	0.10	0.05	0.02	0.01	0.00	0.00	0.00	0.00	0.00	
Employees Unreserved	15.00	0.45	2.25	7.50	13.50	15.00	15.00	12.75	12.75	14.25	14.25	12.75	9.00	3.75	2.25	0.75	0.45	0.15	0.00	0.00	0.00	
Residential																						
Unreserved Residents (Urban)	205.00	194.75	174.25	153.75	133.25	123.00	112.75	102.50	102.50	102.50	112.75	123.00	133.25	143.50	153.75	164.00	174.25	194.75	198.85	205.00	205.00	
Guests	23.00	0.00	2.30	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	4.60	9.20	13.80	23.00	23.00	23.00	23.00	18.40	11.50	11.50	
		195.20	178.81	166.05	151.95	143.60	132.80	120.00	120.30	122.30	132.05	140.50	151.55	161.10	179.02	187.76	197.70	217.90	217.25	216.50	216.50	

Table A-3 Shared Parking Analysis Weekday Time-of-Day Totals (Using Estimated Peak Parking Demand Totals)

Land Use	Peak Weekday Totals	Time-of-Day																		
		6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Office	1.00	0.00	0.01	0.20	0.60	1.00	0.45	0.15	0.45	0.95	0.45	0.15	0.10	0.05	0.02	0.01	0.00	0.00	0.00	0.00
Visitors	12.00	0.36	1.80	6.00	10.80	12.00	12.00	10.20	10.20	11.40	11.40	10.20	7.20	3.00	1.80	0.60	0.36	0.12	0.00	0.00
Employees Unreserved																				
Residential	189.00	179.55	160.65	141.75	122.85	113.40	103.95	94.50	94.50	94.50	103.95	113.40	122.85	132.30	141.75	151.20	160.65	179.55	188.33	189.00
Unreserved Residents (Urban)	21.00	0.00	2.10	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	21.00	21.00	21.00	21.00	16.80	10.50
Guests		179.91	164.56	152.15	138.45	130.60	120.60	109.05	109.35	111.05	120.00	127.95	138.55	147.95	164.57	172.81	182.01	200.67	200.13	199.50