APPENDIX G

CAPACITY ANALYSIS – INPUT INFORMATION

EXISTING CONDITIONS

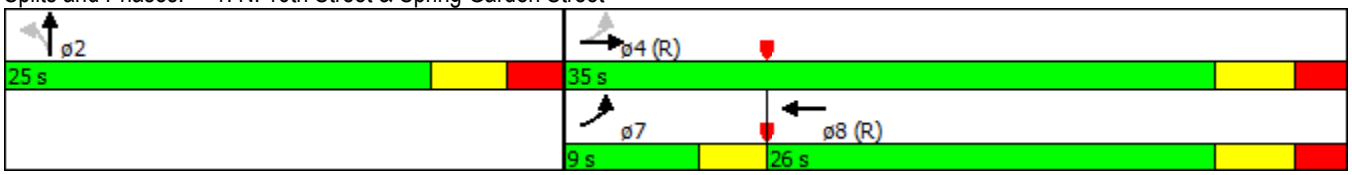
FRIDAY PM (4-6 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	660	0	0	819	92	126	384	203	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	83		407	407		83	70		73	73		70
Confl. Bikes (#/hr)			32			51			14			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

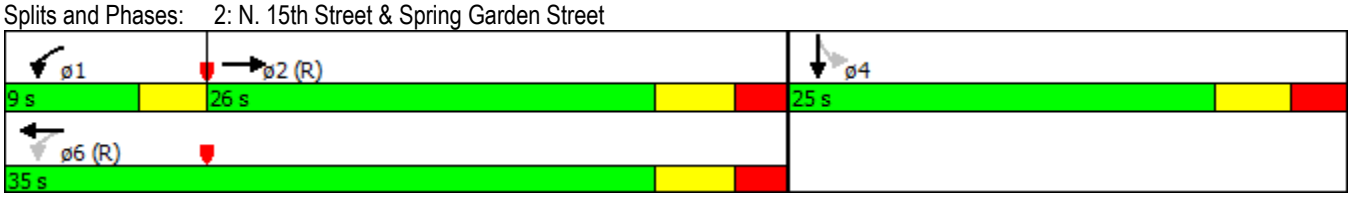


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	780	63	121	692	0	0	0	0	77	306	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	124		466	466		124	123		129	129		123
Confl. Bikes (#/hr)			5			7						32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	24%	5%	2%	2%	2%	2%	2%	8%	2%	3%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	55	134	37	278	174	26	42	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	35		35	35		35	18		24	24		18
Confl. Bikes (#/hr)			5			8			1			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	13%	2%	2%	2%	2%	4%	2%	25%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	62	156	331	0	0	0	0	0	226	94
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	26		57	57		26	112		60	60		112
Confl. Bikes (#/hr)			1			7						20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	363	136	82	542	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	35		73	73		35	237		30	30		237
Confl. Bikes (#/hr)						4			22			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	342	0	0	0	0	0	512	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	57		40	40		57	34		23	23		34
Confl. Bikes (#/hr)						1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	13%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	273	87	0	768	0	0	772	78
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			560			1070	
Travel Time (s)		13.1			16.5			15.3			29.2	
Confl. Peds. (#/hr)	32		43	43		32	148		89	89		148
Confl. Bikes (#/hr)						5			8			21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				33.0	33.0			57.0			57.0	
Total Split (s)				33.0	33.0			57.0			57.0	
Total Split (%)				36.7%	36.7%			63.3%			63.3%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 49 (54%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

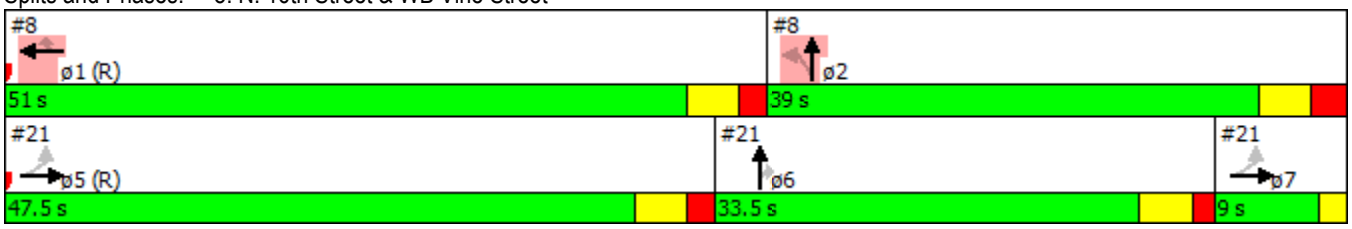
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	734	551	71	589	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	69		33	33		69	311		16	16		311
Confl. Bikes (#/hr)						3			12			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	5%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

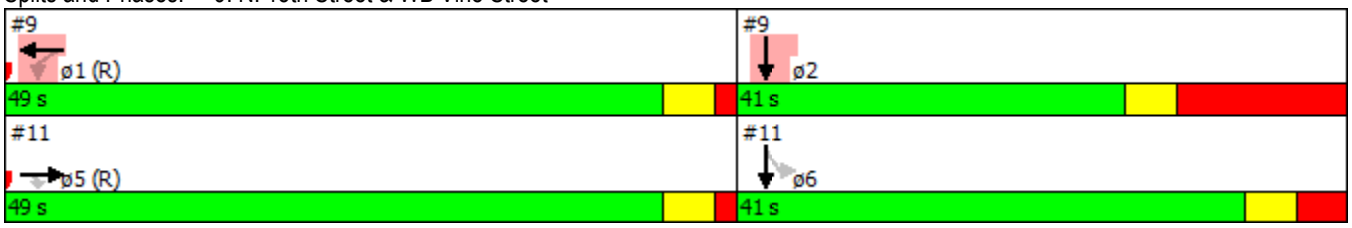
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	77	919	0	0	0	0	0	1191	335
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	59		2	2		59	34		217	217		34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

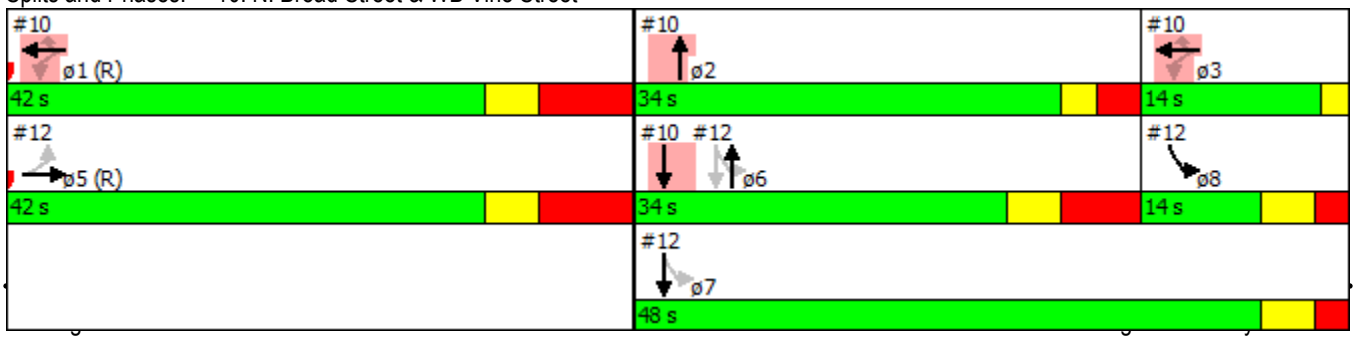
Intersection Summary

Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	172	865	182	0	648	0	0	645	124
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			560	
Travel Time (s)		13.1			16.5			4.6			15.3	
Confl. Peds. (#/hr)	89		1	1		89	319		150	150		319
Confl. Bikes (#/hr)						39			1			11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
! Phase conflict between lane groups.	

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Heavy Vehicles (%)					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

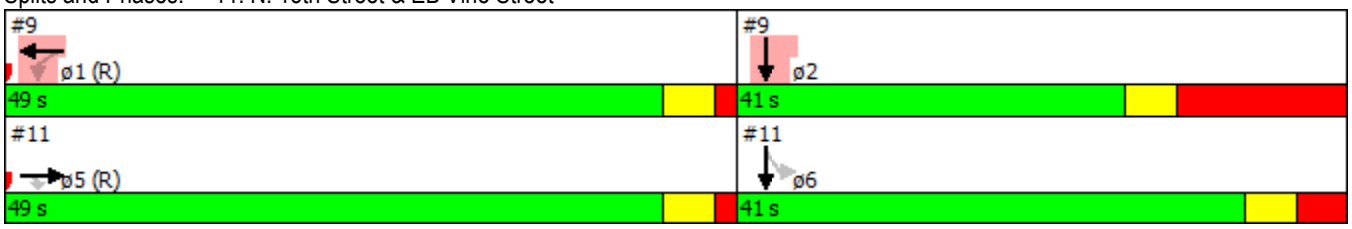
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1244	232	0	0	0	0	0	0	428	737	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)	1		19	19		1	19		132	132		19
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

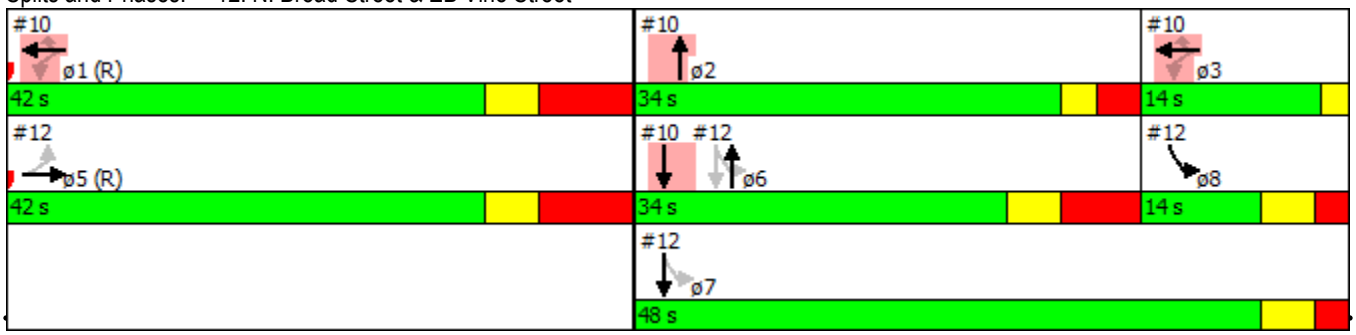
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	1455	64	0	0	0	0	565	426	205	679	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			430			170	
Travel Time (s)		13.1			4.4			11.7			4.6	
Confl. Peds. (#/hr)	6		110	110		6	366		123	123		366
Confl. Bikes (#/hr)			7						16			20
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 (%)	3%	2%	3%	2%	2%	2%	2%	3%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

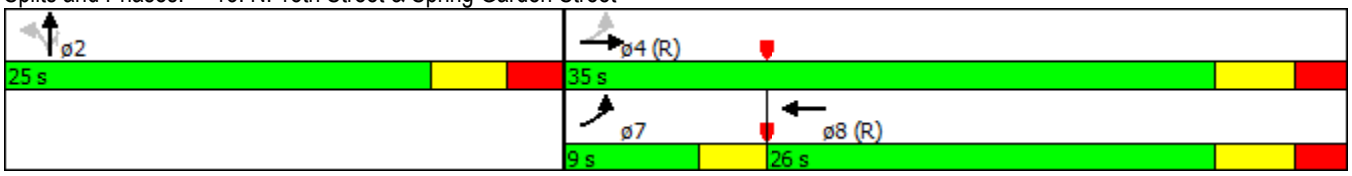
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	598	0	0	851	83	159	207	175	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	58		100	100		58	76		45	45		76
Confl. Bikes (#/hr)			43			38			13			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

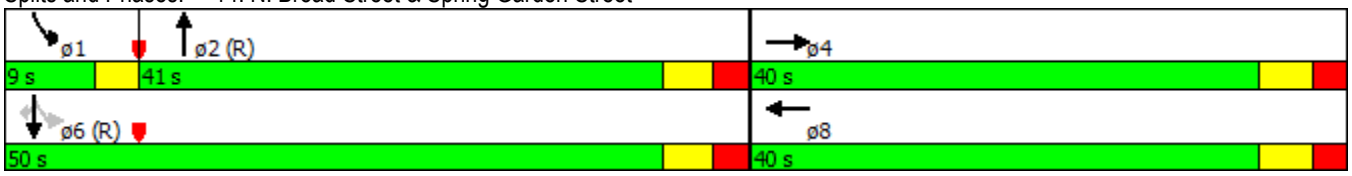


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	818	35	0	741	81	0	810	49	140	808	108
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		0	170		0
Storage Lanes	0		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	59		145	145		59	191		126	126		191
Confl. Bikes (#/hr)			40			39			16			26
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases										6		6
Minimum Split (s)		33.0			33.0			35.0		9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0		9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%		10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4		3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6		0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0		3.0	6.0	6.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

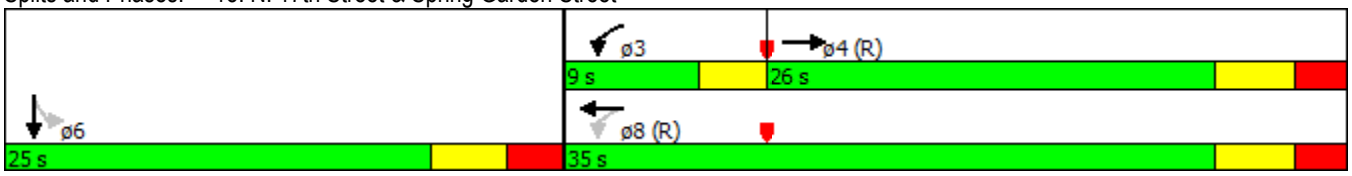


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	930	40	55	787	0	0	0	0	36	88	55
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	45		105	105		45	63		33	33		63
Confl. Bikes (#/hr)			9			3						24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

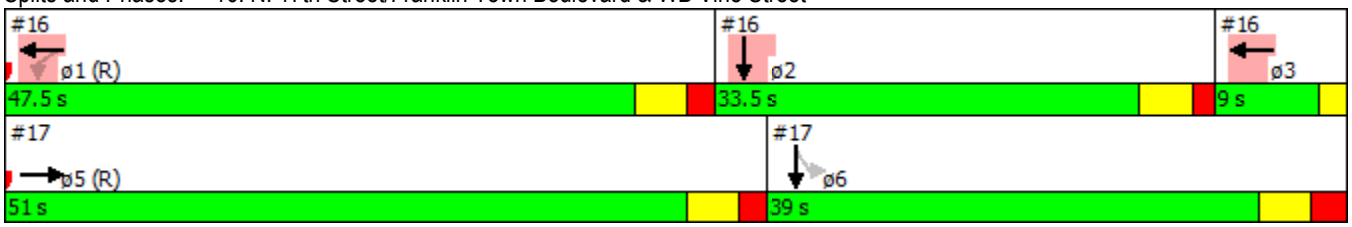


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	192	580	50	0	0	0	0	327	19
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	49		1	1		49	23		142	142		23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

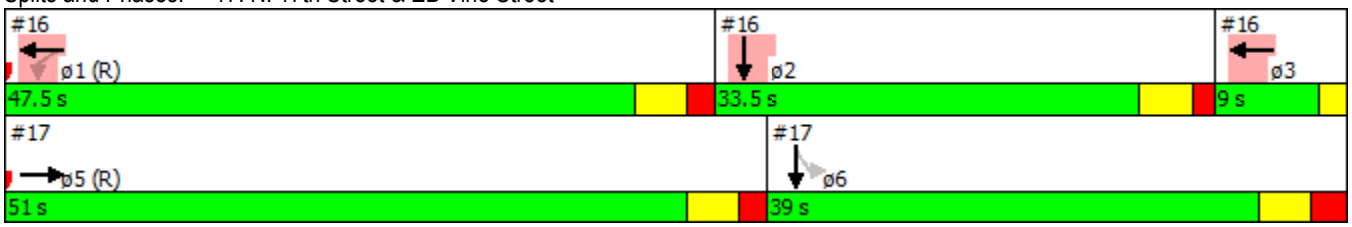
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	494	49	0	0	0	0	0	0	148	440	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	2		32	32		2	36		155	155		36
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	282	60	23	239	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	97		19	19		97	82		72	72		82
Confl. Bikes (#/hr)						6						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

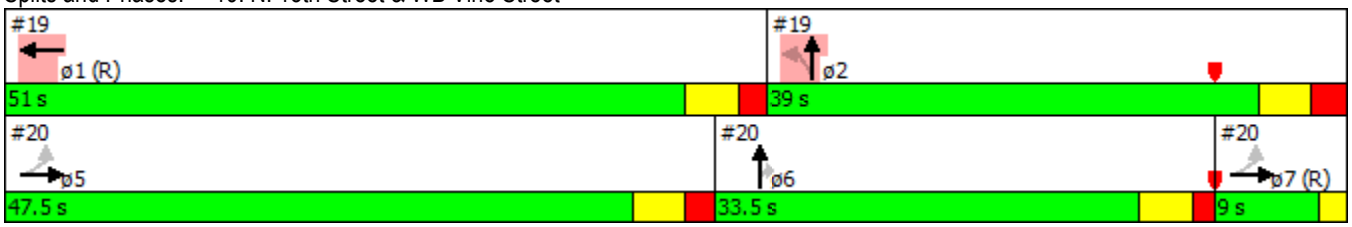
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1029	73	119	243	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	36		5	5		36	51		81	81		51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

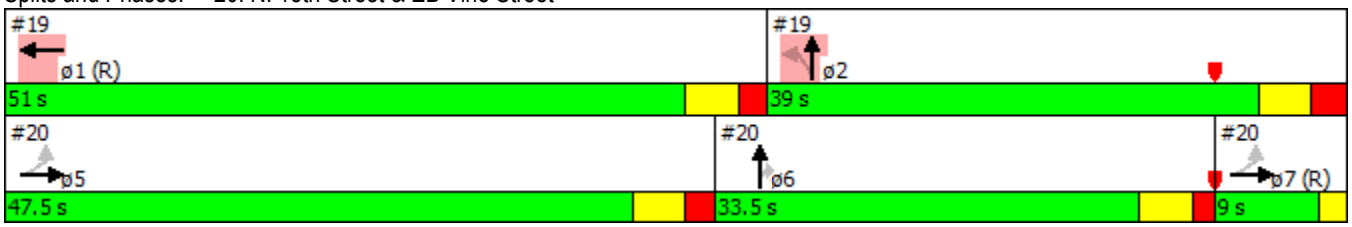
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	599	0	0	0	0	0	255	102	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	2		34	34		2	111		75	75		111
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

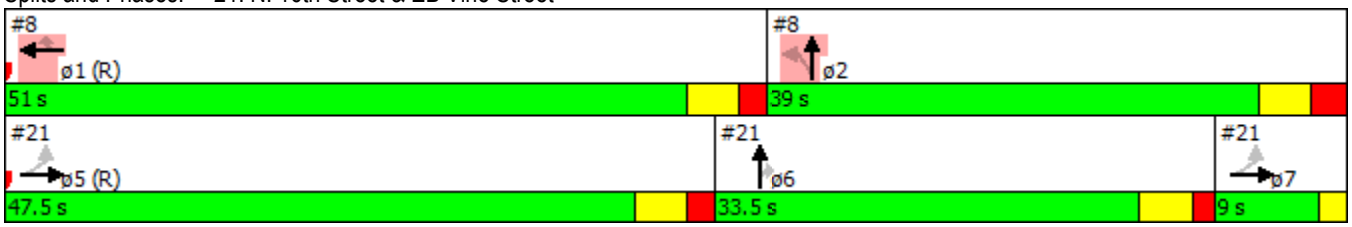
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	651	0	0	0	0	0	643	439	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	1		8	8		1	200		10	10		200
Confl. Bikes (#/hr)									10			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1090	0	0	0	0	386
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1413	673	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

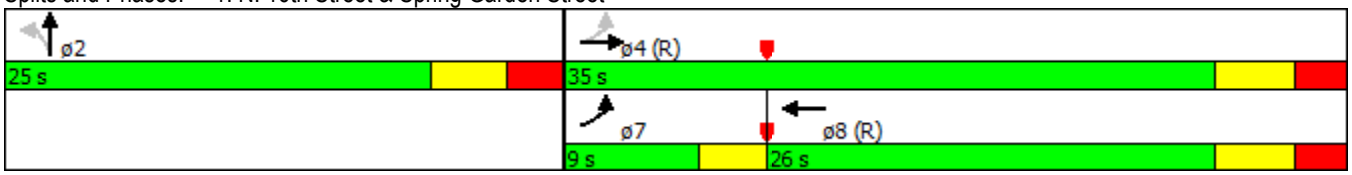
FRIDAY EVENING (7-10 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	460	0	0	418	58	51	188	68	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	45		46	46		45	29		27	27		29
Confl. Bikes (#/hr)			9			7			10			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

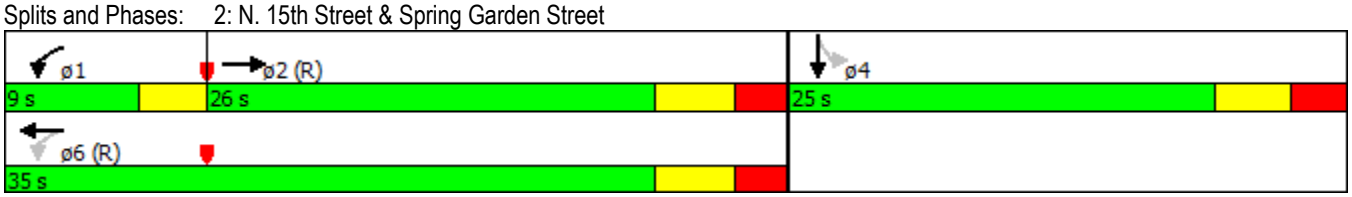


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	472	47	42	443	0	0	0	0	35	132	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	42		85	85		42	52		22	22		52
Confl. Bikes (#/hr)												2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	46	108	23	97	53	16	36	6	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	39		76	76		39	55		64	64		55
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	43	56	110	0	0	0	0	0	125	30
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	24		54	54		24	41		6	6		41
Confl. Bikes (#/hr)			3			1						7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	131	41	42	269	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	29		31	31		29	42		11	11		42
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	82	135	0	0	0	0	0	229	16
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	10		41	41		10	15		19	19		15
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	122	41	0	551	0	0	761	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			330			1070	
Travel Time (s)		13.1			16.5			9.0			29.2	
Confl. Peds. (#/hr)	15		13	13		15	48		65	65		48
Confl. Bikes (#/hr)			4			4			9			15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				29.0	29.0			61.0			61.0	
Total Split (s)				29.0	29.0			61.0			61.0	
Total Split (%)				32.2%	32.2%			67.8%			67.8%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

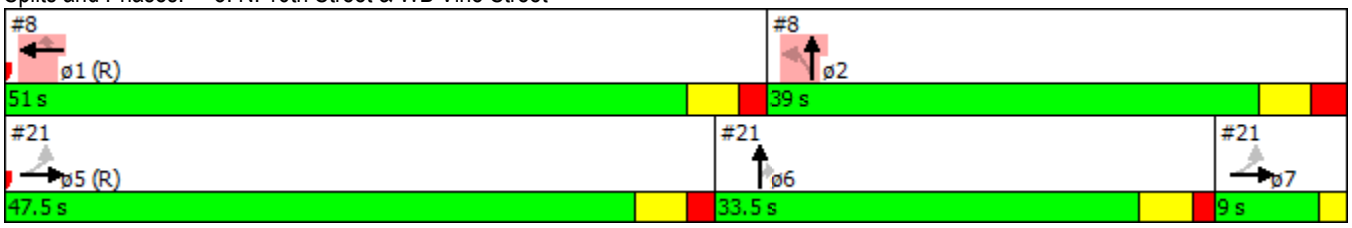
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	252	419	47	408	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	15		7	7		15	14		1	1		14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

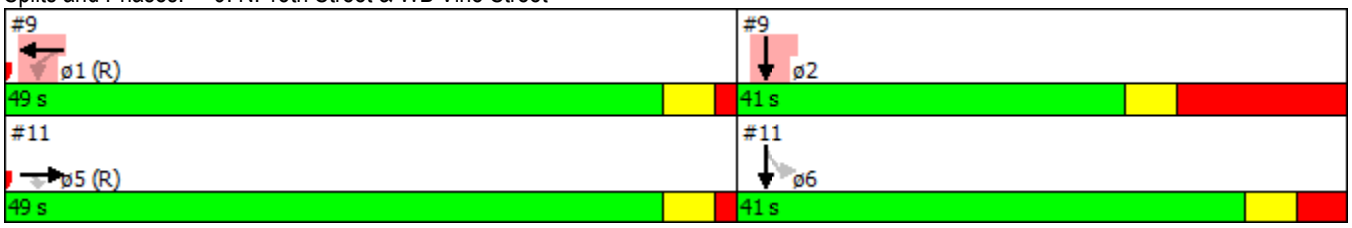
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	35	464	0	0	0	0	0	1011	262
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	18		1	1		18	17		56	56		17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

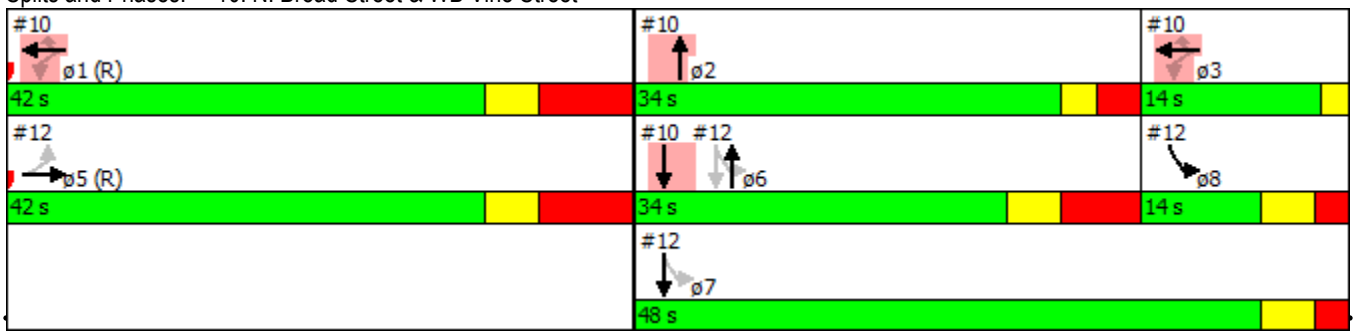
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	104	410	107	0	518	0	0	593	88
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			230	
Travel Time (s)		13.1			16.5			4.6			6.3	
Confl. Peds. (#/hr)	43		1	1		43	244		68	68		244
Confl. Bikes (#/hr)						1			13			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

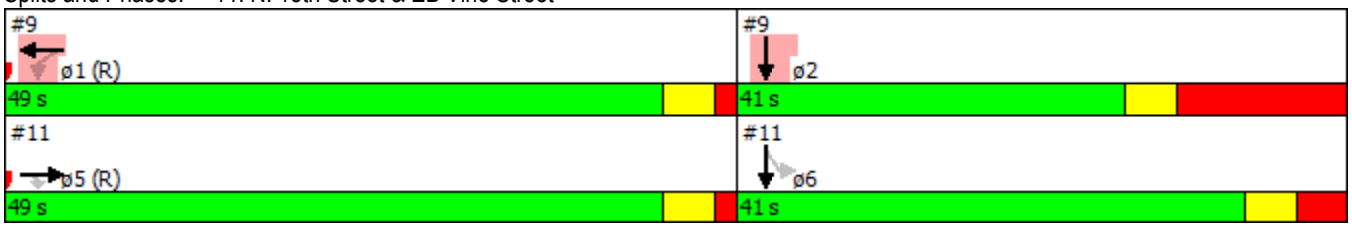
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1095	325	0	0	0	0	0	0	266	787	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			12	12			21		71	71		21
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
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

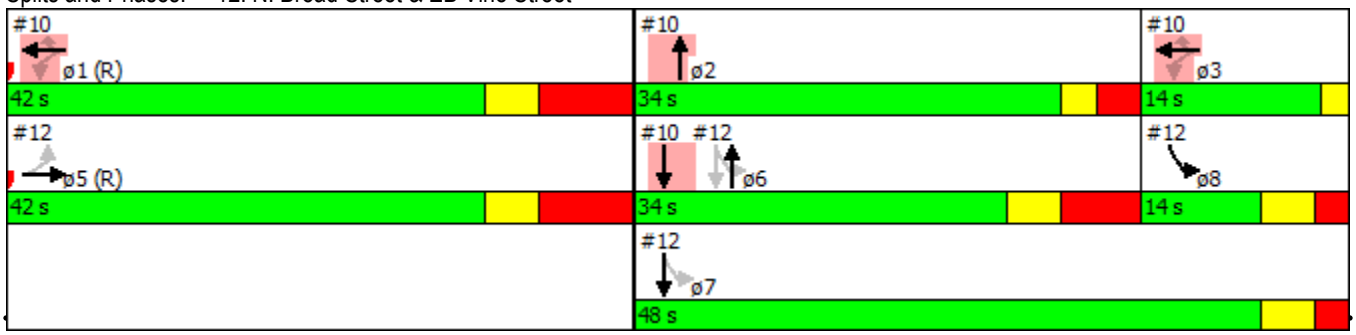
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	167	1311	102	0	0	0	0	361	207	266	480	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			240			170	
Travel Time (s)		13.1			4.4			6.5			4.6	
Confl. Peds. (#/hr)			41	41			151		73	73		151
Confl. Bikes (#/hr)			1						9			8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

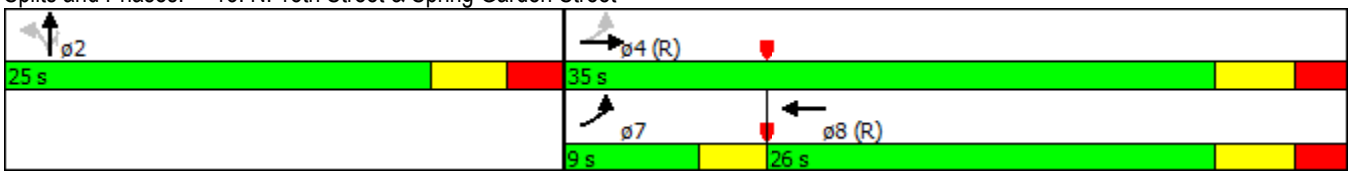
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	452	0	0	445	29	32	75	58	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	56		72	72		56	53		20	20		53
Confl. Bikes (#/hr)			15			1			13			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

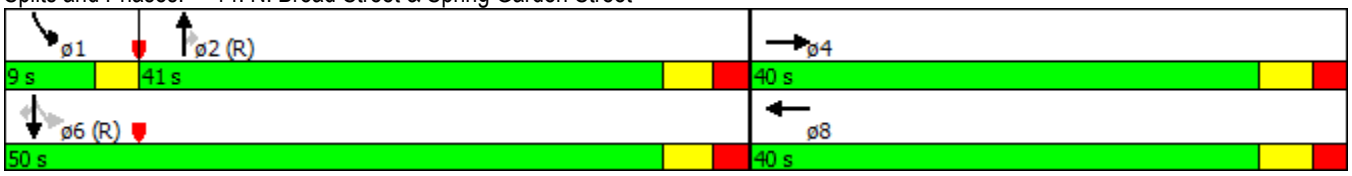


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	480	58	0	390	51	0	543	56	75	794	101
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	25		54	54		25	151		78	78		151
Confl. Bikes (#/hr)						2			7			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

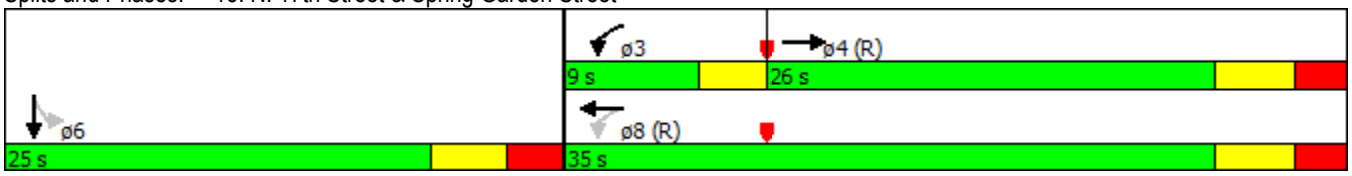


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	438	47	58	412	0	0	0	0	36	68	38
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	58		48	48		58	70		32	32		70
Confl. Bikes (#/hr)			6									7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

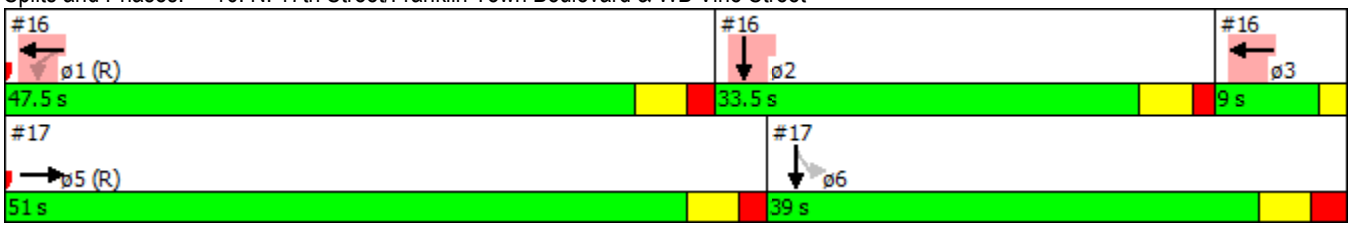


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	73	219	28	0	0	0	0	268	10
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	24		2	2		24	18		104	104		18
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

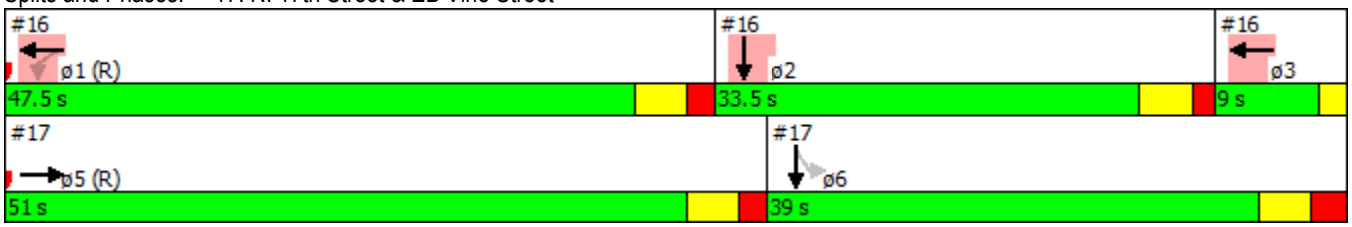
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	310	26	0	0	0	0	0	0	119	236	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)			18	18			14		116	116		14
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	127	18	17	162	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	10		17	17		10	17		42	42		17
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

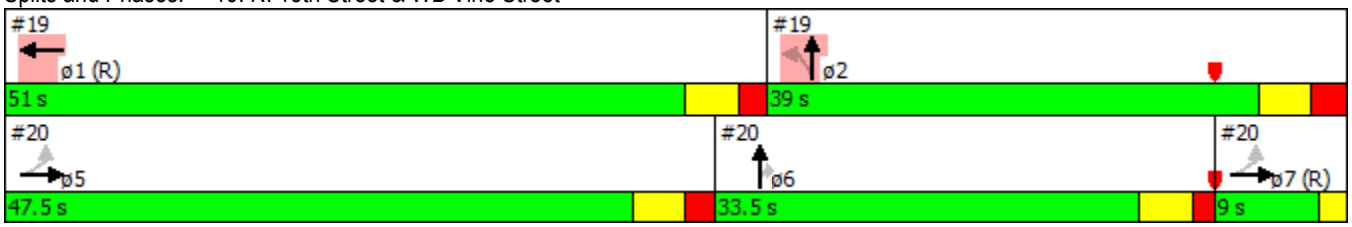
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	542	40	67	129	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	55					55	70		58	58		70
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							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

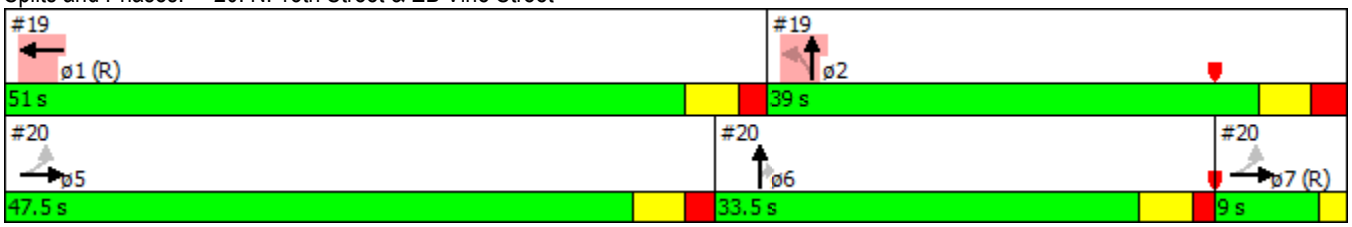
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	484	0	0	0	0	0	132	65	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	4		32	32		4	64		61	61		64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

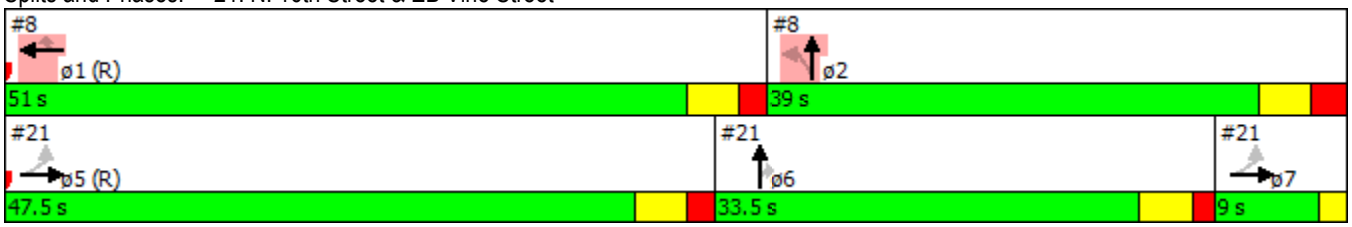
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	359	0	0	0	0	0	407	388	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	3		10	10		3	57		3	3		57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	3%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	747	0	0	0	0	673
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1236	548	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

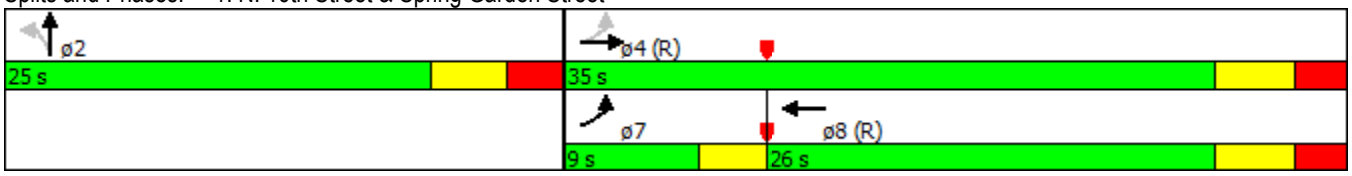
SATURDAY EVENING (6-9 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	398	0	0	379	34	36	161	45	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	49		34	34		49	26		16	16		26
Confl. Bikes (#/hr)			5			2			2			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street



Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	414	30	51	373	0	0	0	0	27	127	42
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	50		36	36		50	28		12	12		28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street

Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	33	80	25	85	28	11	19	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	17		65	65		17	49		41	41		49
Confl. Bikes (#/hr)			7			4						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	29	33	111	0	0	0	0	0	90	23
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	15		24	24		15	5		5	5		5
Confl. Bikes (#/hr)			4									1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	106	14	45	254	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	21		25	25		21	29		14	14		29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	47	91	0	0	0	0	0	194	13
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	12		26	26		12	3		14	14		3
Confl. Bikes (#/hr)						2						9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	46	96	28	0	602	0	0	661	37
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			280			1070	
Travel Time (s)		13.1			16.5			7.6			29.2	
Confl. Peds. (#/hr)	2		12	12		2	61		44	44		61
Confl. Bikes (#/hr)						3			15			19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				29.0	29.0			61.0			61.0	
Total Split (s)				29.0	29.0			61.0			61.0	
Total Split (%)				32.2%	32.2%			67.8%			67.8%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

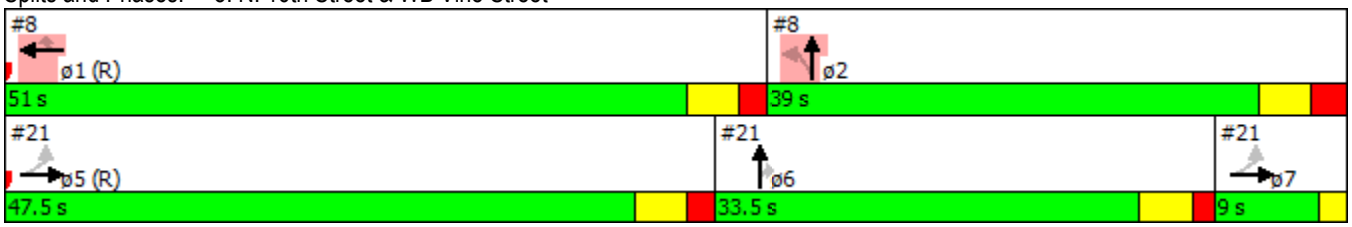
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	510	465	21	281	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	29		14	14		29	68		4	4		68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

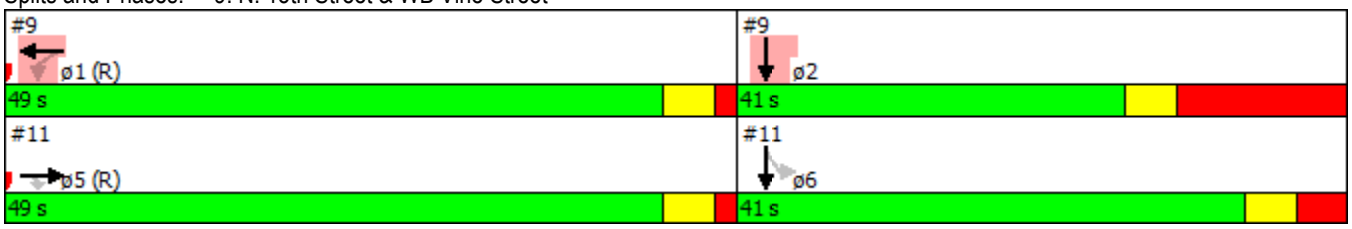
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	42	594	0	0	0	0	0	981	348
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	27		3	3		27	8		56	56		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

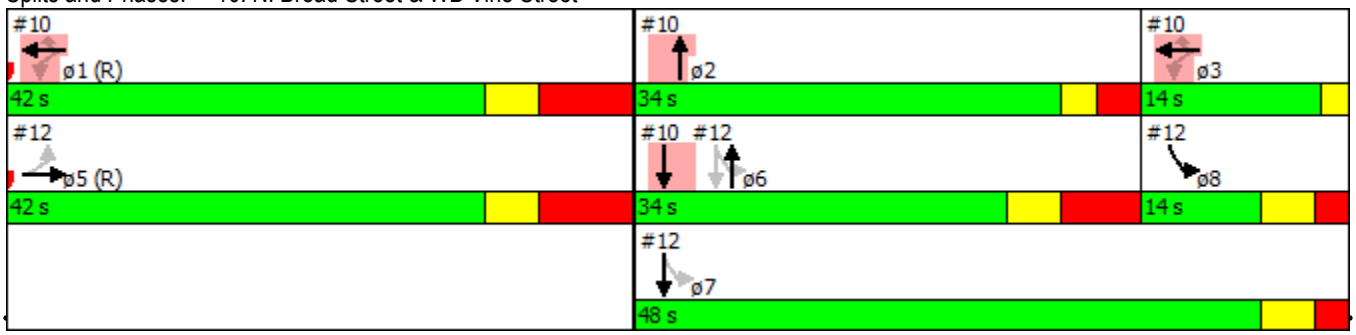
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	577	113	0	528	0	0	603	70
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			280	
Travel Time (s)		13.1			16.5			4.6			7.6	
Confl. Peds. (#/hr)	26					26	135		70	70		135
Confl. Bikes (#/hr)						4			11			16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

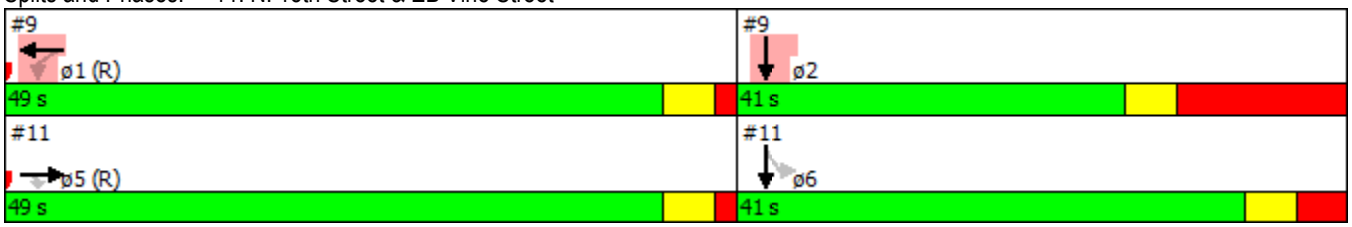
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1070	511	0	0	0	0	0	0	228	792	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			16	16			8		60	60		8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

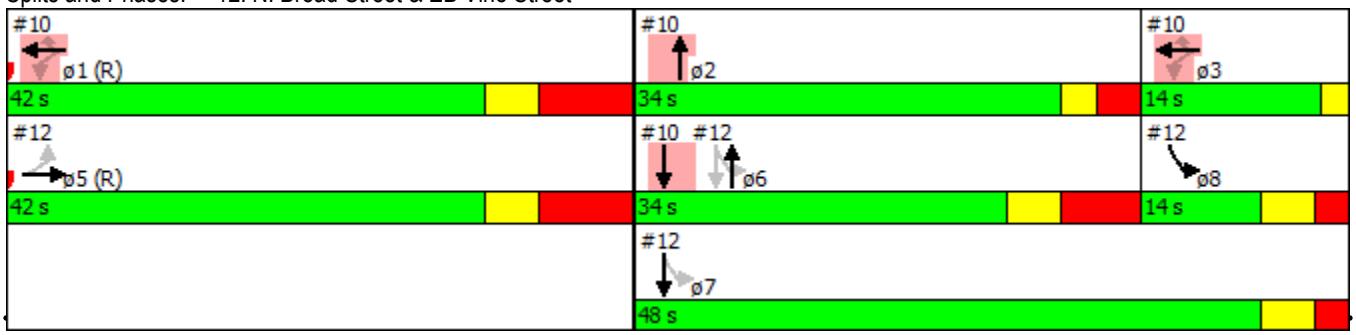
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	878	86	0	0	0	0	299	147	221	484	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			240			170	
Travel Time (s)		13.1			4.4			6.5			4.6	
Confl. Peds. (#/hr)			29	29			222		53	53		222
Confl. Bikes (#/hr)			2						14			15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	3%	11%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

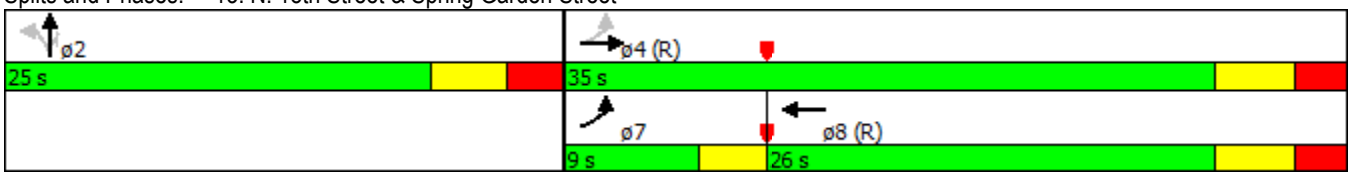
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	372	0	0	375	24	28	57	49	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	56		38	38		56	46		21	21		46
Confl. Bikes (#/hr)			1			2						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

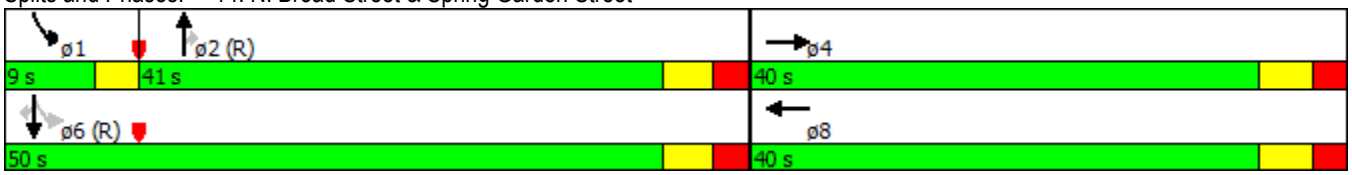


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	375	49	0	353	70	0	566	43	69	654	69
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	17		28	28		17	65		38	38		65
Confl. Bikes (#/hr)			4			2			10			9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

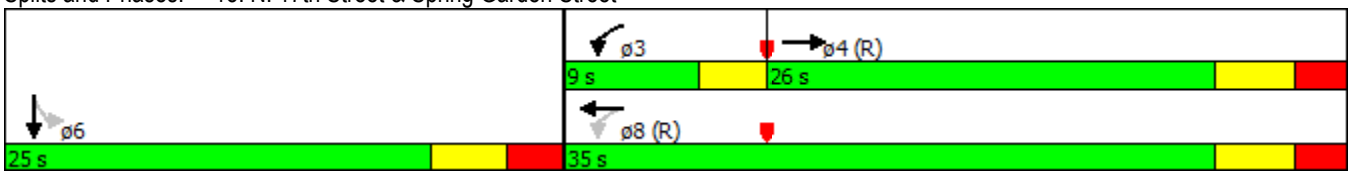


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	387	31	33	383	0	0	0	0	28	53	28
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	27		44	44		27	26		4	4		26
Confl. Bikes (#/hr)			1			1						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

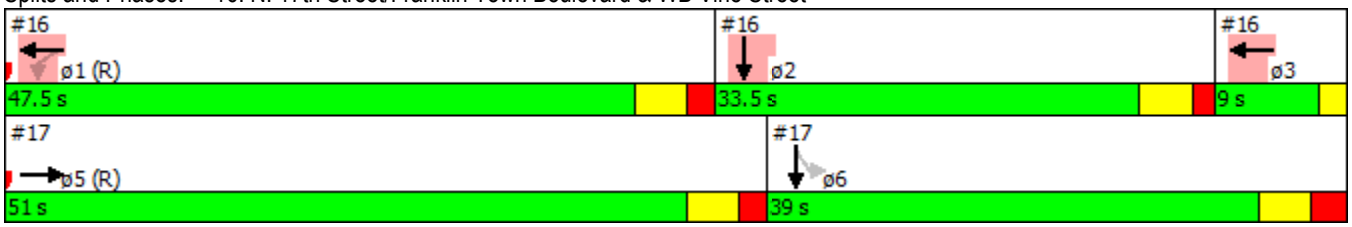


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	98	281	32	0	0	0	0	155	7
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	17		1	1		17	10		100	100		10
Confl. Bikes (#/hr)						5						2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

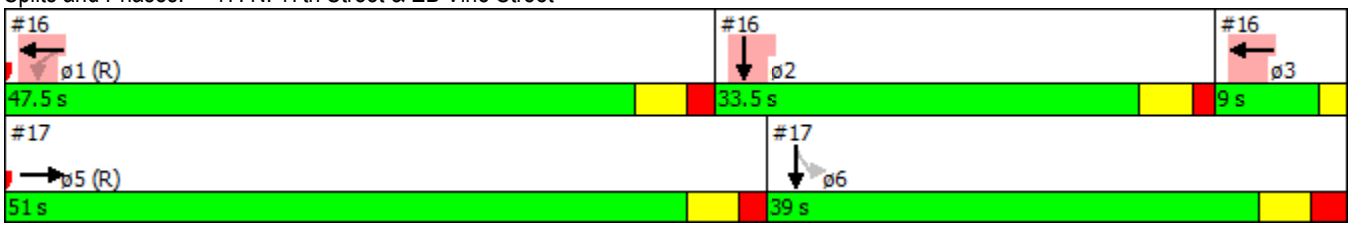
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	197	29	0	0	0	0	0	0	58	200	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	1		16	16		1	9		87	87		9
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	153	21	14	141	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	5		11	11		5	10		20	20		10
Confl. Bikes (#/hr)						5						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

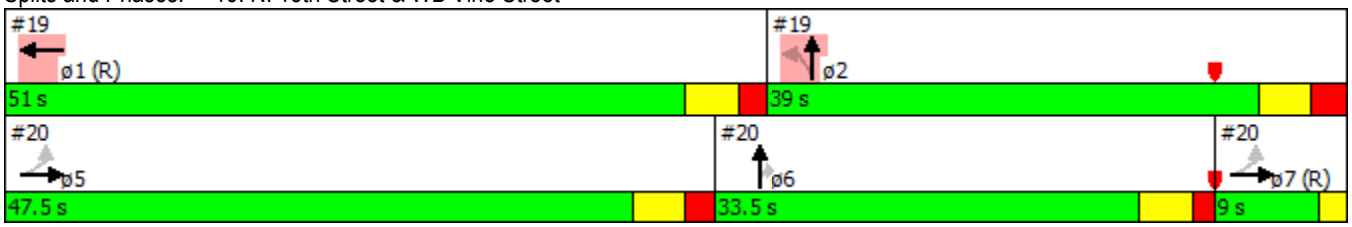
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	704	43	73	129	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	24		3	3		24	53		40	40		53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

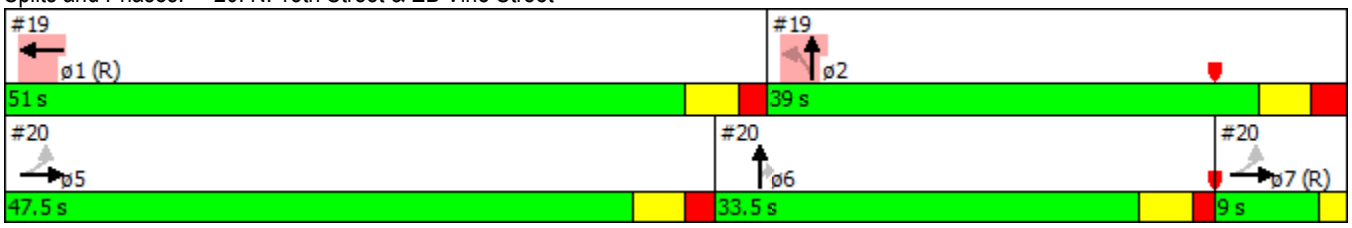
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	469	0	0	0	0	0	140	43	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)			11	11			49		36	36		49
Confl. Bikes (#/hr)			2						4			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

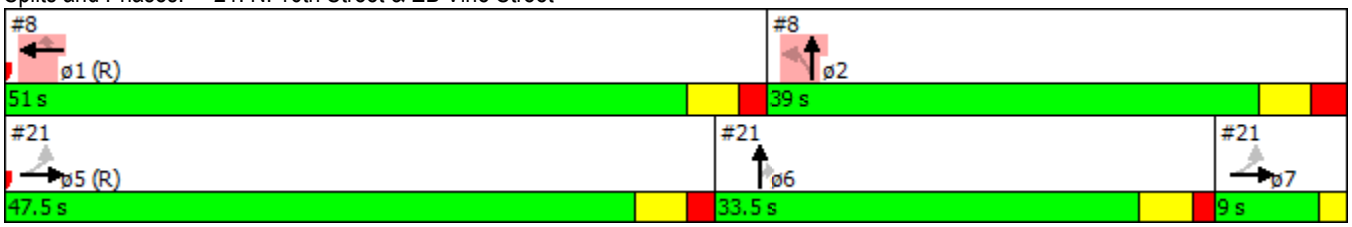
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	243	0	0	0	0	0	305	276	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	2		13	13		2	35		7	7		35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	519	0	0	0	0	1062
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	715	531	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

BASE (NO-BUILD) CONDITIONS

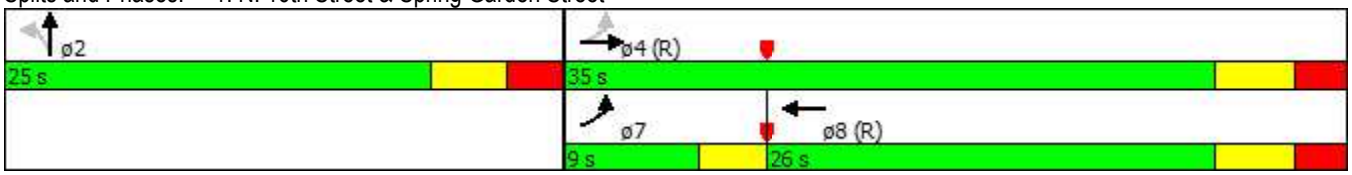
FRIDAY PM (4-6 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	661	0	0	824	93	126	384	203	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	83		410	410		83	70		73	73		70
Confl. Bikes (#/hr)			32			51			14			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

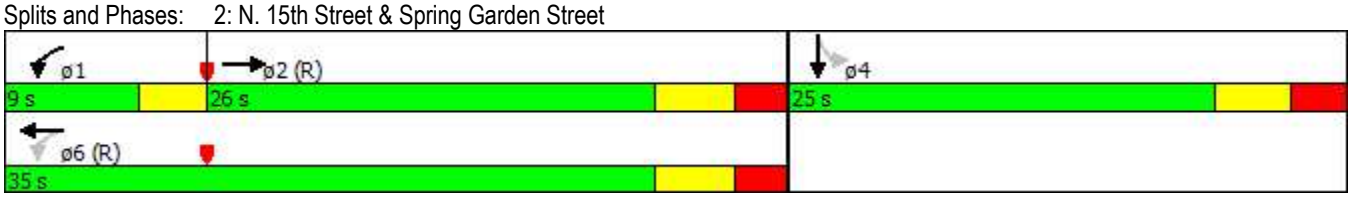


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	781	63	121	698	0	0	0	0	78	306	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	124		469	469		124	123		129	129		123
Confl. Bikes (#/hr)			5			7						32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	24%	5%	2%	2%	2%	2%	2%	8%	2%	3%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	55	137	37	280	174	38	42	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	35		35	35		35	28		24	24		28
Confl. Bikes (#/hr)			5			8			1			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	13%	2%	2%	2%	2%	4%	2%	25%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	62	156	333	0	0	0	0	0	231	94
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	26		57	57		26	112		60	60		112
Confl. Bikes (#/hr)			1			7						20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

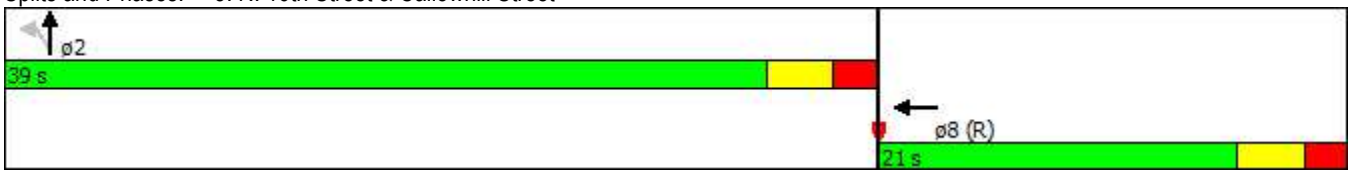
Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	365	136	82	542	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	35		73	73		35	237		30	30		237
Confl. Bikes (#/hr)						4			22			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street



Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	344	0	0	0	0	0	512	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	57		40	40		57	34		31	31		34
Confl. Bikes (#/hr)						1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	13%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	274	88	0	792	0	0	788	79
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			560			1070	
Travel Time (s)		13.1			16.5			15.3			29.2	
Confl. Peds. (#/hr)	32		43	43		32	157		89	89		157
Confl. Bikes (#/hr)						5			8			21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				33.0	33.0			57.0			57.0	
Total Split (s)				33.0	33.0			57.0			57.0	
Total Split (%)				36.7%	36.7%			63.3%			63.3%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 49 (54%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	749	557	83	589	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	69		33	33		69	311		16	16		311
Confl. Bikes (#/hr)						3			12			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	5%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street

Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

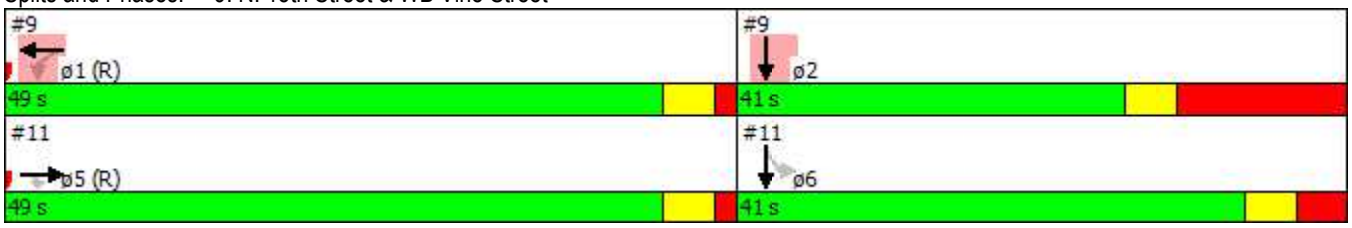
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	77	930	0	0	0	0	0	1200	345
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	59		2	2		59	34		225	225		34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

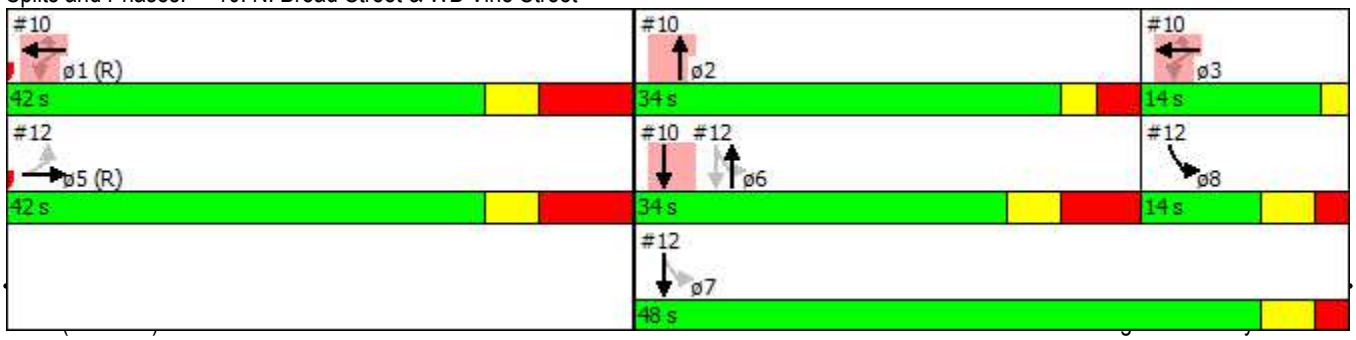
Intersection Summary

Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	172	869	184	0	670	0	0	654	131
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			560	
Travel Time (s)		13.1			16.5			4.6			15.3	
Confl. Peds. (#/hr)	89		1	1		89	328		150	150		328
Confl. Bikes (#/hr)						39			1			11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
! Phase conflict between lane groups.	

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Heavy Vehicles (%)					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

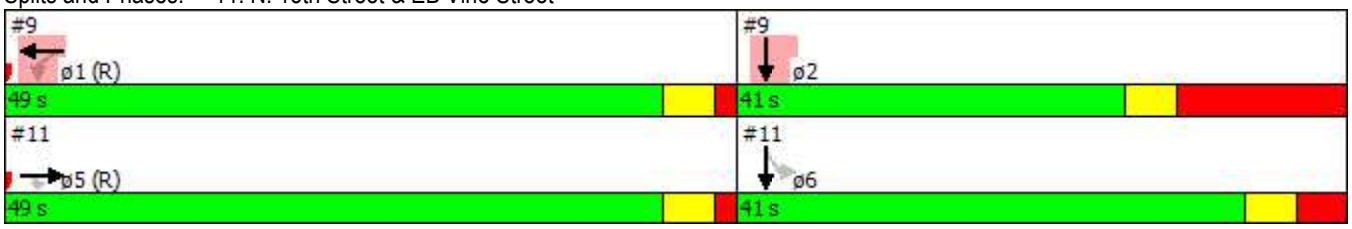
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1263	242	0	0	0	0	0	0	437	737	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)	1		19	19		1	19		140	140		19
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

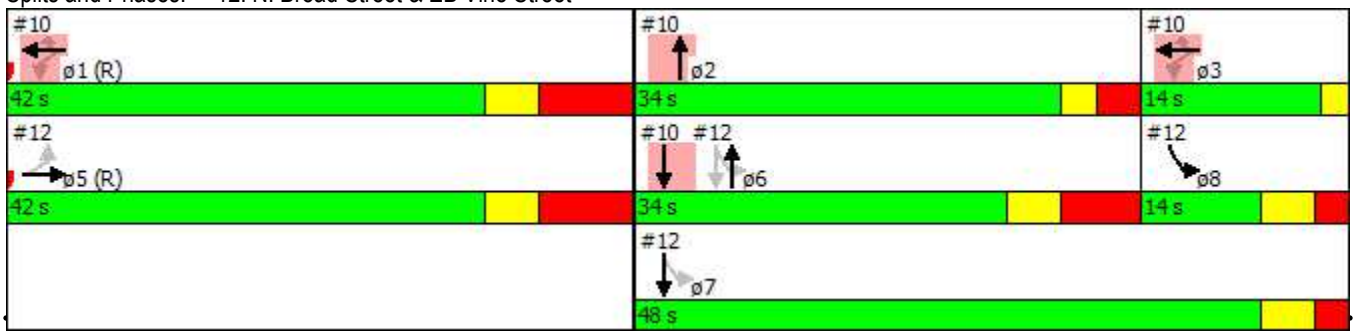
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	1463	64	0	0	0	0	567	426	211	682	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			430			170	
Travel Time (s)		13.1			4.4			11.7			4.6	
Confl. Peds. (#/hr)	6		110	110		6	375		123	123		375
Confl. Bikes (#/hr)			7						16			20
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 (%)	3%	2%	3%	2%	2%	2%	2%	3%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

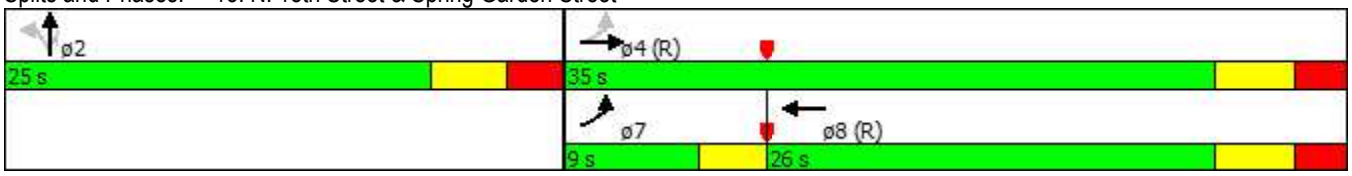
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	604	0	0	856	83	159	207	175	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	58		103	103		58	76		45	45		76
Confl. Bikes (#/hr)			43			38			13			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street



Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	818	35	0	743	81	0	810	49	140	810	110
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		0	170		0
Storage Lanes	0		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	59		145	145		59	194		126	126		194
Confl. Bikes (#/hr)			40			39			16			26
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases										6		6
Minimum Split (s)		33.0			33.0			35.0		9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0		9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%		10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4		3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6		0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0		3.0	6.0	6.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

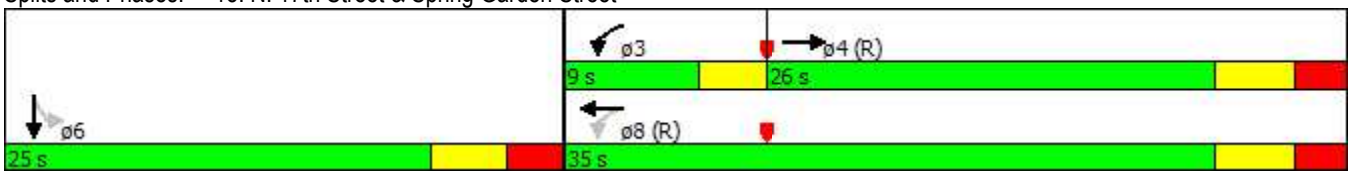
Splits and Phases: 14: N. Broad Street & Spring Garden Street

Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	931	45	55	792	0	0	0	0	36	88	55
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	45		108	108		45	63		33	33		63
Confl. Bikes (#/hr)			9			3						24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

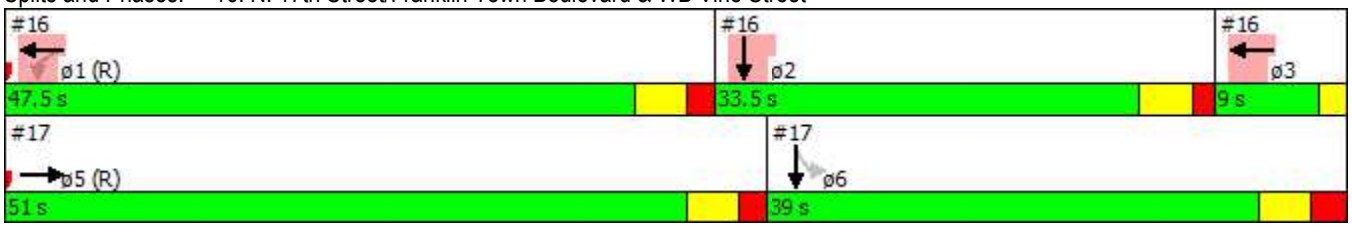


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	192	581	76	0	0	0	0	335	29
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	49		1	1		49	33		142	142		33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

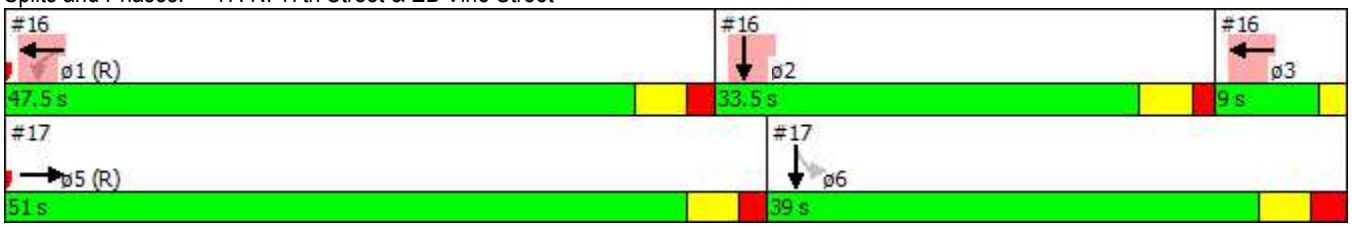
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	497	49	0	0	0	0	0	0	156	440	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	2		32	32		2	46		155	155		46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

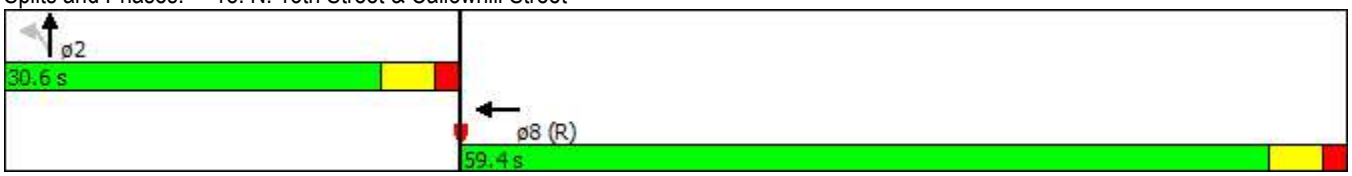
Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	284	60	23	239	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	97		19	19		97	82		72	72		82
Confl. Bikes (#/hr)						6						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 18: N. 13th Street & Callowhill Street



Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1035	73	119	243	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	36		5	5		36	51		81	81		51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street

Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	600	0	0	0	0	0	255	102	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	2		34	34		2	111		75	75		111
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street

Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	660	0	0	0	0	0	653	440	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	1		8	8		1	200		10	10		200
Confl. Bikes (#/hr)									10			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street

Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1100	0	0	0	0	405
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1426	674	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

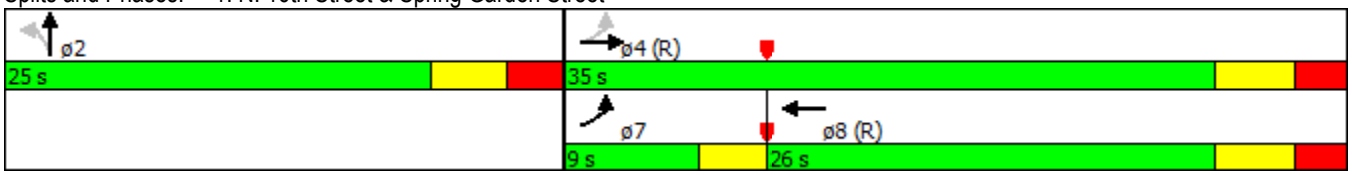
FRIDAY EVENING (7-10 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	461	0	0	421	59	51	188	68	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	45		51	51		45	29		27	27		29
Confl. Bikes (#/hr)			9			7			10			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

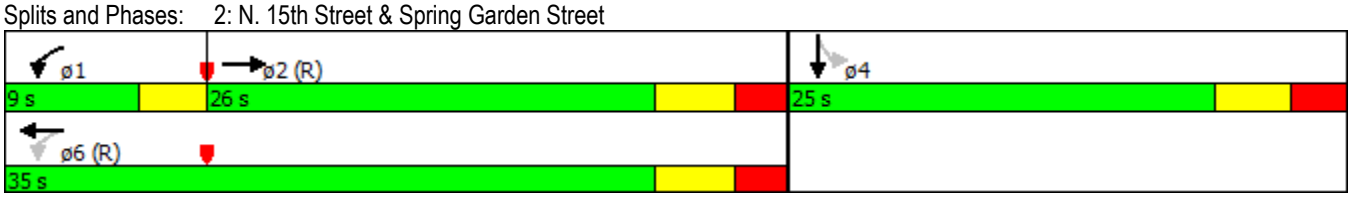


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	473	47	42	447	0	0	0	0	36	132	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	42		90	90		42	52		22	22		52
Confl. Bikes (#/hr)												2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	46	108	23	97	53	16	36	6	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	39		76	76		39	74		64	64		74
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	43	56	110	0	0	0	0	0	129	30
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	24		54	54		24	41		6	6		41
Confl. Bikes (#/hr)			3			1						7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	131	41	42	269	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	29		31	31		29	42		11	11		42
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	82	135	0	0	0	0	0	229	16
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	10		41	41		10	15		37	37		15
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	122	41	0	563	0	0	769	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			300			1070	
Travel Time (s)		13.1			16.5			8.2			29.2	
Confl. Peds. (#/hr)	15		13	13		15	66		65	65		66
Confl. Bikes (#/hr)			4			4			9			15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				29.0	29.0			61.0			61.0	
Total Split (s)				29.0	29.0			61.0			61.0	
Total Split (%)				32.2%	32.2%			67.8%			67.8%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

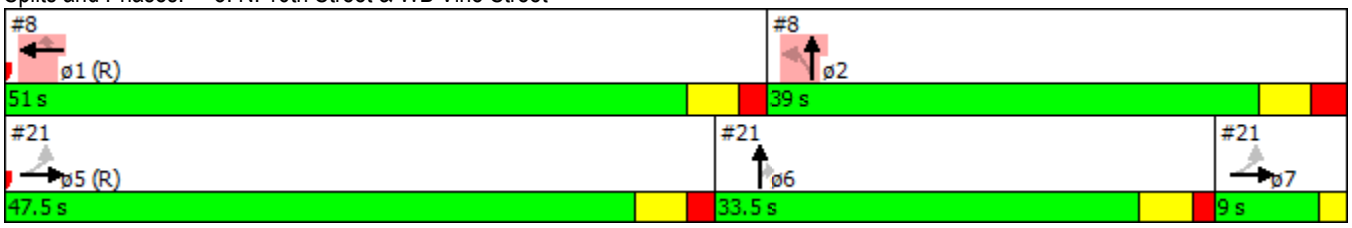
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	264	422	59	408	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	15		7	7		15	14		1	1		14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

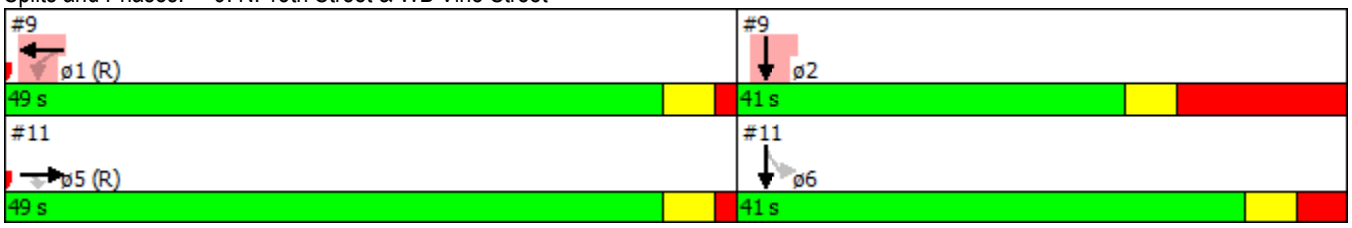
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	35	471	0	0	0	0	0	1016	270
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	18		1	1		18	17		74	74		17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

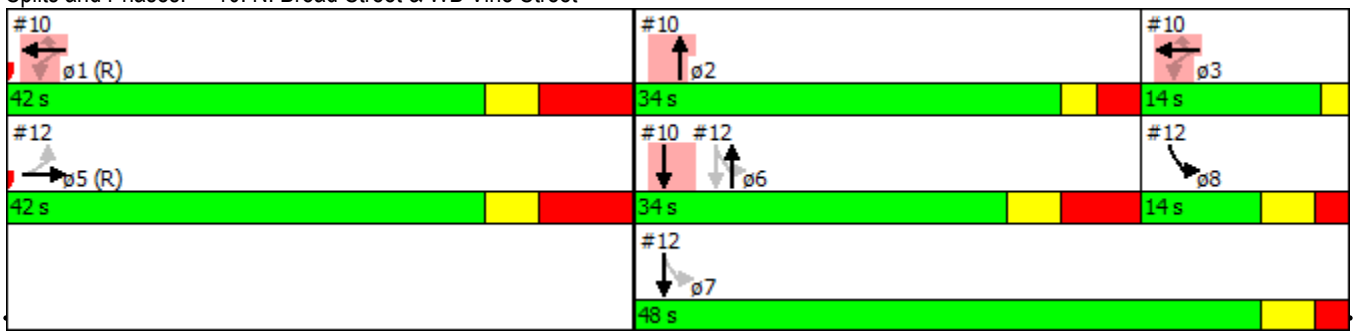
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	104	413	108	0	529	0	0	597	92
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			260	
Travel Time (s)		13.1			16.5			4.6			7.1	
Confl. Peds. (#/hr)	43		1	1		43	262		68	68		262
Confl. Bikes (#/hr)						1			13			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

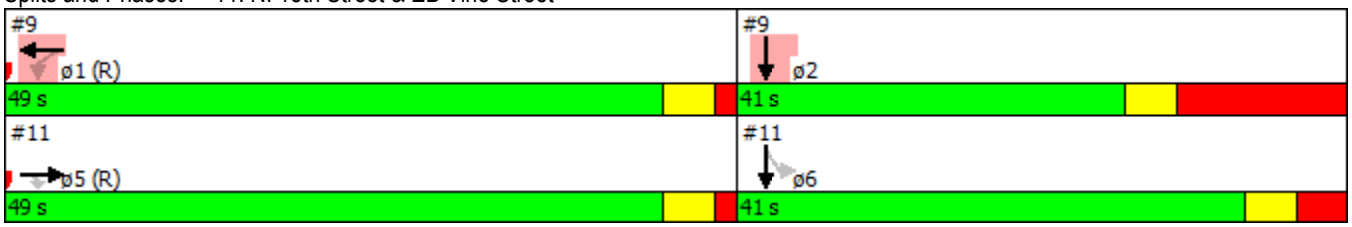
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1108	333	0	0	0	0	0	0	271	787	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			12	12			21		89	89		21
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
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

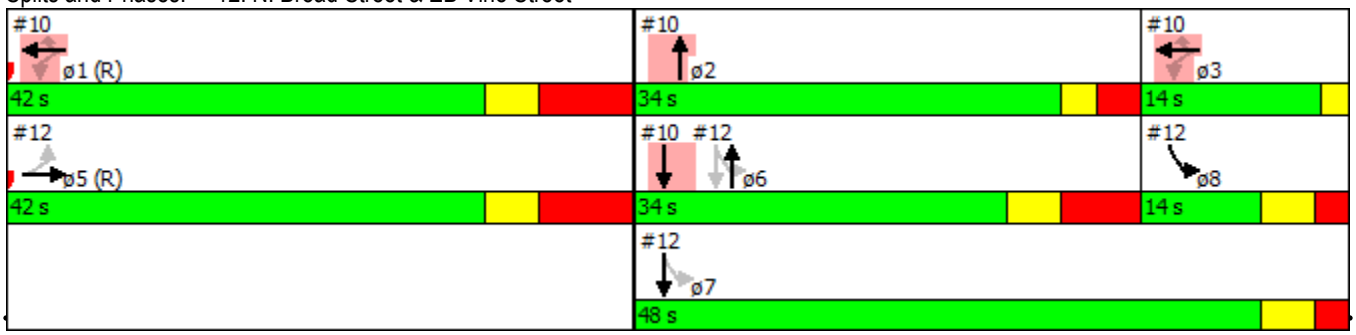
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	177	1319	102	0	0	0	0	362	207	269	481	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			270			170	
Travel Time (s)		13.1			4.4			7.4			4.6	
Confl. Peds. (#/hr)			41	41			169		73	73		169
Confl. Bikes (#/hr)			1						9			8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

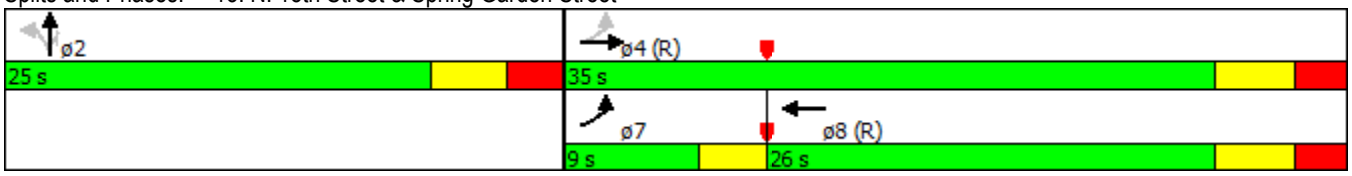
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	454	0	0	446	29	32	75	58	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	56		77	77		56	53		20	20		53
Confl. Bikes (#/hr)			15			1			13			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

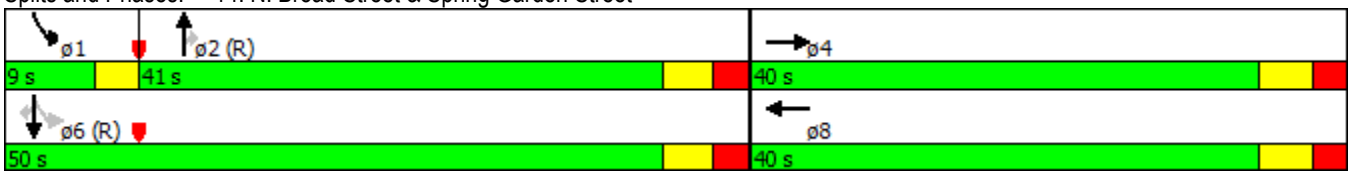


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	480	58	0	391	51	0	543	56	75	795	102
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	25		54	54		25	156		78	78		156
Confl. Bikes (#/hr)						2			7			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

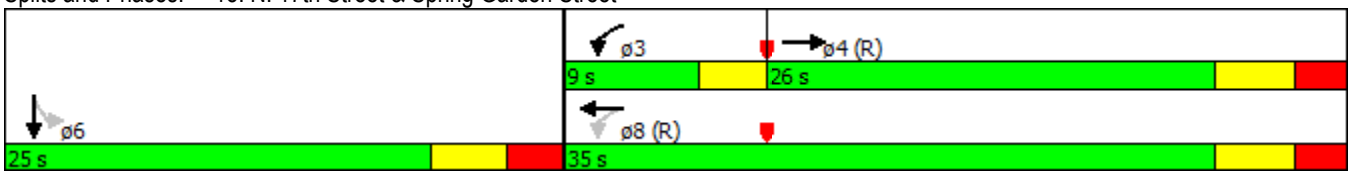


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	439	48	60	413	0	0	0	0	36	69	38
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	58		53	53		58	70		32	32		70
Confl. Bikes (#/hr)			6									7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

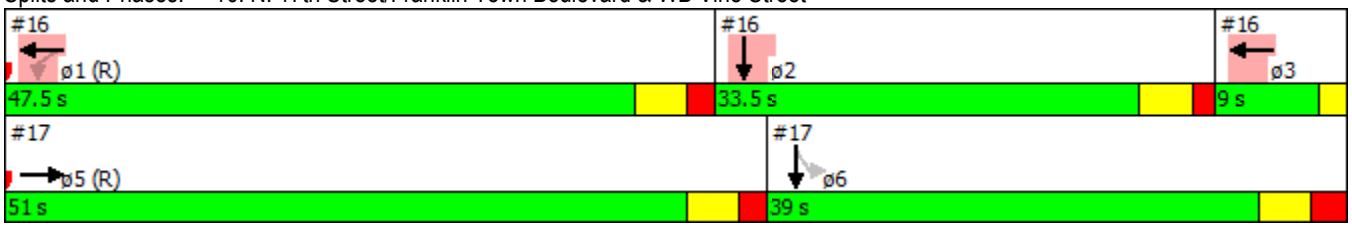


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	73	220	51	0	0	0	0	278	23
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	24		2	2		24	37		104	104		37
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

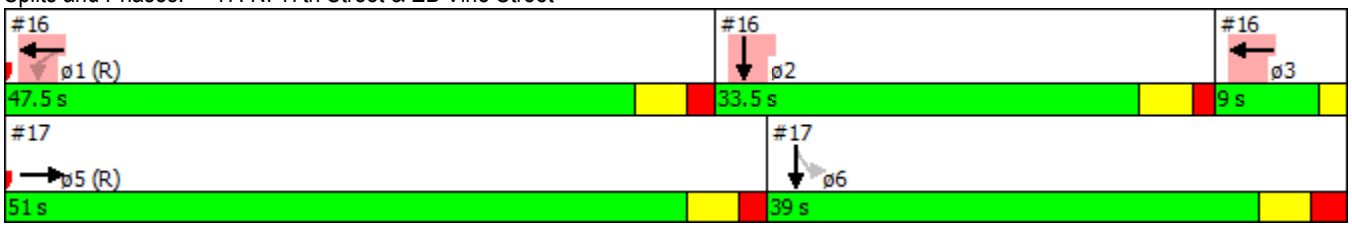
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	312	26	0	0	0	0	0	0	127	238	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)			18	18			33		116	116		33
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	127	18	17	162	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	10		17	17		10	17		42	42		17
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

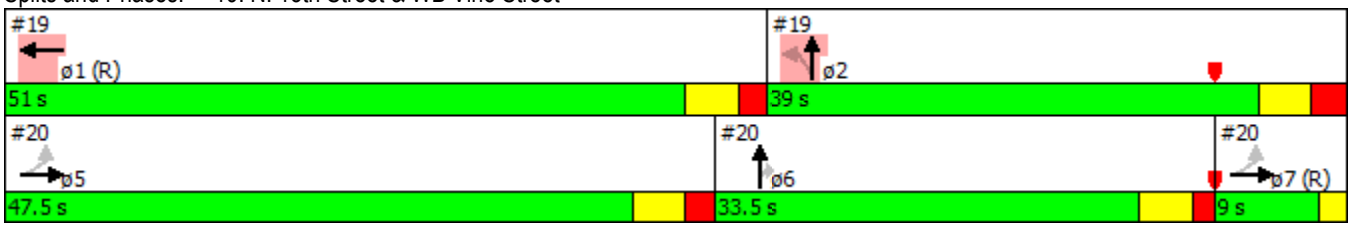
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	546	40	67	129	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	55					55	70		58	58		70
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							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

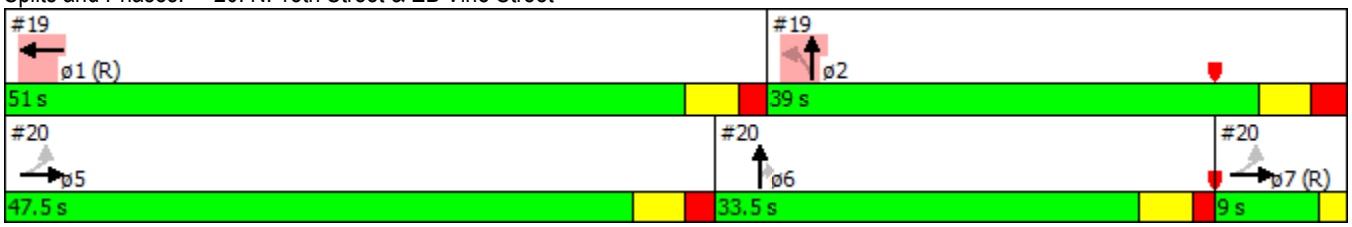
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	485	0	0	0	0	0	132	65	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	4		32	32		4	64		61	61		64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

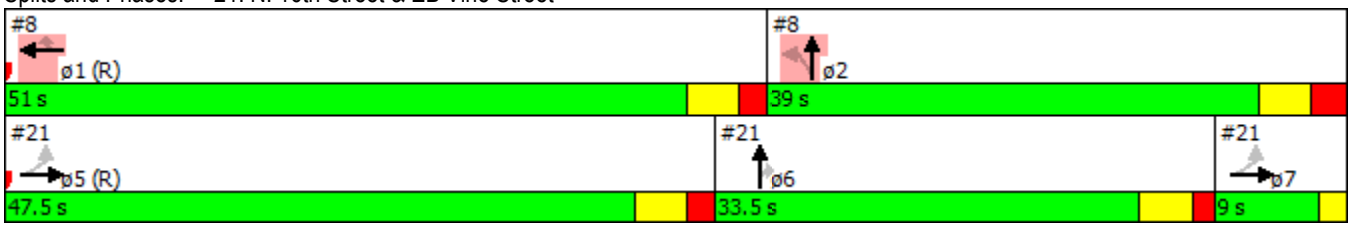
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	367	0	0	0	0	0	417	388	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	3		10	10		3	57		3	3		57
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	3%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	755	0	0	0	0	686
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1246	549	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

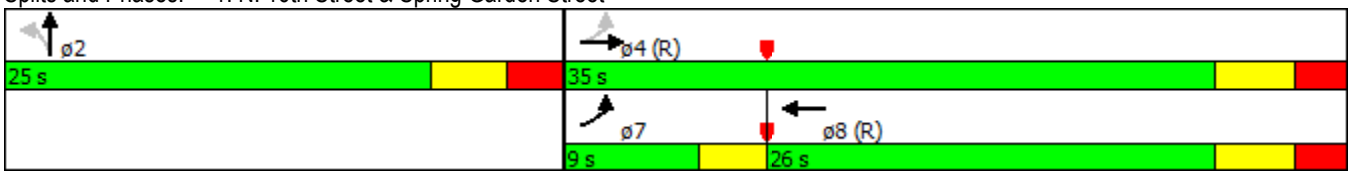
SATURDAY EVENING (6-9 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	399	0	0	394	35	36	161	45	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	49		39	39		49	26		16	16		26
Confl. Bikes (#/hr)			5			2			2			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street



Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	415	30	51	389	0	0	0	0	28	127	42
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	50		41	41		50	28		12	12		28
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street

Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	33	80	25	85	28	11	19	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	17		65	65		17	71		41	41		71
Confl. Bikes (#/hr)			7			4						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	29	33	111	0	0	0	0	0	119	23
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	15		24	24		15	5		5	5		5
Confl. Bikes (#/hr)			4									1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	106	14	45	254	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	21		25	25		21	29		14	14		29
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	47	91	0	0	0	0	0	194	13
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	12		26	26		12	3		35	35		3
Confl. Bikes (#/hr)						2						9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	46	96	29	0	615	0	0	671	37
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			260			1070	
Travel Time (s)		13.1			16.5			7.1			29.2	
Confl. Peds. (#/hr)	2		12	12		2	83		44	44		83
Confl. Bikes (#/hr)						3			15			19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA			NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8								
Minimum Split (s)				29.0	29.0			61.0			61.0	
Total Split (s)				29.0	29.0			61.0			61.0	
Total Split (%)				32.2%	32.2%			67.8%			67.8%	
Yellow Time (s)				3.0	3.0			3.0			3.0	
All-Red Time (s)				3.0	3.0			2.0			2.0	
Lost Time Adjust (s)				0.0	0.0			0.0			0.0	
Total Lost Time (s)				6.0	6.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

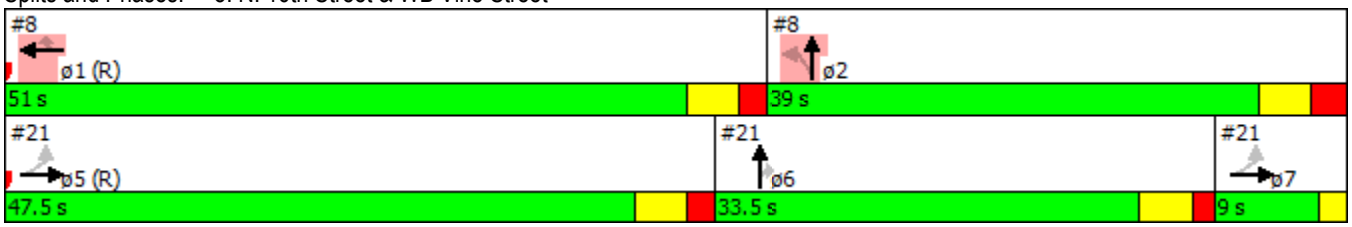
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	563	469	73	281	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	29		14	14		29	68		4	4		68
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

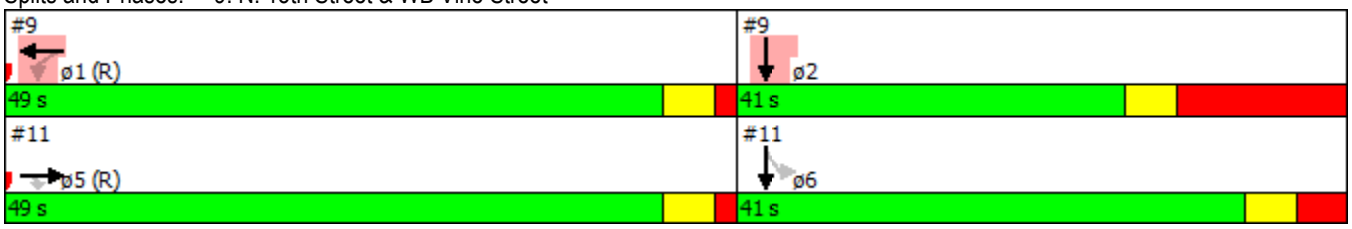
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	42	611	0	0	0	0	0	986	388
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	27		3	3		27	8		77	77		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

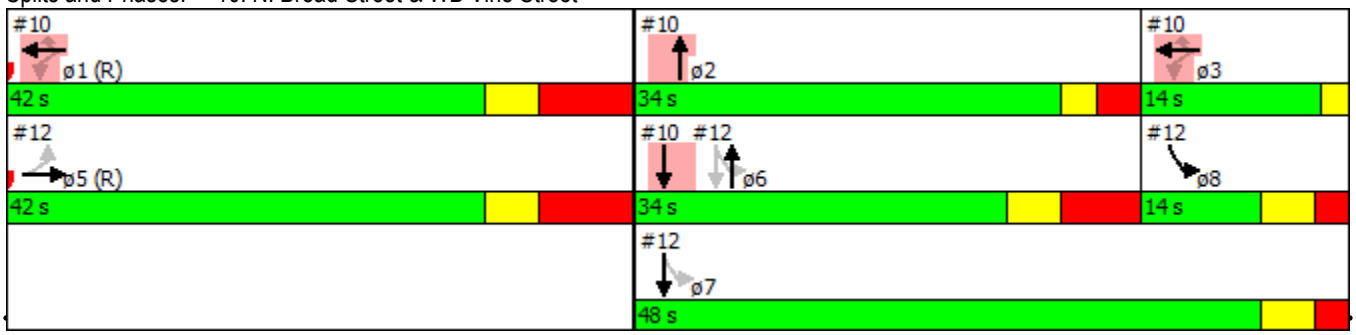
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	589	114	0	540	0	0	608	75
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			300	
Travel Time (s)		13.1			16.5			4.6			8.2	
Confl. Peds. (#/hr)	26					26	157		70	70		157
Confl. Bikes (#/hr)						4			11			16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

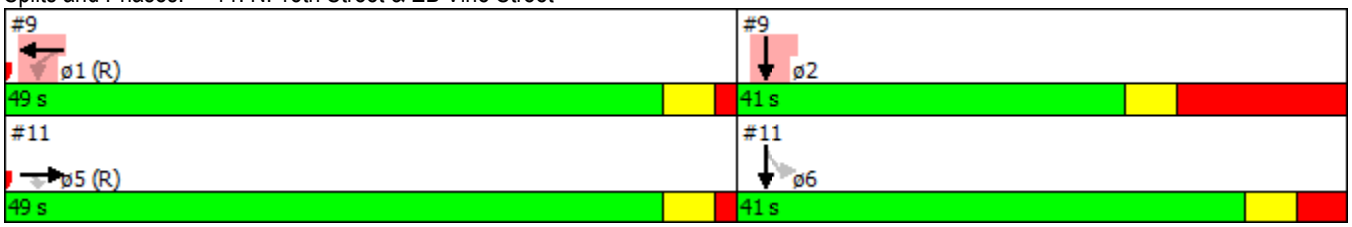
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1098	551	0	0	0	0	0	0	233	792	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			16	16			8		81	81		8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

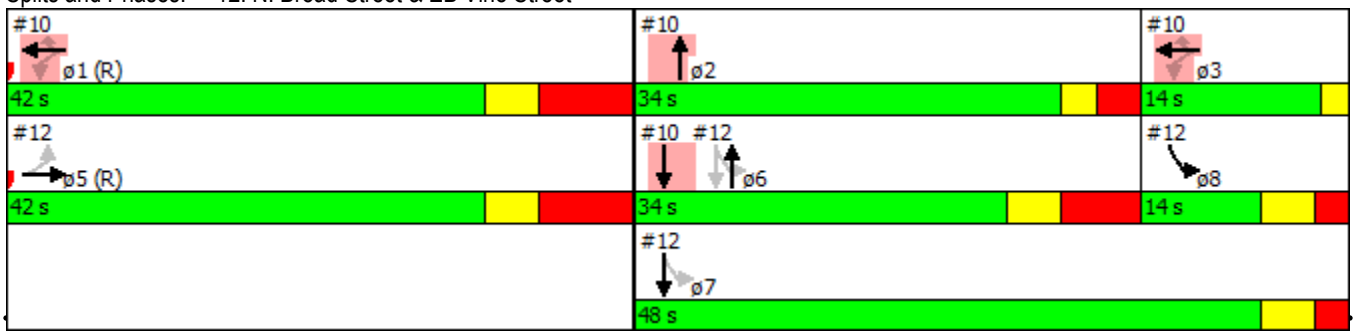
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	208	900	86	0	0	0	0	300	147	225	485	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			250			170	
Travel Time (s)		13.1			4.4			6.8			4.6	
Confl. Peds. (#/hr)			29	29			244		53	53		244
Confl. Bikes (#/hr)			2						14			15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	3%	11%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

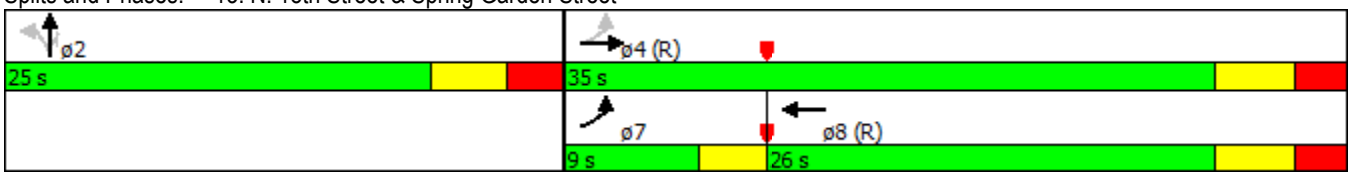
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	378	0	0	376	24	28	57	49	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	56		43	43		56	46		21	21		46
Confl. Bikes (#/hr)			1			2						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

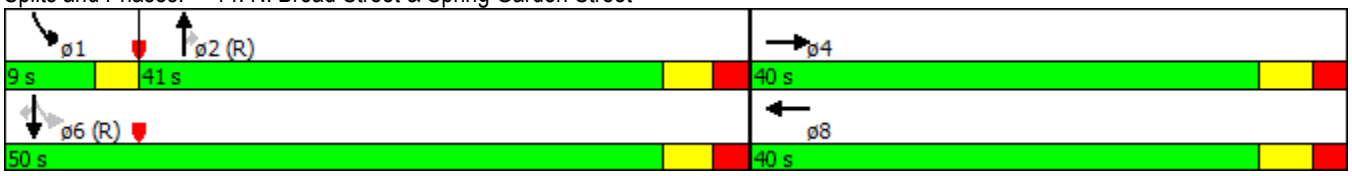


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	375	49	0	360	70	0	566	43	69	655	76
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	17		28	28		17	70		38	38		70
Confl. Bikes (#/hr)			4			2			10			9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

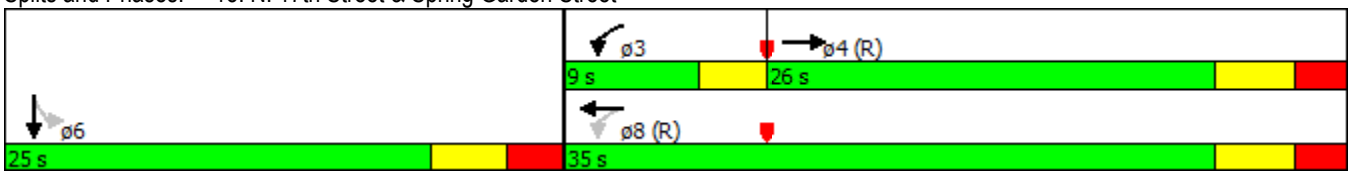


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	388	36	47	384	0	0	0	0	28	63	28
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	27		49	49		27	26		4	4		26
Confl. Bikes (#/hr)			1			1						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

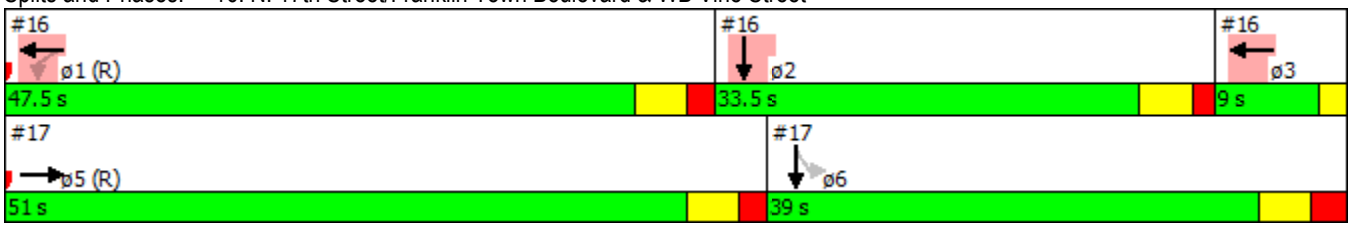


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	98	282	136	0	0	0	0	180	37
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	17		1	1		17	32		100	100		32
Confl. Bikes (#/hr)						5						2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

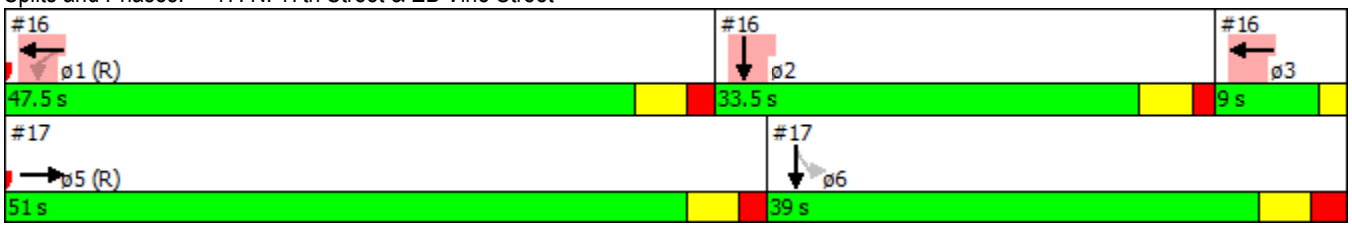
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	203	29	0	0	0	0	0	0	80	203	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	1		16	16		1	31		87	87		31
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	154	21	14	141	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	5		11	11		5	10		20	20		10
Confl. Bikes (#/hr)						5						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

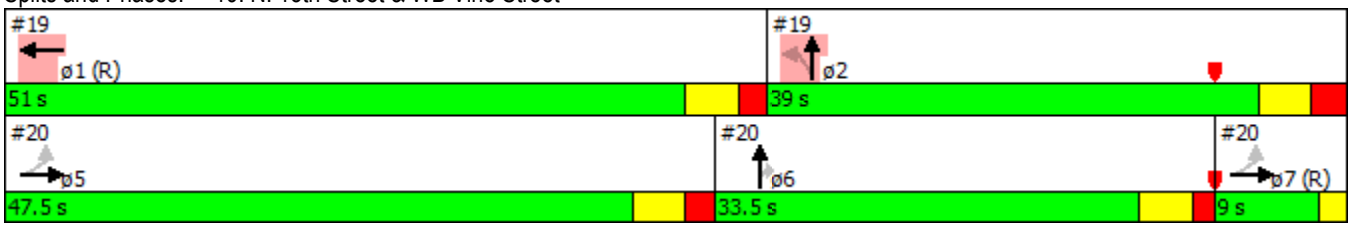
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	717	43	73	129	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	24		3	3		24	53		40	40		53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

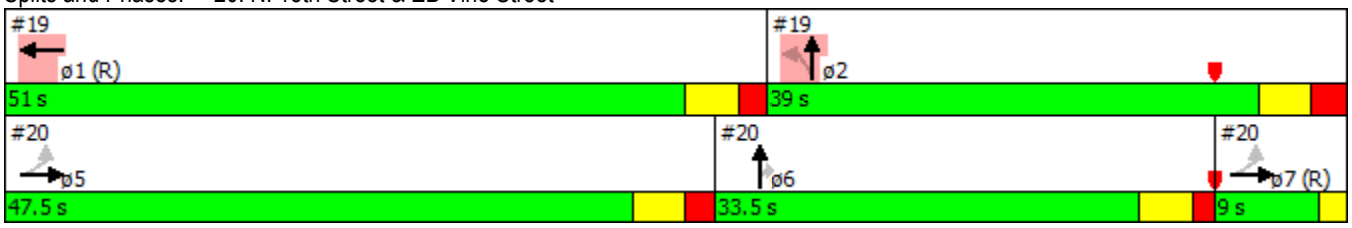
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	474	0	0	0	0	0	140	43	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)			11	11			49		36	36		49
Confl. Bikes (#/hr)			2						4			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

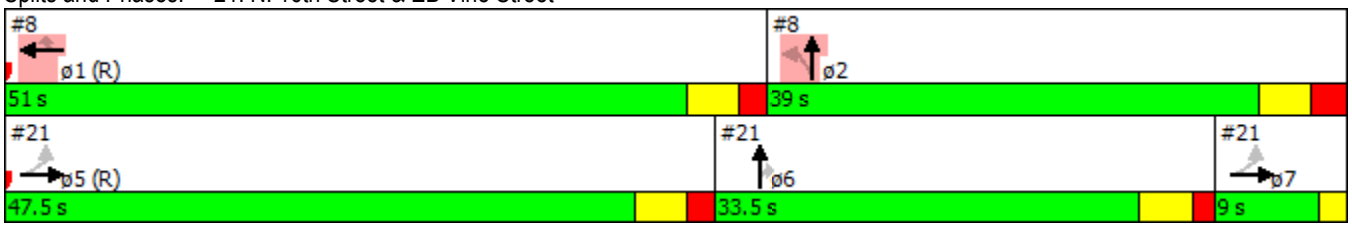
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	266	0	0	0	0	0	352	276	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	2		13	13		2	35		7	7		35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	542	0	0	0	0	1107
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	736	536	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

PROJECTED (BUILD) CONDITIONS

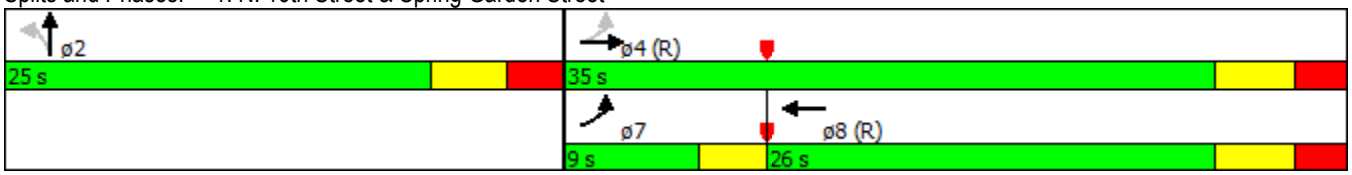
FRIDAY PM (4-6 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	667	0	0	824	93	160	438	240	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	83		455	455		83	95		200	200		95
Confl. Bikes (#/hr)			32			51			14			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

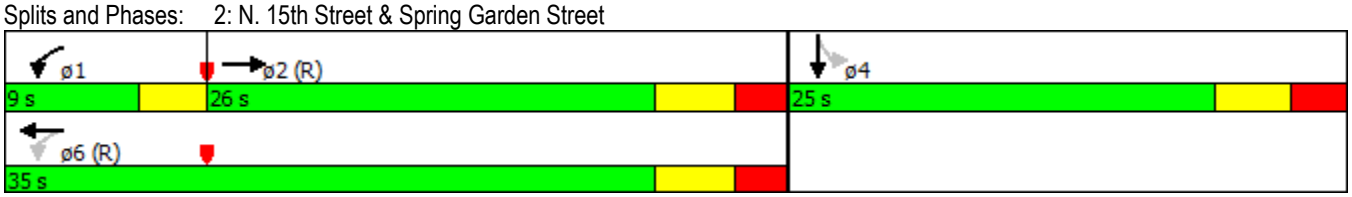


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	818	69	150	698	0	0	0	0	82	325	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	124		469	469		124	134		157	157		134
Confl. Bikes (#/hr)			5			7						32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	24%	5%	2%	2%	2%	2%	2%	8%	2%	3%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	55	137	37	333	188	38	42	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	56		53	53		56	28		24	24		28
Confl. Bikes (#/hr)			5			8			1			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	13%	2%	2%	2%	2%	4%	2%	25%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	62	195	350	0	0	0	0	0	285	144
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	47		75	75		47	112		60	60		112
Confl. Bikes (#/hr)			1			7						20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	421	237	82	853	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	303		204	204		303	546		30	30		546
Confl. Bikes (#/hr)						4			22			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	163	496	0	0	0	0	0	700	126
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	57		40	40		57	34		324	324		34
Confl. Bikes (#/hr)						1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	13%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	316	88	145	780	0	0	790	125
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			560			1070	
Travel Time (s)		13.1			16.5			15.3			29.2	
Confl. Peds. (#/hr)	121		195	195		121	563		110	110		563
Confl. Bikes (#/hr)						5			8			21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				33.0	33.0		57.0	57.0			57.0	
Total Split (s)				33.0	33.0		57.0	57.0			57.0	
Total Split (%)				36.7%	36.7%		63.3%	63.3%			63.3%	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				3.0	3.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0		5.0	5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 49 (54%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

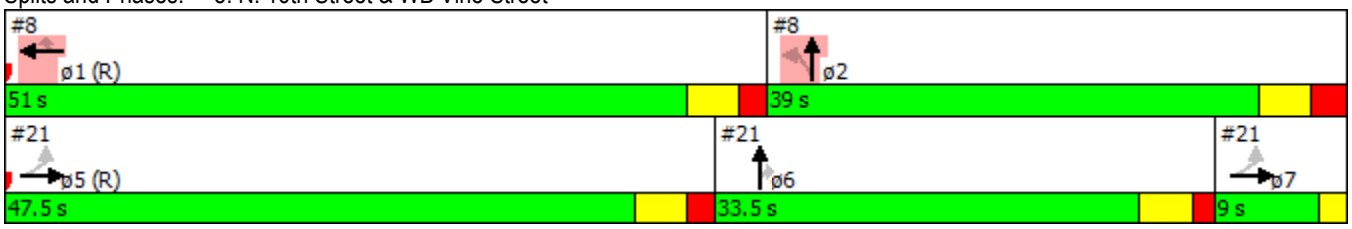
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	749	807	83	737	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	69		33	33		69	604		16	16		604
Confl. Bikes (#/hr)						3			12			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	5%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

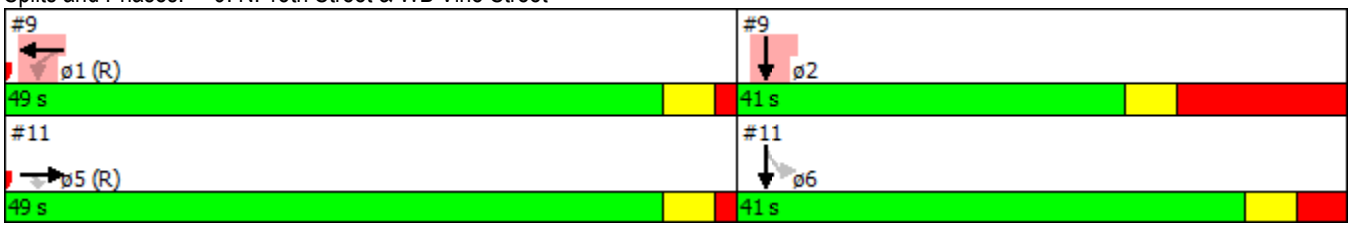
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	77	939	0	0	0	0	0	1357	586
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	59		2	2		59	34		518	518		34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

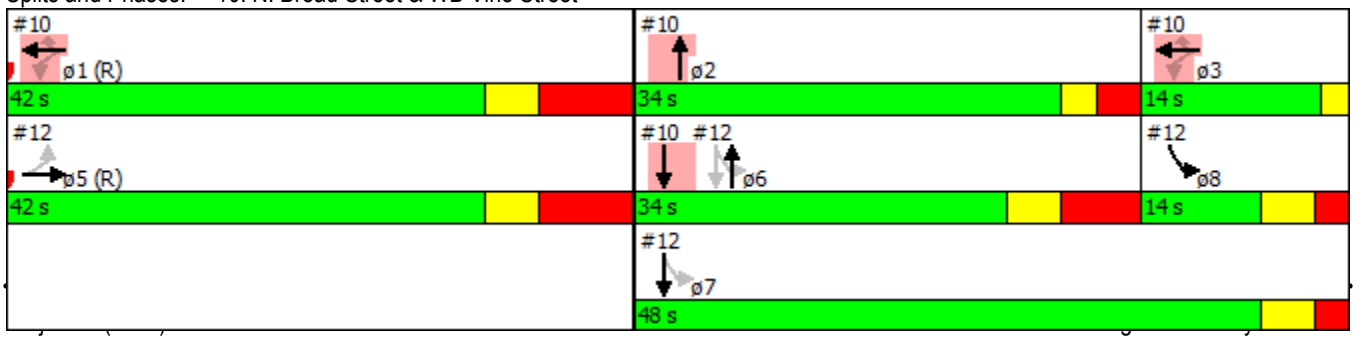
Intersection Summary

Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	172	878	198	0	790	0	0	656	131
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			560	
Travel Time (s)		13.1			16.5			4.6			15.3	
Confl. Peds. (#/hr)	107		1	1		107	564		239	239		564
Confl. Bikes (#/hr)						39			1			11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	
! Phase conflict between lane groups.	

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Heavy Vehicles (%)					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

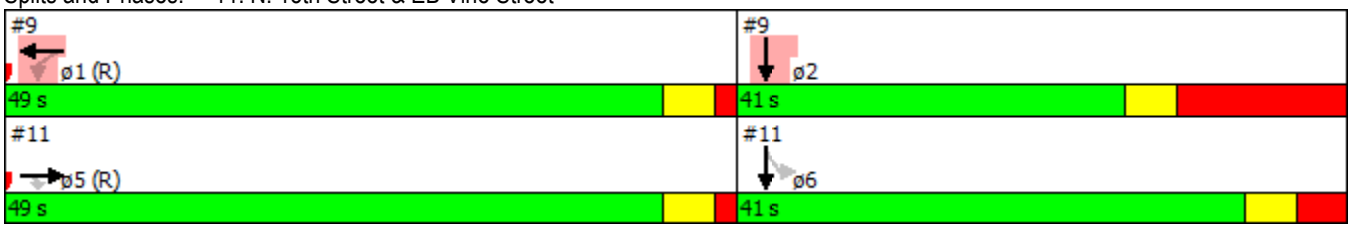
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1380	349	0	0	0	0	0	0	554	777	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)	1		19	19		1	19		433	433		19
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

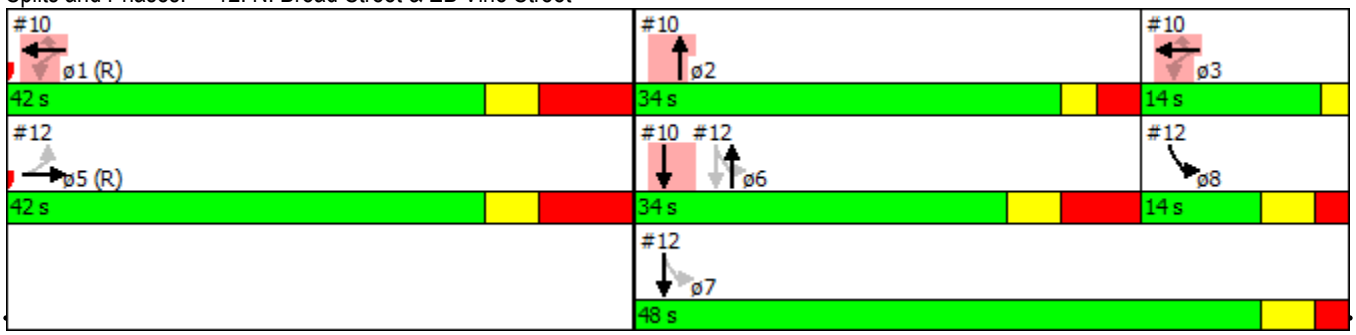
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	1608	64	0	0	0	0	597	426	225	670	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			430			170	
Travel Time (s)		13.1			4.4			11.7			4.6	
Confl. Peds. (#/hr)	6		131	131		6	611		191	191		611
Confl. Bikes (#/hr)			7						16			20
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 (%)	3%	2%	3%	2%	2%	2%	2%	3%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

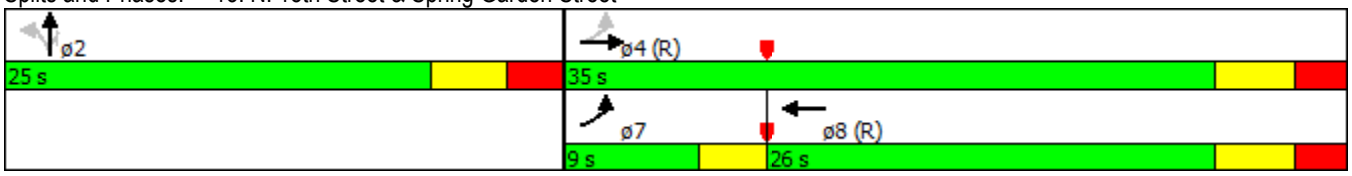
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	627	0	0	879	83	173	207	175	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	76		124	124		76	76		45	45		76
Confl. Bikes (#/hr)			43			38			13			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

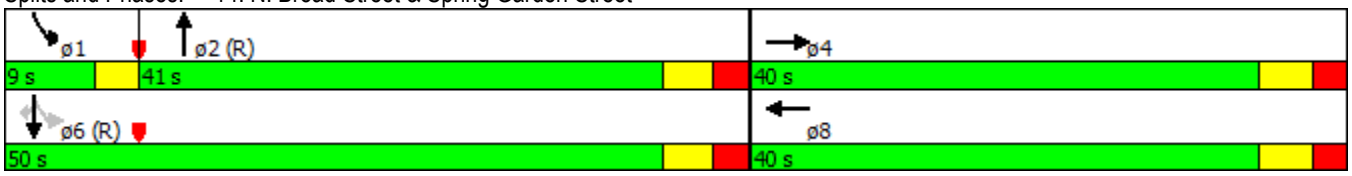


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	841	53	0	772	81	0	798	49	140	839	110
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		0	170		0
Storage Lanes	0		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	77		173	173		77	262		126	126		262
Confl. Bikes (#/hr)			40			39			16			26
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases										6		6
Minimum Split (s)		33.0			33.0			35.0		9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0		9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%		10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4		3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6		0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0		3.0	6.0	6.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

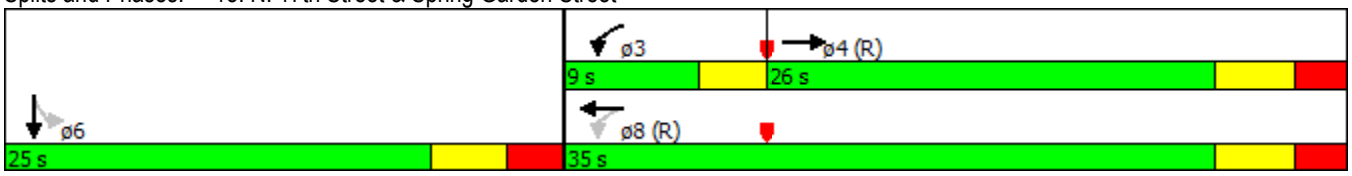


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	937	62	66	815	0	0	0	0	36	88	55
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	63		129	129		63	63		33	33		63
Confl. Bikes (#/hr)			9			3						24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

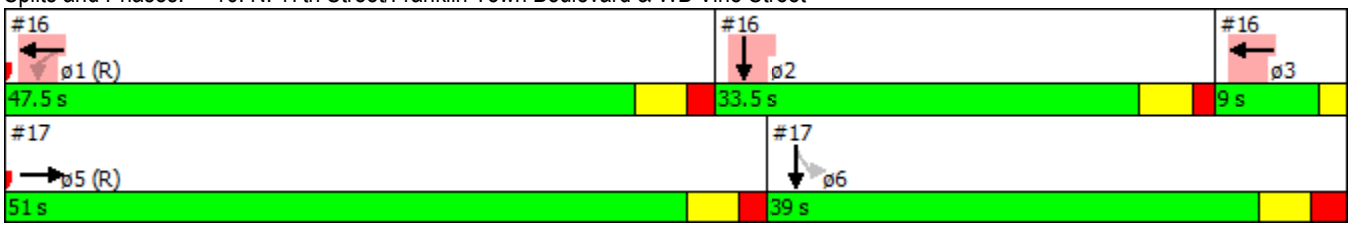


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	192	581	76	0	0	0	0	405	52
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	49		1	1		49	33		142	142		33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

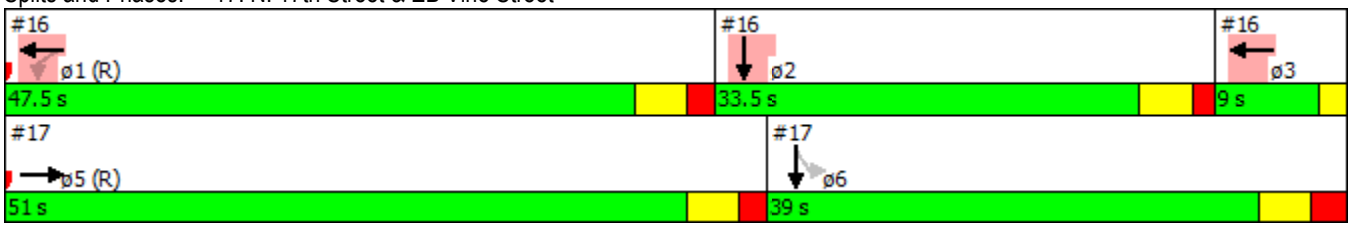
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	520	49	0	0	0	0	0	0	205	461	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	2		32	32		2	46		155	155		46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	307	60	42	239	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	97		37	37		97	82		72	72		82
Confl. Bikes (#/hr)						6						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

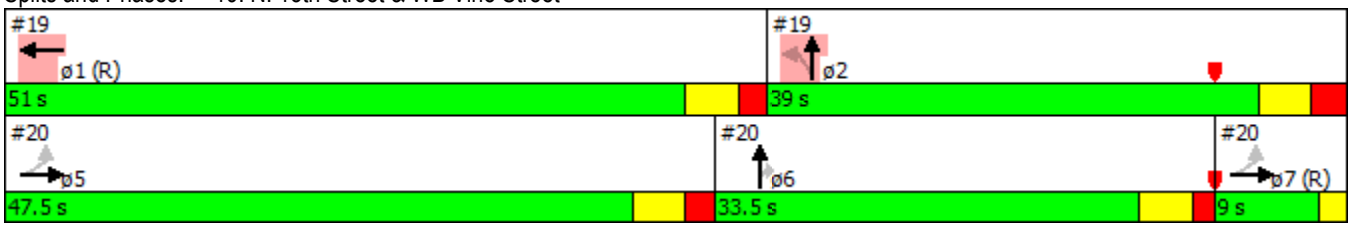
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1057	80	119	255	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	54		5	5		54	51		81	81		51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

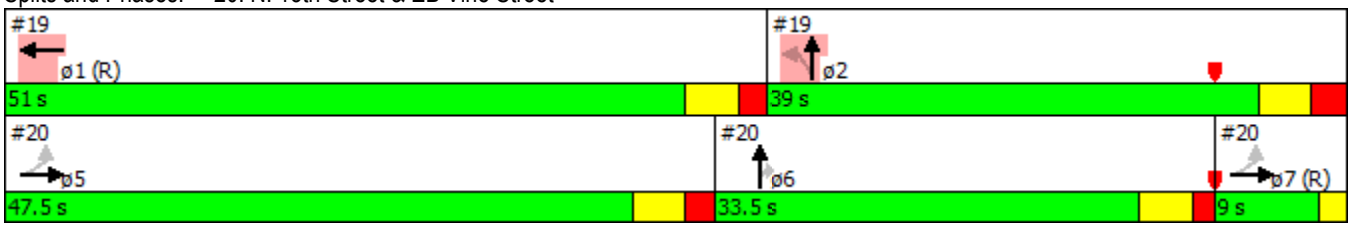
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	619	0	0	0	0	0	267	102	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	2		45	45		2	111		75	75		111
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

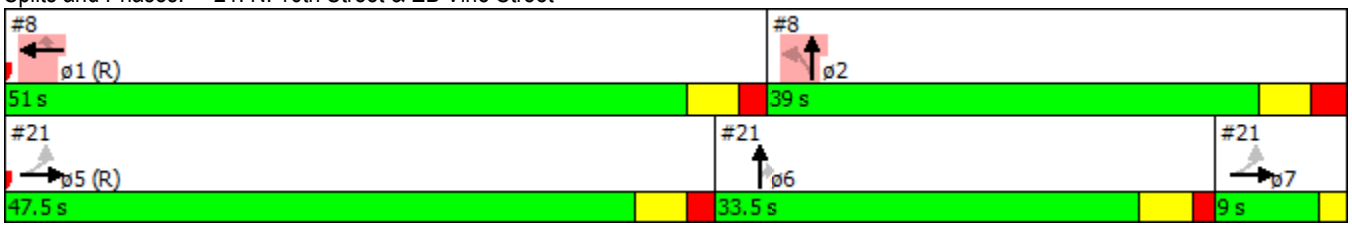
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	709	0	0	0	0	0	778	440	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	1		8	8		1	493		10	10		493
Confl. Bikes (#/hr)									10			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1111	0	0	0	0	580
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1566	693	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

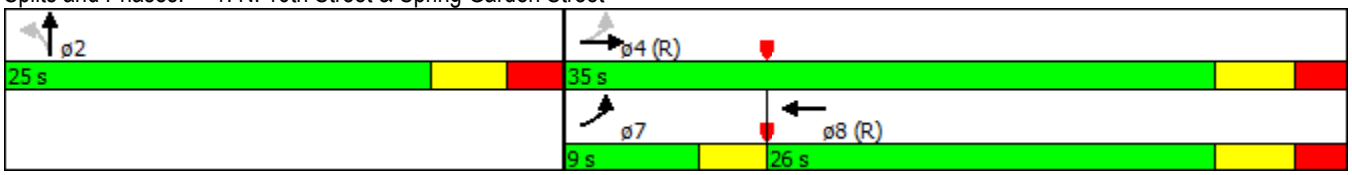
FRIDAY EVENING (7-10 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	468	0	0	421	59	90	250	112	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	45		99	99		45	54		161	161		54
Confl. Bikes (#/hr)			9			7			10			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

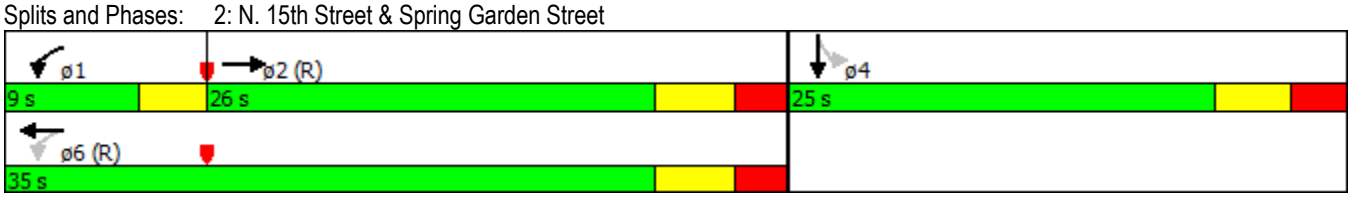


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	517	54	78	447	0	0	0	0	41	155	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	42		90	90		42	63		51	51		63
Confl. Bikes (#/hr)												2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	46	108	23	161	69	16	36	6	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	61		94	94		61	74		64	64		74
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	43	102	131	0	0	0	0	0	194	89
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	46		72	72		46	41		6	6		41
Confl. Bikes (#/hr)			3			1						7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	197	160	42	648	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	313		168	168		313	370		11	11		370
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	123	313	0	0	0	0	0	447	91
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	10		41	41		10	15		346	346		15
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	173	41	169	551	0	0	773	134
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			290			1070	
Travel Time (s)		13.1			16.5			7.9			29.2	
Confl. Peds. (#/hr)	108		174	174		108	495		87	87		495
Confl. Bikes (#/hr)			4			4			9			15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				29.0	29.0		61.0	61.0			61.0	
Total Split (s)				29.0	29.0		61.0	61.0			61.0	
Total Split (%)				32.2%	32.2%		67.8%	67.8%			67.8%	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				3.0	3.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0		5.0	5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

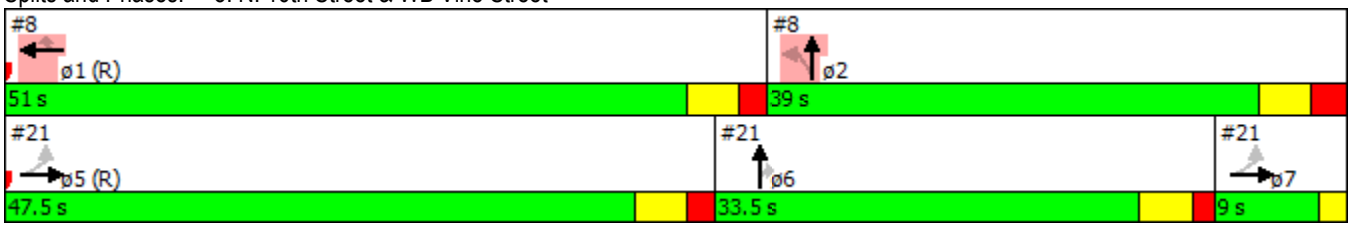
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	264	722	59	590	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	15		7	7		15	323		1	1		323
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

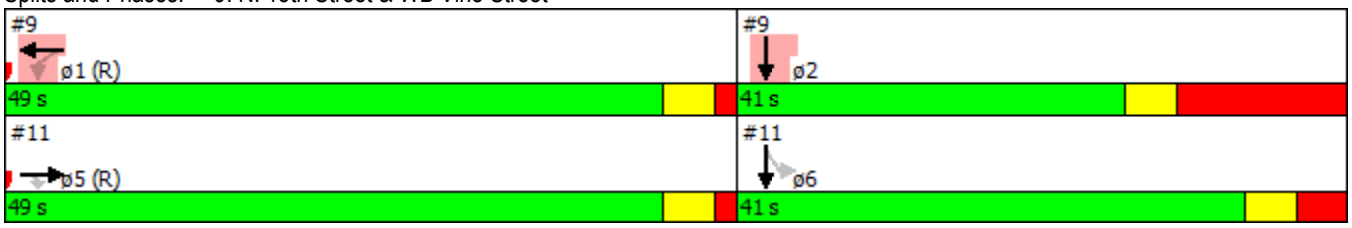
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	35	482	0	0	0	0	0	1199	559
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	18		1	1		18	17		383	383		17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

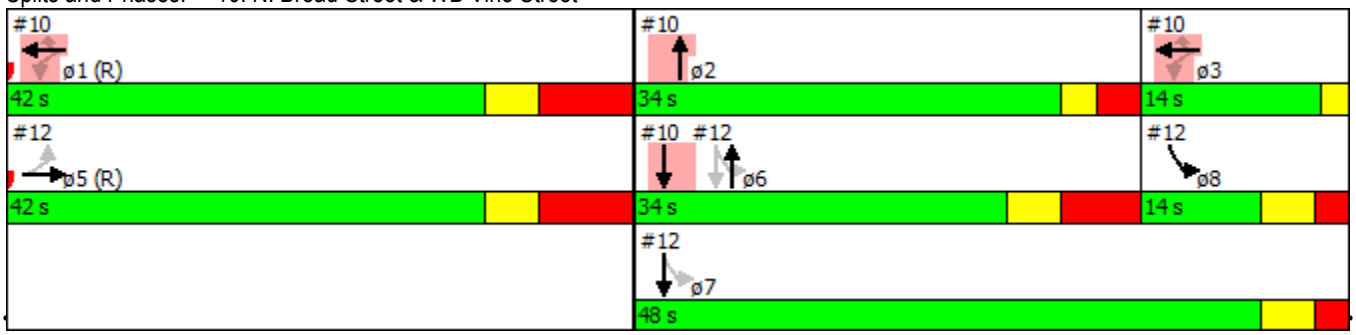
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	104	424	124	0	670	0	0	601	92
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			270	
Travel Time (s)		13.1			16.5			4.6			7.4	
Confl. Peds. (#/hr)	61		1	1		61	513		161	161		513
Confl. Bikes (#/hr)						1			13			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

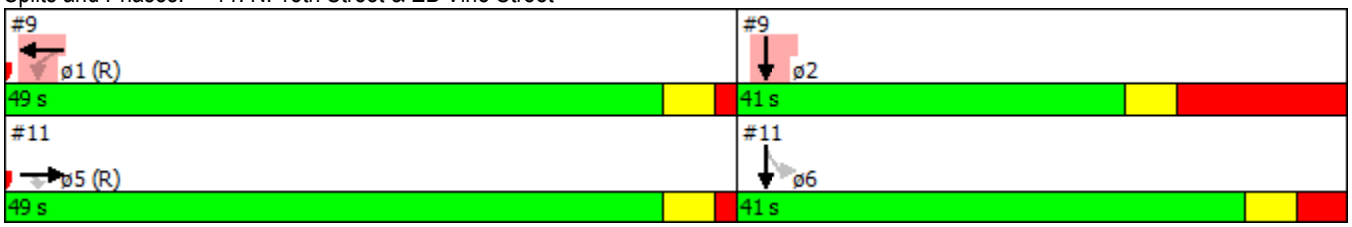
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1246	466	0	0	0	0	0	0	411	830	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			12	12			21		398	398		21
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
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

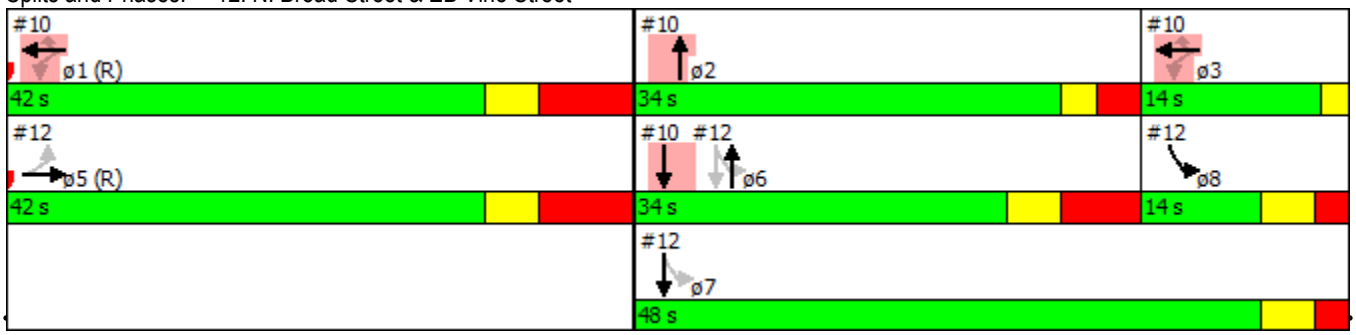
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	1489	102	0	0	0	0	397	207	285	469	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			250			170	
Travel Time (s)		13.1			4.4			6.8			4.6	
Confl. Peds. (#/hr)			63	63			420		144	144		420
Confl. Bikes (#/hr)			1						9			8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

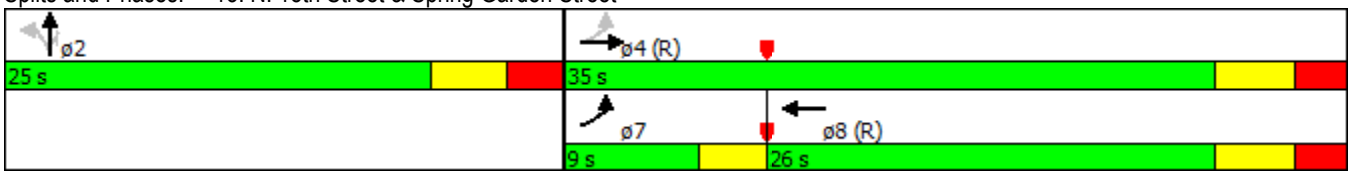
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	482	0	0	472	29	48	75	58	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	74		99	99		74	53		20	20		53
Confl. Bikes (#/hr)			15			1			13			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

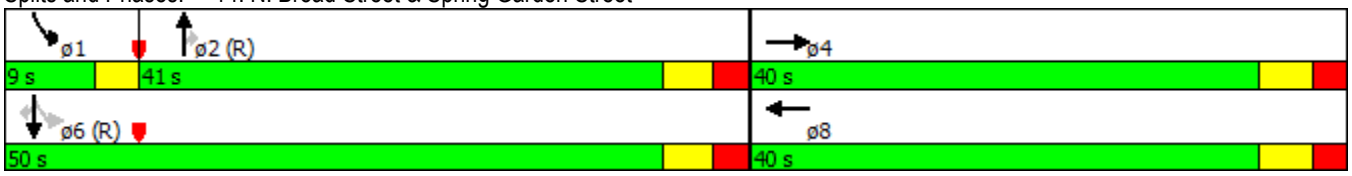


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	508	79	0	427	51	0	531	56	75	831	102
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	43		83	83		43	227		78	78		227
Confl. Bikes (#/hr)						2			7			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

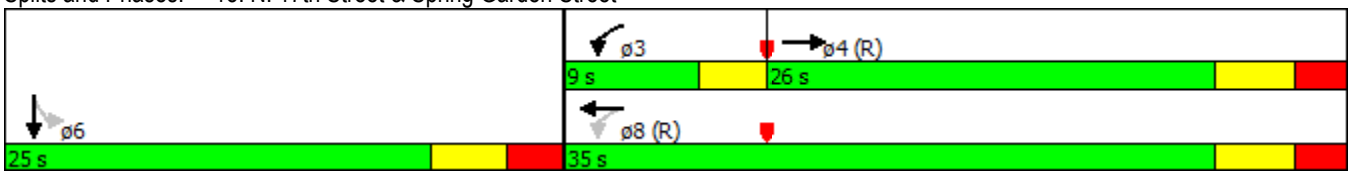


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	446	69	73	439	0	0	0	0	36	69	38
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	76		75	75		76	70		32	32		70
Confl. Bikes (#/hr)			6									7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

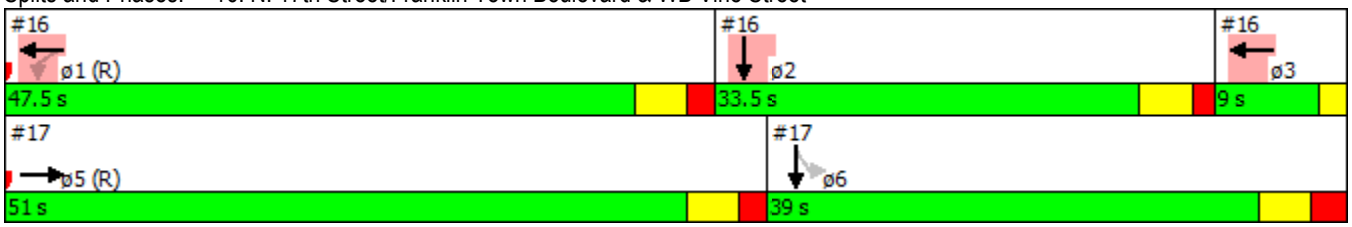


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	73	220	51	0	0	0	0	361	51
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	24		2	2		24	37		104	104		37
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

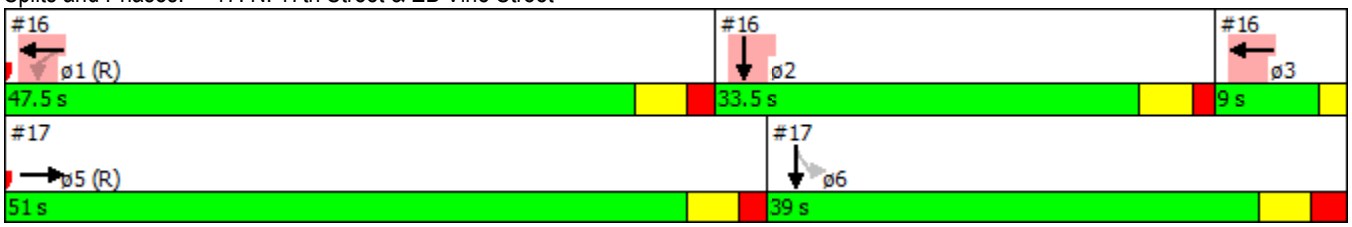
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	340	26	0	0	0	0	0	0	185	262	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)			18	18			33		116	116		33
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	155	18	40	162	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	10		35	35		10	17		42	42		17
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

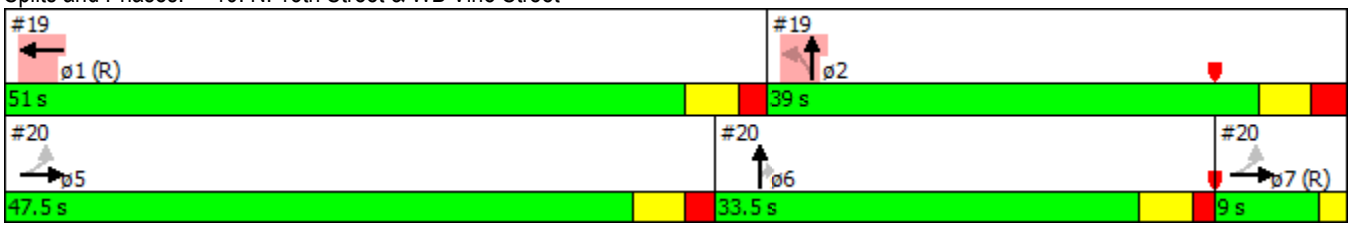
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	572	49	67	144	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	73					73	70		58	58		70
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							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

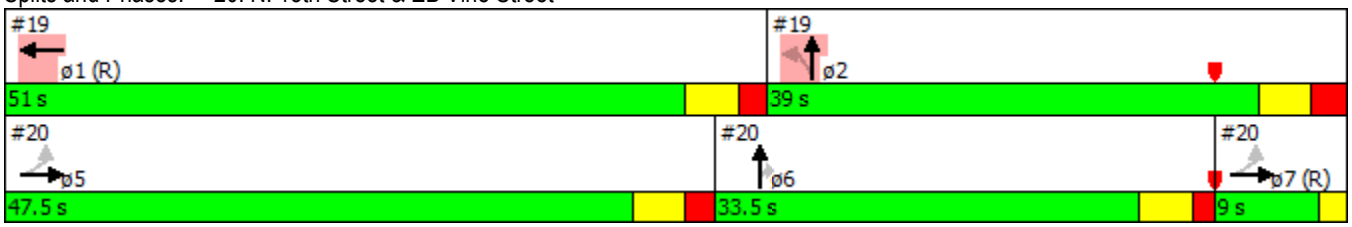
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	0	0	0	0	0	147	65	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	4		43	43		4	64		61	61		64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

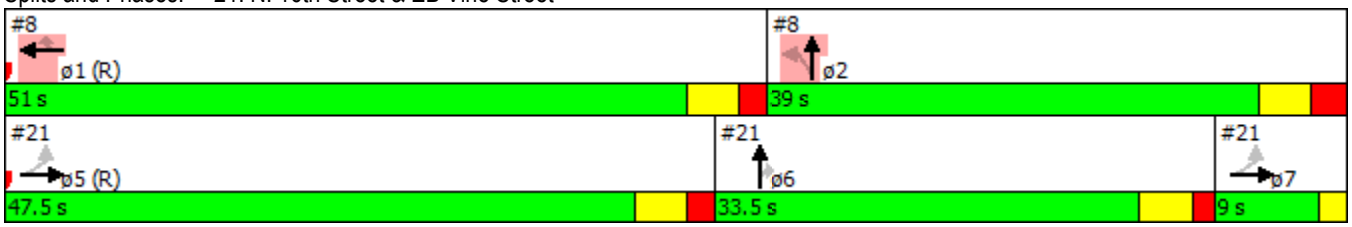
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	425	0	0	0	0	0	571	388	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	3		10	10		3	366		3	3		366
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	3%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	767	0	0	0	0	899
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1411	571	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

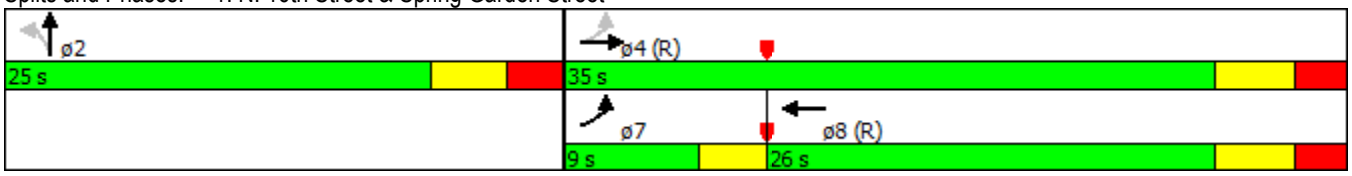
SATURDAY EVENING (6-9 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	406	0	0	394	35	81	230	96	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	49		90	90		49	54		161	161		54
Confl. Bikes (#/hr)			5			2			2			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street



Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	466	37	87	389	0	0	0	0	33	150	42
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	50		41	41		50	40		44	44		40
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street

Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	33	80	25	158	47	11	19	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	41		85	85		41	71		41	41		71
Confl. Bikes (#/hr)			7			4						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	29	86	135	0	0	0	0	0	194	91
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	39		44	44		39	5		5	5		5
Confl. Bikes (#/hr)			4									1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	183	136	45	636	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	330		174	174		330	385		14	14		385
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					21.0		39.0	39.0				
Total Split (s)					21.0		39.0	39.0				
Total Split (%)					35.0%		65.0%	65.0%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	95	279	0	0	0	0	0	444	89
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	12		26	26		12	3		372	372		3
Confl. Bikes (#/hr)						2						9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	46	148	29	172	603	0	0	678	90
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	300		0	0		0
Storage Lanes	0		0	1		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			270			1070	
Travel Time (s)		13.1			16.5			7.4			29.2	
Confl. Peds. (#/hr)	103		187	187		103	549		68	68		549
Confl. Bikes (#/hr)						3			15			19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2			6	
Permitted Phases				8			2					
Minimum Split (s)				29.0	29.0		61.0	61.0			61.0	
Total Split (s)				29.0	29.0		61.0	61.0			61.0	
Total Split (%)				32.2%	32.2%		67.8%	67.8%			67.8%	
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	
All-Red Time (s)				3.0	3.0		2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0		5.0	5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

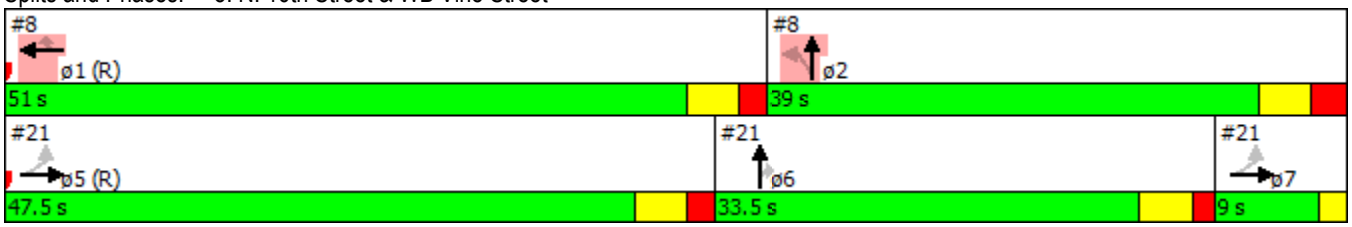
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	563	787	73	466	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	29		14	14		29	405		4	4		405
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

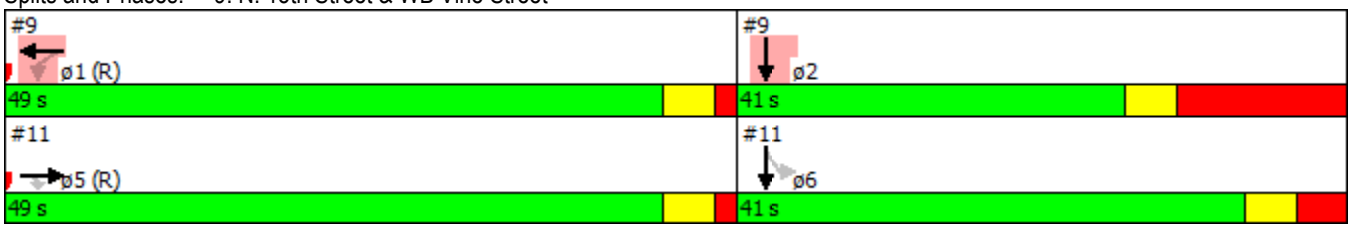
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	42	622	0	0	0	0	0	1191	695
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	27		3	3		27	8		414	414		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1						2	
Permitted Phases				1								
Minimum Split (s)				49.0	49.0						41.0	
Total Split (s)				49.0	49.0						41.0	
Total Split (%)				54.4%	54.4%						45.6%	
Yellow Time (s)				3.5	3.5						3.5	
All-Red Time (s)				1.5	1.5						11.5	
Lost Time Adjust (s)					0.0						0.0	
Total Lost Time (s)					5.0						15.0	
Lead/Lag				Lead	Lead						Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø5	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Parking (#/hr)		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	5	6
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	3.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

Intersection Summary

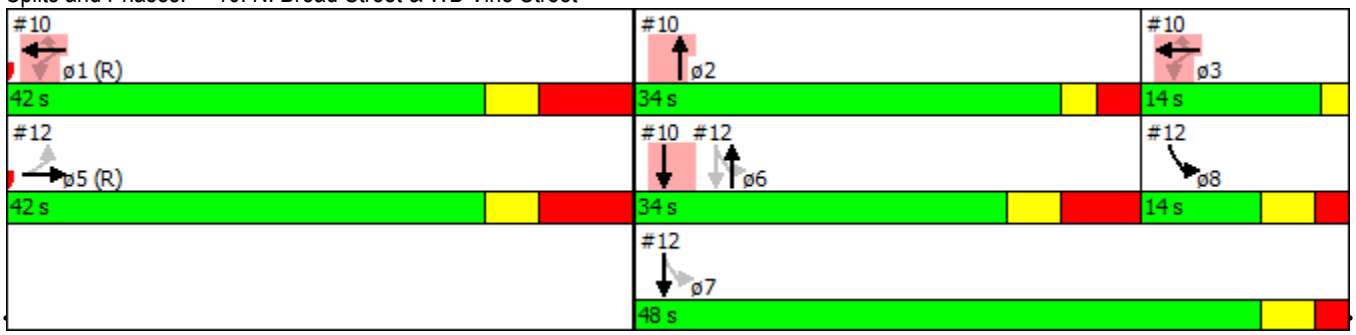
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	600	130	0	684	0	0	615	75
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			290	
Travel Time (s)		13.1			16.5			4.6			7.9	
Confl. Peds. (#/hr)	46					46	429		171	171		429
Confl. Bikes (#/hr)						4			11			16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								34.0			34.0	
Total Split (%)								37.8%			37.8%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (s)	42.0	14.0	42.0	48.0	14.0
Total Split (%)	47%	16%	47%	53%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

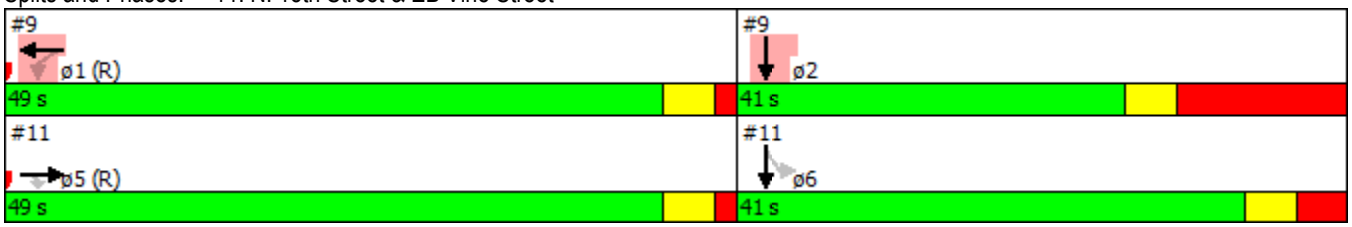
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1246	685	0	0	0	0	0	0	390	840	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			16	16			8		418	418		8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Turn Type		NA	Perm							Perm	NA	
Protected Phases		5									6	
Permitted Phases			5							6		
Minimum Split (s)		49.0	49.0							41.0	41.0	
Total Split (s)		49.0	49.0							41.0	41.0	
Total Split (%)		54.4%	54.4%							45.6%	45.6%	
Yellow Time (s)		3.5	3.5							3.5	3.5	
All-Red Time (s)		1.5	1.5							3.5	3.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							7.0	7.0	
Lead/Lag		Lead	Lead							Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Grade (%)		
Right Turn on Red		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Peak Hour Factor		
Shared Lane Traffic (%)		
Turn Type		
Protected Phases	1	2
Permitted Phases		
Minimum Split (s)	49.0	41.0
Total Split (s)	49.0	41.0
Total Split (%)	54%	46%
Yellow Time (s)	3.5	3.5
All-Red Time (s)	1.5	11.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	Lag
Lead-Lag Optimize?		

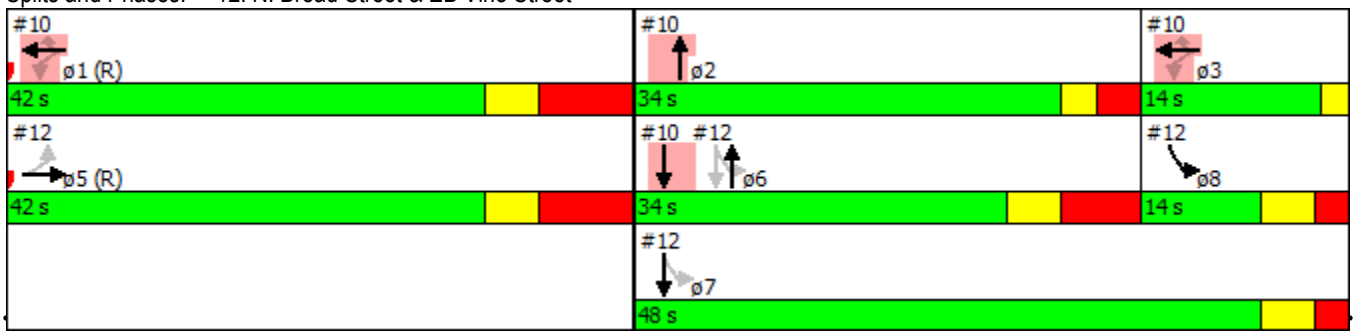
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	316	1097	86	0	0	0	0	336	147	244	473	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		100	45		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			260			170	
Travel Time (s)		13.1			4.4			7.1			4.6	
Confl. Peds. (#/hr)			53	53			516		130	130		516
Confl. Bikes (#/hr)			2						14			15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	3%	11%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA		custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5									6 7	6 7	
Minimum Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (s)	42.0	42.0						34.0		14.0	48.0	
Total Split (%)	46.7%	46.7%						37.8%		15.6%	53.3%	
Yellow Time (s)	3.6	3.6						3.6		3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4		2.4	2.4	
Lost Time Adjust (s)		0.0						0.0		0.0	0.0	
Total Lost Time (s)		10.0						9.0		6.0	6.0	
Lead/Lag								Lead		Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	42.0	34.0	14.0
Total Split (s)	42.0	34.0	14.0
Total Split (%)	47%	38%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

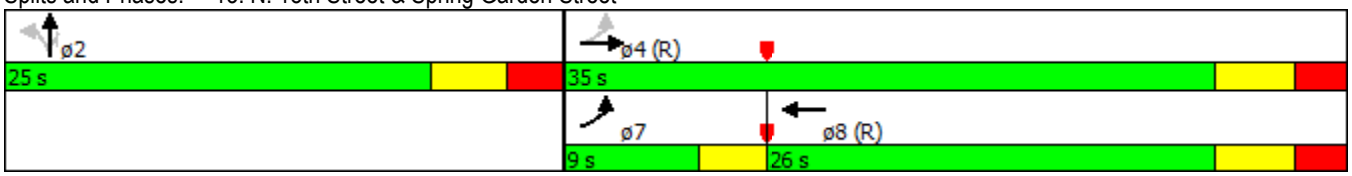
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	406	0	0	406	24	47	57	49	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	76		67	67		76	46		21	21		46
Confl. Bikes (#/hr)			1			2						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

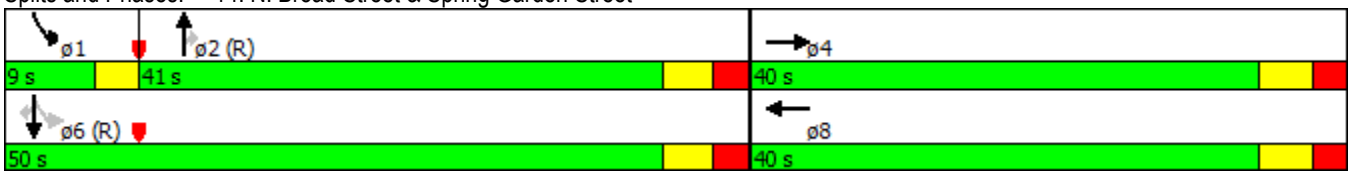


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	407	73	0	396	70	0	554	43	69	691	76
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	37		60	60		37	147		38	38		147
Confl. Bikes (#/hr)			4			2			10			9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

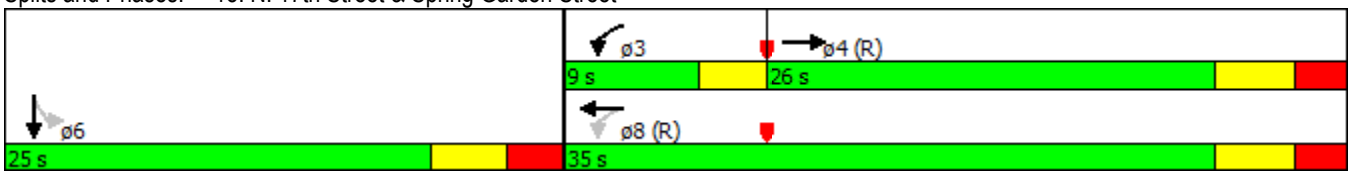


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	395	57	61	414	0	0	0	0	28	63	28
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	47		73	73		47	26		4	4		26
Confl. Bikes (#/hr)			1			1						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

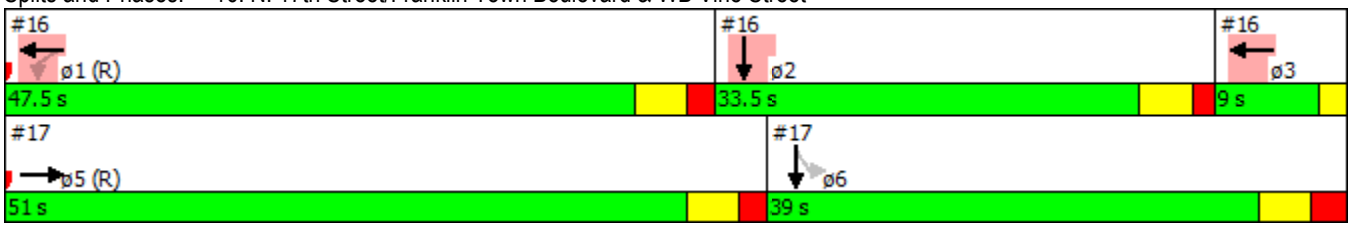


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	98	282	136	0	0	0	0	276	69
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	17		1	1		17	32		100	100		32
Confl. Bikes (#/hr)						5						2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				47.5							33.5	
Total Split (s)				47.5							33.5	
Total Split (%)				52.8%							37.2%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	51.0	39.0
Total Split (s)	9.0	51.0	39.0
Total Split (%)	10%	57%	43%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

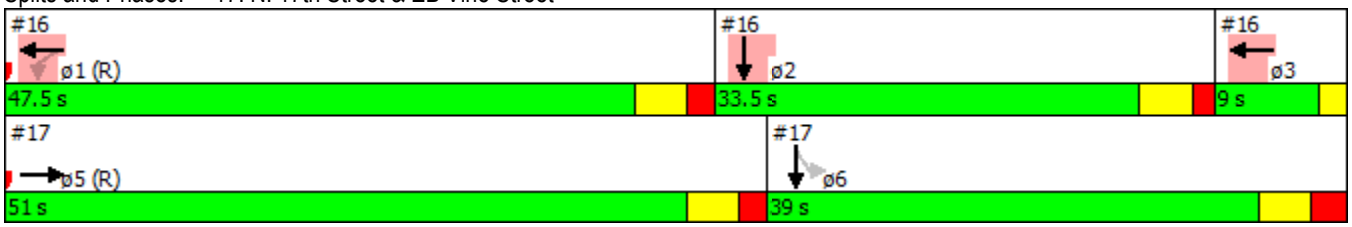
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	231	29	0	0	0	0	0	0	147	232	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	1		16	16		1	31		87	87		31
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		51.0								39.0	39.0	
Total Split (s)		51.0								39.0	39.0	
Total Split (%)		56.7%								43.3%	43.3%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	182	21	37	141	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	5		31	31		5	10		20	20		10
Confl. Bikes (#/hr)						5						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

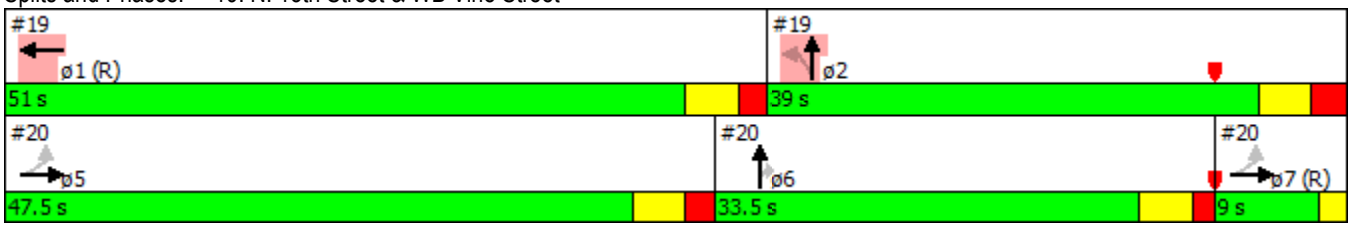
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	743	52	73	144	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	44		3	3		44	53		40	40		53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

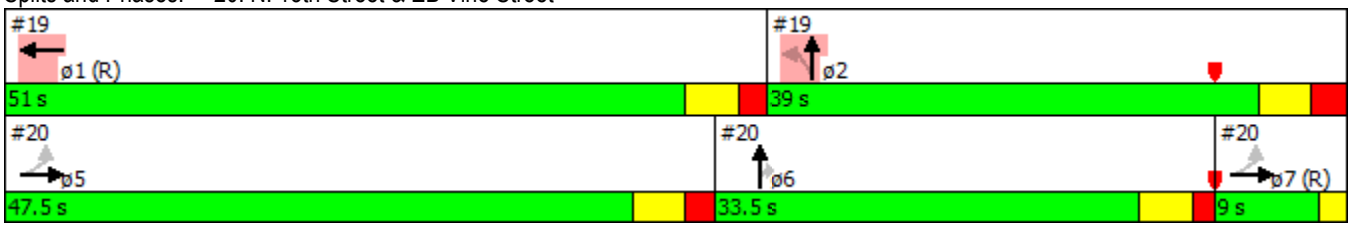
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	499	0	0	0	0	0	155	43	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)			23	23			49		36	36		49
Confl. Bikes (#/hr)			2						4			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

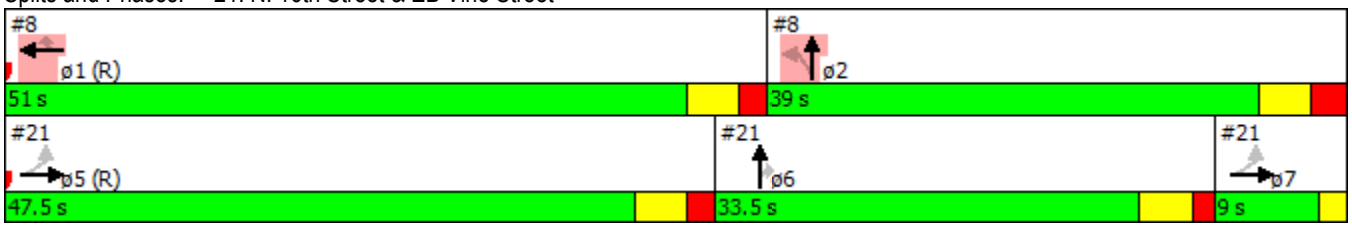
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	333	0	0	0	0	0	507	276	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	2		13	13		2	372		7	7		372
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	554	0	0	0	0	1322
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	927	561	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

PROJECTED (BUILD) CONDITIONS – WITH ANTICIPATED ROADWAY IMPROVEMENTS

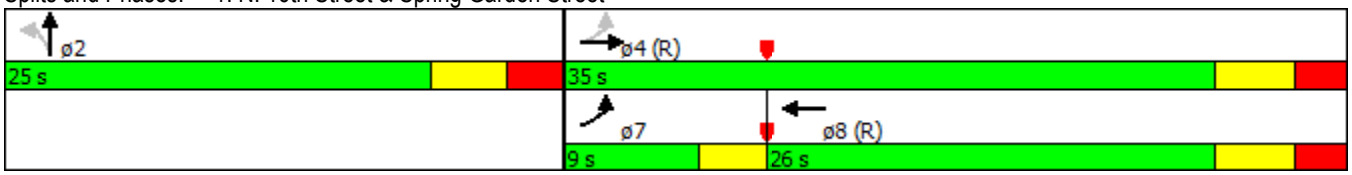
FRIDAY PM (4-6 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	667	0	0	824	93	160	438	240	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	83		455	455		83	95		200	200		95
Confl. Bikes (#/hr)			32			51			14			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

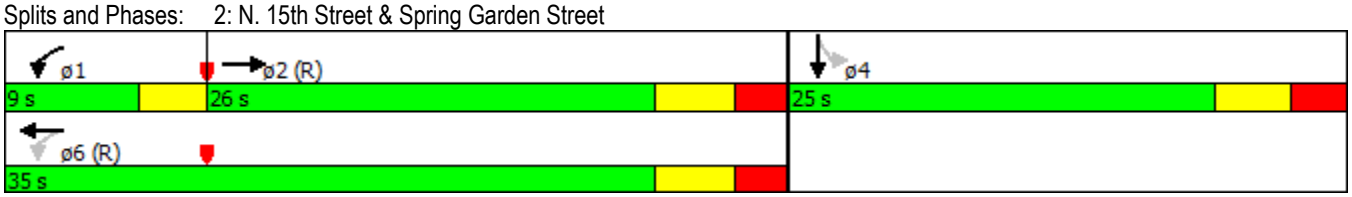


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	818	69	150	698	0	0	0	0	82	325	62
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	124		469	469		124	134		157	157		134
Confl. Bikes (#/hr)			5			7						32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	24%	5%	2%	2%	2%	2%	2%	8%	2%	3%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	55	137	37	333	188	38	42	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	56		53	53		56	28		24	24		28
Confl. Bikes (#/hr)			5			8			1			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	13%	2%	2%	2%	2%	4%	2%	25%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	62	195	350	0	0	0	0	0	285	144
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	47		75	75		47	112		60	60		112
Confl. Bikes (#/hr)			1			7						20
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

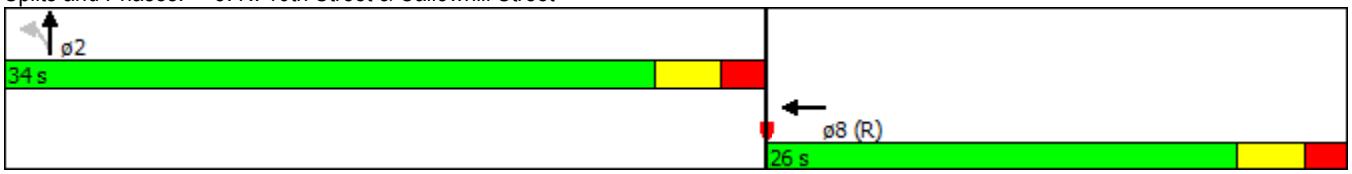
Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	421	237	82	853	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	303		204	204		303	546		30	30		546
Confl. Bikes (#/hr)						4			22			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					26.0		34.0	34.0				
Total Split (s)					26.0		34.0	34.0				
Total Split (%)					43.3%		56.7%	56.7%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

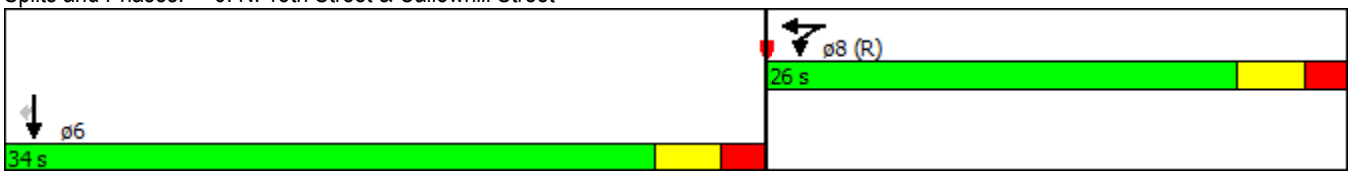


Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	163	496	0	0	0	0	0	700	126
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	57		40	40		57	34		324	324		34
Confl. Bikes (#/hr)						1						1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	13%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				Split	NA						NA	Perm
Protected Phases				8	8						6	
Permitted Phases												6
Minimum Split (s)				26.0	26.0						34.0	34.0
Total Split (s)				26.0	26.0						34.0	34.0
Total Split (%)				43.3%	43.3%						56.7%	56.7%
Yellow Time (s)				3.0	3.0						3.0	3.0
All-Red Time (s)				2.0	2.0						2.0	2.0
Lost Time Adjust (s)					0.0						0.0	0.0
Total Lost Time (s)					5.0						5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 16 (27%), Referenced to phase 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 6: N. 15th Street & Callowhill Street



Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	60	316	88	145	780	0	0	790	125
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	125		0	0		100
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			560			1070	
Travel Time (s)		13.1			16.5			15.3			29.2	
Confl. Peds. (#/hr)	121		195	195		121	563		110	110		563
Confl. Bikes (#/hr)						5			8			21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8			2					6
Minimum Split (s)				33.0	33.0		9.0	57.0			37.0	37.0
Total Split (s)				33.0	33.0		9.0	57.0			48.0	48.0
Total Split (%)				36.7%	36.7%		10.0%	63.3%			53.3%	53.3%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)				3.0	3.0		0.0	2.0			2.0	2.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				6.0	6.0		3.0	5.0			5.0	5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 49 (54%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

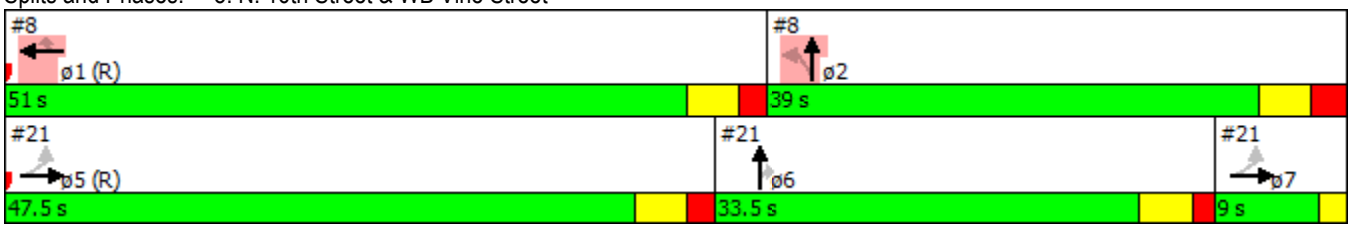
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	749	807	83	737	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	69		33	33		69	604		16	16		604
Confl. Bikes (#/hr)						3			12			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	5%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

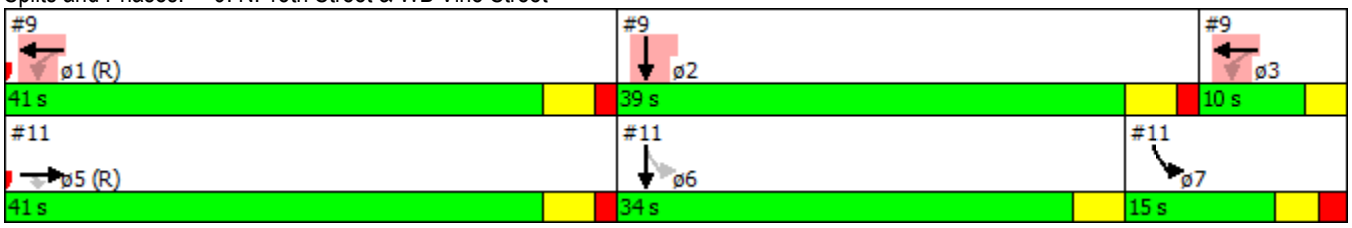
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	77	939	0	0	0	0	0	1357	586
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	59		2	2		59	34		518	518		34
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1 3								
Minimum Split (s)											39.0	
Total Split (s)											39.0	
Total Split (%)											43.3%	
Yellow Time (s)											3.5	
All-Red Time (s)											1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag											Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø6	ø7
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Peak Hour Factor					
Parking (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	6	7
Permitted Phases					
Minimum Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (%)	46%	11%	46%	38%	17%
Yellow Time (s)	3.5	3.0	3.5	3.5	3.0
All-Red Time (s)	1.5	0.0	1.5	0.0	2.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead		Lead	Lag	
Lead-Lag Optimize?					

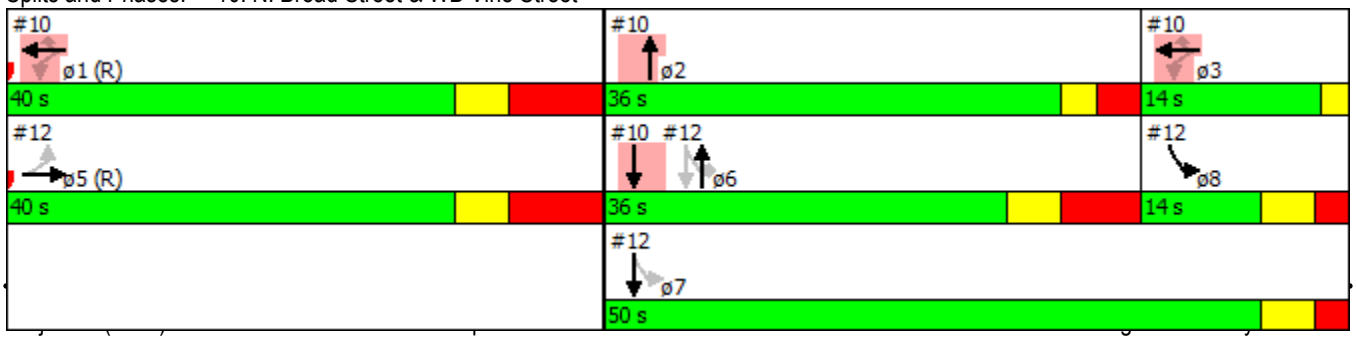
Intersection Summary

Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	172	878	198	0	790	0	0	656	131
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		0
Storage Lanes	0		0	1		1	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			560	
Travel Time (s)		13.1			16.5			4.6			15.3	
Confl. Peds. (#/hr)	107		1	1		107	564		239	239		564
Confl. Bikes (#/hr)						39			1			11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%	2%	3%	2%	2%	3%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								36.0			36.0	
Total Split (%)								40.0%			40.0%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	
! Phase conflict between lane groups.	

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Heavy Vehicles (%)					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	40.0	14.0	40.0	48.0	14.0
Total Split (s)	40.0	14.0	40.0	50.0	14.0
Total Split (%)	44%	16%	44%	56%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

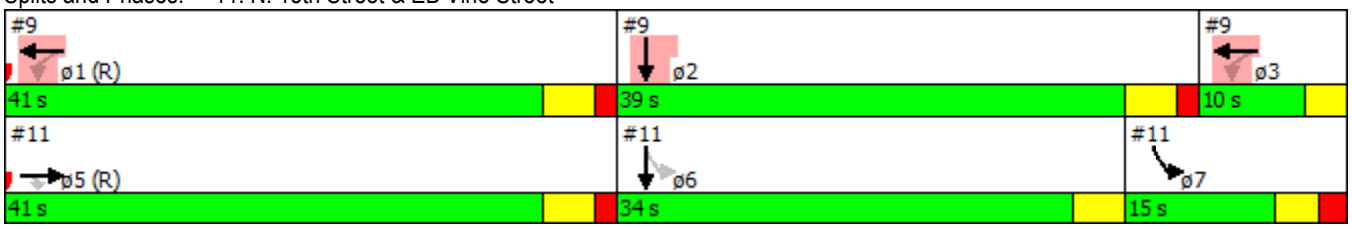
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1380	349	0	0	0	0	0	0	554	777	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)	1		19	19		1	19		433	433		19
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Shared Lane Traffic (%)												
Turn Type		NA	Perm							pm+pt	NA	
Protected Phases		5								7	6	
Permitted Phases			5							6		
Minimum Split (s)		41.0	41.0							15.0	34.0	
Total Split (s)		41.0	41.0							15.0	34.0	
Total Split (%)		45.6%	45.6%							16.7%	37.8%	
Yellow Time (s)		3.5	3.5							3.0	3.5	
All-Red Time (s)		1.5	1.5							2.0	0.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							5.0	3.5	
Lead/Lag		Lead	Lead								Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	41.0	39.0	10.0
Total Split (s)	41.0	39.0	10.0
Total Split (%)	46%	43%	11%
Yellow Time (s)	3.5	3.5	3.0
All-Red Time (s)	1.5	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

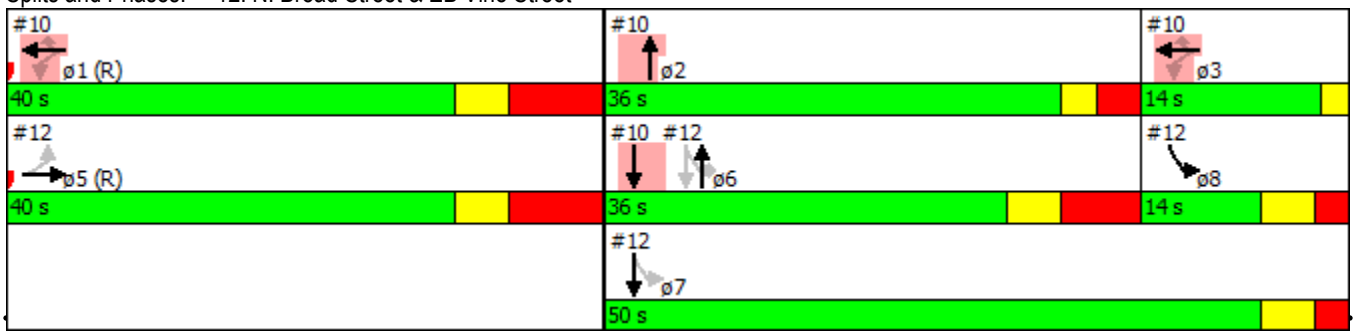
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	1608	64	0	0	0	0	597	426	225	670	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			430			170	
Travel Time (s)		13.1			4.4			11.7			4.6	
Confl. Peds. (#/hr)	6		131	131		6	611		191	191		611
Confl. Bikes (#/hr)			7						16			20
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 (%)	3%	2%	3%	2%	2%	2%	2%	3%	8%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm	custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5								6	6 7	6 7	
Minimum Split (s)	40.0	40.0						34.0	34.0	14.0	48.0	
Total Split (s)	40.0	40.0						36.0	36.0	14.0	50.0	
Total Split (%)	44.4%	44.4%						40.0%	40.0%	15.6%	55.6%	
Yellow Time (s)	3.6	3.6						3.6	3.6	3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4	5.4	2.4	2.4	
Lost Time Adjust (s)		0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)		10.0						9.0	9.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 100	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	40.0	34.0	14.0
Total Split (s)	40.0	36.0	14.0
Total Split (%)	44%	40%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

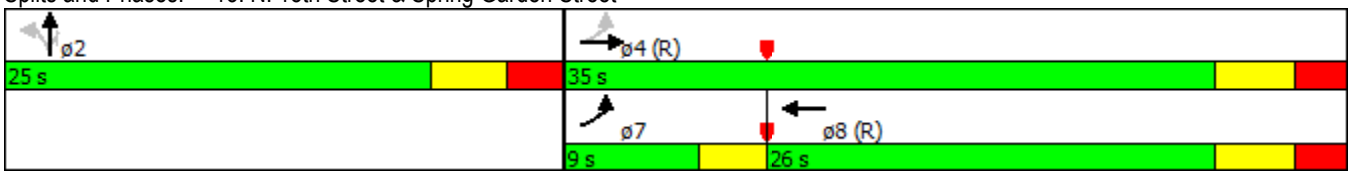
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	627	0	0	879	83	173	207	175	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	76		124	124		76	76		45	45		76
Confl. Bikes (#/hr)			43			38			13			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 65	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

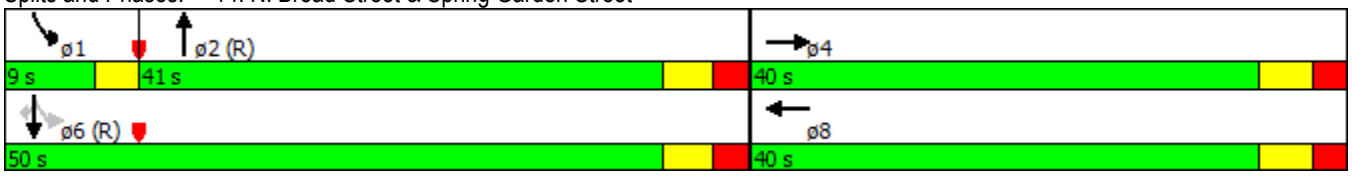


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	841	53	0	772	81	0	798	49	140	839	110
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		0	170		0
Storage Lanes	0		0	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	77		173	173		77	262		126	126		262
Confl. Bikes (#/hr)			40			39			16			26
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA		pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases										6		6
Minimum Split (s)		33.0			33.0			35.0		9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0		9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%		10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4		3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6		0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0		0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0		3.0	6.0	6.0
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

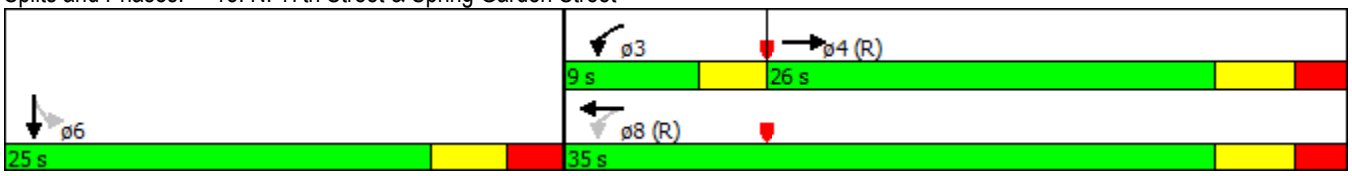


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	937	62	66	815	0	0	0	0	36	88	55
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	63		129	129		63	63		33	33		63
Confl. Bikes (#/hr)			9			3						24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

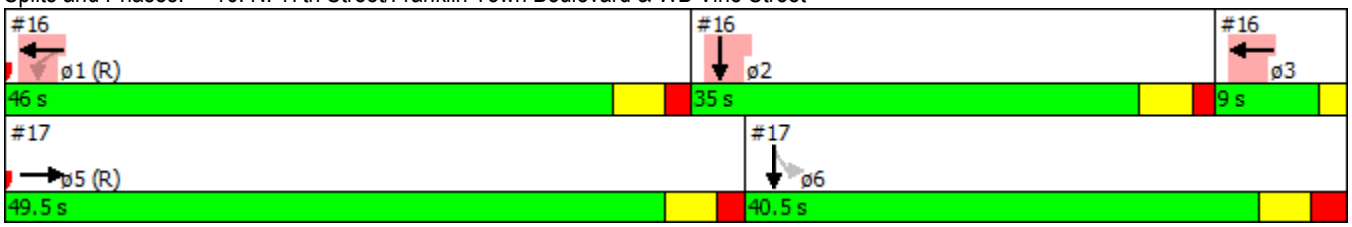


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	192	581	76	0	0	0	0	405	52
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	49		1	1		49	33		142	142		33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				46.0							35.0	
Total Split (s)				46.0							35.0	
Total Split (%)				51.1%							38.9%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	49.5	40.5
Total Split (s)	9.0	49.5	40.5
Total Split (%)	10%	55%	45%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

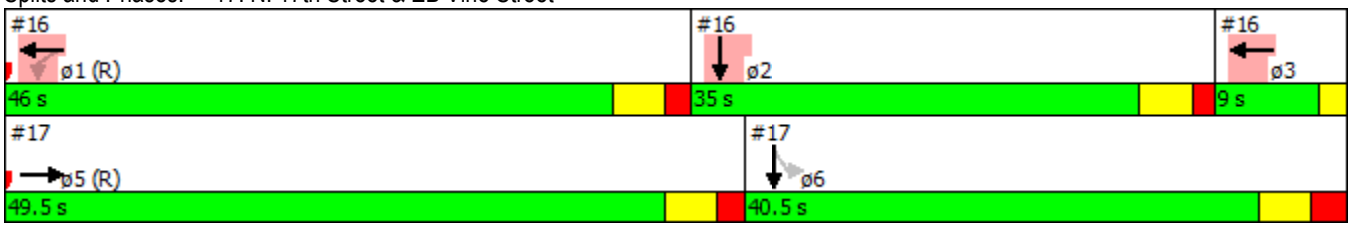
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	520	49	0	0	0	0	0	0	205	461	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	2		32	32		2	46		155	155		46
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		49.5								40.5	40.5	
Total Split (s)		49.5								40.5	40.5	
Total Split (%)		55.0%								45.0%	45.0%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	46.0	35.0	9.0
Total Split (s)	46.0	35.0	9.0
Total Split (%)	51%	39%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	307	60	42	239	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	97		37	37		97	82		72	72		82
Confl. Bikes (#/hr)						6						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

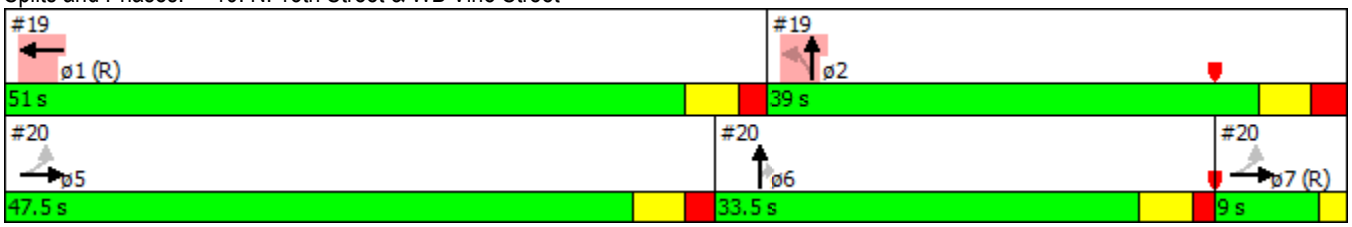
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	1057	80	119	255	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	54		5	5		54	51		81	81		51
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

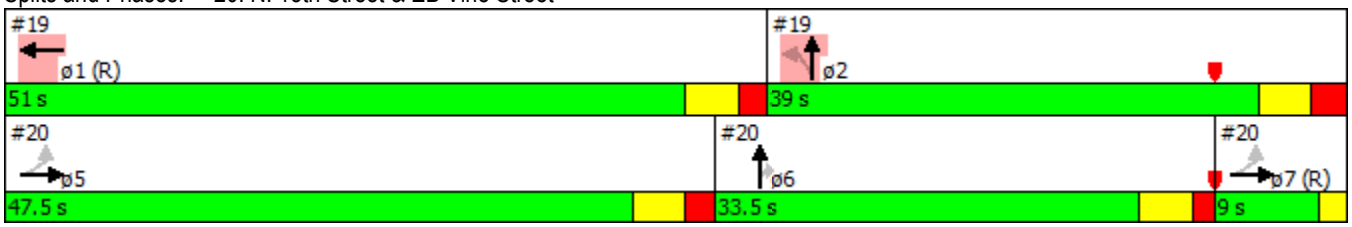
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	619	0	0	0	0	0	267	102	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	2		45	45		2	111		75	75		111
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

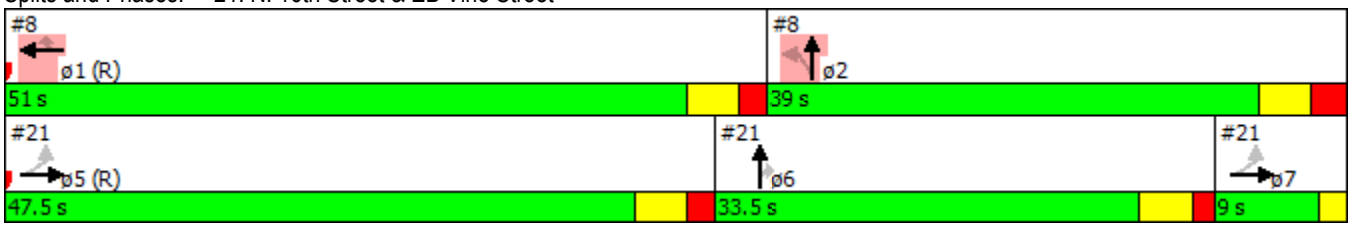
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	709	0	0	0	0	0	778	440	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	1		8	8		1	493		10	10		493
Confl. Bikes (#/hr)									10			
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	3%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	1111	0	0	0	0	580
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1566	693	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

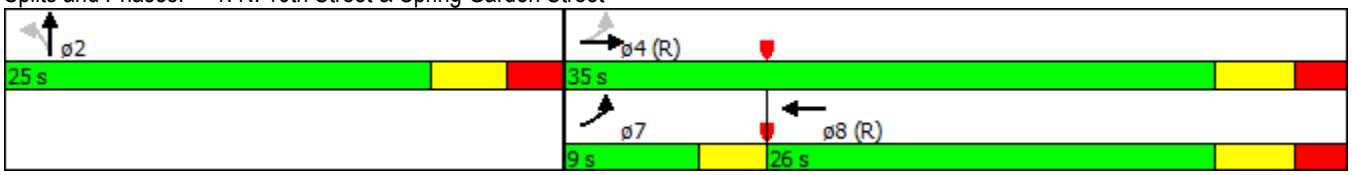
FRIDAY EVENING (7-10 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	468	0	0	421	59	90	250	112	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	45		99	99		45	54		161	161		54
Confl. Bikes (#/hr)			9			7			10			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	6%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street

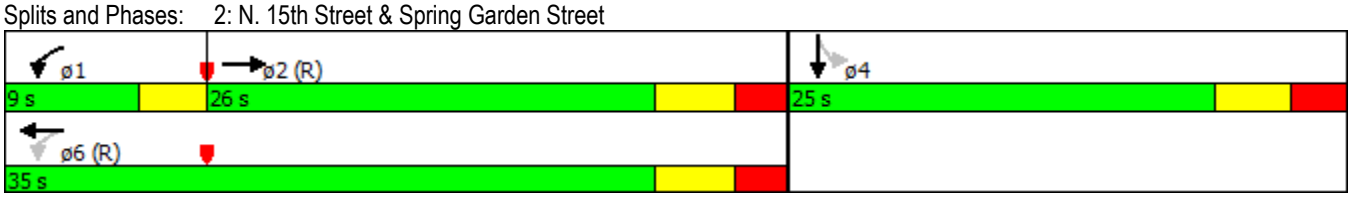


Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	517	54	78	447	0	0	0	0	41	155	81
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	42		90	90		42	63		51	51		63
Confl. Bikes (#/hr)												2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street



Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	46	108	23	161	69	16	36	6	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	61		94	94		61	74		64	64		74
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	43	102	131	0	0	0	0	0	194	89
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	46		72	72		46	41		6	6		41
Confl. Bikes (#/hr)			3			1						7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

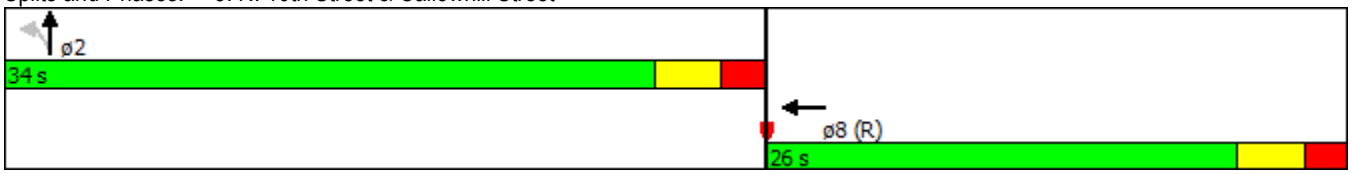
Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	197	160	42	648	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	313		168	168		313	370		11	11		370
Confl. Bikes (#/hr)									1			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					26.0		34.0	34.0				
Total Split (s)					26.0		34.0	34.0				
Total Split (%)					43.3%		56.7%	56.7%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street

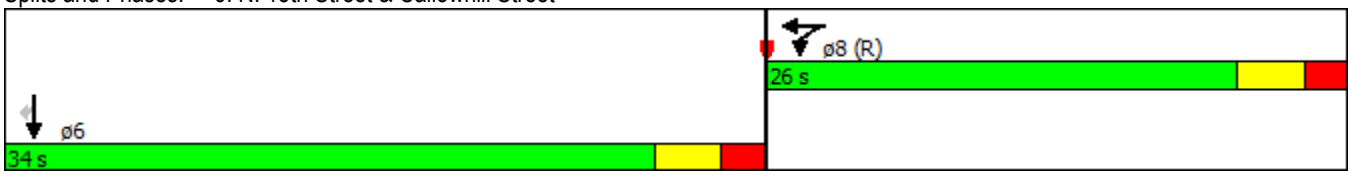


Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	123	313	0	0	0	0	0	447	91
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	10		41	41		10	15		346	346		15
Confl. Bikes (#/hr)												5
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	2%	2%	2%	2%	2%
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				Split	NA						NA	Perm
Protected Phases				8	8						6	
Permitted Phases												6
Minimum Split (s)				26.0	26.0						34.0	34.0
Total Split (s)				26.0	26.0						34.0	34.0
Total Split (%)				43.3%	43.3%						56.7%	56.7%
Yellow Time (s)				3.0	3.0						3.0	3.0
All-Red Time (s)				2.0	2.0						2.0	2.0
Lost Time Adjust (s)					0.0						0.0	0.0
Total Lost Time (s)					5.0						5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 20 (33%), Referenced to phase 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 6: N. 15th Street & Callowhill Street



Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	30	173	41	169	551	0	0	773	134
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	125		0	0		100
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			280			1070	
Travel Time (s)		13.1			16.5			7.6			29.2	
Confl. Peds. (#/hr)	108		174	174		108	495		87	87		495
Confl. Bikes (#/hr)			4			4			9			15
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%	2%	2%	2%	2%	2%	4%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8			2					6
Minimum Split (s)				29.0	29.0		9.0	57.0			37.0	37.0
Total Split (s)				29.0	29.0		9.0	61.0			52.0	52.0
Total Split (%)				32.2%	32.2%		10.0%	67.8%			57.8%	57.8%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)				3.0	3.0		0.0	2.0			2.0	2.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				6.0	6.0		3.0	5.0			5.0	5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

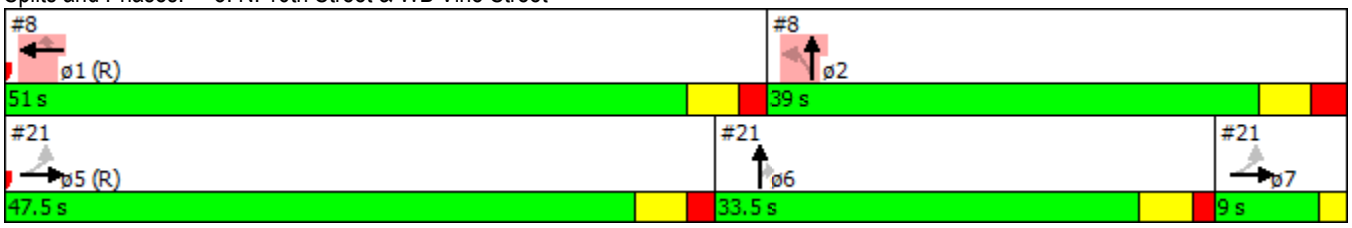
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	264	722	59	590	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	15		7	7		15	323		1	1		323
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

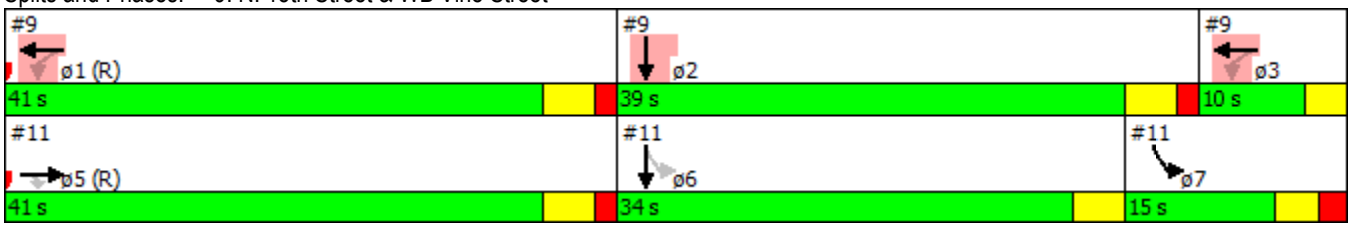
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	35	482	0	0	0	0	0	1199	559
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	18		1	1		18	17		383	383		17
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1 3								
Minimum Split (s)											39.0	
Total Split (s)											39.0	
Total Split (%)											43.3%	
Yellow Time (s)											3.5	
All-Red Time (s)											1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag											Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø6	ø7
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Peak Hour Factor					
Parking (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	6	7
Permitted Phases					
Minimum Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (%)	46%	11%	46%	38%	17%
Yellow Time (s)	3.5	3.0	3.5	3.5	3.0
All-Red Time (s)	1.5	0.0	1.5	0.0	2.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead		Lead	Lag	
Lead-Lag Optimize?					

Intersection Summary

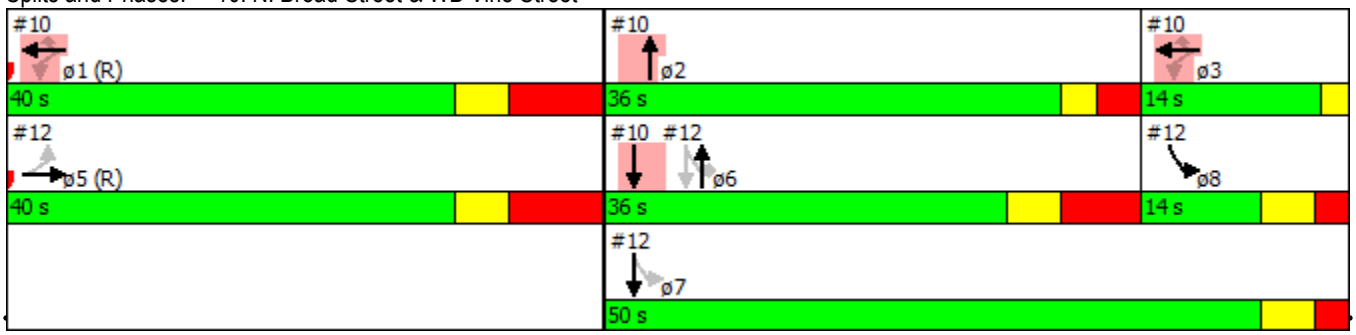
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	104	424	124	0	670	0	0	601	92
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			280	
Travel Time (s)		13.1			16.5			4.6			7.6	
Confl. Peds. (#/hr)	61		1	1		61	513		161	161		513
Confl. Bikes (#/hr)						1			13			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								36.0			36.0	
Total Split (%)								40.0%			40.0%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	40.0	14.0	40.0	48.0	14.0
Total Split (s)	40.0	14.0	40.0	50.0	14.0
Total Split (%)	44%	16%	44%	56%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

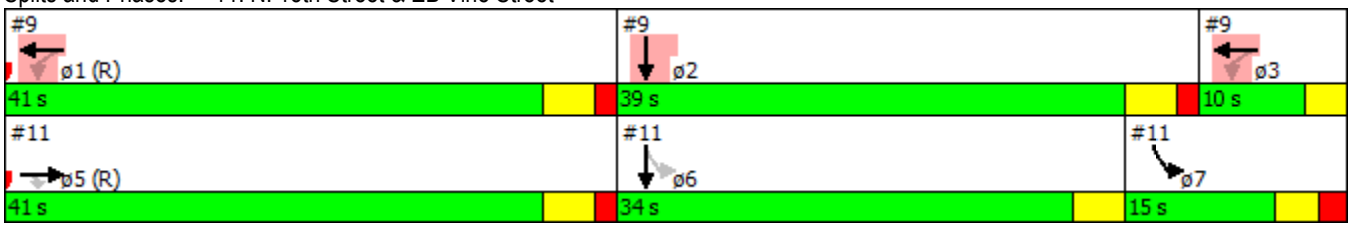
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1246	466	0	0	0	0	0	0	411	830	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			12	12			21		398	398		21
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
Shared Lane Traffic (%)												
Turn Type		NA	Perm							pm+pt	NA	
Protected Phases		5								7	6	
Permitted Phases			5							6		
Minimum Split (s)		41.0	41.0							15.0	34.0	
Total Split (s)		41.0	41.0							15.0	34.0	
Total Split (%)		45.6%	45.6%							16.7%	37.8%	
Yellow Time (s)		3.5	3.5							3.0	3.5	
All-Red Time (s)		1.5	1.5							2.0	0.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							5.0	3.5	
Lead/Lag		Lead	Lead								Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	41.0	39.0	10.0
Total Split (s)	41.0	39.0	10.0
Total Split (%)	46%	43%	11%
Yellow Time (s)	3.5	3.5	3.0
All-Red Time (s)	1.5	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

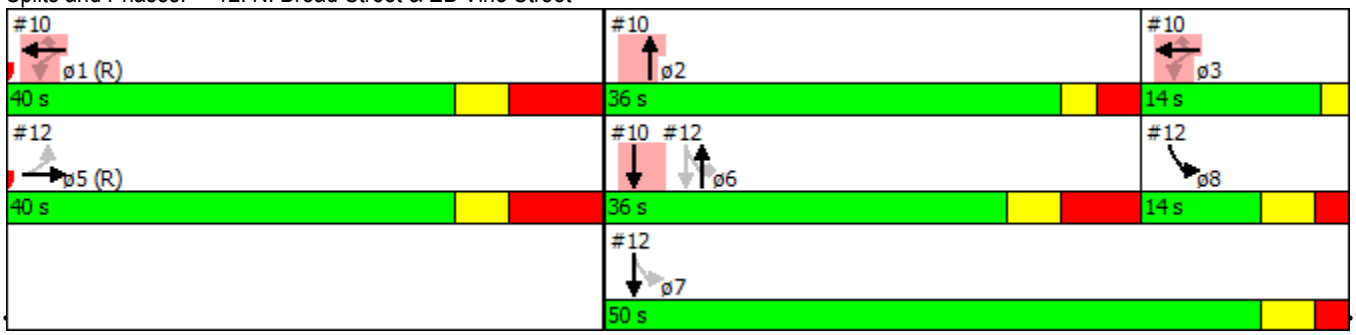
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	283	1489	102	0	0	0	0	397	207	285	469	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			250			170	
Travel Time (s)		13.1			4.4			6.8			4.6	
Confl. Peds. (#/hr)			63	63			420		144	144		420
Confl. Bikes (#/hr)			1						9			8
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	7%	2%	2%	2%	2%	2%	4%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm	custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5								6	6 7	6 7	
Minimum Split (s)	40.0	40.0						34.0	34.0	14.0	48.0	
Total Split (s)	40.0	40.0						36.0	36.0	14.0	50.0	
Total Split (%)	44.4%	44.4%						40.0%	40.0%	15.6%	55.6%	
Yellow Time (s)	3.6	3.6						3.6	3.6	3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4	5.4	2.4	2.4	
Lost Time Adjust (s)		0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)		10.0						9.0	9.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	40.0	34.0	14.0
Total Split (s)	40.0	36.0	14.0
Total Split (%)	44%	40%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

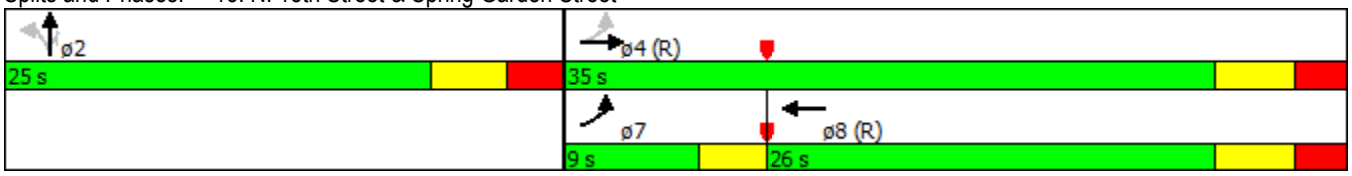
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	482	0	0	472	29	48	75	58	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	74		99	99		74	53		20	20		53
Confl. Bikes (#/hr)			15			1			13			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

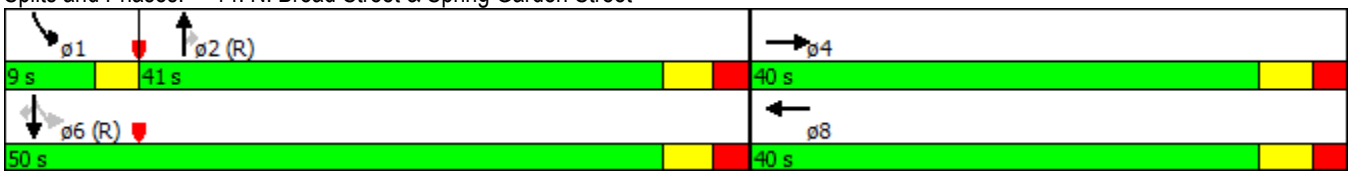


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	508	79	0	427	51	0	531	56	75	831	102
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	43		83	83		43	227		78	78		227
Confl. Bikes (#/hr)						2			7			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

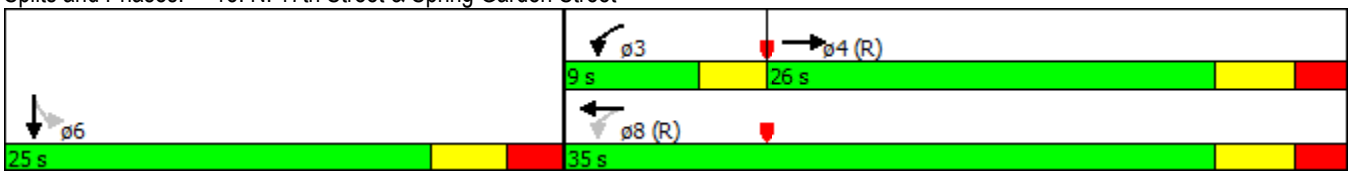


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	446	69	73	439	0	0	0	0	36	69	38
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	76		75	75		76	70		32	32		70
Confl. Bikes (#/hr)			6									7
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

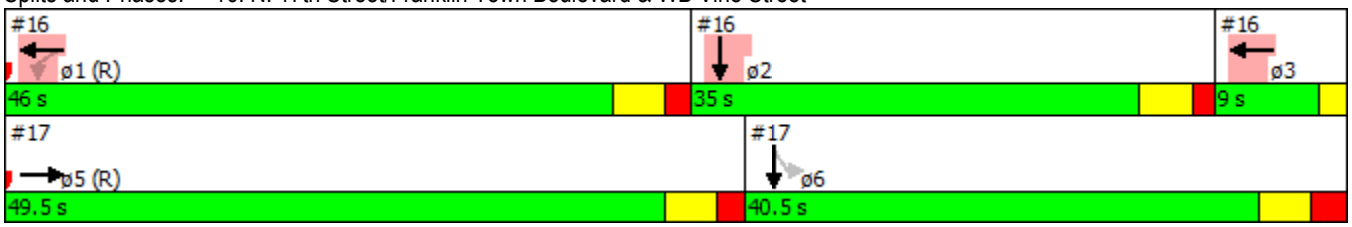


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	73	220	51	0	0	0	0	361	51
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	24		2	2		24	37		104	104		37
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				46.0							35.0	
Total Split (s)				46.0							35.0	
Total Split (%)				51.1%							38.9%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	49.5	40.5
Total Split (s)	9.0	49.5	40.5
Total Split (%)	10%	55%	45%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

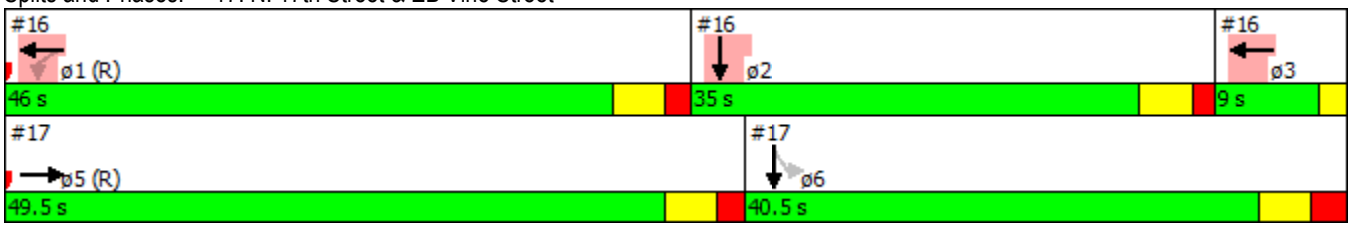
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	340	26	0	0	0	0	0	0	185	262	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)			18	18			33		116	116		33
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		49.5								40.5	40.5	
Total Split (s)		49.5								40.5	40.5	
Total Split (%)		55.0%								45.0%	45.0%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	46.0	35.0	9.0
Total Split (s)	46.0	35.0	9.0
Total Split (%)	51%	39%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	155	18	40	162	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	10		35	35		10	17		42	42		17
Confl. Bikes (#/hr)						22			3			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

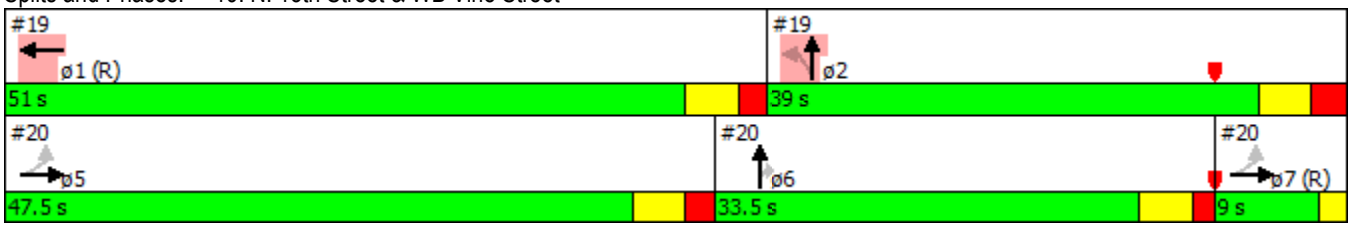
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	572	49	67	144	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	73					73	70		58	58		70
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							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

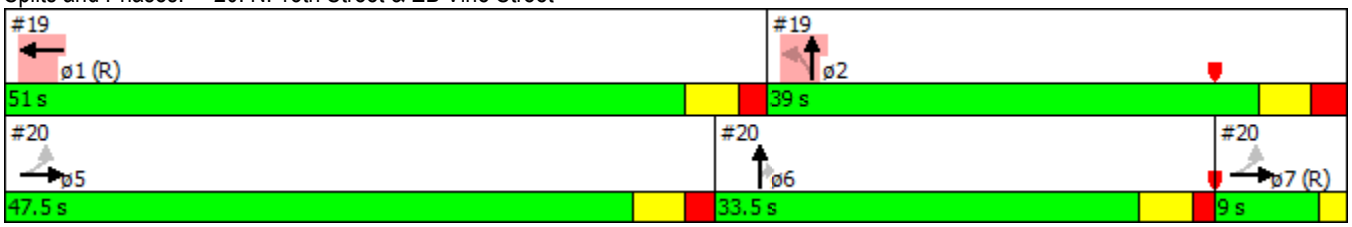
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	0	0	0	0	0	147	65	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)	4		43	43		4	64		61	61		64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

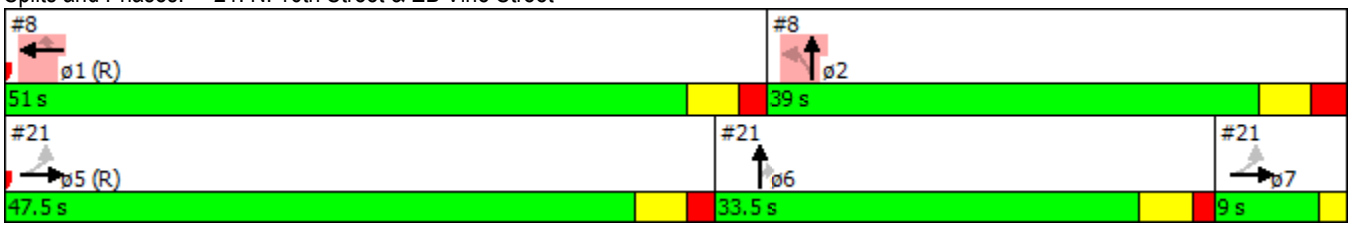
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	425	0	0	0	0	0	571	388	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	3		10	10		3	366		3	3		366
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	20%	3%	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	767	0	0	0	0	899
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	1411	571	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

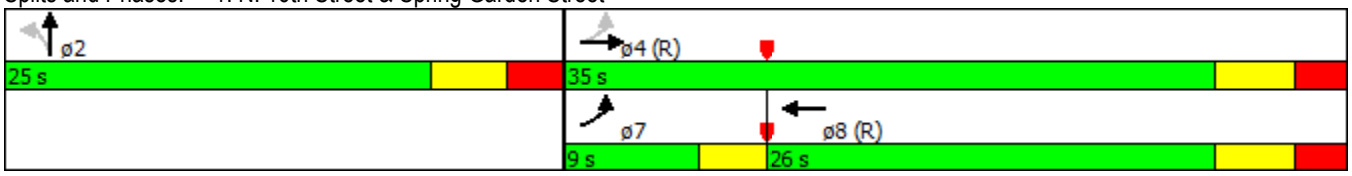
SATURDAY EVENING (6-9 PM)
PEAK HOUR TIME PERIOD

Lanes, Volumes, Timings
1: N. 16th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	406	0	0	394	35	81	230	96	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	12	12	12	12	12
Grade (%)		0%			2%			3%			0%	
Storage Length (ft)	140		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			1070			370	
Travel Time (s)		11.7			12.5			29.2			10.1	
Confl. Peds. (#/hr)	49		90	90		49	54		161	161		54
Confl. Bikes (#/hr)			5			2			2			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	4	0	0	4	0	0	5	0	0	0	0
Parking (#/hr)	0	0			0	0						
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4						2					
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (s)	9.0	35.0			26.0		25.0	25.0				
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%				
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4				
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6				
Lost Time Adjust (s)	0.0	0.0			0.0			0.0				
Total Lost Time (s)	3.0	6.0			6.0			6.0				
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 1: N. 16th Street & Spring Garden Street



Lanes, Volumes, Timings
2: N. 15th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	466	37	87	389	0	0	0	0	33	150	42
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	12	12	9	10	12
Grade (%)		0%			2%			0%			0%	
Storage Length (ft)	0		0	115		0	0		0	100		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			1070			370	
Travel Time (s)		12.5			13.1			29.2			10.1	
Confl. Peds. (#/hr)	50		41	41		50	40		44	44		40
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	4	0	0	4	0	0	0	0	0	0	0
Parking (#/hr)	0		0	0	0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		2		1	6						4	
Permitted Phases				6						4		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0					0.0	0.0	
Total Lost Time (s)		6.0		3.0	6.0					6.0	6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 15 (25%), Referenced to phase 2:EBT and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 2: N. 15th Street & Spring Garden Street

Lanes, Volumes, Timings
3: Franklin Town Boulevard & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	33	80	25	158	47	11	19	8	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	12	12	12	16	12	12	12	12
Grade (%)		-1%			2%			3%			0%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		646			325			647			208	
Travel Time (s)		17.6			8.9			17.6			5.7	
Confl. Peds. (#/hr)	41		85	85		41	71		41	41		71
Confl. Bikes (#/hr)			7			4						
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
4: N. 17th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	29	86	135	0	0	0	0	0	194	91
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	11	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			-4%	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		325			430			230			1070	
Travel Time (s)		8.9			11.7			6.3			29.2	
Confl. Peds. (#/hr)	39		44	44		39	5		5	5		5
Confl. Bikes (#/hr)			4									1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	5	0
Parking (#/hr)			0		0						0	
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Stop			Stop	

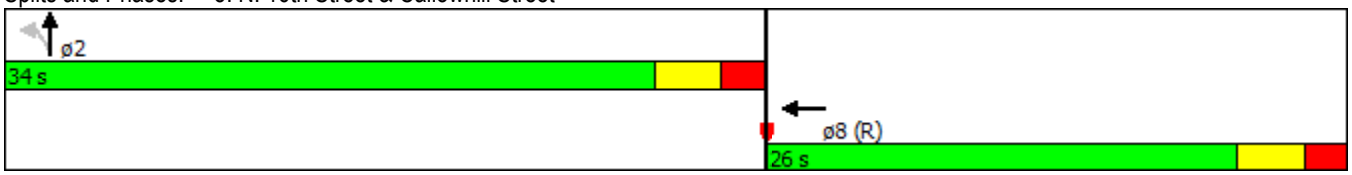
Intersection Summary	
Area Type:	CBD
Control Type: Unsignalized	

Lanes, Volumes, Timings
5: N. 16th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	183	136	45	636	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Grade (%)		0%			0%			2%			0%	
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			216			1070	
Travel Time (s)		11.7			12.5			5.9			29.2	
Confl. Peds. (#/hr)	330		174	174		330	385		14	14		385
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Bus Blockages (#/hr)	0	0	0	0	0	0	0	5	0	0	0	0
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					26.0		34.0	34.0				
Total Split (s)					26.0		34.0	34.0				
Total Split (%)					43.3%		56.7%	56.7%				
Yellow Time (s)					3.0		3.0	3.0				
All-Red Time (s)					2.0		2.0	2.0				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.0			5.0				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 17 (28%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 5: N. 16th Street & Callowhill Street



Lanes, Volumes, Timings
6: N. 15th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	95	279	0	0	0	0	0	444	89
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			0%			0%			-3%	
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			146			1070	
Travel Time (s)		12.5			13.1			4.0			29.2	
Confl. Peds. (#/hr)	12		26	26		12	3		372	372		3
Confl. Bikes (#/hr)						2						9
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				Split	NA						NA	Perm
Protected Phases				8	8						6	
Permitted Phases												6
Minimum Split (s)				26.0	26.0						34.0	34.0
Total Split (s)				26.0	26.0						34.0	34.0
Total Split (%)				43.3%	43.3%						56.7%	56.7%
Yellow Time (s)				3.0	3.0						3.0	3.0
All-Red Time (s)				2.0	2.0						2.0	2.0
Lost Time Adjust (s)					0.0						0.0	0.0
Total Lost Time (s)					5.0						5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 34 (57%), Referenced to phase 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 6: N. 15th Street & Callowhill Street

Lanes, Volumes, Timings
7: N. Broad Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	46	148	29	172	603	0	0	678	90
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	10	11	12	12	10	12	12	10	12
Grade (%)		0%			3%			4%			-1%	
Storage Length (ft)	0		0	0		0	125		0	0		100
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			240			1070	
Travel Time (s)		13.1			16.5			6.5			29.2	
Confl. Peds. (#/hr)	103		187	187		103	549		68	68		549
Confl. Bikes (#/hr)						3			15			19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8			2					6
Minimum Split (s)				29.0	29.0		9.0	57.0			37.0	37.0
Total Split (s)				29.0	29.0		9.0	61.0			52.0	52.0
Total Split (%)				32.2%	32.2%		10.0%	67.8%			57.8%	57.8%
Yellow Time (s)				3.0	3.0		3.0	3.0			3.0	3.0
All-Red Time (s)				3.0	3.0		0.0	2.0			2.0	2.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				6.0	6.0		3.0	5.0			5.0	5.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 47 (52%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Pretimed	

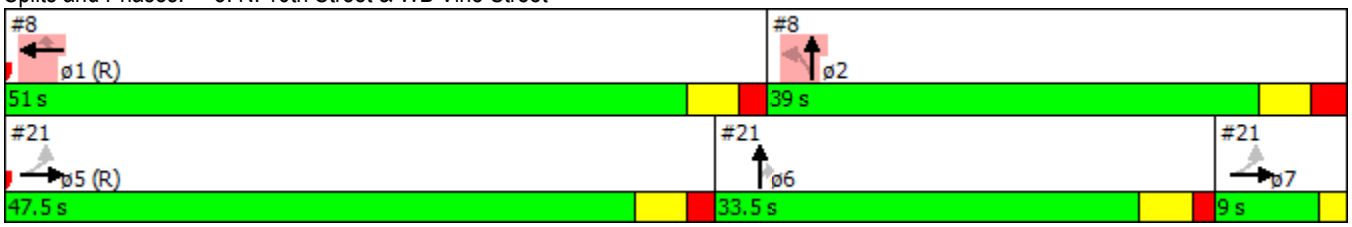
Splits and Phases: 7: N. Broad Street & Callowhill Street

Lanes, Volumes, Timings
8: N. 16th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	563	787	73	466	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	11	12	11	12	12	12	12
Grade (%)		0%			0%			-1%			0%	
Right Turn on Red			Yes			No	Yes		Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			460			170			344	
Travel Time (s)		11.7			12.5			4.6			9.4	
Confl. Peds. (#/hr)	29		14	14		29	405		4	4		405
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type					NA	Perm	Perm	NA				
Protected Phases					1			2				
Permitted Phases						1	2					
Minimum Split (s)					51.0	51.0	39.0	39.0				
Total Split (s)					51.0	51.0	39.0	39.0				
Total Split (%)					56.7%	56.7%	43.3%	43.3%				
Yellow Time (s)					3.5	3.5	3.5	3.5				
All-Red Time (s)					1.8	1.8	2.5	2.5				
Lost Time Adjust (s)					0.0	0.0		0.0				
Total Lost Time (s)					5.3	5.3		6.0				
Lead/Lag					Lead	Lead	Lag	Lag				
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 8: N. 16th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

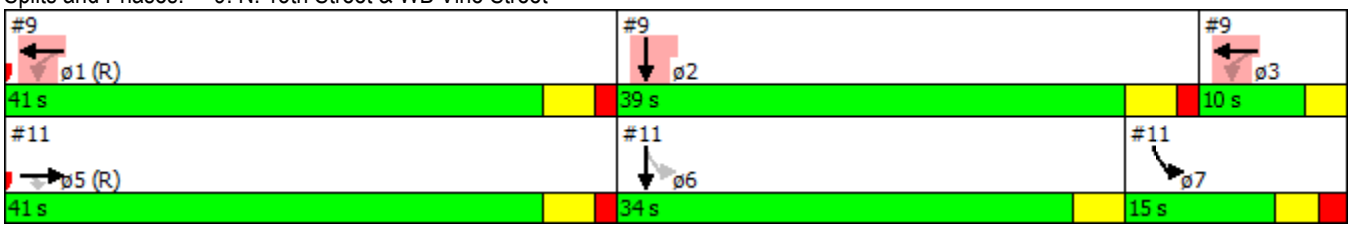
Intersection Summary

Lanes, Volumes, Timings
9: N. 15th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	42	622	0	0	0	0	0	1191	695
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		0%			1%			0%			2%	
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			480			170			414	
Travel Time (s)		12.5			13.1			4.6			11.3	
Confl. Peds. (#/hr)	27		3	3		27	8		414	414		8
Confl. Bikes (#/hr)						3						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type				Perm	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1 3								
Minimum Split (s)											39.0	
Total Split (s)											39.0	
Total Split (%)											43.3%	
Yellow Time (s)											3.5	
All-Red Time (s)											1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag											Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 9: N. 15th Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø6	ø7
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Parking (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	6	7
Permitted Phases					
Minimum Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (s)	41.0	10.0	41.0	34.0	15.0
Total Split (%)	46%	11%	46%	38%	17%
Yellow Time (s)	3.5	3.0	3.5	3.5	3.0
All-Red Time (s)	1.5	0.0	1.5	0.0	2.0
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag	Lead		Lead	Lag	
Lead-Lag Optimize?					

Intersection Summary

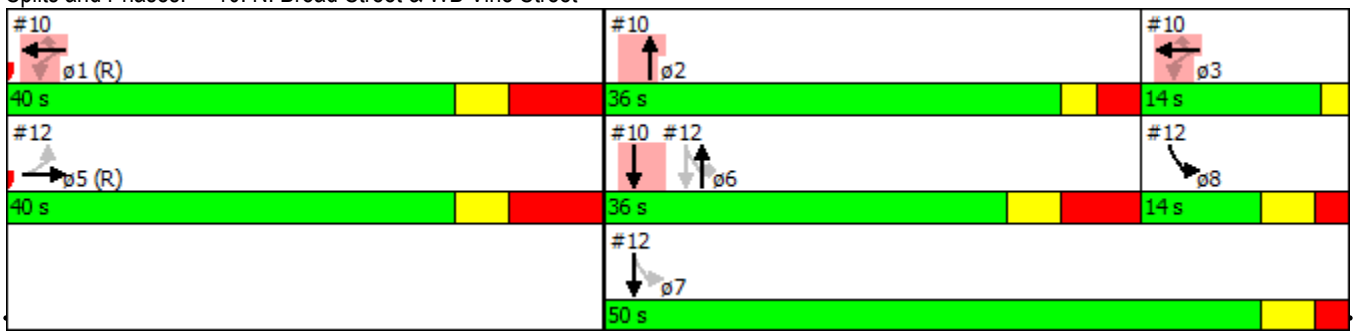
Lanes, Volumes, Timings
10: N. Broad Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	129	600	130	0	684	0	0	615	75
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	12	10	12	12	10	12
Grade (%)		0%			1%			-1%			1%	
Storage Length (ft)	0		0	0		0	0		0	100		100
Storage Lanes	0		0	1		1	0		0	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			605			170			320	
Travel Time (s)		13.1			16.5			4.6			8.7	
Confl. Peds. (#/hr)	46					46	429		171	171		429
Confl. Bikes (#/hr)						4			11			16
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Bus Blockages (#/hr)	0	0	0	0	0	0	0	2	0	0	5	0
Shared Lane Traffic (%)												
Turn Type				Perm	NA	Perm		NA			NA	
Protected Phases					1 3!			2			6!	
Permitted Phases				1 3!		1 3						
Minimum Split (s)								34.0			34.0	
Total Split (s)								36.0			36.0	
Total Split (%)								40.0%			40.0%	
Yellow Time (s)								2.4			3.6	
All-Red Time (s)								3.0			5.4	
Lost Time Adjust (s)								0.0			0.0	
Total Lost Time (s)								5.4			9.0	
Lead/Lag								Lead			Lead	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

! Phase conflict between lane groups.

Splits and Phases: 10: N. Broad Street & WB Vine Street



Lane Group	ø1	ø3	ø5	ø7	ø8
Lane Configurations					
Volume (vph)					
Ideal Flow (vphpl)					
Lane Width (ft)					
Grade (%)					
Storage Length (ft)					
Storage Lanes					
Taper Length (ft)					
Right Turn on Red					
Link Speed (mph)					
Link Distance (ft)					
Travel Time (s)					
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor					
Bus Blockages (#/hr)					
Shared Lane Traffic (%)					
Turn Type					
Protected Phases	1	3	5	7	8
Permitted Phases					
Minimum Split (s)	40.0	14.0	40.0	48.0	14.0
Total Split (s)	40.0	14.0	40.0	50.0	14.0
Total Split (%)	44%	16%	44%	56%	16%
Yellow Time (s)	3.6	2.0	3.6	3.6	3.6
All-Red Time (s)	6.4	0.0	6.4	2.4	2.4
Lost Time Adjust (s)					
Total Lost Time (s)					
Lead/Lag		Lag			Lag
Lead-Lag Optimize?		Yes			

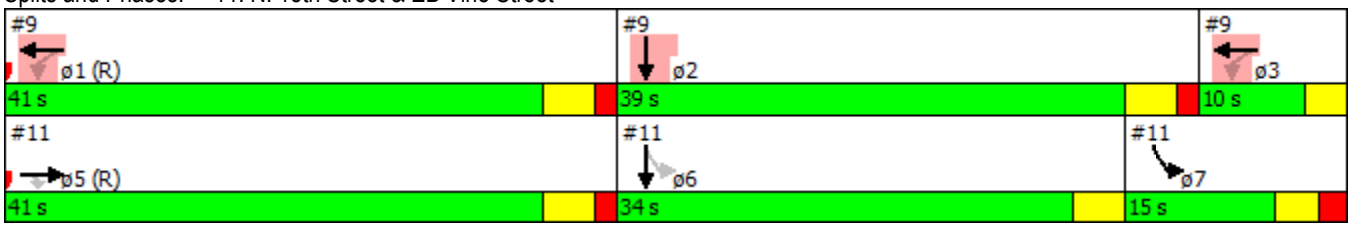
Intersection Summary

Lanes, Volumes, Timings
11: N. 15th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1246	685	0	0	0	0	0	0	390	840	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	11	12
Grade (%)		2%			0%			0%			4%	
Right Turn on Red			No			Yes			Yes	Yes		Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		82			480			430			170	
Travel Time (s)		2.2			13.1			11.7			4.6	
Confl. Peds. (#/hr)			16	16			8		418	418		8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Turn Type		NA	Perm							pm+pt	NA	
Protected Phases		5								7	6	
Permitted Phases			5							6		
Minimum Split (s)		41.0	41.0							15.0	34.0	
Total Split (s)		41.0	41.0							15.0	34.0	
Total Split (%)		45.6%	45.6%							16.7%	37.8%	
Yellow Time (s)		3.5	3.5							3.0	3.5	
All-Red Time (s)		1.5	1.5							2.0	0.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		5.0	5.0							5.0	3.5	
Lead/Lag		Lead	Lead								Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 11: N. 15th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	41.0	39.0	10.0
Total Split (s)	41.0	39.0	10.0
Total Split (%)	46%	43%	11%
Yellow Time (s)	3.5	3.5	3.0
All-Red Time (s)	1.5	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

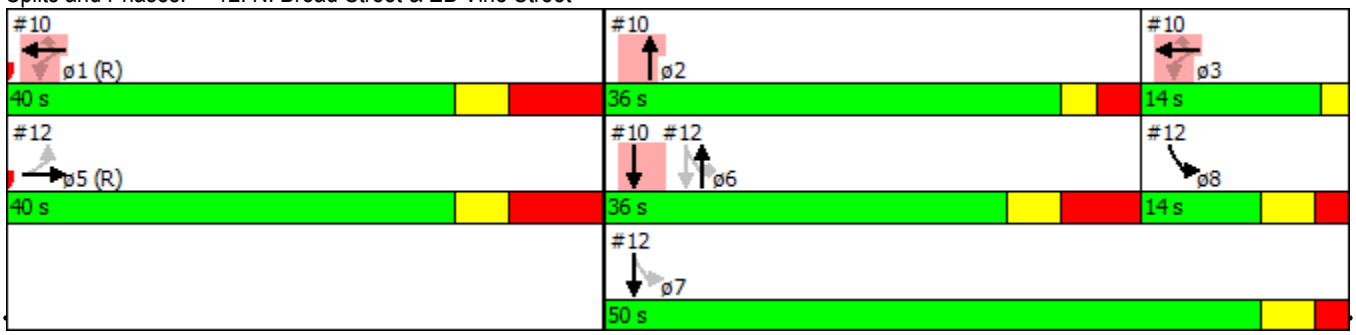
Intersection Summary

Lanes, Volumes, Timings
12: N. Broad Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	316	1097	86	0	0	0	0	336	147	244	473	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	10	12	12	10	12
Grade (%)		2%			0%			2%			2%	
Storage Length (ft)	0		250	0		0	0		0	45		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			Yes			No			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			163			270			170	
Travel Time (s)		13.1			4.4			7.4			4.6	
Confl. Peds. (#/hr)			53	53			516		130	130		516
Confl. Bikes (#/hr)			2						14			15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%	3%	11%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	30	0	0	0	0
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm	custom	NA	
Protected Phases		5						6		8	7	
Permitted Phases	5								6	6 7	6 7	
Minimum Split (s)	40.0	40.0						34.0	34.0	14.0	48.0	
Total Split (s)	40.0	40.0						36.0	36.0	14.0	50.0	
Total Split (%)	44.4%	44.4%						40.0%	40.0%	15.6%	55.6%	
Yellow Time (s)	3.6	3.6						3.6	3.6	3.6	3.6	
All-Red Time (s)	6.4	6.4						5.4	5.4	2.4	2.4	
Lost Time Adjust (s)		0.0						0.0	0.0	0.0	0.0	
Total Lost Time (s)		10.0						9.0	9.0	6.0	6.0	
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 12: N. Broad Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Grade (%)			
Storage Length (ft)			
Storage Lanes			
Taper Length (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Heavy Vehicles (%)			
Bus Blockages (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	40.0	34.0	14.0
Total Split (s)	40.0	36.0	14.0
Total Split (%)	44%	40%	16%
Yellow Time (s)	3.6	2.4	2.0
All-Red Time (s)	6.4	3.0	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			Yes

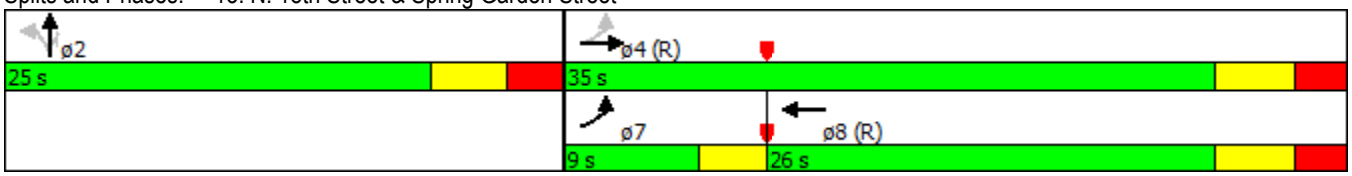
Intersection Summary

Lanes, Volumes, Timings
13: N. 18th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	406	0	0	406	24	47	57	49	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	10	11	12	12	11	12	12	9	9	12	12	12
Storage Length (ft)	145		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	0		1	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			25			25			25	
Link Distance (ft)		556			430			890			370	
Travel Time (s)		12.6			11.7			24.3			10.1	
Confl. Peds. (#/hr)	76		67	67		76	46		21	21		46
Confl. Bikes (#/hr)			1			2						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Parking (#/hr)		0			0			0				
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4						2		2			
Minimum Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (s)	9.0	35.0			26.0		25.0	25.0	25.0			
Total Split (%)	15.0%	58.3%			43.3%		41.7%	41.7%	41.7%			
Yellow Time (s)	3.0	3.6			3.6		3.4	3.4	3.4			
All-Red Time (s)	0.0	2.4			2.4		2.6	2.6	2.6			
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0			
Total Lost Time (s)	3.0	6.0			6.0			6.0	6.0			
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBT, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 13: N. 18th Street & Spring Garden Street

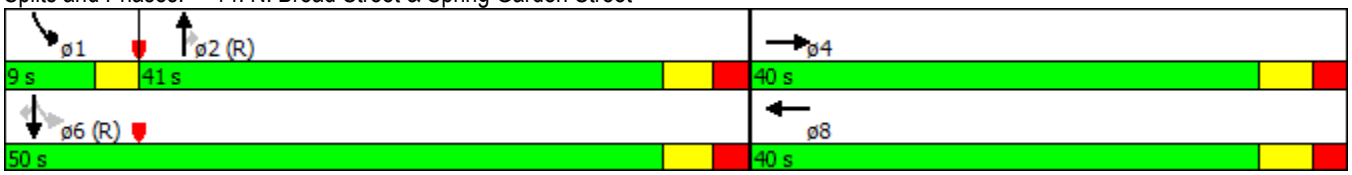


Lanes, Volumes, Timings
14: N. Broad Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	407	73	0	396	70	0	554	43	69	691	76
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	12	11	12	12	11	12	10	11	12
Grade (%)		0%			0%			0%			-1%	
Storage Length (ft)	0		0	0		0	0		100	170		100
Storage Lanes	0		0	0		0	0		1	1		1
Taper Length (ft)	25			25			25			25		
Right Turn on Red			No			No			Yes			No
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		480			630			1070			370	
Travel Time (s)		13.1			17.2			29.2			10.1	
Confl. Peds. (#/hr)	37		60	60		37	147		38	38		147
Confl. Bikes (#/hr)			4			2			10			9
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)		0			0							
Shared Lane Traffic (%)												
Turn Type		NA			NA			NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8			2		1	6	
Permitted Phases									2	6		6
Minimum Split (s)		33.0			33.0			35.0	35.0	9.0	35.0	35.0
Total Split (s)		40.0			40.0			41.0	41.0	9.0	50.0	50.0
Total Split (%)		44.4%			44.4%			45.6%	45.6%	10.0%	55.6%	55.6%
Yellow Time (s)		3.6			3.6			3.4	3.4	3.0	3.4	3.4
All-Red Time (s)		2.4			2.4			2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.0			6.0			6.0	6.0	3.0	6.0	6.0
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Pretimed	

Splits and Phases: 14: N. Broad Street & Spring Garden Street

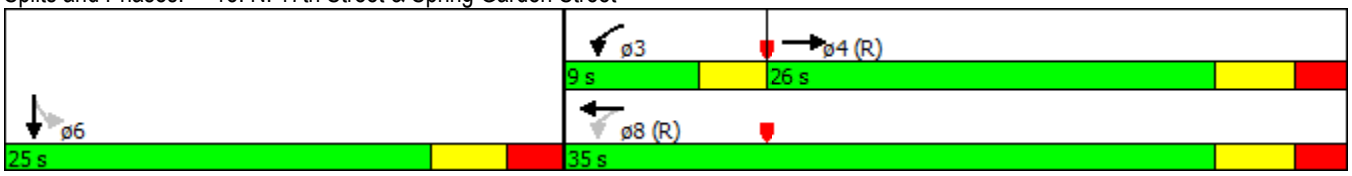


Lanes, Volumes, Timings
15: N. 17th Street & Spring Garden Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	395	57	61	414	0	0	0	0	28	63	28
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	11	12	10	11	12	12	11	12	12	11	12
Storage Length (ft)	0		0	165		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			30	
Link Distance (ft)		430			430			1070			370	
Travel Time (s)		11.7			11.7			29.2			8.4	
Confl. Peds. (#/hr)	47		73	73		47	26		4	4		26
Confl. Bikes (#/hr)			1			1						2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Parking (#/hr)		0			0						0	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA					Perm	NA	
Protected Phases		4		3	8						6	
Permitted Phases				8						6		
Minimum Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (s)		26.0		9.0	35.0					25.0	25.0	
Total Split (%)		43.3%		15.0%	58.3%					41.7%	41.7%	
Yellow Time (s)		3.6		3.0	3.6					3.4	3.4	
All-Red Time (s)		2.4		0.0	2.4					2.6	2.6	
Lost Time Adjust (s)		0.0		0.0	0.0						0.0	
Total Lost Time (s)		6.0		3.0	6.0						6.0	
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Pretimed	

Splits and Phases: 15: N. 17th Street & Spring Garden Street

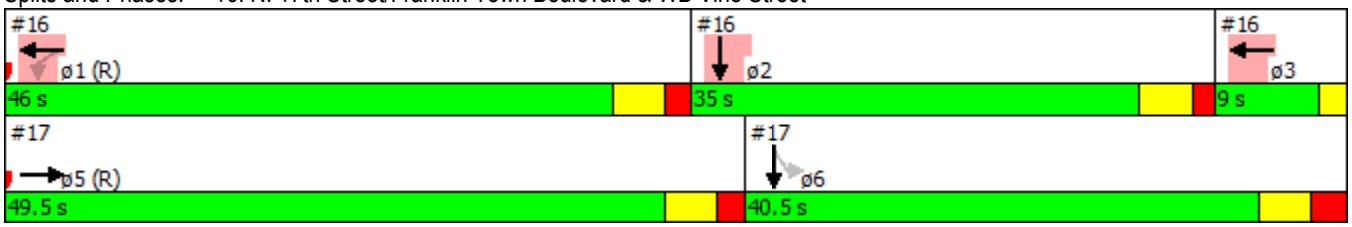


Lanes, Volumes, Timings
16: N. 17th Street/Franklin Town Boulevard & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	98	282	136	0	0	0	0	276	69
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Link Speed (mph)		30			25			30			25	
Link Distance (ft)		975			430			170			647	
Travel Time (s)		22.2			11.7			3.9			17.6	
Confl. Peds. (#/hr)	17		1	1		17	32		100	100		32
Confl. Bikes (#/hr)						5						2
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Parking (#/hr)					0						0	
Shared Lane Traffic (%)												
Turn Type				custom	NA						NA	
Protected Phases					1 3						2	
Permitted Phases				1								
Minimum Split (s)				46.0							35.0	
Total Split (s)				46.0							35.0	
Total Split (%)				51.1%							38.9%	
Yellow Time (s)				3.5							3.5	
All-Red Time (s)				1.8							1.5	
Lost Time Adjust (s)											0.0	
Total Lost Time (s)											5.0	
Lead/Lag				Lead							Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 16: N. 17th Street/Franklin Town Boulevard & WB Vine Street



Lane Group	ø3	ø5	ø6
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	3	5	6
Permitted Phases			
Minimum Split (s)	9.0	49.5	40.5
Total Split (s)	9.0	49.5	40.5
Total Split (%)	10%	55%	45%
Yellow Time (s)	2.0	3.5	3.5
All-Red Time (s)	0.0	1.8	2.5
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag		Lead	Lag
Lead-Lag Optimize?			

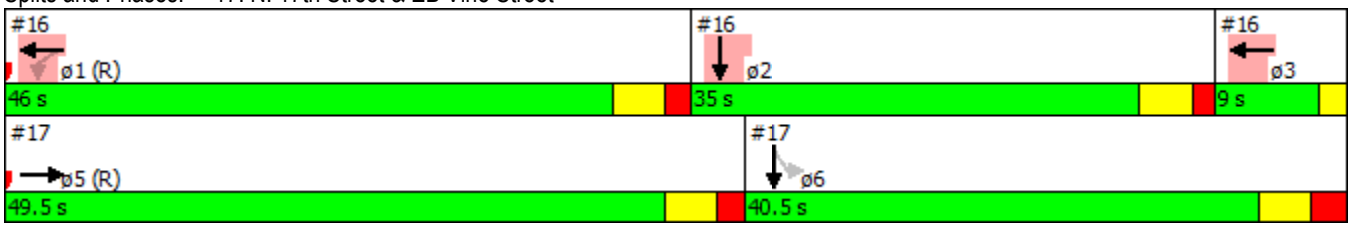
Intersection Summary

Lanes, Volumes, Timings
17: N. 17th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	231	29	0	0	0	0	0	0	147	232	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		975			430			430			170	
Travel Time (s)		22.2			11.7			9.8			3.9	
Confl. Peds. (#/hr)	1		16	16		1	31		87	87		31
Confl. Bikes (#/hr)			1									
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Parking (#/hr)		0										
Shared Lane Traffic (%)												
Turn Type		NA								Perm	NA	
Protected Phases		5									6	
Permitted Phases										6		
Minimum Split (s)		49.5								40.5	40.5	
Total Split (s)		49.5								40.5	40.5	
Total Split (%)		55.0%								45.0%	45.0%	
Yellow Time (s)		3.5								3.5	3.5	
All-Red Time (s)		1.8								2.5	2.5	
Lost Time Adjust (s)		0.0									0.0	
Total Lost Time (s)		5.3									6.0	
Lead/Lag		Lead								Lag	Lag	
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBTL and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 17: N. 17th Street & EB Vine Street



Lane Group	ø1	ø2	ø3
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	1	2	3
Permitted Phases			
Minimum Split (s)	46.0	35.0	9.0
Total Split (s)	46.0	35.0	9.0
Total Split (%)	51%	39%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	1.8	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?			

Intersection Summary

Lanes, Volumes, Timings
18: N. 13th Street & Callowhill Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	182	21	37	141	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	10	12	12	10	12	12	11	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			560			508	
Travel Time (s)		16.5			6.3			12.7			11.5	
Confl. Peds. (#/hr)	5		31	31		5	10		20	20		10
Confl. Bikes (#/hr)						5						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Parking (#/hr)					0			0				
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					8			2				
Permitted Phases							2					
Minimum Split (s)					59.4		30.6	30.6				
Total Split (s)					59.4		30.6	30.6				
Total Split (%)					66.0%		34.0%	34.0%				
Yellow Time (s)					3.6		3.6	3.6				
All-Red Time (s)					1.8		1.8	1.8				
Lost Time Adjust (s)					0.0			0.0				
Total Lost Time (s)					5.4			5.4				
Lead/Lag												
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 8:WBT, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

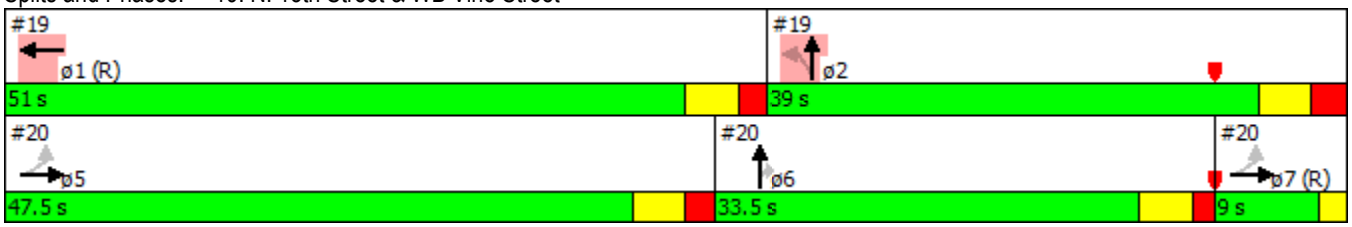
Splits and Phases: 18: N. 13th Street & Callowhill Street

Lanes, Volumes, Timings
19: N. 13th Street & WB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	743	52	73	144	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	11	12	11	10	12	12	10	12
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		605			275			170			560	
Travel Time (s)		16.5			6.3			3.9			12.7	
Confl. Peds. (#/hr)	44		3	3		44	53		40	40		53
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Parking (#/hr)					0							
Shared Lane Traffic (%)												
Turn Type					NA		Perm	NA				
Protected Phases					1			2				
Permitted Phases							2					
Minimum Split (s)					51.0		39.0	39.0				
Total Split (s)					51.0		39.0	39.0				
Total Split (%)					56.7%		43.3%	43.3%				
Yellow Time (s)					3.7		3.5	3.5				
All-Red Time (s)					1.8		2.5	2.5				
Lost Time Adjust (s)					0.0		0.0	0.0				
Total Lost Time (s)					5.5		6.0	6.0				
Lead/Lag					Lead		Lag	Lag				
Lead-Lag Optimize?					Yes		Yes	Yes				

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 19: N. 13th Street & WB Vine Street



Lane Group	ø5	ø6	ø7
Lane Configurations			
Volume (vph)			
Ideal Flow (vphpl)			
Lane Width (ft)			
Right Turn on Red			
Link Speed (mph)			
Link Distance (ft)			
Travel Time (s)			
Confl. Peds. (#/hr)			
Peak Hour Factor			
Parking (#/hr)			
Shared Lane Traffic (%)			
Turn Type			
Protected Phases	5	6	7
Permitted Phases			
Minimum Split (s)	47.5	33.5	9.0
Total Split (s)	47.5	33.5	9.0
Total Split (%)	53%	37%	10%
Yellow Time (s)	3.5	3.5	2.0
All-Red Time (s)	2.0	1.5	0.0
Lost Time Adjust (s)			
Total Lost Time (s)			
Lead/Lag	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	

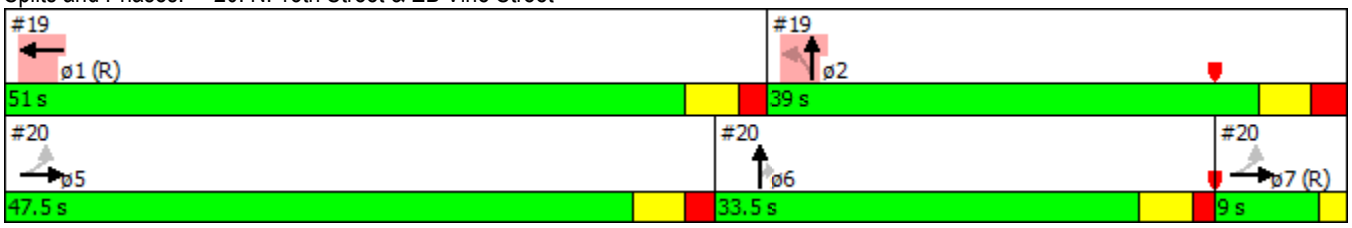
Intersection Summary

Lanes, Volumes, Timings
20: N. 13th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	499	0	0	0	0	0	155	43	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Lane Width (ft)	12	12	12	12	12	12	12	11	9	12	12	12
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		442			275			430			170	
Travel Time (s)		12.1			6.3			9.8			3.9	
Confl. Peds. (#/hr)			23	23			49		36	36		49
Confl. Bikes (#/hr)			2						4			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Parking (#/hr)								0				
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?								Yes	Yes			

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 7:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 20: N. 13th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Lane Width (ft)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Confl. Bikes (#/hr)				
Peak Hour Factor				
Parking (#/hr)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.7	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	2.0	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	

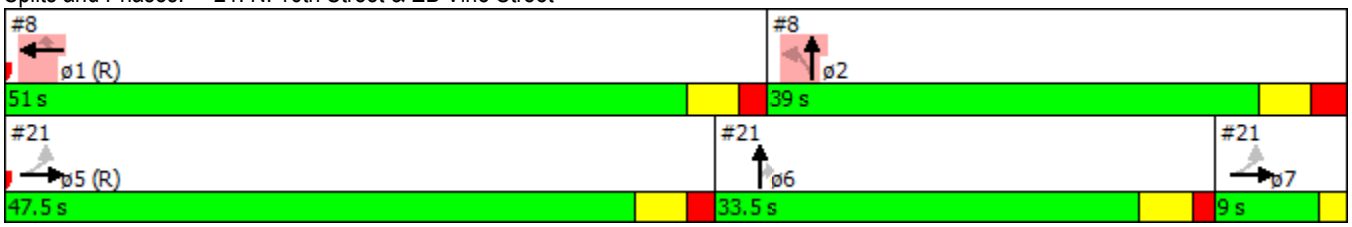
Intersection Summary

Lanes, Volumes, Timings
21: N. 16th Street & EB Vine Street

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	333	0	0	0	0	0	507	276	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100	2100
Right Turn on Red	Yes		Yes			Yes			Yes			Yes
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		430			378			430			170	
Travel Time (s)		11.7			10.3			11.7			4.6	
Confl. Peds. (#/hr)	2		13	13		2	372		7	7		372
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	6%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%	2%
Shared Lane Traffic (%)												
Turn Type	Perm	NA						NA	Perm			
Protected Phases		5 7						6				
Permitted Phases	5 7								6			
Minimum Split (s)								33.5	33.5			
Total Split (s)								33.5	33.5			
Total Split (%)								37.2%	37.2%			
Yellow Time (s)								3.5	3.5			
All-Red Time (s)								1.5	1.5			
Lost Time Adjust (s)								0.0	0.0			
Total Lost Time (s)								5.0	5.0			
Lead/Lag								Lag	Lag			
Lead-Lag Optimize?												

Intersection Summary	
Area Type:	CBD
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 1:WBT and 5:, Start of Green	
Natural Cycle: 90	
Control Type: Pretimed	

Splits and Phases: 21: N. 16th Street & EB Vine Street



Lane Group	ø1	ø2	ø5	ø7
Lane Configurations				
Volume (vph)				
Ideal Flow (vphpl)				
Right Turn on Red				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Heavy Vehicles (%)				
Shared Lane Traffic (%)				
Turn Type				
Protected Phases	1	2	5	7
Permitted Phases				
Minimum Split (s)	51.0	39.0	47.5	9.0
Total Split (s)	51.0	39.0	47.5	9.0
Total Split (%)	57%	43%	53%	10%
Yellow Time (s)	3.5	3.5	3.5	2.0
All-Red Time (s)	1.8	2.5	1.8	0.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag	Lead	
Lead-Lag Optimize?				

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Volume (vph)	554	0	0	0	0	1322
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Grade (%)	2%			0%	0%	
Link Speed (mph)	25			25	25	
Link Distance (ft)	378			82	173	
Travel Time (s)	10.3			2.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Stop	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Lanes, Volumes, Timings
29: EB Vine Street

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	927	561	0	0	0	0
Ideal Flow (vphpl)	2100	2100	2100	2100	2100	2100
Link Speed (mph)		25	25		30	
Link Distance (ft)		163	442		201	
Travel Time (s)		4.4	12.1		4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control		Free	Stop		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

SITE ACCESS EVALUATION

FRIDAY PM (4-6 PM)
PEAK HOUR TIME PERIOD

FRIDAY EVENING (7-10 PM)
PEAK HOUR TIME PERIOD

SATURDAY EVENING (6-9 PM)
PEAK HOUR TIME PERIOD