

Appendix A

Level-of-Service and Queue Matrix Tables

Table 1 - Level of Service Matrices

1. Lower York Road (Route 202) & Aquetong Road

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Aquetong Rd	Left EB Thru Right	D 46.1	D 46.4	C 33.0	C 33.0	C 33.0	D 49.6	D 49.8	C 31.1	C 31.1	C 31.1	D 48.2	D 48.4	C 32.9	C 32.9	C 32.9
	Left WB Thru Right	D 53.1	D 53.1	C 30.3	C 30.3	C 30.3	D 48.0	D 48.3	C 33.2	C 33.2	C 33.2	D 51.3	D 51.4	C 31.7	C 31.7	C 31.7
Lower York Rd (Rt 202)	Left NB Thru Right	B 10.6	B 13.7	A 5.7 A 9.9	A 5.7 A 9.9	A 5.7 A 9.9	A 8.5	B 10.3	A 0.0 A 6.7	A 0.0 A 6.7	A 0.0 A 6.7	A 8.9	B 11.1	A 8.6 A 7.5	A 8.6 A 7.5	A 8.6 A 7.5
	Left SB Thru Right	A 7.1	A 8.3	B 13.1 A 5.1	B 12.1 A 5.1	B 13.1 A 5.1	B 12.6	B 17.6	A 8.5 B 13.6	A 8.5 B 13.6	A 8.5 B 13.6	A 8.8	B 10.9	A 9.6 A 7.0	A 9.6 A 7.0	A 9.6 A 7.0
Overall		B 13.9	B 16.1	B 10.8	B 10.8	B 10.8	B 14.6	B 17.9	B 12.5	B 12.5	B 12.5	B 13.4	B 15.2	A 9.6	A 9.6	A 9.6

Table 1 - Level of Service Matrices

2. Lower York Road (Route 202) & Lower Mountain Road/Ingham Road

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Lower Mountain Rd/Ingham Rd	WB (Lower Mt Rd) Left	B	C	C	C	C	A	B	C	C	C	A	D	B	A	B
	WB (Lower Mt Rd) Right	13.6	17.7	19.2	19.0	19.2	9.7	10.6	19.6	20.8	19.6	9.1	25.6	12.1	9.8	12.1
Lower Mountain Rd/Ingham Rd	WB (Ingham Rd) Left	A	A	C	A	C	A	A	A	A	A	A	A	A	A	A
	WB (Ingham Rd) Right	0.0	0.0	15.8	0.0	15.8	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0
Lower York Rd (Rt 202)	NB Thru	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
	NB Right	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Lower York Rd (Rt 202)	SB Left	A	A	A 2.6	A 2.3	A 2.6	A	A	A 3.7	A 4.1	A 3.7	A	A	A 3.5	A 2.9	A 3.5
	SB Thru	2.3	6.1	(1)	(1)	(1)	6.1	5.2	(1)	(1)	(1)	5.7	5.0	(1)	(1)	(1)
Overall		A 3.1	A 4.5	A 3.6	A 3.6	A 3.6	A 4.5	A 4.2	A 3.5	A 3.8	A 3.5	A 4.0	A 4.2	A 3.5	A 3.1	A 3.5

(1) Movement operates at free-flow conditions.

Table 1 - Level of Service Matrices

3. Lower York Road (Route 202) & Silvertail Lane

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Silvertail Ln	Left Right	C	C	C	C	C	C	D	C	C	C	C	D	C	C	C
		20.1	24.1	16.5	16.5	16.5	24.1	29.9	18.7	18.7	18.7	23.0	28.7	18.7	18.7	18.7
		B	B	B	B	B	B	C	C	C	C	B	B	B	B	B
Lower York Rd (Rt 202)	Left Thru	10.4	10.8	11.2	11.2	11.2	13.8	15.1	17.0	17.0	17.0	12.1	12.9	14.4	14.4	14.4
		A	A	A	A	A	B	B	B	B	B	B	B	B	B	B
	9.3	9.5	9.7	9.7	9.7	11.1	11.7	12.6	12.6	12.6	10.3	10.7	11.4	11.4	11.4	
	Thru Right	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
		(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Overall		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
		0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.4	0.4	0.3	0.3	0.3

(1) Movement operates at free-flow conditions.

Table 1 - Level of Service Matrices

4. Lower York Road (Rt 202) & Reeder Road/Private Driveway

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Reeder Rd/Private Driveway	Left EB Thru Right	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	A 0.0	E 40.0	F 55.7	F 88.8	D 40.1	F 88.8
	Left WB Thru Right	C 19.5	C 23.1	D 26.9	D 42.9 D 47.2	D 26.9	E 37.2	F 61.1	F 116.1	D 41.3 D 39.3	F 116.1	C 15.3	C 17.3	C 21.4	D 41.1 D 40.4	C 21.4
Lower York Rd (Rt 202)	Left NB Thru Right	A 0.0	A 0.0	A 0.0 (1)	A 0.0 A 5.2	A 0.0 (1)	A 0.0	A 0.0	A 0.0 (1)	A 0.0 5.3	A (1)	A 0.0	A 0.0	B 11.2 (1)	A 7.6 A 6.8	B 11.2 (1)
	Left SB Thru Right	A 0.2	A 0.2	B 12.3 (1)	A 6.7 A 2.6	B 12.3 (1)	A 0.3	A 0.3	B 11.3 (1)	A 7.2 A 9.9	B 11.3 (1)	A 0.2	A 0.3	B 12.1 (1)	A 9.7 A 6.0	B 12.1 (1)
Overall		A 0.3	A 0.3	A 0.4	A 5.3	A 0.4	A 0.6	A 0.9	A 1.4	A 9.1	A 1.4	A 0.3	A 0.4	A 0.4	A 8.1	A 0.4

(1) Movement operates at free-flow conditions.

Table 1 - Level of Service Matrices

5. Lower York Road (Route 202) & Shire Drive/Logan Square Shopping Center

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Shire Dr/Logan Square SC	EB Left Thru Right	A	A	D	D	(2)	A	A	C	C	(2)	A	A	D	C	(2)
		0.3	0.3	44.6	37.1		0.1	0.2	34.2	24.2		0.4	0.4	35.1	25.1	
	WB (Shire Dr) Left Thru Right	D	D	(1)	(1)	(2)	D	D	(1)	(1)	(2)	D	D	(1)	(1)	(2)
		48.0	48.0				43.0	43.0				49.1	49.4			
	WB (Logan Square) Left Thru Right	D	D	D	D	(2)	F	E	D	D	(2)	F	E	D	D	(2)
		51.7	52.3	43.1	41.0		82.8	57.4	39.1	37.6		108.2	59.2	38.9	35.6	
Lower York Rd (Rt 202)	NB Left Thru Thru/Right	A	A	D	D	(2)	A	A	D	C	(2)	B	B	D	C	(2)
		0.6	0.7				5.4	5.8				18.9	12.6			
		(1)	(1)	46.4	36.9		(1)	(1)	36.6	24.7		(1)	(1)	41.0	26.2	
	SB Left Thru Thru/Right	B	B	A	A	(2)	B	B	A	B	(2)	B	B	A	B	(2)
		12.0	12.0	3.2	4.9		11.8	13.9	7.1	13.3		12.2	16.8	7.7	13.7	
		B	C	A	A		B	C	B	B		B	C	B	C	
	Overall	18.3	21.3	5.8	8.2		16.5	22.0	10.7	19.6		17.0	26.9	12.5	21.6	
		B	B	A	A		A	A	B	B		A	A	B	C	
		10.5	10.5	5.7	8.2		0.2	0.2	10.7	19.8		0.3	1.0	12.6	22.0	
	Overall	A	A	A	A	(2)	A	A	A	B	(2)	B	B	A	B	(2)
		4.8	4.5	3.2	4.8		3.8	3.7	6.2	11.9		10.9	18.6	8.0	13.8	
		A	A	A	A		A	A	A	A		A	A	A	A	
	Overall	4.4	2.8	1.8	3.0		5.3	2.8	5.1	10.0		7.9	3.2	4.5	8.7	
				A	A				A	A				A	A	
				1.8	3.0				5.1	10.0				4.5	8.7	
	Overall	B	B	A	A	(2)	B	B	B	B	(2)	B	B	B	B	(2)
		13.4	14.8	5.6	8.9		13.5	12.5	10.4	18.7		17.7	16.4	12.3	19.7	

(1) Movement does not exist.

(2) VISSIM traffic simulation results were utilized for Alternative 3.

Table 1 - Level of Service Matrices

6. Lower York Road (Route 202) & Kitchens Lane/Route 179

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Kitchens Ln/Rt 179	EB	D 49.6	D 50.0	D 39.3	D 41.5	(2)	D 43.2	D 43.3	D 38.2	D 39.5	(2)	D 49.4	D 49.8	D 39.2	D 37.5	(2)
		A	A	A	D 51.1		A	A	A	D 51.5		A	A	A	D 48.9	
		2.4	2.9	1.8	(1)		2.0	2.4	1.9	(1)		5.6	8.1	3.6	(1)	
	WB	D 53.5	D 53.8	D 51.7	(1)	(2)	D 46.5	D 47.0	D 51.2	(1)	(2)	D 52.0	D 52.9	D 51.6	(1)	(2)
		D	D	D			D	D	D			D	D	D		
		51.7	51.4	50.5			46.4	47.2	50.5			50.6	51.4	52.0		
Lower York Rd (Rt 202)	NB	A 1.0	A 0.9	A 2.3	A 2.2	(2)	A 9.7	A 7.0	A 7.8	A 2.7	(2)	B 13.4	A 7.1	B 11.9	A 3.2	(2)
		A 4.6	A 4.0	A 8.8	A 3.3		B 13.9	B 10.6	B 11.7	A 3.0		C 22.0	B 12.1	B 17.8	A 3.8	
	SB	E 71.0	D 44.0	C 35.0	(1)	(2)	D 49.0	E 59.3	C 29.3	(1)	(2)	E 58.2	E 57.5	D 35.7	(1)	(2)
		A	A	B	A		B	B	D	A		B	B	D	A	
		7.3	8.3	12.7	0.1		19.8	18.0	38.7	0.6		15.0	16.9	37.0	0.5	
	Overall	B 13.0	B 13.1	B 17.0	A 4.7	(2)	C 26.0	C 24.8	C 33.0	A 4.0	(2)	C 29.5	C 27.7	C 34.2	A 5.7	(2)

(1) Movement does not exist.

(2) VISSIM traffic simulation results were utilized for Alternative 3.

Table 1 - Level of Service Matrices
7. Lower York Road (Route 202) & Sugan Road

Time Period		Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year		2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition		Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Sugan Rd	Left	D	D	D	D 40.1	(1)	D	D	C	D 37.4	(1)	D	C	C	D 40.3	(1)
	EB Thru				D					C					C	
	Right	51.6	50.5	41.7	36.1		40.2	38.6	34.9	30.5		36.0	33.8	27.8	26.9	
	Left	D	D	D	D 39.5	(1)	D	D	D	D 37.9	(1)	D	D	D	D 35.9	(1)
	WB Thru				D					D					D	
Lower York Rd (Rt 202)	Right	48.3	47.1	39.5	37.6		47.0	46.1	41.9	35.5		46.5	44.9	40.7	36.9	
	Left	A 0.2	A 0.3	A 0.4	A 0.5	(1)	A 0.9	A 1.6	A 2.2	A 3.2	(1)	A 0.6	A 1.0	A 1.5	A 1.5	(1)
	NB Thru	A	A	A	A		A	A	A	A		A	A	A	A	
	Right	1.0	1.3	1.4	1.8		0.5	0.6	0.7	1.0		0.8	1.0	1.3	1.6	
	Left	A 3.7	A 4.5	A 4.5	A 5.2	(1)	A 4.6	A 5.5	A 5.7	A 7.5	(1)	A 7.8	A 9.5	A 9.2	A 9.3	(1)
	SB Thru	A	A	A	A		A	A	A	B		A	B	B	B	
	Right	4.4	5.4	5.5	6.4		6.2	7.7	8.4	10.9		8.9	11.0	11.1	11.0	
	Overall	B 13.0	B 13.4	B 11.2	B 12.5	(1)	B 13.0	B 13.7	B 12.2	B 14.7	(1)	B 18.4	B 18.6	B 15.9	B 17.2	(1)

(1) VISSIM traffic simulation results were utilized for Alternative 3.

Table 1 - Level of Service Matrices

8. Lower York Road (Route 202) & Proposed Signalized Driveway

Time Period		Weekday Morning Peak Hour		Weekday Afternoon Peak Hour		Saturday Midday Peak Hour	
Design Year		2040 Build-Out Year		2040 Build-Out Year		2040 Build-Out Year	
Development Condition		Build Alt #1	Build Alt #2	Build Alt #1	Build Alt #2	Build Alt #1	Build Alt #2
Proposed Signalized Driveway	Left	D	D	D	D	D	D
	WB	45.3	43.4	42.7	42.7	42.9	41.8
	Right	D	D	D	C	D	C
		43.8	37.2	40.8	28.0	41.3	27.9
Lower York Road (Rt 202)	Thru	B	B	C	C	C	C
	NB	13.7	13.7	22.7	25.3	24.3	25.8
	Thru	B	B	C	C	C	C
	Right	13.7	13.9	22.7	25.5	24.3	26.1
	Left	A	A	A	A	B	A
	SB	5.9	5.4	8.1	9.6	10.2	9.9
	Thru	A	A	A	A	A	A
		1.9	2.8	3.8	7.2	3.5	6.9
Overall		B	B	B	C	B	C
		10.7	12.8	14.5	21.4	15.9	22.2

Table 2 - 95th Percentile Queue Matrices

1. Lower York Road (Route 202) & Aquetong Road

Time Period			Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year					2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition					Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Aquetong Rd	Left		1000+		135	155	113	113	113	73	85	55	55	55	105	123	85	85	85
	EB	Thru																	
	Right		1000+		53	60	38	38	38	113	130	93	93	93	78	88	58	58	58
	WB	Thru																	
	Right		1000+		318	420	25	25	25	220	278	0	0	0	248	318	25	25	25
	NB	Thru					255	255	255			165	165	165			190	190	190
Lower York Rd (Rt 202)	Left		1000+		143	188	25	25	25	358	490	25	25	25	225	288	25	25	25
	SB	Thru					93	93	93			305	305	305			160	160	160
	Right		1000+		143	188	93	93	93	358	490	305	305	305	225	288	160	160	160
		Right																	

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

Table 2 - 95th Percentile Queue Matrices

2. Lower York Road (Route 202) & Lower Mountain Road/Ingham Road

Time Period		Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition				Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Lower Mountain Rd/Ingham Rd	WB (Lower Mt Rd) Left	1000+		25	25	25	25	25	25	25	25	25	25	25	25	25	25	
	WB (Ingham Rd) Right			25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Lower York Rd (Rt 202)	NB Thru Right	1000+		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	SB Left Thru			37	212	25 (3)	30 (3)	25 (3)	160	144	43 (3)	49 (3)	43 (3)	144	129	48 (3)	46 (3)	48 (3)

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) Movement operates at free-flow conditions.

Table 2 - 95th Percentile Queue Matrices

3. Lower York Road (Route 202) & Silvertail Lane

Time Period		Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition				Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Silvertail Ln	Left	500+		25	25	25	25	25	25	25	25	25	25	25	25	25	25	
	Right	100		25	25	25	25	25	25	25	25	25	25	25	25	25	25	
Lower York Rd (Rt 202)	NB	Left	175		25	25	25	25	25	25	25	25	25	25	25	25	25	
		Thru	1000+		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
	SB	Thru	1000+		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	
		Right	250		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) Movement operates at free-flow conditions.

Table 2 - 95th Percentile Queue Matrices

4. Lower York Road (Rt 202) & Reeder Road/Private Driveway

Time Period		Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition				Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Reeder Rd/Private Driveway	Left	1000+		0	0	0	0	0	0	0	0	0	0	0	0	0		
	EB Thru Right																	
	Left	1000		25	25	25	25	25	38	65	38	25	25	25	65	25		
	WB Thru Right						25			25					25			
Lower York Rd (Rt 202)	Left	1000+		0	0	0	0	0	0	0	0	0	0	25	25	25	25	25
	NB Thru Right					(3)	125	(3)			(3)	158	(3)			(3)	218	(3)
	Left	100		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	SB Thru Right					(3)	38	(3)			(3)	275	(3)			(3)	163	(3)

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) Movement operates at free-flow conditions.

Table 2 - 95th Percentile Queue Matrices

5. Lower York Road (Route 202) & Shire Drive/Logan Square Shopping Center

Time Period			Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year					2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition					Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Shire Dr/Logan Square SC	EB	Left	700		25	25	25	25	(4)	25	25	25	25	(4)	25	25	25	25	(4)
		Thru																	
		Right																	
	WB (Shire Dr)	Left	500+		25	25	(3)	(3)	(4)	25	25	(3)	(3)	(4)	25	25	(3)	(3)	(4)
		Thru																	
		Right																	
	WB (Logan Square)	Left	180		36	39	25	90	(4)	180	162	140	313	(4)	189	149	123	293	(4)
		Right	180		25	25	25	25		25	28	63	30		81	74	128	63	
		Thru	(3)		(3)			(3)		(3)	63	30	(3)		(3)				
Lower York Rd (Rt 202)	NB	Left	120		25	25	25	25	(4)	25	25	25	25	(4)	25	25	25	25	(4)
		Thru	1000+		812	985	128	165		415	589	185	243		413	643	223	273	
		Right	150		32	35	130	163		25	25	188	235		25	25	223	258	
	SB	Left	200		25	25	25	25	(4)	25	25	25	48	(4)	53	105	50	88	(4)
		Thru	1000+		87	72	25	30		113	142	110	153		54	84	83	98	
		Right					25	30				115	160				85	103	

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) Movement does not exist.

(4) VISSIM traffic simulation results were utilized for Alternative 3.

Table 2 - 95th Percentile Queue Matrices

6. Lower York Road (Route 202) & Kitchens Lane/Route 179

Time Period		Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour					
Design Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year				
Development Condition				Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	
Kitchens Ln/Rt 179	EB	Left	75		28	30	26	25	(4)	25	25	25	25	(4)	26	29	25	25	(4)
		Thru	600+		25	25	25	58		25	25	75	25		25	108			
								Right									(3)	(3)	
	WB	Left	1000+		110	121	127	(3)	(4)	238	272	328	(3)	(4)	268	306	341	(3)	(4)
		Thru	350	106	116	125	241			275	326	262			301	345			
		Right																	
Lower York Rd (Rt 202)	NB	Left	100		25	25	25	25	(4)	25	25	27	25	(4)	39	25	40	25	(4)
		Thru	1000+	49	29	477	63	185		226	427	50	375		246	458	75		
	SB	Left	200		25	25	25	(3)	(4)	25	25	25	(3)	(4)	25	25	25	(3)	(4)
		Thru	1000+	50	74	120	25	148		118	276	25	88		112	210	25		
		Right																	

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) Movement does not exist.

(4) VISSIM traffic simulation results were utilized for Alternative 3.

Table 2 - 95th Percentile Queue Matrices

7. Lower York Road (Route 202) & Sугan Road

Time Period			Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour					Weekday Afternoon Peak Hour					Saturday Midday Peak Hour				
Design Year					2019	2040 Build-Out Year				2019	2040 Build-Out Year				2019	2040 Build-Out Year			
Development Condition					Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3	Existing	No-Build	Build Alt #1	Build Alt #2	Build Alt #3
Sugan Rd	Left	EB Thru	1000+		213	235	200	60	(3)	123	135	120	25	(3)	160	180	143	45	(3)
								163					105					123	
	Right	WB Thru	750		145	178	145	50	(3)	213	238	218	138	(3)	348	385	338	173	(3)
								143					208					290	
Lower York Rd (Rt 202)	Left	NB Thru	75		25	25	25	25	(3)	25	25	25	25	(3)	25	25	25	25	(3)
			1000+		25	25	25	28		25	25	25	25		25				
	Right	SB Thru	140		25	25	25	25	(3)	30	40	40	53	(3)	35	45	48	50	(3)
			1000+		73	98	93	108		145	198	208	250		138	183	193	190	

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

(3) VISSIM traffic simulation results were utilized for Alternative 3.

Table 2 - 95th Percentile Queue Matrices

8. Lower York Road (Route 202) & Proposed Signalized Driveway

Time Period		Current Storage ⁽¹⁾	Future Storage ⁽²⁾	Weekday Morning Peak Hour		Weekday Afternoon Peak Hour		Saturday Midday Peak Hour	
Design Year				2040 Build-Out Year		2040 Build-Out Year		2040 Build-Out Year	
Development Condition				Build Alt #1	Build Alt #2	Build Alt #1	Build Alt #2	Build Alt #1	Build Alt #2
Proposed Signalized Driveway	Left			38	110	100	300	90	295
	Right			25	25	65	33	63	30
Lower York Road (Rt 202)	Thru			323	255	393	293	443	300
	NB Thru			330	253	400	285	453	288
	Right								
	Left			25	25	25	25	35	25
	SB Thru			25	25	88	98	75	78

(1) Distance to adjacent intersections shown in italics.

(2) Future storage/distance to adjacent intersections shown if different/improved from existing conditions.

Appendix B

Field Sketches, Photographs, and Signal Plans



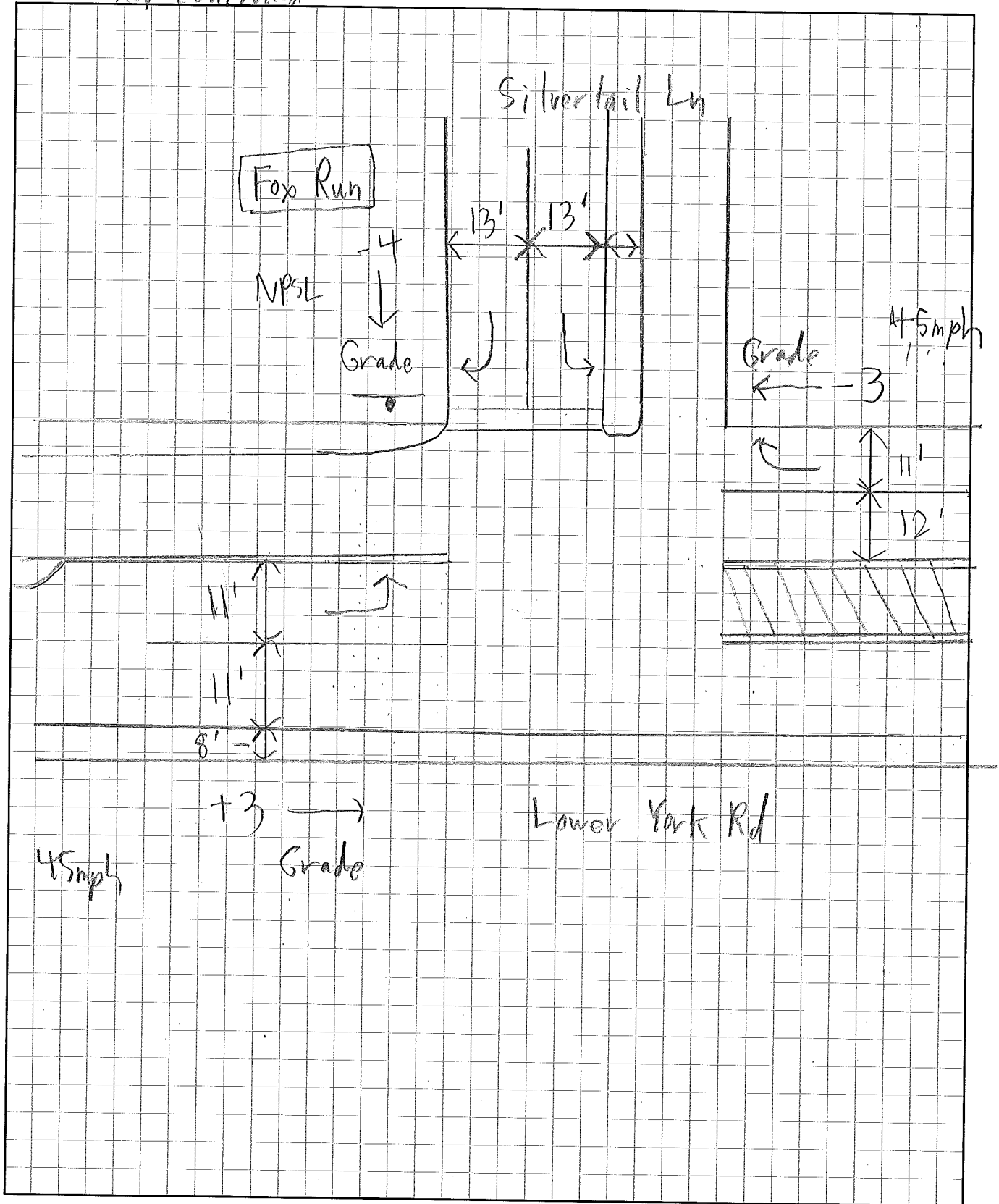
Hand-drawn site plan on graph paper showing property boundaries, roads, and easements. The plan includes "Lower York Rd" at the top, "Ingram Rd" on the left, and "Lower Mountain" at the bottom. A "45mph Grade" is marked on the left side, and another "45mph Grade" is marked on the right side. A "NPSE" (Non-Permitted Subdivision Easement) is indicated in the center. Dimensions include 11', 8', 18', 20', and 12'. A "Grade" line is shown with an arrow pointing to it. A "45mph Grade" is also marked on the right side.

Route
202

Rd.

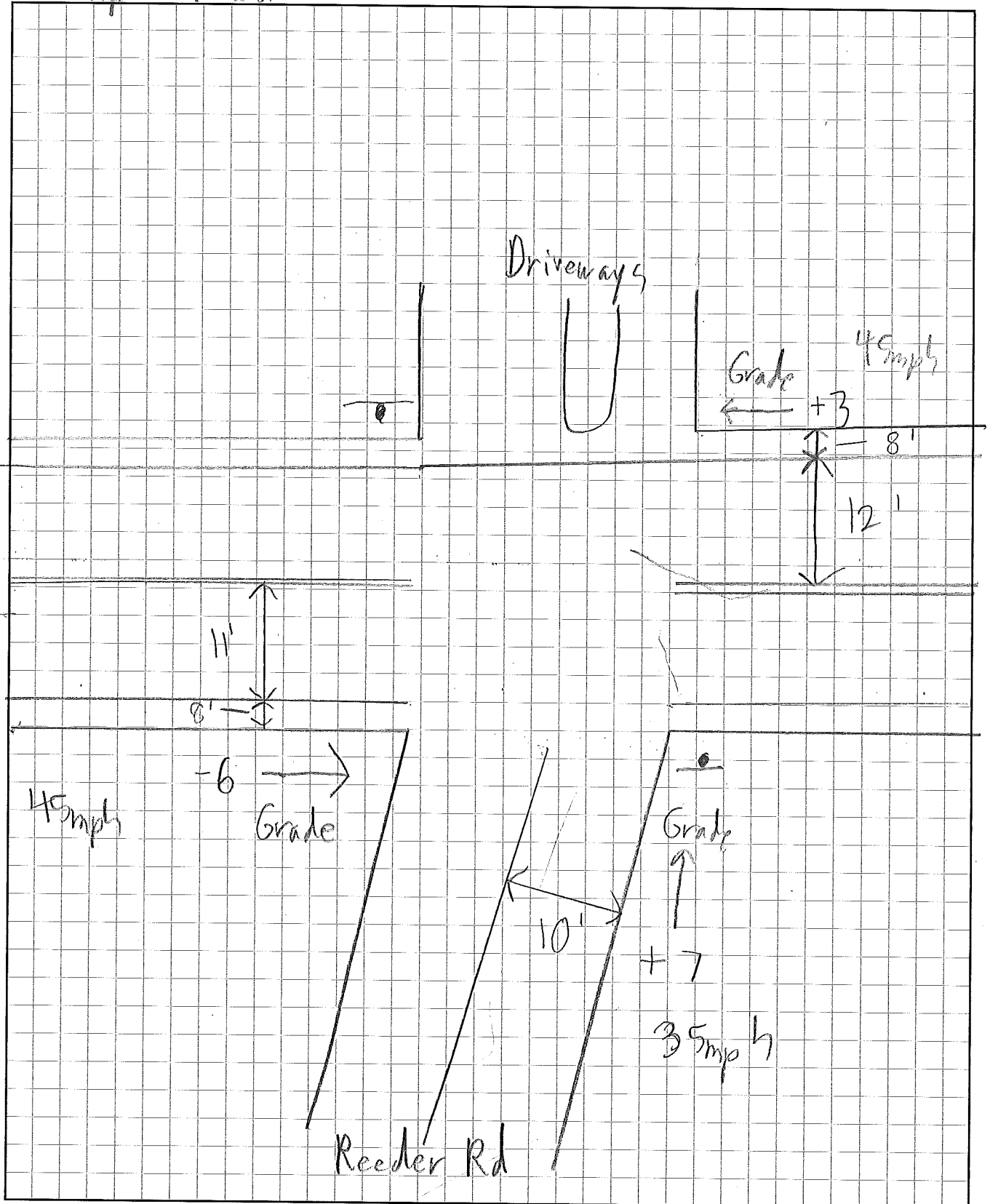


Job Solebury McMahon Project No. _____ Sheet _____ of _____
 Description Lower York Rd (202) Designed By _____ Date _____
+ Silvertail Lane Checked By _____ Date _____
- stop controlled



Route
202

Job Solebury McMahon Project No. _____ Sheet _____ of _____
 Description Lower York Rd (202) Designed By _____ Date _____
+ Reeder Rd / Driveways Checked By _____ Date _____
- stop - controlled





Route 202 & Aquetong Road - WB



Route 202 & Aquetong Road - NB



Route 202 & Aquetong Road - NB



Route 202 & Aquetong Road - EB



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Aquetong Road - SB



Route 202 & Aquetong Road - SB

Solebury Township, Bucks County, Pennsylvania



Route 202 & Lower Mountain Road/Ingham Road - SB



Route 202 & Lower Mountain Road/Ingham Road – WB (Lower Mountain Road)



Route 202 & Lower Mountain Road/Ingham Road – WB (Ingham Road)



Route 202 & Lower Mountain Road/Ingham Road - NB



Route 202 & Silvertail Lane – Silvertail Lane



Route 202 & Silvertail Lane - EB



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Silvertail Lane - SB



Route 202 & Silvertail Lane - NB

Solebury Township, Bucks County, Pennsylvania



Route 202 & Reeder Road - WB



Route 202 & Reeder Road - NB



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Reeder Road - NB



Route 202 & Reeder Road - EB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Reeder Road - EB



Route 202 & Reeder Road - SB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Reeder Road - SB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Shire Drive/Logan Square Shopping Center - WB



Route 202 & Shire Drive/Logan Square Shopping Center – Looking into Shire Drive

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Shire Drive/Logan Square Shopping Center – WB (Shire Drive)



Route 202 & Shire Drive/Logan Square Shopping Center - NB

Solebury Township, Bucks County, Pennsylvania



Route 202 & Shire Drive/Logan Square Shopping Center - NB



Route 202 & Shire Drive/Logan Square Shopping Center - EB



Route 202 & Shire Drive/Logan Square Shopping Center – Looking into Logan Shopping Center



Route 202 & Shire Drive/Logan Square Shopping Center - SB



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Shire Drive/Logan Square Shopping Center - SB



Route 202 & Shire Drive/Logan Square Shopping Center - SB

Solebury Township, Bucks County, Pennsylvania



Route 179



Route 179



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 179



Route 179

Solebury Township, Bucks County, Pennsylvania



Route 179



Route 179



Route 179



Split at Route 202 and Route 179



Split at Route 202 and Route 179



Route 202 & Kitchens Lane/Route 179 - NB



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 - NB



Route 202 & Kitchens Lane/Route 179 - EB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 - EB



Route 202 & Kitchens Lane/Route 179 – Route 202

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 - SB



Route 202 & Kitchens Lane/Route 179 - SB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 - WB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Sugan Road - WB



Route 202 & Sugan Road - NB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Sogan Road – Route 202



Route 202 & Sogan Road - NB

Solebury Township, Bucks County, Pennsylvania



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Sugan Road - EB



Route 202 & Sugan Road – Sugan Road

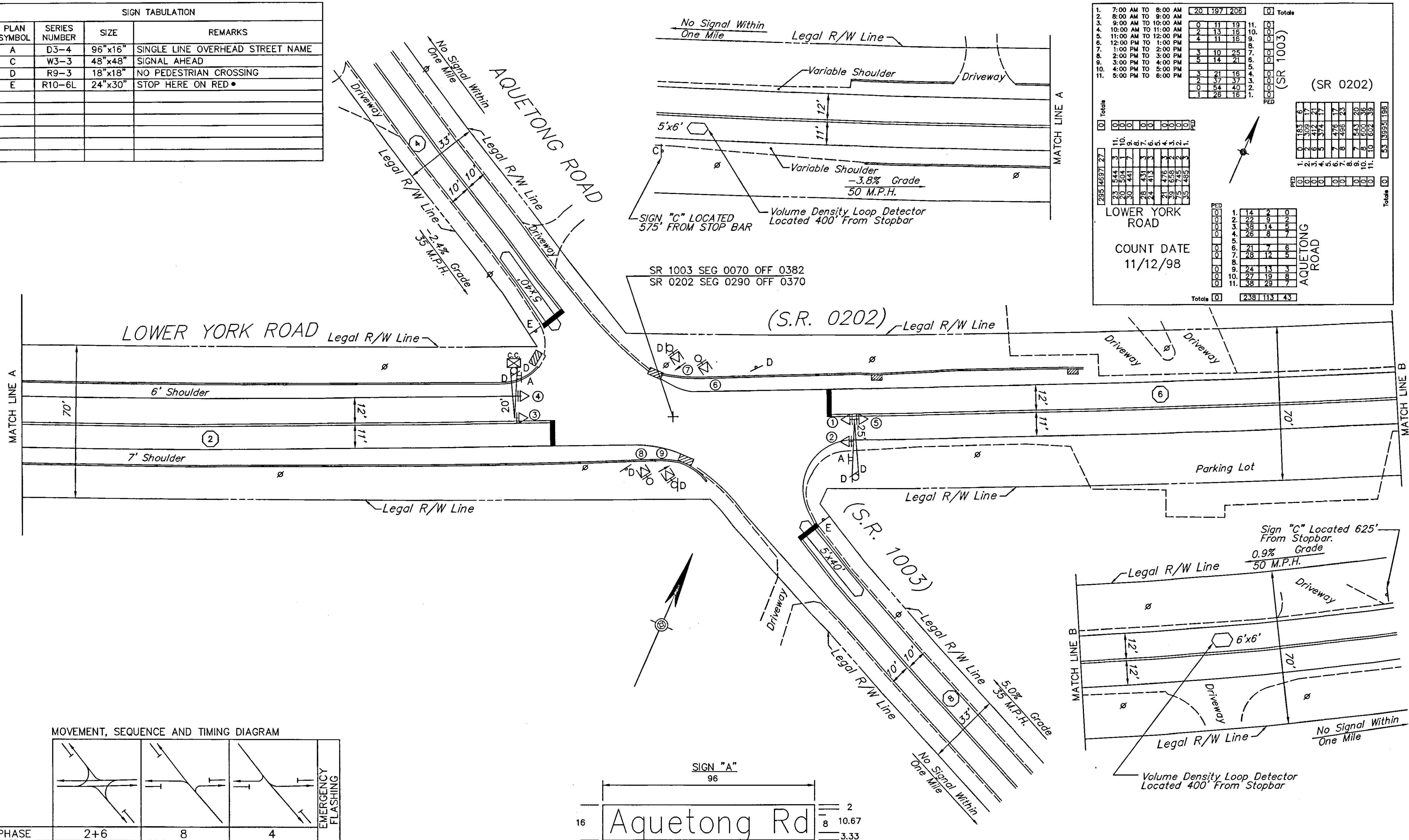
Solebury Township, Bucks County, Pennsylvania



Route 202 & Sugan Road - SB

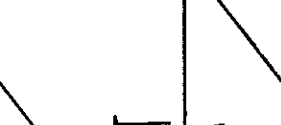


Route 202 & Sugan Road - SB

[illegible]

MOVEMENT, SEQUENCE AND TIMING DIAGRAM



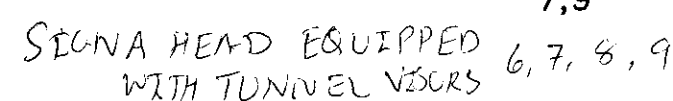


PHASE	2+6			8			4			EMERGENCY FLASHING
INTERVAL	1	2	3	4	5	6	7	8	9	
1,2	G	Y	R	R	R	R	R	R	R	Y
3,4,5	G	Y	R	R	R	R	R	R	R	Y
6	R	R	R	G	Y	R	R	R	R	R
7	R	R	R	C G	Y	R	R	R	R	R
8	R	R	R	R	R	R	G	Y	R	R
9	R	R	R	R	R	R	G G	Y	R	R

FIXED		5	2		4	2		4	2
MINIMUM	15			3			3		
SEC./ACT.	2								
MAX. INITIAL	42								
PASSAGE	5			3			3		
TBR	42								
TTR	21								
MIN. GAP	2								
MAXIMUM 1	63			15			20		
MAXIMUM 2	63			15			15		
MEMORY	MR			NL			NL		

OPERATION NOTES:

- SIGNAL TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 4 OR 8.
- MAX 2 TO OPERATE FROM 1000 TO 1900 MONDAY THROUGH FRIDAY. MAX1 TO OPERATE ALL OTHER TIMES.

[illegible]

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS
PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF
THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING
ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED
AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGIDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO
INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED,
SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB,
INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS
FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING
UNLESS THE PERMITEE COMPLIES WITH THE PROVISIONS OF THE
LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO
UNDERGROUND UTILITIES. DATED DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: BUCKS

MUNICIPALITY: SOLEBURY TOWNSHIP

INTERSECTION: LOWER YORK ROAD (S.R. 0202) AND
AQUETONG ROAD (S.R. 1003)

REVIEWED: _____

DATE _____

MUNICIPAL OFFICIAL _____ DATE _____

RECOMMENDED:
MARK L. KRAY 1/7/02

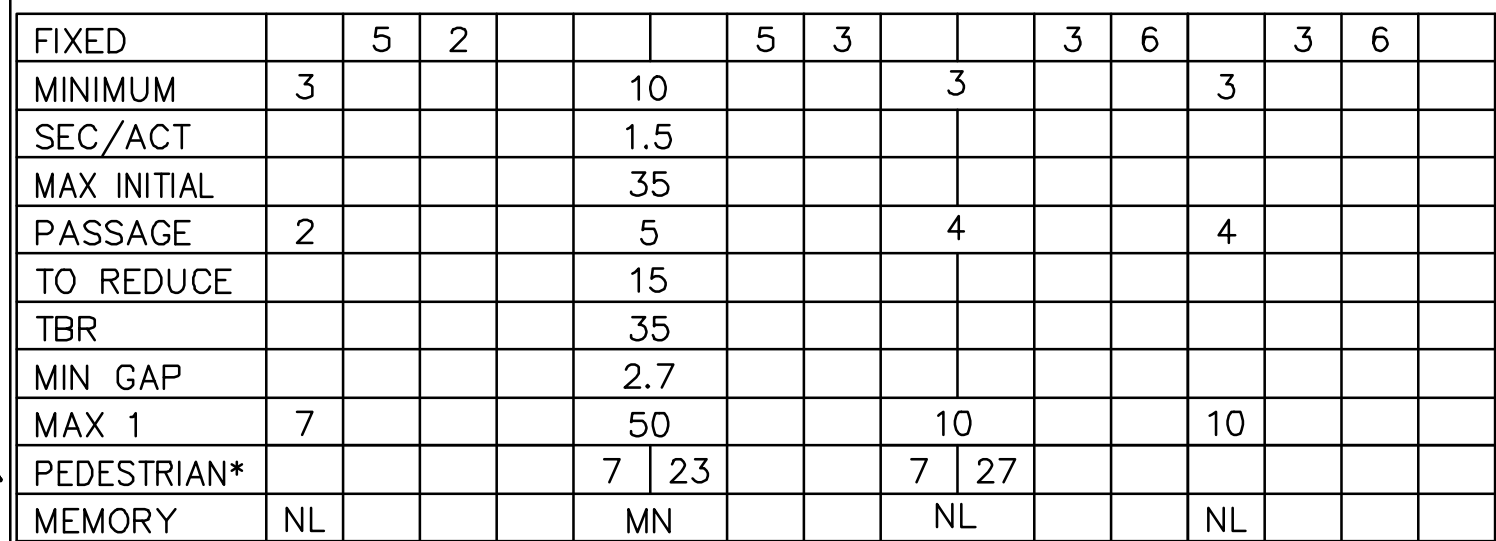
LOUIS BELMONTE 2/8/0
DISTRICT TRAFFIC ENGINEER DATE

[illegible]

NO.	REVISION	REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	STOP HERE ON RED SIGNS INSTALLED ON AQUETONG ROAD	RFW	9/21/05	MLK	9/26/05	LRB	10/3/05
2	ADD SIGN "C" ON SB SR.0202			NB	10/22/02	APATEL	11/3/02
3	TIMING CHANGE/REMOVAL OF LOUVERS, SIGNALS 6,7,8, & 9	BJD	7/16/13	NB	7/16/13	Spa 6/13	5/15/13
4							
5							
6							
7							
8							

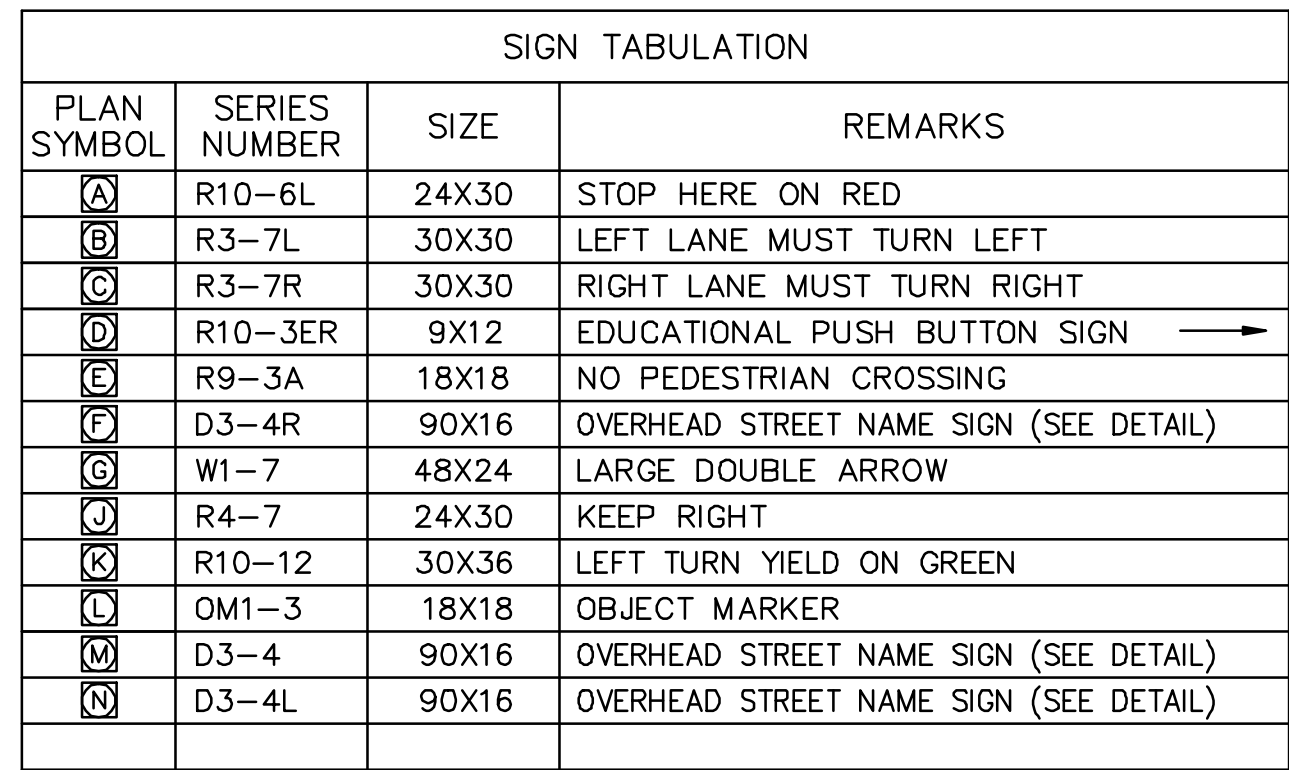
SHEET 2 OF 2	PERMIT # <u>61-3304</u>	FILE # <u>3304</u>

I:\eng\814287\mylar submission\November 2015 Final\FILE #2846.dwg, HP-TRE, 1/11/2017 12:13:49 PM, mborreson



SIGN DETAILS

NOT TO SCALE



GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS
PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF
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ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING
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AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

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PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEAR OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM PERMIT #-0130

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: BUCKS

MUNICIPALITY: SOLEBURY TOWNSHIP

INTERSECTION: LOWER YORK ROAD (S.R. 0202) AND
SHIRE DRIVE/SHOPPING CENTER DRIVEWAY

REVIEWED: _____

DATE
DENNIS H. CARNEY 12-7-15
MUNICIPAL OFFICIAL DATE

RECOMMENDED:
MARK L. KRAY 8/24/9

DOUGLAS W. MAY, P.E. 8/25/9
DISTRICT TRAFFIC ENGINEER DATE

NO.	REVISION	DES./ REVW.	DATE	REVW.	DATE	RECOM.	D.
1	PERMIT COMPLIANCE UPDATE/REVISED TIMINGS AND FIBER OPTIC INTERCONNECT	MCM	11/5/15	NBP	12/21/15	LRB	12/21/15
2							
3							
4							
5							
6							
7							
8							

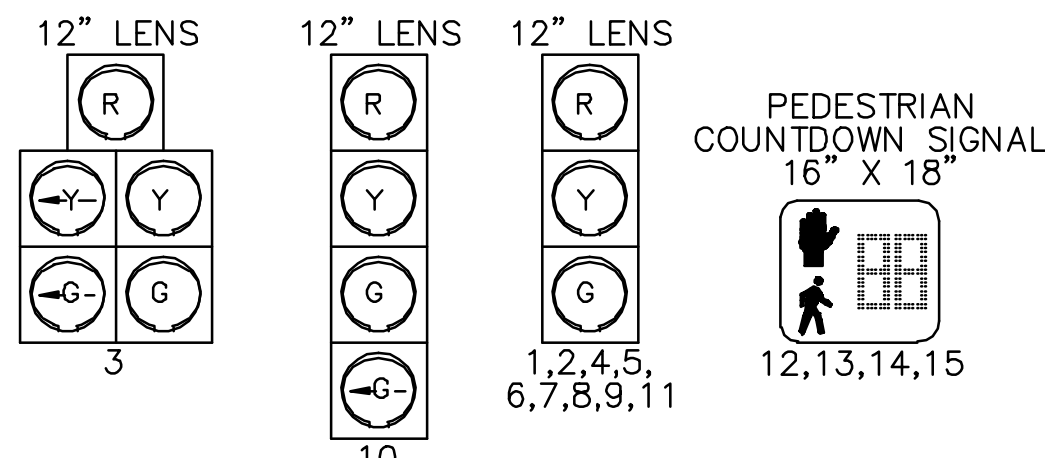
SHEET 2 OF 2 PERMIT # 61-2846 FILE # 2846

SIGNAL INDICATIONS

OPERATION NOTES:

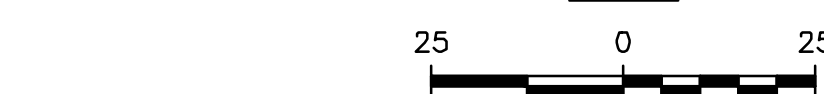
- ① G/ Y IF FOLLOWED BY 2+6
- ② G IF FOLLOWED BY 2+6
- SIGNAL TO DWELL IN PHASE 2+6
UNTIL ACTUATED BY PHASE 4+8 OR 9.

SYSTEM NOTE:
REFER TO SYSTEM PERMIT #-0130
FOR PROGRAM TIMES AND WEEKLY
PROGRAM CHART.

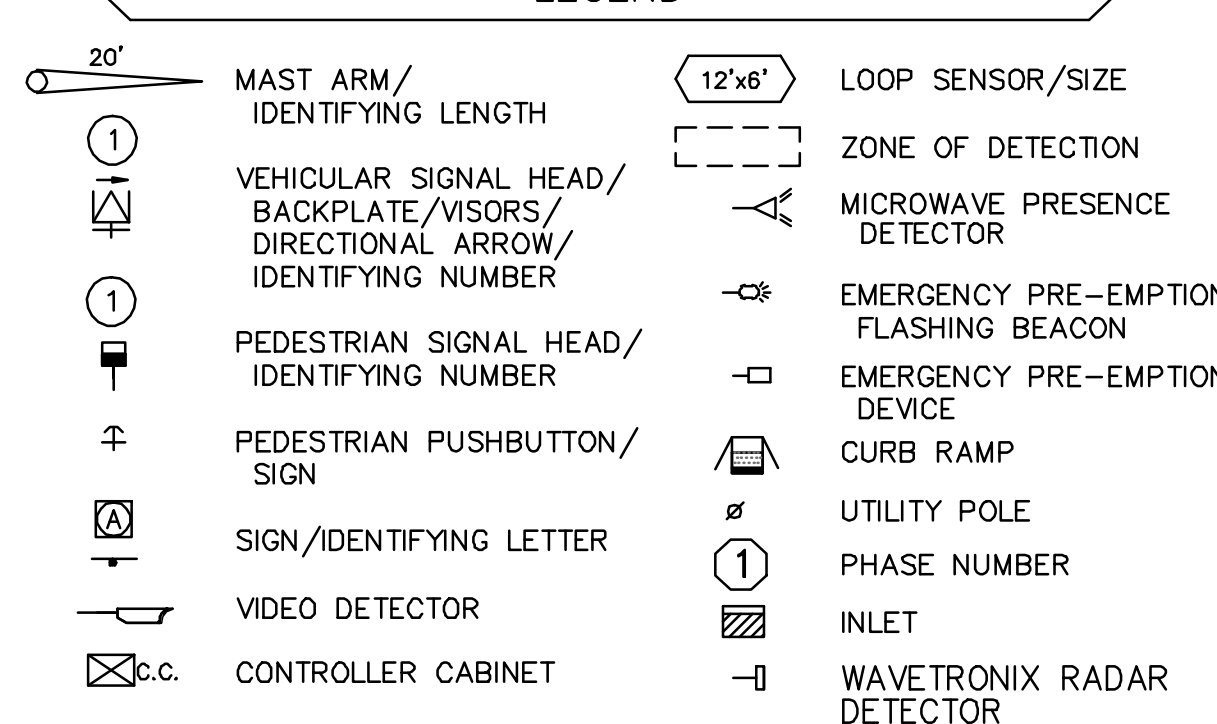


SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS 8,9

SCALE



LEGEND



5'x6' LOOP LOCATED 330' FROM STOPBAR

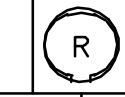
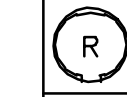
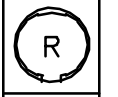
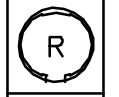
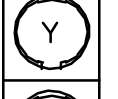
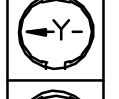
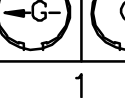
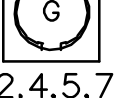
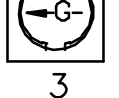
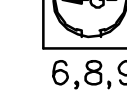
NEAREST SIGNAL 1200' AT LOGAN SQUARE/SHIRE DRIVE

CONCRETE MEDIAN

SPEED LIMIT 50 MPH

SHOULDER

SIGNAL INDICATIONS

11" SYMBOLS	12" LENS	12" LENS	12" LENS	12" LENS
				
10,11				
				
				
	1	6,8,9	2,4,5,7	3

SIGNALS TO BE EQUIPPED WITH TUNNEL VISORS AND PROGRAMMED LOUVERS 3

LEGAL RIGHT OF WAY LINE

S.R. 0202 SEG 0310 OFF 2557
S.R. 0179 SEG 0010 OFF 0000
S.R. 0202

SHOULDER

SPEED LIMIT 50 MPH

②

⑤ ONLY

R/W VARIES

45'

-0.2%

SHOULDER

NEAREST SIGNAL 1433'
AT SUGAN ROAD

LEGAL RIGHT OF WAY LINE

LEGEND

20' 1 20'

①

VEHICULAR SIGNAL HEAD/
BACKPLATE/VISORS/
DIRECTIONAL ARROW/
IDENTIFYING NUMBER

①

PEDESTRIAN SIGNAL HEAD/
IDENTIFYING NUMBER

PEDESTRIAN PUSHBUTTON/
SIGN

②

SIGN/IDENTIFYING LETTER

VIDEO DETECTOR

CONTROLLER CABINET

12'x6'

LOOP SENSOR/SIZE

ZONE OF DETECTION

MICROWAVE PRESENCE
DETECTOR

EMERGENCY PRE-EMPT
FLASHING BEACON

EMERGENCY PRE-EMPT
DEVICE

CURB CUT RAMP

UTILITY POLE

①

PHASE NUMBER

INLET

WAVETRONIX RADAR
DETECTOR

SCALE

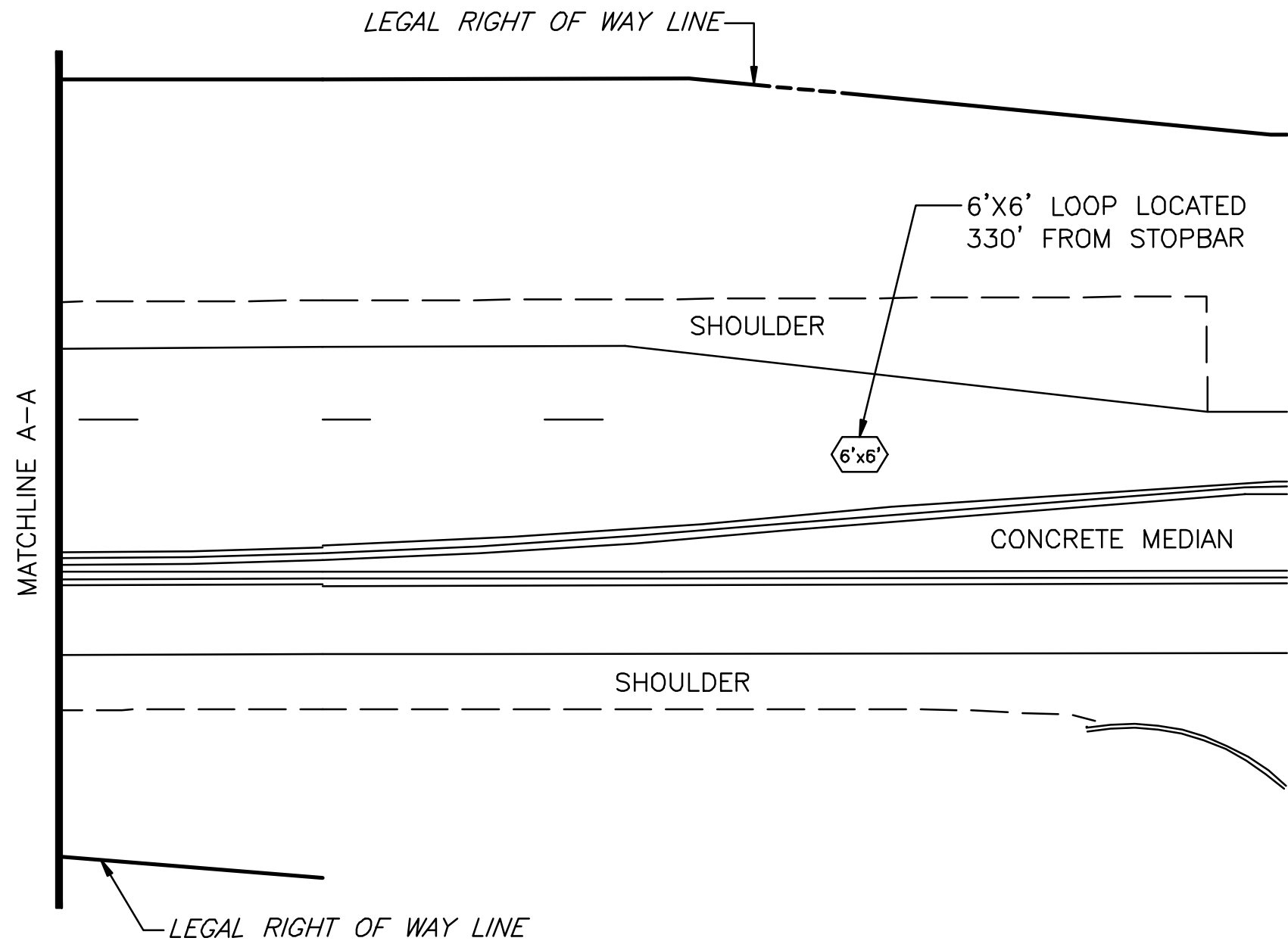
25 0 25

BRIDGE STREET

25'

SYSTEM PERMIT #—0130							
PENNSYLVANIA DEPARTMENT OF TRANSPORTATION ENGINEERING DISTRICT 6—0							
COUNTY: <u>BUCKS</u>							
MUNICIPALITY: <u>SOLEBURY TOWNSHIP</u>							
INTERSECTION: <u>LOWER YORK ROAD (S.R. 0202)</u> <u>WEST BRIDGE STREET (S.R. 0179), KITCHENS LANE</u>							
REVIEWED: _____ DATE _____							
DENNIS H. CARNEY						12-7-15	
MUNICIPAL OFFICIAL						DATE	
RECOMMENDED:							
ROBERT A. LANE						2-25-74	
ED WOODS, JR.						8-28-74	
DISTRICT TRAFFIC ENGINEER						DATE	
NO.	REVISION	DES./ REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	NEW GEOMETRY, ADD LEFT TURN PHASE	MCM RFW	7/11/00	MLK	7/20/00	WJE	7/20/00
2	NEW GEOMETRY/COORDINATION	MCM	7/11/01	MLK	7/11/01	LRB	7/16/01
3	REVISION 3 VOID	—	—	—	—	—	—
4	PERMIT COMPLIANCE UPDATE/ REVISED TIMINGS AND FIBER OPTIC INTERCONNECT	MCM	11/5/15	NBP	12/21/15	LRB	12/23/15
5							
6							
7							
8							

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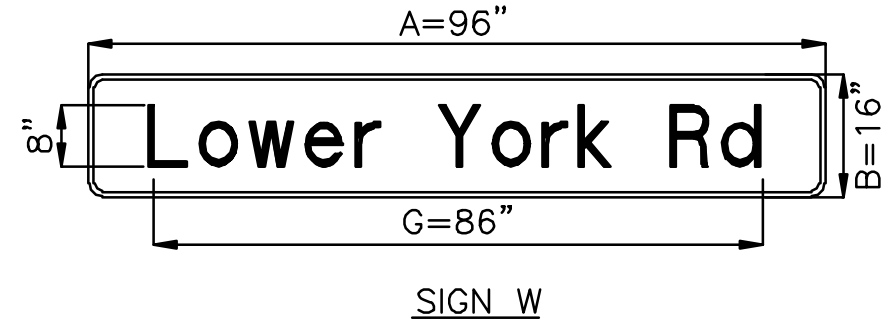
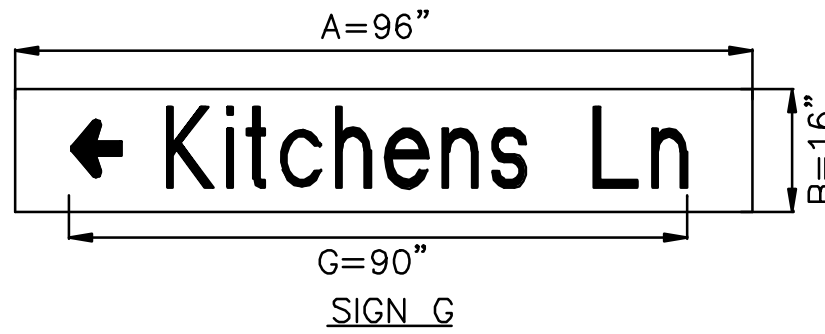


SIGN DETAILS

NOT TO SCALE



FONT: CLEARVIEW-ONE
10.6" UPPER CASE
8" LOWER CASE



FONT: CLEARVIEW-ONE
8" UPPER CASE
6" LOWER CASE

MOVEMENT, SEQUENCE AND TIMING DIAGRAM

PHASE INTERVAL	1+5			1+6			2+5				2+6				4			8			FLASH
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	Y
2	R	R	R	G	Y	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	Y
3	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	OFF
4,5	R	R	R	R	R	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	Y
6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R
7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R
8,9	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	H	H	H	R
10,11*	H	H	H	H	H	H	M	FH	H	H	M	FH	H	H	H	H	H	H	H	H	OFF

FIXED		5	2		5	2		5	2		5	2		4	2		4	2	
MINIMUM	3			3			3			10			3			3			
SEC./ACT.										2									
MAX INITIAL										35									
PASSAGE	3			3			3			5			3			3			
TO REDUCE										15									
TBR										35									
MIN GAP										27									
MAX. 1	7			7			7			50			30			20			
PEDESTRIAN*							5			7	23								
MEMORY	NL			NL			NL			MR			NL			NL			

OPERATION NOTES:

- R/←G IF FOLLOWED BY 1+6
 - ←G IF FOLLOWED BY 2+5
 - G/←Y IF FOLLOWED BY 2+6
 - G IF FOLLOWED BY 2+6
 - TIMING WILL BE AS SHOWN IN PHASE 2+6. IT MAY TIME OUT IN THIS PHASE OR BE COMPLETED IN PHASE 2+6.
- SIGNAL TO DWELL IN PHASE 2+6 UNTIL ACTUATED BY PHASE 2+5, 4, OR 8.

* UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE HAND SYMBOL AT ALL TIMES.

SYSTEM NOTE:

REFER TO SYSTEM PERMIT #—0130 FOR PROGRAM TIMES AND WEEKLY PROGRAM CHART.

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

ALL MAINTENANCE WORK INCLUDING TRIMMING OF TREES, NECESSARY FOR PROPER VISIBILITY OF THE SIGNALS IS THE RESPONSIBILITY OF THE PERMITTEE.

ALL SIGNS AND PAVEMENT MARKINGS INDICATED ON THIS DRAWING ARE CONSIDERED PART OF THE PERMIT AND SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PUBLICATION NO. 212.

POST MOUNTED SIGNALS SHALL BE INSTALLED WITH THE SIGNAL HEADS A MINIMUM OF 2 FEET BEHIND THE FACE OF CURB OR THE EDGE OF THE SHOULDER. SUPPORT POLES FOR OVERHEAD SIGNALS SHALL ALSO HAVE A MINIMUM CLEARANCE HORIZONTALLY OF 2 FEET.

SIGNALS ERECTED OVER THE ROADWAY SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 16 FT. ABOVE THE ROADWAY. POST MOUNTED SIGNALS SHALL BE A MINIMUM OF 8 FT. ABOVE THE SIDEWALK OR PAVEMENT.

ALL OVERHEAD SIGNALS MUST BE RIGDLY MOUNTED, TOP AND BOTTOM, AND EQUIPPED WITH BACKPLATES.

THE MINIMUM HORIZONTAL DISTANCE BETWEEN SIGNALS MEASURED AT RIGHT ANGLES TO THE APPROACH SHALL BE 8 FEET.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

CURBING TO BE INSTALLED BY MUNICIPALITY AND WHERE NOTED, SHALL BE PLAIN CEMENT CONCRETE CURB OR GRANITE CURB, INSTALLED IN ACCORDANCE WITH DEPARTMENT SPECIFICATIONS FORM 408.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, EFFECTIVE DATE DECEMBER 20, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT, FOR REVIEW, PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM PERMIT #—0130

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6—0

COUNTY: **BUCKS**

MUNICIPALITY: **SOLEBURY TOWNSHIP**

INTERSECTION: **LOWER YORK ROAD (S.R. 0202)**

WEST BRIDGE STREET (S.R. 0179), KITCHENS LANE

REVIEWED:

DENNIS H. CARNEY
MUNICIPAL OFFICIAL
DATE
12-7-15

RECOMMENDED:
ROBERT A. LANE
DISTRICT TRAFFIC ENGINEER
DATE
2-25-74

ED WOODS, JR.
DISTRICT TRAFFIC ENGINEER
DATE
8-28-74

NO.	REVISION	DES./REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	NEW GEOMETRY, ADD LEFT TURN PHASE	MCM	7/11/00	MLK	7/20/00	WJE	7/20/00
2	NEW GEOMETRY/COORDINATION	MCM	7/11/01	MLK	7/11/01	LRB	7/16/01
3	REVISION 3 VOID	—	—	—	—	—	—
4	PERMIT COMPLIANCE UPDATE / REVISED TIMINGS AND FIBER OPTIC INTERCONNECT	MCM	11/5/15	NBP	12/21/15	LRB	12/23/15
5							
6							
7							
8							

SHEET 3 OF 3 | PERMIT # **61-1904** | FILE # **1904**

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** DURATION OF EMERGENCY VEHICLE PRE-EMPTION.

*UPON PEDESTRIAN ACTUATION ONLY, OTHERWISE HAND SYMBOL AT ALL TIMES.

SYSTEM NOTE:
REFER TO SYSTEM PERMIT #-0130
FOR PROGRAM TIMES AND WEEKLY
PROGRAM CHART.

SYSTEM PERMIT #1-0130

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: **BUCKS**

MUNICIPALITY: SOLEBURY TOWNSHIP

INTERSECTION: LOWER YORK ROAD (S.R. 0202)
AND SUGAN ROAD

REVIEWED:

DENNIS H. CARNEY

MUNICIPAL OFFICIAL

MARK L. KRAY

DOUGLAS W MAY P F

O.	REVISION	DES./REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	ADJUST PRE-EMP TIMING, ADDED SIGN E	BKPK	2/17/92	MLK	12/21/92	DWM	12/21/92
2	ADD H/M, PED CROSSING	MCM RFW	12/2/05	MLK	12/6/05	LRB	12/9/05
3	REVISION 3 VOID	—	—	—	—	—	—
4	ADDED ADA RAMPS, REVISED PAVT MARKINGS & PED TIMINGS	H2ENG	1/23/12	NBP	9/13/13	ABPA TEL	9/13/13
5	PERMIT COMPLIANCE UPDATE/REVISED TIMINGS AND FIBER OPTIC INTERCONNECT	MCM	11/5/15	NBP	12/21/15	LRB	12/23/15
6							
7							
8							

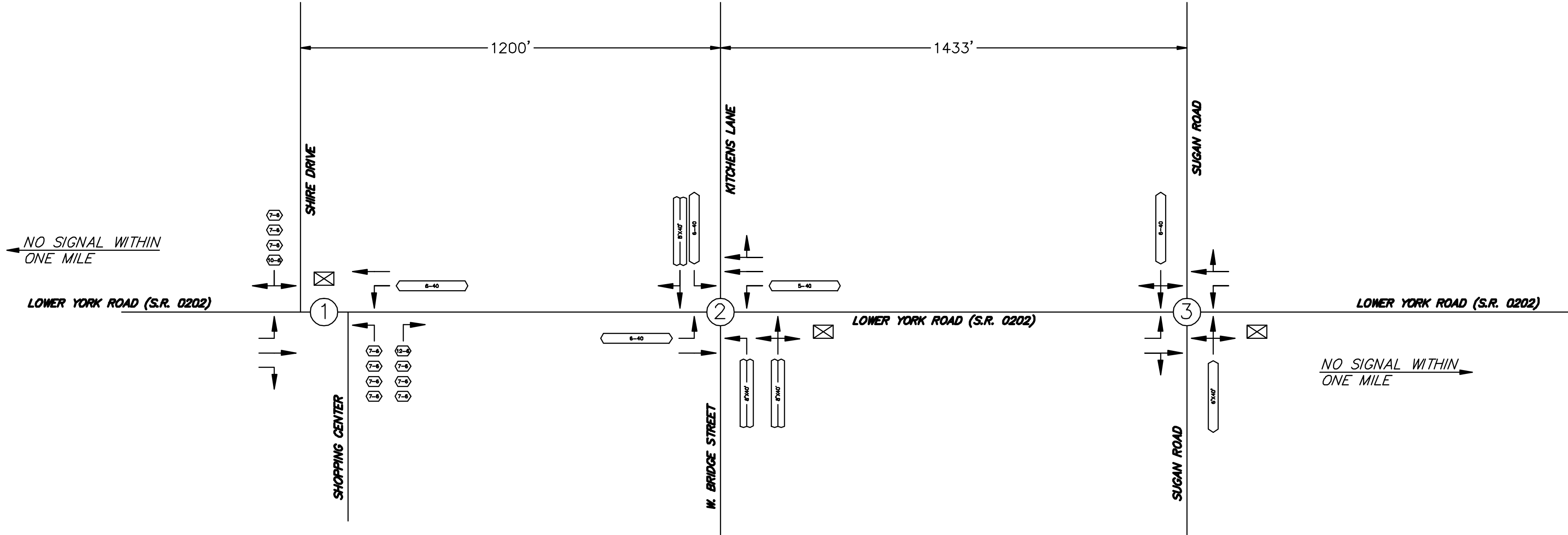
SHEET 2 OF 2 PERMIT # 61-0169 FILE # 0169

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TIME OF DAY SYSTEM
CYCLE/SPLIT/OFFSET

Program 1		File #	Phase										Cycle	Offset # 1	Offset # 2
Intersections			1	2	3	4	5	6	7	8	9	10			
1	LOWER YORK ROAD/SHIRE DRIVE	2846	14(LEAD)	64	—	16	—	78	—	16	16	—	110	0	
2	LOWER YORK ROAD/KITCHENS LANE	1904	14(LEAD)	60	—	23	14(LEAD)	60	—	13	—	—	110	44	
3	LOWER YORK ROAD/SUGAN ROAD	0169	—	55	—	55	—	55	—	55	—	—	110	58	
4															
5															
6															
Program 2		File #	Phase										Cycle	Offset # 1	Offset # 2
Intersections			1	2	3	4	5	6	7	8	9	10			
1	LOWER YORK ROAD/SHIRE DRIVE	2846	14(LEAD)	29	—	18	—	43	—	18	19	—	80	0	
2	LOWER YORK ROAD/KITCHENS LANE	1904	14(LEAD)	29	—	24	14(LEAD)	29	—	13	—	—	80	44	
3	LOWER YORK ROAD/SUGAN ROAD	0169	—	43	—	37	—	43	—	37	—	—	80	44	
4															
5															
6															
Program 3		File #	Phase										Cycle	Offset # 1	Offset # 2
Intersections			1	2	3	4	5	6	7	8	9	10			
1	LOWER YORK ROAD/SHIRE DRIVE	2846	14(LEAD)	53	—	16	—	67	—	16	17	—	100	0	
2	LOWER YORK ROAD/KITCHENS LANE	1904	14(LEAD)	39	—	34	14(LEAD)	39	—	13	—	—	100	46	
3	LOWER YORK ROAD/SUGAN ROAD	0169	—	60	—	40	—	60	—	40	—	—	100	46	
4															
5															
6															
Program 4		File #	Phase										Cycle	Offset # 1	Offset # 2
Intersections			1	2	3	4	5	6	7	8	9	10			
1	LOWER YORK ROAD/SHIRE DRIVE	2846	14(LEAD)	64	—	16	—	78	—	16	16	—	110	0	
2	LOWER YORK ROAD/KITCHENS LANE	1904	14(LEAD)	47	—	36	14(LEAD)	47	—	13	—	—	110	63	
3	LOWER YORK ROAD/SUGAN ROAD	0169	—	58	—	52	—	58	—	52	—	—	110	64	
4															
5															
6															

NOTES: — ALL SPLIT TIMES INCLUDE YELLOW AND RED TIMES FOR A GIVEN PHASE.
— REFER TO THE SIGNAL PERMIT PLAN FOR MAX I, MAX II, CLEARANCE AND PED TIMES.



WEEKLY PROGRAM CHART				
EVENT	DAY	TIME	PROGRAM	REMARKS
1	1-7	00:00	MAX 1	FREE
2	1-5	07:00	1	COORD.
3	1-5	09:00	2	COORD.
4	1-5	15:00	3	COORD.
5	1-5	19:00	MAX 1	FREE
6	6-7	10:00	4	COORD.
7	6-7	07:00	MAX 1	FREE

* DAY 1 = MONDAY

CLOSED LOOP SIGNAL NOTES

- PROGRAMS TO BE SELECTED BY CLOSED LOOP SYSTEM (TIME OF DAY) OR TBC BACKUP.
- OFFSET REFERENCED TO THE START OF GREEN ON LOWER YORK ROAD (S.R. 0202).
- ACTUAL GREEN TIME DETERMINED BY CYCLE LENGTH.
- SYSTEM LIMITS:
ALONG LOWER YORK ROAD FROM SHIRE DRIVE TO SUGAN ROAD
MASTER CONTROLLER: LOWER YORK ROAD AND SHIRE DRIVE
PRIMARY COORDINATION: FIBER OPTIC CABLE
SECONDARY COORDINATION: TBC (DEFAULT TO BACKUP TBC)
6. SYSTEM IS DESIGNED FOR THE SYSTEM SOFTWARE: ARIES
7. SYSTEM SOFTWARE LOCATED IN SOLEBURY TOWNSHIP WORK STATION. PENNDOT AND TOWNSHIP TO HAVE COMMUNICATION THROUGH AN IP ADDRESS.

LEGEND

- ⊠X-Y⊠ SYSTEM DETECTOR,
INTERSECTION X - LOOP NO. Y
- ⊠X-Y⊠ DETECTOR,
INTERSECTION X - LOOP NO. Y
- Ø PHASE
- ⊠c.c. CONTROLLER CABINET

SCALE: NOT TO SCALE

GENERAL NOTES

NO MODIFICATIONS OF THIS INSTALLATION ARE PERMITTED UNLESS PRIOR APPROVAL IS GRANTED IN WRITING BY A REPRESENTATIVE OF THE DEPARTMENT OF TRANSPORTATION.

REFER TO TRAFFIC SIGNAL PERMIT DRAWING FOR INDIVIDUAL INTERSECTION OPERATION, GEOMETRY, PHASING AND CRITICAL TIMES.

FOR CONSTRUCTION AND INSPECTION THE SYSTEM PERMIT SHOULD ALWAYS BE ACCOMPANIED WITH TRAFFIC SIGNAL PERMIT DRAWING.

TEST THE SYSTEM AT LOCAL INTERSECTION LEVEL, SUBSYSTEM LEVEL MASTER CONTROLLER LEVEL AND PERSONAL COMPUTER REMOTE DIAL UP LEVEL.

GATHER THE SYSTEM FAILURE CRITICAL ALARMS REPORT AND ARCHIVE THEM WHERE APPLICABLE.

SET UP PENNDOT DISTRICT 6-0 COMPUTER WITH THE SYSTEM DATABASE AND GRAPHICS. MODIFY THE DATABASE AND GRAPHICS FOR SYSTEMS REVISIONS.

ASSIGN LOOP DETECTORS AND PROGRAM THE CONTROLLERS TO GATHER TRAFFIC VOLUMES IN 15 MINUTE INTERVAL, WHERE APPLICABLE.

EXACT LOCATION OF DETECTORS SHALL BE DETERMINED PRIOR TO INSTALLATION BY A REPRESENTATIVE OF PENNDOT.

OBTAIN POLE ATTACHMENT PERMIT FOR AERIAL FIBER OPTIC INSTALLATION.

MAINTAIN MASTER CONTROLLER COMMUNICATION SUCH AS PHONE DROPS.

PRIOR TO INSTALLATION THE CONTRACTOR SHALL CONSULT WITH THE LOCAL OFFICIALS AND UTILITY COMPANIES TO RESOLVE ANY PROBLEMS WHICH MAY BE CREATED DUE TO THE LOCATION OF UTILITIES.

THIS DRAWING CANNOT BE USED AS A CONSTRUCTION DRAWING UNLESS THE PERMITTEE COMPLIES WITH THE PROVISIONS OF THE LATEST AMENDMENT TO ACT 287, PREVENTION OF DAMAGE TO UNDERGROUND UTILITIES, DATED DECEMBER 10, 1974.

WHEN LIQUID FUELS MONEY IS USED, SIGNAL INSTALLATION MUST CONFORM TO FORM 408 AND A COPY OF THE PROPOSED SPECIFICATIONS MUST BE SUBMITTED TO THE DISTRICT TRAFFIC UNIT FOR REVIEW PRIOR TO BIDDING.

PERMITTEE SHALL OBTAIN A HIGHWAY OCCUPANCY PERMIT FOR ANY CHANGES IN INTERSECTION GEOMETRY REGARDING EXCAVATION.

CONDUIT INSTALLED IN BITUMINOUS ROADWAY LESS THAN 5 YEARS OLD, OR CONCRETE ROADWAY REGARDLESS OF AGE, MUST BE BORED OR JACKED UNDER THE ROADWAY. INSTALL IN ACCORDANCE WITH TRAFFIC SIGNAL STANDARDS TC-8800 SERIES.

SYSTEM PERMIT PLAN

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
ENGINEERING DISTRICT 6-0

COUNTY: **BUCKS**

MUNICIPALITY: **SOLEBURY TOWNSHIP**

INTERSECTION: **LOWER YORK ROAD (S.R. 0202)**

REVIEWED:

DENNIS H. CARNEY **12-9-15**
MUNICIPAL OFFICIAL DATE

RECOMMENDED:

AB PATEL **2-1-16**
DISTRICT TRAFFIC ENGINEER DATE

NO.	REVISION	DES./REVW.	DATE	REVW.	DATE	RECOM.	DATE
1	AS BUILT	MCM					
2							
3							
4							
5							
6							
7							
8							

SYSTEM PERMIT **#I-0130** SHEET **1 OF 1**

Appendix C

Turning Movement Traffic Counts



Imperial Traffic & Data Collection
www.imperialtdc.com
PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

Count Name: 1. Lower York Road & Aquetong
Road
Site Code: 1
Start Date: 01/31/2019
Page No: 1

Turning Movement Data

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Aquetong Road Northbound							Aquetong Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	0	0	147	6	2	0	155	0	0	66	3	0	0	69	0	8	2	0	0	0	10	0	7	8	0	0	0	15	249
7:15 AM	0	0	165	10	0	0	175	0	0	78	3	1	0	82	0	3	2	1	0	0	6	0	14	10	0	0	0	24	287
7:30 AM	0	0	183	5	0	0	188	0	1	94	0	0	0	95	0	6	1	0	0	0	7	0	23	13	0	0	0	36	326
7:45 AM	0	0	197	12	0	0	209	0	0	102	2	0	0	104	0	4	0	0	0	0	4	0	19	10	0	0	0	29	346
Hourly Total	0	0	692	33	2	0	727	0	1	340	8	1	0	350	0	21	5	1	0	0	27	0	63	41	0	0	0	104	1208
8:00 AM	0	1	182	8	0	0	191	0	0	96	4	0	0	100	0	9	2	1	0	0	12	0	13	7	0	0	0	20	323
8:15 AM	0	0	183	7	0	0	190	0	0	116	1	0	0	117	0	15	4	0	0	0	19	0	15	18	0	0	0	33	359
8:30 AM	0	0	163	5	0	0	168	0	1	94	3	1	0	99	0	8	4	0	0	0	12	0	19	10	2	1	0	32	311
8:45 AM	0	0	154	9	1	0	164	0	0	83	6	0	0	89	0	9	2	1	0	0	12	0	18	16	0	0	0	34	299
Hourly Total	0	1	682	29	1	0	713	0	1	389	14	1	0	405	0	41	12	2	0	0	55	0	65	51	2	1	0	119	1292
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	114	9	0	0	123	0	0	162	13	1	0	176	0	13	5	2	0	0	20	0	11	5	0	0	0	16	335
4:15 PM	0	0	111	9	0	0	120	0	2	154	14	1	0	171	0	12	16	0	0	0	28	0	4	6	0	0	0	10	329
4:30 PM	0	0	126	8	0	0	134	0	0	166	16	0	0	182	0	8	9	0	0	0	17	0	15	7	0	0	0	22	355
4:45 PM	0	0	118	8	0	0	126	0	3	179	11	1	0	194	0	8	13	2	2	0	25	0	8	6	0	0	0	14	359
Hourly Total	0	0	469	34	0	0	503	0	5	661	54	3	0	723	0	41	43	4	2	0	90	0	38	24	0	0	0	62	1378
5:00 PM	0	0	134	14	0	0	148	0	5	167	14	1	0	187	0	7	19	2	0	0	28	0	7	4	0	0	0	11	374
5:15 PM	0	0	152	10	0	0	162	0	2	192	18	0	0	212	0	7	10	0	1	0	18	0	14	5	0	0	0	19	411
5:30 PM	0	0	132	8	0	0	140	0	1	192	27	0	0	220	0	15	15	0	0	0	30	0	14	4	0	0	0	18	408
5:45 PM	0	0	152	8	0	0	160	0	0	159	19	0	0	178	0	6	13	3	1	0	23	0	12	2	0	0	0	14	375
Hourly Total	0	0	570	40	0	0	610	0	8	710	78	1	0	797	0	35	57	5	2	0	99	0	47	15	0	0	0	62	1568
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	1	127	2	0	0	130	0	0	114	12	0	0	126	0	13	11	1	1	0	26	0	9	2	0	0	0	11	293
11:15 AM	0	3	137	18	1	0	159	0	1	110	5	0	0	116	0	8	10	0	0	0	18	0	12	9	0	0	0	21	314
11:30 AM	0	0	141	18	1	0	160	0	0	146	11	0	0	157	0	13	7	1	0	0	21	0	11	9	0	0	0	20	358
11:45 AM	0	1	149	16	0	0	166	0	2	113	7	0	0	122	0	5	4	1	0	0	10	0	22	7	0	0	0	29	327
Hourly Total	0	5	554	54	2	0	615	0	3	483	35	0	0	521	0	39	32	3	1	0	75	0	54	27	0	0	0	81	1292
12:00 PM	0	0	161	12	0	0	173	0	0	150	7	0	0	157	0	11	7	1	0	0	19	0	12	5	1	0	0	18	367
12:15 PM	0	1	146	5	0	0	152	0	1	140	10	0	0	151	0	10	2	1	0	0	13	0	16	7	1	0	0	24	340
12:30 PM	0	0	134	16	0	0	150	0	3	131	9	0	0	143	0	11	7	2	0	0	20	0	8	8	1	0	0	17	330
12:45 PM	0	1	125	6	0	0	132	0	1	146	13	0	0	160	0	17	9	2	0	0	28	0	13	1	0	2	0	16	336
Hourly Total	0	2	566	39	0	0	607	0	5	567	39	0	0	611	0	49	25	6	0	0	80	0	49	21	3	2	0	75	1373
Grand Total	0	8	3533	229	5	0	3775	0	23	3150	228	6	0	3407	0	226	174	21	5	0	426	0	316	179	5	3	0	503	8111
Approach %	0.0	0.2	93.6	6.1	0.1	-	-	0.0	0.7	92.5	6.7	0.2	-	-	0.0	53.1	40.8	4.9	1.2	-	-	0.0	62.8	35.6	1.0	0.6	-	-	-
Total %	0.0	0.1	43.6	2.8	0.1	-	46.5	0.0	0.3	38.8	2.8	0.1	-	42.0	0.0	2.8	2.1	0.3	0.1	-	5.3	0.0	3.9	2.2	0.1	0.0	-	6.2	-
Lights	0	8	3432	224	5	-	3669	0	22	3058	221	6	-	3307	0	220	171	20	5	-	416	0	308	174	5	3	-	490	7882
% Lights	-	100.0	97.1	97.8	100.0	-	97.2	-	95.7	97.1	96.9	100.0	-	97.1	-	97.3	98.3	95.2	100.0	-	97.7	-	97.5	97.2	100.0	100.0	-	97.4	97.2

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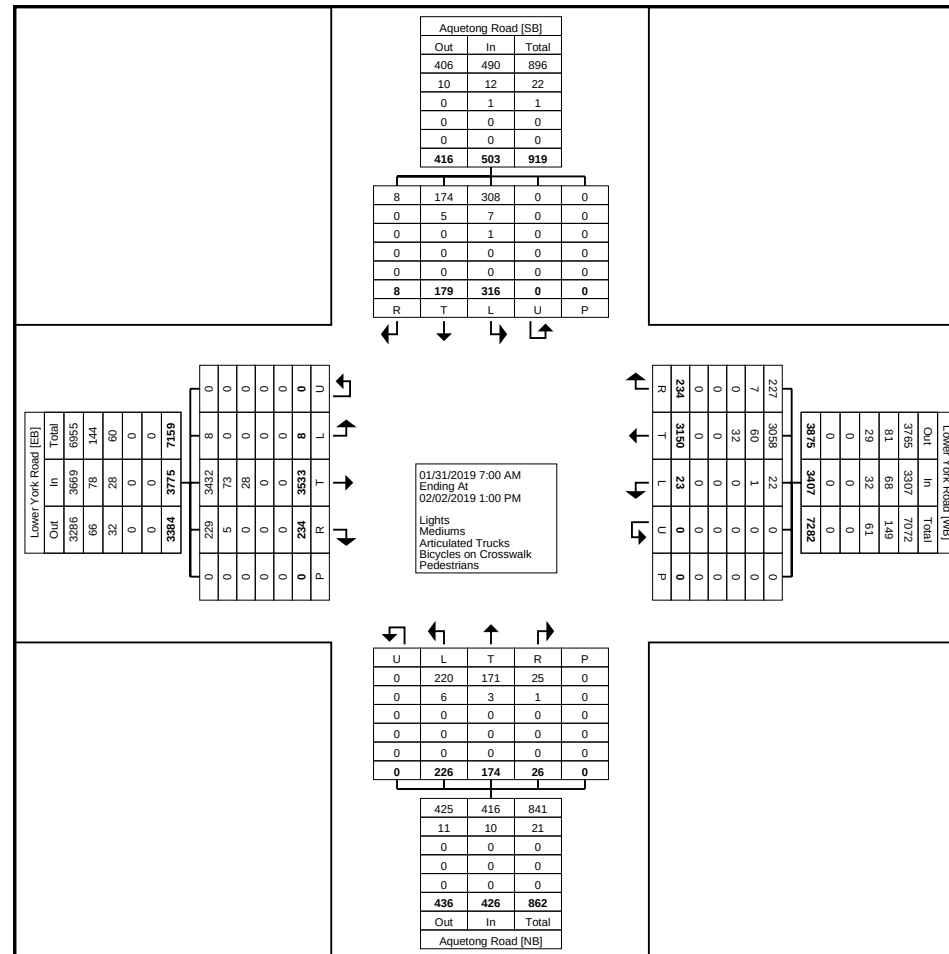


Imperial Traffic & Data Collection
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PO BOX 4637

Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

Count Name: 1. Lower York Road & Aquetong
Road
Site Code: 1
Start Date: 01/31/2019
Page No: 3



Turning Movement Data Plot



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.351447, -75.00362

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Count Name: 1. Lower York Road & Aquetong Road
Site Code: 1
Start Date: 01/31/2019
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Aquetong Road Northbound							Aquetong Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
7:30 AM	0	0	183	5	0	0	188	0	1	94	0	0	0	95	0	6	1	0	0	0	7	0	23	13	0	0	0	36	326
7:45 AM	0	0	197	12	0	0	209	0	0	102	2	0	0	104	0	4	0	0	0	0	4	0	19	10	0	0	0	29	346
8:00 AM	0	1	182	8	0	0	191	0	0	96	4	0	0	100	0	9	2	1	0	0	12	0	13	7	0	0	0	20	323
8:15 AM	0	0	183	7	0	0	190	0	0	116	1	0	0	117	0	15	4	0	0	0	19	0	15	18	0	0	0	33	359
Total	0	1	745	32	0	0	778	0	1	408	7	0	0	416	0	34	7	1	0	0	42	0	70	48	0	0	0	118	1354
Approach %	0.0	0.1	95.8	4.1	0.0	-	-	0.0	0.2	98.1	1.7	0.0	-	-	0.0	81.0	16.7	2.4	0.0	-	-	0.0	59.3	40.7	0.0	0.0	-	-	-
Total %	0.0	0.1	55.0	2.4	0.0	-	57.5	0.0	0.1	30.1	0.5	0.0	-	30.7	0.0	2.5	0.5	0.1	0.0	-	3.1	0.0	5.2	3.5	0.0	0.0	-	8.7	-
PHF	0.000	0.250	0.945	0.667	0.000	-	0.931	0.000	0.250	0.879	0.438	0.000	-	0.889	0.000	0.567	0.438	0.250	0.000	-	0.553	0.000	0.761	0.667	0.000	0.000	-	0.819	0.943
Lights	0	1	722	32	0	-	755	0	1	390	6	0	-	397	0	34	7	1	0	-	42	0	69	47	0	0	-	116	1310
% Lights	-	100.0	96.9	100.0	-	-	97.0	-	100.0	95.6	85.7	-	-	95.4	-	100.0	100.0	100.0	-	-	100.0	-	98.6	97.9	-	-	-	98.3	96.8
Mediums	0	0	14	0	0	-	14	0	0	10	1	0	-	11	0	0	0	0	0	-	0	0	1	1	0	0	-	2	27
% Mediums	-	0.0	1.9	0.0	-	-	1.8	-	0.0	2.5	14.3	-	-	2.6	-	0.0	0.0	0.0	-	-	0.0	-	1.4	2.1	-	-	-	1.7	2.0
Articulated Trucks	0	0	9	0	0	-	9	0	0	8	0	0	-	8	0	0	0	0	0	-	0	0	0	0	0	0	-	0	17
% Articulated Trucks	-	0.0	1.2	0.0	-	-	1.2	-	0.0	2.0	0.0	-	-	1.9	-	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	-	-	-	0.0	1.3
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

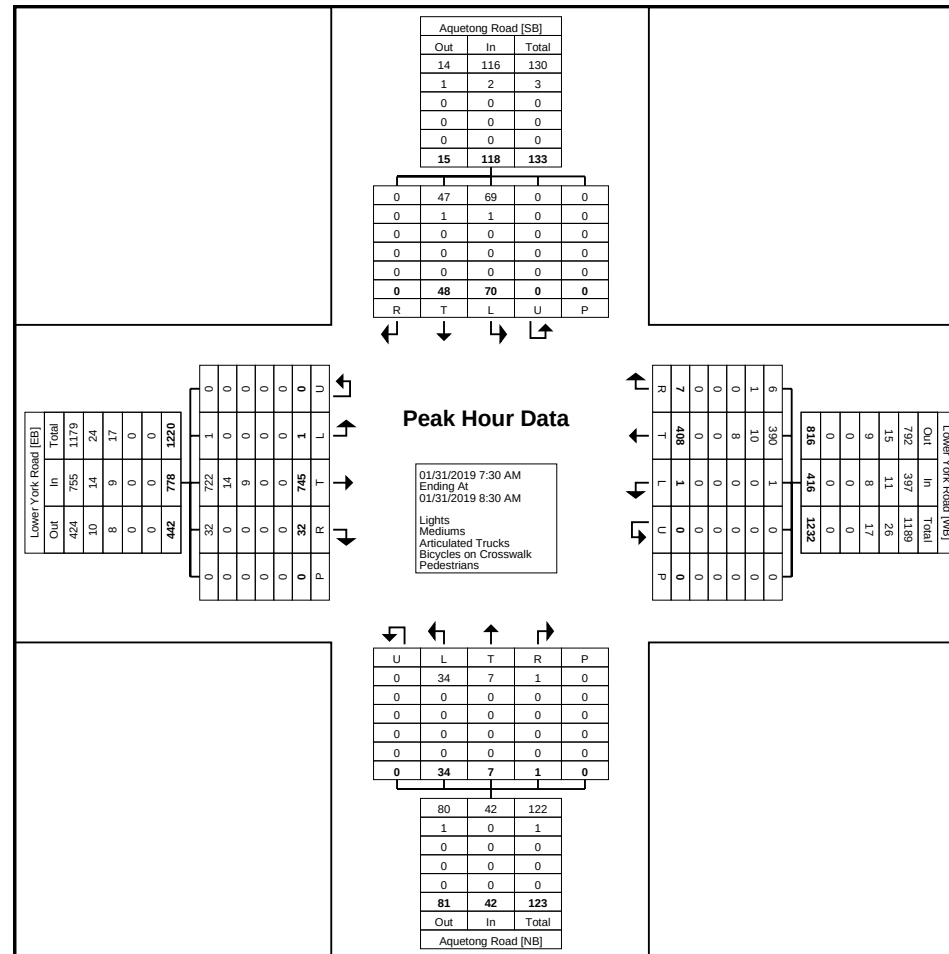


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PO BOX 4637

Cherry Hill, New Jersey, United States 08034
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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

Count Name: 1. Lower York Road & Aquetong
Road
Site Code: 1
Start Date: 01/31/2019
Page No: 5





Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.351447, -75.00362

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Count Name: 1. Lower York Road & Aquetong Road
Site Code: 1
Start Date: 01/31/2019
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Aquetong Road Northbound							Aquetong Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
5:00 PM	0	0	134	14	0	0	148	0	5	167	14	1	0	187	0	7	19	2	0	0	28	0	7	4	0	0	0	11	374
5:15 PM	0	0	152	10	0	0	162	0	2	192	18	0	0	212	0	7	10	0	1	0	18	0	14	5	0	0	0	19	411
5:30 PM	0	0	132	8	0	0	140	0	1	192	27	0	0	220	0	15	15	0	0	0	30	0	14	4	0	0	0	18	408
5:45 PM	0	0	152	8	0	0	160	0	0	159	19	0	0	178	0	6	13	3	1	0	23	0	12	2	0	0	0	14	375
Total	0	0	570	40	0	0	610	0	8	710	78	1	0	797	0	35	57	5	2	0	99	0	47	15	0	0	0	62	1568
Approach %	0.0	0.0	93.4	6.6	0.0	-	-	0.0	1.0	89.1	9.8	0.1	-	-	0.0	35.4	57.6	5.1	2.0	-	-	0.0	75.8	24.2	0.0	0.0	-	-	-
Total %	0.0	0.0	36.4	2.6	0.0	-	38.9	0.0	0.5	45.3	5.0	0.1	-	50.8	0.0	2.2	3.6	0.3	0.1	-	6.3	0.0	3.0	1.0	0.0	0.0	-	4.0	-
PHF	0.000	0.000	0.938	0.714	0.000	-	0.941	0.000	0.400	0.924	0.722	0.250	-	0.906	0.000	0.583	0.750	0.417	0.500	-	0.825	0.000	0.839	0.750	0.000	0.000	-	0.816	0.954
Lights	0	0	557	39	0	-	596	0	7	697	77	1	-	782	0	34	57	4	2	-	97	0	44	15	0	0	-	59	1534
% Lights	-	-	97.7	97.5	-	-	97.7	-	87.5	98.2	98.7	100.0	-	98.1	-	97.1	100.0	80.0	100.0	-	98.0	-	93.6	100.0	-	-	-	95.2	97.8
Mediums	0	0	9	1	0	-	10	0	1	11	1	0	-	13	0	1	0	1	0	-	2	0	2	0	0	0	-	2	27
% Mediums	-	-	1.6	2.5	-	-	1.6	-	12.5	1.5	1.3	0.0	-	1.6	-	2.9	0.0	20.0	0.0	-	2.0	-	4.3	0.0	-	-	-	3.2	1.7
Articulated Trucks	0	0	4	0	0	-	4	0	0	2	0	0	-	2	0	0	0	0	0	-	0	0	1	0	0	0	-	1	7
% Articulated Trucks	-	-	0.7	0.0	-	-	0.7	-	0.0	0.3	0.0	0.0	-	0.3	-	0.0	0.0	0.0	0.0	-	0.0	-	2.1	0.0	-	-	-	1.6	0.4
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

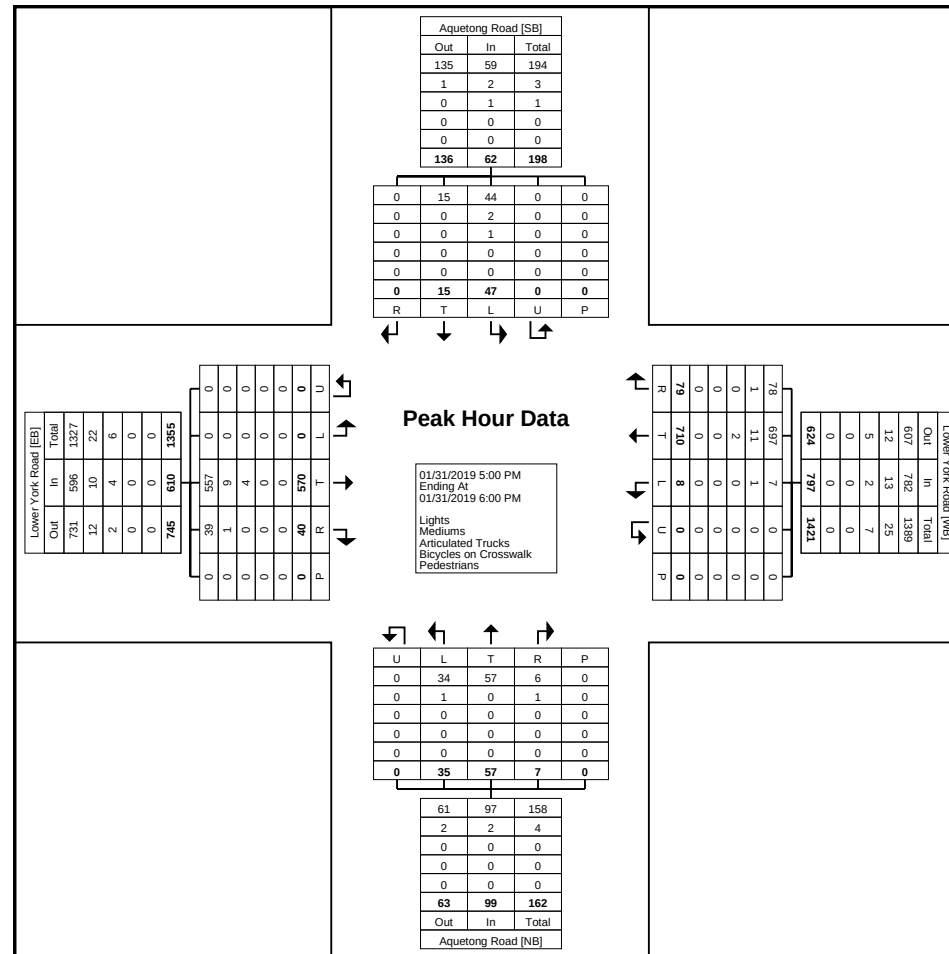


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

Count Name: 1. Lower York Road & Aquetong
Road
Site Code: 1
Start Date: 01/31/2019
Page No: 7





Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
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Count Name: 1. Lower York Road & Aquetong Road
Site Code: 1
Start Date: 01/31/2019
Page No: 8

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Aquetong Road Northbound							Aquetong Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
11:30 AM	0	0	141	18	1	0	160	0	0	146	11	0	0	157	0	13	7	1	0	0	21	0	11	9	0	0	0	20	358
11:45 AM	0	1	149	16	0	0	166	0	2	113	7	0	0	122	0	5	4	1	0	0	10	0	22	7	0	0	0	29	327
12:00 PM	0	0	161	12	0	0	173	0	0	150	7	0	0	157	0	11	7	1	0	0	19	0	12	5	1	0	0	18	367
12:15 PM	0	1	146	5	0	0	152	0	1	140	10	0	0	151	0	10	2	1	0	0	13	0	16	7	1	0	0	24	340
Total	0	2	597	51	1	0	651	0	3	549	35	0	0	587	0	39	20	4	0	0	63	0	61	28	2	0	0	91	1392
Approach %	0.0	0.3	91.7	7.8	0.2	-	-	0.0	0.5	93.5	6.0	0.0	-	-	0.0	61.9	31.7	6.3	0.0	-	-	0.0	67.0	30.8	2.2	0.0	-	-	-
Total %	0.0	0.1	42.9	3.7	0.1	-	46.8	0.0	0.2	39.4	2.5	0.0	-	42.2	0.0	2.8	1.4	0.3	0.0	-	4.5	0.0	4.4	2.0	0.1	0.0	-	6.5	-
PHF	0.000	0.500	0.927	0.708	0.250	-	0.941	0.000	0.375	0.915	0.795	0.000	-	0.935	0.000	0.750	0.714	1.000	0.000	-	0.750	0.000	0.693	0.778	0.500	0.000	-	0.784	0.948
Lights	0	2	584	50	1	-	637	0	3	541	34	0	-	578	0	37	19	4	0	-	60	0	60	25	2	0	-	87	1362
% Lights	-	100.0	97.8	98.0	100.0	-	97.8	-	100.0	98.5	97.1	-	-	98.5	-	94.9	95.0	100.0	-	-	95.2	-	98.4	89.3	100.0	-	-	95.6	97.8
Mediums	0	0	8	1	0	-	9	0	0	5	1	0	-	6	0	2	1	0	0	-	3	0	1	3	0	0	-	4	22
% Mediums	-	0.0	1.3	2.0	0.0	-	1.4	-	0.0	0.9	2.9	-	-	1.0	-	5.1	5.0	0.0	-	-	4.8	-	1.6	10.7	0.0	-	-	4.4	1.6
Articulated Trucks	0	0	5	0	0	-	5	0	0	3	0	0	-	3	0	0	0	0	0	-	0	0	0	0	0	0	-	0	8
% Articulated Trucks	-	0.0	0.8	0.0	0.0	-	0.8	-	0.0	0.5	0.0	-	-	0.5	-	0.0	0.0	0.0	-	-	0.0	-	0.0	0.0	0.0	-	-	0.0	0.6
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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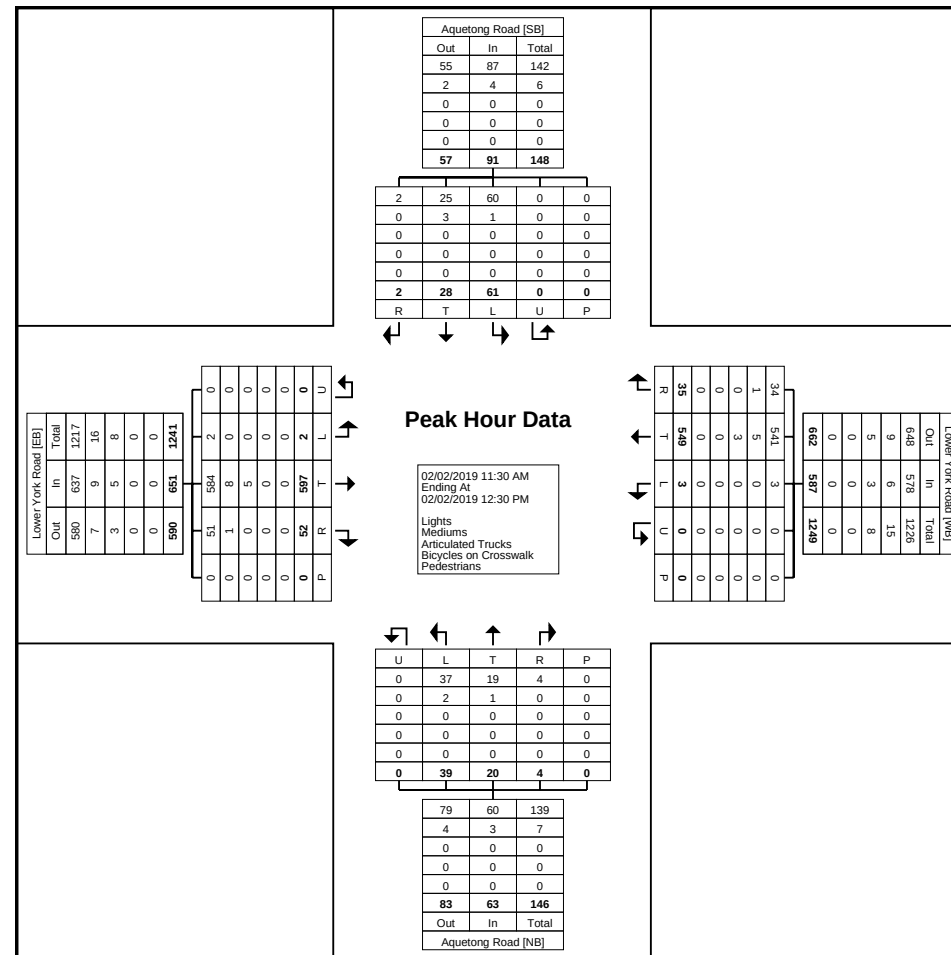
PO BOX 4637

Cherry Hill, New Jersey, United States 08034

609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

Count Name: 1. Lower York Road & Aquetong Road
Site Code: 1
Start Date: 01/31/2019
Page No: 9



Turning Movement Peak Hour Data Plot (11:30 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.351447, -75.00362

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Count Name: 1. Lower York Road & Aquetong
Road
Site Code: 1
Start Date: 01/31/2019
Page No: 10

2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637, Cherry Hill, NJ, 08003, US

Leg Direction	Lower Mountain Road Northbound						Lower York Road Eastbound						Lower York Road Westbound						Inghm Road Northeastbound						
Time	HL	L	R	U	App	Ped*	T	R	HR	U	App	Ped*	L	BL	T	U	App	Ped*	HL	BR	HR	U	App	Ped*	Int
2019-01-31 7:00AM	0	0	5	0	5	0	158	0	0	0	158	0	1	0	71	0	72	0	0	0	0	0	0	0	235
7:15AM	0	0	5	0	5	0	175	0	0	0	175	0	1	0	81	0	82	0	0	0	0	0	0	0	262
7:30AM	0	0	8	0	8	0	204	0	0	0	204	0	1	0	89	0	90	0	0	1	0	0	0	1	303
7:45AM	0	0	7	0	7	0	222	0	0	0	222	0	2	0	113	0	115	0	0	0	0	0	0	0	344
Hourly Total	0	0	25	0	25	0	759	0	0	0	759	0	5	0	354	0	359	0	0	1	0	0	0	1	1144
8:00AM	0	0	4	0	4	0	199	0	0	0	199	0	3	0	100	0	103	0	0	1	1	0	2	0	308
8:15AM	0	0	8	0	8	0	193	0	0	0	193	0	3	0	114	0	117	0	0	0	0	0	0	0	318
8:30AM	0	0	17	0	17	0	176	0	0	0	176	0	4	1	96	0	101	0	0	0	1	0	1	0	295
8:45AM	0	0	7	0	7	0	186	0	0	0	186	0	2	0	85	0	87	0	0	0	1	0	1	0	281
Hourly Total	0	0	36	0	36	0	754	0	0	0	754	0	12	1	395	0	408	0	0	1	3	0	4	0	1202
4:00PM	0	1	9	0	10	0	122	0	0	0	122	0	9	0	176	0	185	0	0	0	0	0	0	0	317
4:15PM	0	0	8	0	8	0	119	0	0	0	119	0	14	0	174	0	188	0	0	0	0	0	0	0	315
4:30PM	0	0	12	0	12	0	141	0	0	0	141	0	12	1	170	0	183	0	0	0	0	0	0	0	336
4:45PM	0	0	4	0	4	0	129	2	0	0	131	0	14	1	206	0	221	0	0	0	0	0	0	0	356
Hourly Total	0	1	33	0	34	0	511	2	0	0	513	0	49	2	726	0	777	0	0	0	0	0	0	0	1324
5:00PM	0	0	8	0	8	0	138	1	0	0	139	0	6	0	196	0	202	0	0	0	0	0	0	0	349
5:15PM	0	0	8	0	8	0	159	0	0	0	159	0	7	2	205	0	214	0	0	0	0	0	0	0	381
5:30PM	0	1	4	0	5	0	146	0	0	0	146	0	8	0	225	0	233	0	0	0	1	0	1	0	385
5:45PM	0	0	6	0	6	0	164	0	0	0	164	0	6	0	180	0	186	0	0	0	0	0	0	0	356
Hourly Total	0	1	26	0	27	0	607	1	0	0	608	0	27	2	806	0	835	0	0	0	1	0	1	0	1471
2019-02-02 11:00AM	0	0	6	0	6	0	152	0	0	0	152	0	7	0	118	1	126	0	0	0	0	0	0	0	284
11:15AM	0	0	11	0	11	0	144	0	0	0	144	0	9	2	126	0	137	0	0	0	0	0	0	0	292
11:30AM	1	0	4	0	5	0	157	0	0	0	157	0	8	1	144	0	153	0	0	0	0	0	0	0	315
11:45AM	0	0	12	0	12	0	166	0	0	0	166	0	6	0	122	0	128	0	0	0	0	0	0	0	306
Hourly Total	1	0	33	0	34	0	619	0	0	0	619	0	30	3	510	1	544	0	0	0	0	0	0	0	1197
12:00PM	0	0	8	0	8	0	178	0	0	0	178	0	10	0	167	0	177	0	0	1	0	0	1	0	364
12:15PM	1	0	8	0	9	0	156	0	0	0	156	0	11	0	157	0	168	0	0	1	0	0	1	0	334
12:30PM	0	0	7	0	7	0	145	0	0	0	145	0	7	0	146	0	153	0	0	0	0	0	0	0	305
12:45PM	0	0	8	0	8	0	144	0	0	0	144	0	7	1	158	0	166	0	0	0	1	0	1	0	319
Hourly Total	1	0	31	0	32	0	623	0	0	0	623	0	35	1	628	0	664	0	0	2	1	0	3	0	1322
Total	2	2	184	0	188	0	3873	3	0	0	3876	0	158	9	3419	1	3587	0	0	4	5	0	9	0	7660
% Approach	1.1%	1.1%	97.9%	0%	-	-	99.9%	0.1%	0%	0%	-	-	4.4%	0.3%	95.3%	0%	-	-	0%	44.4%	55.6%	0%	-	-	-
% Total	0%	0%	2.4%	0%	2.5%	-	50.6%	0%	0%	0%	50.6%	-	2.1%	0.1%	44.6%	0%	46.8%	-	0%	0.1%	0.1%	0%	0.1%	-	-
Lights	2	1	183	0	186	-	3764	3	0	0	3767	-	156	9	3318	1	3484	-	0	4	5	0	9	-	7446
% Lights	100%	50.0%	99.5%	0%	98.9%	-	97.2%	100%	0%	0%	97.2%	-	98.7%	100%	97.0%	100%	97.1%	-	0%	100%	100%	0%	100%	-	97.2%
Articulated Trucks	0	0	0	0	0	-	31	0	0	0	31	-	0	0	32	0	32	-	0	0	0	0	0	0	63
% Articulated Trucks	0%	0%	0%	0%	0%	-	0.8%	0%	0%	0%	0.8%	-	0%	0%	0.9%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0.8%
Buses and Single-Unit Trucks	0	1	1	0	2	-	78	0	0	0	78	-	2	0	69	0	71	-	0	0	0	0	0	-	151
% Buses and Single-Unit Trucks	0%	50.0%	0.5%	0%	1.1%	-	2.0%	0%	0%	0%	2.0%	-	1.3%	0%	2.0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	2.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

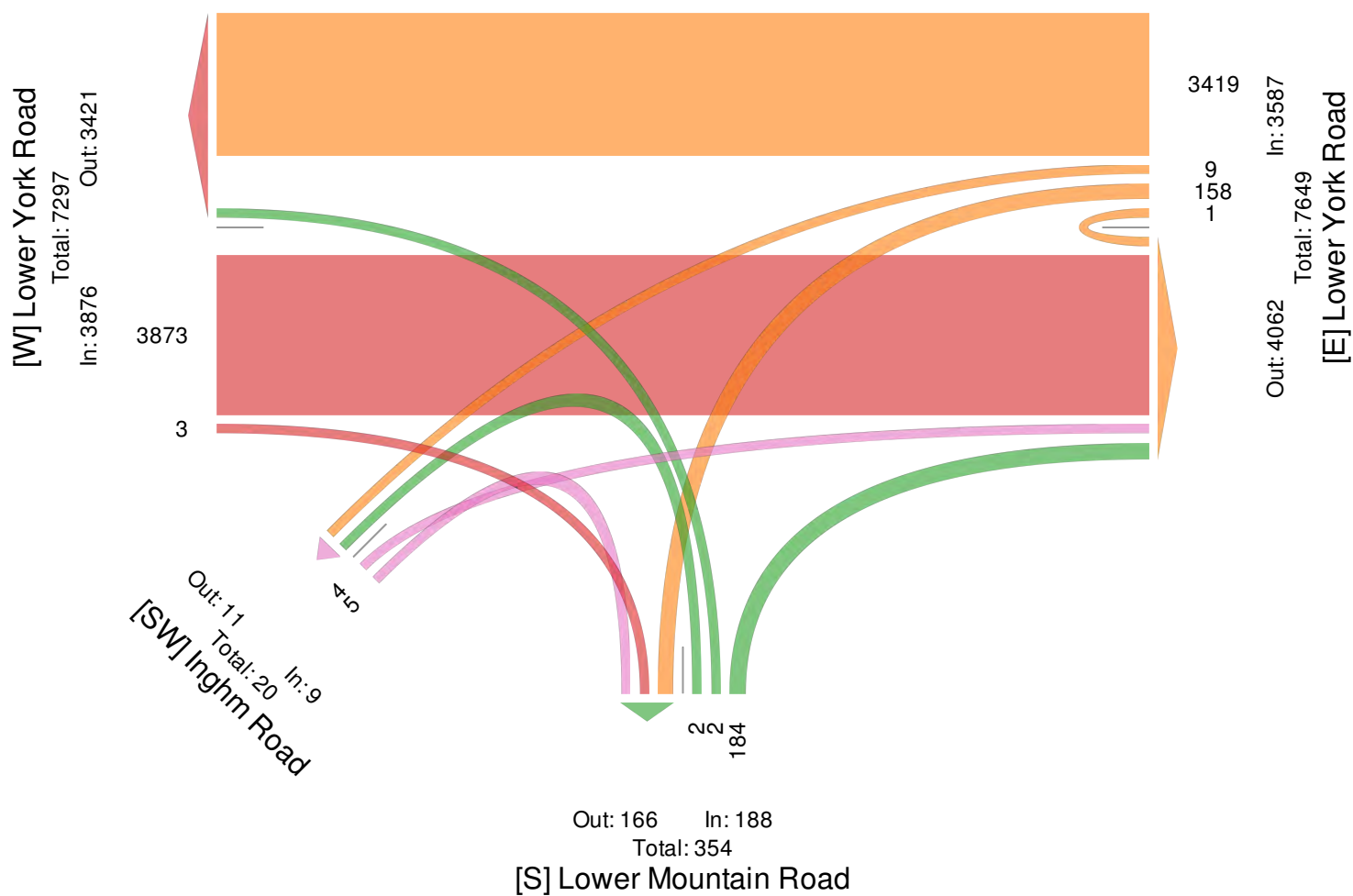
ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637, Cherry Hill, NJ, 08003, US

Leg Direction	Lower Mountain Road Northbound						Lower York Road Eastbound						Lower York Road Westbound						Inghm Road Northeastbound						
Time	HL	L	R	U	App	Ped*	T	R	HR	U	App	Ped*	L	BL	T	U	App	Ped*	HL	BR	HR	U	App	Ped*	Int
2019-01-31 7:30AM	0	0	8	0	8	0	204	0	0	0	204	0	1	0	89	0	90	0	0	1	0	0	1	0	303
7:45AM	0	0	7	0	7	0	222	0	0	0	222	0	2	0	113	0	115	0	0	0	0	0	0	0	344
8:00AM	0	0	4	0	4	0	199	0	0	0	199	0	3	0	100	0	103	0	0	1	1	0	2	0	308
8:15AM	0	0	8	0	8	0	193	0	0	0	193	0	3	0	114	0	117	0	0	0	0	0	0	0	318
Total	0	0	27	0	27	0	818	0	0	0	818	0	9	0	416	0	425	0	0	2	1	0	3	0	1273
% Approach	0%	0%	100%	0%	-	-	100%	0%	0%	0%	-	-	2.1%	0%	97.9%	0%	-	-	0%	66.7%	33.3%	0%	-	-	-
% Total	0%	0%	2.1%	0%	2.1%	-	64.3%	0%	0%	0%	64.3%	-	0.7%	0%	32.7%	0%	33.4%	-	0%	0.2%	0.1%	0%	0.2%	-	-
PHF	-	-	0.844	-	0.844	-	0.921	-	-	-	0.921	-	0.750	-	0.912	-	0.908	-	-	0.500	0.250	-	0.375	-	0.925
Lights	0	0	27	0	27	-	794	0	0	0	794	-	9	0	397	0	406	-	0	2	1	0	3	-	1230
% Lights	0%	0%	100%	0%	100%	-	97.1%	0%	0%	0%	97.1%	-	100%	0%	95.4%	0%	95.5%	-	0%	100%	100%	0%	100%	-	96.6%
Articulated Trucks	0	0	0	0	0	-	8	0	0	0	8	-	0	0	7	0	7	-	0	0	0	0	0	-	15
% Articulated Trucks	0%	0%	0%	0%	0%	-	1.0%	0%	0%	0%	1.0%	-	0%	0%	1.7%	0%	1.6%	-	0%	0%	0%	0%	0%	-	1.2%
Buses and Single-Unit Trucks	0	0	0	0	0	-	16	0	0	0	16	-	0	0	12	0	12	-	0	0	0	0	0	-	28
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	2.0%	0%	0%	0%	2.0%	-	0%	0%	2.9%	0%	2.8%	-	0%	0%	0%	0%	0%	-	2.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

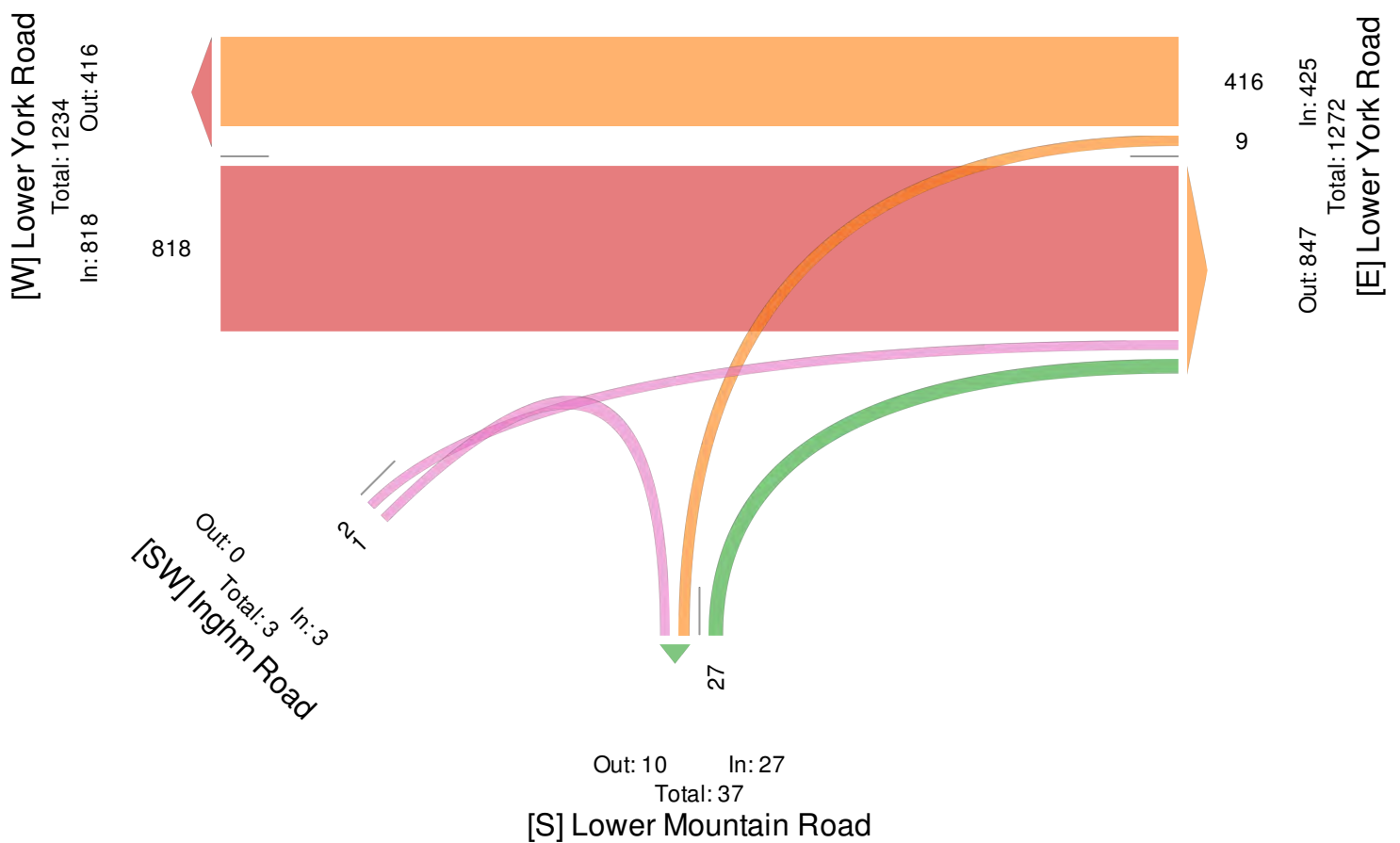
ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637, Cherry Hill, NJ, 08003, US

Leg Direction	Lower Mountain Road Northbound						Lower York Road Eastbound						Lower York Road Westbound						Inghm Road Northeastbound						
Time	HL	L	R	U	App	Ped*	T	R	HR	U	App	Ped*	L	BL	T	U	App	Ped*	HL	BR	HR	U	App	Ped*	Int
2019-01-31 4:45PM	0	0	4	0	4	0	129	2	0	0	131	0	14	1	206	0	221	0	0	0	0	0	0	0	356
5:00PM	0	0	8	0	8	0	138	1	0	0	139	0	6	0	196	0	202	0	0	0	0	0	0	0	349
5:15PM	0	0	8	0	8	0	159	0	0	0	159	0	7	2	205	0	214	0	0	0	0	0	0	0	381
5:30PM	0	1	4	0	5	0	146	0	0	0	146	0	8	0	225	0	233	0	0	0	1	0	1	0	385
Total	0	1	24	0	25	0	572	3	0	0	575	0	35	3	832	0	870	0	0	0	1	0	1	0	1471
% Approach	0%	4.0%	96.0%	0%	-	-	99.5%	0.5%	0%	0%	-	-	4.0%	0.3%	95.6%	0%	-	-	0%	0%	100%	0%	-	-	-
% Total	0%	0.1%	1.6%	0%	1.7%	-	38.9%	0.2%	0%	0%	39.1%	-	2.4%	0.2%	56.6%	0%	59.1%	-	0%	0%	0.1%	0%	0.1%	-	-
PHF	-0.250	0.750	-	0.781	-	-	0.899	0.375	-	-	0.904	-	0.625	0.375	0.924	-	0.933	-	-	-0.250	-	0.250	-	-	0.955
Lights	0	0	24	0	24	-	559	3	0	0	562	-	34	3	813	0	850	-	0	0	1	0	1	-	1437
% Lights	0%	0%	100%	0%	96.0%	-	97.7%	100%	0%	0%	97.7%	-	97.1%	100%	97.7%	0%	97.7%	-	0%	0%	100%	0%	100%	-	97.7%
Articulated Trucks	0	0	0	0	0	-	6	0	0	0	6	-	0	0	4	0	4	-	0	0	0	0	0	-	10
% Articulated Trucks	0%	0%	0%	0%	0%	-	1.0%	0%	0%	0%	1.0%	-	0%	0%	0.5%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.7%
Buses and Single-Unit Trucks	0	1	0	0	1	-	7	0	0	0	7	-	1	0	15	0	16	-	0	0	0	0	0	-	24
% Buses and Single-Unit Trucks	0%	100%	0%	0%	4.0%	-	1.2%	0%	0%	0%	1.2%	-	2.9%	0%	1.8%	0%	1.8%	-	0%	0%	0%	0%	0%	-	1.6%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

2. Lower York Road & Lower Mountain Road/Ing... - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

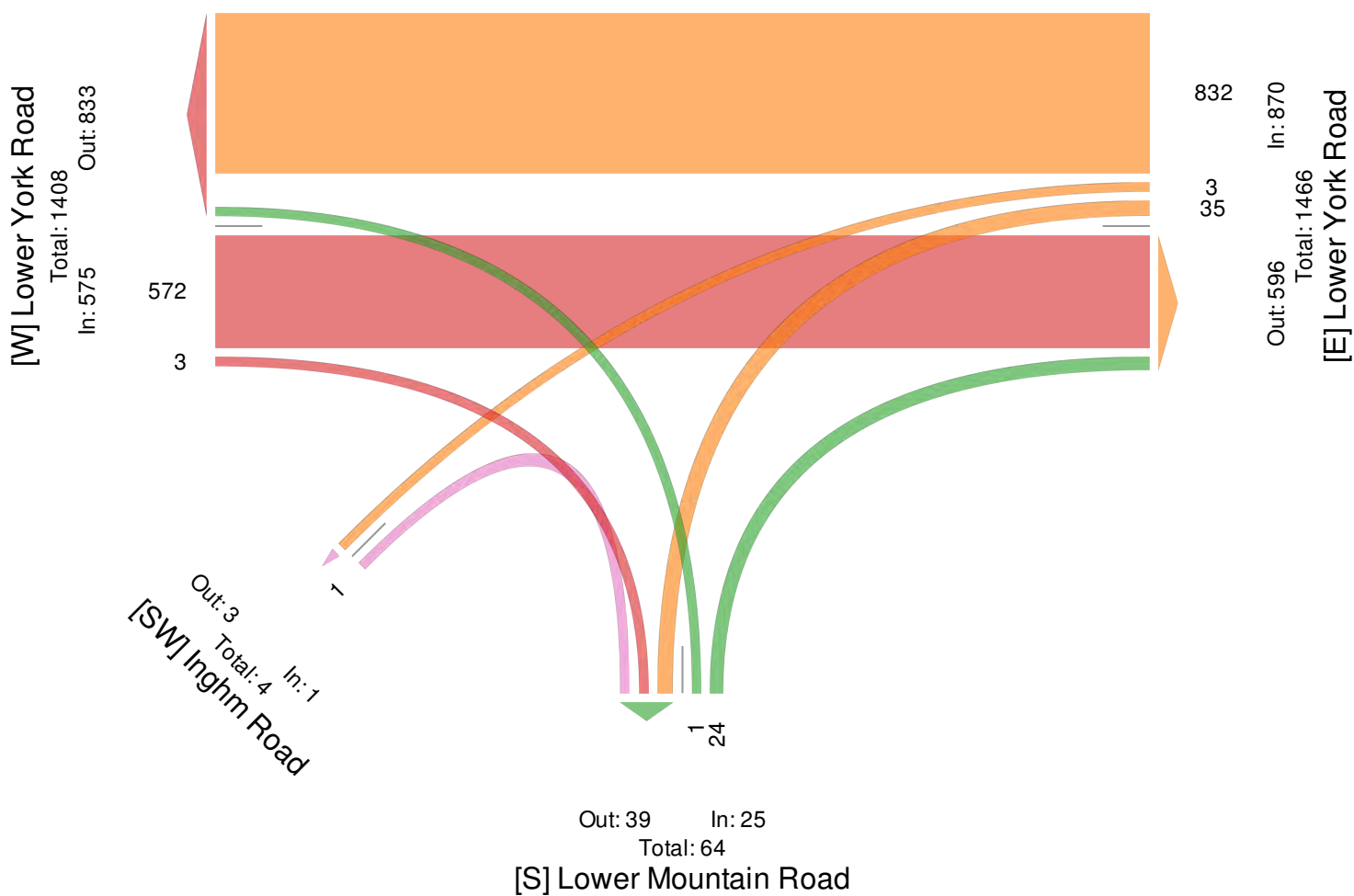
ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



2. Lower York Road & Lower Mountain Road/Ing... - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 12PM - 1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

Provided by: Imperial Traffic & Data

Collection

PO Box 4637, Cherry Hill, NJ, 08003, US

Leg Direction	Lower Mountain Road Northbound						Lower York Road Eastbound						Lower York Road Westbound						Inghm Road Northeastbound						
Time	HL	L	R	U	App	Ped*	T	R	HR	U	App	Ped*	L	BL	T	U	App	Ped*	HL	BR	HR	U	App	Ped*	Int
2019-02-02 12:00PM	0	0	8	0	8	0	178	0	0	0	178	0	10	0	167	0	177	0	0	1	0	0	1	0	364
12:15PM	1	0	8	0	9	0	156	0	0	0	156	0	11	0	157	0	168	0	0	1	0	0	1	0	334
12:30PM	0	0	7	0	7	0	145	0	0	0	145	0	7	0	146	0	153	0	0	0	0	0	0	0	305
12:45PM	0	0	8	0	8	0	144	0	0	0	144	0	7	1	158	0	166	0	0	0	1	0	1	0	319
Total	1	0	31	0	32	0	623	0	0	0	623	0	35	1	628	0	664	0	0	2	1	0	3	0	1322
% Approach	3.1%	0%	96.9%	0%	-	-	100%	0%	0%	0%	-	-	5.3%	0.2%	94.6%	0%	-	-	0%	66.7%	33.3%	0%	-	-	-
% Total	0.1%	0%	2.3%	0%	2.4%	-	47.1%	0%	0%	0%	47.1%	-	2.6%	0.1%	47.5%	0%	50.2%	-	0%	0.2%	0.1%	0%	0.2%	-	-
PHF	0.250	-	0.969	-	0.889	-	0.875	-	-	-	0.875	-	0.795	0.250	0.940	-	0.938	-	-	0.500	0.250	-	0.750	-	0.908
Lights	1	0	31	0	32	-	611	0	0	0	611	-	35	1	621	0	657	-	0	2	1	0	3	-	1303
% Lights	100%	0%	100%	0%	100%	-	98.1%	0%	0%	0%	98.1%	-	100%	100%	98.9%	0%	98.9%	-	0%	100%	100%	0%	100%	-	98.6%
Articulated Trucks	0	0	0	0	0	-	3	0	0	0	3	-	0	0	1	0	1	-	0	0	0	0	0	-	4
% Articulated Trucks	0%	0%	0%	0%	0%	-	0.5%	0%	0%	0%	0.5%	-	0%	0%	0.2%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.3%
Buses and Single-Unit Trucks	0	0	0	0	0	-	9	0	0	0	9	-	0	0	6	0	6	-	0	0	0	0	0	-	15
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	1.4%	0%	0%	0%	1.4%	-	0%	0%	1.0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	1.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

2. Lower York Road & Lower Mountain Road/Ing... - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 12PM - 1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

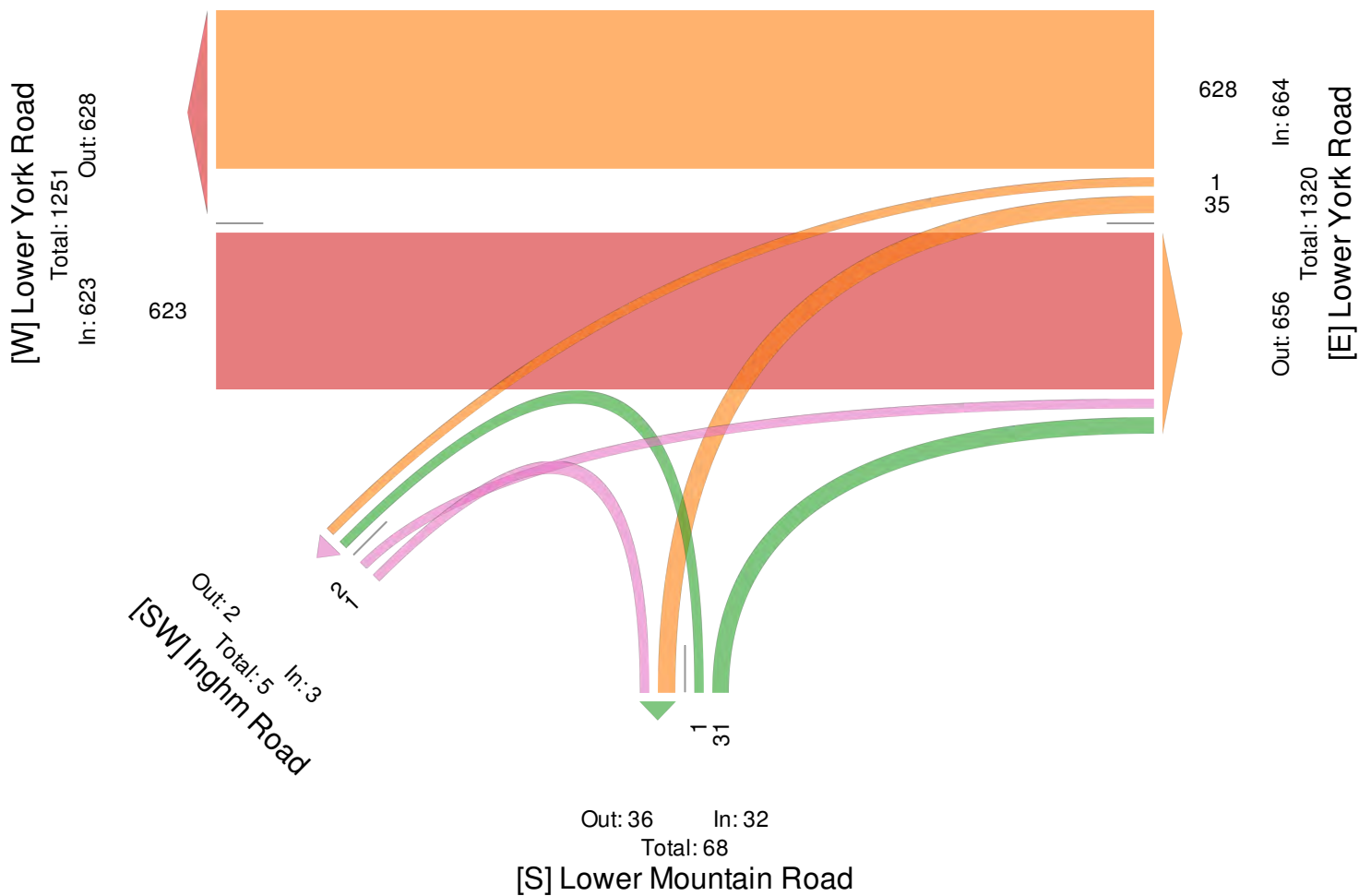
ID: 616367, Location: 40.354796, -74.993398, Site Code: 2

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Imperial Traffic & Data Collection
www.imperialtdc.com
PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.355899, -74.989589

Count Name: 3. Lower York Road & Silvertail Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 1

Turning Movement Data

Start Time	Lower York Road Eastbound					Lower York Road Westbound					Silvertail Lane Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
7:00 AM	0	0	166	0	166	0	73	0	0	73	0	1	0	0	1	240
7:15 AM	0	0	182	0	182	0	80	0	0	80	0	2	1	0	3	265
7:30 AM	0	0	211	0	211	0	97	0	0	97	0	2	0	0	2	310
7:45 AM	0	0	230	0	230	0	110	0	0	110	0	0	2	0	2	342
Hourly Total	0	0	789	0	789	0	360	0	0	360	0	5	3	0	8	1157
8:00 AM	0	0	203	0	203	0	101	2	0	103	0	2	2	0	4	310
8:15 AM	0	1	196	0	197	0	115	2	0	117	0	3	4	0	7	321
8:30 AM	0	0	194	0	194	0	98	1	0	99	0	2	3	0	5	298
8:45 AM	0	1	190	0	191	0	96	1	0	97	0	0	0	0	0	288
Hourly Total	0	2	783	0	785	0	410	6	0	416	0	7	9	0	16	1217
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	8	126	0	134	0	183	5	0	188	0	2	2	0	4	326
4:15 PM	0	1	126	0	127	0	191	2	0	193	0	1	0	0	1	321
4:30 PM	0	4	144	0	148	0	181	1	0	182	0	2	1	0	3	333
4:45 PM	0	2	133	0	135	0	214	2	0	216	0	4	1	0	5	356
Hourly Total	0	15	529	0	544	0	769	10	0	779	0	9	4	0	13	1336
5:00 PM	0	3	145	0	148	0	210	5	0	215	0	1	0	0	1	364
5:15 PM	0	2	167	0	169	0	209	2	0	211	0	3	1	0	4	384
5:30 PM	0	2	150	0	152	0	228	1	0	229	0	2	2	0	4	385
5:45 PM	0	0	169	0	169	0	185	4	0	189	0	1	0	0	1	359
Hourly Total	0	7	631	0	638	0	832	12	0	844	0	7	3	0	10	1492
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	1	163	0	164	0	123	4	0	127	0	7	4	0	11	302
11:15 AM	0	0	148	0	148	0	139	1	0	140	0	4	1	0	5	293
11:30 AM	0	1	169	0	170	0	155	3	0	158	0	4	1	0	5	333
11:45 AM	0	0	175	0	175	0	129	2	0	131	0	4	4	0	8	314
Hourly Total	0	2	655	0	657	0	546	10	0	556	0	19	10	0	29	1242
12:00 PM	0	5	181	0	186	0	167	5	0	172	0	4	0	0	4	362
12:15 PM	0	2	164	0	166	0	166	1	0	167	0	4	0	0	4	337
12:30 PM	0	5	149	0	154	0	149	4	0	153	0	3	2	0	5	312
12:45 PM	0	1	149	0	150	0	168	9	0	177	0	2	1	0	3	330
Hourly Total	0	13	643	0	656	0	650	19	0	669	0	13	3	0	16	1341
Grand Total	0	39	4030	0	4069	0	3567	57	0	3624	0	60	32	0	92	7785
Approach %	0.0	1.0	99.0	-	-	0.0	98.4	1.6	-	-	0.0	65.2	34.8	-	-	-
Total %	0.0	0.5	51.8	-	52.3	0.0	45.8	0.7	-	46.6	0.0	0.8	0.4	-	1.2	-
Lights	0	38	3919	-	3957	0	3468	57	-	3525	0	60	32	-	92	7574
% Lights	-	97.4	97.2	-	97.2	-	97.2	100.0	-	97.3	-	100.0	100.0	-	100.0	97.3
Mediums	0	1	81	-	82	0	69	0	-	69	0	0	0	-	0	151

[illegible]

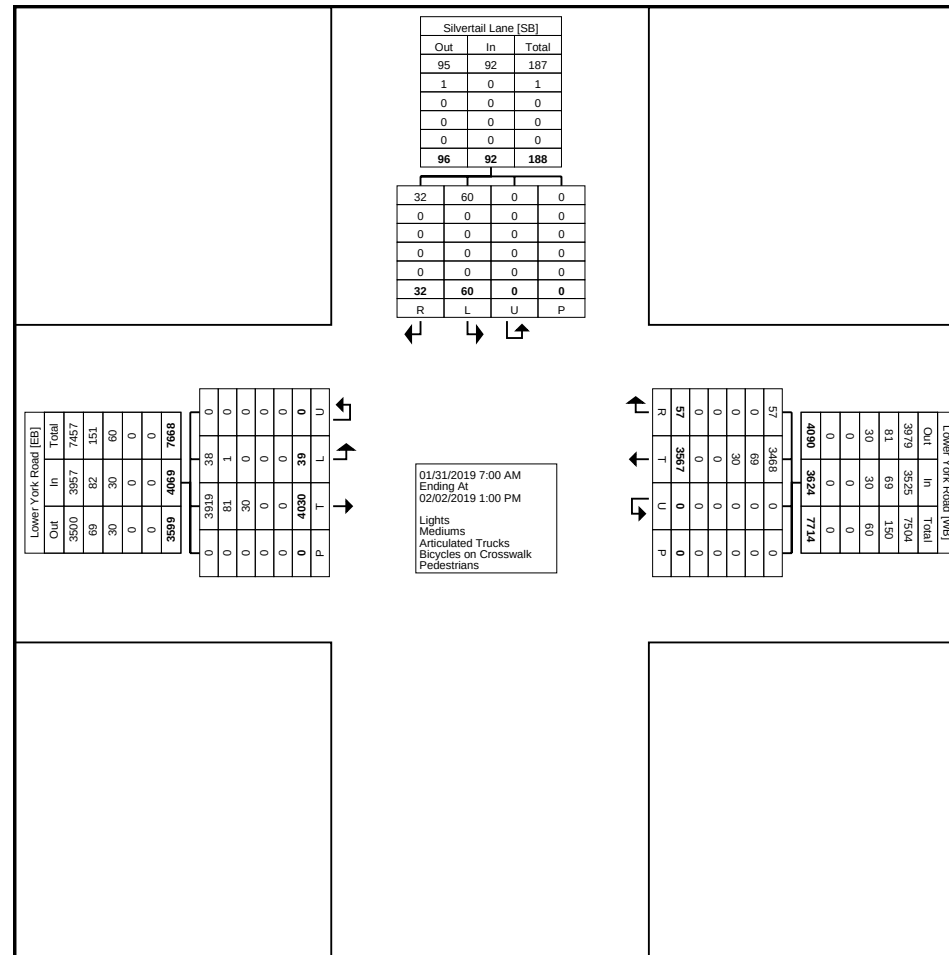


Imperial Traffic & Data Collection
www.imperialtdc.com
PO BOX 4637

Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.355899, -74.989589

Count Name: 3. Lower York Road & Silvertail
Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 3



Turning Movement Data Plot



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.355899, -74.989589

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Count Name: 3. Lower York Road & Silvertail Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

[illegible]

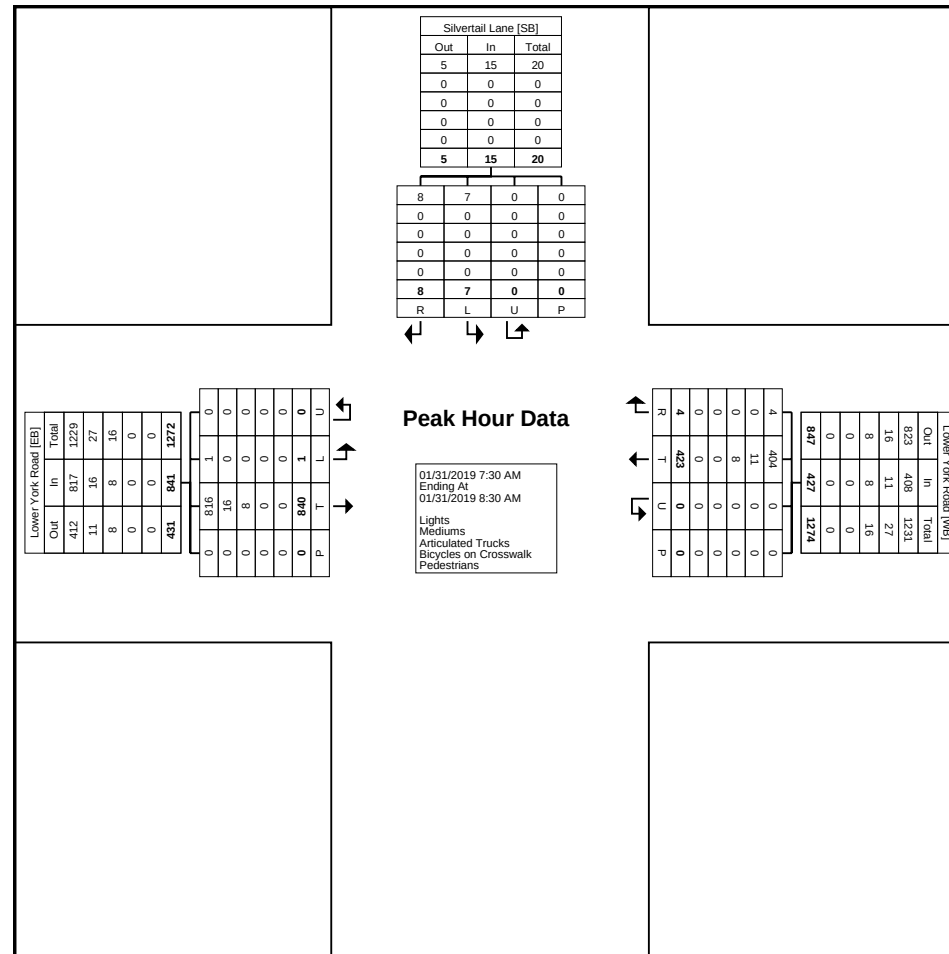


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.355899, -74.989589

Count Name: 3. Lower York Road & Silvertail
Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 5



Turning Movement Peak Hour Data Plot (7:30 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.355899, -74.989589

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Count Name: 3. Lower York Road & Silvertail Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

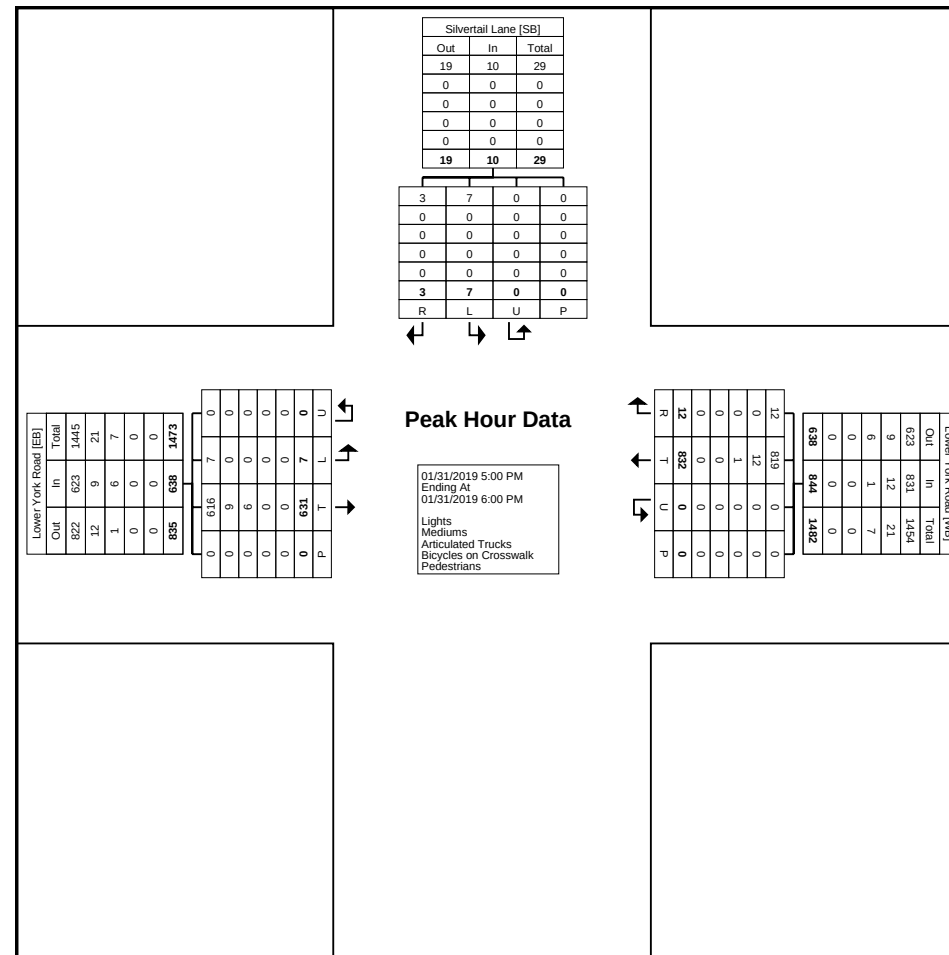
[illegible]



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.355899, -74.989589

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Count Name: 3. Lower York Road & Silvertail Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 7



Turning Movement Peak Hour Data Plot (5:00 PM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.355899, -74.989589

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Count Name: 3. Lower York Road & Silvertail Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 8

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Lower York Road Eastbound					Lower York Road Westbound					Silvertail Lane Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
11:30 AM	0	1	169	0	170	0	155	3	0	158	0	4	1	0	5	333
11:45 AM	0	0	175	0	175	0	129	2	0	131	0	4	4	0	8	314
12:00 PM	0	5	181	0	186	0	167	5	0	172	0	4	0	0	4	362
12:15 PM	0	2	164	0	166	0	166	1	0	167	0	4	0	0	4	337
Total	0	8	689	0	697	0	617	11	0	628	0	16	5	0	21	1346
Approach %	0.0	1.1	98.9	-	-	0.0	98.2	1.8	-	-	0.0	76.2	23.8	-	-	-
Total %	0.0	0.6	51.2	-	51.8	0.0	45.8	0.8	-	46.7	0.0	1.2	0.4	-	1.6	-
PHF	0.000	0.400	0.952	-	0.937	0.000	0.924	0.550	-	0.913	0.000	1.000	0.313	-	0.656	0.930
Lights	0	8	677	-	685	0	610	11	-	621	0	16	5	-	21	1327
% Lights	-	100.0	98.3	-	98.3	-	98.9	100.0	-	98.9	-	100.0	100.0	-	100.0	98.6
Mediums	0	0	7	-	7	0	5	0	-	5	0	0	0	-	0	12
% Mediums	-	0.0	1.0	-	1.0	-	0.8	0.0	-	0.8	-	0.0	0.0	-	0.0	0.9
Articulated Trucks	0	0	5	-	5	0	2	0	-	2	0	0	0	-	0	7
% Articulated Trucks	-	0.0	0.7	-	0.7	-	0.3	0.0	-	0.3	-	0.0	0.0	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

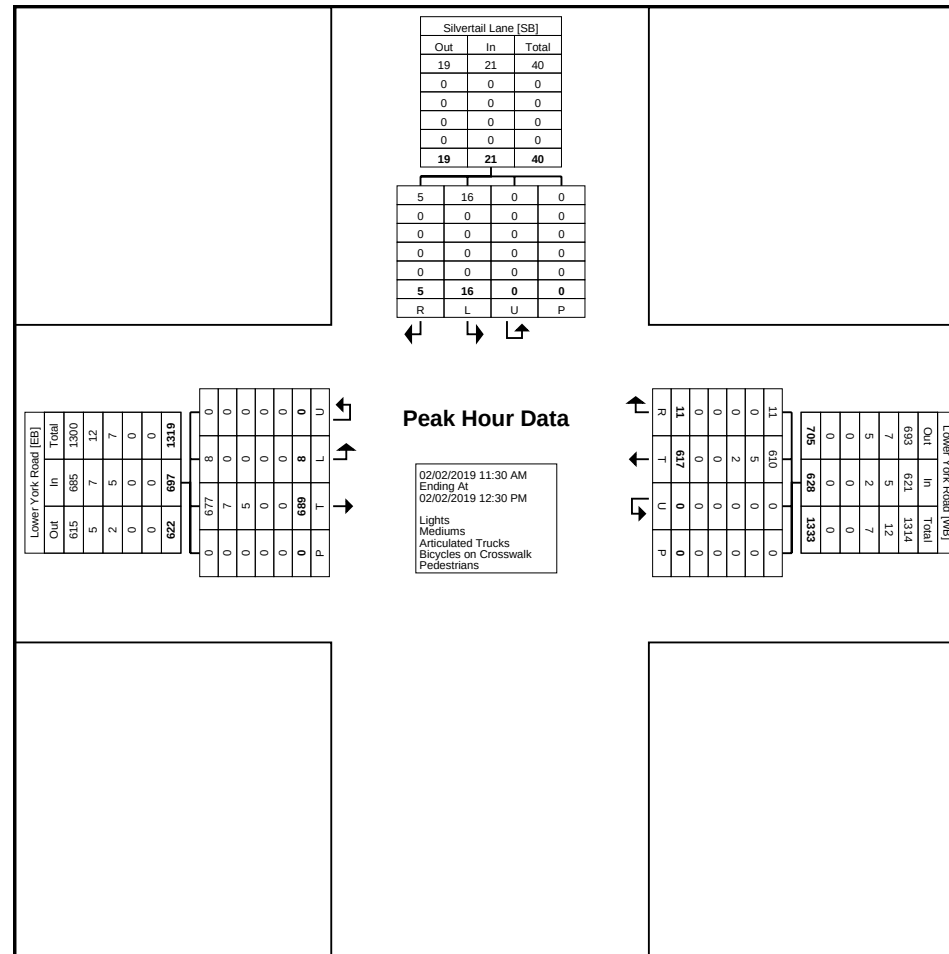


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.355899, -74.989589

Count Name: 3. Lower York Road & Silvertail
Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 9



Turning Movement Peak Hour Data Plot (11:30 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.355899, -74.989589

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Count Name: 3. Lower York Road & Silvertail
Lane
Site Code: 3
Start Date: 01/31/2019
Page No: 10

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Reeder Road Northbound								Lower York Road Eastbound								Lower York Road Westbound							
Time	L	BL	BR	R	U	App	Ped*	HL	BL	T	R	U	App	Ped*	L	T	BR	HR	U	App	Ped*			
2019-01-31 7:00AM	0	0	0	5	0	5	0	0	0	171	1	0	172	0	1	81	0	0	0	82	0			
7:15AM	0	0	0	1	0	1	0	0	0	193	0	0	193	0	0	76	0	0	0	76	0			
7:30AM	0	0	0	5	0	5	0	0	0	207	0	0	207	0	1	106	0	0	0	107	0			
7:45AM	0	0	0	2	0	2	0	0	0	232	0	0	232	0	0	93	0	0	0	93	0			
Hourly Total	0	0	0	13	0	13	0	0	0	803	1	0	804	0	2	356	0	0	0	358	0			
8:00AM	0	0	0	4	0	4	0	0	0	214	1	0	215	0	1	105	0	0	0	106	0			
8:15AM	1	0	0	4	0	5	0	0	0	205	0	0	205	0	4	121	0	0	0	125	0			
8:30AM	0	0	0	2	0	2	0	0	0	195	0	0	195	0	0	97	0	0	0	97	0			
8:45AM	1	0	0	8	0	9	0	0	0	181	0	0	181	0	0	98	0	0	0	98	0			
Hourly Total	2	0	0	18	0	20	0	0	0	795	1	0	796	0	5	421	0	0	0	426	0			
4:00PM	0	0	0	2	0	2	0	0	0	135	0	0	135	0	7	192	0	0	0	199	0			
4:15PM	0	0	0	2	0	2	1	0	0	128	1	0	129	0	5	199	0	0	0	204	0			
4:30PM	1	0	0	6	0	7	0	0	0	152	1	0	153	0	5	201	0	0	0	206	0			
4:45PM	2	0	0	4	0	6	0	0	0	143	1	0	144	0	4	203	0	0	0	207	0			
Hourly Total	3	0	0	14	0	17	1	0	0	558	3	0	561	0	21	795	0	0	0	816	0			
5:00PM	1	0	0	5	0	6	0	0	0	148	2	0	150	0	7	227	0	0	0	234	0			
5:15PM	1	0	0	3	0	4	0	0	0	166	4	0	170	0	7	206	0	0	0	213	0			
5:30PM	2	0	0	2	0	4	0	0	0	145	0	0	145	0	2	228	0	0	0	230	0			
5:45PM	1	0	0	3	0	4	0	0	0	167	2	0	169	0	8	190	0	1	0	199	0			
Hourly Total	5	0	0	13	0	18	0	0	0	626	8	0	634	0	24	851	0	1	0	876	0			
2019-02-02 11:00AM	2	0	0	7	0	9	0	0	1	169	1	0	171	0	2	132	0	0	0	134	0			
11:15AM	0	0	0	4	0	4	0	0	0	157	2	0	159	0	8	149	0	0	0	157	0			
11:30AM	0	0	0	3	0	3	0	0	1	178	1	0	180	0	2	161	0	0	0	163	0			
11:45AM	0	0	0	6	0	6	0	0	0	189	0	0	189	0	3	130	0	0	0	133	0			
Hourly Total	2	0	0	20	0	22	0	0	2	693	4	0	699	0	15	572	0	0	0	587	0			
12:00PM	0	0	0	5	0	5	0	0	0	180	1	0	181	0	5	177	0	0	0	182	0			
12:15PM	0	0	0	7	0	7	0	0	0	180	0	0	180	0	5	177	0	0	0	182	0			
12:30PM	0	0	0	7	0	7	1	0	0	162	1	0	163	0	1	157	0	1	0	159	0			
12:45PM	0	0	0	5	0	5	0	0	0	151	1	0	152	0	3	172	0	0	0	175	0			
Hourly Total	0	0	0	24	0	24	1	0	0	673	3	0	676	0	14	683	0	1	0	698	0			
Total	12	0	0	102	0	114	2	0	2	4148	20	0	4170	0	81	3678	0	2	0	3761	0			
% Approach	10.5%	0%	0%	89.5%	0%	-	-	0%	0%	99.5%	0.5%	0%	-	-	2.2%	97.8%	0%	0.1%	0%	-	-			
% Total	0.1%	0%	0%	1.3%	0%	1.4%	-	0%	0%	51.5%	0.2%	0%	51.8%	-	1.0%	45.7%	0%	0%	0%	46.7%	-			
Lights	11	0	0	102	0	113	-	0	2	4040	18	0	4060	-	80	3579	0	2	0	3661	-			
% Lights	91.7%	0%	0%	100%	0%	99.1%	-	0%	100%	97.4%	90.0%	0%	97.4%	-	98.8%	97.3%	0%	100%	0%	97.3%	-			
Articulated Trucks	0	0	0	0	0	0	-	0	0	31	0	0	31	-	0	29	0	0	0	29	-			
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	0.7%	0%	0%	0.7%	-	0%	0.8%	0%	0%	0%	0.8%	-			
Buses and Single-Unit Trucks	1	0	0	0	0	1	-	0	0	77	2	0	79	-	1	70	0	0	0	71	-			
% Buses and Single-Unit Trucks	8.3%	0%	0%	0%	0%	0.9%	-	0%	0%	1.9%	10.0%	0%	1.9%	-	1.2%	1.9%	0%	0%	0%	1.9%	-			
Pedestrians	-	-	-	-	-	-	2	-	-	-	-	-	-	0	-	-	-	-	-	-	0			
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0			
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Drive way 1 Southeastbound								Drive way 2 Southwestbound								
Time	L	BL	BR	HR	U	App	Ped*		HL	BL	BR	R	U	App	Ped*		Int
2019-01-31 7:00AM	0	0	0	0	0	0	0		1	0	0	0	0	1	0		260
7:15AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		270
7:30AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		319
7:45AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		327
Hourly Total	0	0	0	0	0	0	0		1	0	0	0	0	1	0		1176
8:00AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		325
8:15AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		335
8:30AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		294
8:45AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		288
Hourly Total	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1242
4:00PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		336
4:15PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		335
4:30PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		366
4:45PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		357
Hourly Total	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1394
5:00PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		390
5:15PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		387
5:30PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		379
5:45PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		372
Hourly Total	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1528
2019-02-02 11:00AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		314
11:15AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		320
11:30AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		346
11:45AM	0	0	0	0	0	0	0		1	0	0	0	0	1	0		329
Hourly Total	0	0	0	0	0	0	0		1	0	0	0	0	1	0		1309
12:00PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		368
12:15PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		369
12:30PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		329
12:45PM	0	0	0	0	0	0	0		1	0	0	0	0	1	0		333
Hourly Total	0	0	0	0	0	0	0		1	0	0	0	0	1	0		1399
Total	0	0	0	0	0	0	0		3	0	0	0	0	3	0		8048
% Approach	0%	0%	0%	0%	0%	-	-		100%	0%	0%	0%	0%	-	-		-
% Total	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%		-
Lights	0	0	0	0	0	0	0		3	0	0	0	0	3	0		7837
% Lights	0%	0%	0%	0%	0%	-	-		100%	0%	0%	0%	0%	100%	-		97.4%
Articulated Trucks	0	0	0	0	0	0	0		0	0	0	0	0	0	0		60
% Articulated Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	0%	0%		0.7%
Buses and Single-Unit Trucks	0	0	0	0	0	0	0		0	0	0	0	0	0	0		151
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	0%	0%		1.9%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

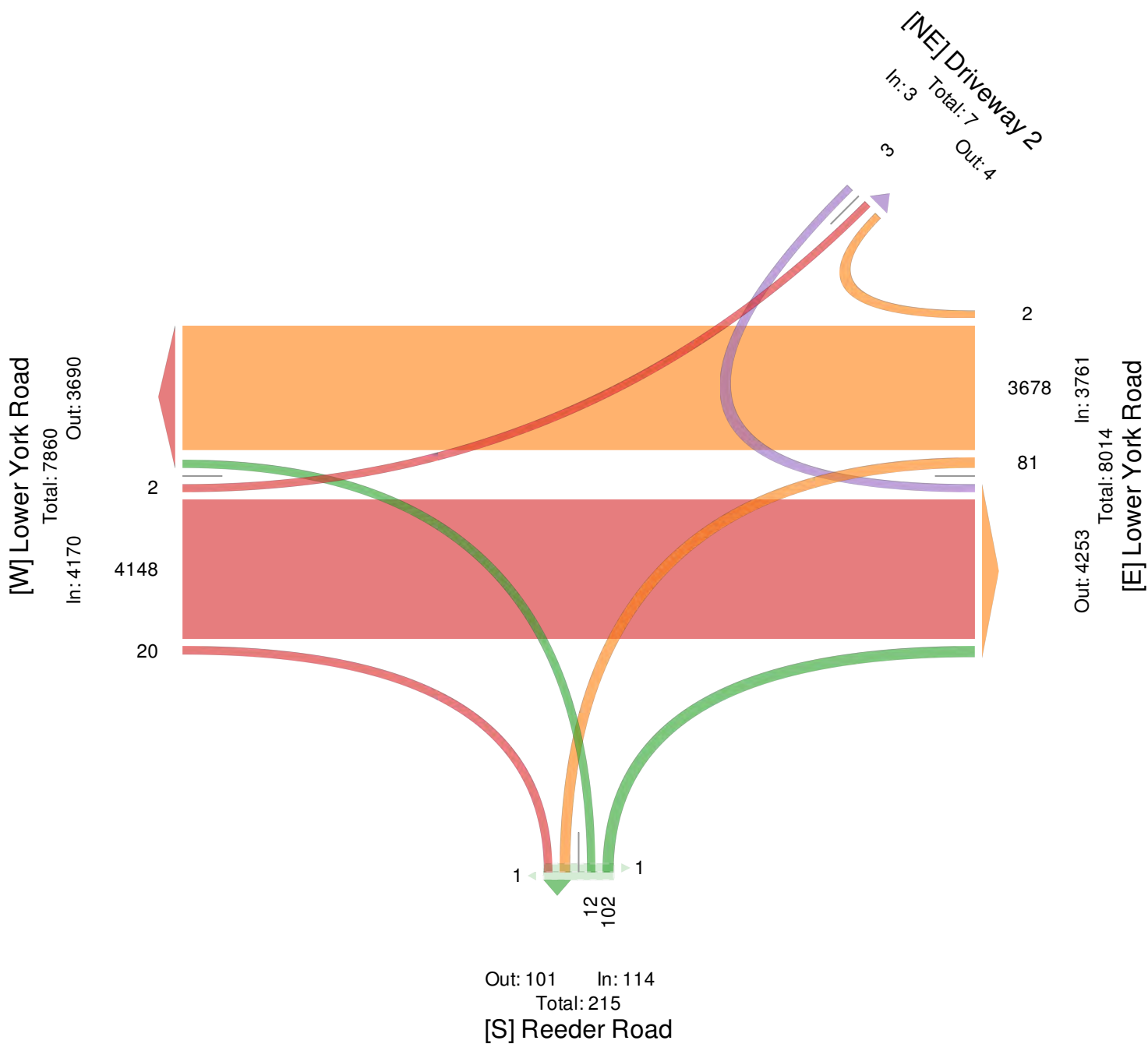
ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Reeder Road Northbound							Lower York Road Eastbound							Lower York Road Westbound						
Time	L	BL	BR	R	U	App	Ped*	HL	BL	T	R	U	App	Ped*	L	T	BR	HR	U	App	Ped*
2019-01-31 7:30AM	0	0	0	5	0	5	0	0	0	207	0	0	207	0	1	106	0	0	0	107	0
7:45AM	0	0	0	2	0	2	0	0	0	232	0	0	232	0	0	93	0	0	0	93	0
8:00AM	0	0	0	4	0	4	0	0	0	214	1	0	215	0	1	105	0	0	0	106	0
8:15AM	1	0	0	4	0	5	0	0	0	205	0	0	205	0	4	121	0	0	0	125	0
Total	1	0	0	15	0	16	0	0	0	858	1	0	859	0	6	425	0	0	0	431	0
% Approach	6.3%	0%	0%	93.8%	0%	-	-	0%	0%	99.9%	0.1%	0%	-	-	1.4%	98.6%	0%	0%	0%	-	-
% Total	0.1%	0%	0%	1.1%	0%	1.2%	-	0%	0%	65.7%	0.1%	0%	65.8%	-	0.5%	32.5%	0%	0%	0%	33.0%	-
PHF	0.250	-	-	0.750	-	0.800	-	-	-	0.925	0.250	-	0.926	-	0.375	0.878	-	-	-	0.862	-
Lights	1	0	0	15	0	16	-	0	0	834	1	0	835	-	6	407	0	0	0	413	-
% Lights	100%	0%	0%	100%	0%	100%	-	0%	0%	97.2%	100%	0%	97.2%	-	100%	95.8%	0%	0%	0%	95.8%	-
Articulated Trucks	0	0	0	0	0	0	-	0	0	9	0	0	9	-	0	7	0	0	0	7	-
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	1.0%	0%	0%	1.0%	-	0%	1.6%	0%	0%	0%	1.6%	-
Buses and Single-Unit Trucks	0	0	0	0	0	0	-	0	0	15	0	0	15	-	0	11	0	0	0	11	-
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	1.7%	0%	0%	1.7%	-	0%	2.6%	0%	0%	0%	2.6%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Drive way 1 Southeastbound								Drive way 2 Southwestbound								
Time	L	BL	BR	HR	U	App	Ped*		HL	BL	BR	R	U	App	Ped*		Int
2019-01-31 7:30AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		319
7:45AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		327
8:00AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		325
8:15AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		335
Total	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1306
% Approach	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		-
% Total	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%		-
PHF	-	-	-	-	-	-	-		-	-	-	-	-	-	-		0.975
Lights	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1264
% Lights	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		96.8%
Articulated Trucks	0	0	0	0	0	0	0		0	0	0	0	0	0	0		16
% Articulated Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		1.2%
Buses and Single-Unit Trucks	0	0	0	0	0	0	0		0	0	0	0	0	0	0		26
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		2.0%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

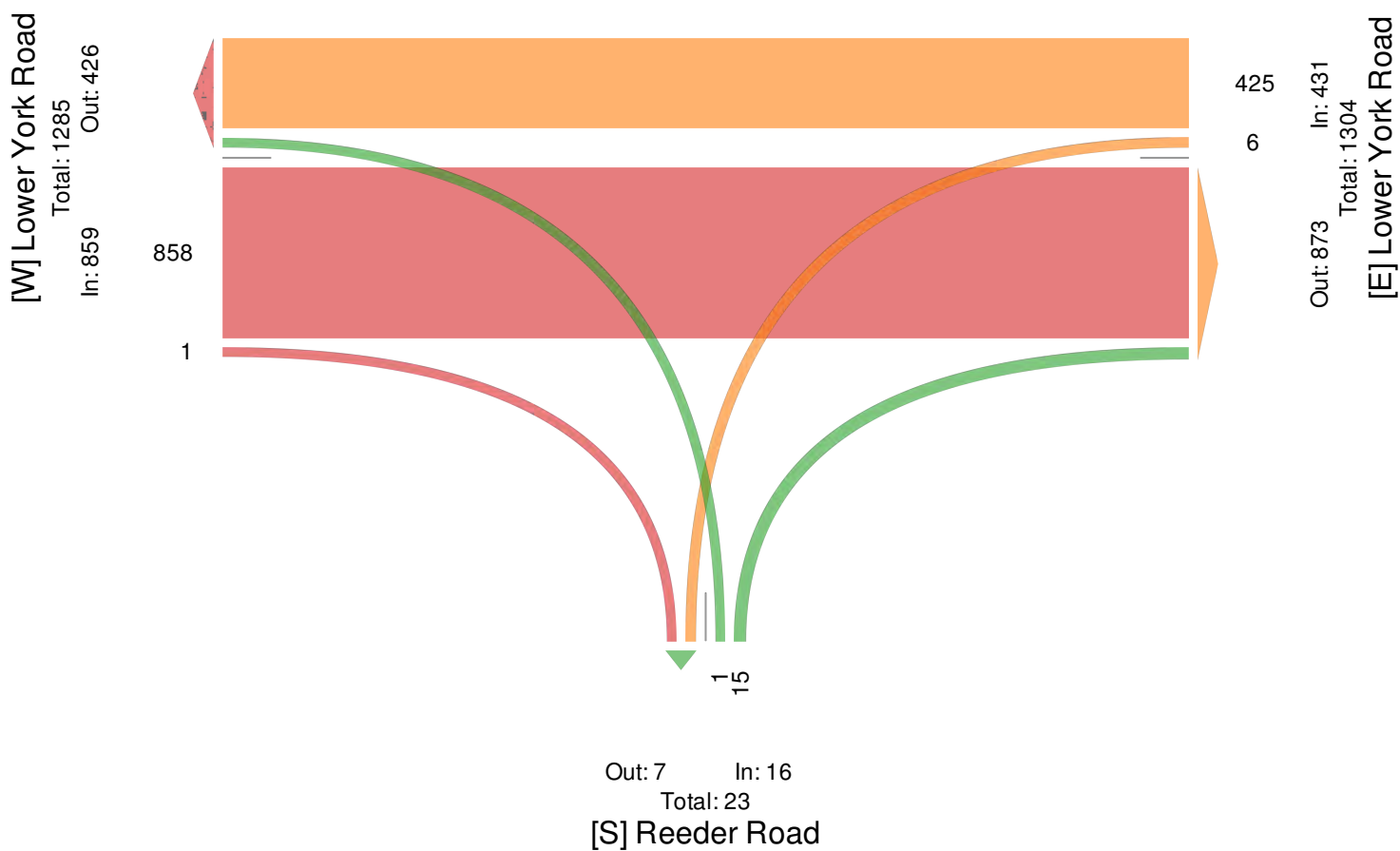
ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Reeder Road Northbound							Lower York Road Eastbound							Lower York Road Westbound						
Time	L	BL	BR	R	U	App	Ped*	HL	BL	T	R	U	App	Ped*	L	T	BR	HR	U	App	Ped*
2019-01-31 5:00PM	1	0	0	5	0	6	0	0	0	148	2	0	150	0	7	227	0	0	0	234	0
5:15PM	1	0	0	3	0	4	0	0	0	166	4	0	170	0	7	206	0	0	0	213	0
5:30PM	2	0	0	2	0	4	0	0	0	145	0	0	145	0	2	228	0	0	0	230	0
5:45PM	1	0	0	3	0	4	0	0	0	167	2	0	169	0	8	190	0	1	0	199	0
Total	5	0	0	13	0	18	0	0	0	626	8	0	634	0	24	851	0	1	0	876	0
% Approach	27.8%	0%	0%	72.2%	0%	-	-	0%	0%	98.7%	1.3%	0%	-	-	2.7%	97.1%	0%	0.1%	0%	-	-
% Total	0.3%	0%	0%	0.9%	0%	1.2%	-	0%	0%	41.0%	0.5%	0%	41.5%	-	1.6%	55.7%	0%	0.1%	0%	57.3%	-
PHF	0.625	-	-	0.650	-	0.750	-	-	-	0.937	0.500	-	0.932	-	0.750	0.933	-	0.250	-	0.936	-
Lights	4	0	0	13	0	17	-	0	0	612	7	0	619	-	24	839	0	1	0	864	-
% Lights	80.0%	0%	0%	100%	0%	94.4%	-	0%	0%	97.8%	87.5%	0%	97.6%	-	100%	98.6%	0%	100%	0%	98.6%	-
Articulated Trucks	0	0	0	0	0	0	-	0	0	6	0	0	6	-	0	1	0	0	0	1	-
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	1.0%	0%	0%	0.9%	-	0%	0.1%	0%	0%	0%	0.1%	-
Buses and Single-Unit Trucks	1	0	0	0	0	1	-	0	0	8	1	0	9	-	0	11	0	0	0	11	-
% Buses and Single-Unit Trucks	20.0%	0%	0%	0%	0%	5.6%	-	0%	0%	1.3%	12.5%	0%	1.4%	-	0%	1.3%	0%	0%	0%	1.3%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Drive way 1 Southeastbound								Drive way 2 Southwestbound								
Time	L	BL	BR	HR	U	App	Ped*		HL	BL	BR	R	U	App	Ped*		Int
2019-01-31 5:00PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		390
5:15PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		387
5:30PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		379
5:45PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		372
Total	0	0	0	0	0	0	0		0	0	0	0	0	0	0		1528
% Approach	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		-
% Total	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%		-
PHF	-	-	-	-	-	-	-		-	-	-	-	-	-	-		0.979
Lights	0	0	0	0	0	0	-		0	0	0	0	0	0	-		1500
% Lights	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		98.2%
Articulated Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		7
% Articulated Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		0.5%
Buses and Single-Unit Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		21
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	-	-		1.4%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

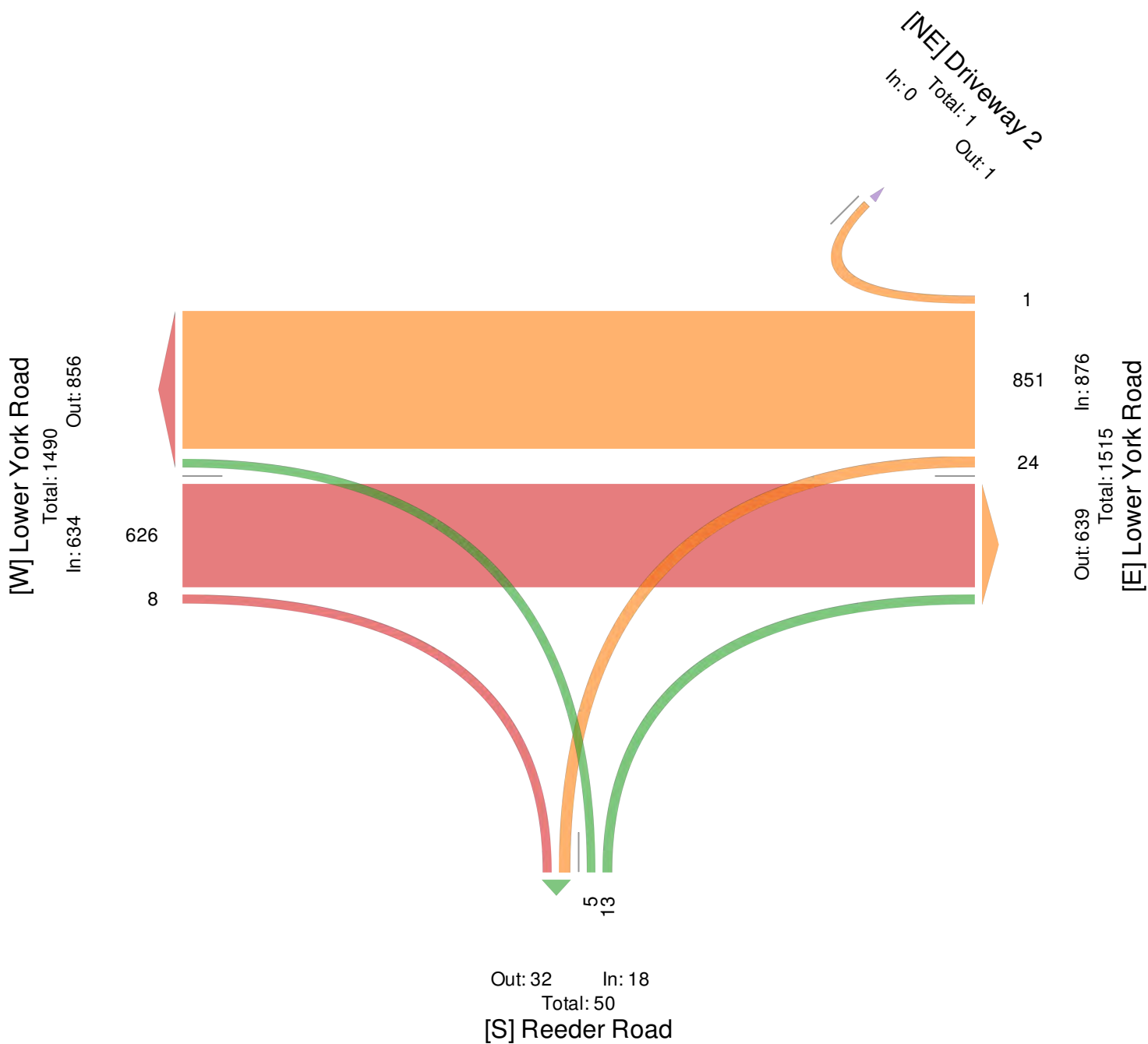
ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



4. Lower York Road & Reeder Road - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 11:30AM - 12:30 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Reeder Road Northbound							Lower York Road Eastbound							Lower York Road Westbound						
Time	L	BL	BR	R	U	App	Ped*	HL	BL	T	R	U	App	Ped*	L	T	BR	HR	U	App	Ped*
2019-02-02 11:30AM	0	0	0	3	0	3	0	0	1	178	1	0	180	0	2	161	0	0	0	163	0
11:45AM	0	0	0	6	0	6	0	0	0	189	0	0	189	0	3	130	0	0	0	133	0
12:00PM	0	0	0	5	0	5	0	0	0	180	1	0	181	0	5	177	0	0	0	182	0
12:15PM	0	0	0	7	0	7	0	0	0	180	0	0	180	0	5	177	0	0	0	182	0
Total	0	0	0	21	0	21	0	0	1	727	2	0	730	0	15	645	0	0	0	660	0
% Approach	0%	0%	0%	100%	0%	-	-	0%	0.1%	99.6%	0.3%	0%	-	-	2.3%	97.7%	0%	0%	0%	-	-
% Total	0%	0%	0%	1.5%	0%	1.5%	-	0%	0.1%	51.5%	0.1%	0%	51.7%	-	1.1%	45.7%	0%	0%	0%	46.7%	-
PHF	-	-	-	0.750	-	0.750	-	-	0.250	0.962	0.500	-	0.966	-	0.750	0.911	-	-	-	0.907	-
Lights	0	0	0	21	0	21	-	0	1	714	2	0	717	-	15	638	0	0	0	653	-
% Lights	0%	0%	0%	100%	0%	100%	-	0%	100%	98.2%	100%	0%	98.2%	-	100%	98.9%	0%	0%	0%	98.9%	-
Articulated Trucks	0	0	0	0	0	0	-	0	0	5	0	0	5	-	0	2	0	0	0	2	-
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	0.7%	0%	0%	0.7%	-	0%	0.3%	0%	0%	0%	0.3%	-
Buses and Single-Unit Trucks	0	0	0	0	0	0	-	0	0	8	0	0	8	-	0	5	0	0	0	5	-
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-	0%	0%	1.1%	0%	0%	1.1%	-	0%	0.8%	0%	0%	0%	0.8%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 11:30AM - 12:30 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Drive way 1 Southeastbound								Drive way 2 Southwestbound								
Time	L	BL	BR	HR	U	App	Ped*		HL	BL	BR	R	U	App	Ped*		Int
2019-02-02 11:30AM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		346
11:45AM	0	0	0	0	0	0	0		1	0	0	0	0	1	0		329
12:00PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		368
12:15PM	0	0	0	0	0	0	0		0	0	0	0	0	0	0		369
Total	0	0	0	0	0	0	0		1	0	0	0	0	1	0		1412
% Approach	0%	0%	0%	0%	0%	-	-		100%	0%	0%	0%	0%	-	-		-
% Total	0%	0%	0%	0%	0%	0%	-		0.1%	0%	0%	0%	0%	0.1%	-		-
PHF	-	-	-	-	-	-	-		0.250	-	-	-	-	0.250	-		0.957
Lights	0	0	0	0	0	0	-		1	0	0	0	0	1	-		1392
% Lights	0%	0%	0%	0%	0%	-	-		100%	0%	0%	0%	0%	100%	-		98.6%
Articulated Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		7
% Articulated Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	0%	-		0.5%
Buses and Single-Unit Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		13
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	-	-		0%	0%	0%	0%	0%	0%	-		0.9%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, HL: Hard left, HR: Hard right, L: Left, R: Right, T: Thru, U: U-Turn

4. Lower York Road & Reeder Road - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 11:30AM - 12:30 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

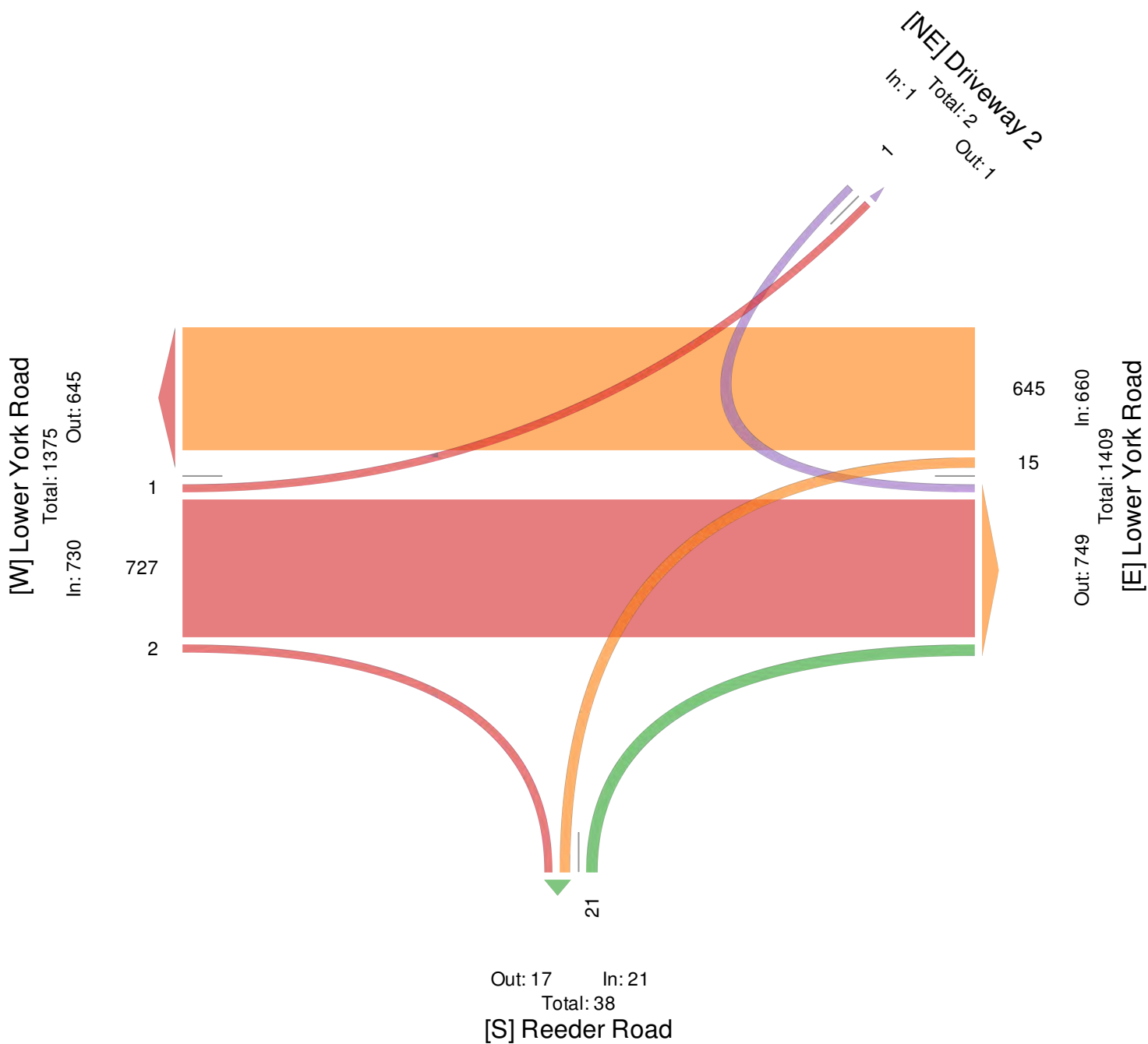
ID: 616369, Location: 40.358199, -74.981067, Site Code: 4

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US



5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Shire Dive Southbound								Lower York Road Eastbound							
Time	L	BR	R	U	RR	App	Ped*		L	T	HR	U	HRR	App	Ped*	
2019-01-31 7:00AM	2	0	0	0	0	2	0		0	165	0	0	0	165	0	
7:15AM	3	0	0	0	1	4	0		0	200	0	0	0	200	0	
7:30AM	2	0	0	0	1	3	0		1	217	0	0	0	218	0	
7:45AM	1	0	0	0	0	1	0		2	228	0	0	0	230	0	
Hourly Total	8	0	0	0	2	10	0		3	810	0	0	0	813	0	
8:00AM	3	0	1	0	0	4	0		0	215	0	0	0	215	0	
8:15AM	3	0	0	0	2	5	0		0	205	0	0	0	205	0	
8:30AM	3	0	0	0	2	5	0		0	210	0	0	0	210	0	
8:45AM	1	0	0	0	1	2	0		0	188	0	0	0	188	0	
Hourly Total	10	0	1	0	5	16	0		0	818	0	0	0	818	0	
4:00PM	1	0	1	0	0	2	0		0	146	0	0	0	146	0	
4:15PM	2	0	0	0	0	2	0		0	127	0	0	0	127	0	
4:30PM	1	0	0	0	0	1	0		2	165	0	0	0	167	0	
4:45PM	0	0	2	0	0	2	0		1	149	0	0	0	150	0	
Hourly Total	4	0	3	0	0	7	0		3	587	0	0	0	590	0	
5:00PM	0	0	1	0	1	2	0		1	157	0	0	0	158	0	
5:15PM	3	0	1	0	0	4	0		1	165	0	0	0	166	0	
5:30PM	1	0	0	0	0	1	0		0	138	1	0	0	139	0	
5:45PM	1	0	1	0	1	3	0		3	182	0	1	0	186	0	
Hourly Total	5	0	3	0	2	10	0		5	642	1	1	0	649	0	
2019-02-02 11:00AM	4	0	0	0	0	4	0		0	177	0	0	0	177	0	
11:15AM	4	0	0	0	1	5	0		1	150	1	0	0	152	0	
11:30AM	2	0	0	0	1	3	0		0	194	0	1	0	195	0	
11:45AM	1	0	0	0	0	1	0		0	193	2	1	0	196	0	
Hourly Total	11	0	0	0	2	13	0		1	714	3	2	0	720	0	
12:00PM	4	0	2	0	1	7	0		1	182	1	0	1	185	0	
12:15PM	4	0	0	0	0	4	0		3	185	0	0	0	188	0	
12:30PM	3	0	0	0	0	3	0		0	173	0	0	0	173	0	
12:45PM	1	0	1	0	1	3	0		0	171	0	0	0	171	0	
Hourly Total	12	0	3	0	2	17	0		4	711	1	0	1	717	0	
Total	50	0	10	0	13	73	0		16	4282	5	3	1	4307	0	
% Approach	68.5%	0%	13.7%	0%	17.8%	-	-		0.4%	99.4%	0.1%	0.1%	0%	-	-	
% Total	0.6%	0%	0.1%	0%	0.2%	0.9%	-		0.2%	51.9%	0.1%	0%	0%	52.2%	-	
Lights	49	0	10	0	12	71	-		16	4181	5	3	1	4206	-	
% Lights	98.0%	0%	100%	0%	92.3%	97.3%	-		100%	97.6%	100%	100%	100%	97.7%	-	
Articulated Trucks	0	0	0	0	0	0	-		0	27	0	0	0	27	-	
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-		0%	0.6%	0%	0%	0%	0.6%	-	
Buses and Single-Unit Trucks	1	0	0	0	1	2	-		0	74	0	0	0	74	-	
% Buses and Single-Unit Trucks	2.0%	0%	0%	0%	7.7%	2.7%	-		0%	1.7%	0%	0%	0%	1.7%	-	
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Lower York Road Westbound							Gazebo Place Northeastbound							
Time	BL	T	R	U	RR	App	Ped*	HL	BL	BR	U	BRR	App	Ped*	Int
2019-01-31 7:00AM	0	85	0	0	0	85	0	0	0	0	0	0	0	0	252
7:15AM	0	76	0	0	0	76	0	0	0	0	0	0	0	0	280
7:30AM	0	105	2	0	0	107	0	1	0	0	0	0	1	0	329
7:45AM	0	98	1	0	0	99	0	0	0	0	0	0	0	0	330
Hourly Total	0	364	3	0	0	367	0	1	0	0	0	0	1	0	1191
8:00AM	0	108	2	0	0	110	0	0	0	0	0	0	0	0	329
8:15AM	0	122	1	0	0	123	0	0	0	0	0	0	0	0	333
8:30AM	0	100	1	0	0	101	0	0	0	0	0	0	0	0	316
8:45AM	1	91	4	0	0	96	0	0	0	1	0	0	1	0	287
Hourly Total	1	421	8	0	0	430	0	0	0	1	0	0	1	0	1265
4:00PM	0	200	5	0	0	205	0	1	0	0	0	1	2	0	355
4:15PM	0	206	1	0	1	208	0	0	0	0	0	0	0	0	337
4:30PM	0	211	3	0	0	214	2	0	0	0	0	0	0	0	382
4:45PM	0	220	5	0	0	225	0	0	0	0	0	0	0	0	377
Hourly Total	0	837	14	0	1	852	2	1	0	0	0	1	2	0	1451
5:00PM	0	220	0	0	0	220	3	0	1	0	0	1	2	0	382
5:15PM	0	218	3	0	0	221	0	0	0	0	0	0	0	0	391
5:30PM	1	236	1	0	0	238	0	0	0	0	0	0	0	0	378
5:45PM	0	198	0	0	0	198	0	1	0	0	0	1	2	0	389
Hourly Total	1	872	4	0	0	877	3	1	1	0	0	2	4	0	1540
2019-02-02 11:00AM	1	135	1	0	0	137	0	1	0	0	0	0	1	0	319
11:15AM	0	157	1	0	0	158	0	0	0	0	0	0	0	0	315
11:30AM	0	155	5	0	0	160	0	0	0	2	0	0	2	0	360
11:45AM	1	133	1	0	0	135	0	1	0	0	0	0	1	0	333
Hourly Total	2	580	8	0	0	590	0	2	0	2	0	0	4	0	1327
12:00PM	0	185	3	0	0	188	0	0	0	1	0	0	1	0	381
12:15PM	0	183	4	0	0	187	0	0	0	0	0	0	0	0	379
12:30PM	2	167	5	0	0	174	0	0	0	0	0	2	2	0	352
12:45PM	3	183	3	0	0	189	0	0	0	3	0	1	4	0	367
Hourly Total	5	718	15	0	0	738	0	0	0	4	0	3	7	0	1479
Total	9	3792	52	0	1	3854	5	5	1	7	0	6	19	0	8253
% Approach	0.2%	98.4%	1.3%	0%	0%	-	-	26.3%	5.3%	36.8%	0%	31.6%	-	-	-
% Total	0.1%	45.9%	0.6%	0%	0%	46.7%	-	0.1%	0%	0.1%	0%	0.1%	0.2%	-	-
Lights	8	3690	50	0	1	3749	-	5	1	6	0	6	18	-	8044
% Lights	88.9%	97.3%	96.2%	0%	100%	97.3%	-	100%	100%	85.7%	0%	100%	94.7%	-	97.5%
Articulated Trucks	0	31	0	0	0	31	-	0	0	0	0	0	0	-	58
% Articulated Trucks	0%	0.8%	0%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	0%	-	0.7%
Buses and Single-Unit Trucks	1	71	2	0	0	74	-	0	0	1	0	0	1	-	151
% Buses and Single-Unit Trucks	11.1%	1.9%	3.8%	0%	0%	1.9%	-	0%	0%	14.3%	0%	0%	5.3%	-	1.8%
Pedestrians	-	-	-	-	-	-	5	-	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM, 11 AM-1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

[N] Shire Dive

Total: 143

In: 73

Out: 70

2350

[W] Lower York Road

Total: 8130
In: 4307
Out: 3823

Out: 15
Total: 34
In: 19
[SW] Gazebo Place

Out: 4345
Total: 8199
In: 3854

[E] Lower York Road

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Shire Dive Southbound								Lower York Road Eastbound							
Time	L	BR	R	U	RR	App	Ped*		L	T	HR	U	HRR	App	Ped*	
2019-01-31 7:30AM	2	0	0	0	1	3	0		1	217	0	0	0	218	0	
7:45AM	1	0	0	0	0	1	0		2	228	0	0	0	230	0	
8:00AM	3	0	1	0	0	4	0		0	215	0	0	0	215	0	
8:15AM	3	0	0	0	2	5	0		0	205	0	0	0	205	0	
Total	9	0	1	0	3	13	0		3	865	0	0	0	868	0	
% Approach	69.2%	0%	7.7%	0%	23.1%	-	-		0.3%	99.7%	0%	0%	0%	-	-	
% Total	0.7%	0%	0.1%	0%	0.2%	1.0%	-		0.2%	65.5%	0%	0%	0%	65.7%	-	
PHF	0.750	-	0.250	-	0.375	0.650	-		0.375	0.948	-	-	-	0.943	-	
Lights	9	0	1	0	3	13	-		3	845	0	0	0	848	-	
% Lights	100%	0%	100%	0%	100%	100%	-		100%	97.7%	0%	0%	0%	97.7%	-	
Articulated Trucks	0	0	0	0	0	0	-		0	8	0	0	0	8	-	
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-		0%	0.9%	0%	0%	0%	0.9%	-	
Buses and Single-Unit Trucks	0	0	0	0	0	0	-		0	12	0	0	0	12	-	
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-		0%	1.4%	0%	0%	0%	1.4%	-	
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

AM Peak (Jan 31 2019 7:30AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Lower York Road Westbound							Gazebo Place Northeastbound							
Time	BL	T	R	U	RR	App	Ped*	HL	BL	BR	U	BRR	App	Ped*	Int
2019-01-31 7:30AM	0	105	2	0	0	107	0	1	0	0	0	0	1	0	329
7:45AM	0	98	1	0	0	99	0	0	0	0	0	0	0	0	330
8:00AM	0	108	2	0	0	110	0	0	0	0	0	0	0	0	329
8:15AM	0	122	1	0	0	123	0	0	0	0	0	0	0	0	333
Total	0	433	6	0	0	439	0	1	0	0	0	0	1	0	1321
% Approach	0%	98.6%	1.4%	0%	0%	-	-	100%	0%	0%	0%	0%	-	-	-
% Total	0%	32.8%	0.5%	0%	0%	33.2%	-	0.1%	0%	0%	0%	0%	0.1%	-	-
PHF	-	0.887	0.750	-	-	0.892	-	0.250	-	-	-	-	0.250	-	0.992
Lights	0	414	6	0	0	420	-	1	0	0	0	0	1	-	1282
% Lights	0%	95.6%	100%	0%	0%	95.7%	-	100%	0%	0%	0%	0%	100%	-	97.0%
Articulated Trucks	0	9	0	0	0	9	-	0	0	0	0	0	0	-	17
% Articulated Trucks	0%	2.1%	0%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	0%	-	1.3%
Buses and Single-Unit Trucks	0	10	0	0	0	10	-	0	0	0	0	0	0	-	22
% Buses and Single-Unit Trucks	0%	2.3%	0%	0%	0%	2.3%	-	0%	0%	0%	0%	0%	0%	-	1.7%
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Cherry Hill, NJ, 08003, US

Cherry Hill, NJ, 08003, US



In: 13 Out: 9



5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Shire Dive Southbound							Lower York Road Eastbound						
Time	L	BR	R	U	RR	App	Ped*	L	T	HR	U	HRR	App	Ped*
2019-01-31 5:00PM	0	0	1	0	1	2	0	1	157	0	0	0	158	0
5:15PM	3	0	1	0	0	4	0	1	165	0	0	0	166	0
5:30PM	1	0	0	0	0	1	0	0	138	1	0	0	139	0
5:45PM	1	0	1	0	1	3	0	3	182	0	1	0	186	0
Total	5	0	3	0	2	10	0	5	642	1	1	0	649	0
% Approach	50.0%	0%	30.0%	0%	20.0%	-	-	0.8%	98.9%	0.2%	0.2%	0%	-	-
% Total	0.3%	0%	0.2%	0%	0.1%	0.6%	-	0.3%	41.7%	0.1%	0.1%	0%	42.1%	-
PHF	0.417	-	0.750	-	0.500	0.625	-	0.417	0.882	0.250	0.250	-	0.872	-
Lights	5	0	3	0	2	10	-	5	631	1	1	0	638	-
% Lights	100%	0%	100%	0%	100%	100%	-	100%	98.3%	100%	100%	0%	98.3%	-
Articulated Trucks	0	0	0	0	0	0	-	0	4	0	0	0	4	-
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0%	0.6%	-
Buses and Single-Unit Trucks	0	0	0	0	0	0	-	0	7	0	0	0	7	-
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	0%	1.1%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Lower York Road Westbound								Gazebo Place Northeastbound								
Time	BL	T	R	U	RR	App	Ped*		HL	BL	BR	U	BRR	App	Ped*		Int
2019-01-31 5:00PM	0	220	0	0	0	220	3		0	1	0	0	1	2	0		382
5:15PM	0	218	3	0	0	221	0		0	0	0	0	0	0	0		391
5:30PM	1	236	1	0	0	238	0		0	0	0	0	0	0	0		378
5:45PM	0	198	0	0	0	198	0		1	0	0	0	1	2	0		389
Total	1	872	4	0	0	877	3		1	1	0	0	2	4	0		1540
% Approach	0.1%	99.4%	0.5%	0%	0%	-	-		25.0%	25.0%	0%	0%	50.0%	-	-		-
% Total	0.1%	56.6%	0.3%	0%	0%	56.9%	-		0.1%	0.1%	0%	0%	0.1%	0.3%	-		-
PHF	0.250	0.924	0.333	-	-	0.921	-		0.250	0.250	-	-	0.500	0.500	-		0.985
Lights	1	858	4	0	0	863	-		1	1	0	0	2	4	-		1515
% Lights	100%	98.4%	100%	0%	0%	98.4%	-		100%	100%	0%	0%	100%	100%	-		98.4%
Articulated Trucks	0	2	0	0	0	2	-		0	0	0	0	0	0	-		6
% Articulated Trucks	0%	0.2%	0%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	0%	-		0.4%
Buses and Single-Unit Trucks	0	12	0	0	0	12	-		0	0	0	0	0	0	-		19
% Buses and Single-Unit Trucks	0%	1.4%	0%	0%	0%	1.4%	-		0%	0%	0%	0%	0%	0%	-		1.2%
Pedestrians	-	-	-	-	-	-	3		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	100%		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	0%		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Thu Jan 31, 2019

PM Peak (Jan 31 2019 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

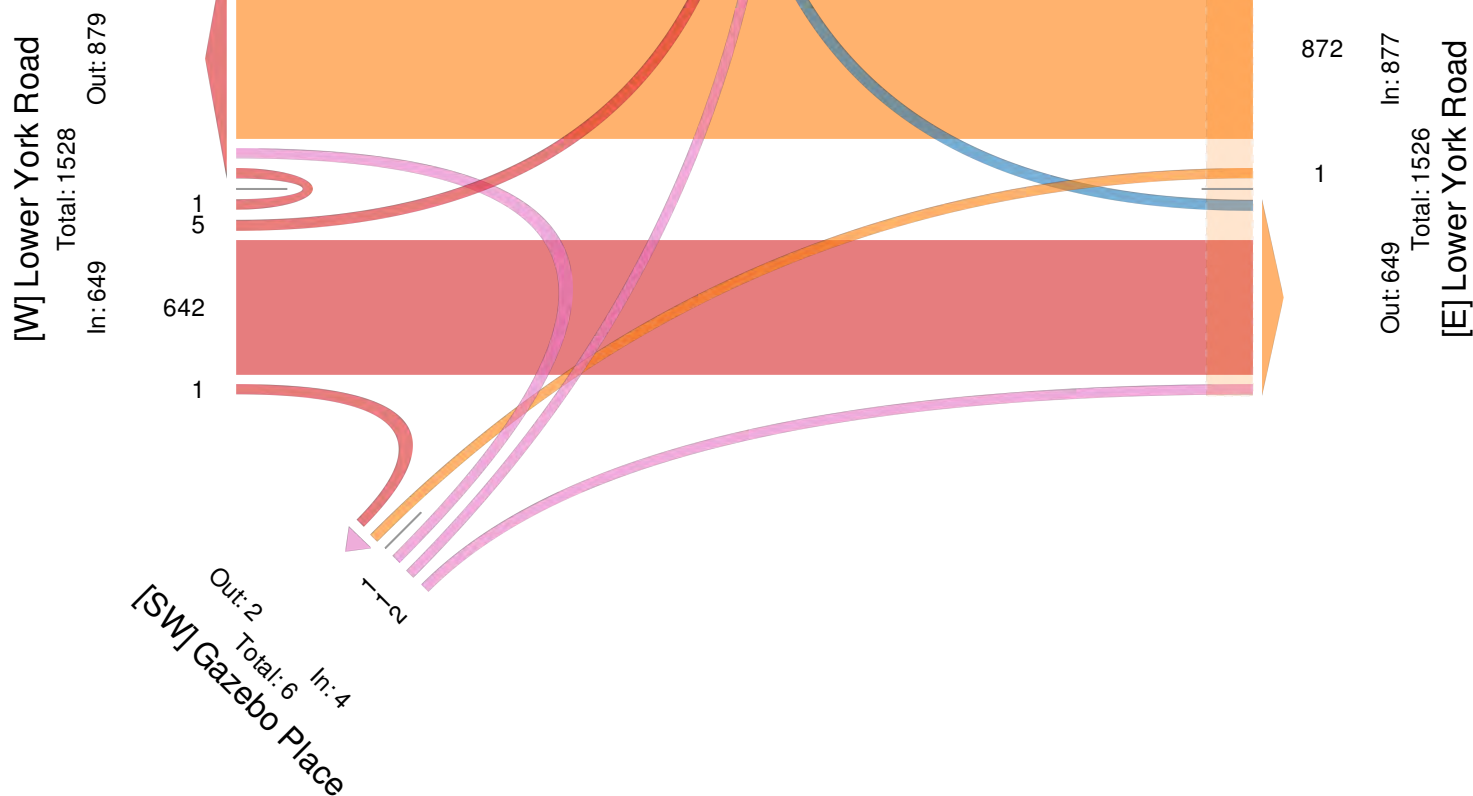
Cherry Hill, NJ, 08003, US

[N] Shire Dive

Total: 20

In: 10 Out: 10

50



5a. Lower York Road & Shire Drive - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 12PM - 1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Shire Dive Southbound							Lower York Road Eastbound						
Time	L	BR	R	U	RR	App	Ped*	L	T	HR	U	HRR	App	Ped*
2019-02-02 12:00PM	4	0	2	0	1	7	0	1	182	1	0	1	185	0
12:15PM	4	0	0	0	0	4	0	3	185	0	0	0	188	0
12:30PM	3	0	0	0	0	3	0	0	173	0	0	0	173	0
12:45PM	1	0	1	0	1	3	0	0	171	0	0	0	171	0
Total	12	0	3	0	2	17	0	4	711	1	0	1	717	0
% Approach	70.6%	0%	17.6%	0%	11.8%	-	-	0.6%	99.2%	0.1%	0%	0.1%	-	-
% Total	0.8%	0%	0.2%	0%	0.1%	1.1%	-	0.3%	48.1%	0.1%	0%	0.1%	48.5%	-
PHF	0.750	-	0.375	-	0.500	0.607	-	0.333	0.961	0.250	-	0.250	0.953	-
Lights	12	0	3	0	2	17	-	4	699	1	0	1	705	-
% Lights	100%	0%	100%	0%	100%	100%	-	100%	98.3%	100%	0%	100%	98.3%	-
Articulated Trucks	0	0	0	0	0	0	-	0	3	0	0	0	3	-
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0%	0.4%	-
Buses and Single-Unit Trucks	0	0	0	0	0	0	-	0	9	0	0	0	9	-
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	0%	1.3%	-
Pedestrians	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	-	0	-	-	-	-	-	-	0
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 12PM - 1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

Collection

PO Box 4637,

Cherry Hill, NJ, 08003, US

Leg Direction	Lower York Road Westbound								Gazebo Place Northeastbound								
Time	BL	T	R	U	RR	App	Ped*		HL	BL	BR	U	BRR	App	Ped*		Int
2019-02-02 12:00PM	0	185	3	0	0	188	0		0	0	1	0	0	1	0		381
12:15PM	0	183	4	0	0	187	0		0	0	0	0	0	0	0		379
12:30PM	2	167	5	0	0	174	0		0	0	0	0	2	2	0		352
12:45PM	3	183	3	0	0	189	0		0	0	3	0	1	4	0		367
Total	5	718	15	0	0	738	0		0	0	4	0	3	7	0		1479
% Approach	0.7%	97.3%	2.0%	0%	0%	-	-		0%	0%	57.1%	0%	42.9%	-	-		-
% Total	0.3%	48.5%	1.0%	0%	0%	49.9%	-		0%	0%	0.3%	0%	0.2%	0.5%	-		-
PHF	0.417	0.970	0.750	-	-	0.976	-		-	-	0.333	-	0.375	0.438	-		0.970
Lights	4	712	15	0	0	731	-		0	0	3	0	3	6	-		1459
% Lights	80.0%	99.2%	100%	0%	0%	99.1%	-		0%	0%	75.0%	0%	100%	85.7%	-		98.6%
Articulated Trucks	0	0	0	0	0	0	-		0	0	0	0	0	0	-		3
% Articulated Trucks	0%	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	0%	-		0.2%
Buses and Single-Unit Trucks	1	6	0	0	0	7	-		0	0	1	0	0	1	-		17
% Buses and Single-Unit Trucks	20.0%	0.8%	0%	0%	0%	0.9%	-		0%	0%	25.0%	0%	0%	14.3%	-		1.1%
Pedestrians	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Pedestrians	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-
Bicycles on Crosswalk	-	-	-	-	-	-	0		-	-	-	-	-	-	0		-
% Bicycles on Crosswalk	-	-	-	-	-	-	-		-	-	-	-	-	-	-		-

*Pedestrians and Bicycles on Crosswalk. BL: Bear left, BR: Bear right, BRR: Bear right on red, HL: Hard left, HR: Hard right, HRR: Hard right on red, L: Left, R: Right, RR: Right on red, T: Thru, U: U-Turn

5a. Lower York Road & Shire Drive - TMC

Sat Feb 2, 2019

Midday Peak (WKND) (Feb 02 2019 12PM - 1 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 616370, Location: 40.35925, -74.977244, Site Code: 5

Provided by: Imperial Traffic & Data

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PO Box 4637,

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[N] Shire Dive

Total: 36

In: 17 Out: 19

5 12

[W] Lower York Road

Total: 1440

In: 717

Out: 723

4

711

2

Out: 7
Total: 14
In: 7
[SW] Gazebo Place

15

718

5

Out: 730 In: 738

Total: 1468

[E] Lower York Road



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Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

Count Name: 5b. Lower York Road & Logan
Square
Site Code: 5
Start Date: 01/31/2019
Page No: 1

Turning Movement Data

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Logan Square Northbound							Shire Dive Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	0	0	164	5	0	0	169	0	5	86	0	0	0	91	0	1	0	0	2	0	3	0	2	0	0	0	0	2	265
7:15 AM	0	0	196	4	0	0	200	0	9	73	0	0	0	82	0	3	0	0	9	0	12	0	3	0	0	1	0	4	298
7:30 AM	0	1	207	9	0	0	217	0	7	104	2	0	0	113	0	2	0	3	1	0	6	0	1	1	0	1	0	3	339
7:45 AM	0	2	224	7	0	0	233	0	2	92	1	0	0	95	0	4	0	3	6	0	13	0	1	0	0	0	0	1	342
Hourly Total	0	3	791	25	0	0	819	0	23	355	3	0	0	381	0	10	0	6	18	0	34	0	7	1	0	2	0	10	1244
8:00 AM	0	0	199	15	0	0	214	0	8	104	1	0	0	113	0	6	1	2	6	0	15	0	3	0	2	0	0	5	347
8:15 AM	0	0	198	9	0	0	207	0	9	117	1	0	0	127	0	5	0	4	4	0	13	0	3	0	1	1	0	5	352
8:30 AM	0	0	200	10	1	0	211	0	7	96	1	0	0	104	0	5	0	3	8	0	16	0	3	0	0	2	0	5	336
8:45 AM	0	0	175	14	0	0	189	0	12	86	4	0	0	102	0	4	0	0	14	0	18	0	1	0	1	0	0	2	311
Hourly Total	0	0	772	48	1	0	821	0	36	403	7	0	0	446	0	20	1	9	32	0	62	0	10	0	4	3	0	17	1346
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	122	19	3	0	144	0	34	177	3	0	0	214	0	23	2	25	15	0	65	0	1	0	1	0	0	2	425
4:15 PM	0	0	106	20	0	0	126	0	44	178	1	0	0	223	0	26	1	10	29	0	66	0	1	1	0	0	0	2	417
4:30 PM	0	2	135	27	1	2	165	0	29	180	3	0	0	212	0	30	0	25	24	0	79	0	0	1	0	0	0	1	457
4:45 PM	0	1	124	21	1	0	147	0	25	191	5	0	0	221	0	26	0	15	33	0	74	0	0	0	2	0	0	2	444
Hourly Total	0	3	487	87	5	2	582	0	132	726	12	0	0	870	0	105	3	75	101	0	284	0	2	2	3	0	0	7	1743
5:00 PM	0	1	132	25	3	3	161	0	23	186	0	0	0	209	0	38	0	9	27	0	74	0	0	0	0	2	0	2	446
5:15 PM	0	1	137	24	2	0	164	0	34	207	2	0	0	243	0	21	0	10	30	0	61	0	2	1	1	0	0	4	472
5:30 PM	0	0	116	23	0	0	139	0	29	209	1	0	0	239	0	35	0	10	29	0	74	0	1	0	0	0	0	1	453
5:45 PM	1	3	171	14	0	0	189	0	20	186	1	0	0	207	0	27	0	13	24	0	64	0	0	1	0	1	0	2	462
Hourly Total	1	5	556	86	5	3	653	0	106	788	4	0	0	898	0	121	0	42	110	0	273	0	3	2	1	3	0	9	1833
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	0	146	30	0	0	176	0	40	112	0	0	0	152	0	23	1	28	31	0	83	0	2	2	0	1	0	5	416
11:15 AM	0	1	140	12	0	0	153	0	34	131	0	0	0	165	0	26	1	30	22	0	79	0	1	2	0	0	0	3	400
11:30 AM	1	0	177	22	1	0	201	0	46	120	4	0	0	170	0	34	1	29	30	0	94	0	2	0	0	1	0	3	468
11:45 AM	1	0	159	34	0	0	194	0	49	118	1	0	0	168	1	15	0	31	23	0	70	0	0	1	0	0	0	1	433
Hourly Total	2	1	622	98	1	0	724	0	169	481	5	0	0	655	1	98	3	118	106	0	326	0	5	5	0	2	0	12	1717
12:00 PM	0	1	151	32	0	0	184	0	53	159	2	0	0	214	0	26	1	17	27	0	71	0	3	1	1	2	0	7	476
12:15 PM	0	3	146	39	0	0	188	0	39	155	4	0	0	198	0	30	0	20	36	0	86	0	4	0	0	0	0	4	476
12:30 PM	0	0	137	34	0	0	171	0	50	144	4	0	0	198	0	26	1	23	38	0	88	0	2	1	0	0	0	3	460
12:45 PM	0	0	149	25	1	0	175	0	49	155	2	0	0	206	0	26	1	24	33	0	84	0	0	1	0	2	0	3	468
Hourly Total	0	4	583	130	1	0	718	0	191	613	12	0	0	816	0	108	3	84	134	0	329	0	9	3	1	4	0	17	1880
Grand Total	3	16	3811	474	13	5	4317	0	657	3366	43	0	0	4066	1	462	10	334	501	0	1308	0	36	13	9	14	0	72	9763
Approach %	0.1	0.4	88.3	11.0	0.3	-	-	0.0	16.2	82.8	1.1	0.0	-	-	0.1	35.3	0.8	25.5	38.3	-	-	0.0	50.0	18.1	12.5	19.4	-	-	-
Total %	0.0	0.2	39.0	4.9	0.1	-	44.2	0.0	6.7	34.5	0.4	0.0	-	41.6	0.0	4.7	0.1	3.4	5.1	-	13.4	0.0	0.4	0.1	0.1	0.1	-	0.7	-
Lights	3	16	3715	465	12	-	4211	0	655	3286	41	0	-	3982	1	448	10	333	501	-	1293	0	36	12	8	14	-	70	9556
% Lights	100.0	100.0	97.5	98.1	92.3	-	97.5	-	99.7	97.6	95.3	-	-	97.9	100.0	97.0	100.0	99.7	100.0	-	98.9	-	100.0	92.3	88.9	100.0	-	97.2	97.9

[illegible]

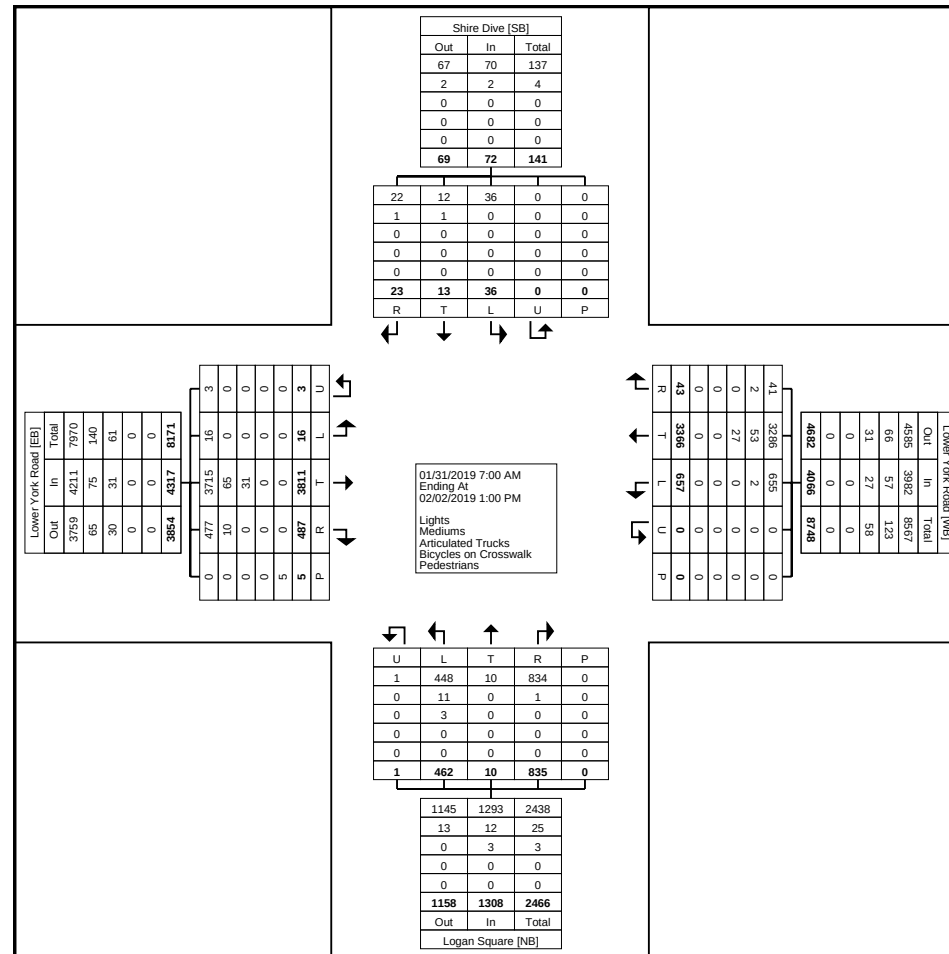


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

Count Name: 5b. Lower York Road & Logan
Square
Site Code: 5
Start Date: 01/31/2019
Page No: 3



Turning Movement Data Plot



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

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Count Name: 5b. Lower York Road & Logan Square
Site Code: 5
Start Date: 01/31/2019
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

[illegible]



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Setup: MAK

Location: 40.35925, -74.977244

Square

Site Code: 5

Start Date: 01/31/2019

Page No: 5



01/31/2019 7:30 AM
Ending At
01/31/2019 8:30 AM

Lights
Mediums
Articulated Trucks
Bicycles on Crosswalk
Pedestrians

Turning Movement Peak Hour Data Plot (7:30 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

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Count Name: 5b. Lower York Road & Logan Square
Site Code: 5
Start Date: 01/31/2019
Page No: 6

Turning Movement Peak Hour Data (5:00 PM)

[illegible]

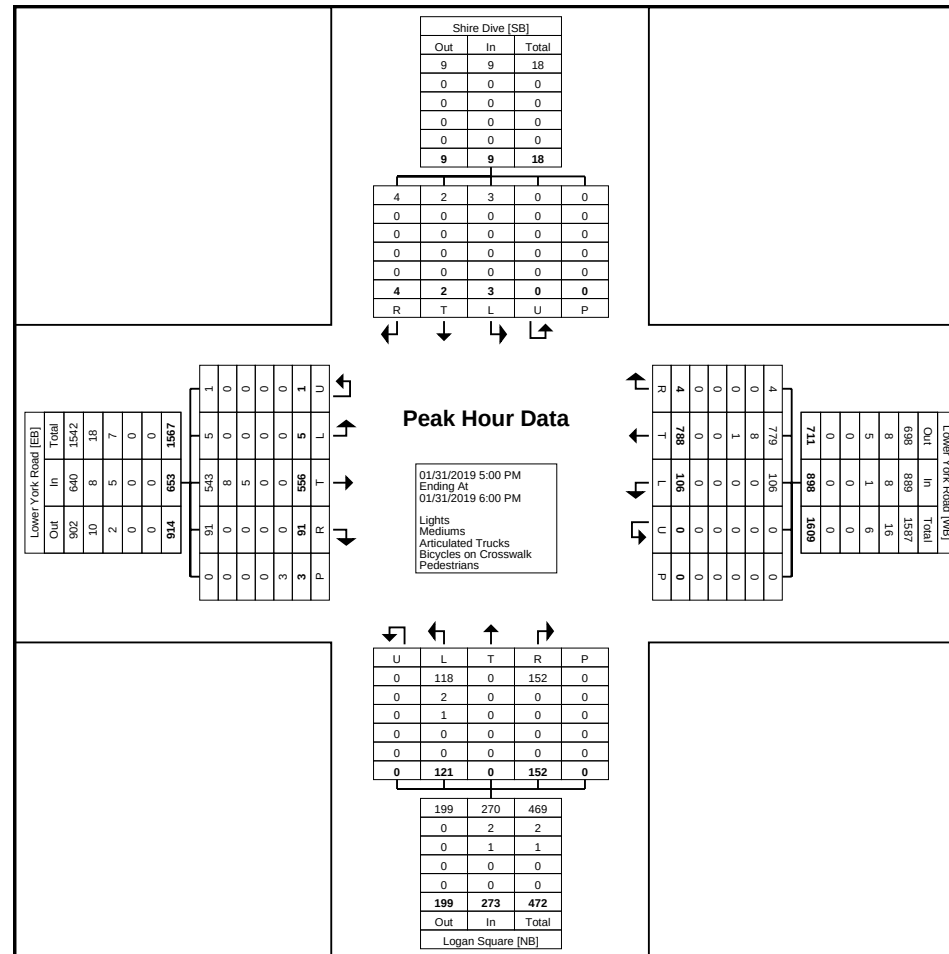


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

Count Name: 5b. Lower York Road & Logan
Square
Site Code: 5
Start Date: 01/31/2019
Page No: 7



Turning Movement Peak Hour Data Plot (5:00 PM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.35925, -74.977244

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Count Name: 5b. Lower York Road & Logan Square
Site Code: 5
Start Date: 01/31/2019
Page No: 8

Turning Movement Peak Hour Data (12:00 PM)

[illegible]

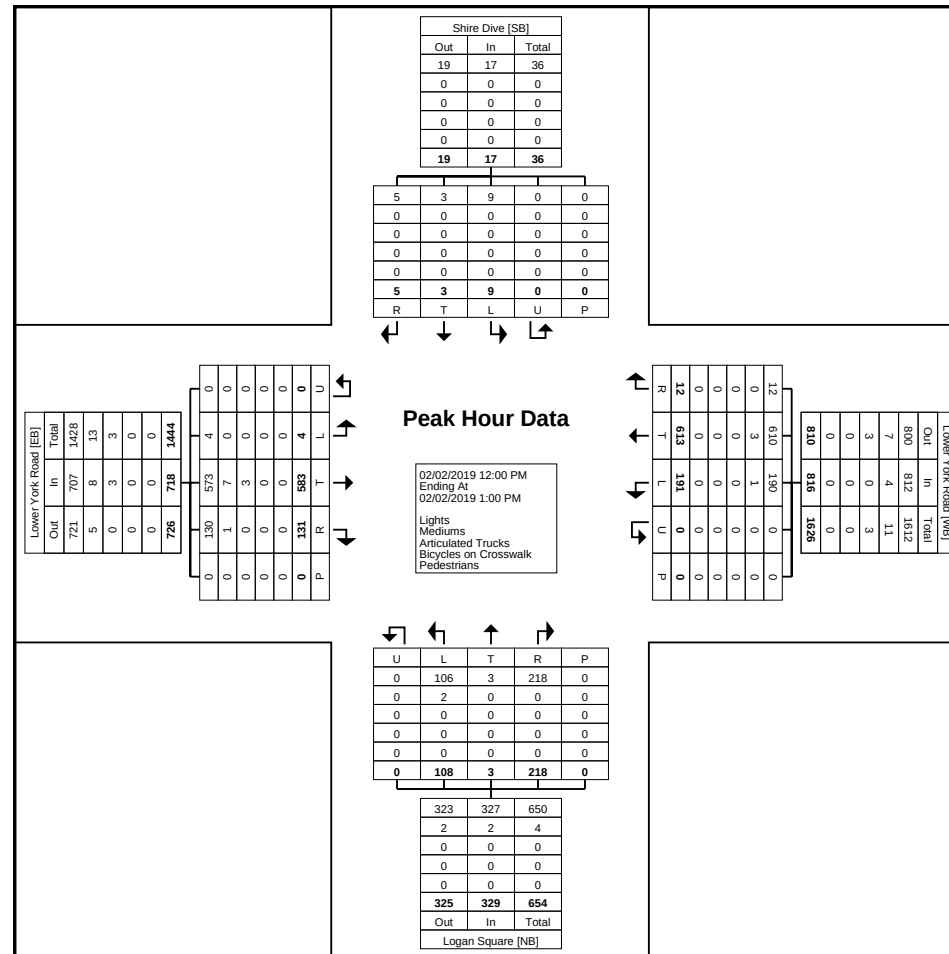


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Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.35925, -74.977244

Count Name: 5b. Lower York Road & Logan Square
Site Code: 5
Start Date: 01/31/2019
Page No: 9



Turning Movement Peak Hour Data Plot (12:00 PM)



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Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.361318, -74.971644

Count Name: 6. Lower York Road & Kitchens Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 1

Turning Movement Data

Start Time	Lower York Road Eastbound						Lower York Road Westbound						Route 179 Northbound						Kitchens Lane Southbound						Int. Total			
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right		Right on Red	Peds	App. Total
7:00 AM	0	2	117	0	0	119	0	0	56	0	0	0	56	0	30	0	0	1	0	31	1	3	5	5	4	0	18	224
7:15 AM	0	2	124	0	0	126	0	0	50	0	0	0	50	0	30	1	1	0	0	32	0	3	6	7	1	0	17	225
7:30 AM	0	2	138	0	0	140	0	0	78	0	0	0	78	0	34	1	1	1	0	37	0	4	7	7	3	0	21	276
7:45 AM	0	1	152	0	0	153	0	0	72	0	0	0	72	0	22	0	0	2	0	24	0	2	1	4	3	0	10	259
Hourly Total	0	7	531	0	0	538	0	0	256	0	0	0	256	0	116	2	2	4	0	124	1	12	19	23	11	0	66	984
8:00 AM	0	0	135	0	0	135	0	0	70	0	0	0	70	0	41	3	0	0	0	44	0	2	9	3	12	0	26	275
8:15 AM	0	3	110	1	0	114	0	1	75	0	0	0	76	0	59	2	1	0	0	62	0	4	13	5	5	0	27	279
8:30 AM	0	3	110	0	0	113	0	0	51	1	0	0	52	0	53	3	2	2	0	60	0	3	6	5	7	0	21	246
8:45 AM	0	5	93	0	0	98	0	0	70	2	0	0	72	0	41	1	0	1	0	43	0	1	7	1	10	0	19	232
Hourly Total	0	11	448	1	0	460	0	1	266	3	0	0	270	0	194	9	3	3	0	209	0	10	35	14	34	0	93	1032
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	13	83	0	0	96	0	2	110	1	1	0	114	0	108	6	1	0	0	115	0	2	2	3	5	0	12	337
4:15 PM	0	10	69	0	0	79	0	2	126	0	1	0	129	0	122	3	1	2	0	128	0	0	4	4	8	0	16	352
4:30 PM	0	21	78	0	0	99	0	0	123	1	0	0	124	0	116	6	2	1	0	125	0	0	4	8	14	0	26	374
4:45 PM	0	16	93	0	0	109	0	0	119	2	0	0	121	0	119	7	0	1	0	127	0	1	5	8	2	0	16	373
Hourly Total	0	60	323	0	0	383	0	4	478	4	2	0	488	0	465	22	4	4	0	495	0	3	15	23	29	0	70	1436
5:00 PM	0	18	92	0	0	110	0	0	115	1	0	0	116	0	113	9	2	0	0	124	0	0	5	6	7	0	18	368
5:15 PM	0	28	91	0	0	119	0	2	131	3	2	0	138	0	125	6	0	0	0	131	0	0	5	15	0	0	20	408
5:30 PM	0	27	74	0	0	101	0	1	140	0	1	0	142	0	125	7	0	0	0	132	0	4	1	17	0	0	22	397
5:45 PM	0	19	110	0	0	129	0	0	103	2	0	0	105	0	100	9	1	0	0	110	0	1	1	11	0	0	13	357
Hourly Total	0	92	367	0	0	459	0	3	489	6	3	0	501	0	463	31	3	0	0	497	0	5	12	49	7	0	73	1530
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	10	80	1	0	91	0	2	65	1	1	0	69	0	101	8	1	0	0	110	0	2	2	8	8	0	20	290
11:15 AM	0	17	82	0	0	99	0	1	93	4	2	0	100	0	90	5	2	2	0	99	0	4	4	5	11	0	24	322
11:30 AM	0	21	109	0	0	130	0	0	89	1	0	0	90	0	97	7	1	1	0	106	0	2	6	15	7	0	30	356
11:45 AM	1	16	99	0	0	116	0	2	77	0	0	0	79	0	107	8	1	1	0	117	0	4	4	6	9	0	23	335
Hourly Total	1	64	370	1	0	436	0	5	324	6	3	0	338	0	395	28	5	4	0	432	0	12	16	34	35	0	97	1303
12:00 PM	0	9	75	0	0	84	1	2	105	1	1	0	110	0	132	8	1	0	0	141	0	1	9	19	3	0	32	367
12:15 PM	0	20	89	0	0	109	0	0	74	3	1	0	78	0	124	9	2	1	0	136	0	2	6	11	13	0	32	355
12:30 PM	0	21	85	0	0	106	0	1	82	0	0	0	83	3	133	3	0	0	0	139	0	2	4	10	5	0	21	349
12:45 PM	0	14	113	0	0	127	0	1	109	0	0	0	110	0	107	1	0	1	0	109	0	6	4	12	8	0	30	376
Hourly Total	0	64	362	0	0	426	1	4	370	4	2	0	381	3	496	21	3	2	0	525	0	11	23	52	29	0	115	1447
Grand Total	1	298	2401	2	0	2702	1	17	2183	23	10	0	2234	3	2129	113	20	17	0	2282	1	53	120	195	145	0	514	7732
Approach %	0.0	11.0	88.9	0.1	-	-	0.0	0.8	97.7	1.0	0.4	-	-	0.1	93.3	5.0	0.9	0.7	-	-	0.2	10.3	23.3	37.9	28.2	-	-	-
Total %	0.0	3.9	31.1	0.0	-	34.9	0.0	0.2	28.2	0.3	0.1	-	28.9	0.0	27.5	1.5	0.3	0.2	-	29.5	0.0	0.7	1.6	2.5	1.9	-	6.6	-
Lights	1	296	2328	2	-	2627	1	14	2117	22	10	-	2164	3	2102	111	18	15	-	2249	1	53	119	193	143	-	509	7549
% Lights	100.0	99.3	97.0	100.0	-	97.2	100.0	82.4	97.0	95.7	100.0	-	96.9	100.0	98.7	98.2	90.0	88.2	-	98.6	100.0	100.0	99.2	99.0	98.6	-	99.0	97.6

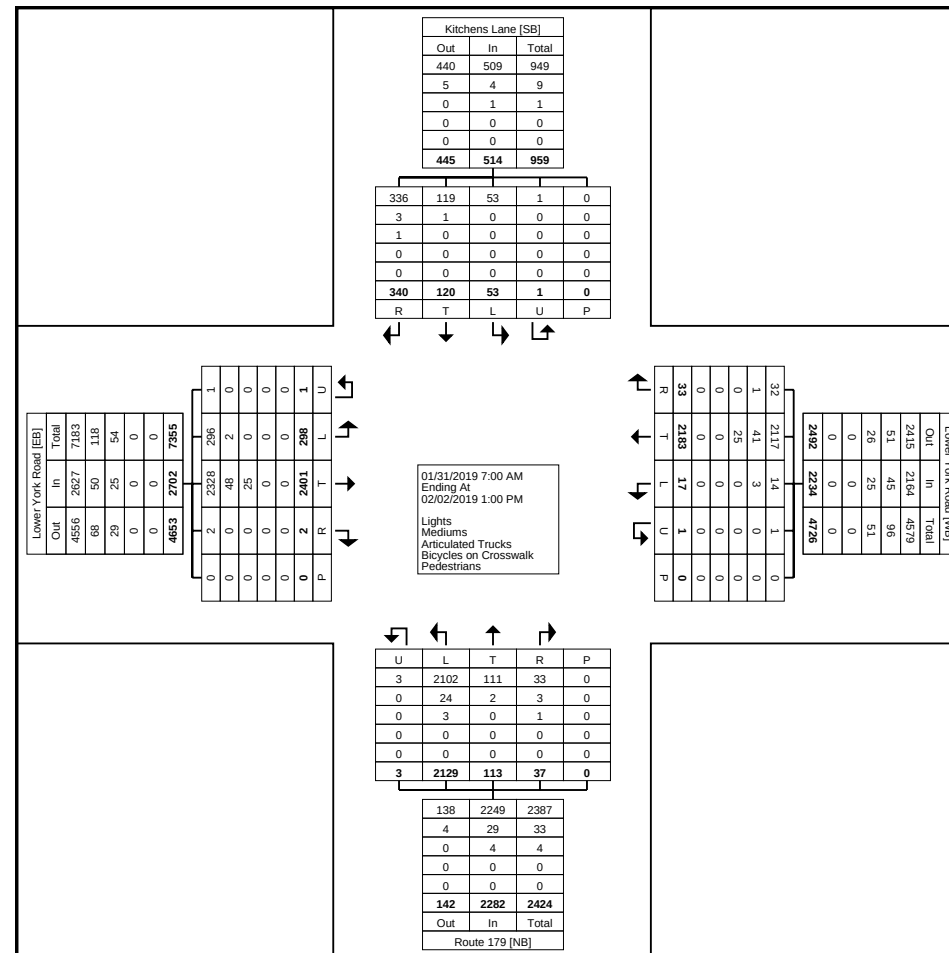
[illegible]



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.361318, -74.971644

Imperial Traffic & Data Collection
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PO BOX 4637
Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 3



Turning Movement Data Plot



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

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Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

[illegible]

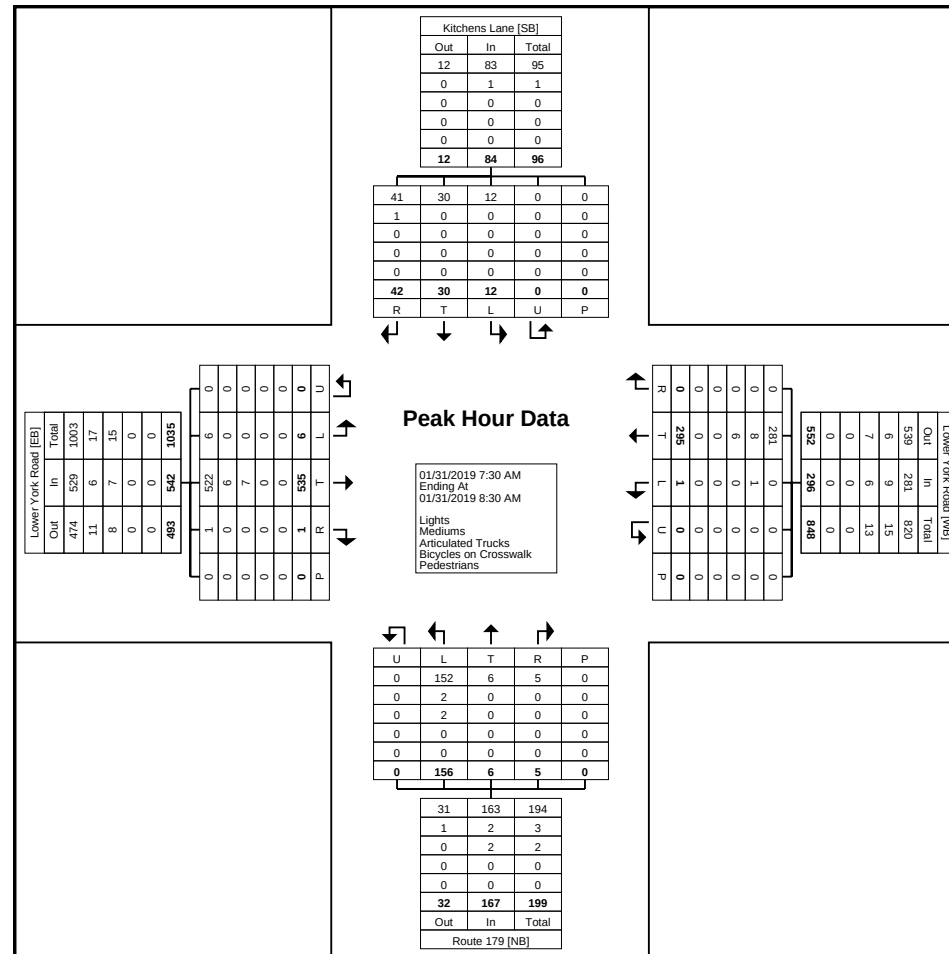


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 5



Turning Movement Peak Hour Data Plot (7:30 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

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Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 6

Turning Movement Peak Hour Data (4:45 PM)

[illegible]

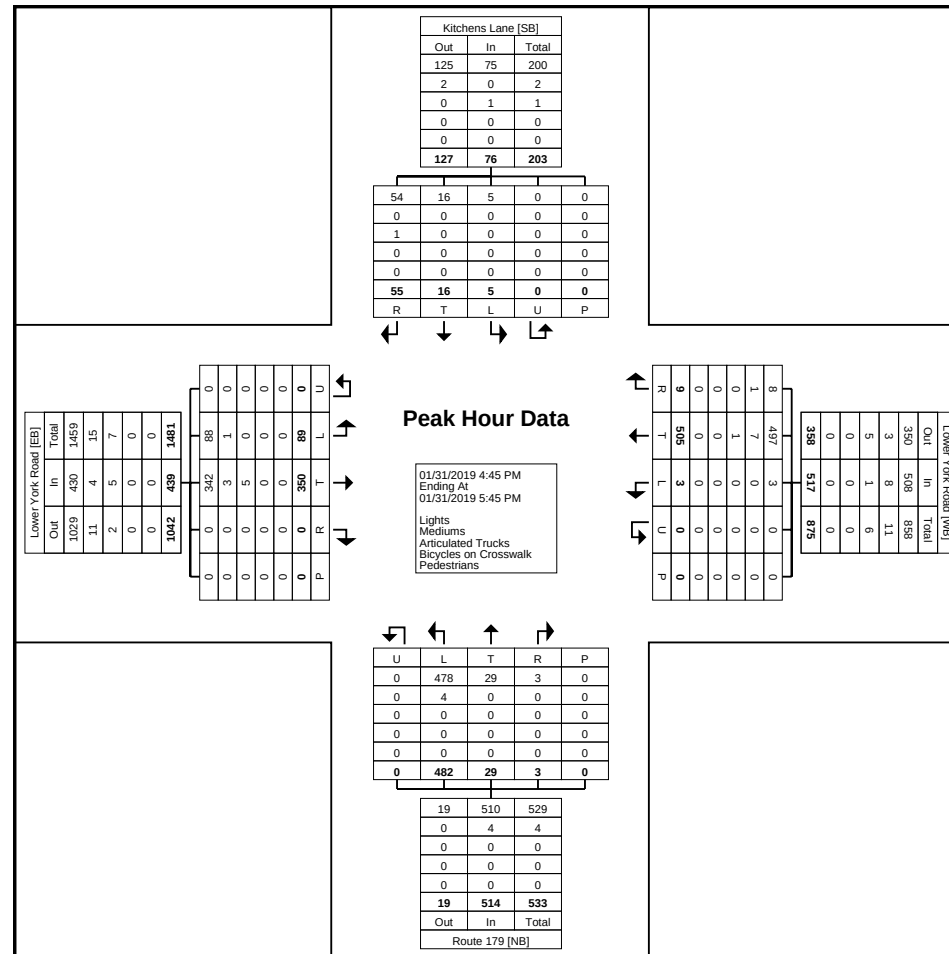


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 7



Turning Movement Peak Hour Data Plot (4:45 PM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.361318, -74.971644

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Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 8

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Lower York Road Eastbound						Lower York Road Westbound						Route 179 Northbound						Kitchens Lane Southbound						Int. Total			
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right		Right on Red	Peds	App. Total
12:00 PM	0	9	75	0	0	84	1	2	105	1	1	0	110	0	132	8	1	0	0	141	0	1	9	19	3	0	32	367
12:15 PM	0	20	89	0	0	109	0	0	74	3	1	0	78	0	124	9	2	1	0	136	0	2	6	11	13	0	32	355
12:30 PM	0	21	85	0	0	106	0	1	82	0	0	0	83	3	133	3	0	0	0	139	0	2	4	10	5	0	21	349
12:45 PM	0	14	113	0	0	127	0	1	109	0	0	0	110	0	107	1	0	1	0	109	0	6	4	12	8	0	30	376
Total	0	64	362	0	0	426	1	4	370	4	2	0	381	3	496	21	3	2	0	525	0	11	23	52	29	0	115	1447
Approach %	0.0	15.0	85.0	0.0	-	-	0.3	1.0	97.1	1.0	0.5	-	-	0.6	94.5	4.0	0.6	0.4	-	-	0.0	9.6	20.0	45.2	25.2	-	-	-
Total %	0.0	4.4	25.0	0.0	-	29.4	0.1	0.3	25.6	0.3	0.1	-	26.3	0.2	34.3	1.5	0.2	0.1	-	36.3	0.0	0.8	1.6	3.6	2.0	-	7.9	-
PHF	0.000	0.762	0.801	0.000	-	0.839	0.250	0.500	0.849	0.333	0.500	-	0.866	0.250	0.932	0.583	0.375	0.500	-	0.931	0.000	0.458	0.639	0.684	0.558	-	0.898	0.962
Lights	0	64	354	0	-	418	1	3	367	4	2	-	377	3	495	21	3	2	-	524	0	11	23	51	28	-	113	1432
% Lights	-	100.0	97.8	-	-	98.1	100.0	75.0	99.2	100.0	100.0	-	99.0	100.0	99.8	100.0	100.0	100.0	-	99.8	-	100.0	100.0	98.1	96.6	-	98.3	99.0
Mediums	0	0	5	0	-	5	0	1	3	0	0	-	4	0	1	0	0	0	-	1	0	0	0	1	1	-	2	12
% Mediums	-	0.0	1.4	-	-	1.2	0.0	25.0	0.8	0.0	0.0	-	1.0	0.0	0.2	0.0	0.0	0.0	-	0.2	-	0.0	0.0	1.9	3.4	-	1.7	0.8
Articulated Trucks	0	0	3	0	-	3	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	3
% Articulated Trucks	-	0.0	0.8	-	-	0.7	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

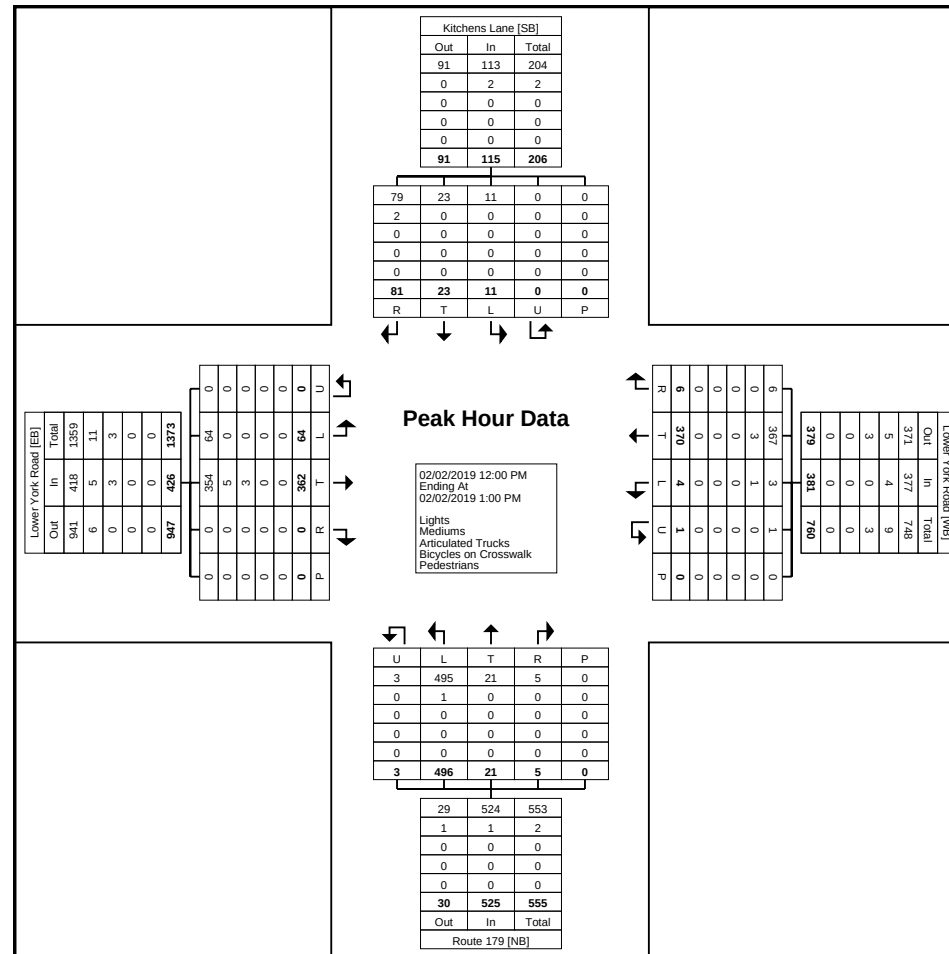


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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 9



Turning Movement Peak Hour Data Plot (12:00 PM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.361318, -74.971644

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Count Name: 6. Lower York Road & Kitchens
Lane/Route 179
Site Code: 6
Start Date: 01/31/2019
Page No: 10



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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sugan
Road
Site Code: 7
Start Date: 01/31/2019
Page No: 1

Turning Movement Data

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Sugan Road Northbound							Sugan Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
7:00 AM	0	1	114	1	0	0	116	0	0	55	0	0	0	55	0	4	5	6	17	0	32	0	5	17	0	0	0	22	225
7:15 AM	0	0	130	0	0	0	130	0	4	51	3	0	0	58	0	1	8	14	11	0	34	0	8	30	0	1	0	39	261
7:30 AM	0	0	137	2	1	0	140	0	12	68	0	0	0	80	0	2	7	24	21	0	54	0	15	22	0	1	0	38	312
7:45 AM	0	1	156	4	0	0	161	0	13	72	2	1	0	88	0	1	9	16	19	0	45	0	12	29	1	1	0	43	337
Hourly Total	0	2	537	7	1	0	547	0	29	246	5	1	0	281	0	8	29	60	68	0	165	0	40	98	1	3	0	142	1135
8:00 AM	0	2	138	0	0	0	140	0	10	65	1	0	0	76	0	3	4	7	13	0	27	0	9	14	1	0	0	24	267
8:15 AM	0	0	110	3	0	0	113	0	11	72	1	0	0	84	0	3	8	19	12	0	42	0	11	38	0	0	0	49	288
8:30 AM	0	0	111	3	0	0	114	0	8	45	0	0	0	53	0	5	8	13	18	0	44	0	14	32	0	3	0	49	260
8:45 AM	0	0	93	2	0	0	95	0	14	63	2	0	0	79	0	7	11	22	10	0	50	0	10	19	1	2	0	32	256
Hourly Total	0	2	452	8	0	0	462	0	43	245	4	0	0	292	0	18	31	61	53	0	163	0	44	103	2	5	0	154	1071
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	3	81	5	3	0	92	0	23	104	3	0	0	130	0	7	15	12	4	0	38	0	7	19	1	2	0	29	289
4:15 PM	0	5	68	0	0	0	73	0	34	119	7	0	1	160	0	12	52	18	4	0	86	0	5	19	3	0	1	27	346
4:30 PM	0	4	75	5	1	0	85	0	26	104	9	0	0	139	0	11	30	9	8	0	58	0	3	28	2	0	0	33	315
4:45 PM	0	6	84	4	1	0	95	0	28	114	7	0	0	149	0	10	26	13	5	0	54	0	8	28	0	1	0	37	335
Hourly Total	0	18	308	14	5	0	345	0	111	441	26	0	1	578	0	40	123	52	21	0	236	0	23	94	6	3	1	126	1285
5:00 PM	0	3	85	6	4	0	98	0	30	114	12	1	0	157	0	4	38	7	9	0	58	0	4	19	0	0	0	23	336
5:15 PM	0	3	85	2	0	0	90	0	35	129	11	1	2	176	0	5	31	7	7	0	50	0	5	23	0	1	1	29	345
5:30 PM	0	4	68	5	0	0	77	0	38	132	8	1	1	179	0	5	25	10	12	0	52	0	3	20	4	1	0	28	336
5:45 PM	0	4	106	3	0	0	113	0	22	98	7	0	0	127	0	3	28	8	10	0	49	0	7	24	2	1	0	34	323
Hourly Total	0	14	344	16	4	0	378	0	125	473	38	3	3	639	0	17	122	32	38	0	209	0	19	86	6	3	1	114	1340
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	3	81	5	0	0	89	0	22	52	11	0	5	85	0	13	39	27	9	0	88	0	13	30	2	4	3	49	311
11:15 AM	0	1	81	10	0	0	92	0	19	79	4	1	1	103	0	18	28	29	4	0	79	0	8	32	1	2	0	43	317
11:30 AM	0	5	96	9	0	0	110	0	20	71	4	0	0	95	0	13	43	26	4	0	86	0	5	24	0	3	0	32	323
11:45 AM	0	6	98	8	0	0	112	0	29	76	3	1	0	109	0	10	21	37	6	0	74	0	12	21	1	2	0	36	331
Hourly Total	0	15	356	32	0	0	403	0	90	278	22	2	6	392	0	54	131	119	23	0	327	0	38	107	4	11	3	160	1282
12:00 PM	0	1	80	5	0	0	86	0	15	82	8	1	2	106	0	12	19	17	6	0	54	0	7	19	1	1	0	28	274
12:15 PM	0	1	85	9	0	0	95	0	18	63	5	0	1	86	0	15	28	15	14	0	72	0	11	15	0	1	0	27	280
12:30 PM	0	9	75	1	0	0	85	0	19	69	3	0	3	91	0	10	31	16	9	0	66	0	4	41	1	4	0	50	292
12:45 PM	0	4	109	3	0	0	116	0	25	102	5	0	0	132	0	6	21	9	12	0	48	0	14	27	0	1	0	42	338
Hourly Total	0	15	349	18	0	0	382	0	77	316	21	1	6	415	0	43	99	57	41	0	240	0	36	102	2	7	0	147	1184
Grand Total	0	66	2346	95	10	0	2517	0	475	1999	116	7	16	2597	0	180	535	381	244	0	1340	0	200	590	21	32	5	843	7297
Approach %	0.0	2.6	93.2	3.8	0.4	-	-	0.0	18.3	77.0	4.5	0.3	-	-	0.0	13.4	39.9	28.4	18.2	-	-	0.0	23.7	70.0	2.5	3.8	-	-	-
Total %	0.0	0.9	32.2	1.3	0.1	-	34.5	0.0	6.5	27.4	1.6	0.1	-	35.6	0.0	2.5	7.3	5.2	3.3	-	18.4	0.0	2.7	8.1	0.3	0.4	-	11.6	-
Lights	0	64	2271	95	9	-	2439	0	466	1931	115	7	-	2519	0	178	533	376	243	-	1330	0	198	585	21	32	-	836	7124
% Lights	-	97.0	96.8	100.0	90.0	-	96.9	-	98.1	96.6	99.1	100.0	-	97.0	-	98.9	99.6	98.7	99.6	-	99.3	-	99.0	99.2	100.0	100.0	-	99.2	97.6

[illegible]



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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA

Setup: MAK

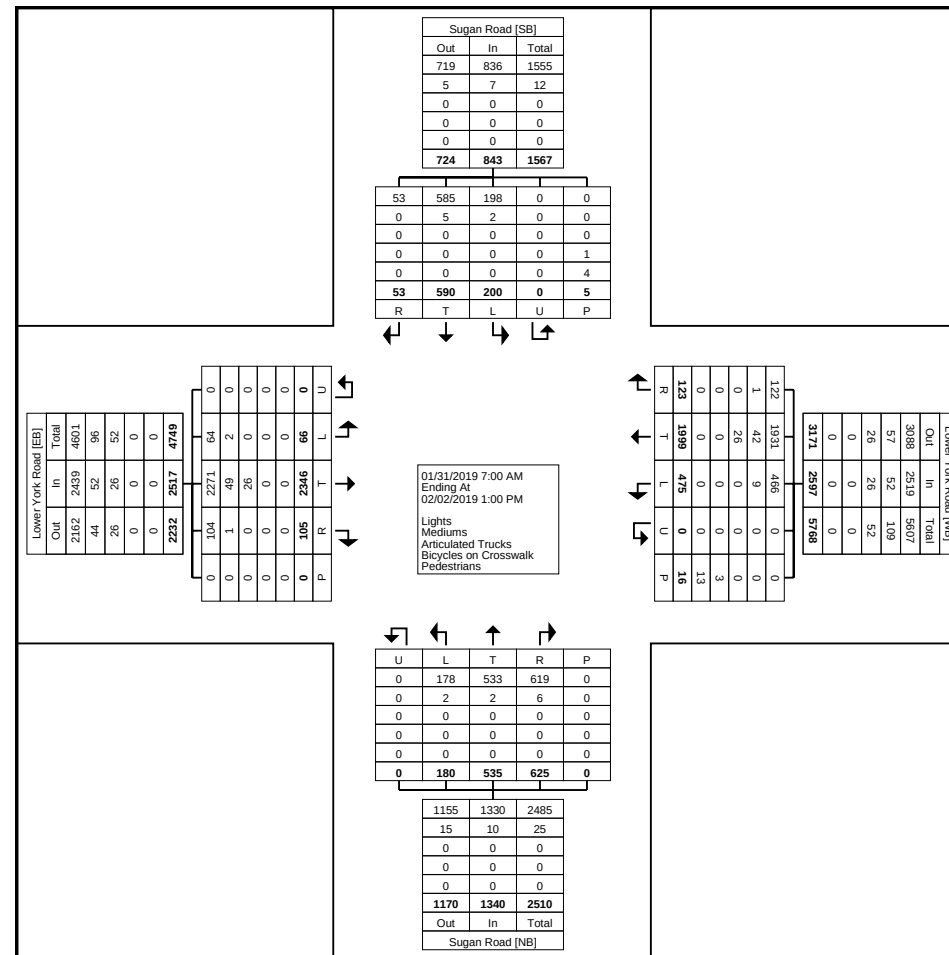
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sugan Road

Site Code: 7

Start Date: 01/31/2019

Page No: 3



Turning Movement Data Plot



Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.364516, -74.968653

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Count Name: 7. Lower York Road & Sujan
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Start Date: 01/31/2019
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

[illegible]

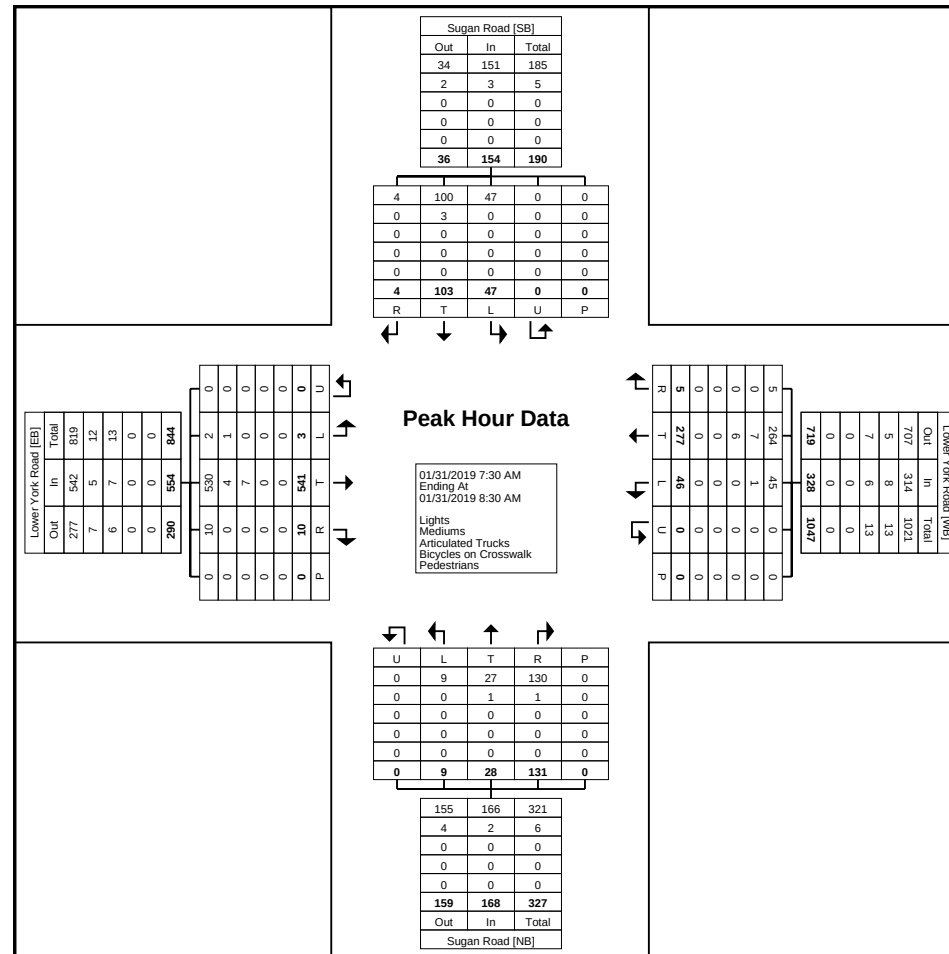


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PO BOX 4637

Cherry Hill, New Jersey, United States 08034
609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sugan Road
Road
Site Code: 7
Start Date: 01/31/2019
Page No: 5





Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.364516, -74.968653

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Count Name: 7. Lower York Road & Sujan
Road
Site Code: 7
Start Date: 01/31/2019
Page No: 6

Turning Movement Peak Hour Data (4:45 PM)

[illegible]



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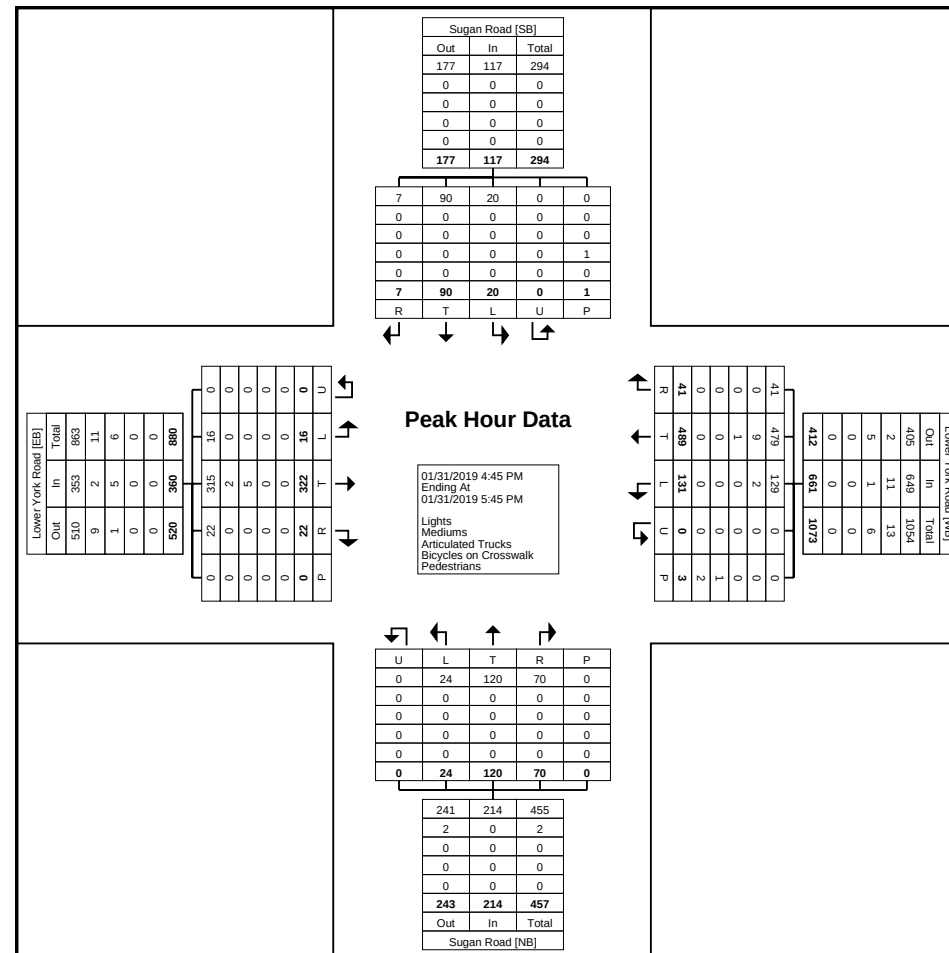
PO BOX 4637

Cherry Hill, New Jersey, United States 08034

609-706-6100 lklein@imperialtdc.com

Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sujan
Road
Site Code: 7
Start Date: 01/31/2019
Page No: 7



Turning Movement Peak Hour Data Plot (4:45 PM)



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Project: Lower York Road
Municipality: Solebury Township, Bucks County, PA
Setup: MAK
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sugan Road
Site Code: 7
Start Date: 01/31/2019
Page No: 8

Turning Movement Peak Hour Data (11:00 AM)

Start Time	Lower York Road Eastbound							Lower York Road Westbound							Sugan Road Northbound							Sugan Road Southbound							Int. Total
	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	U-Turn	Left	Thru	Right	Right on Red	Peds	App. Total	
11:00 AM	0	3	81	5	0	0	89	0	22	52	11	0	5	85	0	13	39	27	9	0	88	0	13	30	2	4	3	49	311
11:15 AM	0	1	81	10	0	0	92	0	19	79	4	1	1	103	0	18	28	29	4	0	79	0	8	32	1	2	0	43	317
11:30 AM	0	5	96	9	0	0	110	0	20	71	4	0	0	95	0	13	43	26	4	0	86	0	5	24	0	3	0	32	323
11:45 AM	0	6	98	8	0	0	112	0	29	76	3	1	0	109	0	10	21	37	6	0	74	0	12	21	1	2	0	36	331
Total	0	15	356	32	0	0	403	0	90	278	22	2	6	392	0	54	131	119	23	0	327	0	38	107	4	11	3	160	1282
Approach %	0.0	3.7	88.3	7.9	0.0	-	-	0.0	23.0	70.9	5.6	0.5	-	-	0.0	16.5	40.1	36.4	7.0	-	-	0.0	23.8	66.9	2.5	6.9	-	-	-
Total %	0.0	1.2	27.8	2.5	0.0	-	31.4	0.0	7.0	21.7	1.7	0.2	-	30.6	0.0	4.2	10.2	9.3	1.8	-	25.5	0.0	3.0	8.3	0.3	0.9	-	12.5	-
PHF	0.000	0.625	0.908	0.800	0.000	-	0.900	0.000	0.776	0.880	0.500	0.500	-	0.899	0.000	0.750	0.762	0.804	0.639	-	0.929	0.000	0.731	0.836	0.500	0.688	-	0.816	0.968
Lights	0	15	345	32	0	-	392	0	89	272	22	2	-	385	0	54	130	119	23	-	326	0	38	106	4	11	-	159	1262
% Lights	-	100.0	96.9	100.0	-	-	97.3	-	98.9	97.8	100.0	100.0	-	98.2	-	100.0	99.2	100.0	100.0	-	99.7	-	100.0	99.1	100.0	100.0	-	99.4	98.4
Mediums	0	0	6	0	0	-	6	0	1	4	0	0	-	5	0	0	1	0	0	-	1	0	0	1	0	0	-	1	13
% Mediums	-	0.0	1.7	0.0	-	-	1.5	-	1.1	1.4	0.0	0.0	-	1.3	-	0.0	0.8	0.0	0.0	-	0.3	-	0.0	0.9	0.0	0.0	-	0.6	1.0
Articulated Trucks	0	0	5	0	0	-	5	0	0	2	0	0	-	2	0	0	0	0	0	-	0	0	0	0	0	0	-	0	7
% Articulated Trucks	-	0.0	1.4	0.0	-	-	1.2	-	0.0	0.7	0.0	0.0	-	0.5	-	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.5
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	-	6	-	-	-	-	-	-	0	-	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA

Setup: MAK

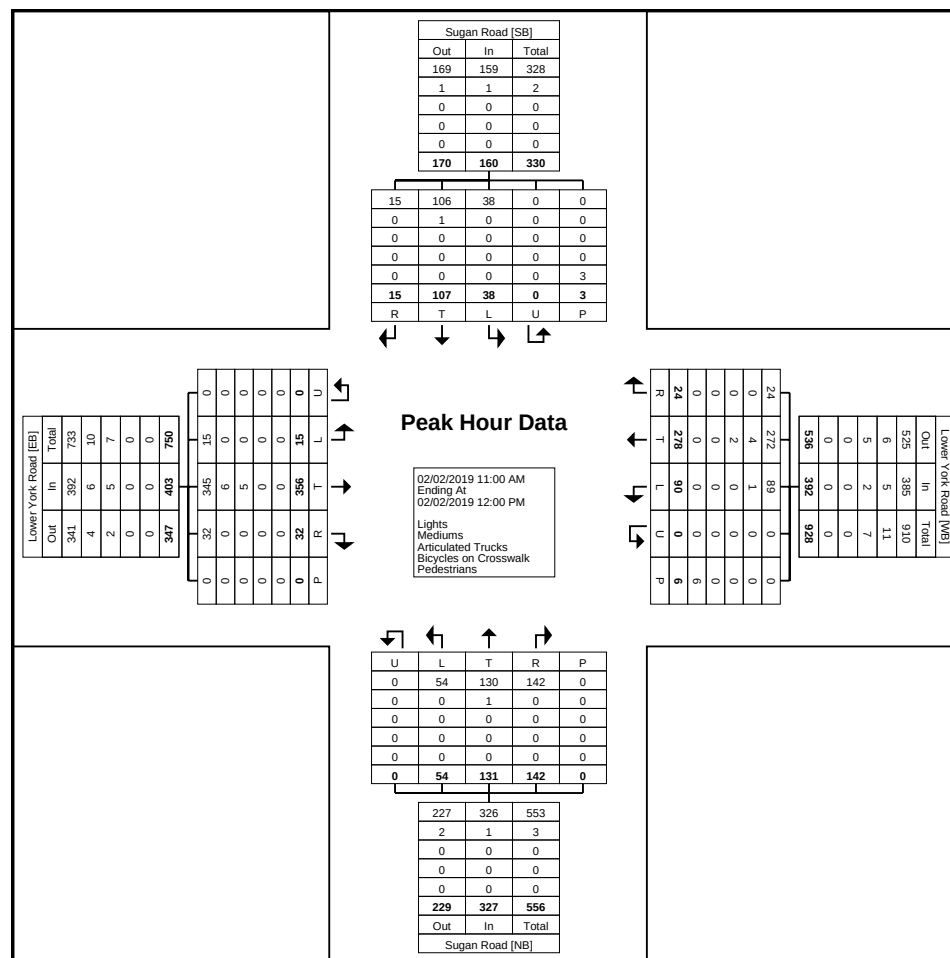
Location: 40.364516, -74.968653

Count Name: 7. Lower York Road & Sugan
Road

Site Code: 7

Start Date: 01/31/2019

Page No: 9



Turning Movement Peak Hour Data Plot (11:00 AM)



Project: Lower York Road
Municipality: Solebury Township, Bucks County,
PA
Setup: MAK
Location: 40.364516, -74.968653

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Count Name: 7. Lower York Road & Sugan
Road
Site Code: 7
Start Date: 01/31/2019
Page No: 10

Appendix D

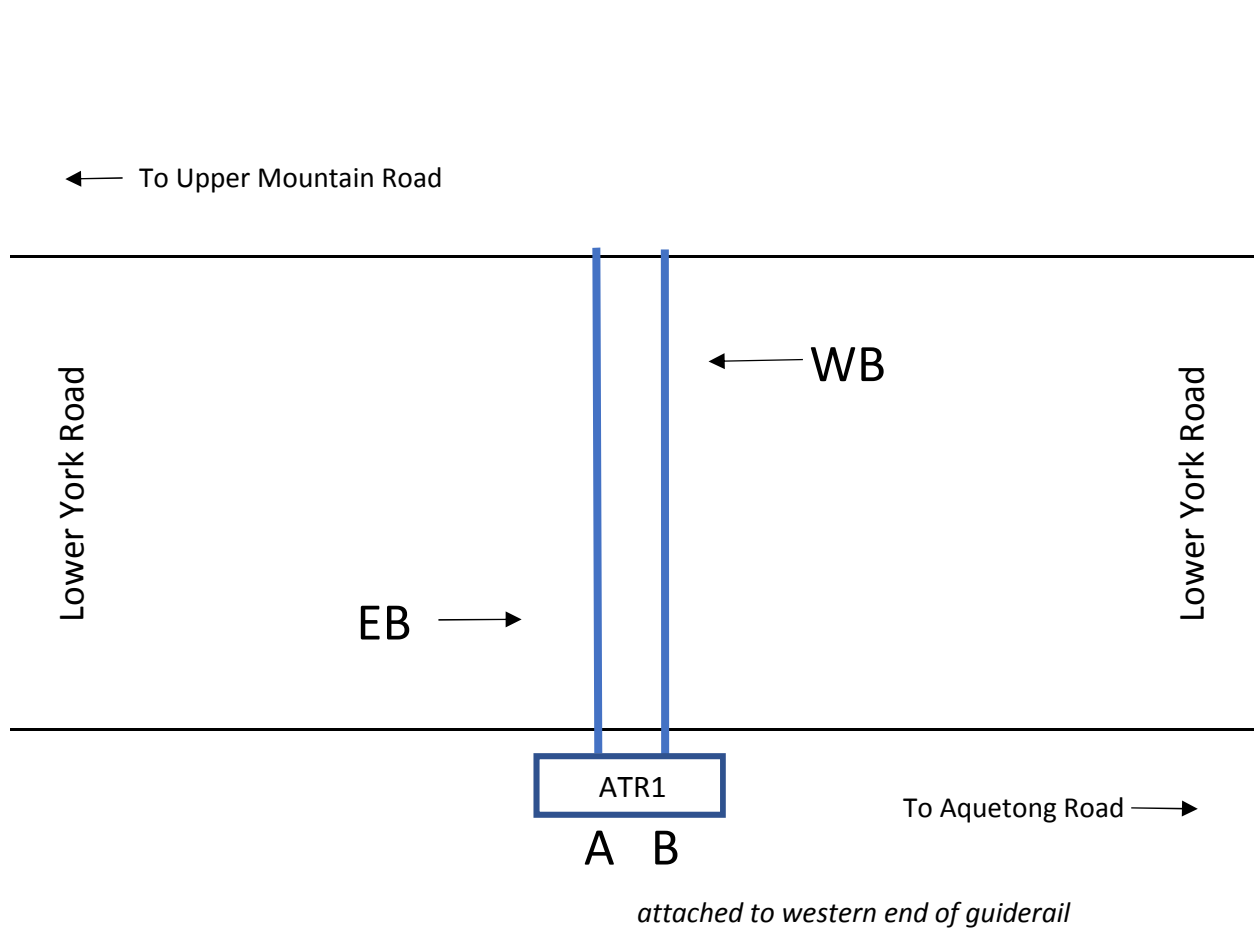
Automatic Traffic Recorder Counts

ATR Location Sheet

GENERAL INFORMATION

Installation Date: 1/28/2019	Installed By: MAK/NR	Contract Number: 2050011	Client Contact: A. Real
County: Bucks	Municipality: Solebury	Major Street: Lower York Road	Mile Post:
ATR ID: 35870	Collection Hours: 24/7	Minor Street: Aquetong	Lat: Long:

EB/WB ATR SETUP



Comments: unit checked 1/31/2018 - No obvious failures reported; pickup unit was working

PROCESSING INFORMATION

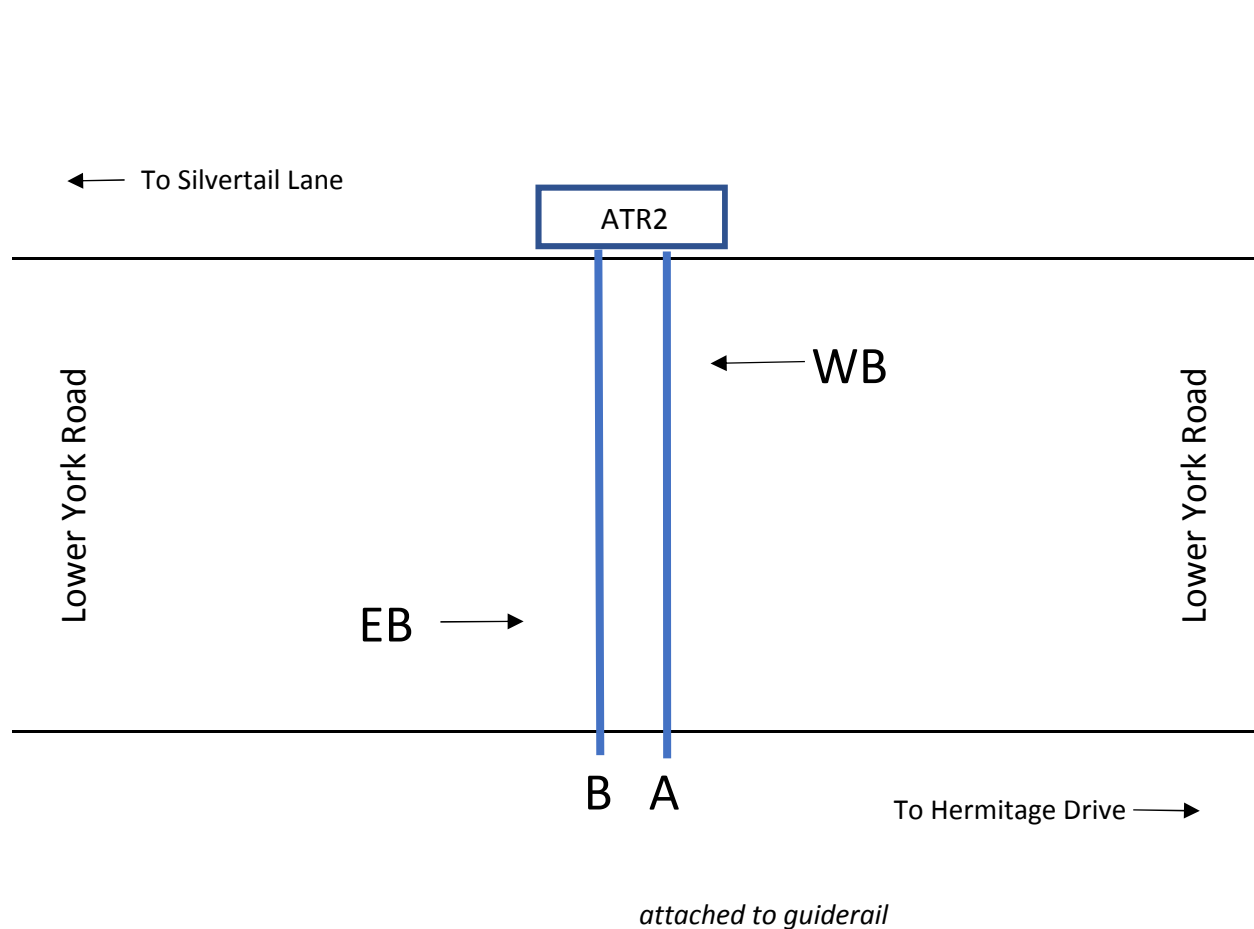
Removal Date: 2/4/2019	Removed By: MAK/NR	Requested Format: Excel/UDTF/PDF/petra/____	Date Completed: 2/5/2019

ATR Location Sheet

GENERAL INFORMATION

Installation Date: 1/28/2019	Installed By: MAK/NR	Contract Number: 2050011	Client Contact: A. Real
County: Bucks	Municipality: Solebury	Major Street: Lower York Road	Mile Post:
ATR ID: 35869	Collection Hours: 24/7	Minor Street: Silvertail	Lat: Long:

EB/WB ATR SETUP



Comments: unit checked 1/31/2018 - No obvious failures reported; pickup unit was working

PROCESSING INFORMATION

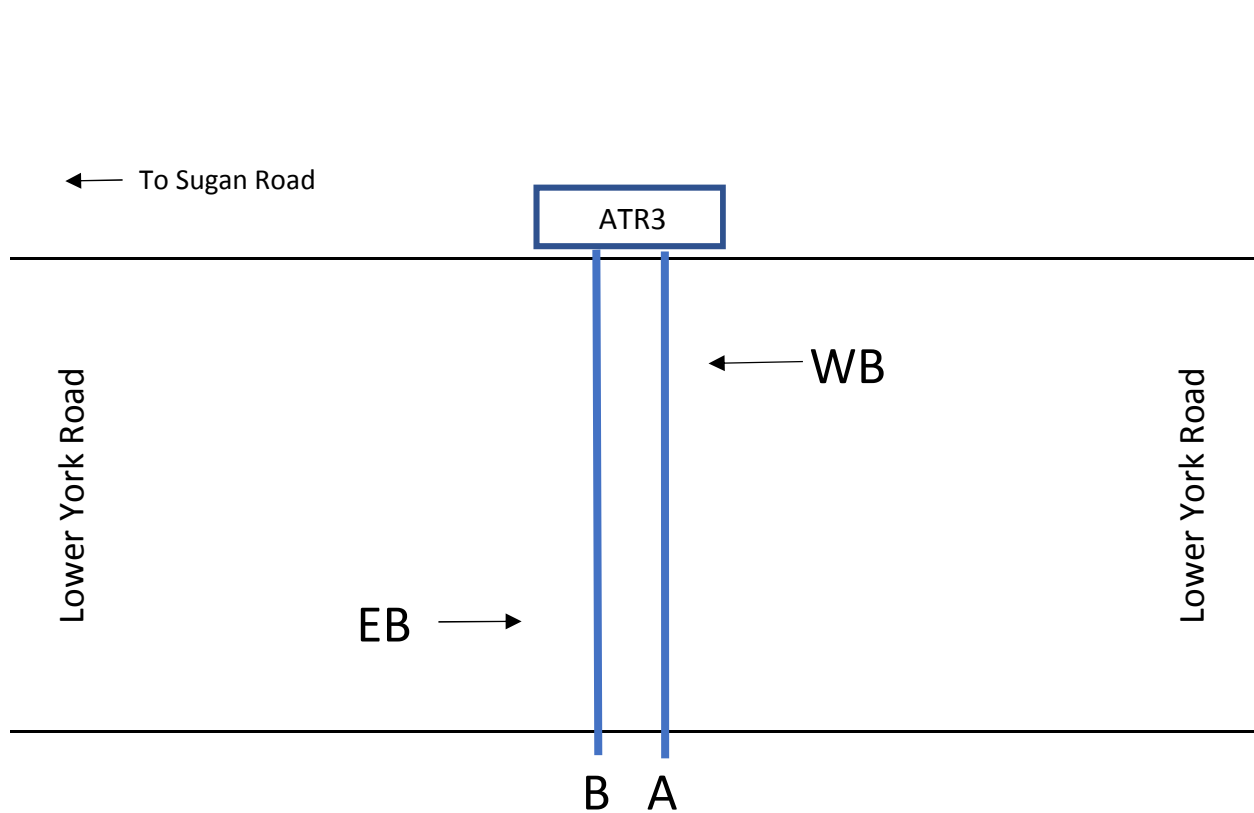
Removal Date: 2/4/2019	Removed By: MAK/NR	Requested Format: Excel/UDTF/PDF/petra/____	Date Completed: 2/5/2019

ATR Location Sheet

GENERAL INFORMATION

Installation Date: 1/28/2019	Installed By: MAK/NR	Contract Number: 2050011	Client Contact: A. Real
County: Bucks	Municipality: Solebury	Major Street: Lower York Road	Mile Post:
ATR ID: 35874	Collection Hours: 24/7	Minor Street: Sugan	Lat: Long:

EB/WB ATR SETUP



attached to utility pole

Comments: unit checked 1/31/2018 - No obvious failures reported; pickup unit was working

PROCESSING INFORMATION

Removal Date: 2/4/2019	Removed By: MAK/NR	Requested Format: Excel/UDTF/PDF/petra/____	Date Completed: 2/5/2019



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	1	121	8	0	1	1	0	0	1	0	0	0	0	1	134
22:00	0	73	4	0	0	0	0	1	0	0	0	0	0	0	78
23:00	0	20	3	0	2	0	0	1	0	0	0	0	0	0	26
Total	1	214	15	0	3	1	0	2	1	0	0	0	0	1	238
Percent	0.4%	89.9%	6.3%	0.0%	1.3%	0.4%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%	
AM Peak Vol.															
PM Peak Vol.	21:00 1	21:00 121	21:00 8		23:00 2	21:00 1		22:00 1	21:00 1					21:00 1	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	0	13	2	0	0	0	0	1	2	0	0	0	0	0	18
01:00	0	12	0	1	0	0	0	2	3	0	0	0	0	0	18
02:00	0	12	2	0	0	0	0	1	10	0	0	0	0	0	25
03:00	0	18	1	1	3	1	0	3	9	0	0	0	0	0	36
04:00	1	63	10	0	7	1	0	1	8	0	0	0	0	0	91
05:00	0	199	24	4	22	1	0	3	4	0	0	0	0	4	261
06:00	0	479	67	7	24	3	1	3	4	0	0	0	0	19	607
07:00	8	675	71	4	29	6	2	6	7	0	0	0	0	62	870
08:00	8	625	76	6	19	6	3	4	7	0	0	0	0	50	804
09:00	1	382	45	9	19	2	1	0	9	0	1	0	0	19	488
10:00	0	310	57	3	16	5	2	4	13	0	0	0	0	21	431
11:00	4	327	48	2	25	2	0	5	7	0	0	0	0	7	427
12 PM	0	317	47	4	11	4	1	1	10	0	0	0	0	26	421
13:00	0	309	44	5	14	1	1	1	8	0	0	0	0	13	396
14:00	1	319	49	2	14	0	0	3	6	0	0	0	0	18	412
15:00	1	351	49	3	12	1	0	3	10	0	0	0	0	13	443
16:00	1	436	53	3	19	0	0	0	6	0	0	0	0	26	544
17:00	2	471	37	0	6	2	0	0	4	0	0	0	0	36	558
18:00	0	365	32	0	3	0	0	0	3	0	0	0	0	17	420
19:00	0	235	15	1	2	0	0	0	1	1	0	0	0	4	259
20:00	0	141	12	1	2	0	0	0	4	0	0	0	0	2	162
21:00	0	114	6	0	0	0	0	1	2	0	0	0	0	1	124
22:00	0	48	2	0	1	1	0	3	4	0	0	0	0	1	60
23:00	0	29	0	0	0	0	0	1	2	0	2	1	0	0	35
Total	27	6250	749	56	248	36	11	46	143	1	3	1	0	339	7910
Percent	0.3%	79.0%	9.5%	0.7%	3.1%	0.5%	0.1%	0.6%	1.8%	0.0%	0.0%	0.0%	0.0%	4.3%	
AM Peak	07:00	07:00	08:00	09:00	07:00	07:00	08:00	07:00	10:00		09:00			07:00	
Vol.	8	675	76	9	29	6	3	6	13		1			62	
PM Peak	17:00	17:00	16:00	13:00	16:00	12:00	12:00	14:00	12:00	19:00	23:00	23:00		17:00	
Vol.	2	471	53	5	19	4	1	3	10	1	2	1		36	



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Lower York Road
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EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	14	2	1	0	0	0	1	5	0	0	0	0	0	23
01:00	0	9	1	1	1	0	0	0	3	0	1	0	0	0	16
02:00	0	9	3	3	0	1	0	1	5	0	0	0	0	0	22
03:00	0	13	1	1	2	0	0	4	8	0	0	0	0	0	29
04:00	1	51	12	0	9	0	0	3	4	0	0	2	0	1	83
05:00	0	186	31	6	10	2	0	4	3	0	0	0	0	2	244
06:00	2	469	71	7	23	4	0	0	4	0	0	0	1	14	595
07:00	4	744	85	4	19	5	1	4	3	0	0	0	0	40	909
08:00	1	610	55	7	17	3	0	4	6	0	0	0	0	32	735
09:00	1	397	72	12	23	5	0	0	8	0	0	0	0	14	532
10:00	0	321	47	6	18	2	2	5	7	0	0	0	0	11	419
11:00	1	271	49	2	17	6	1	6	8	0	0	0	0	18	379
12 PM	0	305	30	4	12	4	0	2	6	0	0	0	0	20	383
13:00	0	347	26	3	12	5	0	1	8	0	0	0	0	21	423
14:00	2	333	34	3	8	2	0	4	3	0	0	0	0	9	398
15:00	3	366	45	3	10	6	0	0	1	0	0	0	0	17	451
16:00	2	334	42	3	13	0	0	0	6	0	0	0	0	22	422
17:00	2	383	25	0	4	2	0	1	4	0	0	0	0	30	451
18:00	1	271	20	0	6	1	0	1	3	0	0	0	0	18	321
19:00	1	153	9	2	5	0	0	0	2	0	0	0	0	3	175
20:00	1	94	7	0	2	2	0	1	0	0	0	0	0	5	112
21:00	0	60	7	1	3	0	0	0	3	0	0	0	0	0	74
22:00	1	26	6	0	0	1	0	0	3	0	0	0	0	0	37
23:00	0	19	4	0	1	0	0	2	3	0	0	0	0	1	30
Total	23	5785	684	69	215	51	4	44	106	0	1	2	1	278	7263
Percent	0.3%	79.7%	9.4%	1.0%	3.0%	0.7%	0.1%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	3.8%	
AM Peak	07:00	07:00	07:00	09:00	06:00	11:00	10:00	11:00	03:00		01:00	04:00	06:00	07:00	
Vol.	4	744	85	12	23	6	2	6	8		1	2	1	40	
PM Peak	15:00	17:00	15:00	12:00	16:00	15:00		14:00	13:00					17:00	
Vol.	3	383	45	4	13	6		4	8					30	



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Lower York Road
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EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/19	0	9	3	0	4	0	0	1	8	0	0	0	0	0	25
01:00	0	3	4	1	2	0	0	2	3	0	0	0	0	0	15
02:00	0	5	2	1	1	1	0	2	9	0	0	0	0	0	21
03:00	0	8	2	1	3	1	0	2	3	0	1	0	0	0	21
04:00	0	43	11	0	6	0	0	1	6	0	0	0	0	0	67
05:00	0	138	28	2	15	4	0	3	5	0	0	0	0	1	196
06:00	0	360	58	5	23	2	0	2	3	0	0	0	0	7	460
07:00	3	627	59	4	27	6	0	2	7	0	0	0	0	11	746
08:00	2	604	62	3	8	5	2	2	7	0	0	0	0	23	718
09:00	3	460	49	6	25	2	1	1	10	0	0	0	0	16	573
10:00	0	352	47	5	18	1	4	4	10	0	0	0	0	22	463
11:00	1	322	43	6	22	5	0	3	7	1	0	0	0	25	435
12 PM	2	342	36	4	11	4	3	7	6	0	0	0	0	23	438
13:00	1	311	43	7	14	1	1	2	8	0	0	0	0	11	399
14:00	0	302	39	3	13	4	0	2	6	0	0	0	0	17	386
15:00	1	333	47	5	2	4	0	0	6	0	0	0	0	24	422
16:00	0	346	40	3	11	1	0	1	5	0	0	0	0	31	438
17:00	3	416	37	3	14	2	0	0	3	0	0	0	0	30	508
18:00	1	336	32	1	2	1	0	0	1	0	0	0	0	32	406
19:00	0	170	10	0	1	2	0	0	3	0	0	0	0	5	191
20:00	0	132	7	0	1	0	0	0	2	0	0	0	0	6	148
21:00	1	117	11	0	0	0	0	1	5	0	0	0	0	5	140
22:00	1	43	8	0	2	0	0	2	1	0	0	0	0	0	57
23:00	0	18	2	0	2	0	0	0	4	0	1	0	0	1	28
Total	19	5797	680	60	227	46	11	40	128	1	2	0	0	290	7301
Percent	0.3%	79.4%	9.3%	0.8%	3.1%	0.6%	0.2%	0.5%	1.8%	0.0%	0.0%	0.0%	0.0%	4.0%	
AM Peak	07:00	07:00	08:00	09:00	07:00	07:00	10:00	10:00	09:00	11:00	03:00			11:00	
Vol.	3	627	62	6	27	6	4	4	10	1	1			25	
PM Peak	17:00	17:00	15:00	13:00	13:00	12:00	12:00	12:00	13:00		23:00			18:00	
Vol.	3	416	47	7	14	4	3	7	8		1			32	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/19	0	15	0	0	1	0	0	4	3	0	0	1	0	0	24
01:00	1	6	0	0	0	1	0	1	4	0	0	2	0	0	15
02:00	0	5	2	1	0	0	0	0	3	0	1	0	0	0	12
03:00	0	11	3	1	3	0	0	3	6	0	0	1	0	0	28
04:00	1	43	14	1	3	3	0	2	6	0	0	2	0	1	76
05:00	0	144	22	5	7	2	0	5	7	0	0	0	0	2	194
06:00	0	421	51	3	22	4	0	2	3	0	0	0	0	17	523
07:00	2	586	49	6	16	2	0	3	7	0	0	0	0	34	705
08:00	2	568	54	9	14	5	0	5	2	0	0	0	0	38	697
09:00	1	480	52	8	16	2	0	1	8	0	0	0	0	27	595
10:00	2	402	66	11	17	1	0	3	12	0	0	0	0	13	527
11:00	0	312	43	7	18	1	0	2	7	0	0	0	0	17	407
12 PM	4	303	34	6	20	4	0	3	5	0	0	0	0	16	395
13:00	6	314	29	1	7	1	0	0	5	0	0	0	0	20	383
14:00	2	295	38	3	13	2	0	3	4	0	0	0	0	20	380
15:00	1	392	34	2	13	4	0	1	2	0	0	0	0	27	476
16:00	3	409	35	3	6	0	0	1	1	1	0	0	0	33	492
17:00	2	512	40	1	8	3	0	1	2	0	0	0	0	35	604
18:00	1	389	29	5	5	1	0	0	1	0	0	0	0	22	453
19:00	1	237	18	0	6	0	0	0	1	0	0	0	0	6	269
20:00	0	160	6	1	4	1	0	0	3	0	0	0	0	4	179
21:00	0	123	13	0	3	0	0	2	2	0	0	0	0	2	145
22:00	1	48	6	0	1	1	0	0	2	0	0	0	0	3	62
23:00	0	20	0	1	1	0	0	2	3	0	2	1	0	0	30
Total	30	6195	638	75	204	38	0	44	99	1	3	7	0	337	7671
Percent	0.4%	80.8%	8.3%	1.0%	2.7%	0.5%	0.0%	0.6%	1.3%	0.0%	0.0%	0.1%	0.0%	4.4%	
AM Peak	07:00	07:00	10:00	10:00	06:00	08:00		05:00	10:00		02:00	01:00		08:00	
Vol.	2	586	66	11	22	5		5	12		1	2		38	
PM Peak	13:00	17:00	17:00	12:00	12:00	12:00		12:00	12:00	16:00	23:00	23:00		17:00	
Vol.	6	512	40	6	20	4		3	5	1	2	1		35	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/19	0	15	1	1	0	0	0	1	4	0	0	1	0	0	23
01:00	0	11	3	0	1	0	0	2	2	0	1	0	0	1	21
02:00	0	5	0	2	0	0	0	3	6	0	0	0	0	0	16
03:00	0	10	3	1	3	1	0	2	5	0	0	1	0	0	26
04:00	0	35	9	0	6	2	0	2	6	0	0	0	0	3	63
05:00	0	143	28	2	9	3	0	3	10	0	0	0	0	1	199
06:00	0	346	54	3	21	5	1	0	6	0	1	0	0	8	445
07:00	3	587	54	7	20	4	1	6	0	0	0	0	0	35	717
08:00	2	540	59	5	16	3	0	1	10	0	0	0	0	22	658
09:00	1	362	48	2	15	4	1	7	3	0	0	0	0	14	457
10:00	7	345	49	5	18	11	0	4	4	0	0	0	0	18	461
11:00	1	324	54	4	21	5	0	3	3	0	0	0	0	17	432
12 PM	2	342	38	4	22	3	0	2	5	0	0	0	0	22	440
13:00	0	365	57	4	17	0	1	4	11	0	0	0	0	28	487
14:00	3	381	41	1	8	3	0	0	1	1	0	0	0	24	463
15:00	3	404	39	4	11	4	0	3	3	0	0	0	0	21	492
16:00	3	427	41	2	8	1	0	0	2	0	0	0	0	43	527
17:00	3	452	29	1	16	0	0	0	1	0	0	0	0	28	530
18:00	2	384	38	0	6	1	0	0	2	0	0	0	0	20	453
19:00	1	297	16	0	5	0	0	0	0	0	0	0	0	12	331
20:00	0	183	13	0	3	0	0	1	3	0	0	0	0	2	205
21:00	0	128	10	0	2	0	0	0	0	0	0	0	0	3	143
22:00	0	107	3	0	0	0	0	2	3	0	0	0	0	2	117
23:00	0	50	2	1	1	0	0	2	2	0	1	0	0	1	60
Total	31	6243	689	49	229	50	4	48	92	1	3	2	0	325	7766
Percent	0.4%	80.4%	8.9%	0.6%	2.9%	0.6%	0.1%	0.6%	1.2%	0.0%	0.0%	0.0%	0.0%	4.2%	
AM Peak	10:00	07:00	08:00	07:00	06:00	10:00	06:00	09:00	05:00		01:00	00:00		07:00	
Vol.	7	587	59	7	21	11	1	7	10		1	1		35	
PM Peak	14:00	17:00	13:00	12:00	12:00	15:00	13:00	13:00	13:00	14:00	23:00			16:00	
Vol.	3	452	57	4	22	4	1	4	11	1	1			43	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/19	0	31	1	0	0	0	0	4	1	0	0	3	0	0	40
01:00	0	12	1	1	0	0	0	0	1	0	0	0	0	0	15
02:00	0	14	1	0	0	0	0	1	0	0	0	0	0	0	16
03:00	0	9	1	0	1	0	0	1	0	0	0	1	0	0	13
04:00	0	20	1	1	2	0	0	2	2	0	0	1	0	0	29
05:00	0	39	15	0	4	1	0	0	0	0	0	0	0	0	59
06:00	0	99	11	3	6	0	0	0	0	0	0	0	0	1	120
07:00	0	177	18	2	10	0	1	0	4	0	0	0	0	3	215
08:00	0	289	23	2	8	0	0	0	3	0	0	0	0	3	328
09:00	0	388	47	3	8	1	0	0	2	0	0	0	0	9	458
10:00	1	461	43	3	8	2	0	1	2	0	0	0	0	30	551
11:00	0	514	48	3	8	1	0	1	3	0	0	0	0	30	608
12 PM	3	486	38	1	12	0	0	1	3	0	0	0	0	45	589
13:00	4	531	35	1	7	1	0	2	3	0	0	0	0	48	632
14:00	2	480	47	0	5	1	0	0	2	0	0	0	0	31	568
15:00	0	497	25	1	6	0	0	1	3	0	0	0	0	28	561
16:00	1	482	31	0	5	2	0	0	2	0	0	0	0	28	551
17:00	2	508	30	1	2	0	0	0	0	1	0	0	0	14	558
18:00	1	410	26	2	5	0	0	0	0	0	0	0	0	10	454
19:00	0	344	19	0	4	0	0	0	0	0	0	0	0	15	382
20:00	0	219	9	0	3	1	0	1	1	0	0	0	0	5	239
21:00	0	235	8	0	1	0	0	1	1	0	0	0	0	3	249
22:00	1	227	10	0	3	0	0	0	1	0	0	0	0	6	248
23:00	0	83	5	0	0	0	0	1	0	0	0	0	0	4	93
Total	15	6555	493	24	108	10	1	17	34	1	0	5	0	313	7576
Percent	0.2%	86.5%	6.5%	0.3%	1.4%	0.1%	0.0%	0.2%	0.4%	0.0%	0.0%	0.1%	0.0%	4.1%	
AM Peak	10:00	11:00	11:00	06:00	07:00	10:00	07:00	00:00	07:00			00:00		10:00	
Vol.	1	514	48	3	10	2	1	4	4			3		30	
PM Peak	13:00	13:00	14:00	18:00	12:00	16:00		13:00	12:00	17:00				13:00	
Vol.	4	531	47	2	12	2		2	3	1				48	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/19	0	58	2	0	0	0	0	0	0	0	0	0	0	0	60
01:00	0	30	2	0	0	0	0	0	1	0	0	0	0	0	33
02:00	0	5	1	1	0	1	0	0	1	0	0	0	0	0	9
03:00	0	14	0	0	0	0	0	0	1	0	0	0	0	0	15
04:00	0	20	3	0	0	0	0	0	2	0	0	0	0	0	25
05:00	0	37	1	0	3	0	0	0	0	0	0	0	0	0	41
06:00	1	78	12	0	4	1	0	0	3	0	0	0	0	1	100
07:00	0	116	12	1	2	0	0	0	0	0	0	0	0	1	132
08:00	0	217	22	0	0	0	0	1	1	0	0	0	0	1	242
09:00	0	288	21	0	3	0	0	0	1	0	0	0	0	7	320
10:00	0	413	32	1	3	0	0	0	0	0	0	0	0	18	467
11:00	0	388	29	1	1	0	0	0	0	0	0	0	0	20	439
12 PM	3	398	27	0	3	0	0	0	1	0	0	0	0	19	451
13:00	2	454	29	0	3	1	0	1	2	0	0	0	0	23	515
14:00	5	472	29	1	6	0	0	0	0	0	0	0	0	18	531
15:00	8	462	28	0	10	0	0	1	0	0	0	0	0	14	523
16:00	0	412	35	0	8	0	0	0	3	0	0	0	0	24	482
17:00	0	343	20	0	3	0	0	0	2	0	0	0	0	10	378
18:00	0	255	15	1	2	0	0	0	0	0	0	0	0	10	283
19:00	1	145	3	0	1	0	0	0	0	0	0	0	0	1	151
20:00	1	137	7	0	1	1	0	1	0	0	0	0	0	0	148
21:00	1	119	4	0	2	0	0	0	0	0	0	0	0	2	128
22:00	1	149	8	1	1	1	0	1	1	0	0	0	0	1	164
23:00	0	49	1	0	2	0	0	0	1	0	0	0	0	1	54
Total	23	5059	343	7	58	5	0	5	20	0	0	0	0	171	5691
Percent	0.4%	88.9%	6.0%	0.1%	1.0%	0.1%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	3.0%	
AM Peak	06:00	10:00	10:00	02:00	06:00	02:00		08:00	06:00					11:00	
Vol.	1	413	32	1	4	1		1	3					20	
PM Peak	15:00	14:00	16:00	14:00	15:00	13:00		13:00	16:00					16:00	
Vol.	8	472	35	1	10	1		1	3					24	



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Lower York Road
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Solebury, Bucks County, PA
EB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	1	13	0	0	0	1	0	0	1	0	0	0	0	0	16
01:00	0	11	1	0	1	0	0	1	5	0	0	0	0	0	19
02:00	0	7	3	0	1	0	0	0	6	0	0	0	0	0	17
03:00	1	10	3	0	0	1	0	4	11	0	0	0	0	0	30
04:00	0	67	12	2	4	0	0	0	5	0	0	0	0	0	90
05:00	0	188	34	7	12	1	0	4	6	0	0	0	0	1	253
06:00	0	506	76	5	24	3	0	0	3	0	0	0	0	10	627
07:00	11	693	76	6	18	4	1	5	3	1	0	0	0	54	872
08:00	3	650	65	4	18	0	2	5	6	0	0	0	0	44	797
09:00	3	435	56	8	18	3	1	1	2	0	0	0	0	23	550
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	19	2580	326	32	96	13	4	20	48	1	0	0	0	132	3271
Percent	0.6%	78.9%	10.0%	1.0%	2.9%	0.4%	0.1%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	4.0%	
AM Peak	07:00	07:00	06:00	09:00	06:00	07:00	08:00	07:00	03:00	07:00				07:00	
Vol.	11	693	76	8	24	4	2	5	11	1				54	
PM Peak															
Vol.															
Grand Total	188	44678	4617	372	1388	250	35	266	671	6	12	17	1	2186	54687
Percent	0.3%	81.7%	8.4%	0.7%	2.5%	0.5%	0.1%	0.5%	1.2%	0.0%	0.0%	0.0%	0.0%	4.0%	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	0	184	22	0	3	0	0	0	2	0	0	0	0	1	212
22:00	0	103	16	3	3	0	0	2	1	0	0	0	0	0	128
23:00	2	54	9	1	2	2	0	0	0	0	0	0	0	0	70
Total	2	341	47	4	8	2	0	2	3	0	0	0	0	1	410
Percent	0.5%	83.2%	11.5%	1.0%	2.0%	0.5%	0.0%	0.5%	0.7%	0.0%	0.0%	0.0%	0.0%	0.2%	
AM Peak Vol.															
PM Peak Vol.	23:00	21:00	21:00	22:00	21:00	23:00		22:00	21:00					21:00	
	2	184	22	3	3	2		2	2					1	



Imperial Traffic & Data Collection

P.O. Box 4637, Cherry Hill, NJ 08034

www.imperialtdc.com | (609)706-6100

Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	0	24	4	0	1	0	0	1	1	0	0	0	0	0	31
01:00	0	18	5	0	1	0	0	0	0	0	0	0	0	0	24
02:00	0	7	3	0	1	0	0	0	5	0	0	0	0	0	16
03:00	0	6	3	0	2	0	0	0	3	0	0	0	0	0	14
04:00	0	13	5	1	3	1	0	1	0	0	0	0	0	0	24
05:00	0	45	11	4	5	0	0	0	4	0	0	0	0	1	70
06:00	4	192	27	11	15	2	0	2	2	0	0	0	0	12	267
07:00	10	218	40	4	12	2	0	0	4	0	0	0	0	81	371
08:00	3	292	40	4	16	4	0	2	2	0	0	0	0	54	417
09:00	3	267	67	5	33	6	1	2	5	0	0	0	0	15	404
10:00	2	270	65	5	36	3	0	2	3	0	0	0	0	22	408
11:00	1	285	70	9	30	4	0	3	11	0	0	0	0	12	425
12 PM	5	286	56	4	30	2	0	0	8	0	0	0	0	25	416
13:00	0	280	61	3	29	1	0	2	8	0	0	0	0	18	402
14:00	1	297	65	6	28	3	0	5	5	0	0	0	0	19	429
15:00	3	394	100	4	35	4	0	1	3	0	0	0	0	21	565
16:00	1	467	99	1	24	2	1	3	6	0	0	0	0	37	641
17:00	2	659	88	2	19	1	0	2	3	1	0	0	0	38	815
18:00	1	523	68	2	25	1	1	4	2	0	0	0	0	20	647
19:00	3	341	52	3	9	2	0	2	3	0	0	0	0	5	420
20:00	1	209	27	1	8	0	0	1	4	0	0	0	0	4	255
21:00	0	126	18	2	0	0	0	3	1	0	0	0	0	2	152
22:00	0	73	18	1	3	0	0	0	2	0	0	1	0	1	99
23:00	0	45	7	1	1	0	0	3	5	0	0	0	0	0	62
Total	40	5337	999	73	366	38	3	39	90	1	0	1	0	387	7374
Percent	0.5%	72.4%	13.5%	1.0%	5.0%	0.5%	0.0%	0.5%	1.2%	0.0%	0.0%	0.0%	0.0%	5.2%	
AM Peak	07:00	08:00	11:00	06:00	10:00	09:00	09:00	11:00	11:00					07:00	
Vol.	10	292	70	11	36	6	1	3	11					81	
PM Peak	12:00	17:00	15:00	14:00	15:00	15:00	16:00	14:00	12:00	17:00		22:00		17:00	
Vol.	5	659	100	6	35	4	1	5	8	1		1		38	



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Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	16	8	0	2	0	1	2	2	0	0	0	0	0	31
01:00	0	14	2	0	0	0	0	0	3	0	0	0	0	0	19
02:00	0	14	0	1	2	0	0	0	2	0	0	0	0	1	20
03:00	0	10	2	1	0	0	0	0	1	0	0	0	0	0	14
04:00	0	11	7	0	4	1	0	1	4	0	0	0	0	1	29
05:00	0	38	11	2	7	1	0	0	5	0	0	1	0	0	65
06:00	1	146	30	4	13	3	0	4	2	0	0	0	0	9	212
07:00	1	253	42	4	13	3	1	3	3	0	0	0	0	46	369
08:00	3	309	64	6	16	2	0	3	9	0	0	0	0	41	453
09:00	0	258	60	6	25	2	1	3	5	0	0	0	0	24	384
10:00	3	251	60	6	25	4	1	3	7	0	0	0	0	14	374
11:00	3	243	74	11	31	4	0	6	7	0	0	0	0	8	387
12 PM	2	325	59	3	24	4	1	2	9	0	0	0	0	15	444
13:00	1	288	59	4	24	4	0	3	12	0	0	0	0	14	409
14:00	4	333	71	7	29	3	0	0	9	0	0	0	0	15	471
15:00	3	383	108	7	30	5	0	2	3	0	0	0	0	20	561
16:00	3	470	96	1	28	2	0	4	6	0	0	0	0	24	634
17:00	4	624	80	2	15	1	0	1	5	0	0	0	0	27	759
18:00	2	437	63	0	16	4	0	0	2	0	0	0	0	16	540
19:00	1	234	33	4	11	1	0	1	1	0	0	0	0	5	291
20:00	0	120	17	0	6	0	0	0	1	0	0	0	0	2	146
21:00	1	92	19	2	9	1	0	0	1	0	0	0	0	0	125
22:00	0	57	6	1	2	0	0	0	4	0	0	0	0	0	70
23:00	2	40	11	0	3	8	0	2	1	0	0	0	0	3	70
Total	34	4966	982	72	335	53	5	40	104	0	0	1	0	285	6877
Percent	0.5%	72.2%	14.3%	1.0%	4.9%	0.8%	0.1%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	4.1%	
AM Peak	08:00	08:00	11:00	11:00	11:00	10:00	00:00	11:00	08:00			05:00		07:00	
Vol.	3	309	74	11	31	4	1	6	9			1		46	
PM Peak	14:00	17:00	15:00	14:00	15:00	23:00	12:00	16:00	13:00					17:00	
Vol.	4	624	108	7	30	8	1	4	12					27	



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01/30/19	0	15	5	0	2	0	0	0	1	0	0	0	0	0	23
01:00	0	10	3	0	5	1	0	1	2	0	0	0	0	1	23
02:00	0	13	3	1	4	0	1	1	5	0	0	0	0	0	28
03:00	0	6	2	1	0	0	0	0	1	0	0	0	0	0	10
04:00	0	14	4	1	3	0	0	0	2	0	0	0	0	0	24
05:00	0	39	6	4	7	0	0	3	2	0	0	0	0	0	61
06:00	0	134	15	3	16	0	0	0	6	0	0	0	0	9	183
07:00	0	194	41	4	22	2	0	2	4	0	0	0	0	22	291
08:00	0	285	62	6	29	1	0	2	7	0	0	0	0	27	419
09:00	3	230	77	9	24	2	1	1	5	0	0	0	0	21	373
10:00	3	232	71	8	35	5	0	1	3	0	0	0	0	16	374
11:00	1	214	68	7	31	3	0	3	8	1	0	0	0	19	355
12 PM	4	238	79	5	26	4	0	4	5	0	0	0	0	20	385
13:00	0	257	86	3	52	5	2	4	7	0	0	0	0	13	429
14:00	3	301	79	5	35	6	0	3	12	0	0	0	0	16	460
15:00	1	391	97	2	46	2	0	2	6	0	0	0	0	29	576
16:00	0	423	105	2	39	3	0	3	0	0	0	0	0	36	611
17:00	3	535	89	2	36	3	0	2	3	0	0	0	0	40	713
18:00	3	458	89	1	27	2	0	2	4	0	0	0	0	22	608
19:00	1	279	66	6	19	1	0	2	1	0	0	0	0	6	381
20:00	1	151	37	1	7	0	0	0	2	0	0	0	0	8	207
21:00	0	125	24	0	7	0	0	0	1	0	0	0	0	9	166
22:00	0	92	16	1	4	0	0	0	2	0	0	0	0	1	116
23:00	0	41	3	0	4	0	0	2	2	0	0	1	0	3	56
Total	23	4677	1127	72	480	40	4	38	91	1	0	1	0	318	6872
Percent	0.3%	68.1%	16.4%	1.0%	7.0%	0.6%	0.1%	0.6%	1.3%	0.0%	0.0%	0.0%	0.0%	4.6%	
AM Peak	09:00	08:00	09:00	09:00	10:00	10:00	02:00	05:00	11:00	11:00				08:00	
Vol.	3	285	77	9	35	5	1	3	8	1				27	
PM Peak	12:00	17:00	16:00	19:00	13:00	14:00	13:00	12:00	14:00			23:00		17:00	
Vol.	4	535	105	6	52	6	2	4	12			1		40	



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01/31/19	0	19	5	0	4	0	0	1	1	0	0	0	0	3	33
01:00	0	15	4	0	0	0	0	0	0	0	0	0	0	0	19
02:00	0	10	1	1	2	1	0	1	6	0	0	0	0	0	22
03:00	0	4	2	2	3	0	0	1	1	0	0	0	0	1	14
04:00	1	12	5	0	4	1	0	1	1	0	0	0	0	5	30
05:00	0	39	13	1	10	1	0	1	5	0	0	0	0	8	78
06:00	1	133	24	4	10	2	0	2	5	0	0	0	0	22	203
07:00	2	240	40	6	15	2	1	2	7	0	0	0	0	68	383
08:00	4	295	63	5	16	3	0	2	3	0	0	0	0	33	424
09:00	2	251	67	14	31	4	0	1	3	0	0	0	0	24	397
10:00	1	229	83	7	33	2	1	2	7	0	0	0	0	11	376
11:00	1	228	81	9	42	3	1	3	10	0	0	0	0	7	385
12 PM	2	242	65	6	24	3	0	6	11	0	0	0	0	24	383
13:00	3	272	77	6	43	4	0	3	5	0	0	0	0	18	431
14:00	2	307	100	13	29	3	0	1	10	0	0	0	0	19	484
15:00	4	355	111	7	45	5	0	2	4	0	0	0	0	28	561
16:00	2	499	110	3	43	2	1	4	6	0	0	0	0	23	693
17:00	1	571	104	4	30	1	0	1	1	0	0	0	0	44	757
18:00	2	462	93	1	20	2	0	1	5	0	0	0	0	31	617
19:00	0	321	78	2	6	0	0	1	0	0	0	0	0	9	417
20:00	0	203	33	1	10	0	0	0	2	0	0	0	0	5	254
21:00	1	168	26	4	10	0	0	0	1	0	0	0	0	6	216
22:00	0	122	17	2	4	0	0	0	2	0	0	0	0	3	150
23:00	2	63	10	1	4	2	0	1	4	0	0	1	0	0	88
Total	31	5060	1212	99	438	41	4	37	100	0	0	1	0	392	7415
Percent	0.4%	68.2%	16.3%	1.3%	5.9%	0.6%	0.1%	0.5%	1.3%	0.0%	0.0%	0.0%	0.0%	5.3%	
AM Peak	08:00	08:00	10:00	09:00	11:00	09:00	07:00	11:00	11:00					07:00	
Vol.	4	295	83	14	42	4	1	3	10					68	
PM Peak	15:00	17:00	15:00	14:00	15:00	15:00	16:00	12:00	12:00			23:00		17:00	
Vol.	4	571	111	13	45	5	1	6	11			1		44	



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02/01/19	2	29	9	0	3	1	0	2	0	0	0	0	0	0	46
01:00	0	17	1	1	0	0	0	0	1	0	0	0	0	1	21
02:00	0	11	1	1	2	0	0	1	4	0	0	0	0	1	21
03:00	0	6	1	1	1	0	0	0	2	0	0	0	0	2	13
04:00	1	8	1	1	2	1	0	1	2	0	0	0	0	1	18
05:00	0	30	10	3	10	1	0	1	4	0	0	0	0	4	63
06:00	0	126	27	8	14	1	0	3	3	0	0	1	0	8	191
07:00	1	233	59	4	17	4	1	0	4	0	0	0	0	38	361
08:00	1	269	64	7	18	2	0	5	2	0	0	0	0	31	399
09:00	1	227	70	5	28	2	0	2	9	0	0	0	0	21	365
10:00	3	232	49	5	37	3	0	2	6	0	0	0	0	25	362
11:00	4	251	80	7	31	7	1	5	7	0	0	0	0	25	418
12 PM	3	271	84	8	34	3	1	5	13	1	0	0	0	17	440
13:00	0	310	81	4	31	0	0	3	12	0	0	0	0	23	464
14:00	1	352	106	6	36	5	0	2	3	0	0	0	0	26	537
15:00	1	393	103	2	41	1	0	3	4	0	0	0	0	18	566
16:00	5	460	112	2	55	4	0	3	5	0	0	0	0	45	691
17:00	1	537	97	3	40	2	0	1	3	0	0	0	0	41	725
18:00	0	419	69	2	21	0	0	1	1	0	0	0	0	23	536
19:00	0	275	57	2	13	0	0	2	2	0	0	0	0	12	363
20:00	2	210	51	2	11	1	0	0	0	0	0	0	0	1	278
21:00	0	163	36	1	8	0	0	1	0	0	0	0	0	4	213
22:00	0	154	20	1	5	0	0	1	0	0	0	1	0	0	182
23:00	2	94	12	0	7	0	0	1	1	0	0	0	0	1	118
Total	28	5077	1200	76	465	38	3	45	88	1	0	2	0	368	7391
Percent	0.4%	68.7%	16.2%	1.0%	6.3%	0.5%	0.0%	0.6%	1.2%	0.0%	0.0%	0.0%	0.0%	5.0%	
AM Peak	11:00	08:00	11:00	06:00	10:00	11:00	07:00	08:00	09:00			06:00		07:00	
Vol.	4	269	80	8	37	7	1	5	9			1		38	
PM Peak	16:00	17:00	16:00	12:00	16:00	14:00	12:00	12:00	12:00	12:00		22:00		16:00	
Vol.	5	537	112	8	55	5	1	5	13	1		1		45	



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02/02/19	0	52	11	0	0	0	0	0	2	0	0	0	0	0	65
01:00	0	29	5	0	0	0	0	1	1	0	0	0	0	0	36
02:00	0	19	1	1	2	0	0	1	4	0	0	1	0	0	29
03:00	0	5	1	0	0	0	0	0	1	0	0	0	0	0	7
04:00	0	7	2	0	1	0	0	1	1	0	0	0	0	1	13
05:00	0	10	3	0	3	0	0	0	4	0	0	0	0	0	20
06:00	0	28	8	3	7	1	0	0	0	0	0	1	0	1	49
07:00	0	99	34	2	11	0	0	0	1	0	0	0	0	2	149
08:00	0	195	40	1	17	0	1	4	1	0	0	0	0	9	268
09:00	1	249	67	0	11	2	0	1	1	0	0	0	0	7	339
10:00	1	358	79	0	30	1	0	1	1	0	0	0	0	32	503
11:00	1	384	66	3	29	1	0	2	3	0	0	0	0	26	515
12 PM	2	430	101	1	33	0	0	1	0	0	0	0	0	37	605
13:00	4	395	90	0	23	2	0	1	6	0	0	0	0	35	556
14:00	2	362	102	2	26	2	0	2	1	0	0	0	0	29	528
15:00	2	385	89	3	22	0	0	0	0	0	0	0	0	27	528
16:00	5	430	105	2	19	2	0	1	2	0	0	0	0	29	595
17:00	1	365	82	0	23	0	0	0	1	0	0	0	0	23	495
18:00	0	329	60	0	16	0	0	1	1	1	0	0	0	11	419
19:00	2	284	55	3	13	0	0	0	1	0	0	0	0	8	366
20:00	1	236	33	3	6	0	0	0	0	0	0	0	0	6	285
21:00	0	183	40	0	8	0	0	0	1	0	0	0	0	5	237
22:00	0	217	36	3	4	0	0	0	2	0	0	0	0	7	269
23:00	0	140	27	1	6	0	0	0	0	0	0	0	0	2	176
Total	22	5191	1137	28	310	11	1	17	35	1	0	2	0	297	7052
Percent	0.3%	73.6%	16.1%	0.4%	4.4%	0.2%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	4.2%	
AM Peak	09:00	11:00	10:00	06:00	10:00	09:00	08:00	08:00	02:00			02:00		10:00	
Vol.	1	384	79	3	30	2	1	4	4			1		32	
PM Peak	16:00	12:00	16:00	15:00	12:00	13:00		14:00	13:00	18:00				12:00	
Vol.	5	430	105	3	33	2		2	6	1				37	



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02/03/19	0	88	15	0	5	0	0	0	0	0	0	0	0	0	108
01:00	1	51	8	0	2	2	0	0	0	0	0	0	0	1	65
02:00	0	23	7	1	0	0	0	1	1	0	0	0	0	0	33
03:00	0	8	5	0	0	0	0	0	0	0	0	0	0	0	13
04:00	0	4	1	0	1	0	0	1	2	0	0	0	0	0	9
05:00	1	4	3	0	1	1	0	0	2	0	0	0	0	0	12
06:00	0	29	7	0	7	1	0	0	0	0	0	0	0	0	44
07:00	0	64	17	1	3	0	0	2	1	0	0	0	0	0	88
08:00	0	99	27	0	8	0	0	0	1	0	0	0	0	2	137
09:00	1	206	47	0	15	0	0	0	0	0	0	0	0	3	272
10:00	0	260	57	0	11	0	0	1	0	0	0	0	0	17	346
11:00	0	337	70	0	16	0	0	1	2	0	0	0	0	19	445
12 PM	1	402	80	4	20	1	0	0	0	0	0	0	0	27	535
13:00	1	339	96	1	22	0	0	0	0	0	0	0	0	19	478
14:00	1	357	76	1	21	1	0	1	0	0	0	0	0	15	473
15:00	2	343	83	0	22	0	0	2	2	0	0	0	0	17	471
16:00	0	341	66	1	16	1	0	1	1	0	0	0	0	16	443
17:00	0	334	60	0	10	1	0	1	2	0	0	0	0	10	418
18:00	0	232	48	0	8	0	0	0	2	0	0	0	0	4	294
19:00	0	140	21	1	6	0	0	1	1	0	0	0	0	2	172
20:00	0	111	23	0	7	0	0	0	1	0	0	0	0	1	143
21:00	0	123	28	1	6	0	0	0	1	0	0	0	0	2	161
22:00	0	151	27	2	5	1	0	0	2	0	0	0	0	3	191
23:00	0	100	16	0	6	0	0	0	2	0	0	0	0	3	127
Total	8	4146	888	13	218	9	0	12	23	0	0	0	0	161	5478
Percent	0.1%	75.7%	16.2%	0.2%	4.0%	0.2%	0.0%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	2.9%	
AM Peak	01:00	11:00	11:00	02:00	11:00	01:00		07:00	04:00					11:00	
Vol.	1	337	70	1	16	2		2	2					19	
PM Peak	15:00	12:00	13:00	12:00	13:00	12:00		15:00	15:00					12:00	
Vol.	2	402	96	4	22	1		2	2					27	



Imperial Traffic & Data Collection

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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	1	40	13	0	0	1	0	1	0	0	0	0	0	0	56
01:00	0	16	0	1	1	0	0	0	0	0	0	0	0	0	18
02:00	0	8	4	0	3	0	0	0	1	0	0	0	0	0	16
03:00	0	7	3	0	1	0	0	0	3	0	0	0	0	0	14
04:00	0	9	4	2	4	0	0	0	1	0	0	0	0	0	20
05:00	0	48	9	1	9	0	0	0	2	0	0	0	0	1	70
06:00	0	162	36	8	15	0	0	2	3	0	0	0	0	10	236
07:00	8	218	44	2	19	2	0	2	2	0	0	0	0	79	376
08:00	4	302	84	6	20	1	0	3	3	0	0	0	0	39	462
09:00	2	251	73	6	37	3	0	2	3	0	0	0	0	30	407
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	15	1061	270	26	109	7	0	10	18	0	0	0	0	159	1675
Percent	0.9%	63.3%	16.1%	1.6%	6.5%	0.4%	0.0%	0.6%	1.1%	0.0%	0.0%	0.0%	0.0%	9.5%	
AM Peak	07:00	08:00	08:00	06:00	09:00	09:00		08:00	03:00					07:00	
Vol.	8	302	84	8	37	3		3	3					79	
PM Peak															
Vol.															
Grand Total	203	35856	7862	463	2729	239	20	240	552	4	0	8	0	2368	50544
Percent	0.4%	70.9%	15.6%	0.9%	5.4%	0.5%	0.0%	0.5%	1.1%	0.0%	0.0%	0.0%	0.0%	4.7%	



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent	
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
21:00	1	0	0	0	5	27	64	36	1	0	0	0	0	0	134	47	49	
22:00	0	0	0	0	1	7	40	26	4	0	0	0	0	0	78	48	50	
23:00	0	0	0	0	0	4	11	9	2	0	0	0	0	0	26	48	51	
Total	1	0	0	0	6	38	115	71	7	0	0	0	0	0	238			
Percent	0.4%	0.0%	0.0%	0.0%	2.5%	16.0%	48.3%	29.8%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak Vol.																		
PM Peak Vol.	21:00 1				21:00 5	21:00 27	21:00 64	21:00 36	22:00 4									21:00 134



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/28/19	0	0	0	0	0	5	5	7	0	1	0	0	0	0	18	48	55
01:00	0	0	0	0	2	2	9	5	0	0	0	0	0	0	18	47	49
02:00	0	0	0	0	0	4	14	5	2	0	0	0	0	0	25	48	51
03:00	0	0	0	0	0	5	12	14	5	0	0	0	0	0	36	49	53
04:00	0	0	0	0	2	1	40	39	8	1	0	0	0	0	91	49	52
05:00	4	0	0	0	3	29	105	98	20	2	0	0	0	0	261	49	52
06:00	19	0	2	10	71	181	245	71	7	1	0	0	0	0	607	44	48
07:00	163	67	79	68	127	226	119	21	0	0	0	0	0	0	870	40	44
08:00	88	41	58	84	156	220	121	33	3	0	0	0	0	0	804	41	44
09:00	19	0	14	16	25	152	183	72	6	1	0	0	0	0	488	45	48
10:00	21	0	1	0	20	129	195	59	6	0	0	0	0	0	431	45	48
11:00	7	1	0	1	46	123	174	71	4	0	0	0	0	0	427	45	48
12 PM	26	1	1	1	12	134	182	58	6	0	0	0	0	0	421	45	48
13:00	13	0	0	0	11	139	176	54	3	0	0	0	0	0	396	44	48
14:00	18	0	0	1	27	129	172	62	3	0	0	0	0	0	412	45	48
15:00	13	0	0	0	15	127	227	59	2	0	0	0	0	0	443	44	48
16:00	27	0	0	3	55	183	215	57	4	0	0	0	0	0	544	44	47
17:00	36	0	0	10	73	233	179	22	5	0	0	0	0	0	558	43	44
18:00	17	0	1	6	30	154	162	44	6	0	0	0	0	0	420	44	48
19:00	4	0	0	0	10	82	118	43	2	0	0	0	0	0	259	45	48
20:00	2	0	0	1	5	57	66	29	2	0	0	0	0	0	162	46	48
21:00	1	0	0	0	0	16	71	32	4	0	0	0	0	0	124	47	49
22:00	1	0	0	0	0	4	35	17	3	0	0	0	0	0	60	48	49
23:00	0	0	0	0	0	7	19	6	2	1	0	0	0	0	35	48	53
Total	479	110	156	201	690	2342	2844	978	103	7	0	0	0	0	7910		
Percent	6.1%	1.4%	2.0%	2.5%	8.7%	29.6%	36.0%	12.4%	1.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	08:00	07:00	06:00	05:00	05:00	05:00					07:00		
Vol.	163	67	79	84	156	226	245	98	20	2					870		
PM Peak	17:00	12:00	12:00	17:00	17:00	17:00	15:00	14:00	12:00	23:00					17:00		
Vol.	36	1	1	10	73	233	227	62	6	1					558		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/29/19	0	0	0	0	1	7	4	9	2	0	0	0	0	0	23	49	52
01:00	0	0	0	0	1	2	5	5	3	0	0	0	0	0	16	51	53
02:00	0	0	0	0	0	2	9	9	2	0	0	0	0	0	22	49	52
03:00	0	0	0	0	0	5	10	10	4	0	0	0	0	0	29	49	53
04:00	1	0	0	0	1	4	30	36	11	0	0	0	0	0	83	49	53
05:00	2	0	0	0	2	46	93	86	10	4	1	0	0	0	244	48	51
06:00	14	1	6	23	46	168	220	102	14	0	1	0	0	0	595	46	49
07:00	53	39	69	144	159	285	142	18	0	0	0	0	0	0	909	40	44
08:00	39	6	24	62	124	247	187	43	2	0	0	0	1	0	735	43	46
09:00	15	12	16	24	56	169	183	55	2	0	0	0	0	0	532	44	47
10:00	11	0	0	11	25	135	188	42	6	0	0	0	0	1	419	44	48
11:00	19	0	0	1	34	121	173	30	0	0	1	0	0	0	379	44	47
12 PM	20	0	2	6	24	104	184	39	2	2	0	0	0	0	383	44	48
13:00	21	0	1	1	16	130	191	59	4	0	0	0	0	0	423	44	48
14:00	10	0	3	7	33	139	161	44	1	0	0	0	0	0	398	44	47
15:00	18	0	4	15	67	170	148	26	2	0	0	0	0	1	451	43	46
16:00	22	0	0	8	38	182	147	25	0	0	0	0	0	0	422	43	45
17:00	32	0	1	22	123	200	62	10	1	0	0	0	0	0	451	40	44
18:00	18	1	1	14	104	145	37	1	0	0	0	0	0	0	321	39	42
19:00	3	0	0	6	26	94	40	6	0	0	0	0	0	0	175	42	44
20:00	7	1	3	1	18	42	33	7	0	0	0	0	0	0	112	43	46
21:00	0	0	2	0	7	37	25	3	0	0	0	0	0	0	74	43	44
22:00	0	0	0	0	5	10	16	5	1	0	0	0	0	0	37	45	49
23:00	1	0	0	0	3	12	8	5	1	0	0	0	0	0	30	46	49
Total	306	60	132	345	913	2456	2296	675	68	6	3	0	1	2	7263		
Percent	4.2%	0.8%	1.8%	4.8%	12.6%	33.8%	31.6%	9.3%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	06:00	06:00	06:00	05:00	05:00		08:00	10:00	07:00		
Vol.	53	39	69	144	159	285	220	102	14	4	1		1	1	909		
PM Peak	17:00	18:00	15:00	17:00	17:00	17:00	13:00	13:00	13:00	12:00				15:00	15:00		
Vol.	32	1	4	22	123	200	191	59	4	2				1	451		



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Lower York Road
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EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
01/30/19	0	0	0	0	0	7	15	3	0	0	0	0	0	0	25	44	47
01:00	0	0	0	0	3	3	5	3	1	0	0	0	0	0	15	47	51
02:00	0	0	0	0	1	6	9	2	2	1	0	0	0	0	21	49	54
03:00	0	0	0	0	0	4	12	4	0	1	0	0	0	0	21	47	49
04:00	0	0	0	0	0	10	33	16	8	0	0	0	0	0	67	49	52
05:00	1	0	0	2	6	41	79	54	13	0	0	0	0	0	196	48	51
06:00	7	1	7	7	28	161	184	49	16	0	0	0	0	0	460	44	49
07:00	14	3	31	73	164	285	158	18	0	0	0	0	0	0	746	42	44
08:00	25	6	16	43	126	292	181	27	2	0	0	0	0	0	718	42	44
09:00	16	0	3	11	51	233	208	47	4	0	0	0	0	0	573	44	47
10:00	22	0	0	3	24	136	193	76	9	0	0	0	0	0	463	46	49
11:00	25	2	12	15	59	87	168	63	4	0	0	0	0	0	435	45	48
12 PM	23	0	1	13	33	137	168	59	3	1	0	0	0	0	438	44	48
13:00	20	1	6	7	44	108	166	42	5	0	0	0	0	0	399	44	48
14:00	17	3	23	79	94	75	75	19	1	0	0	0	0	0	386	42	45
15:00	24	3	14	26	110	160	72	11	2	0	0	0	0	0	422	41	44
16:00	31	0	0	13	89	185	107	13	0	0	0	0	0	0	438	42	44
17:00	40	10	8	42	152	191	62	1	2	0	0	0	0	0	508	39	43
18:00	32	1	0	31	123	144	70	5	0	0	0	0	0	0	406	41	43
19:00	5	0	0	0	7	67	97	14	1	0	0	0	0	0	191	44	46
20:00	6	0	0	0	8	48	67	19	0	0	0	0	0	0	148	44	48
21:00	5	0	0	0	14	31	63	26	1	0	0	0	0	0	140	46	48
22:00	0	0	0	0	0	22	24	10	1	0	0	0	0	0	57	46	49
23:00	1	0	0	0	3	4	12	7	1	0	0	0	0	0	28	47	49
Total	314	30	121	365	1139	2437	2228	588	76	3	0	0	0	0	7301		
Percent	4.3%	0.4%	1.7%	5.0%	15.6%	33.4%	30.5%	8.1%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	07:00	08:00	09:00	10:00	06:00	02:00					07:00		
Vol.	25	6	31	73	164	292	208	76	16	1					746		
PM Peak	17:00	17:00	14:00	14:00	17:00	17:00	12:00	12:00	13:00	12:00					17:00		
Vol.	40	10	23	79	152	191	168	59	5	1					508		



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Lower York Road
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Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
01/31/19	0	0	0	0	0	5	11	6	1	1	0	0	0	0	24	48	54
01:00	0	0	0	0	2	3	6	4	0	0	0	0	0	0	15	47	49
02:00	0	0	0	0	0	0	8	3	1	0	0	0	0	0	12	48	51
03:00	0	0	0	0	0	2	10	13	1	2	0	0	0	0	28	49	56
04:00	1	0	0	0	6	9	28	27	4	1	0	0	0	0	76	48	51
05:00	2	0	0	0	8	35	99	44	5	0	0	0	0	1	194	47	49
06:00	17	0	0	6	33	163	237	62	3	2	0	0	0	0	523	44	48
07:00	38	7	18	43	135	274	161	26	3	0	0	0	0	0	705	42	44
08:00	39	3	17	46	134	238	184	31	5	0	0	0	0	0	697	43	45
09:00	28	0	5	12	89	224	192	44	1	0	0	0	0	0	595	43	46
10:00	14	0	0	7	42	182	238	42	2	0	0	0	0	0	527	44	47
11:00	17	0	3	1	37	143	167	39	0	0	0	0	0	0	407	44	47
12 PM	16	2	0	2	31	125	182	35	2	0	0	0	0	0	395	44	47
13:00	21	1	0	2	27	116	157	53	6	0	0	0	0	0	383	45	48
14:00	20	0	0	7	2	107	185	57	2	0	0	0	0	0	380	45	48
15:00	27	0	2	3	37	127	200	77	3	0	0	0	0	0	476	45	48
16:00	33	0	0	4	42	148	200	64	1	0	0	0	0	0	492	44	48
17:00	35	1	7	27	116	300	109	8	0	0	0	0	0	1	604	41	43
18:00	22	0	0	11	81	174	143	21	0	0	0	0	0	1	453	43	44
19:00	6	0	0	3	13	86	125	32	4	0	0	0	0	0	269	44	48
20:00	4	0	0	0	9	37	90	32	5	1	0	0	0	1	179	46	49
21:00	2	0	0	0	5	35	70	29	3	0	1	0	0	0	145	46	49
22:00	3	0	0	0	2	16	20	20	1	0	0	0	0	0	62	47	49
23:00	0	0	0	0	1	5	13	10	1	0	0	0	0	0	30	48	49
Total	345	14	52	174	852	2554	2835	779	54	7	1	0	0	4	7671		
Percent	4.5%	0.2%	0.7%	2.3%	11.1%	33.3%	37.0%	10.2%	0.7%	0.1%	0.0%	0.0%	0.0%	0.1%			
AM Peak	08:00	07:00	07:00	08:00	07:00	07:00	10:00	06:00	05:00	03:00				05:00	07:00		
Vol.	39	7	18	46	135	274	238	62	5	2				1	705		
PM Peak	17:00	12:00	17:00	17:00	17:00	17:00	15:00	15:00	13:00	20:00	21:00			17:00	17:00		
Vol.	35	2	7	27	116	300	200	77	6	1	1			1	604		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
02/01/19	0	0	0	0	0	7	8	7	1	0	0	0	0	0	23	48	49
01:00	1	0	0	0	0	3	12	4	1	0	0	0	0	0	21	47	49
02:00	0	0	0	0	2	0	9	5	0	0	0	0	0	0	16	47	49
03:00	0	0	0	0	0	2	5	15	4	0	0	0	0	0	26	50	53
04:00	3	0	0	0	0	7	23	23	6	1	0	0	0	0	63	49	53
05:00	1	0	0	2	16	32	59	67	21	0	1	0	0	0	199	49	52
06:00	8	1	3	9	20	137	218	42	7	0	0	0	0	0	445	44	48
07:00	36	4	16	29	109	285	204	31	3	0	0	0	0	0	717	43	44
08:00	22	0	9	26	100	268	190	37	6	0	0	0	0	0	658	43	46
09:00	14	5	28	59	52	137	138	24	0	0	0	0	0	0	457	43	45
10:00	39	37	65	81	99	82	53	5	0	0	0	0	0	0	461	39	43
11:00	17	2	8	4	46	195	142	16	2	0	0	0	0	0	432	43	44
12 PM	22	1	2	12	52	123	180	48	0	0	0	0	0	0	440	44	47
13:00	28	0	1	11	56	190	172	29	0	0	0	0	0	0	487	43	45
14:00	24	0	5	17	54	200	139	21	2	0	0	0	0	1	463	43	44
15:00	21	0	24	60	150	173	59	5	0	0	0	0	0	0	492	39	43
16:00	43	8	25	80	186	147	35	2	1	0	0	0	0	0	527	38	41
17:00	28	1	10	72	173	211	33	2	0	0	0	0	0	0	530	38	41
18:00	21	1	4	29	118	217	54	8	1	0	0	0	0	0	453	39	43
19:00	12	0	1	8	52	156	87	15	0	0	0	0	0	0	331	43	44
20:00	2	0	0	0	18	86	85	10	4	0	0	0	0	0	205	44	46
21:00	3	0	0	4	10	54	63	9	0	0	0	0	0	0	143	44	46
22:00	2	0	0	0	10	38	54	12	1	0	0	0	0	0	117	44	47
23:00	1	0	0	0	5	13	26	15	0	0	0	0	0	0	60	47	49
Total	348	60	201	503	1328	2763	2048	452	60	1	1	0	0	1	7766		
Percent	4.5%	0.8%	2.6%	6.5%	17.1%	35.6%	26.4%	5.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	10:00	10:00	07:00	07:00	06:00	05:00	05:00	04:00	05:00				07:00		
Vol.	39	37	65	81	109	285	218	67	21	1	1				717		
PM Peak	16:00	16:00	16:00	16:00	16:00	18:00	12:00	12:00	20:00					14:00	17:00		
Vol.	43	8	25	80	186	217	180	48	4					1	530		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/02/19	0	0	0	0	5	17	13	5	0	0	0	0	0	0	40	44	48
01:00	0	0	0	0	0	4	5	6	0	0	0	0	0	0	15	48	49
02:00	0	0	0	0	0	4	7	4	1	0	0	0	0	0	16	48	50
03:00	0	0	0	0	0	2	8	2	1	0	0	0	0	0	13	47	51
04:00	0	0	0	0	0	0	15	10	3	1	0	0	0	0	29	49	54
05:00	0	0	0	0	2	9	13	27	7	1	0	0	0	0	59	49	53
06:00	1	0	0	1	6	40	49	21	2	0	0	0	0	0	120	46	49
07:00	3	0	0	1	17	60	89	36	8	1	0	0	0	0	215	46	49
08:00	3	0	0	0	17	103	145	53	7	0	0	0	0	0	328	46	49
09:00	9	0	0	0	32	130	182	95	10	0	0	0	0	0	458	46	49
10:00	30	3	3	21	72	210	183	27	2	0	0	0	0	0	551	43	45
11:00	31	5	8	13	55	216	210	64	6	0	0	0	0	0	608	44	48
12 PM	46	0	0	10	40	187	258	47	1	0	0	0	0	0	589	44	46
13:00	48	0	0	12	60	190	267	51	3	0	1	0	0	0	632	44	47
14:00	31	0	0	0	49	178	236	70	4	0	0	0	0	0	568	44	48
15:00	28	0	0	1	40	194	226	66	6	0	0	0	0	0	561	44	48
16:00	28	0	1	10	38	265	184	24	1	0	0	0	0	0	551	43	44
17:00	14	1	14	21	92	244	154	18	0	0	0	0	0	0	558	42	44
18:00	10	0	0	5	27	187	194	30	1	0	0	0	0	0	454	44	46
19:00	15	0	1	5	50	162	117	32	0	0	0	0	0	0	382	43	47
20:00	5	0	0	0	19	78	99	36	1	0	0	1	0	0	239	45	48
21:00	3	1	0	4	18	93	113	17	0	0	0	0	0	0	249	44	46
22:00	7	0	0	9	37	86	95	14	0	0	0	0	0	0	248	43	45
23:00	4	0	0	0	2	25	47	14	1	0	0	0	0	0	93	45	48
Total	316	10	27	113	678	2684	2909	769	65	3	1	1	0	0	7576		
Percent	4.2%	0.1%	0.4%	1.5%	8.9%	35.4%	38.4%	10.2%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	10:00	10:00	11:00	11:00	09:00	09:00	04:00					11:00		
Vol.	31	5	8	21	72	216	210	95	10	1					608		
PM Peak	13:00	17:00	17:00	17:00	17:00	16:00	13:00	14:00	15:00		13:00	20:00			13:00		
Vol.	48	1	14	21	92	265	267	70	6		1	1			632		



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Lower York Road
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EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/03/19	0	0	0	0	2	8	37	9	4	0	0	0	0	0	60	47	51
01:00	0	0	0	0	1	9	15	8	0	0	0	0	0	0	33	46	48
02:00	0	0	0	0	1	2	3	2	1	0	0	0	0	0	9	49	52
03:00	0	0	0	1	1	2	7	3	1	0	0	0	0	0	15	47	51
04:00	0	0	0	0	0	0	6	10	9	0	0	0	0	0	25	52	54
05:00	0	0	0	0	1	5	15	14	5	1	0	0	0	0	41	49	53
06:00	1	0	0	0	4	18	55	17	4	1	0	0	0	0	100	47	50
07:00	1	0	0	0	7	14	68	34	8	0	0	0	0	0	132	48	50
08:00	1	0	1	0	9	36	136	56	3	0	0	0	0	0	242	47	49
09:00	7	0	0	0	3	57	170	72	10	1	0	0	0	0	320	47	49
10:00	18	0	0	0	12	135	217	73	10	2	0	0	0	0	467	46	49
11:00	20	0	1	4	20	121	207	59	6	0	0	0	0	1	439	44	48
12 PM	19	0	4	2	23	146	200	53	4	0	0	0	0	0	451	44	48
13:00	23	0	1	0	22	171	231	60	7	0	0	0	0	0	515	44	48
14:00	18	0	8	6	66	200	180	49	4	0	0	0	0	0	531	44	47
15:00	14	0	0	2	34	204	199	67	3	0	0	0	0	0	523	44	48
16:00	24	0	0	2	22	164	210	59	1	0	0	0	0	0	482	44	48
17:00	10	0	0	1	14	156	145	45	7	0	0	0	0	0	378	44	48
18:00	10	0	0	0	8	108	126	31	0	0	0	0	0	0	283	44	47
19:00	1	0	0	0	5	37	69	36	3	0	0	0	0	0	151	47	49
20:00	0	0	0	0	6	42	69	29	2	0	0	0	0	0	148	46	49
21:00	2	0	0	2	3	16	69	26	10	0	0	0	0	0	128	48	51
22:00	1	0	0	0	15	50	73	23	2	0	0	0	0	0	164	45	48
23:00	1	0	0	0	1	6	24	19	1	2	0	0	0	0	54	48	51
Total	171	0	15	20	280	1707	2531	854	105	7	0	0	0	1	5691		
Percent	3.0%	0.0%	0.3%	0.4%	4.9%	30.0%	44.5%	15.0%	1.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00		08:00	11:00	11:00	10:00	10:00	10:00	09:00	10:00				11:00	10:00		
Vol.	20		1	4	20	135	217	73	10	2				1	467		
PM Peak	16:00		14:00	14:00	14:00	15:00	13:00	15:00	21:00	23:00					14:00		
Vol.	24		8	6	66	204	231	67	10	2					531		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
EB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
02/04/19	0	0	0	1	1	5	5	3	1	0	0	0	0	0	0	16	47	50
01:00	0	0	0	0	1	6	10	2	0	0	0	0	0	0	0	19	44	47
02:00	0	0	0	0	2	2	5	8	0	0	0	0	0	0	0	17	48	49
03:00	0	0	0	0	0	7	10	10	2	1	0	0	0	0	0	30	49	53
04:00	0	0	0	0	1	10	38	30	9	2	0	0	0	0	0	90	49	53
05:00	1	0	0	0	3	55	119	62	12	1	0	0	0	0	0	253	47	50
06:00	10	0	1	16	66	229	260	42	3	0	0	0	0	0	0	627	44	46
07:00	194	96	80	96	130	177	92	6	0	0	0	0	0	0	1	872	39	42
08:00	84	25	46	95	108	242	165	29	3	0	0	0	0	0	0	797	42	44
09:00	29	13	17	9	49	166	195	64	8	0	0	0	0	0	0	550	44	48
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	318	134	144	217	361	899	899	256	38	4	0	0	0	0	1	3271		
Percent	9.7%	4.1%	4.4%	6.6%	11.0%	27.5%	27.5%	7.8%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	08:00	06:00	09:00	05:00	04:00					07:00	07:00		
Vol.	194	96	80	96	130	242	260	64	12	2					1	872		
PM Peak																		
Vol.																		
Grand Total	2598	418	848	1938	6247	17880	18705	5422	576	38	6	1	1	9		54687		
Percent	4.8%	0.8%	1.6%	3.5%	11.4%	32.7%	34.2%	9.9%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%				

15th Percentile : 31 MPH
50th Percentile : 39 MPH
85th Percentile : 44 MPH
95th Percentile : 48 MPH

Statistics
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 36585
Percent in Pace : 66.9%
Number of Vehicles > 40 MPH : 24758
Percent of Vehicles > 40 MPH : 45.3%
Mean Speed(Average) : 38 MPH



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Lower York Road
West of Aquetong
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WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	1	0	0	0	2	13	65	90	32	9	0	0	0	0	212	51	54
22:00	0	0	0	0	1	1	34	48	35	9	0	0	0	0	128	53	56
23:00	0	0	2	0	0	10	8	26	19	4	1	0	0	0	70	53	56
Total	1	0	2	0	3	24	107	164	86	22	1	0	0	0	410		
Percent	0.2%	0.0%	0.5%	0.0%	0.7%	5.9%	26.1%	40.0%	21.0%	5.4%	0.2%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	21:00 1		23:00 2		21:00 2	21:00 13	21:00 65	21:00 90	22:00 35	21:00 9	23:00 1				21:00 212		



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Lower York Road
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WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/28/19	0	0	0	0	0	1	11	6	10	3	0	0	0	0	31	54	57
01:00	0	0	0	1	0	2	8	4	5	3	1	0	0	0	24	55	59
02:00	0	0	0	0	0	4	6	1	4	1	0	0	0	0	16	53	55
03:00	0	0	0	0	0	0	5	4	3	1	0	1	0	0	14	54	66
04:00	0	0	0	0	0	0	4	9	10	1	0	0	0	0	24	53	54
05:00	1	0	0	0	0	2	7	30	22	7	1	0	0	0	70	54	58
06:00	12	0	0	1	14	27	72	88	41	12	0	0	0	0	267	51	54
07:00	84	0	2	1	11	52	100	93	25	3	0	0	0	0	371	48	51
08:00	56	1	0	6	15	52	117	120	46	4	0	0	0	0	417	49	53
09:00	15	0	0	4	23	54	143	106	47	9	3	0	0	0	404	49	54
10:00	22	0	0	0	9	73	148	110	37	8	1	0	0	0	408	49	53
11:00	12	0	0	9	21	70	173	113	24	3	0	0	0	0	425	48	51
12 PM	26	0	9	7	9	47	136	126	47	6	3	0	0	0	416	49	53
13:00	18	0	0	1	4	46	146	122	59	6	0	0	0	0	402	50	53
14:00	20	0	0	1	16	95	113	128	51	5	0	0	0	0	429	49	53
15:00	21	0	5	17	34	67	166	188	54	13	0	0	0	0	565	49	53
16:00	38	0	1	14	27	145	223	151	38	4	0	0	0	0	641	48	51
17:00	38	0	5	10	63	221	348	106	20	2	0	1	0	1	815	45	49
18:00	20	0	0	5	33	143	275	136	26	8	1	0	0	0	647	47	50
19:00	5	0	9	11	17	49	142	142	40	4	1	0	0	0	420	49	53
20:00	4	0	0	1	6	31	63	96	46	5	3	0	0	0	255	51	54
21:00	2	0	0	1	1	11	47	55	31	3	1	0	0	0	152	51	54
22:00	1	0	0	0	0	2	25	39	28	3	1	0	0	0	99	53	54
23:00	0	0	0	0	0	2	12	27	14	6	0	0	0	1	62	53	57
Total	395	1	31	90	303	1196	2490	2000	728	120	16	2	0	2	7374		
Percent	5.4%	0.0%	0.4%	1.2%	4.1%	16.2%	33.8%	27.1%	9.9%	1.6%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	11:00	09:00	10:00	11:00	08:00	09:00	06:00	09:00	03:00			11:00		
Vol.	84	1	2	9	23	73	173	120	47	12	3	1			425		
PM Peak	16:00		12:00	15:00	17:00	17:00	17:00	15:00	13:00	15:00	12:00	17:00		17:00	17:00		
Vol.	38		9	17	63	221	348	188	59	13	3	1		1	815		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/29/19	0	0	0	0	0	0	8	15	6	1	1	0	0	0	31	52	57
01:00	0	0	0	0	0	0	8	4	5	1	1	0	0	0	19	54	60
02:00	1	0	0	0	0	1	7	10	0	1	0	0	0	0	20	49	55
03:00	0	0	0	0	0	0	4	7	2	1	0	0	0	0	14	52	56
04:00	1	0	0	0	0	5	5	7	6	3	2	0	0	0	29	56	61
05:00	0	0	0	0	0	1	20	25	11	8	0	0	0	0	65	54	57
06:00	9	0	0	0	4	23	49	75	40	11	1	0	0	0	212	52	55
07:00	47	0	0	11	22	55	92	96	42	3	1	0	0	0	369	49	53
08:00	42	1	5	9	17	76	142	114	41	5	1	0	0	0	453	49	52
09:00	24	0	1	5	20	73	152	88	19	1	1	0	0	0	384	47	50
10:00	14	0	1	19	16	33	136	123	23	7	2	0	0	0	374	49	52
11:00	8	0	6	11	26	73	132	99	28	3	1	0	0	0	387	48	52
12 PM	15	1	1	6	18	68	161	126	39	8	1	0	0	0	444	49	53
13:00	14	0	2	4	24	85	145	107	25	2	0	0	0	1	409	48	51
14:00	15	0	0	16	27	92	169	118	31	3	0	0	0	0	471	48	51
15:00	20	0	0	7	22	101	236	145	28	1	1	0	0	0	561	48	50
16:00	24	0	4	11	63	171	226	116	16	3	0	0	0	0	634	46	49
17:00	27	1	3	35	153	304	186	44	6	0	0	0	0	0	759	43	46
18:00	16	0	6	14	65	214	153	58	13	1	0	0	0	0	540	44	48
19:00	5	1	0	0	12	47	125	78	18	3	2	0	0	0	291	48	52
20:00	2	0	0	0	2	9	46	59	26	2	0	0	0	0	146	51	53
21:00	0	0	1	3	7	31	42	29	10	1	1	0	0	0	125	48	52
22:00	0	0	0	0	1	12	30	19	8	0	0	0	0	0	70	49	52
23:00	3	0	0	0	7	3	19	30	7	0	1	0	0	0	70	49	53
Total	287	4	30	151	506	1477	2293	1592	450	69	17	0	0	1	6877		
Percent	4.2%	0.1%	0.4%	2.2%	7.4%	21.5%	33.3%	23.1%	6.5%	1.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	11:00	10:00	11:00	08:00	09:00	10:00	07:00	06:00	04:00				08:00		
Vol.	47	1	6	19	26	76	152	123	42	11	2				453		
PM Peak	17:00	12:00	18:00	17:00	17:00	17:00	15:00	15:00	12:00	12:00	19:00			13:00	17:00		
Vol.	27	1	6	35	153	304	236	145	39	8	2			1	759		



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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/30/19	0	0	0	0	1	1	10	7	3	0	1	0	0	0	23	50	54
01:00	1	0	0	0	1	3	6	6	5	0	0	1	0	0	23	52	54
02:00	0	0	0	0	1	5	10	11	1	0	0	0	0	0	28	48	49
03:00	0	0	0	0	0	2	3	3	0	2	0	0	0	0	10	56	58
04:00	0	0	0	0	0	1	7	8	4	3	1	0	0	0	24	55	59
05:00	0	0	0	0	1	9	7	21	20	3	0	0	0	0	61	53	54
06:00	9	0	0	0	3	7	49	69	37	9	0	0	0	0	183	52	54
07:00	22	0	0	1	13	30	78	94	48	2	2	0	0	1	291	50	53
08:00	27	0	3	8	17	67	131	118	41	6	1	0	0	0	419	49	53
09:00	21	1	5	8	12	61	123	95	40	6	1	0	0	0	373	49	53
10:00	17	0	1	10	10	43	107	138	39	8	0	1	0	0	374	49	53
11:00	20	0	1	19	34	62	93	86	32	6	1	0	0	1	355	49	53
12 PM	20	0	9	7	17	50	95	113	67	7	0	0	0	0	385	51	54
13:00	13	0	0	6	17	64	137	136	49	7	0	0	0	0	429	49	53
14:00	16	5	6	35	114	124	92	53	14	1	0	0	0	0	460	44	49
15:00	31	1	9	33	70	178	165	72	15	1	0	1	0	0	576	45	49
16:00	36	0	1	3	24	180	238	108	18	1	1	0	0	1	611	46	49
17:00	40	0	0	20	83	251	218	85	14	2	0	0	0	0	713	44	48
18:00	22	0	0	10	34	154	230	129	29	0	0	0	0	0	608	47	49
19:00	6	0	3	8	5	39	112	134	63	10	0	0	1	0	381	51	54
20:00	8	0	0	1	1	13	50	80	46	7	0	1	0	0	207	52	54
21:00	9	0	0	1	2	7	38	68	33	4	4	0	0	0	166	52	54
22:00	1	0	0	0	0	11	25	49	23	5	2	0	0	0	116	52	56
23:00	3	0	1	0	0	2	14	21	11	3	0	0	1	0	56	53	57
Total	322	7	39	170	460	1364	2038	1704	652	93	14	4	2	3	6872		
Percent	4.7%	0.1%	0.6%	2.5%	6.7%	19.8%	29.7%	24.8%	9.5%	1.4%	0.2%	0.1%	0.0%	0.0%			
AM Peak	08:00	09:00	09:00	11:00	11:00	08:00	08:00	10:00	07:00	06:00	07:00	01:00		07:00	08:00		
Vol.	27	1	5	19	34	67	131	138	48	9	2	1		1	419		
PM Peak	17:00	14:00	12:00	14:00	14:00	17:00	16:00	13:00	12:00	19:00	21:00	15:00	19:00	16:00	17:00		
Vol.	40	5	9	35	114	251	238	136	67	10	4	1	1	1	713		



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WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/31/19	3	0	0	0	0	1	8	9	9	3	0	0	0	0	33	53	57
01:00	0	0	0	0	0	0	5	8	4	1	1	0	0	0	19	53	60
02:00	0	0	0	0	0	1	7	9	4	1	0	0	0	0	22	52	54
03:00	1	0	0	0	0	1	5	3	4	0	0	0	0	0	14	52	54
04:00	5	0	0	0	2	1	4	10	6	2	0	0	0	0	30	52	56
05:00	8	0	0	0	2	5	20	24	12	5	1	1	0	0	78	53	58
06:00	22	0	0	2	4	22	51	60	31	10	0	1	0	0	203	51	55
07:00	69	0	0	2	4	40	107	110	44	5	2	0	0	0	383	49	53
08:00	34	0	0	2	6	59	141	128	42	10	1	1	0	0	424	49	53
09:00	24	0	0	0	12	74	122	109	50	6	0	0	0	0	397	49	53
10:00	11	0	5	5	9	60	140	107	33	6	0	0	0	0	376	49	53
11:00	7	3	0	11	20	58	138	110	33	5	0	0	0	0	385	49	52
12 PM	27	4	4	1	20	52	113	116	41	5	0	0	0	0	383	49	53
13:00	18	0	2	16	33	61	110	129	57	4	0	0	0	1	431	49	53
14:00	19	0	6	12	14	52	138	140	81	17	5	0	0	0	484	51	54
15:00	28	0	0	6	17	91	173	190	48	6	0	0	0	2	561	49	52
16:00	24	4	2	10	32	123	257	174	58	9	0	0	0	0	693	48	52
17:00	44	0	0	0	27	210	295	141	38	2	0	0	0	0	757	47	50
18:00	31	0	0	8	36	117	210	161	44	10	0	0	0	0	617	48	52
19:00	9	0	0	0	0	17	138	172	71	9	1	0	0	0	417	51	54
20:00	5	0	0	0	0	11	58	115	49	15	1	0	0	0	254	52	56
21:00	6	0	0	0	0	16	43	89	48	12	1	0	0	1	216	52	55
22:00	3	0	0	0	0	7	38	56	29	15	2	0	0	0	150	54	58
23:00	0	0	0	3	1	6	20	26	22	9	1	0	0	0	88	54	58
Total	398	11	19	78	239	1085	2341	2196	858	167	16	3	0	4	7415		
Percent	5.4%	0.1%	0.3%	1.1%	3.2%	14.6%	31.6%	29.6%	11.6%	2.3%	0.2%	0.0%	0.0%	0.1%			
AM Peak	07:00	11:00	10:00	11:00	11:00	09:00	08:00	08:00	09:00	06:00	07:00	05:00			08:00		
Vol.	69	3	5	11	20	74	141	128	50	10	2	1			424		
PM Peak	17:00	12:00	14:00	13:00	18:00	17:00	17:00	15:00	14:00	14:00	14:00			15:00	17:00		
Vol.	44	4	6	16	36	210	295	190	81	17	5			2	757		



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Lower York Road
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WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/01/19	0	0	0	0	4	1	7	13	12	7	2	0	0	0	46	56	59
01:00	1	0	0	0	0	1	7	3	7	2	0	0	0	0	21	54	57
02:00	1	0	0	0	0	3	4	7	6	0	0	0	0	0	21	52	54
03:00	2	0	0	0	0	0	2	5	2	2	0	0	0	0	13	55	58
04:00	1	0	0	0	2	0	2	5	6	1	1	0	0	0	18	54	60
05:00	4	0	0	1	1	1	7	24	19	4	2	0	0	0	63	54	58
06:00	8	0	0	3	12	13	42	54	46	9	4	0	0	0	191	53	56
07:00	38	0	0	0	10	26	126	106	51	4	0	0	0	0	361	50	53
08:00	32	2	4	3	29	58	128	101	39	2	1	0	0	0	399	49	52
09:00	26	6	38	41	14	41	108	70	19	2	0	0	0	0	365	47	50
10:00	25	0	19	45	68	87	79	30	8	1	0	0	0	0	362	44	48
11:00	26	2	6	8	40	81	141	81	32	1	0	0	0	0	418	48	51
12 PM	18	0	8	12	23	80	139	122	31	7	0	0	0	0	440	48	52
13:00	23	0	2	1	12	87	174	118	45	2	0	0	0	0	464	49	52
14:00	26	0	7	3	15	93	214	125	47	6	0	1	0	0	537	48	52
15:00	18	3	15	14	52	159	186	104	14	1	0	0	0	0	566	46	49
16:00	45	0	3	44	57	201	243	90	8	0	0	0	0	0	691	44	48
17:00	41	0	1	12	97	290	216	55	11	2	0	0	0	0	725	44	47
18:00	23	0	0	0	43	133	208	98	29	1	0	0	0	1	536	47	50
19:00	12	0	0	6	16	47	136	109	34	3	0	0	0	0	363	49	52
20:00	1	0	0	2	12	28	87	108	34	4	2	0	0	0	278	49	53
21:00	4	0	0	0	4	18	88	67	27	3	2	0	0	0	213	50	53
22:00	0	0	1	0	3	26	59	61	24	8	0	0	0	0	182	50	54
23:00	1	0	0	0	0	8	27	49	31	2	0	0	0	0	118	52	54
Total	376	13	104	195	514	1482	2430	1605	582	74	14	1	0	1	7391		
Percent	5.1%	0.2%	1.4%	2.6%	7.0%	20.1%	32.9%	21.7%	7.9%	1.0%	0.2%	0.0%	0.0%	0.0%			
AM Peak	07:00	09:00	09:00	10:00	10:00	10:00	11:00	07:00	07:00	06:00	06:00				11:00		
Vol.	38	6	38	45	68	87	141	106	51	9	4				418		
PM Peak	16:00	15:00	15:00	16:00	17:00	17:00	16:00	14:00	14:00	22:00	20:00	14:00		18:00	17:00		
Vol.	45	3	15	44	97	290	243	125	47	8	2	1		1	725		



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Lower York Road
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WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/02/19	0	0	0	0	1	8	16	26	13	0	1	0	0	0	65	51	54
01:00	0	0	0	0	1	2	11	13	6	3	0	0	0	0	36	52	56
02:00	0	0	0	0	1	2	7	15	3	1	0	0	0	0	29	49	54
03:00	0	0	0	0	0	1	1	1	3	1	0	0	0	0	7	54	58
04:00	1	0	0	0	0	2	2	4	3	1	0	0	0	0	13	53	56
05:00	0	0	0	0	0	0	1	9	6	3	1	0	0	0	20	56	60
06:00	1	0	0	0	1	3	4	17	17	5	1	0	0	0	49	54	58
07:00	2	0	0	0	0	6	35	58	40	4	3	1	0	0	149	53	55
08:00	9	0	0	3	2	18	74	102	48	10	2	0	0	0	268	52	54
09:00	7	0	0	3	15	43	107	97	57	9	1	0	0	0	339	51	54
10:00	32	0	0	0	11	87	197	128	42	5	1	0	0	0	503	48	52
11:00	26	0	1	6	25	72	198	144	35	8	0	0	0	0	515	48	52
12 PM	37	0	0	4	11	92	225	174	53	6	2	0	0	1	605	49	52
13:00	36	0	0	11	20	124	193	131	37	3	1	0	0	0	556	48	51
14:00	29	0	1	0	11	57	184	176	56	12	1	0	0	1	528	49	53
15:00	27	0	0	2	12	79	188	147	60	11	0	1	0	1	528	49	53
16:00	29	0	0	1	16	110	237	159	37	6	0	0	0	0	595	48	51
17:00	24	0	0	1	16	101	200	116	29	6	1	0	1	0	495	48	52
18:00	11	0	0	1	13	81	152	114	41	6	0	0	0	0	419	49	53
19:00	8	0	0	1	18	64	148	100	25	2	0	0	0	0	366	48	51
20:00	6	0	0	0	2	23	94	103	45	11	1	0	0	0	285	51	54
21:00	5	0	0	0	7	17	60	103	35	8	2	0	0	0	237	51	54
22:00	7	0	0	0	0	24	78	123	31	6	0	0	0	0	269	49	53
23:00	2	0	0	0	0	8	50	66	41	9	0	0	0	0	176	52	55
Total	299	0	2	33	183	1024	2462	2126	763	136	18	2	1	3	7052		
Percent	4.2%	0.0%	0.0%	0.5%	2.6%	14.5%	34.9%	30.1%	10.8%	1.9%	0.3%	0.0%	0.0%	0.0%			
AM Peak	10:00		11:00	11:00	11:00	10:00	11:00	11:00	09:00	08:00	07:00	07:00			11:00		
Vol.	32		1	6	25	87	198	144	57	10	3	1			515		
PM Peak	12:00		14:00	13:00	13:00	13:00	16:00	14:00	15:00	14:00	12:00	15:00	17:00	12:00	12:00		
Vol.	37		1	11	20	124	237	176	60	12	2	1	1	1	605		



Imperial Traffic & Data Collection

P.O. Box 4637, Cherry Hill, NJ 08034
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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
02/03/19	0	0	0	0	1	2	27	47	24	7	0	0	0	0	108	53	56
01:00	1	0	0	0	0	3	15	26	19	1	0	0	0	0	65	52	54
02:00	0	0	0	0	0	1	9	13	8	2	0	0	0	0	33	53	55
03:00	0	0	0	0	0	0	1	4	4	4	0	0	0	0	13	57	59
04:00	0	0	0	0	0	0	1	3	5	0	0	0	0	0	9	53	54
05:00	0	0	0	0	2	0	2	4	2	1	1	0	0	0	12	55	61
06:00	0	0	0	0	1	1	9	21	8	4	0	0	0	0	44	53	57
07:00	0	0	0	0	1	7	17	32	20	10	1	0	0	0	88	54	58
08:00	2	0	0	0	1	7	25	58	35	8	1	0	0	0	137	53	56
09:00	3	0	2	1	4	24	94	93	44	7	0	0	0	0	272	51	54
10:00	17	0	0	0	3	36	102	115	66	6	0	1	0	0	346	51	54
11:00	19	0	5	7	1	68	122	137	65	16	4	1	0	0	445	51	54
12 PM	27	0	0	0	6	85	195	164	45	10	2	1	0	0	535	49	53
13:00	19	0	0	0	6	34	146	178	82	11	2	0	0	0	478	51	54
14:00	15	0	0	0	6	54	173	151	65	6	2	1	0	0	473	50	53
15:00	17	0	0	0	8	62	137	167	69	8	3	0	0	0	471	50	54
16:00	16	0	0	0	5	50	132	155	66	15	3	1	0	0	443	51	54
17:00	10	0	0	0	5	75	138	133	50	6	1	0	0	0	418	49	53
18:00	4	0	0	0	3	36	91	97	54	9	0	0	0	0	294	51	54
19:00	2	0	0	0	0	8	38	58	56	10	0	0	0	0	172	53	55
20:00	1	0	0	0	3	11	22	72	28	5	1	0	0	0	143	52	54
21:00	2	0	0	0	0	17	32	68	36	6	0	0	0	0	161	52	54
22:00	3	0	0	0	0	20	44	79	34	9	1	1	0	0	191	52	55
23:00	3	0	0	0	0	3	24	59	27	8	3	0	0	0	127	53	57
Total	161	0	7	8	56	604	1596	1934	912	169	25	6	0	0	5478		
Percent	2.9%	0.0%	0.1%	0.1%	1.0%	11.0%	29.1%	35.3%	16.6%	3.1%	0.5%	0.1%	0.0%	0.0%			
AM Peak	11:00		11:00	11:00	09:00	11:00	11:00	11:00	10:00	11:00	11:00	10:00			11:00		
Vol.	19		5	7	4	68	122	137	66	16	4	1			445		
PM Peak	12:00				15:00	12:00	12:00	13:00	13:00	16:00	15:00	12:00			12:00		
Vol.	27				8	85	195	178	82	15	3	1			535		



Imperial Traffic & Data Collection

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Lower York Road
West of Aquetong
Solebury, Bucks County, PA
WB Lower York

1. lower york road_speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/04/19	0	0	0	0	4	3	6	24	11	5	3	0	0	0	56	54	60
01:00	0	0	0	0	1	1	4	5	6	0	1	0	0	0	18	53	60
02:00	0	0	0	0	1	1	4	7	2	0	0	1	0	0	16	51	66
03:00	0	0	0	0	0	2	4	4	3	1	0	0	0	0	14	53	56
04:00	0	0	0	0	0	0	6	12	1	1	0	0	0	0	20	49	55
05:00	1	0	0	0	0	1	15	24	22	4	2	1	0	0	70	54	59
06:00	10	0	0	0	2	35	48	88	44	8	1	0	0	0	236	52	54
07:00	82	1	9	1	10	50	89	89	33	9	2	0	0	1	376	49	53
08:00	40	2	1	0	4	65	151	136	48	14	1	0	0	0	462	49	54
09:00	30	0	0	2	19	66	102	115	61	10	2	0	0	0	407	50	54
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	163	3	10	3	41	224	429	504	231	52	12	2	0	1	1675		
Percent	9.7%	0.2%	0.6%	0.2%	2.4%	13.4%	25.6%	30.1%	13.8%	3.1%	0.7%	0.1%	0.0%	0.1%			
AM Peak	07:00	08:00	07:00	09:00	09:00	09:00	08:00	08:00	09:00	08:00	00:00	02:00		07:00	08:00		
Vol.	82	2	9	2	19	66	151	136	61	14	3	1		1	462		
PM Peak																	
Vol.																	
Grand Total	2402	39	244	728	2305	8480	16186	13825	5262	902	133	20	3	15	50544		
Percent	4.8%	0.1%	0.5%	1.4%	4.6%	16.8%	32.0%	27.4%	10.4%	1.8%	0.3%	0.0%	0.0%	0.0%			

15th Percentile : 36 MPH
50th Percentile : 43 MPH
85th Percentile : 49 MPH
95th Percentile : 53 MPH

Statistics
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 30011
Percent in Pace : 59.4%
Number of Vehicles > 40 MPH : 36346
Percent of Vehicles > 40 MPH : 71.9%
Mean Speed(Average) : 42 MPH



Lower York Road
West of Aquetong Road
Solebury, Bucks County, PA

Imperial Traffic & Data Collection

P.O. Box 4637, Cherry Hill, NJ 08034
www.imperialtdc.com | (609)706-6100

1. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	21-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB Lower	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	134	212	134	212
10:00	*	*	*	*	*	*	*	*	*	*	*	*	78	128	78	128
11:00	*	*	*	*	*	*	*	*	*	*	*	*	26	70	26	70
Lane Day	0	0	0	0	0	0	0	0	0	0	0	0	238	410	238	410
	0		0		0		0		0		0		648		648	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	21:00	21:00	21:00	21:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	134	212	134	212



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Lower York Road
West of Aquetong Road
Solebury, Bucks County, PA

1. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	28-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB Lower	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low
12:00 AM	18	31	23	31	25	23	24	33	23	46	40	65	60	108	30	48
01:00	18	24	16	19	15	23	15	19	21	21	15	36	33	65	19	30
02:00	25	16	22	20	21	28	12	22	16	21	16	29	9	33	17	24
03:00	36	14	29	14	21	10	28	14	26	13	13	7	15	13	24	12
04:00	91	24	83	29	67	24	76	30	63	18	29	13	25	9	62	21
05:00	261	70	244	65	196	61	194	78	199	63	59	20	41	12	171	53
06:00	607	267	595	212	460	183	523	203	445	191	120	49	100	44	407	164
07:00	870	371	909	369	746	291	705	383	717	361	215	149	132	88	613	287
08:00	804	417	735	453	718	419	697	424	658	399	328	268	242	137	597	360
09:00	488	404	532	384	573	373	595	397	457	365	458	339	320	272	489	362
10:00	431	408	419	374	463	374	527	376	461	362	551	503	467	346	474	392
11:00	427	425	379	387	435	355	407	385	432	418	608	515	439	445	447	419
12:00 PM	421	416	383	444	438	385	395	383	440	440	589	605	451	535	445	458
01:00	396	402	423	409	399	429	383	431	487	464	632	556	515	478	462	453
02:00	412	429	398	471	386	460	380	484	463	537	568	528	531	473	448	483
03:00	443	565	451	561	422	576	476	561	492	566	561	528	523	471	481	547
04:00	544	641	422	634	438	611	492	693	527	691	551	595	482	443	494	615
05:00	558	815	451	759	508	713	604	757	530	725	558	495	378	418	512	669
06:00	420	647	321	540	406	608	453	617	453	536	454	419	283	294	399	523
07:00	259	420	175	291	191	381	269	417	331	363	382	366	151	172	251	344
08:00	162	255	112	146	148	207	179	254	205	278	239	285	148	143	170	224
09:00	124	152	74	125	140	166	145	216	143	213	249	237	128	161	143	181
10:00	60	99	37	70	57	116	62	150	117	182	248	269	164	191	106	154
11:00	35	62	30	70	28	56	30	88	60	118	93	176	54	127	47	100
Lane Day	7910	7374	7263	6877	7301	6872	7671	7415	7766	7391	7576	7052	5691	5478	7308	6923
	15284		14140		14173		15086		15157		14628		11169		14231	
AM Peak	07:00	11:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	11:00	11:00	11:00	10:00	11:00	07:00	11:00
Vol.	870	425	909	453	746	419	705	424	717	418	608	515	467	445	613	419
PM Peak	17:00	17:00	15:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	13:00	12:00	14:00	12:00	17:00	17:00
Vol.	558	815	451	759	508	713	604	757	530	725	632	605	531	535	512	669



Lower York Road
West of Aquetong Road
Solebury, Bucks County, PA

Imperial Traffic & Data Collection

P.O. Box 4637, Cherry Hill, NJ 08034
www.imperialtdc.com | (609)706-6100

1. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	04-Feb-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB Lower	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low
12:00 AM	16	56	*	*	*	*	*	*	*	*	*	*	*	*	16	56
01:00	19	18	*	*	*	*	*	*	*	*	*	*	*	*	19	18
02:00	17	16	*	*	*	*	*	*	*	*	*	*	*	*	17	16
03:00	30	14	*	*	*	*	*	*	*	*	*	*	*	*	30	14
04:00	90	20	*	*	*	*	*	*	*	*	*	*	*	*	90	20
05:00	253	70	*	*	*	*	*	*	*	*	*	*	*	*	253	70
06:00	627	236	*	*	*	*	*	*	*	*	*	*	*	*	627	236
07:00	872	376	*	*	*	*	*	*	*	*	*	*	*	*	872	376
08:00	797	462	*	*	*	*	*	*	*	*	*	*	*	*	797	462
09:00	550	407	*	*	*	*	*	*	*	*	*	*	*	*	550	407
10:00	419	389	*	*	*	*	*	*	*	*	*	*	*	*	419	389
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lane Day	3690	2064	0	0	0	0	0	0	0	0	0	0	0	0	3690	2064
	5754		0		0		0		0		0		0		5754	
AM Peak	07:00	08:00	-	-	-	-	-	-	-	-	-	-	-	-	07:00	08:00
Vol.	872	462	-	-	-	-	-	-	-	-	-	-	-	-	872	462
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	21038	14140	14173	15086	15157	14628	11817	20633
ADT	ADT 14,234	AADT 14,234						



Imperial Traffic & Data Collection

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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	0	127	9	4	2	0	0	2	1	0	0	0	0	0	145
23:00	1	66	3	1	1	1	0	1	0	0	0	0	0	0	74
Total	1	193	12	5	3	1	0	3	1	0	0	0	0	0	219
Percent	0.5%	88.1%	5.5%	2.3%	1.4%	0.5%	0.0%	1.4%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	23:00 1	22:00 127	22:00 9	22:00 4	22:00 2	23:00 1		22:00 2	22:00 1						



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	0	26	1	0	0	0	0	1	1	0	0	0	0	0	29
01:00	0	24	2	0	1	0	0	0	0	0	0	0	0	0	27
02:00	0	11	1	0	1	0	0	0	5	0	0	0	0	0	18
03:00	0	8	1	0	3	0	0	0	3	0	0	0	0	0	15
04:00	0	14	5	1	2	1	0	0	0	0	0	0	0	0	23
05:00	0	48	7	3	3	0	0	1	4	0	0	0	0	0	66
06:00	1	207	32	11	8	3	0	1	5	1	0	0	0	0	269
07:00	1	397	43	10	7	1	0	0	4	0	0	0	0	0	463
08:00	5	401	27	4	9	3	0	3	3	0	0	0	0	0	455
09:00	1	316	51	3	18	7	2	2	7	0	0	0	0	0	407
10:00	1	336	51	5	24	5	0	3	5	0	0	0	0	0	430
11:00	3	355	51	5	14	5	1	4	11	0	0	0	0	0	449
12 PM	2	373	55	2	23	6	0	2	10	0	0	0	0	0	473
13:00	2	374	51	3	17	3	0	2	8	0	0	0	0	0	460
14:00	2	390	60	6	15	2	0	2	8	0	0	0	0	0	485
15:00	1	528	82	5	23	4	0	0	7	0	0	0	0	0	650
16:00	4	624	72	3	15	5	1	3	9	0	0	0	0	0	736
17:00	5	808	62	1	8	5	0	1	3	1	0	0	0	0	894
18:00	0	638	52	1	13	4	0	3	4	0	0	0	0	0	715
19:00	2	402	17	3	6	1	0	2	4	0	0	0	0	0	437
20:00	0	257	18	2	3	0	0	0	3	0	0	0	0	0	283
21:00	0	165	8	2	0	0	0	3	1	0	0	0	0	0	179
22:00	0	86	11	1	2	0	0	0	2	0	0	1	0	0	103
23:00	0	56	2	1	2	0	0	3	5	0	0	0	0	0	69
Total	30	6844	762	72	217	55	4	36	112	2	0	1	0	0	8135
Percent	0.4%	84.1%	9.4%	0.9%	2.7%	0.7%	0.0%	0.4%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	09:00	06:00	10:00	09:00	09:00	11:00	11:00	06:00					
Vol.	5	401	51	11	24	7	2	4	11	1					
PM Peak	17:00	17:00	15:00	14:00	12:00	12:00	16:00	16:00	12:00	17:00		22:00			
Vol.	5	808	82	6	23	6	1	3	10	1		1			



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Lower York Road
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WB Lower York Road

2. Lower York Road_Class

Date Start: 27-Jan-19

Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	19	4	0	2	0	1	2	2	0	0	0	0	0	30
01:00	0	15	0	0	0	0	0	0	3	0	0	0	0	0	18
02:00	0	15	0	1	2	0	0	0	2	0	0	0	0	0	20
03:00	0	10	1	1	2	0	0	0	1	0	0	0	0	0	15
04:00	0	12	7	0	3	0	0	1	6	0	0	0	0	0	29
05:00	0	42	9	1	5	1	0	0	5	0	0	1	0	0	64
06:00	1	163	28	8	11	2	0	4	3	0	0	0	0	0	220
07:00	3	353	30	5	4	5	0	0	6	0	0	0	0	0	406
08:00	2	390	36	5	8	4	0	3	9	0	0	0	0	0	457
09:00	2	314	39	6	12	5	0	3	4	0	0	0	0	0	385
10:00	0	320	47	6	16	3	1	6	6	0	0	0	0	0	405
11:00	0	332	54	6	21	3	0	4	8	0	0	0	0	0	428
12 PM	5	416	45	3	17	5	1	1	10	0	0	0	0	0	503
13:00	1	387	41	2	16	3	0	3	12	0	0	0	0	0	465
14:00	1	463	62	5	21	3	0	3	9	0	0	0	0	0	567
15:00	0	526	65	7	22	3	0	2	4	0	0	0	0	0	629
16:00	2	606	71	1	19	2	0	2	7	0	0	0	0	0	710
17:00	2	769	56	1	14	2	0	2	3	0	0	0	0	0	849
18:00	1	511	50	0	10	0	0	0	2	0	0	0	0	0	574
19:00	2	266	29	2	7	1	0	1	2	0	0	0	0	0	310
20:00	0	163	12	0	3	0	0	0	1	0	0	0	0	0	179
21:00	0	99	16	2	6	0	0	0	2	0	0	0	0	0	125
22:00	0	67	3	1	2	0	0	0	4	0	0	0	0	0	77
23:00	1	51	8	0	3	7	0	3	1	0	0	0	0	0	74
Total	23	6309	713	63	226	49	3	40	112	0	0	1	0	0	7539
Percent	0.3%	83.7%	9.5%	0.8%	3.0%	0.6%	0.0%	0.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	11:00	06:00	11:00	07:00	00:00	10:00	08:00			05:00			
Vol.	3	390	54	8	21	5	1	6	9			1			
PM Peak	12:00	17:00	16:00	15:00	15:00	23:00	12:00	13:00	13:00						
Vol.	5	769	71	7	22	7	1	3	12						



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Lower York Road
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WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/19	0	21	4	0	2	0	0	0	1	0	0	0	0	0	28
01:00	0	9	4	0	4	1	0	1	2	0	0	0	0	0	21
02:00	0	15	4	1	3	0	1	1	5	0	0	0	0	0	30
03:00	0	8	0	2	0	0	0	0	1	0	0	0	0	0	11
04:00	0	13	6	1	5	0	0	0	3	0	0	0	0	0	28
05:00	0	37	9	4	5	0	0	2	2	0	0	0	0	0	59
06:00	2	131	24	4	12	2	0	0	5	0	0	0	0	0	180
07:00	3	240	40	3	9	3	0	2	5	0	0	0	0	1	306
08:00	2	347	28	8	15	4	0	1	5	0	0	0	0	0	410
09:00	2	302	43	11	12	6	0	2	6	0	0	0	0	0	384
10:00	1	304	39	5	19	4	1	0	4	0	0	0	0	0	377
11:00	1	304	50	5	13	3	0	5	8	0	0	0	0	0	389
12 PM	4	335	43	3	16	5	0	4	9	0	0	0	0	0	419
13:00	2	337	67	5	23	5	3	3	7	0	0	0	0	0	452
14:00	1	435	72	4	19	7	0	1	13	0	0	0	0	0	552
15:00	1	513	90	3	30	3	0	2	7	0	0	0	0	0	649
16:00	2	591	70	2	17	2	0	4	0	0	0	0	0	0	688
17:00	3	696	52	0	17	4	0	1	3	0	0	0	0	0	776
18:00	1	575	43	0	12	3	0	0	3	1	0	0	0	0	638
19:00	1	368	40	5	8	1	0	2	2	0	0	0	0	0	427
20:00	1	224	20	1	3	0	0	0	1	1	0	0	0	0	251
21:00	0	164	18	0	2	0	0	1	1	0	0	0	0	0	186
22:00	0	107	12	1	2	0	0	0	2	0	0	0	0	0	124
23:00	0	53	3	0	2	0	0	2	2	0	0	1	0	0	63
Total	27	6129	781	68	250	53	5	34	97	2	0	1	0	1	7448
Percent	0.4%	82.3%	10.5%	0.9%	3.4%	0.7%	0.1%	0.5%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	11:00	09:00	10:00	09:00	02:00	11:00	11:00					07:00	
Vol.	3	347	50	11	19	6	1	5	8					1	
PM Peak	12:00	17:00	15:00	13:00	15:00	14:00	13:00	12:00	14:00	18:00		23:00			
Vol.	4	696	90	5	30	7	3	4	13	1		1			



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Lower York Road
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WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/19	0	26	4	0	2	0	0	1	1	0	0	0	0	0	34
01:00	0	18	3	0	0	0	0	0	1	0	0	0	0	0	22
02:00	0	12	0	0	2	2	0	1	5	0	0	0	0	0	22
03:00	0	6	4	2	2	0	0	0	2	0	0	0	0	0	16
04:00	0	14	3	0	4	0	0	0	3	0	0	0	0	0	24
05:00	0	49	15	1	2	0	0	2	5	0	0	0	0	0	74
06:00	0	158	20	2	10	1	0	1	8	0	0	0	0	0	200
07:00	1	302	32	5	4	3	0	2	7	0	0	0	0	0	356
08:00	3	352	37	8	10	2	0	2	3	0	0	0	0	0	417
09:00	3	317	48	13	15	4	0	1	3	0	0	0	0	0	404
10:00	0	289	52	8	19	3	0	2	7	0	0	0	0	0	380
11:00	0	293	57	10	21	3	1	3	11	0	0	0	0	0	399
12 PM	1	321	38	7	16	4	0	5	13	0	0	0	0	0	405
13:00	1	352	42	2	26	6	0	2	5	0	0	0	0	0	436
14:00	1	442	64	10	25	3	0	1	13	0	0	0	0	0	559
15:00	2	501	64	6	30	6	0	2	8	0	0	0	0	0	619
16:00	1	665	83	2	14	1	0	2	7	0	0	0	0	0	775
17:00	4	756	52	3	14	5	0	2	1	0	0	0	0	0	837
18:00	2	598	47	1	11	2	1	1	4	0	0	0	0	0	667
19:00	1	414	35	2	4	1	0	1	0	0	0	0	0	0	458
20:00	1	266	18	1	6	0	0	0	2	0	0	0	0	0	294
21:00	0	198	17	3	1	0	0	1	1	0	0	0	0	0	221
22:00	0	151	7	2	3	0	0	0	2	0	0	0	0	0	165
23:00	0	66	4	1	3	0	0	1	6	0	0	1	0	0	82
Total	21	6566	746	89	244	46	2	33	118	0	0	1	0	0	7866
Percent	0.3%	83.5%	9.5%	1.1%	3.1%	0.6%	0.0%	0.4%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	11:00	09:00	11:00	09:00	11:00	11:00	11:00						
Vol.	3	352	57	13	21	4	1	3	11						
PM Peak	17:00	17:00	16:00	14:00	15:00	13:00	18:00	12:00	12:00			23:00			
Vol.	4	756	83	10	30	6	1	5	13			1			



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Lower York Road
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WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/19	0	40	2	0	2	0	0	3	1	0	0	0	0	0	48
01:00	0	19	1	1	0	0	0	0	1	0	0	0	0	0	22
02:00	0	10	1	1	2	0	0	1	4	0	0	0	0	0	19
03:00	1	10	2	1	1	0	0	0	2	0	0	0	0	0	17
04:00	0	11	1	0	4	1	0	1	2	0	0	0	0	0	20
05:00	0	37	9	2	6	1	0	0	4	0	0	0	0	0	59
06:00	0	132	22	8	8	3	0	2	5	0	0	1	0	0	181
07:00	0	316	43	9	13	4	0	1	6	0	0	0	0	0	392
08:00	0	319	28	4	12	4	0	2	3	0	0	0	0	0	372
09:00	1	300	52	5	14	1	1	4	9	0	0	0	0	0	387
10:00	2	287	33	5	22	4	0	1	4	0	0	0	0	0	358
11:00	2	368	49	5	23	9	1	4	7	1	0	0	0	0	469
12 PM	0	388	53	4	19	4	0	4	13	2	0	0	0	0	487
13:00	1	414	57	2	20	1	0	2	9	0	0	0	0	0	506
14:00	2	502	59	3	28	6	0	1	1	0	0	0	0	0	602
15:00	4	522	77	3	20	2	0	4	3	0	0	0	0	0	635
16:00	1	657	86	2	18	6	0	2	4	0	0	0	0	1	777
17:00	4	729	60	2	16	4	0	0	2	0	0	0	0	0	817
18:00	4	522	43	4	9	1	0	1	1	0	0	0	0	0	585
19:00	2	354	31	2	9	3	0	1	3	0	0	0	0	0	405
20:00	0	291	33	2	3	1	0	0	1	0	0	0	0	0	331
21:00	0	213	23	1	2	0	0	1	0	0	0	0	0	0	240
22:00	0	177	11	1	4	0	0	1	0	0	0	1	0	0	195
23:00	0	108	8	0	5	0	0	1	2	0	0	0	0	0	124
Total	24	6726	784	67	260	55	2	37	87	3	0	2	0	1	8048
Percent	0.3%	83.6%	9.7%	0.8%	3.2%	0.7%	0.0%	0.5%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	07:00	11:00	11:00	09:00	09:00	09:00	11:00		06:00			
Vol.	2	368	52	9	23	9	1	4	9	1		1			
PM Peak	15:00	17:00	16:00	12:00	14:00	14:00		12:00	12:00	12:00		22:00		16:00	
Vol.	4	729	86	4	28	6		4	13	2		1		1	



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2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/19	0	60	6	0	0	0	0	0	3	0	0	0	0	0	69
01:00	0	30	4	0	0	0	0	1	0	0	0	0	0	0	35
02:00	0	18	2	1	1	0	0	1	4	0	0	1	0	0	28
03:00	0	6	0	0	2	0	0	0	1	0	0	0	0	0	9
04:00	0	6	2	0	1	0	0	1	1	0	0	0	0	0	11
05:00	0	16	2	0	4	0	0	0	4	0	0	0	0	0	26
06:00	0	32	8	3	3	1	0	0	0	0	0	1	0	0	48
07:00	1	119	24	2	7	0	0	0	1	0	0	0	0	0	154
08:00	0	219	29	1	8	0	1	1	2	0	0	0	0	0	261
09:00	0	325	34	0	4	1	0	1	2	0	0	0	0	0	367
10:00	2	476	50	1	13	3	0	1	1	0	0	0	0	0	547
11:00	1	494	36	2	13	2	0	2	2	0	0	0	0	0	552
12 PM	2	598	63	1	6	1	0	0	0	0	0	0	0	0	671
13:00	0	527	44	0	10	4	0	2	7	0	0	0	0	0	594
14:00	1	555	47	1	10	3	0	1	0	0	0	0	0	0	618
15:00	2	527	51	1	1	1	0	0	1	0	0	0	0	0	584
16:00	2	554	45	3	11	0	0	2	4	0	0	0	0	0	621
17:00	4	497	35	1	9	1	0	0	1	0	0	0	0	0	548
18:00	3	414	31	0	9	1	0	2	1	0	0	0	0	0	461
19:00	0	356	28	3	7	2	0	0	1	0	0	0	0	0	397
20:00	1	296	13	2	1	0	0	0	1	0	0	0	0	0	314
21:00	0	245	15	0	4	0	0	0	1	0	0	0	0	0	265
22:00	0	284	5	3	0	1	0	0	2	0	0	0	0	0	295
23:00	0	175	10	1	3	0	0	0	0	0	0	0	0	0	189
Total	19	6829	584	26	127	21	1	15	40	0	0	2	0	0	7664
Percent	0.2%	89.1%	7.6%	0.3%	1.7%	0.3%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	10:00	06:00	10:00	10:00	08:00	11:00	02:00			02:00			
Vol.	2	494	50	3	13	3	1	2	4			1			
PM Peak	17:00	12:00	12:00	16:00	16:00	13:00		13:00	13:00						
Vol.	4	598	63	3	11	4		2	7						



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WB Lower York Road

2. Lower York Road_Class

Date Start: 27-Jan-19

Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/19	0	114	6	0	3	0	0	0	0	0	0	0	0	0	123
01:00	1	66	4	0	0	1	0	1	1	0	0	0	0	0	74
02:00	0	33	4	1	0	0	0	0	1	0	0	0	0	0	39
03:00	0	12	2	0	0	0	0	0	0	0	0	0	0	0	14
04:00	0	5	2	0	0	0	0	1	2	0	0	0	0	0	10
05:00	0	9	2	0	1	0	0	0	3	0	0	0	0	0	15
06:00	0	32	10	0	1	1	0	0	0	0	0	0	0	0	44
07:00	0	82	11	1	1	0	0	0	3	0	0	0	0	0	98
08:00	0	117	17	0	3	0	0	0	1	0	0	0	0	0	138
09:00	1	255	37	0	5	0	0	0	0	0	0	0	0	0	298
10:00	0	373	29	0	3	0	0	1	0	0	0	0	0	0	406
11:00	0	452	34	0	5	3	0	0	1	0	0	0	0	0	495
12 PM	1	535	40	3	7	2	0	0	0	0	0	0	0	0	588
13:00	1	489	35	0	4	0	0	0	0	0	0	0	0	0	529
14:00	0	494	40	0	4	1	0	0	0	0	0	0	0	0	539
15:00	4	493	42	0	7	1	0	0	2	0	0	0	0	0	549
16:00	4	475	27	1	7	2	0	0	1	0	0	0	0	0	517
17:00	1	462	27	1	1	1	0	1	1	0	0	0	0	0	495
18:00	0	293	21	0	1	1	1	0	0	0	0	0	0	0	317
19:00	0	175	11	1	2	0	0	1	1	0	0	0	0	0	191
20:00	0	137	18	0	2	0	0	0	1	0	0	0	0	0	158
21:00	0	155	8	1	2	0	0	0	1	0	0	0	0	0	167
22:00	1	171	15	2	3	1	1	0	1	0	0	0	0	0	195
23:00	0	112	8	0	3	0	0	0	2	0	0	0	0	0	125
Total	14	5541	450	11	65	14	2	5	22	0	0	0	0	0	6124
Percent	0.2%	90.5%	7.3%	0.2%	1.1%	0.2%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	11:00	09:00	02:00	09:00	11:00		01:00	05:00						
Vol.	1	452	37	1	5	3		1	3						
PM Peak	15:00	12:00	15:00	12:00	12:00	12:00	18:00	17:00	15:00						
Vol.	4	535	42	3	7	2	1	1	2						



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
WB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	1	48	3	0	0	1	0	1	0	0	0	0	0	0	54
01:00	0	17	0	0	1	1	0	0	0	0	0	0	0	0	19
02:00	0	11	3	0	2	0	0	0	1	0	0	0	0	0	17
03:00	0	7	4	0	1	0	0	0	3	0	0	0	0	0	15
04:00	0	13	3	1	2	1	0	0	1	0	0	0	0	0	21
05:00	0	54	7	1	5	0	0	0	2	0	0	0	0	0	69
06:00	1	188	21	10	10	1	0	2	3	0	0	0	0	0	236
07:00	0	374	38	4	15	1	0	1	5	0	0	0	0	0	438
08:00	2	410	40	3	11	5	0	2	4	0	0	0	0	1	478
09:00	1	335	52	4	23	2	0	1	4	1	0	0	0	0	423
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	5	1457	171	23	70	12	0	7	23	1	0	0	0	1	1770
Percent	0.3%	82.3%	9.7%	1.3%	4.0%	0.7%	0.0%	0.4%	1.3%	0.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	08:00	08:00	09:00	06:00	09:00	08:00		06:00	07:00	09:00				08:00	
Vol.	2	410	52	10	23	5		2	5	1				1	
PM Peak															
Vol.															
Grand Total	164	46594	5003	424	1462	306	19	210	612	8	0	8	0	3	54813
Percent	0.3%	85.0%	9.1%	0.8%	2.7%	0.6%	0.0%	0.4%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classified	Total
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	1	79	5	1	0	1	0	1	0	0	0	0	0	0	88
23:00	0	27	4	0	2	0	0	0	0	0	0	0	0	0	33
Total	1	106	9	1	2	1	0	1	0	0	0	0	0	0	121
Percent	0.8%	87.6%	7.4%	0.8%	1.7%	0.8%	0.0%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.	22:00 1	22:00 79	22:00 5	22:00 1	23:00 2	22:00 1		22:00 1							



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	0	13	2	0	0	0	0	2	2	0	0	0	0	0	19
01:00	0	11	0	1	0	0	0	1	4	0	0	0	0	0	17
02:00	0	14	3	0	0	0	0	0	10	0	0	0	0	0	27
03:00	0	16	3	1	3	1	0	3	10	0	0	0	0	0	37
04:00	0	68	11	0	7	0	0	0	10	0	0	0	0	0	96
05:00	0	214	26	4	18	1	0	2	6	0	0	0	0	0	271
06:00	1	512	64	6	27	3	2	3	4	0	0	0	0	0	622
07:00	3	863	92	5	28	4	1	5	6	0	0	0	0	0	1007
08:00	5	785	81	5	27	6	1	6	9	0	0	0	0	0	925
09:00	1	466	43	9	14	6	1	1	9	0	1	0	0	0	551
10:00	2	376	61	5	22	8	2	4	15	0	0	0	0	0	495
11:00	1	376	56	2	24	3	1	3	8	0	0	0	0	0	474
12 PM	0	373	54	5	15	5	1	2	9	0	0	0	0	0	464
13:00	0	376	52	5	15	2	1	0	7	0	0	0	0	0	458
14:00	2	396	60	3	16	4	0	2	5	0	0	0	0	0	488
15:00	2	407	53	5	13	1	0	2	8	0	0	0	0	0	491
16:00	3	498	55	6	22	1	0	1	5	0	0	0	0	0	591
17:00	2	544	40	0	12	0	0	0	4	0	0	0	0	0	602
18:00	0	432	35	0	4	0	0	0	3	0	0	0	0	0	474
19:00	0	255	15	0	3	2	1	0	1	0	0	0	0	0	277
20:00	0	154	12	2	2	0	0	0	2	0	0	0	0	0	172
21:00	0	118	7	0	0	0	0	1	3	0	0	0	0	0	129
22:00	0	52	3	0	1	1	0	2	4	0	0	0	0	0	63
23:00	1	26	0	0	1	1	0	1	2	0	1	2	0	0	35
Total	23	7345	828	64	274	49	11	41	146	0	2	2	0	0	8785
Percent	0.3%	83.6%	9.4%	0.7%	3.1%	0.6%	0.1%	0.5%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	09:00	07:00	10:00	06:00	08:00	10:00		09:00				
Vol.	5	863	92	9	28	8	2	6	15		1				
PM Peak	16:00	17:00	14:00	16:00	16:00	12:00	12:00	12:00	12:00		23:00	23:00			
Vol.	3	544	60	6	22	5	1	2	9		1	2			



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	19	1	1	0	0	0	0	6	0	0	0	0	0	27
01:00	0	8	1	1	1	0	0	0	3	0	0	1	0	0	15
02:00	0	9	3	3	0	1	0	1	6	0	0	0	0	0	23
03:00	0	12	3	1	2	0	0	3	9	0	0	0	0	0	30
04:00	0	55	13	0	8	0	0	1	6	0	0	2	0	0	85
05:00	0	210	37	5	12	2	0	3	4	0	0	0	0	0	273
06:00	0	515	73	8	21	2	1	2	5	0	0	0	1	1	629
07:00	3	873	102	4	27	9	1	2	4	0	0	0	0	0	1025
08:00	0	741	68	7	22	4	1	4	6	0	0	0	0	0	853
09:00	0	461	74	13	25	5	0	2	11	0	0	0	0	0	591
10:00	2	375	55	6	19	3	1	5	8	0	0	0	0	0	474
11:00	0	336	54	2	22	6	1	6	6	1	0	0	1	0	435
12 PM	1	357	39	6	15	4	0	2	7	0	0	0	0	0	431
13:00	2	383	32	6	11	6	0	1	9	0	0	0	0	0	450
14:00	1	370	34	3	12	4	0	4	4	0	0	0	0	0	432
15:00	2	419	49	4	12	2	1	0	4	0	0	0	0	0	493
16:00	0	381	42	5	13	3	0	0	3	0	0	0	0	0	447
17:00	3	433	30	0	4	2	0	1	4	0	0	0	0	0	477
18:00	2	317	23	0	6	3	0	0	2	0	0	0	0	0	353
19:00	1	165	11	2	5	0	0	1	3	0	0	0	0	0	188
20:00	0	104	10	0	2	1	0	1	1	0	0	0	0	0	119
21:00	0	66	7	1	2	1	0	0	3	0	0	0	0	0	80
22:00	0	32	7	0	0	0	0	0	3	0	0	0	0	0	42
23:00	0	18	4	0	2	0	0	2	5	0	0	0	0	0	31
Total	17	6659	772	78	243	58	6	41	122	1	0	3	2	1	8003
Percent	0.2%	83.2%	9.6%	1.0%	3.0%	0.7%	0.1%	0.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	07:00	07:00	06:00	11:00	09:00	11:00		04:00	06:00	06:00	
Vol.	3	873	102	13	27	9	1	6	11	1		2	1	1	
PM Peak	17:00	17:00	15:00	12:00	12:00	13:00	15:00	14:00	13:00						
Vol.	3	433	49	6	15	6	1	4	9						



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Lower York Road
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EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/19	0	9	3	0	4	0	0	1	8	0	0	0	0	0	25
01:00	0	3	3	1	1	0	0	1	5	0	0	0	0	0	14
02:00	0	8	2	1	0	1	0	2	9	0	0	0	0	0	23
03:00	0	8	2	1	4	1	0	2	2	0	1	0	0	0	21
04:00	0	43	15	0	3	0	0	2	5	0	0	0	0	0	68
05:00	0	144	32	3	15	4	0	2	6	0	0	0	0	0	206
06:00	0	384	68	5	19	1	0	1	2	0	0	0	0	0	480
07:00	2	690	60	5	24	4	0	3	8	0	0	0	0	0	796
08:00	2	699	70	2	13	6	2	2	5	0	0	0	0	0	801
09:00	1	587	63	10	22	2	1	2	9	0	0	0	0	0	697
10:00	0	423	53	5	18	1	5	4	7	1	0	0	0	0	517
11:00	0	381	54	6	20	4	0	3	9	1	0	0	0	0	478
12 PM	6	391	42	5	14	7	3	2	4	0	0	0	0	0	474
13:00	2	385	45	5	15	4	0	4	6	0	0	0	0	0	466
14:00	1	349	48	3	11	4	0	2	5	0	0	0	0	0	423
15:00	1	387	54	4	10	1	0	1	7	0	0	0	0	0	465
16:00	0	405	44	5	13	1	0	1	5	0	0	0	0	0	474
17:00	2	489	49	3	9	1	0	0	6	0	0	0	0	0	559
18:00	1	406	41	1	3	1	0	1	1	0	0	0	0	0	455
19:00	0	191	13	0	2	0	0	0	5	0	0	0	0	0	211
20:00	0	140	7	0	0	0	0	0	2	0	0	0	0	0	149
21:00	1	127	11	0	0	0	0	1	5	0	0	0	0	0	145
22:00	0	53	6	0	2	0	0	1	2	0	0	0	0	0	64
23:00	0	22	2	0	2	0	0	0	3	0	1	0	0	0	30
Total	19	6724	787	65	224	43	11	38	126	2	2	0	0	0	8041
Percent	0.2%	83.6%	9.8%	0.8%	2.8%	0.5%	0.1%	0.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	08:00	08:00	09:00	07:00	08:00	10:00	10:00	02:00	10:00	03:00				
Vol.	2	699	70	10	24	6	5	4	9	1	1				
PM Peak	12:00	17:00	15:00	12:00	13:00	12:00	12:00	13:00	15:00		23:00				
Vol.	6	489	54	5	15	7	3	4	7		1				



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EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/19	0	16	0	0	1	0	0	4	3	0	0	1	0	0	25
01:00	0	7	0	0	0	0	0	2	4	0	0	2	0	0	15
02:00	0	5	2	1	0	0	0	1	2	0	0	1	0	0	12
03:00	0	10	3	1	3	0	0	2	7	0	0	1	0	0	27
04:00	0	47	12	1	4	2	0	2	6	0	0	2	0	0	76
05:00	0	159	27	5	5	2	0	3	8	0	0	0	0	0	209
06:00	0	465	50	3	20	3	0	3	6	0	0	0	0	0	550
07:00	1	702	49	6	13	1	0	2	6	0	0	0	0	0	780
08:00	0	690	56	8	15	6	0	2	3	0	0	0	0	0	780
09:00	1	591	50	9	15	3	0	2	8	0	0	0	0	0	679
10:00	1	467	51	8	22	5	0	3	10	0	0	0	0	0	567
11:00	1	360	53	3	14	0	0	2	6	0	0	0	0	0	439
12 PM	3	358	38	4	15	4	0	3	6	0	0	0	0	0	431
13:00	1	380	30	4	9	2	0	1	4	0	0	0	0	0	431
14:00	0	357	40	2	9	4	0	2	5	0	0	0	0	1	420
15:00	1	462	46	4	9	2	0	2	4	0	0	0	0	0	530
16:00	3	469	41	4	8	2	0	1	1	1	0	0	0	0	530
17:00	0	566	49	1	10	2	0	0	2	0	0	0	0	0	630
18:00	2	462	31	3	3	1	0	0	2	0	0	0	0	0	504
19:00	0	262	17	0	5	0	0	1	0	0	0	0	0	0	285
20:00	0	167	6	1	3	1	0	0	3	0	0	0	0	0	181
21:00	0	137	11	0	2	0	0	2	2	0	0	0	0	0	154
22:00	1	60	6	1	1	1	0	0	2	0	0	0	0	0	72
23:00	0	20	0	1	0	0	0	2	3	0	1	2	0	0	29
Total	15	7219	668	70	186	41	0	42	103	1	1	9	0	1	8356
Percent	0.2%	86.4%	8.0%	0.8%	2.2%	0.5%	0.0%	0.5%	1.2%	0.0%	0.0%	0.1%	0.0%	0.0%	
AM Peak	07:00	07:00	08:00	09:00	10:00	08:00		00:00	10:00			01:00			
Vol.	1	702	56	9	22	6		4	10			2			
PM Peak	12:00	17:00	17:00	12:00	12:00	12:00		12:00	12:00	16:00	23:00	23:00		14:00	
Vol.	3	566	49	4	15	4		3	6	1	1	2		1	



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/19	0	17	1	1	0	0	0	1	3	0	0	1	0	0	24
01:00	0	14	2	0	1	0	0	2	3	0	0	1	0	0	23
02:00	0	6	1	2	0	0	0	1	8	0	0	0	0	0	18
03:00	0	12	4	0	3	0	0	1	4	0	0	0	0	0	24
04:00	0	39	12	0	5	3	0	4	6	0	0	0	0	0	69
05:00	0	162	29	2	6	4	0	2	8	0	0	0	0	0	213
06:00	1	392	59	3	15	5	1	1	4	0	0	0	0	0	481
07:00	2	677	69	7	18	3	1	6	3	0	0	0	0	0	786
08:00	1	655	62	4	13	5	0	2	9	0	0	0	0	0	751
09:00	0	443	49	1	13	4	1	4	2	0	0	0	0	0	517
10:00	0	447	58	7	14	7	0	4	6	0	0	0	0	0	543
11:00	3	380	50	4	19	2	1	4	6	0	0	0	0	0	469
12 PM	1	400	46	3	25	3	0	3	4	1	0	0	0	0	486
13:00	2	439	57	5	12	1	0	5	9	0	0	0	0	0	530
14:00	3	455	47	0	8	3	1	0	2	0	0	0	0	0	519
15:00	0	471	41	4	10	1	1	2	4	0	0	0	0	0	534
16:00	2	523	40	2	10	2	0	0	2	0	0	0	0	0	581
17:00	1	540	37	1	15	0	0	0	1	0	0	0	0	0	595
18:00	3	462	35	0	5	1	0	0	2	0	0	0	0	0	508
19:00	2	327	18	0	8	0	0	0	0	0	0	0	0	0	355
20:00	0	197	15	0	2	0	0	0	3	0	0	0	0	0	217
21:00	0	138	12	0	1	0	0	0	0	0	0	0	0	0	151
22:00	0	121	5	0	0	0	0	2	2	0	0	0	0	0	130
23:00	0	62	1	1	1	0	0	2	2	0	1	0	0	0	70
Total	21	7379	750	47	204	44	6	46	93	1	1	2	0	0	8594
Percent	0.2%	85.9%	8.7%	0.5%	2.4%	0.5%	0.1%	0.5%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	07:00	11:00	10:00	06:00	07:00	08:00			00:00			
Vol.	3	677	69	7	19	7	1	6	9			1			
PM Peak	14:00	17:00	13:00	13:00	12:00	12:00	14:00	13:00	13:00	12:00	23:00				
Vol.	3	540	57	5	25	3	1	5	9	1	1				



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Lower York Road
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Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/19	0	32	2	0	0	0	0	3	1	0	0	3	0	0	41
01:00	0	14	0	1	0	0	0	0	1	0	0	0	0	0	16
02:00	0	20	1	0	0	0	0	1	0	0	0	0	0	0	22
03:00	0	7	2	0	1	0	0	1	0	0	0	1	0	0	12
04:00	0	25	1	1	2	0	0	2	2	0	0	1	0	0	34
05:00	0	43	15	0	4	1	0	0	0	0	0	0	0	0	63
06:00	0	98	12	1	6	0	0	0	0	0	0	0	0	0	117
07:00	0	207	23	3	7	0	0	1	3	0	0	0	0	0	244
08:00	0	335	27	2	6	1	0	0	3	0	0	0	0	0	374
09:00	0	444	50	2	6	1	0	0	2	0	0	0	0	0	505
10:00	0	557	50	3	5	3	0	1	3	0	0	0	0	0	622
11:00	1	608	44	2	7	0	0	1	2	0	0	0	0	0	665
12 PM	0	589	42	1	6	1	0	2	3	0	0	0	0	0	644
13:00	3	645	37	2	7	1	0	1	4	0	0	0	0	0	700
14:00	1	569	53	0	5	1	1	1	3	0	0	0	0	0	634
15:00	1	565	37	1	6	1	0	1	4	0	0	0	0	0	616
16:00	0	558	33	0	6	1	0	0	2	0	0	0	0	0	600
17:00	1	581	31	1	4	0	0	2	0	1	0	0	0	0	621
18:00	3	458	28	1	4	0	0	0	1	0	0	0	0	0	495
19:00	0	370	21	0	2	0	0	0	0	0	0	0	0	0	393
20:00	1	242	12	0	3	0	0	1	1	0	0	0	0	0	260
21:00	0	241	10	0	0	0	0	1	1	0	0	0	0	0	253
22:00	0	234	11	0	2	0	0	0	1	0	0	0	0	0	248
23:00	0	97	6	0	0	0	0	1	0	0	0	0	0	0	104
Total	11	7539	548	21	89	11	1	20	37	1	0	5	0	0	8283
Percent	0.1%	91.0%	6.6%	0.3%	1.1%	0.1%	0.0%	0.2%	0.4%	0.0%	0.0%	0.1%	0.0%	0.0%	
AM Peak	11:00	11:00	09:00	07:00	07:00	10:00		00:00	07:00			00:00			
Vol.	1	608	50	3	7	3		3	3			3			
PM Peak	13:00	13:00	14:00	13:00	13:00	12:00	14:00	12:00	13:00	17:00					
Vol.	3	645	53	2	7	1	1	2	4	1					



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/19	0	61	3	0	0	0	0	0	0	0	0	0	0	0	64
01:00	0	33	2	0	0	0	0	0	2	0	0	0	0	0	37
02:00	0	9	1	1	0	1	0	0	1	0	0	0	0	0	13
03:00	0	15	1	0	0	0	0	0	1	0	0	0	0	0	17
04:00	0	22	3	0	0	0	0	0	2	0	0	0	0	0	27
05:00	0	37	1	0	2	0	0	0	0	0	0	0	0	0	40
06:00	1	83	12	0	6	1	0	0	3	0	0	0	0	0	106
07:00	0	140	20	1	2	0	0	0	0	0	0	0	0	0	163
08:00	0	270	30	0	1	0	0	1	1	0	0	0	0	0	303
09:00	0	367	23	0	3	0	0	0	1	0	0	0	0	0	394
10:00	1	507	34	1	6	1	0	0	0	0	0	0	0	0	550
11:00	0	484	27	0	2	1	0	0	0	0	0	0	0	0	514
12 PM	2	505	32	0	2	0	0	0	1	0	0	0	0	0	542
13:00	2	500	36	0	2	0	0	1	4	0	0	0	0	0	545
14:00	1	517	30	1	5	0	0	0	0	0	0	0	0	0	554
15:00	8	534	28	0	9	1	0	1	0	0	0	0	0	0	581
16:00	1	464	36	1	8	0	0	0	3	0	0	0	0	0	513
17:00	0	399	28	0	5	0	0	0	2	0	0	0	0	0	434
18:00	0	278	16	1	3	1	0	0	0	0	0	0	0	0	299
19:00	0	157	4	0	1	0	0	0	0	0	0	0	0	0	162
20:00	0	148	10	0	1	1	0	1	0	0	0	0	0	0	161
21:00	1	126	5	0	2	0	0	0	0	0	0	0	0	0	134
22:00	1	168	9	0	2	0	0	2	1	0	0	0	0	0	183
23:00	0	58	1	1	2	0	0	0	1	0	0	0	0	0	63
Total	18	5882	392	7	64	7	0	6	23	0	0	0	0	0	6399
Percent	0.3%	91.9%	6.1%	0.1%	1.0%	0.1%	0.0%	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	10:00	10:00	02:00	06:00	02:00		08:00	06:00						
Vol.	1	507	34	1	6	1		1	3						
PM Peak	15:00	15:00	13:00	14:00	15:00	15:00		22:00	13:00						
Vol.	8	534	36	1	9	1		2	4						



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County PA
EB Lower York Road

2. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	0	15	1	0	0	0	0	0	2	0	0	0	0	0	18
01:00	0	9	1	0	2	0	0	0	5	0	0	0	0	0	17
02:00	0	7	5	0	2	0	0	0	6	0	0	0	0	0	20
03:00	0	14	4	0	0	0	0	2	14	0	0	0	0	0	34
04:00	0	68	11	2	4	0	0	1	4	0	0	0	0	0	90
05:00	0	197	37	7	12	1	0	2	5	0	0	0	0	0	261
06:00	0	551	72	4	28	3	0	2	4	0	0	0	0	0	664
07:00	4	846	91	7	22	3	0	4	3	2	0	0	0	0	982
08:00	2	819	71	5	21	1	1	4	6	0	0	0	0	0	930
09:00	0	511	50	9	18	1	1	1	6	0	0	0	0	0	597
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	6	3037	343	34	109	9	2	16	55	2	0	0	0	0	3613
Percent	0.2%	84.1%	9.5%	0.9%	3.0%	0.2%	0.1%	0.4%	1.5%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	09:00	06:00	06:00	08:00	07:00	03:00	07:00					
Vol.	4	846	91	9	28	3	1	4	14	2					
PM Peak															
Vol.															
Grand Total	131	51890	5097	387	1395	263	37	251	705	8	6	21	2	2	60195
Percent	0.2%	86.2%	8.5%	0.6%	2.3%	0.4%	0.1%	0.4%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	



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Lower York Road
Between Silvertail Ln & Hermitage Dr
Solebury, Bucks County, PA
WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	0	0	0	0	0	9	44	67	22	3	0	0	0	0	145	50	54
23:00	0	0	0	0	4	8	20	26	12	3	1	0	0	0	74	52	55
Total	0	0	0	0	4	17	64	93	34	6	1	0	0	0	219		
Percent	0.0%	0.0%	0.0%	0.0%	1.8%	7.8%	29.2%	42.5%	15.5%	2.7%	0.5%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.					23:00 4	22:00 9	22:00 44	22:00 67	22:00 22	22:00 3	23:00 1				22:00 145		



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Lower York Road
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Solebury, Bucks County, PA
WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/28/19	0	0	0	0	1	0	13	10	4	1	0	0	0	0	29	50	54
01:00	0	0	0	0	0	0	9	11	3	2	1	1	0	0	27	54	63
02:00	0	0	0	0	1	7	2	3	4	1	0	0	0	0	18	52	55
03:00	0	0	0	0	0	1	4	7	2	0	1	0	0	0	15	51	61
04:00	0	0	0	0	0	0	8	11	3	1	0	0	0	0	23	50	54
05:00	0	0	0	0	2	4	16	31	11	2	0	0	0	0	66	51	54
06:00	0	0	0	0	5	19	88	100	52	5	0	0	0	0	269	51	54
07:00	0	0	0	3	21	66	197	139	36	1	0	0	0	0	463	48	51
08:00	0	0	0	0	6	45	190	165	43	5	1	0	0	0	455	49	53
09:00	0	0	0	0	7	55	160	155	26	3	1	0	0	0	407	48	51
10:00	0	0	0	1	2	43	200	150	31	3	0	0	0	0	430	48	52
11:00	0	0	0	1	12	53	231	132	20	0	0	0	0	0	449	48	49
12 PM	0	0	0	2	7	66	211	156	27	4	0	0	0	0	473	48	51
13:00	0	0	0	1	6	61	205	159	27	1	0	0	0	0	460	48	50
14:00	0	0	0	0	6	82	210	154	30	3	0	0	0	0	485	48	51
15:00	0	0	0	1	22	118	335	143	28	2	0	1	0	0	650	47	49
16:00	0	0	0	9	38	204	323	139	21	2	0	0	0	0	736	46	49
17:00	0	0	0	1	46	285	413	130	16	3	0	0	0	0	894	45	49
18:00	0	0	0	0	36	218	269	170	21	1	0	0	0	0	715	47	49
19:00	0	0	0	2	3	58	197	148	26	3	0	0	0	0	437	48	51
20:00	0	0	0	0	10	26	94	124	23	5	1	0	0	0	283	49	53
21:00	0	0	0	0	0	19	97	51	8	3	1	0	0	0	179	48	51
22:00	0	0	0	0	0	7	38	49	8	1	0	0	0	0	103	49	52
23:00	0	0	0	0	2	4	19	30	13	1	0	0	0	0	69	51	54
Total	0	0	0	21	233	1441	3529	2367	483	53	6	2	0	0	8135		
Percent	0.0%	0.0%	0.0%	0.3%	2.9%	17.7%	43.4%	29.1%	5.9%	0.7%	0.1%	0.0%	0.0%	0.0%			
AM Peak				07:00	07:00	07:00	11:00	08:00	06:00	06:00	01:00	01:00			07:00		
Vol.				3	21	66	231	165	52	5	1	1			463		
PM Peak				16:00	17:00	17:00	17:00	18:00	14:00	20:00	20:00	15:00			17:00		
Vol.				9	46	285	413	170	30	5	1	1			894		



Imperial Traffic & Data Collection

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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
01/29/19	0	0	0	0	0	3	12	11	2	1	1	0	0	0	0	30	49	57
01:00	0	0	0	0	0	2	6	6	3	1	0	0	0	0	0	18	52	55
02:00	0	0	0	0	0	3	8	7	1	1	0	0	0	0	0	20	49	55
03:00	0	0	0	0	0	2	7	4	2	0	0	0	0	0	0	15	49	53
04:00	0	0	0	0	0	4	7	10	6	2	0	0	0	0	0	29	53	56
05:00	0	0	0	0	0	2	20	29	12	1	0	0	0	0	0	64	51	54
06:00	0	0	0	0	5	11	74	93	28	9	0	0	0	0	0	220	50	54
07:00	3	18	3	2	2	51	161	131	32	3	0	0	0	0	0	406	49	52
08:00	0	0	6	3	17	62	190	132	39	6	2	0	0	0	0	457	49	53
09:00	0	0	0	1	6	55	183	106	30	2	1	0	1	0	0	385	48	52
10:00	0	0	0	1	5	70	197	109	22	1	0	0	0	0	0	405	48	50
11:00	0	0	0	0	15	70	205	121	15	2	0	0	0	0	0	428	48	49
12 PM	1	0	0	0	1	59	248	169	24	1	0	0	0	0	0	503	48	49
13:00	0	0	0	0	15	79	223	126	16	6	0	0	0	0	0	465	48	49
14:00	0	0	0	0	20	148	281	106	11	1	0	0	0	0	0	567	46	49
15:00	0	0	0	2	18	192	254	138	23	2	0	0	0	0	0	629	47	49
16:00	0	0	0	7	49	241	297	101	14	1	0	0	0	0	0	710	45	48
17:00	0	0	6	14	136	370	258	59	6	0	0	0	0	0	0	849	43	46
18:00	0	0	0	8	56	233	207	57	12	1	0	0	0	0	0	574	44	48
19:00	0	0	0	0	10	50	143	78	25	3	1	0	0	0	0	310	48	52
20:00	0	0	0	0	0	26	62	68	22	1	0	0	0	0	0	179	49	53
21:00	0	0	0	0	8	29	46	32	10	0	0	0	0	0	0	125	48	51
22:00	0	0	0	0	1	14	39	21	2	0	0	0	0	0	0	77	47	49
23:00	0	0	0	0	4	5	27	31	7	0	0	0	0	0	0	74	49	52
Total	4	18	15	38	368	1781	3155	1745	364	45	5	0	1	0	0	7539		
Percent	0.1%	0.2%	0.2%	0.5%	4.9%	23.6%	41.8%	23.1%	4.8%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	08:00	08:00	10:00	11:00	08:00	08:00	06:00	08:00		09:00			08:00		
Vol.	3	18	6	3	17	70	205	132	39	9	2		1			457		
PM Peak	12:00		17:00	17:00	17:00	17:00	16:00	12:00	19:00	13:00	19:00					17:00		
Vol.	1		6	14	136	370	297	169	25	6	1					849		



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/30/19	0	0	0	0	2	0	11	9	4	1	1	0	0	0	28	52	58
01:00	0	0	0	0	0	4	7	8	0	1	1	0	0	0	21	49	59
02:00	0	0	0	0	2	9	11	8	0	0	0	0	0	0	30	47	49
03:00	0	0	0	0	0	4	3	3	1	0	0	0	0	0	11	48	52
04:00	0	0	0	0	0	1	10	7	9	1	0	0	0	0	28	53	54
05:00	0	0	0	0	1	3	12	23	16	4	0	0	0	0	59	53	56
06:00	0	0	0	0	1	10	42	72	46	9	0	0	0	0	180	53	55
07:00	0	0	0	2	7	19	88	136	48	6	0	0	0	0	306	50	54
08:00	1	0	0	0	2	27	123	176	65	14	1	0	1	0	410	51	54
09:00	0	0	0	2	1	29	150	152	43	5	2	0	0	0	384	49	53
10:00	0	0	0	0	4	25	142	156	40	9	1	0	0	0	377	49	53
11:00	1	2	5	15	33	74	123	110	23	3	0	0	0	0	389	48	51
12 PM	0	3	7	8	28	82	142	118	26	3	1	0	0	1	419	48	51
13:00	0	0	0	1	13	67	198	132	33	8	0	0	0	0	452	48	52
14:00	0	0	11	44	128	136	157	64	12	0	0	0	0	0	552	44	48
15:00	0	0	0	5	72	184	290	83	15	0	0	0	0	0	649	45	48
16:00	1	0	0	3	58	212	295	99	18	1	1	0	0	0	688	45	49
17:00	1	0	3	30	99	284	282	64	10	3	0	0	0	0	776	44	47
18:00	0	0	0	7	32	178	295	113	12	0	0	0	1	0	638	46	49
19:00	0	0	0	0	19	79	160	138	26	4	1	0	0	0	427	48	51
20:00	0	0	0	0	1	27	107	88	26	2	0	0	0	0	251	49	52
21:00	0	0	0	0	3	14	79	73	15	2	0	0	0	0	186	49	52
22:00	0	0	0	0	0	9	51	46	15	3	0	0	0	0	124	49	53
23:00	0	0	0	0	0	3	21	28	9	1	1	0	0	0	63	50	54
Total	4	5	26	117	506	1480	2799	1906	512	80	10	0	2	1	7448		
Percent	0.1%	0.1%	0.3%	1.6%	6.8%	19.9%	37.6%	25.6%	6.9%	1.1%	0.1%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	11:00	11:00	11:00	11:00	09:00	08:00	08:00	08:00	09:00		08:00		08:00		
Vol.	1	2	5	15	33	74	150	176	65	14	2		1		410		
PM Peak	16:00	12:00	14:00	14:00	14:00	17:00	16:00	19:00	13:00	13:00	12:00		18:00	12:00	17:00		
Vol.	1	3	11	44	128	284	295	138	33	8	1		1	1	776		



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Lower York Road
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WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/31/19	0	0	0	0	0	1	12	14	6	1	0	0	0	0	34	51	54
01:00	0	0	0	0	0	1	4	8	7	2	0	0	0	0	22	54	57
02:00	0	0	0	0	0	0	11	7	4	0	0	0	0	0	22	50	53
03:00	0	0	0	0	0	3	6	4	3	0	0	0	0	0	16	51	53
04:00	0	0	0	0	0	3	3	14	2	2	0	0	0	0	24	50	56
05:00	0	0	0	0	0	11	21	25	11	6	0	0	0	0	74	52	56
06:00	0	0	0	0	2	10	58	84	42	4	0	0	0	0	200	51	54
07:00	0	0	0	0	2	20	117	167	42	8	0	0	0	0	356	49	53
08:00	0	0	1	1	9	47	157	137	55	9	1	0	0	0	417	50	54
09:00	0	0	0	2	5	38	149	161	43	5	1	0	0	0	404	49	53
10:00	0	0	0	0	11	47	159	125	35	3	0	0	0	0	380	49	52
11:00	0	0	0	0	2	47	167	133	38	9	3	0	0	0	399	49	53
12 PM	0	0	0	3	8	49	153	154	34	4	0	0	0	0	405	49	52
13:00	0	0	0	1	6	42	176	154	53	4	0	0	0	0	436	49	53
14:00	0	0	0	1	12	89	212	188	52	5	0	0	0	0	559	49	52
15:00	0	0	0	2	26	127	249	172	40	3	0	0	0	0	619	48	51
16:00	0	0	0	2	43	259	288	153	27	3	0	0	0	0	775	47	49
17:00	0	0	0	9	25	216	408	147	32	0	0	0	0	0	837	46	49
18:00	0	0	0	3	20	119	290	185	42	7	0	1	0	0	667	48	51
19:00	0	0	0	0	2	17	187	185	57	10	0	0	0	0	458	49	53
20:00	0	0	0	0	1	14	95	134	42	7	1	0	0	0	294	50	54
21:00	0	0	0	0	2	21	83	84	25	5	1	0	0	0	221	49	53
22:00	0	0	0	0	0	16	49	65	33	2	0	0	0	0	165	51	54
23:00	0	0	0	0	0	3	22	37	16	3	0	1	0	0	82	52	54
Total	0	0	1	24	176	1200	3076	2537	741	102	7	2	0	0	7866		
Percent	0.0%	0.0%	0.0%	0.3%	2.2%	15.3%	39.1%	32.3%	9.4%	1.3%	0.1%	0.0%	0.0%	0.0%			
AM Peak			08:00	09:00	10:00	08:00	11:00	07:00	08:00	08:00	11:00				08:00		
Vol.			1	2	11	47	167	167	55	9	3				417		
PM Peak				17:00	16:00	16:00	17:00	14:00	19:00	19:00	20:00	18:00			17:00		
Vol.				9	43	259	408	188	57	10	1	1			837		



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Lower York Road
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WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/01/19	0	0	0	0	0	6	7	19	12	4	0	0	0	0	48	53	56
01:00	0	0	0	0	0	0	7	11	4	0	0	0	0	0	22	50	53
02:00	0	0	0	0	0	4	8	6	1	0	0	0	0	0	19	48	50
03:00	0	0	0	0	0	0	9	4	3	1	0	0	0	0	17	52	55
04:00	0	0	0	0	0	3	5	8	4	0	0	0	0	0	20	51	53
05:00	0	0	0	0	1	4	16	24	11	3	0	0	0	0	59	52	55
06:00	0	0	0	0	1	11	56	60	46	7	0	0	0	0	181	52	54
07:00	0	0	0	0	2	55	159	131	39	5	1	0	0	0	392	49	53
08:00	0	0	0	1	7	41	123	141	47	11	0	0	0	1	372	50	54
09:00	0	0	0	0	8	47	160	138	31	2	1	0	0	0	387	49	52
10:00	0	0	0	1	7	61	147	115	24	3	0	0	0	0	358	48	51
11:00	0	0	0	2	21	83	191	138	30	4	0	0	0	0	469	48	51
12 PM	0	4	7	0	7	72	211	162	21	3	0	0	0	0	487	48	49
13:00	0	0	0	0	7	86	214	167	30	2	0	0	0	0	506	48	51
14:00	0	0	0	0	3	91	265	197	42	3	1	0	0	0	602	48	51
15:00	0	2	11	1	90	219	206	93	12	0	1	0	0	0	635	45	48
16:00	0	0	4	25	145	291	239	64	8	1	0	0	0	0	777	44	47
17:00	0	0	2	16	167	359	220	46	7	0	0	0	0	0	817	43	46
18:00	1	11	17	14	74	187	194	78	9	0	0	0	0	0	585	44	48
19:00	0	0	0	4	24	102	163	92	18	2	0	0	0	0	405	47	49
20:00	0	0	0	2	8	50	140	100	28	1	2	0	0	0	331	49	52
21:00	0	0	0	0	5	43	112	65	14	1	0	0	0	0	240	48	51
22:00	0	0	0	0	8	33	78	60	15	0	0	1	0	0	195	48	52
23:00	0	0	0	1	2	13	52	47	8	1	0	0	0	0	124	48	51
Total	1	17	41	67	587	1861	2982	1966	464	54	6	1	0	1	8048		
Percent	0.0%	0.2%	0.5%	0.8%	7.3%	23.1%	37.1%	24.4%	5.8%	0.7%	0.1%	0.0%	0.0%	0.0%			
AM Peak				11:00	11:00	11:00	11:00	08:00	08:00	08:00	07:00			08:00	11:00		
Vol.				2	21	83	191	141	47	11	1			1	469		
PM Peak	18:00	18:00	18:00	16:00	17:00	17:00	14:00	14:00	14:00	12:00	20:00	22:00			17:00		
Vol.	1	11	17	25	167	359	265	197	42	3	2	1			817		



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Lower York Road
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WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/02/19	0	0	0	0	1	6	26	29	4	3	0	0	0	0	69	49	54
01:00	0	0	0	0	0	1	13	12	8	1	0	0	0	0	35	52	54
02:00	0	0	0	0	0	3	12	10	2	1	0	0	0	0	28	49	54
03:00	0	0	0	0	0	0	5	3	1	0	0	0	0	0	9	49	52
04:00	0	0	0	0	0	2	4	1	4	0	0	0	0	0	11	52	54
05:00	0	0	0	0	0	2	7	8	7	2	0	0	0	0	26	53	56
06:00	0	0	0	0	2	3	15	13	11	4	0	0	0	0	48	53	56
07:00	0	0	0	0	0	11	48	63	24	8	0	0	0	0	154	51	55
08:00	0	0	0	0	1	24	98	106	20	7	3	1	1	0	261	49	54
09:00	0	0	0	1	5	48	131	134	43	5	0	0	0	0	367	49	53
10:00	0	0	0	0	8	55	247	199	36	2	0	0	0	0	547	48	51
11:00	0	0	0	0	7	67	221	205	47	5	0	0	0	0	552	49	52
12 PM	0	0	0	0	12	67	299	244	44	3	2	0	0	0	671	48	51
13:00	0	0	0	0	19	131	255	158	31	0	0	0	0	0	594	48	50
14:00	1	0	0	0	8	132	261	182	26	8	0	0	0	0	618	48	50
15:00	0	0	0	0	2	108	279	164	27	2	2	0	0	0	584	48	50
16:00	0	0	0	0	29	141	290	132	24	3	2	0	0	0	621	47	49
17:00	0	0	0	2	31	136	228	129	19	2	0	0	0	1	548	47	49
18:00	0	0	0	1	10	93	209	120	24	2	1	0	0	1	461	48	50
19:00	0	0	0	0	13	90	174	98	21	0	0	1	0	0	397	48	50
20:00	0	0	0	0	8	40	120	111	26	8	1	0	0	0	314	49	53
21:00	0	0	0	0	6	40	114	84	19	2	0	0	0	0	265	48	52
22:00	0	0	0	1	4	33	144	88	21	3	1	0	0	0	295	48	52
23:00	0	0	0	0	2	18	98	60	11	0	0	0	0	0	189	48	50
Total	1	0	0	5	168	1251	3298	2353	500	71	12	2	1	2	7664		
Percent	0.0%	0.0%	0.0%	0.1%	2.2%	16.3%	43.0%	30.7%	6.5%	0.9%	0.2%	0.0%	0.0%	0.0%			
AM Peak				09:00	10:00	11:00	10:00	11:00	11:00	07:00	08:00	08:00	08:00		11:00		
Vol.				1	8	67	247	205	47	8	3	1	1		552		
PM Peak	14:00			17:00	17:00	16:00	12:00	12:00	12:00	14:00	12:00	19:00		17:00	12:00		
Vol.	1			2	31	141	299	244	44	8	2	1		1	671		



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WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
02/03/19	0	0	0	0	6	6	46	44	20	1	0	0	0	0	123	50	53
01:00	0	0	0	2	2	8	33	25	2	1	0	1	0	0	74	48	50
02:00	0	0	0	0	1	2	17	15	2	2	0	0	0	0	39	49	55
03:00	0	0	0	0	0	0	3	8	1	2	0	0	0	0	14	54	58
04:00	0	0	0	0	0	0	3	7	0	0	0	0	0	0	10	48	49
05:00	0	0	0	0	0	1	5	6	3	0	0	0	0	0	15	51	53
06:00	0	0	0	0	3	8	14	13	5	1	0	0	0	0	44	49	53
07:00	0	0	0	0	3	11	35	34	10	5	0	0	0	0	98	50	55
08:00	0	0	0	0	0	6	43	68	15	5	0	1	0	0	138	50	54
09:00	0	0	2	0	5	30	128	109	18	6	0	0	0	0	298	49	52
10:00	0	0	0	0	0	28	161	161	44	11	1	0	0	0	406	49	54
11:00	0	0	0	2	8	51	172	206	50	5	1	0	0	0	495	49	53
12 PM	0	0	0	0	1	47	264	215	51	8	1	0	1	0	588	49	53
13:00	0	0	0	0	3	54	245	179	41	5	2	0	0	0	529	49	52
14:00	0	0	0	0	6	70	224	192	41	6	0	0	0	0	539	49	52
15:00	0	0	0	0	12	87	252	159	36	1	1	1	0	0	549	48	51
16:00	2	0	0	0	11	66	215	167	50	5	1	0	0	0	517	49	53
17:00	0	0	0	0	9	118	233	108	21	5	0	0	0	1	495	47	50
18:00	0	0	0	0	4	41	131	113	21	6	1	0	0	0	317	49	52
19:00	0	0	0	0	1	13	64	84	23	5	1	0	0	0	191	50	54
20:00	0	0	0	0	5	17	58	55	20	2	1	0	0	0	158	49	53
21:00	0	0	0	0	5	19	67	54	19	3	0	0	0	0	167	49	53
22:00	0	0	0	0	1	17	71	70	28	7	0	1	0	0	195	51	54
23:00	0	0	0	0	1	8	27	73	13	2	1	0	0	0	125	49	53
Total	2	0	2	4	87	708	2511	2165	534	94	11	4	1	1	6124		
Percent	0.0%	0.0%	0.0%	0.1%	1.4%	11.6%	41.0%	35.4%	8.7%	1.5%	0.2%	0.1%	0.0%	0.0%			
AM Peak			09:00	01:00	11:00	11:00	11:00	11:00	11:00	10:00	10:00	01:00			11:00		
Vol.			2	2	8	51	172	206	50	11	1	1			495		
PM Peak	16:00				15:00	17:00	12:00	12:00	12:00	12:00	13:00	15:00	12:00	17:00	12:00		
Vol.	2				12	118	264	215	51	8	2	1	1	1	588		



Imperial Traffic & Data Collection

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Lower York Road
Between Silvertail Ln & Hermitage Dr
Solebury, Bucks County, PA
WB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/04/19	0	0	0	3	0	0	22	17	10	0	2	0	0	0	54	51	54
01:00	0	0	0	0	0	2	9	7	1	0	0	0	0	0	19	48	50
02:00	0	0	0	0	0	1	8	2	3	1	1	0	1	0	17	57	70
03:00	0	0	0	0	0	3	5	5	2	0	0	0	0	0	15	49	53
04:00	0	0	0	0	0	3	9	5	3	1	0	0	0	0	21	51	54
05:00	0	0	0	0	0	1	21	30	13	2	2	0	0	0	69	52	56
06:00	0	0	0	0	0	16	63	114	39	4	0	0	0	0	236	50	54
07:00	0	2	5	6	5	52	143	153	66	6	0	0	0	0	438	50	53
08:00	1	0	0	4	4	30	178	202	53	5	1	0	0	0	478	49	53
09:00	0	0	0	0	4	37	158	167	45	10	1	1	0	0	423	49	53
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	2	5	13	13	145	616	702	235	29	7	1	1	0	1770		
Percent	0.1%	0.1%	0.3%	0.7%	0.7%	8.2%	34.8%	39.7%	13.3%	1.6%	0.4%	0.1%	0.1%	0.0%			
AM Peak	08:00	07:00	07:00	07:00	07:00	07:00	08:00	08:00	07:00	09:00	00:00	09:00	02:00		08:00		
Vol.	1	2	5	6	5	52	178	202	66	10	2	1	1		478		
PM Peak																	
Vol.																	
Grand Total	13	42	90	289	2142	9884	22030	15834	3867	534	65	12	6	5	54813		
Percent	0.0%	0.1%	0.2%	0.5%	3.9%	18.0%	40.2%	28.9%	7.1%	1.0%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 37 MPH
50th Percentile : 43 MPH
85th Percentile : 48 MPH
95th Percentile : 52 MPH

Statistics
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 37864
Percent in Pace : 69.1%
Number of Vehicles > 40 MPH : 42353
Percent of Vehicles > 40 MPH : 77.3%
Mean Speed(Average) : 44 MPH



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Lower York Road
Between Silvertail Ln & Hermitage Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	0	0	0	0	5	6	36	29	10	1	1	0	0	0	88	49	53
23:00	0	0	0	0	1	3	9	14	3	3	0	0	0	0	33	51	57
Total	0	0	0	0	6	9	45	43	13	4	1	0	0	0	121		
Percent	0.0%	0.0%	0.0%	0.0%	5.0%	7.4%	37.2%	35.5%	10.7%	3.3%	0.8%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.					22:00	22:00	22:00	22:00	22:00	23:00	22:00				22:00		
					5	6	36	29	10	3	1				88		



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EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/28/19	0	0	0	0	1	3	7	5	3	0	0	0	0	0	19	50	53
01:00	0	0	0	0	1	4	1	5	5	1	0	0	0	0	17	53	55
02:00	0	0	0	0	0	3	12	11	0	0	1	0	0	0	27	48	49
03:00	0	0	0	0	0	2	14	13	8	0	0	0	0	0	37	51	53
04:00	0	0	0	0	1	2	28	42	20	2	1	0	0	0	96	52	54
05:00	0	0	0	0	2	20	93	116	38	2	0	0	0	0	271	49	53
06:00	0	0	1	2	24	172	242	164	14	1	2	0	0	0	622	47	49
07:00	1	4	7	5	28	225	528	186	21	2	0	0	0	0	1007	46	49
08:00	1	0	0	12	61	190	415	204	37	5	0	0	0	0	925	47	49
09:00	0	0	0	4	11	55	258	187	32	3	0	1	0	0	551	48	51
10:00	0	0	0	0	3	59	239	154	36	3	1	0	0	0	495	48	52
11:00	0	0	0	0	12	75	215	143	23	5	1	0	0	0	474	48	51
12 PM	0	0	0	0	4	44	203	171	34	8	0	0	0	0	464	49	52
13:00	0	0	0	0	2	71	209	135	39	2	0	0	0	0	458	48	52
14:00	0	0	0	0	5	66	204	174	35	3	1	0	0	0	488	49	52
15:00	0	0	0	3	28	81	225	124	26	4	0	0	0	0	491	48	51
16:00	1	0	0	3	19	142	269	134	21	2	0	0	0	0	591	47	49
17:00	0	0	0	2	37	151	300	96	13	3	0	0	0	0	602	46	49
18:00	0	0	0	5	12	121	229	86	17	3	1	0	0	0	474	47	49
19:00	0	0	0	0	12	38	118	84	22	3	0	0	0	0	277	49	52
20:00	0	0	0	1	1	30	88	45	7	0	0	0	0	0	172	47	49
21:00	0	0	0	1	2	22	53	43	7	1	0	0	0	0	129	48	51
22:00	0	0	0	0	0	11	27	18	7	0	0	0	0	0	63	49	52
23:00	0	0	0	0	2	2	11	12	5	2	1	0	0	0	35	52	58
Total	3	4	8	38	268	1589	3988	2352	470	55	9	1	0	0	8785		
Percent	0.0%	0.0%	0.1%	0.4%	3.1%	18.1%	45.4%	26.8%	5.4%	0.6%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	08:00	07:00	07:00	08:00	05:00	08:00	06:00	09:00			07:00		
Vol.	1	4	7	12	61	225	528	204	38	5	2	1			1007		
PM Peak	16:00			18:00	17:00	17:00	17:00	14:00	13:00	12:00	14:00				17:00		
Vol.	1			5	37	151	300	174	39	8	1				602		



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/29/19	0	0	0	0	0	3	13	8	2	1	0	0	0	0	27	49	54
01:00	0	0	0	0	0	2	4	8	1	0	0	0	0	0	15	49	51
02:00	0	0	0	0	0	1	6	13	3	0	0	0	0	0	23	49	53
03:00	0	0	0	0	1	3	5	13	6	2	0	0	0	0	30	52	56
04:00	0	0	0	0	0	6	18	41	17	3	0	0	0	0	85	52	54
05:00	0	0	0	0	9	36	70	105	43	7	3	0	0	0	273	51	54
06:00	0	0	0	0	26	149	290	128	34	1	1	0	0	0	629	47	50
07:00	34	41	36	25	57	249	432	138	13	0	0	0	0	0	1025	44	48
08:00	2	0	1	16	28	161	381	231	32	1	0	0	0	0	853	47	49
09:00	0	0	0	4	12	95	255	192	29	4	0	0	0	0	591	48	50
10:00	0	0	0	1	19	76	226	127	22	3	0	0	0	0	474	48	50
11:00	0	0	0	1	5	64	213	130	14	7	1	0	0	0	435	48	50
12 PM	0	0	0	0	7	75	181	137	27	4	0	0	0	0	431	48	51
13:00	0	0	0	0	4	58	183	168	34	3	0	0	0	0	450	49	52
14:00	0	0	0	1	14	82	176	144	15	0	0	0	0	0	432	48	49
15:00	0	0	0	3	44	132	190	102	19	2	1	0	0	0	493	47	49
16:00	0	0	0	0	8	101	218	94	23	3	0	0	0	0	447	47	50
17:00	0	0	0	8	40	204	181	40	4	0	0	0	0	0	477	44	47
18:00	0	0	1	7	62	159	97	27	0	0	0	0	0	0	353	43	46
19:00	0	0	0	0	26	57	75	28	2	0	0	0	0	0	188	45	48
20:00	0	0	0	1	13	43	37	20	5	0	0	0	0	0	119	46	49
21:00	0	0	0	2	7	27	36	7	1	0	0	0	0	0	80	44	47
22:00	0	0	0	0	2	10	17	13	0	0	0	0	0	0	42	47	49
23:00	0	0	0	0	3	10	12	3	2	1	0	0	0	0	31	47	53
Total	36	41	38	69	387	1803	3316	1917	348	42	6	0	0	0	8003		
Percent	0.4%	0.5%	0.5%	0.9%	4.8%	22.5%	41.4%	24.0%	4.3%	0.5%	0.1%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00	07:00	08:00	05:00	05:00	05:00				07:00		
Vol.	34	41	36	25	57	249	432	231	43	7	3				1025		
PM Peak			18:00	17:00	18:00	17:00	16:00	13:00	13:00	12:00	15:00				15:00		
Vol.			1	8	62	204	218	168	34	4	1				493		



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EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/30/19	0	0	0	0	0	9	11	4	1	0	0	0	0	0	25	46	49
01:00	0	0	0	0	1	3	4	4	2	0	0	0	0	0	14	49	53
02:00	0	0	0	0	1	6	5	8	2	1	0	0	0	0	23	49	54
03:00	0	0	0	0	0	2	8	11	0	0	0	0	0	0	21	48	49
04:00	0	0	0	0	1	7	19	27	12	2	0	0	0	0	68	51	54
05:00	0	0	0	0	2	31	93	59	19	2	0	0	0	0	206	49	52
06:00	0	0	1	1	9	59	217	146	41	4	2	0	0	0	480	49	52
07:00	0	0	0	1	13	177	362	201	40	2	0	0	0	0	796	48	50
08:00	0	0	0	1	8	131	417	198	43	3	0	0	0	0	801	48	50
09:00	0	1	7	5	20	104	259	256	41	4	0	0	0	0	697	48	51
10:00	0	0	0	0	4	52	223	183	46	7	2	0	0	0	517	49	53
11:00	0	4	11	19	26	97	222	78	19	2	0	0	0	0	478	46	49
12 PM	2	27	45	63	28	73	139	75	18	4	0	0	0	0	474	46	49
13:00	1	0	1	0	12	123	199	104	24	1	1	0	0	0	466	47	50
14:00	0	3	30	51	95	83	109	33	17	2	0	0	0	0	423	44	49
15:00	0	0	0	5	30	156	207	60	7	0	0	0	0	0	465	44	48
16:00	0	0	1	3	20	168	204	69	8	1	0	0	0	0	474	45	48
17:00	0	0	0	19	62	256	198	22	2	0	0	0	0	0	559	43	44
18:00	0	0	1	24	89	184	125	30	2	0	0	0	0	0	455	43	46
19:00	0	0	0	0	3	61	103	39	4	1	0	0	0	0	211	46	49
20:00	0	0	0	0	5	36	84	20	3	1	0	0	0	0	149	45	49
21:00	0	0	0	6	13	15	65	40	6	0	0	0	0	0	145	48	49
22:00	0	0	0	0	1	11	25	20	7	0	0	0	0	0	64	49	52
23:00	0	0	0	0	0	7	13	6	4	0	0	0	0	0	30	49	53
Total	3	35	97	198	443	1851	3311	1693	368	37	5	0	0	0	8041		
Percent	0.0%	0.4%	1.2%	2.5%	5.5%	23.0%	41.2%	21.1%	4.6%	0.5%	0.1%	0.0%	0.0%	0.0%			
AM Peak		11:00	11:00	11:00	11:00	07:00	08:00	09:00	10:00	10:00	06:00				08:00		
Vol.		4	11	19	26	177	417	256	46	7	2				801		
PM Peak	12:00	12:00	12:00	12:00	14:00	17:00	15:00	13:00	13:00	12:00	13:00				17:00		
Vol.	2	27	45	63	95	256	207	104	24	4	1				559		



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EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
01/31/19	0	0	0	0	0	6	12	4	2	1	0	0	0	0	25	49	54
01:00	0	0	0	0	1	2	7	3	1	1	0	0	0	0	15	49	56
02:00	0	0	0	0	0	0	4	4	4	0	0	0	0	0	12	52	54
03:00	0	0	0	0	0	3	5	14	3	1	1	0	0	0	27	51	58
04:00	0	0	0	0	1	10	23	33	7	1	1	0	0	0	76	49	53
05:00	0	0	0	0	10	33	106	48	10	1	1	0	0	0	209	47	50
06:00	0	0	0	0	6	91	287	155	11	0	0	0	0	0	550	47	49
07:00	0	0	0	2	20	218	379	147	13	1	0	0	0	0	780	46	49
08:00	0	0	1	3	29	158	372	188	27	2	0	0	0	0	780	47	49
09:00	1	0	0	1	18	143	297	185	31	2	0	1	0	0	679	48	50
10:00	0	0	0	1	17	139	316	87	7	0	0	0	0	0	567	45	48
11:00	0	0	0	0	5	64	202	142	20	5	1	0	0	0	439	48	51
12 PM	0	0	0	0	11	62	205	126	26	1	0	0	0	0	431	48	51
13:00	0	0	0	1	9	61	221	112	23	4	0	0	0	0	431	48	51
14:00	1	0	0	1	18	77	188	115	18	2	0	0	0	0	420	48	49
15:00	0	0	3	0	14	92	280	118	20	3	0	0	0	0	530	47	49
16:00	0	0	0	9	29	148	207	125	12	0	0	0	0	0	530	47	49
17:00	0	0	0	9	54	246	270	44	7	0	0	0	0	0	630	44	47
18:00	0	0	0	8	40	170	212	68	6	0	0	0	0	0	504	44	48
19:00	0	0	0	0	22	57	121	72	12	1	0	0	0	0	285	47	49
20:00	0	0	0	0	0	31	86	55	8	1	0	0	0	0	181	48	49
21:00	0	0	0	0	4	35	68	39	5	3	0	0	0	0	154	48	50
22:00	0	0	0	0	4	13	25	26	4	0	0	0	0	0	72	48	50
23:00	0	0	0	0	0	8	7	9	4	1	0	0	0	0	29	50	54
Total	2	0	4	35	312	1867	3900	1919	281	31	4	1	0	0	8356		
Percent	0.0%	0.0%	0.0%	0.4%	3.7%	22.3%	46.7%	23.0%	3.4%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00		08:00	08:00	08:00	07:00	07:00	08:00	09:00	11:00	03:00	09:00			07:00		
Vol.	1		1	3	29	218	379	188	31	5	1	1			780		
PM Peak	14:00		15:00	16:00	17:00	17:00	15:00	12:00	12:00	13:00					17:00		
Vol.	1		3	9	54	246	280	126	26	4					630		



Imperial Traffic & Data Collection

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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/01/19	0	0	0	0	1	3	10	8	1	1	0	0	0	0	24	49	54
01:00	0	0	0	0	0	4	13	3	3	0	0	0	0	0	23	49	53
02:00	0	0	0	0	1	2	8	7	0	0	0	0	0	0	18	48	49
03:00	0	0	0	0	1	3	8	10	1	1	0	0	0	0	24	49	54
04:00	0	0	0	0	1	10	26	23	9	0	0	0	0	0	69	49	53
05:00	0	0	0	0	0	30	104	65	13	1	0	0	0	0	213	48	51
06:00	0	0	0	0	7	123	230	104	15	1	1	0	0	0	481	47	49
07:00	0	0	0	0	24	188	401	158	13	2	0	0	0	0	786	46	49
08:00	3	3	6	11	26	169	346	170	14	3	0	0	0	0	751	47	49
09:00	0	0	0	0	13	92	277	116	14	4	1	0	0	0	517	47	49
10:00	0	0	11	16	40	135	255	71	13	2	0	0	0	0	543	45	49
11:00	0	0	0	0	7	92	253	102	14	1	0	0	0	0	469	47	49
12 PM	0	0	0	0	12	115	241	107	10	1	0	0	0	0	486	47	49
13:00	0	0	0	0	17	119	247	124	16	0	0	0	0	0	530	47	49
14:00	0	0	0	0	8	99	237	155	18	1	1	0	0	0	519	48	49
15:00	0	0	0	10	76	217	186	38	7	0	0	0	0	0	534	44	47
16:00	2	3	2	29	146	255	125	18	1	0	0	0	0	0	581	42	44
17:00	0	0	2	33	191	291	69	8	1	0	0	0	0	0	595	39	43
18:00	1	0	1	29	121	209	131	14	2	0	0	0	0	0	508	42	44
19:00	0	0	0	11	47	151	114	26	6	0	0	0	0	0	355	44	47
20:00	0	0	0	0	15	86	93	19	3	1	0	0	0	0	217	44	48
21:00	0	0	0	0	6	43	78	20	4	0	0	0	0	0	151	45	49
22:00	0	0	0	3	5	48	46	23	4	1	0	0	0	0	130	46	49
23:00	0	0	0	0	6	18	27	16	3	0	0	0	0	0	70	47	49
Total	6	6	22	149	771	2502	3525	1405	185	20	3	0	0	0	8594		
Percent	0.1%	0.1%	0.3%	1.7%	9.0%	29.1%	41.0%	16.3%	2.2%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	10:00	10:00	10:00	07:00	07:00	08:00	06:00	09:00	06:00				07:00		
Vol.	3	3	11	16	40	188	401	170	15	4	1				786		
PM Peak	16:00	16:00	16:00	17:00	17:00	17:00	13:00	14:00	14:00	12:00	14:00				17:00		
Vol.	2	3	2	33	191	291	247	155	18	1	1				595		



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/02/19	0	0	0	0	3	10	23	5	0	0	0	0	0	0	41	44	47
01:00	0	0	0	0	0	1	5	5	5	0	0	0	0	0	16	52	54
02:00	0	0	0	0	2	9	4	6	1	0	0	0	0	0	22	48	49
03:00	0	0	0	0	0	1	7	3	1	0	0	0	0	0	12	48	51
04:00	0	0	1	0	0	0	14	13	5	1	0	0	0	0	34	50	54
05:00	0	0	0	0	5	6	16	22	11	2	1	0	0	0	63	52	54
06:00	0	0	0	0	5	23	54	27	7	1	0	0	0	0	117	48	51
07:00	0	0	0	0	7	26	126	65	16	4	0	0	0	0	244	48	52
08:00	0	0	0	0	5	76	168	105	17	3	0	0	0	0	374	48	50
09:00	0	0	0	0	4	59	264	154	24	0	0	0	0	0	505	48	49
10:00	0	0	0	8	32	151	291	129	8	3	0	0	0	0	622	46	49
11:00	0	0	0	0	5	75	338	197	47	2	0	1	0	0	665	48	51
12 PM	0	0	0	0	26	77	319	183	36	3	0	0	0	0	644	48	50
13:00	0	0	0	3	36	136	283	211	28	2	1	0	0	0	700	48	49
14:00	0	0	0	1	12	83	335	172	29	2	0	0	0	0	634	48	49
15:00	0	0	0	0	12	117	313	154	17	3	0	0	0	0	616	47	49
16:00	0	0	0	1	25	138	314	108	13	1	0	0	0	0	600	46	49
17:00	0	0	0	3	52	195	269	78	21	3	0	0	0	0	621	45	49
18:00	0	0	0	1	23	143	237	84	7	0	0	0	0	0	495	45	48
19:00	0	0	0	1	22	111	188	63	8	0	0	0	0	0	393	45	49
20:00	0	0	0	0	22	57	102	67	12	0	0	0	0	0	260	47	49
21:00	0	0	0	1	16	52	132	47	5	0	0	0	0	0	253	46	49
22:00	0	0	0	3	14	40	134	53	4	0	0	0	0	0	248	46	49
23:00	0	0	0	0	5	28	42	26	3	0	0	0	0	0	104	47	49
Total	0	0	1	22	333	1614	3978	1977	325	30	2	1	0	0	8283		
Percent	0.0%	0.0%	0.0%	0.3%	4.0%	19.5%	48.0%	23.9%	3.9%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak			04:00	10:00	10:00	10:00	11:00	11:00	11:00	07:00	05:00	11:00			11:00		
Vol.			1	8	32	151	338	197	47	4	1	1			665		
PM Peak				13:00	17:00	17:00	14:00	13:00	12:00	12:00	13:00				13:00		
Vol.				3	52	195	335	211	36	3	1				700		



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76		85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Percent	Percent
02/03/19	0	0	0	0	2	4	34	17	6	1	0	0	0	0	64	49	53
01:00	0	0	0	0	1	6	15	15	0	0	0	0	0	0	37	48	49
02:00	0	0	0	0	2	1	6	1	1	2	0	0	0	0	13	55	58
03:00	0	0	0	0	0	1	8	3	3	2	0	0	0	0	17	54	57
04:00	0	0	0	0	0	1	6	9	11	0	0	0	0	0	27	53	54
05:00	0	0	0	0	0	6	7	14	11	1	1	0	0	0	40	53	55
06:00	0	0	0	2	6	7	51	29	11	0	0	0	0	0	106	49	52
07:00	0	0	0	0	1	20	51	66	21	4	0	0	0	0	163	50	54
08:00	0	0	0	0	1	21	125	119	33	3	1	0	0	0	303	49	53
09:00	0	0	0	0	4	38	173	145	32	2	0	0	0	0	394	49	52
10:00	0	0	0	0	13	84	241	188	19	4	1	0	0	0	550	48	49
11:00	0	0	0	3	11	53	232	181	33	1	0	0	0	0	514	48	51
12 PM	1	0	0	1	4	76	257	171	29	2	1	0	0	0	542	48	50
13:00	0	0	0	2	12	63	261	183	23	0	1	0	0	0	545	48	49
14:00	0	0	0	2	17	96	290	127	21	1	0	0	0	0	554	47	49
15:00	1	0	0	4	16	105	296	135	24	0	0	0	0	0	581	47	49
16:00	1	0	0	0	6	107	252	129	17	1	0	0	0	0	513	47	49
17:00	0	0	0	5	26	108	192	97	6	0	0	0	0	0	434	46	49
18:00	0	0	0	1	4	55	155	75	9	0	0	0	0	0	299	47	49
19:00	0	0	0	2	10	25	74	44	6	1	0	0	0	0	162	48	49
20:00	0	0	0	1	13	34	74	24	14	1	0	0	0	0	161	48	52
21:00	0	0	0	0	4	22	59	41	7	1	0	0	0	0	134	48	50
22:00	0	0	0	1	12	43	87	34	6	0	0	0	0	0	183	46	49
23:00	0	0	0	1	0	3	28	23	7	1	0	0	0	0	63	49	53
Total	3	0	0	25	165	979	2974	1870	350	28	5	0	0	0	6399		
Percent	0.0%	0.0%	0.0%	0.4%	2.6%	15.3%	46.5%	29.2%	5.5%	0.4%	0.1%	0.0%	0.0%	0.0%			
AM Peak				11:00	10:00	10:00	10:00	10:00	08:00	07:00	05:00				10:00		
Vol.				3	13	84	241	188	33	4	1				550		
PM Peak	12:00			17:00	17:00	17:00	15:00	13:00	12:00	12:00	12:00				15:00		
Vol.	1			5	26	108	296	183	29	2	1				581		



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Lower York Road
Between Silvertail Ln & Hermatige Dr
Solebury, Bucks County, PA
EB Lower York

2. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
02/04/19	0	0	0	0	0	7	5	3	3	0	0	0	0	0	0	18	50	53
01:00	0	0	0	0	0	4	8	2	3	0	0	0	0	0	0	17	50	53
02:00	0	0	0	0	3	0	8	7	2	0	0	0	0	0	0	20	49	52
03:00	0	0	0	0	0	5	15	7	5	0	2	0	0	0	0	34	51	60
04:00	0	0	0	0	3	7	32	33	10	5	0	0	0	0	0	90	50	55
05:00	0	0	0	0	3	23	122	89	21	3	0	0	0	0	0	261	49	52
06:00	0	0	0	4	26	156	339	118	19	2	0	0	0	0	0	664	46	49
07:00	1	0	0	18	50	270	501	127	15	0	0	0	0	0	0	982	44	48
08:00	2	4	6	18	35	214	400	211	40	0	0	0	0	0	0	930	47	49
09:00	0	0	0	0	4	79	260	200	47	6	1	0	0	0	0	597	49	52
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	3	4	6	40	124	765	1690	797	165	16	3	0	0	0	0	3613		
Percent	0.1%	0.1%	0.2%	1.1%	3.4%	21.2%	46.8%	22.1%	4.6%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	08:00	07:00	07:00	07:00	07:00	08:00	09:00	09:00	03:00					07:00		
Vol.	2	4	6	18	50	270	501	211	47	6	2					982		
PM Peak																		
Vol.																		
Grand Total	56	90	176	576	2809	12979	26727	13973	2505	263	38	3	0	0	0	60195		
Percent	0.1%	0.1%	0.3%	1.0%	4.7%	21.6%	44.4%	23.2%	4.2%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 37 MPH
50th Percentile : 42 MPH
85th Percentile : 47 MPH
95th Percentile : 49 MPH

Statistics
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 40700
Percent in Pace : 67.6%
Number of Vehicles > 40 MPH : 43509
Percent of Vehicles > 40 MPH : 72.3%
Mean Speed(Average) : 43 MPH



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Lower York Road
Between Silvertail Ln & Hermitage Dr
Solebury Township, Bucks County, PA

2. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	21-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB Lower	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	145	88	145	88
11:00	*	*	*	*	*	*	*	*	*	*	*	*	74	33	74	33
Lane Day	0	0	0	0	0	0	0	0	0	0	0	0	219	121	219	121
	0		0		0		0		0		0		340		340	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	22:00	22:00	22:00	22:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	145	88	145	88



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Lower York Road
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Solebury Township, Bucks County, PA

2. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	28-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB Lower	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe
12:00 AM	29	19	30	27	28	25	34	25	48	24	69	41	123	64	52	32
01:00	27	17	18	15	21	14	22	15	22	23	35	16	74	37	31	20
02:00	18	27	20	23	30	23	22	12	19	18	28	22	39	13	25	20
03:00	15	37	15	30	11	21	16	27	17	24	9	12	14	17	14	24
04:00	23	96	29	85	28	68	24	76	20	69	11	34	10	27	21	65
05:00	66	271	64	273	59	206	74	209	59	213	26	63	15	40	52	182
06:00	269	622	220	629	180	480	200	550	181	481	48	117	44	106	163	426
07:00	463	1007	406	1025	306	796	356	780	392	786	154	244	98	163	311	686
08:00	455	925	457	853	410	801	417	780	372	751	261	374	138	303	359	684
09:00	407	551	385	591	384	697	404	679	387	517	367	505	298	394	376	562
10:00	430	495	405	474	377	517	380	567	358	543	547	622	406	550	415	538
11:00	449	474	428	435	389	478	399	439	469	469	552	665	495	514	454	496
12:00 PM	473	464	503	431	419	474	405	431	487	486	671	644	588	542	507	496
01:00	460	458	465	450	452	466	436	431	506	530	594	700	529	545	492	511
02:00	485	488	567	432	552	423	559	420	602	519	618	634	539	554	560	496
03:00	650	491	629	493	649	465	619	530	635	534	584	616	549	581	616	530
04:00	736	591	710	447	688	474	775	530	777	581	621	600	517	513	689	534
05:00	894	602	849	477	776	559	837	630	817	595	548	621	495	434	745	560
06:00	715	474	574	353	638	455	667	504	585	508	461	495	317	299	565	441
07:00	437	277	310	188	427	211	458	285	405	355	397	393	191	162	375	267
08:00	283	172	179	119	251	149	294	181	331	217	314	260	158	161	259	180
09:00	179	129	125	80	186	145	221	154	240	151	265	253	167	134	198	149
10:00	103	63	77	42	124	64	165	72	195	130	295	248	195	183	165	115
11:00	69	35	74	31	63	30	82	29	124	70	189	104	125	63	104	52
Lane	8135	8785	7539	8003	7448	8041	7866	8356	8048	8594	7664	8283	6124	6399	7548	8066
Day	16920		15542		15489		16222		16642		15947		12523		15614	
AM Peak	07:00	07:00	08:00	07:00	08:00	08:00	08:00	07:00	11:00	07:00	11:00	11:00	11:00	10:00	11:00	07:00
Vol.	463	1007	457	1025	410	801	417	780	469	786	552	665	495	550	454	686
PM Peak	17:00	17:00	17:00	15:00	17:00	17:00	17:00	17:00	17:00	17:00	12:00	13:00	12:00	15:00	17:00	17:00
Vol.	894	602	849	493	776	559	837	630	817	595	671	700	588	581	745	560



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Lower York Road
Between Silvertail Ln & Hermitage Dr
Solebury Township, Bucks County, PA

2. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	04-Feb-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB Lower	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe
12:00 AM	54	18	*	*	*	*	*	*	*	*	*	*	*	*	54	18
01:00	19	17	*	*	*	*	*	*	*	*	*	*	*	*	19	17
02:00	17	20	*	*	*	*	*	*	*	*	*	*	*	*	17	20
03:00	15	34	*	*	*	*	*	*	*	*	*	*	*	*	15	34
04:00	21	90	*	*	*	*	*	*	*	*	*	*	*	*	21	90
05:00	69	261	*	*	*	*	*	*	*	*	*	*	*	*	69	261
06:00	236	664	*	*	*	*	*	*	*	*	*	*	*	*	236	664
07:00	438	982	*	*	*	*	*	*	*	*	*	*	*	*	438	982
08:00	478	930	*	*	*	*	*	*	*	*	*	*	*	*	478	930
09:00	423	597	*	*	*	*	*	*	*	*	*	*	*	*	423	597
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lane Day	1770	3613	0	0	0	0	0	0	0	0	0	0	0	0	1770	3613
	5383		0		0		0		0		0		0		5383	
AM Peak	08:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	08:00	07:00
Vol.	478	982	-	-	-	-	-	-	-	-	-	-	-	-	478	982
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	22303	15542	15489	16222	16642	15947	12863	21337
ADT	ADT 15,612	AADT 15,612						



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	0	36	9	1	0	0	0	0	1	0	0	0	0	0	47
Total	0	36	9	1	0	0	0	0	1	0	0	0	0	0	47
Percent	0.0%	76.6%	19.1%	2.1%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.		23:00 36	23:00 9	23:00 1					23:00 1						



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	0	14	1	0	1	0	0	1	1	0	0	0	0	0	18
01:00	0	12	2	0	1	0	0	0	0	0	0	0	0	0	15
02:00	0	3	1	0	2	0	0	0	5	0	0	0	0	0	11
03:00	0	4	0	1	2	0	0	1	2	0	0	0	0	0	10
04:00	0	4	4	1	1	1	0	0	0	0	0	0	0	0	11
05:00	0	31	7	3	2	0	0	1	2	0	0	0	0	0	46
06:00	4	129	19	15	15	1	0	1	5	0	0	0	0	0	189
07:00	6	262	39	7	11	3	0	0	1	0	0	0	0	0	329
08:00	11	263	36	6	20	4	1	4	1	0	0	0	0	0	346
09:00	1	175	31	4	20	3	2	1	7	0	0	0	0	0	244
10:00	3	208	43	5	29	1	0	3	7	0	0	0	0	0	299
11:00	3	160	37	6	17	3	0	3	12	0	0	0	0	0	241
12 PM	2	225	41	4	26	2	0	3	5	0	0	0	1	0	309
13:00	2	189	49	4	28	4	1	2	5	0	0	0	0	0	284
14:00	3	204	39	5	24	4	0	3	6	0	0	0	0	0	288
15:00	1	296	69	7	40	3	0	0	4	0	0	0	0	0	420
16:00	8	390	79	4	25	4	1	3	5	0	0	0	0	0	519
17:00	10	556	77	0	25	2	2	1	3	0	0	0	0	0	676
18:00	3	425	48	3	25	3	1	3	1	0	0	0	0	0	512
19:00	0	252	52	3	9	1	1	1	3	0	0	0	0	0	322
20:00	1	141	19	2	6	0	0	0	2	0	0	0	0	0	171
21:00	3	93	10	2	4	0	0	1	1	0	0	0	0	0	114
22:00	0	39	11	2	3	0	0	0	2	1	0	0	0	0	58
23:00	1	27	3	1	3	0	0	1	3	0	0	0	0	0	39
Total	62	4102	717	85	339	39	9	33	83	1	0	0	1	0	5471
Percent	1.1%	75.0%	13.1%	1.6%	6.2%	0.7%	0.2%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	10:00	06:00	10:00	08:00	09:00	08:00	11:00						
Vol.	11	263	43	15	29	4	2	4	12						
PM Peak	17:00	17:00	16:00	15:00	15:00	13:00	17:00	12:00	14:00	22:00			12:00		
Vol.	10	556	79	7	40	4	2	3	6	1			1		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	12	3	0	2	0	0	2	2	0	0	0	0	0	21
01:00	0	8	3	0	0	0	0	0	3	0	0	0	0	0	14
02:00	0	11	0	2	2	0	0	0	2	0	0	0	0	0	17
03:00	0	6	1	1	0	0	0	0	2	0	0	0	0	0	10
04:00	0	5	1	0	3	0	0	1	4	0	0	0	0	0	14
05:00	0	28	10	1	6	1	0	3	4	0	0	0	0	0	53
06:00	2	103	16	10	10	1	0	2	3	0	0	0	0	0	147
07:00	8	235	40	9	14	2	0	2	3	0	0	0	0	0	313
08:00	5	232	46	5	17	4	1	4	8	0	0	0	0	0	322
09:00	12	162	31	5	21	3	0	1	2	0	0	0	0	0	237
10:00	6	161	35	7	28	3	1	2	2	0	0	0	0	0	245
11:00	5	199	37	9	29	0	1	3	8	0	0	0	0	0	291
12 PM	4	205	52	4	21	6	0	1	8	0	0	0	0	0	301
13:00	2	203	48	1	20	1	1	3	12	0	0	0	0	0	291
14:00	8	256	64	4	35	3	0	1	7	0	0	0	0	0	378
15:00	3	303	52	10	21	1	0	3	2	0	0	0	0	0	395
16:00	2	413	80	1	21	2	1	4	7	0	0	0	0	0	531
17:00	4	529	85	0	20	3	0	1	2	0	0	0	0	0	644
18:00	7	320	47	1	9	2	0	0	1	0	0	0	1	0	388
19:00	2	174	23	3	5	0	0	1	2	0	0	0	0	0	210
20:00	0	110	12	0	5	0	0	0	1	0	0	0	0	0	128
21:00	2	53	9	2	3	1	1	0	0	0	0	0	0	0	71
22:00	0	37	5	1	1	1	0	0	4	0	0	0	0	0	49
23:00	2	32	2	0	3	8	0	2	1	0	0	0	0	0	50
Total	74	3797	702	76	296	42	6	36	90	0	0	0	1	0	5120
Percent	1.4%	74.2%	13.7%	1.5%	5.8%	0.8%	0.1%	0.7%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	08:00	06:00	11:00	08:00	08:00	08:00	08:00						
Vol.	12	235	46	10	29	4	1	4	8						
PM Peak	14:00	17:00	17:00	15:00	14:00	23:00	13:00	16:00	13:00				18:00		
Vol.	8	529	85	10	35	8	1	4	12				1		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/19	0	11	5	0	0	0	0	0	1	0	0	0	0	0	17
01:00	1	7	0	2	4	1	0	1	2	0	0	0	0	0	18
02:00	1	9	5	1	2	1	0	0	3	0	0	0	0	0	22
03:00	0	4	0	1	0	0	0	0	1	0	0	0	0	0	6
04:00	0	6	1	2	3	1	0	0	2	0	0	0	0	0	15
05:00	1	27	10	3	2	0	0	0	2	0	0	0	0	0	45
06:00	1	86	18	3	7	2	0	0	5	0	0	0	0	0	122
07:00	3	163	26	2	12	1	1	0	6	0	0	0	0	0	214
08:00	1	210	36	14	14	2	1	1	3	0	0	0	0	0	282
09:00	6	182	32	12	16	1	3	2	4	1	0	0	0	0	259
10:00	5	167	34	3	15	3	1	2	5	0	0	0	0	0	235
11:00	5	157	27	3	15	2	0	3	7	0	0	0	0	0	219
12 PM	4	184	29	3	16	2	1	2	7	0	0	0	0	0	248
13:00	2	187	49	3	23	8	1	4	6	0	0	0	0	0	283
14:00	8	211	46	3	20	3	1	1	7	0	0	0	0	0	300
15:00	6	330	54	3	25	3	1	4	3	0	0	0	0	0	429
16:00	2	440	67	2	16	1	0	3	1	0	0	0	0	0	532
17:00	2	510	56	0	14	1	0	0	4	0	0	0	0	0	587
18:00	1	402	31	2	6	1	0	2	4	0	0	0	0	0	449
19:00	2	241	36	6	8	0	0	2	1	0	0	0	0	0	296
20:00	1	140	13	2	5	0	0	0	1	0	0	0	0	0	162
21:00	0	98	12	0	0	0	0	0	0	0	0	0	0	0	110
22:00	1	48	9	2	4	1	0	0	1	0	0	0	0	0	66
23:00	1	31	4	0	3	1	0	3	0	0	0	0	0	0	43
Total	54	3851	600	72	230	35	10	30	76	1	0	0	0	0	4959
Percent	1.1%	77.7%	12.1%	1.5%	4.6%	0.7%	0.2%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	08:00	08:00	09:00	10:00	09:00	11:00	11:00	09:00					
Vol.	6	210	36	14	16	3	3	3	7	1					
PM Peak	14:00	17:00	16:00	19:00	15:00	13:00	12:00	13:00	12:00						
Vol.	8	510	67	6	25	8	1	4	7						



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/19	0	11	5	0	1	0	0	1	1	0	0	0	0	0	19
01:00	0	7	3	0	1	0	0	0	1	0	0	0	0	0	12
02:00	0	7	0	1	2	1	0	1	5	0	0	0	0	0	17
03:00	0	2	2	2	1	0	0	0	2	0	0	0	0	0	9
04:00	0	5	1	0	2	0	0	0	3	0	0	0	0	0	11
05:00	1	22	6	1	5	1	0	2	5	0	0	0	0	0	43
06:00	3	86	14	4	5	3	0	0	5	0	0	0	0	0	120
07:00	4	225	24	7	5	3	0	0	3	0	0	0	0	0	271
08:00	5	232	19	11	12	1	0	0	3	0	0	0	0	0	283
09:00	6	175	34	13	11	3	0	1	4	0	0	0	0	0	247
10:00	6	190	32	7	12	2	0	2	7	0	0	0	0	0	258
11:00	3	171	31	9	18	2	1	2	9	0	0	0	0	0	246
12 PM	4	173	25	3	25	0	0	4	10	0	0	0	0	0	244
13:00	2	194	38	4	20	3	1	3	4	0	0	0	0	0	269
14:00	6	236	62	7	17	4	1	2	7	0	0	0	0	0	342
15:00	6	299	49	6	24	3	0	2	7	0	0	0	0	0	396
16:00	4	471	70	2	14	3	0	2	7	0	0	0	0	0	573
17:00	4	550	49	2	16	2	0	2	0	0	0	0	0	0	625
18:00	6	412	36	1	10	2	0	1	4	0	0	0	0	0	472
19:00	3	269	30	2	6	0	0	0	0	0	0	0	0	0	310
20:00	1	179	18	1	5	2	0	0	0	0	0	0	0	0	206
21:00	1	99	11	3	4	0	0	0	1	0	0	0	0	0	119
22:00	0	86	6	2	2	0	0	0	1	0	0	0	0	0	97
23:00	2	44	4	2	2	2	0	2	5	0	0	0	0	0	63
Total	67	4145	569	90	220	37	3	27	94	0	0	0	0	0	5252
Percent	1.3%	78.9%	10.8%	1.7%	4.2%	0.7%	0.1%	0.5%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	08:00	09:00	09:00	11:00	06:00	11:00	05:00	11:00						
Vol.	6	232	34	13	18	3	1	2	9						
PM Peak	14:00	17:00	16:00	14:00	12:00	14:00	13:00	12:00	12:00						
Vol.	6	550	70	7	25	4	1	4	10						



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/19	0	24	2	0	1	0	0	2	0	0	0	0	0	0	29
01:00	0	10	1	1	1	0	0	1	1	0	0	0	0	0	15
02:00	0	5	1	1	2	0	0	0	4	0	0	0	0	0	13
03:00	0	3	0	1	1	0	0	0	2	0	0	0	0	0	7
04:00	1	4	0	2	2	1	0	0	2	0	0	0	0	0	12
05:00	1	15	10	1	5	1	0	0	4	0	0	0	0	0	37
06:00	1	84	12	13	10	1	0	4	3	0	0	0	0	0	128
07:00	6	204	32	6	10	1	0	1	6	0	0	0	0	0	266
08:00	4	223	20	3	12	2	0	8	4	0	0	0	0	0	276
09:00	3	168	26	6	14	4	0	3	8	0	0	0	0	0	232
10:00	5	166	25	5	16	1	1	0	4	0	0	0	0	0	223
11:00	8	181	36	9	20	4	2	3	5	1	0	0	0	0	269
12 PM	7	239	44	5	21	2	0	3	12	0	0	0	0	0	333
13:00	3	215	47	3	15	4	0	2	7	0	0	0	0	0	296
14:00	1	277	55	5	19	3	0	1	5	0	0	0	0	0	366
15:00	7	318	49	3	14	2	0	1	3	0	0	0	0	0	397
16:00	4	405	71	0	15	3	0	1	4	0	0	0	0	0	503
17:00	9	533	60	1	17	3	0	0	3	0	0	0	0	0	626
18:00	6	372	30	6	5	1	0	1	1	0	0	0	0	0	422
19:00	2	213	23	1	6	0	0	1	2	0	0	0	0	0	248
20:00	1	185	30	2	3	0	0	0	0	0	0	0	0	0	221
21:00	0	106	14	1	4	0	0	0	1	0	0	0	0	0	126
22:00	1	82	10	2	3	0	0	1	0	0	0	0	0	0	99
23:00	1	47	4	0	4	1	0	1	1	0	0	0	0	0	59
Total	71	4079	602	77	220	34	3	34	82	1	0	0	0	0	5203
Percent	1.4%	78.4%	11.6%	1.5%	4.2%	0.7%	0.1%	0.7%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	08:00	11:00	06:00	11:00	09:00	11:00	08:00	09:00	11:00					
Vol.	8	223	36	13	20	4	2	8	8	1					
PM Peak	17:00	17:00	16:00	18:00	12:00	13:00		12:00	12:00						
Vol.	9	533	71	6	21	4		3	12						



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Lower York Road
East of Sугan Road
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WB Lower York

3. Lower York Road_Class

Date Start: 27-Jan-19

Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/19	0	23	4	0	0	0	0	1	2	0	0	0	0	0	30
01:00	0	16	1	0	0	0	0	0	0	0	0	0	0	0	17
02:00	0	2	1	1	1	0	0	2	3	0	0	0	0	0	10
03:00	0	5	0	1	0	0	0	0	1	0	0	0	0	0	7
04:00	0	7	0	0	0	0	0	1	1	0	0	0	0	0	9
05:00	0	10	4	0	2	0	0	0	3	0	0	0	0	0	19
06:00	0	29	4	3	3	0	0	0	1	0	0	0	0	0	40
07:00	0	93	19	2	2	0	0	0	1	0	0	0	0	0	117
08:00	3	143	18	1	9	0	0	2	0	0	0	0	0	0	176
09:00	2	199	20	0	7	1	0	1	1	0	0	0	0	0	231
10:00	3	264	39	2	8	3	0	2	1	0	0	0	0	0	322
11:00	10	328	36	1	10	1	0	1	3	0	0	0	0	0	390
12 PM	5	344	53	0	10	0	0	0	0	0	0	0	0	0	412
13:00	1	302	39	0	4	2	0	3	8	0	0	0	0	0	359
14:00	3	305	53	2	4	0	0	0	1	0	0	0	0	0	368
15:00	9	322	42	1	2	0	0	0	1	0	0	0	0	0	377
16:00	2	327	35	2	11	2	0	1	3	0	0	0	0	0	383
17:00	1	302	34	0	6	2	0	1	0	0	0	0	0	0	346
18:00	4	240	31	1	11	0	0	1	1	0	0	0	0	0	289
19:00	2	163	17	3	7	0	0	0	3	0	0	0	0	0	195
20:00	1	151	18	0	0	0	0	0	1	0	0	0	0	0	171
21:00	1	121	12	0	5	0	0	0	1	0	0	0	0	0	140
22:00	0	122	8	3	0	0	0	0	2	0	0	0	0	0	135
23:00	0	91	9	2	2	0	0	0	0	0	0	0	0	0	104
Total	47	3909	497	25	104	11	0	16	38	0	0	0	0	0	4647
Percent	1.0%	84.1%	10.7%	0.5%	2.2%	0.2%	0.0%	0.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	06:00	11:00	10:00		02:00	02:00						
Vol.	10	328	39	3	10	3		2	3						
PM Peak	15:00	12:00	12:00	19:00	16:00	13:00		13:00	13:00						
Vol.	9	344	53	3	11	2		3	8						



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Lower York Road
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Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/19	0	46	2	0	1	0	0	0	1	0	0	0	0	0	50
01:00	0	23	4	0	0	0	0	1	0	0	0	0	0	0	28
02:00	0	9	1	1	0	0	0	0	1	0	0	0	0	0	12
03:00	0	6	1	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	2	1	0	0	0	0	1	1	0	0	0	0	0	5
05:00	2	7	3	0	1	1	1	0	2	0	0	0	0	0	17
06:00	0	17	4	0	0	0	0	0	0	0	0	0	0	0	21
07:00	0	44	7	1	0	0	0	0	3	0	0	0	0	0	55
08:00	0	103	14	0	5	0	0	0	1	0	0	0	0	0	123
09:00	0	126	28	0	3	0	0	0	0	0	0	0	0	0	157
10:00	4	212	21	0	5	0	0	0	0	0	0	0	0	0	242
11:00	2	275	26	0	4	1	0	0	2	0	0	0	0	0	310
12 PM	3	316	40	3	8	0	0	0	0	0	0	0	0	0	370
13:00	3	303	43	1	3	1	0	1	0	0	0	0	0	0	355
14:00	2	258	29	1	10	2	0	0	1	0	0	0	0	0	303
15:00	5	318	34	0	12	0	0	1	1	0	0	0	0	0	371
16:00	3	283	28	1	2	1	0	0	1	0	0	0	0	0	319
17:00	3	260	17	0	2	2	0	1	0	0	0	0	0	0	285
18:00	0	180	17	1	1	1	0	1	1	0	0	0	0	0	202
19:00	0	97	14	1	1	0	0	1	1	0	0	0	0	0	115
20:00	0	87	11	0	3	0	0	0	1	0	0	0	0	0	102
21:00	0	88	7	3	1	0	0	0	1	0	0	0	0	0	100
22:00	2	105	19	2	1	2	0	0	0	0	0	0	0	0	131
23:00	0	82	8	0	1	0	0	0	2	0	0	0	0	0	93
Total	29	3247	379	15	64	11	1	7	20	0	0	0	0	0	3773
Percent	0.8%	86.1%	10.0%	0.4%	1.7%	0.3%	0.0%	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	09:00	02:00	08:00	05:00	05:00	01:00	07:00						
Vol.	4	275	28	1	5	1	1	1	3						
PM Peak	15:00	15:00	13:00	12:00	15:00	14:00		13:00	23:00						
Vol.	5	318	43	3	12	2		1	2						



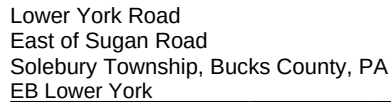
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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	0	33	3	0	0	0	0	1	0	0	0	0	0	0	37
01:00	0	16	0	1	2	0	0	0	0	0	0	0	0	0	19
02:00	0	6	1	0	2	0	0	0	1	0	0	0	0	0	10
03:00	0	3	2	1	0	0	0	0	3	0	0	0	0	0	9
04:00	0	4	0	2	1	0	0	0	1	0	0	0	0	0	8
05:00	0	32	8	1	3	0	0	0	1	0	0	0	0	0	45
06:00	2	121	17	13	15	1	0	1	4	0	0	0	0	0	174
07:00	13	259	38	4	17	4	0	3	4	0	0	0	0	1	343
08:00	3	263	37	3	10	1	0	3	6	1	0	0	0	0	327
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	18	737	106	25	50	6	0	8	20	1	0	0	0	1	972
Percent	1.9%	75.8%	10.9%	2.6%	5.1%	0.6%	0.0%	0.8%	2.1%	0.1%	0.0%	0.0%	0.0%	0.1%	
AM Peak	07:00	08:00	07:00	06:00	07:00	07:00		07:00	08:00	08:00				07:00	
Vol.	13	263	38	13	17	4		3	6	1				1	
PM Peak															
Vol.															
Grand Total	422	27903	4181	466	1523	215	32	191	504	4	0	0	2	1	35444
Percent	1.2%	78.7%	11.8%	1.3%	4.3%	0.6%	0.1%	0.5%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	



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Lower York Road
East of Sagan Road
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EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/28/19	1	7	1	0	1	0	0	0	2	0	0	0	0	0	12
01:00	0	9	0	1	0	0	0	1	4	0	0	0	0	0	15
02:00	0	8	2	0	2	0	0	1	9	0	0	0	0	0	22
03:00	0	11	2	1	3	1	0	3	8	0	0	0	0	0	29
04:00	0	54	15	0	8	0	0	0	11	0	0	0	0	0	88
05:00	1	165	34	4	21	1	0	2	4	0	0	0	0	0	232
06:00	2	435	68	6	32	0	1	2	3	0	0	0	0	0	549
07:00	7	686	114	5	33	4	0	5	5	0	0	0	0	0	859
08:00	6	576	100	16	25	2	2	5	6	0	0	0	0	0	738
09:00	0	332	64	6	20	1	1	1	12	0	1	0	0	0	438
10:00	1	243	71	8	30	2	1	4	12	0	0	0	0	0	372
11:00	4	276	59	3	24	1	0	2	12	0	0	0	0	0	381
12 PM	3	261	65	7	16	2	1	1	11	0	0	0	0	0	367
13:00	2	256	55	6	25	2	0	1	7	0	0	0	0	0	354
14:00	6	258	55	3	19	2	1	3	6	0	0	0	0	0	353
15:00	8	265	55	8	21	1	0	4	9	0	0	0	0	0	371
16:00	4	290	72	8	19	3	0	1	3	0	0	0	0	0	400
17:00	9	365	50	1	14	3	0	1	3	0	0	0	0	0	446
18:00	3	291	41	0	11	1	0	1	1	0	0	0	0	0	349
19:00	1	184	28	1	6	0	0	0	2	0	0	0	0	0	222
20:00	0	99	16	2	2	0	0	0	3	0	0	0	0	0	122
21:00	0	74	12	0	1	1	0	1	2	0	0	0	0	0	91
22:00	0	41	8	0	4	1	0	2	3	0	0	0	0	0	59
23:00	0	14	3	1	2	0	0	1	2	0	1	0	0	0	24
Total	58	5200	990	87	339	28	7	42	140	0	2	0	0	0	6893
Percent	0.8%	75.4%	14.4%	1.3%	4.9%	0.4%	0.1%	0.6%	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	07:00	07:00	08:00	07:00	09:00		09:00				
Vol.	7	686	114	16	33	4	2	5	12		1				
PM Peak	17:00	17:00	16:00	15:00	13:00	16:00	12:00	15:00	12:00		23:00				
Vol.	9	365	72	8	25	3	1	4	11		1				



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3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/29/19	0	9	1	1	1	0	0	1	7	0	0	0	0	0	20
01:00	0	7	1	1	2	0	0	1	3	0	0	0	0	0	15
02:00	1	5	4	3	0	1	0	1	6	0	0	0	0	0	21
03:00	0	11	3	2	1	0	0	3	7	0	0	0	0	0	27
04:00	1	41	10	2	11	1	0	1	5	0	0	0	0	0	72
05:00	0	173	30	3	17	1	0	2	5	0	0	0	0	0	231
06:00	2	417	71	9	32	0	0	2	4	0	0	0	1	0	538
07:00	3	672	139	2	35	6	0	1	4	0	0	0	0	1	863
08:00	3	564	93	17	25	2	0	2	3	0	0	0	0	0	709
09:00	0	344	78	9	35	2	0	1	13	0	0	0	0	0	482
10:00	0	204	52	4	24	1	0	3	7	0	0	0	0	0	295
11:00	3	207	42	7	26	4	1	5	6	0	0	0	1	1	303
12 PM	1	231	67	6	27	5	0	5	7	0	0	0	0	0	349
13:00	3	269	50	5	16	5	0	2	11	0	0	0	0	0	361
14:00	2	236	42	3	10	1	0	4	4	0	0	0	0	0	302
15:00	3	293	65	8	21	3	0	1	3	0	0	0	0	0	397
16:00	5	235	63	6	21	1	0	2	3	0	0	0	0	0	336
17:00	2	297	36	1	11	0	0	1	7	0	0	0	0	0	355
18:00	7	219	39	0	9	0	0	0	3	0	0	0	0	0	277
19:00	0	116	8	2	5	0	0	1	3	0	0	0	0	0	135
20:00	0	71	12	0	6	1	0	1	1	0	0	0	0	0	92
21:00	1	49	8	1	0	0	0	1	2	0	0	0	0	0	62
22:00	0	22	6	0	1	1	0	1	1	0	0	0	0	0	32
23:00	0	14	1	0	3	0	0	2	4	0	0	0	0	0	24
Total	37	4706	921	92	339	35	1	44	119	0	0	0	2	2	6298
Percent	0.6%	74.7%	14.6%	1.5%	5.4%	0.6%	0.0%	0.7%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	07:00	07:00	11:00	11:00	09:00				06:00	07:00	
Vol.	3	672	139	17	35	6	1	5	13				1	1	
PM Peak	18:00	17:00	12:00	15:00	12:00	12:00		12:00	13:00						
Vol.	7	297	67	8	27	5		5	11						



Imperial Traffic & Data Collection

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Lower York Road
East of Sagan Road
Solebury Township, Bucks County, PA
EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/30/19	2	4	3	0	2	2	0	0	7	0	0	0	0	0	20
01:00	0	3	1	2	0	0	0	2	5	0	0	0	0	0	13
02:00	1	3	1	1	1	2	0	1	9	0	0	0	0	0	19
03:00	0	7	3	1	4	1	0	2	2	0	1	0	0	0	21
04:00	0	34	9	0	7	0	0	1	6	0	0	0	0	0	57
05:00	0	99	31	5	15	1	0	1	7	0	0	0	0	0	159
06:00	0	326	54	6	21	3	0	1	3	0	0	0	0	0	414
07:00	6	524	65	9	39	3	0	2	7	0	0	0	0	0	655
08:00	9	463	73	7	32	4	1	4	5	0	0	0	0	0	598
09:00	4	375	69	5	38	3	1	1	11	0	0	0	0	0	507
10:00	5	256	69	10	24	5	3	4	7	0	0	0	0	0	383
11:00	0	235	49	5	28	1	0	7	10	0	0	0	0	0	335
12 PM	1	231	42	6	16	2	2	5	8	0	0	0	0	0	313
13:00	4	242	61	7	31	2	0	2	5	0	0	0	0	0	354
14:00	2	241	52	2	20	2	0	1	10	0	0	0	0	0	330
15:00	2	220	60	11	26	0	0	1	8	0	0	0	0	0	328
16:00	4	234	66	10	22	3	0	1	5	0	0	0	0	0	345
17:00	8	317	45	5	24	2	0	0	4	0	0	0	0	0	405
18:00	1	262	64	0	17	0	0	1	2	0	0	0	0	0	347
19:00	1	137	30	0	6	1	0	0	5	0	0	0	0	0	180
20:00	0	90	13	1	3	0	0	0	3	0	0	0	0	0	110
21:00	0	70	18	0	4	0	0	1	3	0	0	0	0	0	96
22:00	0	37	7	0	5	0	0	1	2	0	0	0	0	0	52
23:00	1	14	2	0	2	1	0	0	4	0	1	0	0	0	25
Total	51	4424	887	93	387	38	7	39	138	0	2	0	0	0	6066
Percent	0.8%	72.9%	14.6%	1.5%	6.4%	0.6%	0.1%	0.6%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	10:00	07:00	10:00	10:00	11:00	09:00		03:00				
Vol.	9	524	73	10	39	5	3	7	11		1				
PM Peak	17:00	17:00	16:00	15:00	13:00	16:00	12:00	12:00	14:00		23:00				
Vol.	8	317	66	11	31	3	2	5	10		1				



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EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
01/31/19	0	9	0	1	2	0	0	3	4	0	0	0	0	0	19
01:00	4	4	1	2	2	4	0	1	1	0	0	0	0	0	19
02:00	0	6	2	2	3	0	0	0	3	0	0	0	0	0	16
03:00	0	10	2	2	4	0	0	3	5	0	0	0	0	0	26
04:00	1	33	10	4	13	2	0	1	6	0	0	0	0	0	70
05:00	2	112	32	5	12	2	0	3	8	0	0	0	0	0	176
06:00	4	371	56	6	38	5	0	1	3	0	0	0	0	1	485
07:00	5	549	87	5	44	0	0	3	5	0	0	0	0	0	698
08:00	6	464	82	9	33	2	0	4	3	0	0	0	0	0	603
09:00	3	382	74	6	30	3	0	2	7	0	0	0	0	0	507
10:00	0	269	72	23	35	2	0	3	11	0	0	0	0	0	415
11:00	1	226	55	4	31	0	0	1	7	0	0	0	0	0	325
12 PM	2	212	60	7	24	1	1	4	5	0	0	0	0	0	316
13:00	1	204	53	7	15	0	0	1	3	0	0	0	0	0	284
14:00	2	233	51	6	23	1	0	1	3	0	0	0	0	0	320
15:00	1	280	63	12	24	0	0	3	6	0	0	0	0	0	389
16:00	4	301	56	9	21	0	0	1	1	0	0	0	0	0	393
17:00	4	332	60	1	24	1	0	1	3	0	0	0	0	0	426
18:00	4	263	52	4	19	0	0	1	1	0	0	0	0	0	344
19:00	2	193	28	0	11	0	0	0	1	0	0	0	0	0	235
20:00	0	105	21	0	5	1	0	0	2	0	0	0	0	0	134
21:00	0	89	12	0	6	0	0	2	0	0	0	0	0	0	109
22:00	1	34	7	1	5	1	0	0	1	0	0	0	0	0	50
23:00	1	19	3	3	5	1	0	1	3	0	1	0	0	0	37
Total	48	4700	939	119	429	26	1	40	92	0	1	0	0	1	6396
Percent	0.8%	73.5%	14.7%	1.9%	6.7%	0.4%	0.0%	0.6%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	10:00	07:00	06:00		08:00	10:00					06:00	
Vol.	6	549	87	23	44	5		4	11					1	
PM Peak	16:00	17:00	15:00	15:00	12:00	12:00	12:00	12:00	15:00		23:00				
Vol.	4	332	63	12	24	1	1	4	6		1				



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Lower York Road
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Solebury Township, Bucks County, PA
EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/01/19	0	8	0	2	2	0	0	2	3	0	0	0	0	0	17
01:00	0	8	4	1	3	0	0	1	5	0	0	0	0	0	22
02:00	1	5	2	2	0	1	0	1	7	0	0	0	0	0	19
03:00	0	5	3	1	3	0	0	1	5	0	0	0	0	0	18
04:00	1	22	7	1	9	2	0	2	7	0	0	0	0	0	51
05:00	0	97	24	2	20	0	0	3	9	0	0	0	0	0	155
06:00	3	275	58	4	32	4	1	2	3	0	0	0	0	0	382
07:00	3	491	90	5	49	0	0	3	4	0	0	0	0	0	645
08:00	3	412	79	12	36	3	0	2	8	0	0	0	0	0	555
09:00	2	302	63	2	23	1	0	6	3	0	0	0	0	0	402
10:00	0	250	70	7	24	4	0	2	8	0	0	0	0	0	365
11:00	5	249	48	8	35	1	0	4	7	0	0	0	0	0	357
12 PM	2	231	49	8	40	0	0	2	5	0	0	0	0	0	337
13:00	3	290	61	4	29	0	0	6	12	0	0	0	0	0	405
14:00	2	277	74	4	26	0	0	0	6	0	0	0	0	0	389
15:00	3	304	72	9	18	3	0	5	4	0	0	0	0	0	418
16:00	4	339	65	7	27	3	0	0	3	0	0	0	0	0	448
17:00	8	353	66	2	29	0	0	1	1	0	0	0	0	0	460
18:00	4	294	49	0	15	1	0	0	0	0	0	0	0	0	363
19:00	2	215	35	0	12	0	0	0	0	0	0	0	0	0	264
20:00	1	114	13	0	7	0	0	1	2	0	0	0	0	0	138
21:00	0	86	11	0	6	0	0	0	0	0	0	0	0	0	103
22:00	1	68	10	0	2	0	0	1	3	0	0	0	0	0	85
23:00	0	32	4	1	4	0	0	3	0	0	1	0	0	0	45
Total	48	4727	957	82	451	23	1	48	105	0	1	0	0	0	6443
Percent	0.7%	73.4%	14.9%	1.3%	7.0%	0.4%	0.0%	0.7%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	08:00	07:00	06:00	06:00	09:00	05:00						
Vol.	5	491	90	12	49	4	1	6	9						
PM Peak	17:00	17:00	14:00	15:00	12:00	15:00		13:00	13:00		23:00				
Vol.	8	353	74	9	40	3		6	12		1				



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EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/02/19	0	9	7	3	4	0	0	4	2	0	0	0	0	0	29
01:00	0	13	5	1	0	0	0	0	1	0	0	0	0	0	20
02:00	0	12	2	0	2	0	0	0	1	0	0	0	0	0	17
03:00	1	5	1	1	2	0	0	0	0	0	0	0	0	0	10
04:00	0	17	1	2	3	0	0	2	1	0	0	0	0	0	26
05:00	0	28	11	1	8	0	0	0	0	0	0	0	0	0	48
06:00	0	57	15	1	7	0	0	0	0	0	0	0	0	0	80
07:00	1	131	18	3	17	0	0	1	3	0	0	0	0	0	174
08:00	0	210	53	1	19	1	0	1	3	0	0	0	0	0	288
09:00	2	260	61	2	18	0	0	2	2	0	0	0	0	0	347
10:00	4	324	76	4	23	1	0	1	3	0	0	0	0	0	436
11:00	6	410	74	3	33	2	0	1	2	0	1	0	0	0	532
12 PM	1	365	79	4	18	0	0	0	5	0	0	0	0	0	472
13:00	3	370	55	3	24	0	0	4	5	0	0	0	0	0	464
14:00	5	368	91	0	21	0	0	0	3	0	0	0	0	0	488
15:00	5	362	65	0	19	1	0	2	4	0	0	0	0	0	458
16:00	4	357	61	1	15	2	0	0	1	0	0	0	0	0	441
17:00	2	300	60	3	8	0	0	1	0	0	0	0	0	0	374
18:00	2	249	48	1	9	1	0	1	1	0	0	0	0	0	312
19:00	1	187	42	0	6	0	0	0	0	0	0	0	0	0	236
20:00	0	129	33	0	2	1	0	1	0	0	0	0	0	0	166
21:00	0	158	21	1	4	0	0	1	0	0	0	0	0	0	185
22:00	1	128	21	0	6	0	0	0	0	0	0	0	0	0	156
23:00	1	54	7	0	4	1	0	1	0	0	0	0	0	0	68
Total	39	4503	907	35	272	10	0	23	37	0	1	0	0	0	5827
Percent	0.7%	77.3%	15.6%	0.6%	4.7%	0.2%	0.0%	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	10:00	10:00	11:00	11:00		00:00	07:00		11:00				
Vol.	6	410	76	4	33	2		4	3		1				
PM Peak	14:00	13:00	14:00	12:00	13:00	16:00		13:00	12:00						
Vol.	5	370	91	4	24	2		4	5						



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EB Lower York

3. Lower York Road_Class
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/03/19	0	38	2	0	2	0	0	0	0	0	0	0	0	0	42
01:00	0	27	6	0	0	0	0	0	1	0	0	0	0	0	34
02:00	1	16	2	1	2	2	0	0	0	0	0	0	0	0	24
03:00	0	13	1	0	1	0	0	0	1	0	0	0	0	0	16
04:00	0	16	4	0	0	0	0	0	1	0	0	0	0	0	21
05:00	0	18	2	0	1	0	0	0	0	0	0	0	0	0	21
06:00	0	41	10	0	9	1	0	0	2	0	0	0	0	0	63
07:00	0	87	15	1	9	0	0	1	1	0	0	0	0	0	114
08:00	0	140	29	1	11	0	0	1	0	0	0	0	0	0	182
09:00	1	201	39	0	7	0	0	1	1	0	0	0	0	0	250
10:00	1	294	60	1	7	0	0	2	0	0	0	0	0	0	365
11:00	1	348	54	0	17	0	0	1	0	0	0	0	0	0	421
12 PM	0	352	44	0	16	0	0	0	1	0	0	0	0	0	413
13:00	3	370	73	0	11	1	0	1	4	0	0	0	0	0	463
14:00	4	358	53	2	14	0	0	0	0	0	0	0	0	0	431
15:00	3	387	59	0	15	0	0	0	0	0	0	0	0	0	464
16:00	1	333	48	0	10	1	0	0	2	0	0	0	0	0	395
17:00	2	266	43	0	11	0	0	0	1	0	0	0	0	0	323
18:00	1	193	25	1	5	0	0	1	0	0	0	0	0	0	226
19:00	1	113	16	0	2	0	0	0	0	0	0	0	0	0	132
20:00	1	100	10	1	4	1	0	0	0	0	0	0	0	0	117
21:00	0	102	7	0	4	0	0	0	0	0	0	0	0	0	113
22:00	0	123	13	0	4	0	0	1	2	0	0	0	0	0	143
23:00	0	47	5	1	4	0	0	0	1	0	0	0	0	0	58
Total	20	3983	620	9	166	6	0	9	18	0	0	0	0	0	4831
Percent	0.4%	82.4%	12.8%	0.2%	3.4%	0.1%	0.0%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	02:00	11:00	10:00	02:00	11:00	02:00		10:00	06:00						
Vol.	1	348	60	1	17	2		2	2						
PM Peak	14:00	15:00	13:00	14:00	12:00	13:00		13:00	13:00						
Vol.	4	387	73	2	16	1		1	4						



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Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
02/04/19	0	16	0	0	0	0	0	1	2	0	0	0	0	0	19
01:00	1	3	0	0	2	1	0	0	5	0	0	0	0	0	12
02:00	0	5	2	0	4	0	0	0	4	0	0	0	0	0	15
03:00	0	9	4	1	2	0	0	1	13	0	0	0	0	0	30
04:00	0	68	8	2	7	0	0	0	7	0	0	0	0	0	92
05:00	0	158	36	4	22	0	0	4	5	0	0	0	0	0	229
06:00	2	432	79	9	38	0	0	1	3	0	0	0	0	0	564
07:00	7	622	116	11	41	3	0	2	4	0	0	0	0	1	807
08:00	8	568	82	15	31	2	0	2	5	0	0	0	0	0	713
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	18	1881	327	42	147	6	0	11	48	0	0	0	0	1	2481
Percent	0.7%	75.8%	13.2%	1.7%	5.9%	0.2%	0.0%	0.4%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	07:00	08:00	07:00	07:00		05:00	03:00					07:00	
Vol.	8	622	116	15	41	3		4	13					1	
PM Peak															
Vol.															
Grand Total	319	34151	6550	559	2533	172	17	256	697	0	7	0	2	4	45267
Percent	0.7%	75.4%	14.5%	1.2%	5.6%	0.4%	0.0%	0.6%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	



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WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	0	0	0	0	0	2	8	16	15	3	2	1	0	0	47	54	61
Total	0	0	0	0	0	2	8	16	15	3	2	1	0	0	47		
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	17.0%	34.0%	31.9%	6.4%	4.3%	2.1%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.						23:00 2	23:00 8	23:00 16	23:00 15	23:00 3	23:00 2	23:00 1			23:00 47		



Imperial Traffic & Data Collection

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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/28/19	0	0	0	0	0	0	4	5	6	3	0	0	0	0	18	55	58
01:00	0	0	0	0	0	0	3	2	5	1	4	0	0	0	15	62	64
02:00	0	0	0	0	0	3	4	2	1	1	0	0	0	0	11	51	57
03:00	0	0	0	0	0	0	3	3	2	2	0	0	0	0	10	56	58
04:00	0	0	0	0	0	1	1	4	3	1	1	0	0	0	11	56	62
05:00	0	0	0	0	2	5	6	14	13	6	0	0	0	0	46	54	58
06:00	2	1	1	4	7	21	33	48	44	21	5	2	0	0	189	54	59
07:00	0	1	0	1	5	31	81	110	71	21	8	0	0	0	329	53	57
08:00	3	2	1	5	6	27	65	131	77	25	3	1	0	0	346	53	57
09:00	0	0	0	2	8	17	44	76	70	19	7	1	0	0	244	54	58
10:00	1	1	0	0	2	15	70	105	82	19	4	0	0	0	299	53	57
11:00	2	0	2	1	2	11	47	80	60	29	5	1	0	1	241	54	58
12 PM	1	0	0	0	8	28	89	93	65	20	4	1	0	0	309	53	57
13:00	2	0	0	2	1	19	81	86	63	21	7	1	1	0	284	54	58
14:00	2	0	0	1	3	32	61	109	52	26	2	0	0	0	288	53	57
15:00	0	0	0	1	2	24	91	163	109	27	1	1	0	1	420	53	56
16:00	4	0	6	12	21	48	109	161	117	34	7	0	0	0	519	53	57
17:00	7	0	15	24	21	113	190	209	78	16	3	0	0	0	676	49	54
18:00	2	2	5	9	43	68	138	165	68	9	2	0	0	1	512	50	53
19:00	0	0	0	2	14	60	88	97	53	7	1	0	0	0	322	51	54
20:00	1	0	0	0	1	10	49	60	37	11	1	1	0	0	171	53	57
21:00	2	0	0	2	1	12	23	41	31	2	0	0	0	0	114	52	54
22:00	0	0	0	0	3	3	11	25	6	10	0	0	0	0	58	55	58
23:00	0	0	0	0	0	3	9	12	11	3	1	0	0	0	39	54	58
Total	29	7	30	66	150	551	1300	1801	1124	334	66	9	1	3	5471		
Percent	0.5%	0.1%	0.5%	1.2%	2.7%	10.1%	23.8%	32.9%	20.5%	6.1%	1.2%	0.2%	0.0%	0.1%			
AM Peak Vol.	08:00 3	08:00 2	11:00 2	08:00 5	09:00 8	07:00 31	07:00 81	08:00 131	10:00 82	11:00 29	07:00 8	06:00 2		11:00 1	08:00 346		
PM Peak Vol.	17:00 7	18:00 2	17:00 15	17:00 24	18:00 43	17:00 113	17:00 190	17:00 209	16:00 117	16:00 34	13:00 7	12:00 1	13:00 1	15:00 1	17:00 676		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/29/19	0	0	0	0	2	1	0	12	2	2	2	0	0	0	21	57	62
01:00	0	0	0	0	0	0	1	8	4	1	0	0	0	0	14	53	56
02:00	0	0	0	0	0	1	6	6	4	0	0	0	0	0	17	51	53
03:00	0	0	0	0	0	1	2	3	3	1	0	0	0	0	10	54	57
04:00	0	0	0	0	0	0	5	6	2	0	1	0	0	0	14	52	61
05:00	0	0	0	1	0	0	12	19	17	3	1	0	0	0	53	53	57
06:00	1	0	1	1	4	18	28	47	26	17	4	0	0	0	147	54	59
07:00	6	0	0	0	6	27	64	112	70	26	2	0	0	0	313	53	57
08:00	2	1	0	3	11	41	68	102	66	19	8	1	0	0	322	53	58
09:00	1	2	0	0	1	14	46	87	59	21	4	2	0	0	237	54	58
10:00	1	0	0	3	3	13	58	90	59	16	1	1	0	0	245	53	56
11:00	2	0	0	0	8	10	66	122	64	16	3	0	0	0	291	53	56
12 PM	0	1	0	5	5	13	60	122	77	16	1	1	0	0	301	53	55
13:00	1	0	0	2	7	36	70	95	57	21	2	0	0	0	291	53	57
14:00	1	0	0	5	25	45	94	135	64	8	0	1	0	0	378	51	54
15:00	1	3	1	1	5	60	104	142	62	14	0	2	0	0	395	51	54
16:00	2	0	0	1	15	100	197	140	61	12	2	1	0	0	531	49	54
17:00	3	0	2	28	60	170	225	122	33	1	0	0	0	0	644	47	50
18:00	5	0	1	25	58	112	107	62	15	2	1	0	0	0	388	46	49
19:00	1	1	2	10	21	58	63	41	10	3	0	0	0	0	210	47	51
20:00	0	0	0	0	10	27	30	41	18	1	1	0	0	0	128	50	53
21:00	2	0	0	5	8	12	26	15	3	0	0	0	0	0	71	47	49
22:00	0	0	0	1	3	13	13	16	2	1	0	0	0	0	49	48	51
23:00	0	0	0	1	6	9	14	16	4	0	0	0	0	0	50	48	51
Total	29	8	7	92	258	781	1359	1561	782	201	33	9	0	0	5120		
Percent	0.6%	0.2%	0.1%	1.8%	5.0%	15.3%	26.5%	30.5%	15.3%	3.9%	0.6%	0.2%	0.0%	0.0%			
AM Peak	07:00	09:00	06:00	08:00	08:00	08:00	08:00	11:00	07:00	07:00	08:00	09:00			08:00		
Vol.	6	2	1	3	11	41	68	122	70	26	8	2			322		
PM Peak	18:00	15:00	17:00	17:00	17:00	17:00	17:00	15:00	12:00	13:00	13:00	15:00			17:00		
Vol.	5	3	2	28	60	170	225	142	77	21	2	2			644		



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Lower York Road
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Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/30/19	0	0	0	0	0	3	8	5	1	0	0	0	0	0	17	48	50
01:00	2	0	0	0	2	2	5	4	2	1	0	0	0	0	18	50	55
02:00	0	0	0	1	0	6	8	5	2	0	0	0	0	0	22	48	52
03:00	0	0	0	0	0	2	3	1	0	0	0	0	0	0	6	45	48
04:00	0	0	0	0	0	3	6	5	1	0	0	0	0	0	15	48	51
05:00	0	1	0	1	1	8	9	20	4	1	0	0	0	0	45	49	53
06:00	0	0	0	0	5	10	30	46	28	3	0	0	0	0	122	52	54
07:00	1	0	0	0	4	17	42	91	48	8	2	0	0	1	214	52	54
08:00	0	0	0	0	3	20	68	109	60	21	0	1	0	0	282	53	56
09:00	3	0	0	2	1	25	64	84	60	16	3	0	0	1	259	53	56
10:00	1	0	0	3	10	33	70	70	37	10	1	0	0	0	235	51	54
11:00	2	1	0	3	4	25	53	81	37	11	2	0	0	0	219	52	55
12 PM	3	0	1	9	24	38	72	65	27	6	2	0	0	1	248	49	54
13:00	1	2	2	3	10	45	95	84	29	10	2	0	0	0	283	49	54
14:00	1	2	6	10	40	48	99	66	19	8	1	0	0	0	300	48	53
15:00	1	0	1	17	38	113	155	78	21	5	0	0	0	0	429	47	51
16:00	0	1	3	12	37	120	199	125	30	5	0	0	0	0	532	48	51
17:00	1	7	4	25	69	159	198	101	18	4	1	0	0	0	587	46	49
18:00	0	1	2	11	45	127	155	80	28	0	0	0	0	0	449	47	50
19:00	1	0	3	3	30	86	89	61	18	4	1	0	0	0	296	48	52
20:00	0	0	0	6	12	33	60	33	18	0	0	0	0	0	162	49	52
21:00	0	0	0	2	7	19	35	34	12	1	0	0	0	0	110	49	53
22:00	0	0	0	3	1	7	18	24	10	3	0	0	0	0	66	51	54
23:00	0	0	0	0	3	4	20	11	4	0	1	0	0	0	43	49	53
Total	17	15	22	111	346	953	1561	1283	514	117	16	1	0	3	4959		
Percent	0.3%	0.3%	0.4%	2.2%	7.0%	19.2%	31.5%	25.9%	10.4%	2.4%	0.3%	0.0%	0.0%	0.1%			
AM Peak	09:00	05:00		10:00	10:00	10:00	10:00	08:00	08:00	08:00	09:00	08:00		07:00	08:00		
Vol.	3	1		3	10	33	70	109	60	21	3	1		1	282		
PM Peak	12:00	17:00	14:00	17:00	17:00	17:00	16:00	16:00	16:00	13:00	12:00			12:00	17:00		
Vol.	3	7	6	25	69	159	199	125	30	10	2			1	587		



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WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/31/19	0	0	0	0	2	5	7	4	1	0	0	0	0	0	19	47	50
01:00	0	0	0	0	0	2	2	2	2	2	0	0	0	2	12	56	58
02:00	0	0	0	0	0	8	7	1	1	0	0	0	0	0	17	44	50
03:00	0	0	0	0	0	0	6	2	1	0	0	0	0	0	9	49	52
04:00	0	0	0	0	0	1	3	6	1	0	0	0	0	0	11	49	52
05:00	0	0	2	0	2	5	15	13	3	2	1	0	0	0	43	49	57
06:00	0	0	0	4	2	10	28	40	24	6	3	1	2	0	120	53	59
07:00	1	1	0	0	12	27	76	98	46	8	2	0	0	0	271	51	54
08:00	2	1	0	0	5	30	70	103	63	7	1	0	0	1	283	52	54
09:00	1	1	0	3	8	23	59	86	51	12	2	0	0	1	247	52	55
10:00	4	0	0	1	8	33	80	84	41	7	0	0	0	0	258	51	54
11:00	1	1	0	0	3	20	70	90	52	7	2	0	0	0	246	52	54
12 PM	0	0	0	0	12	27	67	91	39	7	1	0	0	0	244	51	54
13:00	1	0	0	0	6	22	65	102	61	10	2	0	0	0	269	52	54
14:00	1	1	0	1	13	39	108	106	58	11	3	1	0	0	342	51	54
15:00	2	1	2	10	20	58	103	126	57	14	1	0	0	2	396	51	54
16:00	2	0	1	7	16	131	173	176	60	6	0	0	0	1	573	49	53
17:00	1	2	1	2	57	161	227	128	39	7	0	0	0	0	625	48	51
18:00	2	1	5	3	37	116	128	128	43	8	1	0	0	0	472	49	53
19:00	2	0	0	1	11	69	106	88	31	1	0	1	0	0	310	49	52
20:00	0	0	0	1	2	32	62	68	35	6	0	0	0	0	206	51	54
21:00	0	0	0	0	3	16	30	45	17	7	0	0	0	1	119	51	55
22:00	0	0	0	2	3	14	31	34	11	0	1	1	0	0	97	49	53
23:00	0	0	2	0	3	10	15	20	11	2	0	0	0	0	63	51	54
Total	20	9	13	35	225	859	1538	1641	748	130	20	4	2	8	5252		
Percent	0.4%	0.2%	0.2%	0.7%	4.3%	16.4%	29.3%	31.2%	14.2%	2.5%	0.4%	0.1%	0.0%	0.2%			
AM Peak	10:00	07:00	05:00	06:00	07:00	10:00	10:00	08:00	08:00	09:00	06:00	06:00	06:00	01:00	08:00		
Vol.	4	1	2	4	12	33	80	103	63	12	3	1	2	2	283		
PM Peak	15:00	17:00	18:00	15:00	17:00	17:00	17:00	16:00	13:00	15:00	14:00	14:00		15:00	17:00		
Vol.	2	2	5	10	57	161	227	176	61	14	3	1		2	625		



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WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
02/01/19	0	0	0	0	1	1	7	9	8	3	0	0	0	0	29	54	57
01:00	0	0	0	0	0	0	7	5	0	2	0	1	0	0	15	56	66
02:00	0	0	0	0	0	3	3	6	1	0	0	0	0	0	13	49	51
03:00	0	0	0	0	0	1	4	2	0	0	0	0	0	0	7	47	49
04:00	0	0	0	0	0	0	4	5	3	0	0	0	0	0	12	52	54
05:00	0	0	0	3	2	4	6	16	5	0	0	0	1	0	37	50	54
06:00	1	0	0	0	7	18	34	31	32	4	1	0	0	0	128	52	54
07:00	3	1	0	3	14	43	63	84	46	7	2	0	0	0	266	51	54
08:00	1	0	0	2	13	44	92	87	33	3	1	0	0	0	276	49	53
09:00	1	0	0	2	12	28	65	78	40	6	0	0	0	0	232	51	54
10:00	1	1	0	0	12	31	67	83	21	5	1	0	1	0	223	49	54
11:00	1	0	0	5	20	37	78	85	37	4	2	0	0	0	269	50	53
12 PM	1	2	0	2	17	59	102	105	40	4	1	0	0	0	333	49	53
13:00	0	0	0	4	7	35	87	107	49	5	2	0	0	0	296	51	54
14:00	0	0	0	0	5	44	104	127	64	20	2	0	0	0	366	52	55
15:00	1	0	0	5	28	73	123	114	45	6	2	0	0	0	397	49	53
16:00	1	1	3	11	32	108	168	131	42	6	0	0	0	0	503	48	52
17:00	5	0	4	31	85	147	183	132	33	6	0	0	0	0	626	47	51
18:00	2	0	6	10	29	69	157	114	33	2	0	0	0	0	422	48	52
19:00	1	0	0	0	14	32	81	98	18	4	0	0	0	0	248	49	52
20:00	0	0	0	0	18	33	79	61	24	5	1	0	0	0	221	49	53
21:00	0	0	0	2	6	14	36	41	21	6	0	0	0	0	126	51	54
22:00	0	0	0	0	4	14	40	24	11	5	1	0	0	0	99	50	56
23:00	0	0	2	0	2	5	19	19	10	2	0	0	0	0	59	51	54
Total	19	5	15	80	328	843	1609	1564	616	105	16	1	2	0	5203		
Percent	0.4%	0.1%	0.3%	1.5%	6.3%	16.2%	30.9%	30.1%	11.8%	2.0%	0.3%	0.0%	0.0%	0.0%			
AM Peak Vol.	07:00 3	07:00 1		11:00 5	11:00 20	08:00 44	08:00 92	08:00 87	07:00 46	07:00 7	07:00 2	01:00 1	05:00 1		08:00 276		
PM Peak Vol.	17:00 5	12:00 2	18:00 6	17:00 31	17:00 85	17:00 147	17:00 183	17:00 132	14:00 64	14:00 20	13:00 2				17:00 626		



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3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
02/02/19	0	0	0	0	0	4	9	12	4	1	0	0	0	0	30	50	54
01:00	0	0	0	0	0	0	5	8	3	1	0	0	0	0	17	52	55
02:00	0	0	0	0	0	0	6	4	0	0	0	0	0	0	10	48	49
03:00	0	0	0	0	0	1	2	1	2	1	0	0	0	0	7	54	58
04:00	0	0	0	0	0	0	3	5	0	1	0	0	0	0	9	49	57
05:00	0	0	0	0	0	3	2	5	5	4	0	0	0	0	19	56	58
06:00	0	0	0	0	1	6	9	13	5	4	2	0	0	0	40	55	60
07:00	0	0	0	0	1	9	32	51	16	6	2	0	0	0	117	52	56
08:00	0	1	0	0	2	16	46	67	34	6	3	1	0	0	176	52	56
09:00	1	0	0	0	4	16	68	75	51	15	1	0	0	0	231	53	56
10:00	1	0	0	1	0	28	98	111	57	19	5	2	0	0	322	53	57
11:00	5	1	0	0	5	48	107	154	58	8	2	0	0	2	390	50	54
12 PM	4	0	0	1	7	42	138	133	75	11	1	0	0	0	412	51	54
13:00	1	0	1	12	25	52	105	113	42	8	0	0	0	0	359	49	53
14:00	1	0	1	2	6	32	108	156	51	10	1	0	0	0	368	50	54
15:00	4	0	0	1	9	33	99	153	67	11	0	0	0	0	377	51	54
16:00	2	0	2	5	13	34	101	142	64	16	4	0	0	0	383	52	55
17:00	1	0	0	1	12	38	130	127	28	8	1	0	0	0	346	49	53
18:00	2	0	1	3	16	46	119	78	21	3	0	0	0	0	289	48	52
19:00	1	0	0	0	11	40	71	51	19	1	0	1	0	0	195	49	52
20:00	0	0	0	1	10	23	54	56	24	3	0	0	0	0	171	50	53
21:00	1	0	0	0	4	21	55	44	14	0	1	0	0	0	140	49	52
22:00	0	0	0	0	2	14	54	49	12	3	1	0	0	0	135	49	53
23:00	0	0	0	1	3	11	34	28	21	5	0	0	0	1	104	52	54
Total	24	2	5	28	131	517	1455	1636	673	145	24	4	0	3	4647		
Percent	0.5%	0.0%	0.1%	0.6%	2.8%	11.1%	31.3%	35.2%	14.5%	3.1%	0.5%	0.1%	0.0%	0.1%			
AM Peak	11:00	08:00		10:00	11:00	11:00	11:00	11:00	11:00	10:00	10:00	10:00		11:00	11:00		
Vol.	5	1		1	5	48	107	154	58	19	5	2		2	390		
PM Peak	12:00		16:00	13:00	13:00	13:00	12:00	14:00	12:00	16:00	16:00	19:00		23:00	12:00		
Vol.	4		2	12	25	52	138	156	75	16	4	1		1	412		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
02/03/19	0	0	0	0	1	7	16	10	12	4	0	0	0	0	50	53	56
01:00	0	0	0	0	0	4	5	11	7	1	0	0	0	0	28	52	54
02:00	0	0	0	0	1	3	1	6	1	0	0	0	0	0	12	49	51
03:00	0	0	0	0	0	1	1	1	2	1	1	0	0	0	7	59	63
04:00	0	0	0	0	0	0	1	2	2	0	0	0	0	0	5	53	54
05:00	0	0	0	0	1	3	6	4	1	1	0	1	0	0	17	52	65
06:00	0	0	0	2	0	1	10	7	1	0	0	0	0	0	21	48	49
07:00	0	0	0	0	0	8	11	24	8	4	0	0	0	0	55	52	56
08:00	0	0	0	1	2	12	30	51	21	6	0	0	0	0	123	52	54
09:00	0	0	0	0	0	8	52	59	33	4	1	0	0	0	157	52	54
10:00	3	1	0	2	4	13	45	100	58	16	0	0	0	0	242	53	56
11:00	2	0	0	0	3	25	92	112	68	8	0	0	0	0	310	52	54
12 PM	3	0	0	0	5	27	113	140	66	12	4	0	0	0	370	52	54
13:00	1	0	0	1	8	36	70	126	83	28	2	0	0	0	355	53	57
14:00	1	0	0	0	2	18	61	128	66	20	4	2	0	1	303	53	57
15:00	1	0	2	1	9	25	107	134	80	11	1	0	0	0	371	52	54
16:00	2	0	0	0	8	28	76	122	66	16	1	0	0	0	319	52	55
17:00	3	0	0	2	4	53	79	88	44	11	1	0	0	0	285	51	54
18:00	0	0	0	0	3	18	64	52	54	7	3	0	0	1	202	53	54
19:00	0	0	0	0	2	7	22	47	32	3	1	1	0	0	115	53	54
20:00	0	0	0	0	1	11	28	37	15	6	4	0	0	0	102	53	59
21:00	0	2	0	0	6	10	24	35	20	3	0	0	0	0	100	51	54
22:00	1	0	0	0	2	18	35	43	20	9	3	0	0	0	131	53	58
23:00	0	0	0	0	1	7	32	31	17	5	0	0	0	0	93	52	55
Total	17	3	2	9	63	343	981	1370	777	176	26	4	0	2	3773		
Percent	0.5%	0.1%	0.1%	0.2%	1.7%	9.1%	26.0%	36.3%	20.6%	4.7%	0.7%	0.1%	0.0%	0.1%			
AM Peak	10:00	10:00		06:00	10:00	11:00	11:00	11:00	11:00	10:00	03:00	05:00			11:00		
Vol.	3	1		2	4	25	92	112	68	16	1	1			310		
PM Peak	12:00	21:00	15:00	17:00	15:00	17:00	12:00	12:00	13:00	13:00	12:00	14:00		14:00	15:00		
Vol.	3	2	2	2	9	53	113	140	83	28	4	2		1	371		



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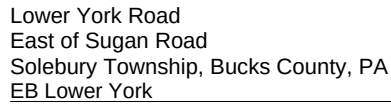
Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
WB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
02/04/19	0	0	0	0	1	1	7	19	5	1	2	1	0	0	37	53	62
01:00	0	0	0	0	1	1	7	8	1	1	0	0	0	0	19	49	55
02:00	0	0	0	0	0	2	4	2	2	0	0	0	0	0	10	51	53
03:00	0	0	0	0	0	0	3	4	1	1	0	0	0	0	9	53	57
04:00	0	0	0	0	0	2	4	0	1	1	0	0	0	0	8	53	57
05:00	0	0	0	0	0	6	11	17	7	2	2	0	0	0	45	53	59
06:00	0	1	0	1	4	24	39	38	49	18	0	0	0	0	174	54	57
07:00	8	1	1	3	19	32	95	100	60	20	2	0	0	2	343	52	56
08:00	1	0	0	1	12	26	95	117	53	18	1	1	0	2	327	52	56
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	9	2	1	5	37	94	265	305	179	62	7	2	0	4	972		
Percent	0.9%	0.2%	0.1%	0.5%	3.8%	9.7%	27.3%	31.4%	18.4%	6.4%	0.7%	0.2%	0.0%	0.4%			
AM Peak	07:00	06:00	07:00	07:00	07:00	07:00	07:00	08:00	07:00	07:00	00:00	00:00		07:00	07:00		
Vol.	8	1	1	3	19	32	95	117	60	20	2	1		2	343		
PM Peak																	
Vol.																	
Grand Total	164	51	95	426	1538	4943	10076	11177	5428	1273	210	35	5	23	35444		
Percent	0.5%	0.1%	0.3%	1.2%	4.3%	13.9%	28.4%	31.5%	15.3%	3.6%	0.6%	0.1%	0.0%	0.1%			

15th Percentile : 38 MPH
50th Percentile : 45 MPH
85th Percentile : 51 MPH
95th Percentile : 54 MPH

Statistics
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 21253
Percent in Pace : 60.0%
Number of Vehicles > 40 MPH : 28227
Percent of Vehicles > 40 MPH : 79.6%
Mean Speed(Average) : 45 MPH



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Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
01/27/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	0	0	0	0	0	2	4	7	13	5	1	0	0	0	32	56	59
Total	0	0	0	0	0	2	4	7	13	5	1	0	0	0	32		
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	12.5%	21.9%	40.6%	15.6%	3.1%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.						23:00 2	23:00 4	23:00 7	23:00 13	23:00 5	23:00 1				23:00 32		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/28/19	0	0	0	0	3	0	1	4	1	3	0	0	0	0	12	57	59
01:00	0	0	0	0	0	2	3	1	6	3	0	0	0	0	15	56	58
02:00	0	0	0	0	0	0	4	6	9	3	0	0	0	0	22	54	58
03:00	0	0	0	0	0	0	1	13	12	2	1	0	0	0	29	54	58
04:00	0	0	0	0	0	0	6	22	42	17	1	0	0	0	88	56	58
05:00	0	0	0	0	0	5	21	76	101	27	1	1	0	0	232	54	58
06:00	1	0	0	0	2	6	115	262	137	23	3	0	0	0	549	52	54
07:00	2	2	0	0	0	23	178	441	183	26	3	1	0	0	859	52	54
08:00	0	0	0	0	1	16	172	360	159	26	0	2	0	2	738	52	54
09:00	0	0	0	0	1	24	86	194	113	18	1	0	1	0	438	52	54
10:00	0	0	0	0	4	20	90	163	83	12	0	0	0	0	372	52	54
11:00	2	0	1	0	2	18	64	164	114	13	2	1	0	0	381	53	54
12 PM	2	1	0	1	3	13	103	135	85	18	6	0	0	0	367	53	56
13:00	0	0	0	0	2	11	73	153	91	22	2	0	0	0	354	53	56
14:00	1	1	0	0	0	7	72	142	107	19	3	1	0	0	353	53	56
15:00	5	0	0	0	0	22	69	144	104	21	5	0	1	0	371	53	57
16:00	0	0	0	1	0	10	76	184	105	21	3	0	0	0	400	53	55
17:00	5	0	0	1	3	13	91	208	108	15	2	0	0	0	446	52	54
18:00	1	0	0	0	0	18	94	149	75	12	0	0	0	0	349	52	54
19:00	0	0	0	0	0	16	52	107	38	8	1	0	0	0	222	51	54
20:00	0	0	0	0	0	4	28	53	31	6	0	0	0	0	122	53	54
21:00	0	0	0	0	3	6	19	35	21	5	2	0	0	0	91	53	57
22:00	0	0	0	0	0	2	14	22	16	3	2	0	0	0	59	53	58
23:00	0	0	0	0	0	1	0	9	8	4	2	0	0	0	24	57	61
Total	19	4	1	3	24	237	1432	3047	1749	327	40	6	2	2	6893		
Percent	0.3%	0.1%	0.0%	0.0%	0.3%	3.4%	20.8%	44.2%	25.4%	4.7%	0.6%	0.1%	0.0%	0.0%			
AM Peak Vol.	07:00 2	07:00 2	11:00 1		10:00 4	09:00 24	07:00 178	07:00 441	07:00 183	05:00 27	06:00 3	08:00 2	09:00 1	08:00 2	07:00 859		
PM Peak Vol.	15:00 5	12:00 1		12:00 1	12:00 3	15:00 22	12:00 103	17:00 208	17:00 108	13:00 22	12:00 6	14:00 1	15:00 1		17:00 446		



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Lower York Road
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EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
01/29/19	0	0	0	0	0	1	3	8	6	1	1	0	0	0	20	54	60
01:00	0	0	0	0	0	0	4	6	2	1	1	1	0	0	15	58	66
02:00	0	0	0	0	0	3	1	10	5	2	0	0	0	0	21	53	57
03:00	0	0	0	0	0	2	2	12	5	5	1	0	0	0	27	56	59
04:00	0	0	0	0	0	3	0	24	30	12	3	0	0	0	72	56	59
05:00	0	0	0	0	1	4	20	90	78	30	7	1	0	0	231	55	59
06:00	1	0	0	0	0	9	68	242	173	41	4	0	0	0	538	53	57
07:00	1	1	0	0	7	27	189	440	172	23	2	0	0	1	863	51	54
08:00	1	0	0	1	6	18	147	322	172	38	3	1	0	0	709	53	55
09:00	0	0	0	0	1	17	91	209	131	25	7	1	0	0	482	53	56
10:00	0	0	0	0	1	12	64	104	98	15	0	1	0	0	295	53	55
11:00	1	0	0	0	10	13	56	134	74	15	0	0	0	0	303	52	54
12 PM	1	0	0	1	7	12	72	136	98	18	4	0	0	0	349	53	56
13:00	0	0	0	0	1	12	62	168	98	17	3	0	0	0	361	53	55
14:00	1	0	0	2	1	17	58	124	72	23	4	0	0	0	302	53	57
15:00	2	0	0	0	1	23	114	164	77	14	2	0	0	0	397	52	54
16:00	2	0	0	0	6	24	112	120	61	9	1	0	0	1	336	51	54
17:00	1	0	0	0	2	44	152	125	27	4	0	0	0	0	355	49	52
18:00	4	0	0	0	6	54	115	75	21	2	0	0	0	0	277	48	52
19:00	0	0	0	0	4	26	38	49	17	1	0	0	0	0	135	49	53
20:00	0	0	0	1	0	11	27	29	21	1	2	0	0	0	92	52	54
21:00	0	0	0	1	0	7	27	18	6	3	0	0	0	0	62	49	54
22:00	0	0	0	1	3	5	11	6	4	1	0	1	0	0	32	51	57
23:00	0	0	0	0	1	3	6	9	3	2	0	0	0	0	24	52	56
Total	15	1	0	7	58	347	1439	2624	1451	303	45	6	0	2	6298		
Percent	0.2%	0.0%	0.0%	0.1%	0.9%	5.5%	22.8%	41.7%	23.0%	4.8%	0.7%	0.1%	0.0%	0.0%			
AM Peak	06:00	07:00		08:00	11:00	07:00	07:00	07:00	06:00	06:00	05:00	01:00		07:00	07:00		
Vol.	1	1		1	10	27	189	440	173	41	7	1		1	863		
PM Peak	18:00			14:00	12:00	18:00	17:00	13:00	12:00	14:00	12:00	22:00		16:00	15:00		
Vol.	4			2	7	54	152	168	98	23	4	1		1	397		



Imperial Traffic & Data Collection

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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/30/19	0	0	0	1	1	3	9	6	0	0	0	0	0	0	20	47	49
01:00	0	0	0	0	0	1	5	2	4	0	0	0	0	1	13	52	54
02:00	0	0	1	0	0	3	4	8	2	0	1	0	0	0	19	50	60
03:00	0	0	0	0	0	0	5	13	3	0	0	0	0	0	21	49	53
04:00	0	0	0	0	0	1	8	19	22	5	2	0	0	0	57	54	59
05:00	0	0	0	0	2	16	37	50	45	6	3	0	0	0	159	53	55
06:00	0	0	0	0	0	1	52	187	140	27	5	2	0	0	414	53	57
07:00	4	1	0	0	0	9	75	299	227	32	5	2	0	1	655	53	55
08:00	4	0	0	2	6	15	79	224	212	51	4	1	0	0	598	54	57
09:00	2	0	0	0	1	10	56	197	181	54	6	0	0	0	507	54	58
10:00	2	0	1	0	8	22	80	143	100	22	5	0	0	0	383	53	56
11:00	0	0	0	0	1	14	47	110	120	32	11	0	0	0	335	54	59
12 PM	0	0	0	3	5	28	56	129	71	20	1	0	0	0	313	53	56
13:00	3	0	0	0	10	23	79	141	80	12	5	1	0	0	354	52	55
14:00	1	0	0	2	23	58	79	98	50	18	1	0	0	0	330	51	55
15:00	0	0	0	1	5	34	103	111	59	14	0	1	0	0	328	52	54
16:00	4	0	0	0	4	18	85	152	66	13	2	0	1	0	345	52	54
17:00	4	1	0	1	3	22	130	183	55	5	1	0	0	0	405	50	53
18:00	1	0	0	0	8	46	157	96	37	2	0	0	0	0	347	49	52
19:00	0	0	0	1	2	24	54	74	20	5	0	0	0	0	180	49	54
20:00	0	0	0	0	2	9	42	35	16	5	0	1	0	0	110	51	55
21:00	0	0	0	0	2	7	24	33	27	3	0	0	0	0	96	52	54
22:00	0	0	0	0	0	5	9	24	12	2	0	0	0	0	52	52	54
23:00	0	0	0	0	1	1	7	9	5	1	1	0	0	0	25	53	58
Total	25	2	2	11	84	370	1282	2343	1554	329	53	8	1	2	6066		
Percent	0.4%	0.0%	0.0%	0.2%	1.4%	6.1%	21.1%	38.6%	25.6%	5.4%	0.9%	0.1%	0.0%	0.0%			
AM Peak	07:00	07:00	02:00	08:00	10:00	10:00	10:00	07:00	07:00	09:00	11:00	06:00		01:00	07:00		
Vol.	4	1	1	2	8	22	80	299	227	54	11	2		1	655		
PM Peak	16:00	17:00		12:00	14:00	14:00	18:00	17:00	13:00	12:00	13:00	13:00	16:00		17:00		
Vol.	4	1		3	23	58	157	183	80	20	5	1	1		405		



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA
EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
01/31/19	0	0	0	0	0	4	3	7	2	2	0	1	0	0	19	55	65
01:00	0	0	0	0	2	5	5	2	0	4	1	0	0	0	19	57	60
02:00	0	0	0	0	0	0	2	6	7	1	0	0	0	0	16	53	55
03:00	0	0	0	0	0	6	2	5	7	4	1	1	0	0	26	57	63
04:00	0	0	0	0	1	7	4	21	27	9	1	0	0	0	70	54	58
05:00	0	1	0	0	0	6	53	52	51	11	2	0	0	0	176	53	56
06:00	1	1	0	0	9	6	41	208	171	40	6	1	0	1	485	54	57
07:00	1	1	1	0	3	38	124	237	225	66	2	0	0	0	698	54	57
08:00	3	0	0	2	1	7	74	183	243	80	9	1	0	0	603	54	58
09:00	2	0	0	0	0	20	67	162	193	56	6	1	0	0	507	54	58
10:00	0	0	0	0	2	21	75	169	122	24	2	0	0	0	415	53	56
11:00	1	0	0	0	1	7	43	117	113	42	1	0	0	0	325	54	58
12 PM	0	0	0	0	0	7	64	110	100	31	2	2	0	0	316	54	58
13:00	1	1	0	0	1	20	59	99	73	29	1	0	0	0	284	54	57
14:00	1	0	0	0	0	11	53	141	88	22	4	0	0	0	320	53	57
15:00	0	0	0	0	2	10	84	157	109	24	3	0	0	0	389	53	56
16:00	0	0	0	0	2	9	57	152	136	33	4	0	0	0	393	54	57
17:00	1	0	0	1	4	28	90	198	85	15	3	1	0	0	426	52	54
18:00	2	0	0	0	2	35	82	143	61	16	2	1	0	0	344	52	55
19:00	2	0	0	1	0	16	67	69	65	12	1	1	0	1	235	53	55
20:00	0	0	0	0	0	5	26	51	43	7	1	1	0	0	134	53	56
21:00	0	0	0	0	0	3	22	28	40	14	2	0	0	0	109	54	58
22:00	0	0	0	0	0	7	6	16	15	4	2	0	0	0	50	54	59
23:00	0	0	0	0	0	2	8	14	4	7	2	0	0	0	37	57	60
Total	15	4	1	4	30	280	1111	2347	1980	553	58	11	0	2	6396		
Percent	0.2%	0.1%	0.0%	0.1%	0.5%	4.4%	17.4%	36.7%	31.0%	8.6%	0.9%	0.2%	0.0%	0.0%			
AM Peak	08:00	05:00	07:00	08:00	06:00	07:00	07:00	07:00	08:00	08:00	08:00	00:00		06:00	07:00		
Vol.	3	1	1	2	9	38	124	237	243	80	9	1		1	698		
PM Peak	18:00	13:00		17:00	17:00	18:00	17:00	17:00	16:00	16:00	14:00	12:00		19:00	17:00		
Vol.	2	1		1	4	35	90	198	136	33	4	2		1	426		



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EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
02/01/19	0	0	0	0	0	1	4	9	3	0	0	0	0	0	17	50	53
01:00	0	0	0	0	0	0	5	10	2	2	3	0	0	0	22	59	63
02:00	0	0	0	0	2	0	2	6	6	3	0	0	0	0	19	55	58
03:00	0	0	0	0	0	0	3	7	5	3	0	0	0	0	18	55	58
04:00	0	0	0	0	0	0	8	7	25	8	3	0	0	0	51	57	60
05:00	0	0	0	0	0	2	14	55	47	29	6	2	0	0	155	57	60
06:00	0	1	0	0	0	5	37	127	158	44	6	4	0	0	382	54	58
07:00	1	0	0	0	1	27	109	246	203	54	4	0	0	0	645	54	57
08:00	0	0	0	0	0	16	96	208	178	52	1	3	0	1	555	54	57
09:00	2	0	0	0	1	6	65	184	112	26	5	0	0	1	402	53	57
10:00	0	0	0	0	4	20	70	164	86	20	0	1	0	0	365	53	55
11:00	1	0	1	4	11	25	61	156	71	26	1	0	0	0	357	53	56
12 PM	2	0	0	0	0	19	77	137	80	20	2	0	0	0	337	53	56
13:00	1	0	0	0	1	14	104	179	89	13	3	0	1	0	405	52	54
14:00	1	0	0	0	1	9	62	165	121	23	4	3	0	0	389	53	57
15:00	2	0	0	0	4	20	117	183	74	18	0	0	0	0	418	51	54
16:00	2	0	0	0	6	25	118	196	87	14	0	0	0	0	448	51	54
17:00	2	0	0	0	8	48	149	177	67	9	0	0	0	0	460	50	53
18:00	0	0	0	0	6	28	148	134	46	1	0	0	0	0	363	49	53
19:00	1	1	0	0	0	23	74	117	45	3	0	0	0	0	264	50	53
20:00	0	0	0	0	1	7	37	54	31	7	0	1	0	0	138	52	55
21:00	0	0	0	0	1	2	20	54	23	3	0	0	0	0	103	52	54
22:00	0	0	0	0	0	6	20	37	20	2	0	0	0	0	85	52	54
23:00	0	0	0	0	0	2	9	23	9	2	0	0	0	0	45	52	54
Total	15	2	1	4	47	305	1409	2635	1588	382	38	14	1	2	6443		
Percent	0.2%	0.0%	0.0%	0.1%	0.7%	4.7%	21.9%	40.9%	24.6%	5.9%	0.6%	0.2%	0.0%	0.0%			
AM Peak	09:00	06:00	11:00	11:00	11:00	07:00	07:00	07:00	07:00	07:00	05:00	06:00		08:00	07:00		
Vol.	2	1	1	4	11	27	109	246	203	54	6	4		1	645		
PM Peak	12:00	19:00			17:00	17:00	17:00	16:00	14:00	14:00	14:00	14:00	13:00		17:00		
Vol.	2	1			8	48	149	196	121	23	4	3	1		460		



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EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
02/02/19	0	0	0	0	0	3	9	8	6	1	1	1	0	0	29	53	62
01:00	0	0	0	0	0	2	4	3	5	6	0	0	0	0	20	57	59
02:00	0	0	0	0	0	0	5	7	4	1	0	0	0	0	17	53	55
03:00	0	0	0	0	0	0	2	2	4	2	0	0	0	0	10	56	58
04:00	0	0	0	0	0	1	3	5	9	4	4	0	0	0	26	60	63
05:00	0	0	0	0	0	1	5	4	19	15	3	1	0	0	48	58	62
06:00	0	0	0	0	0	0	10	22	32	15	0	1	0	0	80	56	58
07:00	1	0	0	0	0	8	20	58	65	19	3	0	0	0	174	54	58
08:00	0	0	0	0	0	5	40	126	84	27	5	1	0	0	288	54	58
09:00	1	1	0	0	1	6	62	126	120	25	4	1	0	0	347	54	57
10:00	2	0	0	0	5	15	57	181	138	32	5	1	0	0	436	54	57
11:00	0	0	0	0	2	24	112	246	121	26	0	0	1	0	532	52	55
12 PM	0	0	0	0	0	12	78	238	98	41	5	0	0	0	472	53	57
13:00	0	0	0	0	1	16	70	202	141	27	7	0	0	0	464	53	56
14:00	2	0	0	0	7	12	75	215	148	25	4	0	0	0	488	53	55
15:00	2	0	0	0	0	9	87	213	121	24	2	0	0	0	458	53	55
16:00	2	1	0	0	0	8	79	175	142	29	4	0	1	0	441	53	57
17:00	1	0	0	1	1	16	136	150	59	10	0	0	0	0	374	51	54
18:00	1	0	0	0	1	21	108	115	51	12	3	0	0	0	312	51	54
19:00	0	0	0	0	0	5	60	112	49	10	0	0	0	0	236	52	54
20:00	0	0	0	1	0	4	46	65	44	4	2	0	0	0	166	52	54
21:00	0	0	0	0	1	13	45	82	36	8	0	0	0	0	185	52	54
22:00	1	0	0	0	2	5	28	72	39	8	1	0	0	0	156	53	55
23:00	0	0	0	0	2	1	13	33	14	4	1	0	0	0	68	53	56
Total	13	2	0	2	23	187	1154	2460	1549	375	54	6	2	0	5827		
Percent	0.2%	0.0%	0.0%	0.0%	0.4%	3.2%	19.8%	42.2%	26.6%	6.4%	0.9%	0.1%	0.0%	0.0%			
AM Peak	10:00	09:00			10:00	11:00	11:00	11:00	10:00	10:00	08:00	00:00	11:00		11:00		
Vol.	2	1			5	24	112	246	138	32	5	1	1		532		
PM Peak	14:00	16:00		17:00	14:00	18:00	17:00	12:00	14:00	12:00	13:00		16:00		14:00		
Vol.	2	1		1	7	21	136	238	148	41	7		1		488		



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EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
02/03/19	0	0	0	0	1	4	4	19	11	3	0	0	0	0	42	53	56
01:00	0	0	0	0	0	4	10	8	10	2	0	0	0	0	34	53	55
02:00	0	0	0	0	3	1	6	5	4	4	1	0	0	0	24	56	59
03:00	0	0	0	0	0	0	2	5	6	1	2	0	0	0	16	57	62
04:00	0	0	0	0	0	0	1	5	5	7	3	0	0	0	21	59	63
05:00	0	0	0	0	0	0	0	5	9	3	2	2	0	0	21	62	67
06:00	0	0	0	0	1	2	7	22	23	6	2	0	0	0	63	54	59
07:00	0	0	0	0	0	6	15	37	40	14	1	1	0	0	114	54	58
08:00	0	0	0	0	0	9	32	70	50	19	2	0	0	0	182	54	58
09:00	1	0	0	0	0	3	45	108	79	13	0	1	0	0	250	53	55
10:00	1	0	0	0	0	13	55	139	127	22	6	1	0	1	365	53	57
11:00	1	0	0	0	1	11	63	172	140	30	2	0	0	1	421	53	56
12 PM	0	0	0	0	0	10	82	163	123	31	3	1	0	0	413	53	57
13:00	1	1	0	0	0	14	91	213	121	21	0	0	0	1	463	53	54
14:00	1	0	1	0	0	9	89	210	103	15	2	0	0	1	431	52	54
15:00	1	0	0	0	0	9	82	196	150	24	1	1	0	0	464	53	55
16:00	0	0	0	0	2	8	65	174	116	29	1	0	0	0	395	53	56
17:00	1	0	0	0	1	15	93	135	71	6	1	0	0	0	323	52	54
18:00	1	0	0	0	0	10	52	105	51	5	1	0	0	1	226	52	54
19:00	1	0	0	0	2	2	22	58	31	13	2	1	0	0	132	54	58
20:00	0	0	1	0	0	6	27	48	26	6	3	0	0	0	117	53	57
21:00	0	0	0	0	0	5	19	42	41	3	2	1	0	0	113	53	55
22:00	0	0	0	0	7	9	36	57	27	7	0	0	0	0	143	52	54
23:00	0	0	0	0	1	1	11	20	17	5	3	0	0	0	58	54	60
Total	9	1	2	0	19	151	909	2016	1381	289	40	9	0	5	4831		
Percent	0.2%	0.0%	0.0%	0.0%	0.4%	3.1%	18.8%	41.7%	28.6%	6.0%	0.8%	0.2%	0.0%	0.1%			
AM Peak	09:00				02:00	10:00	11:00	11:00	11:00	11:00	10:00	05:00		10:00	11:00		
Vol.	1				3	13	63	172	140	30	6	2		1	421		
PM Peak	13:00	13:00	14:00		22:00	17:00	17:00	13:00	15:00	12:00	12:00	12:00		13:00	15:00		
Vol.	1	1	1		7	15	93	213	150	31	3	1		1	464		



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EB Lower York

3. Lower York Road_Speed
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent
02/04/19	0	0	0	0	0	3	1	8	5	1	1	0	0	0	19	54	60
01:00	0	0	0	0	2	1	1	3	4	1	0	0	0	0	12	53	56
02:00	0	0	0	0	0	1	3	3	7	1	0	0	0	0	15	54	56
03:00	0	0	0	0	0	1	4	16	3	4	1	0	1	0	30	56	62
04:00	0	0	0	0	0	2	10	41	24	12	3	0	0	0	92	55	59
05:00	0	0	0	0	0	1	22	96	80	28	2	0	0	0	229	54	58
06:00	1	0	0	0	0	20	73	268	169	31	0	1	0	1	564	53	55
07:00	2	4	0	1	25	48	197	359	146	21	1	0	0	3	807	51	54
08:00	5	0	0	0	0	10	148	355	161	29	5	0	0	0	713	52	54
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	8	4	0	1	27	87	459	1149	599	128	13	1	1	4	2481		
Percent	0.3%	0.2%	0.0%	0.0%	1.1%	3.5%	18.5%	46.3%	24.1%	5.2%	0.5%	0.0%	0.0%	0.2%			
AM Peak	08:00	07:00		07:00	07:00	07:00	07:00	07:00	06:00	06:00	08:00	06:00	03:00	07:00	07:00		
Vol.	5	4		1	25	48	197	359	169	31	5	1	1	3	807		
PM Peak																	
Vol.																	
Grand Total	119	20	7	32	312	1966	9199	18628	11864	2691	342	61	7	19	45267		
Percent	0.3%	0.0%	0.0%	0.1%	0.7%	4.3%	20.3%	41.2%	26.2%	5.9%	0.8%	0.1%	0.0%	0.0%			

15th Percentile : 42 MPH
50th Percentile : 47 MPH
85th Percentile : 53 MPH
95th Percentile : 56 MPH

Statistics
10 MPH Pace Speed : 46-55 MPH
Number in Pace : 30492
Percent in Pace : 67.4%
Number of Vehicles > 40 MPH : 42811
Percent of Vehicles > 40 MPH : 94.6%
Mean Speed(Average) : 48 MPH



Lower York Road
East of Sagan Road
Solebury Township, Bucks County, PA

Imperial Traffic & Data Collection

P.O. Box 4637, Cherry Hill, NJ 08034
www.imperialtdc.com | (609)706-6100

3. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	21-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB Lower	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe
12:00 AM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	47	32	47	32
Lane Day	0	0	0	0	0	0	0	0	0	0	0	0	47	32	47	32
	0		0		0		0		0		0		79		79	
AM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	23:00	23:00	23:00	23:00
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	47	32	47	32



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Lower York Road
East of Sугan Road
Solebury Township, Bucks County, PA

3. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	28-Jan-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	18	12	21	20	17	20	19	19	29	17	30	29	50	42	26	23
01:00	15	15	14	15	18	13	12	19	15	22	17	20	28	34	17	20
02:00	11	22	17	21	22	19	17	16	13	19	10	17	12	24	15	20
03:00	10	29	10	27	6	21	9	26	7	18	7	10	7	16	8	21
04:00	11	88	14	72	15	57	11	70	12	51	9	26	5	21	11	55
05:00	46	232	53	231	45	159	43	176	37	155	19	48	17	21	37	146
06:00	189	549	147	538	122	414	120	485	128	382	40	80	21	63	110	359
07:00	329	859	313	863	214	655	271	698	266	645	117	174	55	114	224	573
08:00	346	738	322	709	282	598	283	603	276	555	176	288	123	182	258	525
09:00	244	438	237	482	259	507	247	507	232	402	231	347	157	250	230	419
10:00	299	372	245	295	235	383	258	415	223	365	322	436	242	365	261	376
11:00	241	381	291	303	219	335	246	325	269	357	390	532	310	421	281	379
12:00 PM	309	367	301	349	248	313	244	316	333	337	412	472	370	413	317	367
01:00	284	354	291	361	283	354	269	284	296	405	359	464	355	463	305	384
02:00	288	353	378	302	300	330	342	320	366	389	368	488	303	431	335	373
03:00	420	371	395	397	429	328	396	389	397	418	377	458	371	464	398	404
04:00	519	400	531	336	532	345	573	393	503	448	383	441	319	395	480	394
05:00	676	446	644	355	587	405	625	426	626	460	346	374	285	323	541	398
06:00	512	349	388	277	449	347	472	344	422	363	289	312	202	226	391	317
07:00	322	222	210	135	296	180	310	235	248	264	195	236	115	132	242	201
08:00	171	122	128	92	162	110	206	134	221	138	171	166	102	117	166	126
09:00	114	91	71	62	110	96	119	109	126	103	140	185	100	113	111	108
10:00	58	59	49	32	66	52	97	50	99	85	135	156	131	143	91	82
11:00	39	24	50	24	43	25	63	37	59	45	104	68	93	58	64	40
Lane	5471	6893	5120	6298	4959	6066	5252	6396	5203	6443	4647	5827	3773	4831	4919	6110
Day	12364		11418		11025		11648		11646		10474		8604		11029	
AM Peak	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	08:00	07:00	11:00	11:00	11:00	11:00	11:00	07:00
Vol.	346	859	322	863	282	655	283	698	276	645	390	532	310	421	281	573
PM Peak	17:00	17:00	17:00	15:00	17:00	17:00	17:00	17:00	17:00	17:00	12:00	14:00	15:00	15:00	17:00	15:00
Vol.	676	446	644	397	587	405	625	426	626	460	412	488	371	464	541	404



Lower York Road
East of Sungan Road
Solebury Township, Bucks County, PA

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3. Lower York Road_Volume
Date Start: 27-Jan-19
Date End: 04-Feb-19

Start Time	04-Feb-19		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB Lower	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe	WB Low	EB Lowe
12:00 AM	37	19	*	*	*	*	*	*	*	*	*	*	*	*	37	19
01:00	19	12	*	*	*	*	*	*	*	*	*	*	*	*	19	12
02:00	10	15	*	*	*	*	*	*	*	*	*	*	*	*	10	15
03:00	9	30	*	*	*	*	*	*	*	*	*	*	*	*	9	30
04:00	8	92	*	*	*	*	*	*	*	*	*	*	*	*	8	92
05:00	45	229	*	*	*	*	*	*	*	*	*	*	*	*	45	229
06:00	174	564	*	*	*	*	*	*	*	*	*	*	*	*	174	564
07:00	343	807	*	*	*	*	*	*	*	*	*	*	*	*	343	807
08:00	327	713	*	*	*	*	*	*	*	*	*	*	*	*	327	713
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12:00 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lane Day	972	2481	0	0	0	0	0	0	0	0	0	0	0	0	972	2481
	3453		0		0		0		0		0		0		3453	
AM Peak	07:00	07:00	-	-	-	-	-	-	-	-	-	-	-	-	07:00	07:00
Vol.	343	807	-	-	-	-	-	-	-	-	-	-	-	-	343	807
PM Peak	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vol.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Comb. Total	15817	11418	11025	11648	11646	10474	8683	14561
ADT	ADT 11,026	AADT 11,026						

Appendix E

Existing Issues - Photographs



Route 202 & Aquetong Road – Existing Off-Set Intersection



Route 202 & Aquetong Road – Existing Off-Set Intersection



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Aquetong Road – Existing Off-Set Intersection



Route 202 & Aquetong Road – Existing Off-Set Intersection

Solebury Township, Bucks County, Pennsylvania



Route 202 & Aquetong Road – Existing Off-Set Intersection



Route 202 & Aquetong Road – Existing Off-Set Intersection



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Aquetong Road – Existing Off-Set Intersection

Solebury Township, Bucks County, Pennsylvania



Route 202 & Lower Mountain Road/Ingham Road – Existing Intersection Configuration



Route 202 & Lower Mountain Road/Ingham Road – Existing Intersection Configuration



Route 202 & Shire Drive/Logan Square Shopping Center – Existing Off-Set Intersection



Route 202 & Shire Drive/Logan Square Shopping Center – Existing Off-Set Intersection



Route 202 & Shire Drive/Logan Square Shopping Center – Existing Off-Set Intersection



Route 202 & Shire Drive/Logan Square Shopping Center – Existing Off-Set Intersection



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Shire Drive/Logan Square Shopping Center – Existing Off-Set Intersection

Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 – Existing Intersection Configuration



Route 202 & Kitchens Lane/Route 179 – Existing Intersection Configuration



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 – Existing Intersection Configuration



Route 202 & Kitchens Lane/Route 179 – Existing Intersection Configuration

Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 – Existing Intersection Configuration



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Route 202 & Shire Drive/Logan Square Shopping Center – Queue Issues



Study Area: Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 – Queue Issues



Route 202 & Kitchens Lane/Route 179 – Queue Issues

Solebury Township, Bucks County, Pennsylvania



Route 202 & Kitchens Lane/Route 179 – Queue Issues



Route 202 & Kitchens Lane/Route 179 – Queue Issues

Appendix F

Capacity/Level-of-Service Methodology

CAPACITY/LEVEL-OF-SERVICE ANALYSIS METHODOLOGY

The detailed capacity/level-of-service analysis contained in this transportation impact study was performed in accordance with the standard techniques contained in the *Highway Capacity Manual 6th Edition*. By definition, capacity represents “the maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.” The level at which an intersection or a uniform section of a lane or roadway function can be expressed in terms of a level of service. Level of service (LOS) is defined as “a quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.”

Stop-Controlled Intersections

At unsignalized stop-controlled intersections, such as two-way stop-controlled (TWSC) or all-way stop-controlled (AWSC), a methodology for evaluating the relative functioning of these intersections is based upon the control delay. For these types of unsignalized intersections, the analysis of the control delay is based upon the following data:

- Number and configuration of lanes on each approach;
- Percentage of heavy vehicles on each approach;
- Demand flow rate for each entering vehicular movement and pedestrian crossing movement;
- Unique geometric factors such as, channelization aspects; two-way left-turn lanes, raised or striped median storage; approach grades, flared approaches on the minor street; and upstream signals within 0.25 miles.

At TWSC intersections, only drivers on the minor street approaches are required to stop before proceeding into the intersection and left-turning drivers from the major street may have to yield to on-coming major street through or right-turning traffic, but are not required to stop in the absence of on-coming traffic. The capacity at stop-controlled legs is based primarily on three factors: the distribution of gaps in the major stream, driver judgment in selecting the gaps, and the follow-up headways required by each driver in a queue.

At AWSC intersections, every vehicle is required to stop at the intersection before proceeding, and as a result, the decision to proceed is a function of the traffic conditions on the other approaches. Each driver proceeds only after determining that no vehicles are currently in the intersection and that it is the driver’s turn to proceed. Capacity at an AWSC intersection is described by the saturation headway or time between departures of successive vehicles on a given approach for a particular case assuming a continuous queue; departure headway or the average time between departures of successive vehicles on a given approach accounting for the probability of each possible case; and service time or the average time sent by a vehicle in first position waiting to depart.

At both TWSC and AWSC intersections, the level of service is based upon the control delay, as well as the corresponding volume-to-capacity ratio for each movement/lane group. For TWSC intersections, the level of service is not calculated for major-street approaches or for the intersection as a whole; however, the intersection-wide level of service is calculated for AWSC intersections. The following table provides a summary of the relationship between the level of service, control delay, and volume-to-capacity ratio for TWSC and AWSC intersections.

Control Delay (Sec/Veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Signalized Intersections

At three or four-legged signalized intersections, a methodology for evaluating the capacity and quality of service provided to road users traveling through the signalized intersection. For signalized intersections, the level of service can be characterized for the entire intersection, each approach, and each lane group. The level of service is based upon the control delay and volume-to-capacity ratio. The delay quantifies the increase in travel time due to the traffic signal control and is a surrogate measure of driver discomfort and fuel consumption, while the volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group. Input data in determining the delay and volume-to-capacity ratio include:

- Demand flow rate for each entering vehicular movement and pedestrian crossing movement, including right-turn on red volumes and percent of heavy vehicles;
- Initial queue for each lane group;
- Number and configuration of lanes on each approach;
- Type of signal control and phase sequence;
- Allocation of minimum/maximum green times and clearance intervals (Yellow plus All Red phases); and
- Phase recall.

At signalized intersections, the level of service is based upon the control delay, as well as the corresponding volume-to-capacity ratio for each movement/lane group. The following table provides a summary of the relationship between the level of service, control delay, and volume-to-capacity ratio for signalized intersections.

Control Delay (Sec/Veh)	<u>LOS by Volume-to-Capacity Ratio</u>	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
> 10 – 20	B	F
> 20 – 35	C	F
> 35 – 55	D	F
> 55 – 80	E	F
> 80	F	F

Appendix G

Existing Capacity/Level-of-Service Analysis Worksheets

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	48	0	34	7	1	1	745	32	1	408	7
Future Volume (vph)	70	48	0	34	7	1	1	745	32	1	408	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.994			0.998	
Flt Protected		0.971			0.961							
Satd. Flow (prot)	0	1625	0	0	1569	0	0	1715	0	0	1716	0
Flt Permitted		0.971			0.961						0.999	
Satd. Flow (perm)	0	1625	0	0	1569	0	0	1715	0	0	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			3			1	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	0%	0%	0%	3%	0%	0%	4%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	74	51	0	36	7	1	1	793	34	1	434	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	125	0	0	44	0	0	828	0	0	442	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	22.2%	22.2%		17.9%	17.9%		59.8%	59.8%		59.8%	59.8%	
Maximum Green (s)	20.0	20.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.54			0.30			0.74			0.39		
Control Delay	49.7			49.2			19.7			11.5		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	49.7			49.2			19.7			11.5		
Queue Length 50th (ft)	78			27			373			139		
Queue Length 95th (ft)	142			66			#729			259		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	349			258			1124			1123		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.36			0.17			0.74			0.39		

Intersection Summary

Area Type: Other

Cycle Length: 117

Actuated Cycle Length: 99.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd

					
70 s			26 s		21 s
					
70 s					

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	48	0	34	7	1	1	745	32	1	408	7
Future Volume (veh/h)	70	48	0	34	7	1	1	745	32	1	408	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1846	1846	1846	1660	1660	1660	1906	1906	1906	1738	1738	1738
Adj Flow Rate, veh/h	74	51	0	36	7	1	1	793	34	1	434	7
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
Percent Heavy Veh, %	2	2	2	0	0	0	3	3	3	4	4	4
Cap, veh/h	105	72	0	58	11	2	39	1244	53	39	1169	19
Arrive On Green	0.09	0.10	0.00	0.03	0.04	0.03	0.67	0.69	0.67	0.67	0.69	0.67
Sat Flow, veh/h	1061	732	0	1300	253	36	0	1814	78	0	1705	27
Grp Volume(v), veh/h	125	0	0	44	0	0	828	0	0	442	0	0
Grp Sat Flow(s),veh/h/ln	1793	0	0	1589	0	0	1892	0	0	1733	0	0
Q Serve(g_s), s	6.3	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.3	0.0	0.0	2.6	0.0	0.0	23.1	0.0	0.0	10.1	0.0	0.0
Prop In Lane	0.59		0.00	0.82		0.02	0.00		0.04	0.00		0.02
Lane Grp Cap(c), veh/h	177	0	0	70	0	0	1315	0	0	1208	0	0
V/C Ratio(X)	0.71	0.00	0.00	0.63	0.00	0.00	0.63	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	403	0	0	272	0	0	1315	0	0	1208	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.0	0.0	0.0	44.3	0.0	0.0	8.3	0.0	0.0	6.2	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	0.0	8.8	0.0	0.0	2.3	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.4	0.0	0.0	2.1	0.0	0.0	12.7	0.0	0.0	5.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	0.0	53.1	0.0	0.0	10.6	0.0	0.0	7.1	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	B	A	A	A	A	A
Approach Vol, veh/h		125			44			828			442	
Approach Delay, s/veh		46.1			53.1			10.6			7.1	
Approach LOS		D			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		14.2		70.0		9.1				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		20.0		63.0		15.0				
Max Q Clear Time (g_c+I1), s		25.1		8.3		12.1		4.6				
Green Ext Time (p_c), s		29.6		0.2		17.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.9								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)		13.6	3.0	2.3	3.1

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	LR	<LT
Maximum Queue (ft)	9	18	24
Average Queue (ft)	3	5	6
95th Queue (ft)	15	24	37
Link Distance (ft)	685	528	1020
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	8	1	840	423	4
Future Volume (vph)	7	8	1	840	423	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1664	1740	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1664	1740	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	7	9	1	894	450	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	9	1	894	450	4
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	8	1	840	423	4
Future Vol, veh/h	7	8	1	840	423	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	5	0
Mvmt Flow	7	9	1	894	450	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1346	450	454	0	-	0
Stage 1	450	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	246	678	838	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	246	678	838	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	14.9	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	838	-	246	678	-	-
HCM Lane V/C Ratio	0.001	-	0.03	0.013	-	-
HCM Control Delay (s)	9.3	-	20.1	10.4	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	15	0	858	1	6	425	0
Future Volume (vph)	0	0	0	1	0	15	0	858	1	6	425	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.873							
Flt Protected					0.997						0.999	
Satd. Flow (prot)	0	1680	0	0	1411	0	0	1740	0	0	1704	0
Flt Permitted					0.997						0.999	
Satd. Flow (perm)	0	1680	0	0	1411	0	0	1740	0	0	1704	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	1	0	15	0	876	1	6	434	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	16	0	0	877	0	0	440	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

McMahon Associates, Inc.
4: Lower York Rd & Private Driveway/Reeder Rd

2019 Existing Conditions
Weekday Morning Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	1	0	15	0	858	1	6	425	0
Future Vol, veh/h	0	0	0	1	0	15	0	858	1	6	425	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0
Mvmt Flow	0	0	0	1	0	15	0	876	1	6	434	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1330	1323	434	1323	1323	877	434	0	0	877	0	0
Stage 1	446	446	-	877	877	-	-	-	-	-	-	-
Stage 2	884	877	-	446	446	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	144	158	659	87	94	308	852	-	-	593	-	-
Stage 1	675	577	-	272	262	-	-	-	-	-	-	-
Stage 2	379	369	-	567	485	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	136	156	659	86	93	308	852	-	-	593	-	-
Mov Cap-2 Maneuver	136	156	-	86	93	-	-	-	-	-	-	-
Stage 1	675	569	-	272	262	-	-	-	-	-	-	-
Stage 2	360	369	-	560	479	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	19.5	0	0.2
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	852	-	-	-	265	593	-
HCM Lane V/C Ratio	-	-	-	-	0.062	0.01	-
HCM Control Delay (s)	0	-	-	0	19.5	11.1	0
HCM Lane LOS	A	-	-	A	C	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0	-

												
Lane Group	NBL	NBT	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	1	0	8	1	0	5	17	1	29	3	828	40
Future Volume (vph)	1	0	8	1	0	5	17	1	29	3	828	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	13	13	13	13	13	13	13	12	12	14
Grade (%)		1%			-2%		1%				1%	
Storage Length (ft)	0			0		0	0	110		120		150
Storage Lanes	0			0		0	1	1		1		1
Taper Length (ft)	25			25			25			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.952		0.992		0.850			0.850
Flt Protected		0.950			0.969		0.955			0.950		
Satd. Flow (prot)	0	1872	0	0	1733	0	1499	0	1573	1701	1756	1504
Flt Permitted					0.888		0.955			0.501		
Satd. Flow (perm)	0	1970	0	0	1588	0	1499	0	1573	897	1756	1504
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					208				208			
Link Speed (mph)		25			25		25				45	
Link Distance (ft)		376			644		391				470	
Travel Time (s)		10.3			17.6		10.7				7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	18%	0%	0%	0%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%		0%				0%	
Adj. Flow (vph)	1	0	8	1	0	5	17	1	30	3	845	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	14	0	18	0	30	3	845	41
Number of Detectors	1	1	1	4	4		4		4	0	1	0
Detector Template	Left		Left									
Leading Detector (ft)	20	9	20	66	66		60		60	0	336	0
Trailing Detector (ft)	0	-3	0	-3	-3		-6		-6	0	330	0
Turn Type	Perm	NA	Perm	Perm	NA		Prot		Prot	Perm	NA	Perm
Protected Phases		8			4		9		9		2	
Permitted Phases	8		4	4			9		9	2		2
Detector Phase	8	8	4	4	4		9		9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0	10.0	10.0	10.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0		12.0		12.0	18.0	18.0	18.0
Total Split (s)	16.0	16.0	16.0	16.0	16.0		16.0		16.0	64.0	64.0	64.0
Total Split (%)	14.5%	14.5%	14.5%	14.5%	14.5%		14.5%		14.5%	58.2%	58.2%	58.2%
Maximum Green (s)	7.0	7.0	7.0	7.0	7.0		7.0		7.0	56.0	56.0	56.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0	5.0	5.0	5.0
All-Red Time (s)	6.0	6.0	6.0	6.0	6.0		6.0		6.0	3.0	3.0	3.0
Lost Time Adjust (s)		-1.0			-1.0		-1.0		-1.0	-1.0	-1.0	-1.0

McMahon Associates, Inc.
5: Lower York Rd & Driveway/Shire Dr & Logan Square

2019 Existing Conditions
Weekday Morning Peak Hour



Lane Group	SWL2	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	26	417	5
Future Volume (vph)	26	417	5
Ideal Flow (vphpl)	1800	1800	1800
Lane Width (ft)	12	13	13
Grade (%)		-5%	
Storage Length (ft)			0
Storage Lanes			0
Taper Length (ft)			
Lane Util. Factor	1.00	0.95	0.95
Ped Bike Factor			
Frt		0.998	
Flt Protected	0.950		
Satd. Flow (prot)	1753	3478	0
Flt Permitted	0.174		
Satd. Flow (perm)	321	3478	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		2	
Link Speed (mph)		45	
Link Distance (ft)		1386	
Travel Time (s)		21.0	
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor	0.98	0.98	0.98
Growth Factor	100%	100%	100%
Heavy Vehicles (%)	0%	4%	0%
Bus Blockages (#/hr)	0	0	0
Parking (#/hr)			
Mid-Block Traffic (%)		0%	
Adj. Flow (vph)	27	426	5
Shared Lane Traffic (%)			
Lane Group Flow (vph)	27	431	0
Number of Detectors	1	1	
Detector Template	Left		
Leading Detector (ft)	20	336	
Trailing Detector (ft)	0	330	
Turn Type	pm+pt	NA	
Protected Phases	1	6	
Permitted Phases	6		
Detector Phase	1	6	
Switch Phase			
Minimum Initial (s)	3.0	10.0	
Minimum Split (s)	10.0	18.0	
Total Split (s)	14.0	78.0	
Total Split (%)	12.7%	70.9%	
Maximum Green (s)	7.0	70.0	
Yellow Time (s)	5.0	5.0	
All-Red Time (s)	2.0	3.0	
Lost Time Adjust (s)	-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

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Synchro 10 (10.3.55.0)

5: Lower York Rd & Driveway/Shire Dr & Logan Square

Weekday Morning Peak Hour

													
Lane Group	NBL	NBT	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER	
Total Lost Time (s)	8.0				8.0		8.0		8.0		7.0	7.0	7.0
Lead/Lag											Lag	Lag	Lag
Lead-Lag Optimize?											Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0		4.0	5.0	5.0	5.0	
Minimum Gap (s)	4.0	4.0	4.0	4.0	4.0		4.0		4.0	2.7	2.7	2.7	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	35.0	35.0	35.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	15.0	15.0	15.0	
Recall Mode	None	None	None	None	None		None		None	C-Min	C-Min	C-Min	
Walk Time (s)													
Flash Dont Walk (s)													
Pedestrian Calls (#/hr)													
Act Effct Green (s)	7.7				7.7		7.9		7.9		81.9	81.9	81.9
Actuated g/C Ratio	0.07				0.07		0.07		0.07		0.74	0.74	0.74
v/c Ratio	0.01				0.05		0.17		0.10		0.00	0.65	0.04
Control Delay	48.0				0.3		51.7		0.6		12.0	18.3	10.5
Queue Delay	0.0				0.0		0.0		0.0		0.0	0.0	0.0
Total Delay	48.0				0.3		51.7		0.6		12.0	18.3	10.5
LOS	D				A		D		A		B	B	B
Approach Delay	48.0				0.3		19.8				17.9		
Approach LOS	D				A		B				B		
Queue Length 50th (ft)	1				0		12		0		1	338	9
Queue Length 95th (ft)	6				0		36		0		6	#812	32
Internal Link Dist (ft)	296				564		311				390		
Turn Bay Length (ft)									110		120		150
Base Capacity (vph)	143				308		109		307		667	1306	1119
Starvation Cap Reductn	0				0		0		0		0	0	0
Spillback Cap Reductn	0				0		0		0		0	0	0
Storage Cap Reductn	0				0		0		0		0	0	0
Reduced v/c Ratio	0.01				0.05		0.17		0.10		0.00	0.65	0.04

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 13.4

Intersection LOS: B

Intersection Capacity Utilization 71.8%

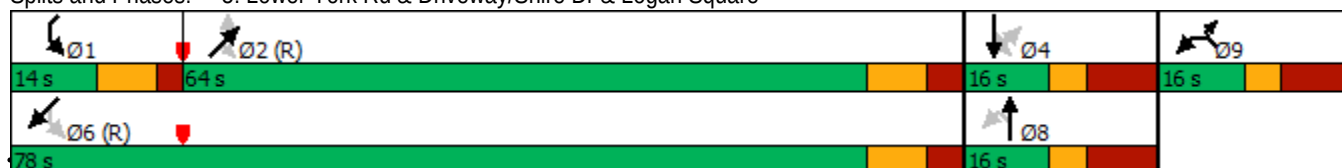
ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square



Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

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Synchro 10 (10.3.55.0)



Lane Group	SWL2	SWT	SWR
Total Lost Time (s)	6.0	7.0	
Lead/Lag	Lead		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	3.0	5.0	
Minimum Gap (s)	3.0	2.7	
Time Before Reduce (s)	0.0	35.0	
Time To Reduce (s)	0.0	15.0	
Recall Mode	None	C-Min	
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)	88.1	89.9	
Actuated g/C Ratio	0.80	0.82	
v/c Ratio	0.08	0.15	
Control Delay	4.8	4.4	
Queue Delay	0.0	0.0	
Total Delay	4.8	4.4	
LOS	A	A	
Approach Delay		4.4	
Approach LOS		A	
Queue Length 50th (ft)	4	33	
Queue Length 95th (ft)	14	87	
Internal Link Dist (ft)		1306	
Turn Bay Length (ft)	200		
Base Capacity (vph)	361	2842	
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.07	0.15	
Intersection Summary			

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Weekday Morning Peak Hour

										
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	12	30	42	156	6	5	6	535	1	295
Future Volume (vph)	12	30	42	156	6	5	6	535	1	295
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12
Grade (%)					1%			1%		0%
Storage Length (ft)	75	0		0		0	100		200	
Storage Lanes	1	1		1		0	1		1	
Taper Length (ft)	50			25			100		200	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95
Ped Bike Factor										
Frt		0.850			0.991					
Flt Protected	0.950			0.950	0.958		0.950		0.950	
Satd. Flow (prot)	1710	1613	0	1674	1679	0	1701	1756	826	3257
Flt Permitted	0.950			0.950	0.958		0.568		0.950	
Satd. Flow (perm)	1710	1613	0	1674	1679	0	1017	1756	826	3257
Right Turn on Red			Yes			Yes				
Satd. Flow (RTOR)		169			2					
Link Speed (mph)					35			45		45
Link Distance (ft)					163			375		1460
Travel Time (s)					3.2			5.7		22.1
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	3%	0%	0%	0%	2%	100%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Mid-Block Traffic (%)					0%			0%		0%
Adj. Flow (vph)	12	31	43	159	6	5	6	546	1	301
Shared Lane Traffic (%)				46%						
Lane Group Flow (vph)	12	74	0	86	84	0	6	546	1	301
Number of Detectors	1	1		1	1		1	1	1	1
Detector Template										
Leading Detector (ft)	37	37		37	37		37	336	37	356
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA
Protected Phases	8	8		4	4		1	6	5	2
Permitted Phases							6			
Detector Phase	8	8		4	4		1	6	5	2
Switch Phase										
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0
Total Split (s)	13.0	13.0		23.0	23.0		14.0	60.0	14.0	60.0
Total Split (%)	11.8%	11.8%		20.9%	20.9%		12.7%	54.5%	12.7%	54.5%
Maximum Green (s)	7.0	7.0		17.0	17.0		7.0	53.0	7.0	53.0
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0

Lanes, Volumes, Timings

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6: Lower York Rd & W. Bridge St/Kitchens Ln

Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Weekday Morning Peak Hour

										
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0
Recall Mode	None	None		None	None		None	C-Max	None	C-Max
Walk Time (s)										
Flash Dont Walk (s)										
Pedestrian Calls (#/hr)										
Act Effect Green (s)	8.0	8.0		12.1	12.1		75.2	73.8	6.8	73.9
Actuated g/C Ratio	0.07	0.07		0.11	0.11		0.68	0.67	0.06	0.67
v/c Ratio	0.10	0.27		0.47	0.45		0.01	0.46	0.02	0.14
Control Delay	49.6	2.4		53.5	51.7		1.0	4.6	71.0	7.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	49.6	2.4		53.5	51.7		1.0	4.6	71.0	7.3
LOS	D	A		D	D		A	A	E	A
Approach Delay					52.6			4.5		7.5
Approach LOS					D			A		A
Queue Length 50th (ft)	8	0		61	57		1	164	1	33
Queue Length 95th (ft)	28	0		110	106		m1	49	m3	50
Internal Link Dist (ft)					83			295		1380
Turn Bay Length (ft)	75						100		200	
Base Capacity (vph)	124	274		273	276		746	1178	60	2188
Starvation Cap Reductn	0	0		0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0
Reduced v/c Ratio	0.10	0.27		0.32	0.30		0.01	0.46	0.02	0.14

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 44 (40%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 52.6%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		60 s		23 s		13 s	
	Ø5		Ø6 (R)				
14 s		60 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

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Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	47	103	4	9	28	131	3	541	10	46	277	5
Future Volume (vph)	47	103	4	9	28	131	3	541	10	46	277	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.894			0.997			0.997	
Flt Protected		0.985			0.997		0.950			0.950		
Satd. Flow (prot)	0	1767	0	0	1558	0	1292	1769	0	1573	1719	0
Flt Permitted		0.696			0.981		0.561			0.368		
Satd. Flow (perm)	0	1249	0	0	1533	0	763	1769	0	609	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			147			1			1	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	4%	1%	33%	2%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	53	116	4	10	31	147	3	608	11	52	311	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	173	0	0	188	0	3	619	0	52	317	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	55.0	55.0		55.0	55.0		55.0	55.0		55.0	55.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	48.0	48.0		48.0	48.0		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

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7: Lower York Rd & Sугan Rd
Synchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.73			0.46			0.01	0.50		0.12	0.26	
Control Delay	59.3			13.7			5.3	5.4		7.5	7.3	
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	
Total Delay	59.3			13.7			5.3	5.4		7.5	7.3	
Queue Length 50th (ft)	115			24			0	18		11	72	
Queue Length 95th (ft)	176			80			m1	115		30	135	
Internal Link Dist (ft)	496			309			1380			910		
Turn Bay Length (ft)							75			140		
Base Capacity (vph)	556			764			536	1242		427	1207	
Starvation Cap Reductn	0			0			0	0		0	0	
Spillback Cap Reductn	0			0			0	0		0	0	
Storage Cap Reductn	0			0			0	0		0	0	
Reduced v/c Ratio	0.31			0.25			0.01	0.50		0.12	0.26	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

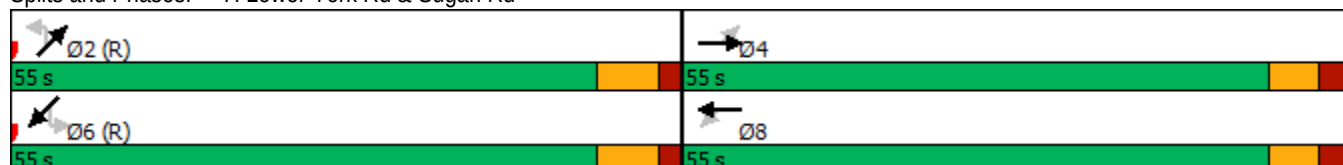
Offset: 58 (53%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sugan Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	47	103	4	9	28	131	3	541	10	46	277	5
Future Volume (veh/h)	47	103	4	9	28	131	3	541	10	46	277	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1694	1694	1694	1368	1809	1809	1809	1766	1766
Adj Flow Rate, veh/h	53	116	2	10	31	74	3	608	10	52	311	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	4	4	4	33	2	2	2	5	5
Cap, veh/h	102	172	3	44	66	135	645	1340	22	686	1309	21
Arrive On Green	0.13	0.14	0.14	0.13	0.14	0.13	1.00	1.00	1.00	0.76	0.76	0.75
Sat Flow, veh/h	434	1266	20	66	486	995	821	1774	29	822	1733	28
Grp Volume(v), veh/h	171	0	0	115	0	0	3	0	618	52	0	316
Grp Sat Flow(s),veh/h/ln	1720	0	0	1547	0	0	821	0	1804	822	0	1761
Q Serve(g_s), s	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	5.9
Cycle Q Clear(g_c), s	10.6	0.0	0.0	7.8	0.0	0.0	5.4	0.0	0.0	1.8	0.0	5.9
Prop In Lane	0.31		0.01	0.09		0.64	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	260	0	0	231	0	0	645	0	1362	686	0	1330
V/C Ratio(X)	0.66	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.45	0.08	0.00	0.24
Avail Cap(c_a), veh/h	789	0	0	688	0	0	645	0	1362	686	0	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.7	0.0	0.0	44.8	0.0	0.0	0.2	0.0	0.0	3.5	0.0	4.0
Incr Delay (d2), s/veh	5.9	0.0	0.0	3.5	0.0	0.0	0.0	0.0	1.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.5	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.7	0.4	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.6	0.0	0.0	48.3	0.0	0.0	0.2	0.0	1.0	3.7	0.0	4.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		171			115			621			368	
Approach Delay, s/veh		51.6			48.3			1.0			4.3	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.1		20.9		89.1		20.9				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		48.0		48.0		48.0		48.0				
Max Q Clear Time (g_c+I1), s		7.9		12.6		7.9		9.8				
Green Ext Time (p_c), s		27.4		1.4		13.7		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				13.0								
HCM 6th LOS				B								

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	15	0	35	57	7	0	570	40	8	710	79
Future Volume (vph)	47	15	0	35	57	7	0	570	40	8	710	79
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991			0.991			0.987	
Flt Protected		0.964			0.983							
Satd. Flow (prot)	0	1565	0	0	1564	0	0	1723	0	0	1733	0
Flt Permitted		0.964			0.983						0.994	
Satd. Flow (perm)	0	1565	0	0	1564	0	0	1723	0	0	1723	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			5			8	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	0%	0%	3%	0%	14%	0%	2%	3%	13%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	49	16	0	37	60	7	0	600	42	8	747	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	104	0	0	642	0	0	838	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA			NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	21.0	21.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

Lanes, Volumes, Timings

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1: Lower York Rd & Aquetong Rd
Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.39			0.53			0.54			0.71		
Control Delay	50.9			51.8			14.3			19.2		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	50.9			51.8			14.3			19.2		
Queue Length 50th (ft)	41			64			238			379		
Queue Length 95th (ft)	86			123			415			#676		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	256			258			1182			1183		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.25			0.40			0.54			0.71		

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 99.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd

 Ø2	 Ø4	 Ø8
70 s	21 s	21 s
 Ø6		
70 s		

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	15	0	35	57	7	0	570	40	8	710	79
Future Volume (veh/h)	47	15	0	35	57	7	0	570	40	8	710	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1875	1875	1875	1660	1660	1660	1921	1921	1921	1766	1766	1766
Adj Flow Rate, veh/h	49	16	0	37	60	5	0	600	42	8	747	82
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
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	2	2	2
Cap, veh/h	78	26	0	52	85	7	0	1211	85	42	1062	116
Arrive On Green	0.05	0.06	0.00	0.08	0.09	0.08	0.00	0.68	0.67	0.67	0.68	0.67
Sat Flow, veh/h	1362	445	0	587	951	79	0	1774	124	5	1555	169
Grp Volume(v), veh/h	65	0	0	102	0	0	0	0	642	837	0	0
Grp Sat Flow(s),veh/h/ln	1806	0	0	1617	0	0	0	0	1898	1730	0	0
Q Serve(g_s), s	3.3	0.0	0.0	5.8	0.0	0.0	0.0	0.0	15.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	5.8	0.0	0.0	0.0	0.0	15.2	28.2	0.0	0.0
Prop In Lane	0.75		0.00	0.36		0.05	0.00		0.07	0.01		0.10
Lane Grp Cap(c), veh/h	104	0	0	144	0	0	0	0	1296	1201	0	0
V/C Ratio(X)	0.62	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.50	0.70	0.00	0.00
Avail Cap(c_a), veh/h	308	0	0	276	0	0	0	0	1296	1201	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.6	0.0	0.0	41.7	0.0	0.0	0.0	0.0	7.1	9.2	0.0	0.0
Incr Delay (d2), s/veh	6.0	0.0	0.0	6.3	0.0	0.0	0.0	0.0	1.4	3.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	0.0	4.5	0.0	0.0	0.0	0.0	8.8	14.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	0.0	0.0	48.0	0.0	0.0	0.0	0.0	8.5	12.6	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	B	A	A
Approach Vol, veh/h		65			102			642			837	
Approach Delay, s/veh		49.6			48.0			8.5			12.6	
Approach LOS		D			D			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		10.4		70.0		13.3				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		15.0		63.0		15.0				
Max Q Clear Time (g_c+I1), s		17.2		5.3		30.2		7.8				
Green Ext Time (p_c), s		26.4		0.1		26.6		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				14.6								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.2	0.3
Total Del/Veh (s)		9.7	2.1	6.1	4.5

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	LR	<LT
Maximum Queue (ft)	4	3	124
Average Queue (ft)	1	1	57
95th Queue (ft)	8	5	160
Link Distance (ft)	685	528	1020
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	3	7	631	832	12
Future Volume (vph)	7	3	7	631	832	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1791	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1791	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	7	3	7	651	858	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	7	3	7	651	858	12
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	3	7	631	832	12
Future Vol, veh/h	7	3	7	631	832	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	7	3	7	651	858	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1523	858	870	0	-	0
Stage 1	858	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	198	412	597	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	196	412	597	-	-	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	668	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	597	-	196	412	-	-
HCM Lane V/C Ratio	0.012	-	0.037	0.008	-	-
HCM Control Delay (s)	11.1	-	24.1	13.8	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	5	0	13	0	626	8	24	851	1
Future Volume (vph)	0	0	0	5	0	13	0	626	8	24	851	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.902			0.998				
Flt Protected					0.986						0.999	
Satd. Flow (prot)	0	1680	0	0	1366	0	0	1751	0	0	1754	0
Flt Permitted					0.986						0.999	
Satd. Flow (perm)	0	1680	0	0	1366	0	0	1751	0	0	1754	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	20%	0%	0%	0%	2%	13%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	5	0	13	0	639	8	24	868	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	18	0	0	647	0	0	893	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	5	0	13	0	626	8	24	851	1
Future Vol, veh/h	0	0	0	5	0	13	0	626	8	24	851	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	20	0	0	0	2	13	0	1	0
Mvmt Flow	0	0	0	5	0	13	0	639	8	24	868	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1567	1564	869	1560	1560	643	869	0	0	647	0	0
Stage 1	917	917	-	643	643	-	-	-	-	-	-	-
Stage 2	650	647	-	917	917	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.7	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3.2	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	98	113	369	48	62	441	597	-	-	717	-	-
Stage 1	363	354	-	373	367	-	-	-	-	-	-	-
Stage 2	517	470	-	231	247	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	90	106	369	46	58	441	597	-	-	717	-	-
Mov Cap-2 Maneuver	90	106	-	46	58	-	-	-	-	-	-	-
Stage 1	363	331	-	373	367	-	-	-	-	-	-	-
Stage 2	501	470	-	216	231	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	37.2	0	0.3
HCM LOS	A	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	597	-	-	- 130	717	-	-
HCM Lane V/C Ratio	-	-	-	- 0.141	0.034	-	-
HCM Control Delay (s)	0	-	-	0 37.2	10.2	0	-
HCM Lane LOS	A	-	-	A E	B	A	-
HCM 95th %tile Q(veh)	0	-	-	- 0.5	0.1	-	-

5: Lower York Rd & Driveway/Shire Dr & Logan Square

Weekday Afternoon Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	1	1	2	3	2	0	4	121	152	6	556	91
Future Volume (vph)	1	1	2	3	2	0	4	121	152	6	556	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	15	13	13	13	13	13	13	12	12	14
Grade (%)		1%				-2%		1%			1%	
Storage Length (ft)	0		0		0		0	0		120		150
Storage Lanes	0		0		0		0	1		1		1
Taper Length (ft)	25				25			25		75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932				0.940			0.850			0.850
Flt Protected		0.988				0.973		0.950		0.950		
Satd. Flow (prot)	0	1814	0	0	0	1718	0	1707	1573	1701	1756	1624
Flt Permitted								0.950		0.344		
Satd. Flow (perm)	0	1836	0	0	0	1766	0	1707	1573	616	1756	1624
Right Turn on Red							Yes		Yes			
Satd. Flow (RTOR)						229			229			240
Link Speed (mph)		25				25		25			45	
Link Distance (ft)		376				644		391			470	
Travel Time (s)		10.3				17.6		10.7			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%		0%			0%	
Adj. Flow (vph)	1	1	2	3	2	0	4	125	157	6	573	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	0	9	0	125	157	6	573	95
Number of Detectors	1	1		1	4	4		4	4	0	1	0
Detector Template	Left			Left								
Leading Detector (ft)	20	9		20	66	66		60	60	0	336	0
Trailing Detector (ft)	0	-3		0	-3	-3		-6	-6	0	330	0
Turn Type	Perm	NA		Perm	Perm	NA		Prot	Prot	Perm	NA	Perm
Protected Phases		8				4		9	9		2	
Permitted Phases	8			4	4			9	9	2		2
Detector Phase	8	8		4	4	4		9	9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	10.0	10.0	10.0
Minimum Split (s)	12.0	12.0		12.0	12.0	12.0		12.0	12.0	18.0	18.0	18.0
Total Split (s)	16.0	16.0		16.0	16.0	16.0		17.0	17.0	53.0	53.0	53.0
Total Split (%)	16.0%	16.0%		16.0%	16.0%	16.0%		17.0%	17.0%	53.0%	53.0%	53.0%
Maximum Green (s)	7.0	7.0		7.0	7.0	7.0		8.0	8.0	45.0	45.0	45.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	5.0
All-Red Time (s)	6.0	6.0		6.0	6.0	6.0		6.0	6.0	3.0	3.0	3.0
Lost Time Adjust (s)		-1.0				-1.0		-1.0	-1.0	-1.0	-1.0	-1.0

Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

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Synchro 10 (10.3.55.0)



Lane Group	NER2	SWL2	SWL	SWT	SWR
Lane Configurations		↰		↱	
Traffic Volume (vph)	1	106	1	788	4
Future Volume (vph)	1	106	1	788	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800
Lane Width (ft)	14	12	12	13	13
Grade (%)				-5%	
Storage Length (ft)			200		0
Storage Lanes			1		0
Taper Length (ft)			25		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor					
Frt				0.999	
Flt Protected		0.950			
Satd. Flow (prot)	0	1753	0	3583	0
Flt Permitted		0.282		0.955	
Satd. Flow (perm)	0	520	0	3422	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)				1	
Link Speed (mph)				45	
Link Distance (ft)				1386	
Travel Time (s)				21.0	
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0
Parking (#/hr)					
Mid-Block Traffic (%)				0%	
Adj. Flow (vph)	1	109	1	812	4
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	109	0	817	0
Number of Detectors		1	1	1	
Detector Template		Left			
Leading Detector (ft)		20	37	336	
Trailing Detector (ft)		0	-3	330	
Turn Type		pm+pt	Perm	NA	
Protected Phases		1		6	
Permitted Phases		6	6		
Detector Phase		1	6	6	
Switch Phase					
Minimum Initial (s)		3.0	10.0	10.0	
Minimum Split (s)		10.0	18.0	18.0	
Total Split (s)		14.0	67.0	67.0	
Total Split (%)		14.0%	67.0%	67.0%	
Maximum Green (s)		7.0	59.0	59.0	
Yellow Time (s)		5.0	5.0	5.0	
All-Red Time (s)		2.0	3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	

												
Lane Group	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR2	NEL	NET	NER
Total Lost Time (s)	8.0			8.0			8.0			8.0	7.0	7.0
Lead/Lag										Lag	Lag	Lag
Lead-Lag Optimize?										Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	5.0	5.0	5.0
Minimum Gap (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	2.7	2.7	2.7
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	35.0	35.0	35.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	15.0	15.0	15.0
Recall Mode	None	None		None	None	None		None	None	C-Min	C-Min	C-Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)	7.8			7.7			9.0			59.1	59.1	59.1
Actuated g/C Ratio	0.08			0.08			0.09			0.59	0.59	0.59
v/c Ratio	0.03			0.03			0.82			0.45	0.02	0.55
Control Delay	43.0			0.1			82.8			5.4	11.8	16.5
Queue Delay	0.0			0.0			0.0			0.0	0.0	0.0
Total Delay	43.0			0.1			82.8			5.4	11.8	16.5
LOS	D			A			F			A	B	B
Approach Delay	43.0			0.1			39.7			14.2		
Approach LOS	D			A			D			B		
Queue Length 50th (ft)	2			0			80			0	1	189
Queue Length 95th (ft)	13			0			#180			14	9	415
Internal Link Dist (ft)	296			564			311			390		
Turn Bay Length (ft)							110			120		
Base Capacity (vph)	146			351			153			349	364	1038
Starvation Cap Reductn	0			0			0			0	0	0
Spillback Cap Reductn	0			0			0			0	0	0
Storage Cap Reductn	0			0			0			0	0	0
Reduced v/c Ratio	0.03			0.03			0.82			0.45	0.02	0.55

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 89.5%

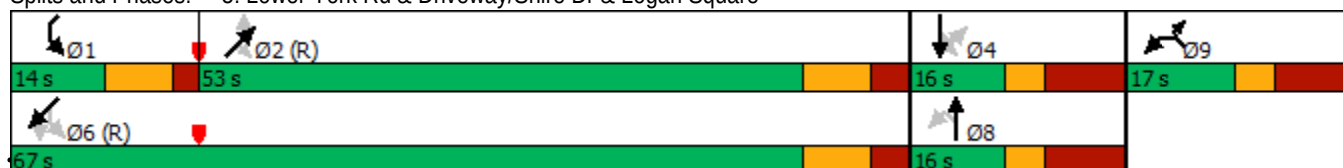
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square



Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

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Synchro 10 (10.3.55.0)



Lane Group	NER2	SWL2	SWL	SWT	SWR
Total Lost Time (s)		6.0		7.0	
Lead/Lag		Lead			
Lead-Lag Optimize?		Yes			
Vehicle Extension (s)		3.0	5.0	5.0	
Minimum Gap (s)		3.0	2.7	2.7	
Time Before Reduce (s)		0.0	35.0	35.0	
Time To Reduce (s)		0.0	15.0	15.0	
Recall Mode		None	C-Min	C-Min	
Walk Time (s)					
Flash Dont Walk (s)					
Pedestrian Calls (#/hr)					
Act Effect Green (s)		73.8		72.8	
Actuated g/C Ratio		0.74		0.73	
v/c Ratio		0.23		0.33	
Control Delay		3.8		5.3	
Queue Delay		0.0		0.0	
Total Delay		3.8		5.3	
LOS		A		A	
Approach Delay				5.1	
Approach LOS				A	
Queue Length 50th (ft)		10		48	
Queue Length 95th (ft)		22		113	
Internal Link Dist (ft)				1306	
Turn Bay Length (ft)		200			
Base Capacity (vph)		482		2491	
Starvation Cap Reductn		0		0	
Spillback Cap Reductn		0		0	
Storage Cap Reductn		0		0	
Reduced v/c Ratio		0.23		0.33	
Intersection Summary					

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Weekday Afternoon Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	5	16	55	482	29	3	89	350	3	505	9
Future Volume (vph)	5	16	55	482	29	3	89	350	3	505	9
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.998					0.998	
Flt Protected	0.950			0.950	0.958		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1707	1720	0	1685	1756	1653	3341	0
Flt Permitted	0.950			0.950	0.958		0.364		0.950		
Satd. Flow (perm)	1710	1607	0	1707	1720	0	645	1756	1653	3341	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		185			1					2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	1%	0%	0%	1%	2%	0%	2%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	5	17	58	507	31	3	94	368	3	532	9
Shared Lane Traffic (%)				47%							
Lane Group Flow (vph)	5	75	0	269	272	0	94	368	3	541	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		34.0	34.0		14.0	39.0	14.0	39.0	
Total Split (%)	13.0%	13.0%		34.0%	34.0%		14.0%	39.0%	14.0%	39.0%	
Maximum Green (s)	7.0	7.0		28.0	28.0		7.0	32.0	7.0	32.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

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6: Lower York Rd & W. Bridge St/Kitchens Ln

Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Weekday Afternoon Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effect Green (s)	8.0	8.0		22.0	22.0		55.5	53.9	6.8	45.4	
Actuated g/C Ratio	0.08	0.08		0.22	0.22		0.56	0.54	0.07	0.45	
v/c Ratio	0.04	0.25		0.72	0.72		0.21	0.39	0.03	0.36	
Control Delay	43.2	2.0		46.5	46.4		9.7	13.9	49.0	19.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	43.2	2.0		46.5	46.4		9.7	13.9	49.0	19.8	
LOS	D	A		D	D		A	B	D	B	
Approach Delay					46.4			13.0		20.0	
Approach LOS					D			B		B	
Queue Length 50th (ft)	3	0		167	169		36	170	2	91	
Queue Length 95th (ft)	15	0		238	241		m20	185	m4	148	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	136	298		495	499		441	946	132	1517	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.04	0.25		0.54	0.55		0.21	0.39	0.02	0.36	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 46 (46%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 26.0

Intersection LOS: C

Intersection Capacity Utilization 60.7%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		39 s		34 s		13 s	
	Ø5		Ø6 (R)				
14 s		39 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

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Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	20	90	7	24	120	70	16	322	22	131	489	41
Future Volume (vph)	20	90	7	24	120	70	16	322	22	131	489	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.956			0.991			0.988	
Flt Protected		0.992			0.995		0.950			0.950		
Satd. Flow (prot)	0	1807	0	0	1687	0	1719	1760	0	1573	1755	0
Flt Permitted		0.902			0.953		0.409			0.536		
Satd. Flow (perm)	0	1643	0	0	1615	0	740	1760	0	887	1755	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			27			5			7	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	20	92	7	24	122	71	16	329	22	134	499	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	119	0	0	217	0	16	351	0	134	541	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	40.0	40.0		40.0	40.0		60.0	60.0		60.0	60.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	
Maximum Green (s)	33.0	33.0		33.0	33.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

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7: Lower York Rd & Sугan Rd
Synchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.36			0.63		0.03	0.29		0.22	0.45	
Control Delay		35.2			39.3		0.4	0.8		8.3	9.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		35.2			39.3		0.4	0.8		8.3	9.7	
Queue Length 50th (ft)		64			111		0	1		29	140	
Queue Length 95th (ft)		107			173		m0	0		68	259	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)							75			140		
Base Capacity (vph)		560			566		502	1196		602	1194	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.21			0.38		0.03	0.29		0.22	0.45	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

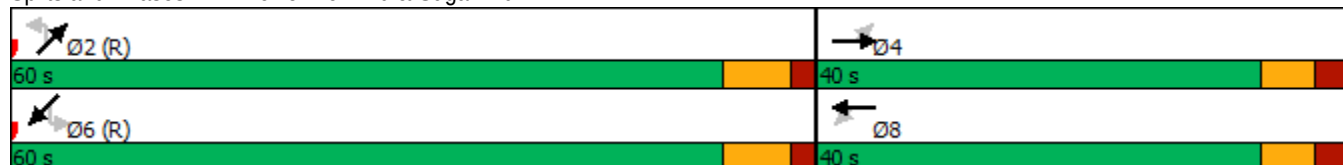
Offset: 46 (46%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 45

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sugan Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	20	90	7	24	120	70	16	322	22	131	489	41
Future Volume (veh/h)	20	90	7	24	120	70	16	322	22	131	489	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1949	1949	1949	1750	1750	1750	1837	1809	1809	1809	1809	1809
Adj Flow Rate, veh/h	20	92	4	24	122	37	16	329	17	134	499	39
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	2	2	2
Cap, veh/h	70	242	10	61	176	50	628	1245	64	844	1210	95
Arrive On Green	0.14	0.15	0.15	0.14	0.15	0.14	1.00	1.00	1.00	0.73	0.73	0.72
Sat Flow, veh/h	186	1619	64	134	1178	332	899	1705	88	1056	1656	129
Grp Volume(v), veh/h	116	0	0	183	0	0	16	0	346	134	0	538
Grp Sat Flow(s),veh/h/ln	1870	0	0	1644	0	0	899	0	1793	1056	0	1786
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	0.0	0.3	0.0	0.0	3.9	0.0	11.7
Cycle Q Clear(g_c), s	5.4	0.0	0.0	10.7	0.0	0.0	11.4	0.0	0.0	3.9	0.0	11.7
Prop In Lane	0.17		0.03	0.13		0.20	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	303	0	0	270	0	0	628	0	1310	844	0	1304
V/C Ratio(X)	0.38	0.00	0.00	0.68	0.00	0.00	0.03	0.00	0.26	0.16	0.00	0.41
Avail Cap(c_a), veh/h	646	0	0	578	0	0	628	0	1310	844	0	1304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.93	0.00	0.93	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	0.0	0.0	40.8	0.0	0.0	0.9	0.0	0.0	4.2	0.0	5.2
Incr Delay (d2), s/veh	1.7	0.0	0.0	6.2	0.0	0.0	0.1	0.0	0.5	0.4	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.3	1.2	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	0.0	47.0	0.0	0.0	0.9	0.0	0.5	4.6	0.0	6.2
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	116			183			362			672		
Approach Delay, s/veh	40.2			47.0			0.5			5.9		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	79.0			21.0			79.0			21.0		
Change Period (Y+Rc), s	7.0			7.0			7.0			7.0		
Max Green Setting (Gmax), s	53.0			33.0			53.0			33.0		
Max Q Clear Time (g_c+l1), s	13.9			7.4			13.7			12.7		
Green Ext Time (p_c), s	15.0			0.8			24.3			1.3		
Intersection Summary												
HCM 6th Ctrl Delay	13.0											
HCM 6th LOS	B											

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	28	2	39	20	4	2	597	52	3	549	35
Future Volume (vph)	61	28	2	39	20	4	2	597	52	3	549	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.997			0.992			0.989			0.992	
Flt Protected		0.967			0.970							
Satd. Flow (prot)	0	1562	0	0	1505	0	0	1721	0	0	1757	0
Flt Permitted		0.967			0.970			0.999			0.998	
Satd. Flow (perm)	0	1562	0	0	1505	0	0	1719	0	0	1754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			2			6			4	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	11%	0%	5%	5%	0%	0%	2%	2%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	29	2	41	21	4	2	628	55	3	578	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	66	0	0	685	0	0	618	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	22.2%	22.2%		17.9%	17.9%		59.8%	59.8%		59.8%	59.8%	
Maximum Green (s)	20.0	20.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

Lanes, Volumes, Timings

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1: Lower York Rd & Aquetong Rd
Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.48			0.40			0.58			0.52		
Control Delay	51.1			50.8			15.5			13.9		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	51.1			50.8			15.5			13.9		
Queue Length 50th (ft)	59			40			262			220		
Queue Length 95th (ft)	115			87			487			406		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	331			244			1177			1200		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.29			0.27			0.58			0.52		

Intersection Summary

Area Type: Other

Cycle Length: 117

Actuated Cycle Length: 100.7

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Lower York Rd & Aquetong Rd

 Ø2	 Ø4	 Ø8
70 s	26 s	21 s
 Ø6		
70 s		

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2019 Existing Conditions
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	28	2	39	20	4	2	597	52	3	549	35
Future Volume (veh/h)	61	28	2	39	20	4	2	597	52	3	549	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1718	1718	1718	1590	1590	1590	1921	1921	1921	1780	1780	1780
Adj Flow Rate, veh/h	64	29	2	41	21	4	2	628	54	3	578	37
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
Percent Heavy Veh, %	11	11	11	5	5	5	2	2	2	1	1	1
Cap, veh/h	93	42	3	60	31	6	39	1189	102	40	1128	72
Arrive On Green	0.07	0.08	0.07	0.05	0.06	0.05	0.67	0.68	0.67	0.67	0.68	0.67
Sat Flow, veh/h	1116	506	35	948	486	92	1	1742	149	2	1652	105
Grp Volume(v), veh/h	95	0	0	66	0	0	684	0	0	618	0	0
Grp Sat Flow(s),veh/h/ln	1656	0	0	1526	0	0	1893	0	0	1759	0	0
Q Serve(g_s), s	5.2	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.2	0.0	0.0	4.0	0.0	0.0	17.0	0.0	0.0	16.3	0.0	0.0
Prop In Lane	0.67		0.02	0.62		0.06	0.00		0.08	0.00		0.06
Lane Grp Cap(c), veh/h	138	0	0	97	0	0	1310	0	0	1220	0	0
V/C Ratio(X)	0.69	0.00	0.00	0.68	0.00	0.00	0.52	0.00	0.00	0.51	0.00	0.00
Avail Cap(c_a), veh/h	371	0	0	260	0	0	1310	0	0	1220	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.2	0.0	0.0	43.3	0.0	0.0	7.4	0.0	0.0	7.3	0.0	0.0
Incr Delay (d2), s/veh	6.0	0.0	0.0	8.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	0.0	0.0	3.1	0.0	0.0	9.9	0.0	0.0	9.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.2	0.0	0.0	51.3	0.0	0.0	8.9	0.0	0.0	8.8	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		95			66			684			618	
Approach Delay, s/veh		48.2			51.3			8.9			8.8	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		12.8		70.0		11.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		20.0		63.0		15.0				
Max Q Clear Time (g_c+I1), s		19.0		7.2		18.3		6.0				
Green Ext Time (p_c), s		27.6		0.2		24.9		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	4.2	9.1	2.2	5.7	4.0

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	<LR	<LT
Maximum Queue (ft)	14	3	96
Average Queue (ft)	4	1	41
95th Queue (ft)	17	5	144
Link Distance (ft)	685	528	1020
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	16	5	8	689	630	11
Future Volume (vph)	16	5	8	689	630	11
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1809	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1809	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	17	5	9	741	677	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	17	5	9	741	677	12
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection							
Int Delay, s/veh	0.4						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Vol, veh/h	16	5	8	689	630	11	
Future Vol, veh/h	16	5	8	689	630	11	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	100	175	-	-	250	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	-4	-	-	3	-3	-	
Peak Hour Factor	93	93	93	93	93	93	
Heavy Vehicles, %	0	0	0	2	1	0	
Mvmt Flow	17	5	9	741	677	12	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1436	677	689	0	-	0	
Stage 1	677	-	-	-	-	-	
Stage 2	759	-	-	-	-	-	
Critical Hdwy	5.6	5.8	4.3	-	-	-	
Critical Hdwy Stg 1	4.6	-	-	-	-	-	
Critical Hdwy Stg 2	4.6	-	-	-	-	-	
Follow-up Hdwy	3	3.1	3	-	-	-	
Pot Cap-1 Maneuver	220	515	693	-	-	-	
Stage 1	661	-	-	-	-	-	
Stage 2	614	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	217	515	693	-	-	-	
Mov Cap-2 Maneuver	217	-	-	-	-	-	
Stage 1	652	-	-	-	-	-	
Stage 2	614	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, s	20.4		0.1		0		
HCM LOS	C						
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	693		-	217	515	-	-
HCM Lane V/C Ratio	0.012		-	0.079	0.01	-	-
HCM Control Delay (s)	10.3		-	23	12.1	-	-
HCM Lane LOS	B		-	C	B	-	-
HCM 95th %tile O(veh)	0		-	0.3	0	-	-

4: Lower York Rd & Private Driveway/Reeder Rd

Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	21	1	727	2	15	645	0
Future Volume (vph)	1	0	0	0	0	21	1	727	2	15	645	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.865							
Flt Protected		0.950									0.999	
Satd. Flow (prot)	0	1596	0	0	1402	0	0	1757	0	0	1754	0
Flt Permitted		0.950									0.999	
Satd. Flow (perm)	0	1596	0	0	1402	0	0	1757	0	0	1754	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	0	0	22	1	757	2	16	672	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	22	0	0	760	0	0	688	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	21	1	727	2	15	645	0
Future Vol, veh/h	1	0	0	0	0	21	1	727	2	15	645	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	0
Mvmt Flow	1	0	0	0	0	22	1	757	2	16	672	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1475	1465	672	1464	1464	758	672	0	0	759	0	0
Stage 1	704	704	-	760	760	-	-	-	-	-	-	-
Stage 2	771	761	-	704	704	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	114	129	481	66	73	370	702	-	-	654	-	-
Stage 1	481	443	-	333	311	-	-	-	-	-	-	-
Stage 2	440	417	-	366	337	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	104	124	481	64	70	370	702	-	-	654	-	-
Mov Cap-2 Maneuver	104	124	-	64	70	-	-	-	-	-	-	-
Stage 1	480	426	-	332	310	-	-	-	-	-	-	-
Stage 2	413	416	-	352	324	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	40	15.3	0	0.2
HCM LOS	E	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	702	-	-	104	370	654	-
HCM Lane V/C Ratio	0.001	-	-	0.01	0.059	0.024	-
HCM Control Delay (s)	10.1	0	-	40	15.3	10.6	0
HCM Lane LOS	B	A	-	E	C	B	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

	↑	↗	↘	↙	↓	↖	↗	↘	↙	↖	↗	↘
Lane Group	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Lane Configurations	↕				↕		↗		↗	↗	↖	↖
Traffic Volume (vph)	0	7	9	3	0	5	108	3	218	4	583	131
Future Volume (vph)	0	7	9	3	0	5	108	3	218	4	583	131
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	13	13	13	13	13	13	13	12	12	14
Grade (%)	1%				-2%		1%				1%	
Storage Length (ft)		0		0		0	0	110		120		150
Storage Lanes		0		0		0	1	1		1		1
Taper Length (ft)				25			25			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.865				0.960		0.996		0.850			0.850
Flt Protected					0.966		0.954			0.950		
Satd. Flow (prot)	1495	0	0	0	1742	0	1725	0	1573	1701	1756	1608
Flt Permitted					0.922		0.954			0.410		
Satd. Flow (perm)	1495	0	0	0	1663	0	1725	0	1573	734	1756	1608
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					208				220			218
Link Speed (mph)	25				25		25				45	
Link Distance (ft)	376				644		391				470	
Travel Time (s)	10.3				17.6		10.7				7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	14%	0%	0%	0%	0%	2%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%				0%		0%				0%	
Adj. Flow (vph)	0	7	9	3	0	5	109	3	220	4	589	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	0	0	0	17	0	112	0	220	4	589	134
Number of Detectors	1		1	4	4		4		4	0	1	0
Detector Template			Left									
Leading Detector (ft)	9		20	66	66		60		60	0	336	0
Trailing Detector (ft)	-3		0	-3	-3		-6		-6	0	330	0
Turn Type	NA		Perm	Perm	NA		Prot		Prot	Perm	NA	Perm
Protected Phases	8				4		9		9		2	
Permitted Phases			4	4			9		9	2		2
Detector Phase	8		4	4	4		9		9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0		3.0	3.0	3.0		3.0		3.0	10.0	10.0	10.0
Minimum Split (s)	12.0		12.0	12.0	12.0		12.0		12.0	18.0	18.0	18.0
Total Split (s)	16.0		16.0	16.0	16.0		16.0		16.0	64.0	64.0	64.0
Total Split (%)	14.5%		14.5%	14.5%	14.5%		14.5%		14.5%	58.2%	58.2%	58.2%
Maximum Green (s)	7.0		7.0	7.0	7.0		7.0		7.0	56.0	56.0	56.0
Yellow Time (s)	3.0		3.0	3.0	3.0		3.0		3.0	5.0	5.0	5.0
All-Red Time (s)	6.0		6.0	6.0	6.0		6.0		6.0	3.0	3.0	3.0
Lost Time Adjust (s)	-1.0				-1.0		-1.0		-1.0	-1.0	-1.0	-1.0



Lane Group	NER2	SWL2	SWL	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	2	191	5	613	12
Future Volume (vph)	2	191	5	613	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800
Lane Width (ft)	14	12	12	13	13
Grade (%)				-5%	
Storage Length (ft)			200		0
Storage Lanes			1		0
Taper Length (ft)			25		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor					
Frt				0.997	
Flt Protected		0.950			
Satd. Flow (prot)	0	1735	0	3571	0
Flt Permitted		0.294		0.951	
Satd. Flow (perm)	0	537	0	3396	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)				3	
Link Speed (mph)				45	
Link Distance (ft)				1386	
Travel Time (s)				21.0	
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0
Parking (#/hr)					
Mid-Block Traffic (%)				0%	
Adj. Flow (vph)	2	193	5	619	12
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	193	0	636	0
Number of Detectors		1	1	1	
Detector Template		Left			
Leading Detector (ft)		20	37	336	
Trailing Detector (ft)		0	-3	330	
Turn Type		pm+pt	Perm	NA	
Protected Phases		1		6	
Permitted Phases		6	6		
Detector Phase		1	6	6	
Switch Phase					
Minimum Initial (s)		3.0	10.0	10.0	
Minimum Split (s)		10.0	18.0	18.0	
Total Split (s)		14.0	78.0	78.0	
Total Split (%)		12.7%	70.9%	70.9%	
Maximum Green (s)		7.0	70.0	70.0	
Yellow Time (s)		5.0	5.0	5.0	
All-Red Time (s)		2.0	3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	

	↑	↗	↘	↓	↙	↖	↗	↘	↙	↖	↗	↘
Lane Group	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Total Lost Time (s)	8.0				8.0		8.0		8.0	7.0	7.0	7.0
Lead/Lag										Lag	Lag	Lag
Lead-Lag Optimize?										Yes	Yes	Yes
Vehicle Extension (s)	4.0		4.0	4.0	4.0		4.0		4.0	5.0	5.0	5.0
Minimum Gap (s)	4.0		4.0	4.0	4.0		4.0		4.0	2.7	2.7	2.7
Time Before Reduce (s)	0.0		0.0	0.0	0.0		0.0		0.0	35.0	35.0	35.0
Time To Reduce (s)	0.0		0.0	0.0	0.0		0.0		0.0	15.0	15.0	15.0
Recall Mode	None		None	None	None		None		None	C-Min	C-Min	C-Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)	7.8				7.7		8.0		8.0	66.7	66.7	66.7
Actuated g/C Ratio	0.07				0.07		0.07		0.07	0.61	0.61	0.61
v/c Ratio	0.07				0.06		0.90		0.69	0.01	0.55	0.13
Control Delay	49.1				0.4		108.2		18.9	12.2	17.0	0.3
Queue Delay	0.0				0.0		0.0		0.0	0.0	0.0	0.0
Total Delay	49.1				0.4		108.2		18.9	12.2	17.0	0.3
LOS	D				A		F		B	B	B	A
Approach Delay	49.1				0.4		49.0				13.9	
Approach LOS	D				A		D				B	
Queue Length 50th (ft)	5				0		80		0	1	191	0
Queue Length 95th (ft)	20				0		#189		#81	7	413	0
Internal Link Dist (ft)	296				564		311				390	
Turn Bay Length (ft)									110	120		150
Base Capacity (vph)	108				313		125		318	445	1065	1061
Starvation Cap Reductn	0				0		0		0	0	0	0
Spillback Cap Reductn	0				0		0		0	0	0	0
Storage Cap Reductn	0				0		0		0	0	0	0
Reduced v/c Ratio	0.06				0.05		0.90		0.69	0.01	0.55	0.13

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 17.7

Intersection LOS: B

Intersection Capacity Utilization 90.0%

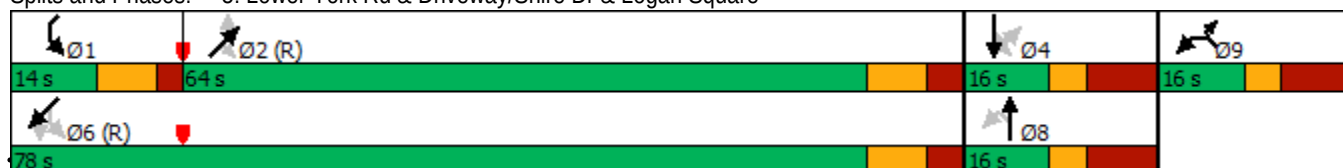
ICU Level of Service E

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square



Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\Existing Sat.syn

Synchro 10 (10.3.55.0)



Lane Group	NER2	SWL2	SWL	SWT	SWR
Total Lost Time (s)		6.0		7.0	
Lead/Lag		Lead			
Lead-Lag Optimize?		Yes			
Vehicle Extension (s)		3.0	5.0	5.0	
Minimum Gap (s)		3.0	2.7	2.7	
Time Before Reduce (s)		0.0	35.0	35.0	
Time To Reduce (s)		0.0	15.0	15.0	
Recall Mode		None	C-Min	C-Min	
Walk Time (s)					
Flash Dont Walk (s)					
Pedestrian Calls (#/hr)					
Act Effect Green (s)		81.7		80.7	
Actuated g/C Ratio		0.74		0.73	
v/c Ratio		0.40		0.26	
Control Delay		10.9		7.9	
Queue Delay		0.0		0.0	
Total Delay		10.9		7.9	
LOS		B		A	
Approach Delay				8.6	
Approach LOS				A	
Queue Length 50th (ft)		75		136	
Queue Length 95th (ft)		53		54	
Internal Link Dist (ft)				1306	
Turn Bay Length (ft)		200			
Base Capacity (vph)		485		2491	
Starvation Cap Reductn		0		0	
Spillback Cap Reductn		0		0	
Storage Cap Reductn		0		0	
Reduced v/c Ratio		0.40		0.26	
Intersection Summary					

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Saturday Midday Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	11	23	81	499	21	5	64	369	5	370	6
Future Volume (vph)	11	23	81	499	21	5	64	369	5	370	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.997					0.998	
Flt Protected	0.950			0.950	0.957		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1724	1732	0	1701	1756	1322	3380	0
Flt Permitted	0.950			0.950	0.957		0.464		0.950		
Satd. Flow (perm)	1710	1607	0	1724	1732	0	831	1756	1322	3380	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		169			1					2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	2%	25%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	11	24	84	520	22	5	67	384	5	385	6
Shared Lane Traffic (%)				47%							
Lane Group Flow (vph)	11	108	0	276	271	0	67	384	5	391	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		36.0	36.0		14.0	47.0	14.0	47.0	
Total Split (%)	11.8%	11.8%		32.7%	32.7%		12.7%	42.7%	12.7%	42.7%	
Maximum Green (s)	7.0	7.0		30.0	30.0		7.0	40.0	7.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\Existing Sat.syn

6: Lower York Rd & W. Bridge St/Kitchens Ln

Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2019 Existing Conditions
Saturday Midday Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effect Green (s)	8.0	8.0		23.8	23.8		61.0	59.4	7.1	51.1	
Actuated g/C Ratio	0.07	0.07		0.22	0.22		0.55	0.54	0.06	0.46	
v/c Ratio	0.09	0.40		0.74	0.72		0.13	0.41	0.06	0.25	
Control Delay	49.4	5.6		52.0	50.6		13.4	22.0	58.2	15.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	49.4	5.6		52.0	50.6		13.4	22.0	58.2	15.0	
LOS	D	A		D	D		B	C	E	B	
Approach Delay					51.3			20.7		15.5	
Approach LOS					D			C		B	
Queue Length 50th (ft)	7	0		192	187		30	206	3	66	
Queue Length 95th (ft)	26	11		268	262		m39	375	m12	88	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	124	273		485	488		523	948	96	1570	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.09	0.40		0.57	0.56		0.13	0.41	0.05	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 63 (57%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		47 s		36 s		13 s	
	Ø5		Ø6 (R)				
14 s		47 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\Existing Sat.syn

Synchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	38	107	15	54	131	142	15	356	32	90	301	24
Future Volume (vph)	38	107	15	54	131	142	15	356	32	90	301	24
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.988			0.942			0.988			0.989	
Flt Protected		0.988			0.992		0.950			0.950		
Satd. Flow (prot)	0	1780	0	0	1650	0	1719	1739	0	1588	1757	0
Flt Permitted		0.788			0.915		0.529			0.479		
Satd. Flow (perm)	0	1420	0	0	1522	0	957	1739	0	801	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			43			6			5	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	39	110	15	56	135	146	15	367	33	93	310	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	337	0	15	400	0	93	335	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	52.0	52.0		52.0	52.0		58.0	58.0		58.0	58.0	
Total Split (%)	47.3%	47.3%		47.3%	47.3%		52.7%	52.7%		52.7%	52.7%	
Maximum Green (s)	45.0	45.0		45.0	45.0		51.0	51.0		51.0	51.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\Existing Sat.syn

7: Lower York Rd & Sугan Rd
Synchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.42			0.75		0.03	0.37		0.19	0.31	
Control Delay		32.9			41.3		4.1	5.7		12.5	12.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		32.9			41.3		4.1	5.7		12.5	12.2	
Queue Length 50th (ft)		91			191		2	39		27	103	
Queue Length 95th (ft)		135			260		m2	34		68	197	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)							75			140		
Base Capacity (vph)		597			661		588	1071		492	1082	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.27			0.51		0.03	0.37		0.19	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

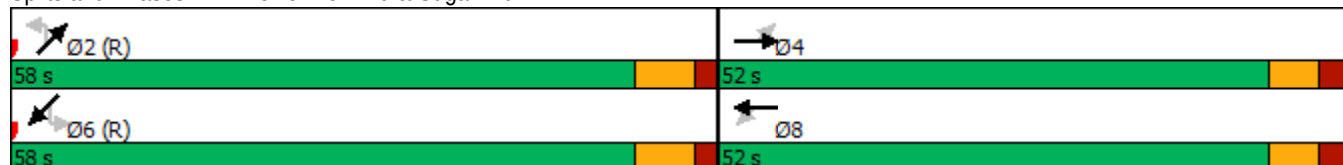
Offset: 64 (58%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sугan Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2019 Existing Conditions
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	38	107	15	54	131	142	15	356	32	90	301	24
Future Volume (veh/h)	38	107	15	54	131	142	15	356	32	90	301	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1736	1736	1736	1837	1795	1795	1823	1809	1809
Adj Flow Rate, veh/h	39	110	4	56	135	122	15	367	33	93	310	23
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
Percent Heavy Veh, %	1	1	1	1	1	1	0	3	3	1	2	2
Cap, veh/h	105	283	9	91	178	147	688	1054	95	724	1081	80
Arrive On Green	0.23	0.24	0.24	0.23	0.24	0.23	1.00	1.00	1.00	0.65	0.65	0.64
Sat Flow, veh/h	267	1171	39	216	739	610	1086	1622	146	1013	1663	123
Grp Volume(v), veh/h	153	0	0	313	0	0	15	0	400	93	0	333
Grp Sat Flow(s),veh/h/ln	1477	0	0	1565	0	0	1086	0	1768	1013	0	1787
Q Serve(g_s), s	0.0	0.0	0.0	12.7	0.0	0.0	0.2	0.0	0.0	3.9	0.0	8.8
Cycle Q Clear(g_c), s	8.2	0.0	0.0	20.9	0.0	0.0	8.5	0.0	0.0	3.9	0.0	8.8
Prop In Lane	0.25		0.03	0.18		0.39	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	384	0	0	402	0	0	688	0	1149	724	0	1161
V/C Ratio(X)	0.40	0.00	0.00	0.78	0.00	0.00	0.02	0.00	0.35	0.13	0.00	0.29
Avail Cap(c_a), veh/h	681	0	0	672	0	0	688	0	1149	724	0	1161
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.92	0.00	0.92	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.6	0.0	0.0	39.7	0.0	0.0	0.5	0.0	0.0	7.4	0.0	8.3
Incr Delay (d2), s/veh	1.4	0.0	0.0	6.8	0.0	0.0	0.1	0.0	0.8	0.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.4	0.0	0.0	13.9	0.0	0.0	0.0	0.0	0.4	1.4	0.0	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	0.0	0.0	46.5	0.0	0.0	0.6	0.0	0.8	7.8	0.0	8.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		153			313			415			426	
Approach Delay, s/veh		36.0			46.5			0.8			8.7	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		77.5		32.5		77.5		32.5				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		51.0		45.0		51.0		45.0				
Max Q Clear Time (g_c+I1), s		11.0		10.2		10.8		22.9				
Green Ext Time (p_c), s		17.7		1.2		14.9		2.6				
Intersection Summary												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								

Appendix H

Future (2040) without Development Capacity/Level-of-Service Analysis Worksheets

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	54	0	39	8	1	1	845	36	1	463	8
Future Volume (vph)	79	54	0	39	8	1	1	845	36	1	463	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.995			0.998	
Flt Protected		0.971			0.961							
Satd. Flow (prot)	0	1625	0	0	1569	0	0	1717	0	0	1716	0
Flt Permitted		0.971			0.961						0.999	
Satd. Flow (perm)	0	1625	0	0	1569	0	0	1717	0	0	1714	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			3			1	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	0%	0%	0%	3%	0%	0%	4%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	57	0	41	9	1	1	899	38	1	493	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	51	0	0	938	0	0	503	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	22.2%	22.2%		17.9%	17.9%		59.8%	59.8%		59.8%	59.8%	
Maximum Green (s)	20.0	20.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2040 Future without Development Conditions
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.59			0.34			0.87			0.47		
Control Delay	52.8			51.3			29.2			13.9		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	52.8			51.3			29.2			13.9		
Queue Length 50th (ft)	90			32			504			173		
Queue Length 95th (ft)	159			74			#954			316		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	334			247			1079			1076		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.42			0.21			0.87			0.47		

Intersection Summary

Area Type: Other

Cycle Length: 117

Actuated Cycle Length: 103

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd

 Ø2	 Ø4	 Ø8
70 s	26 s	21 s
 Ø6		
70 s		

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2040 Future without Development Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	54	0	39	8	1	1	845	36	1	463	8
Future Volume (veh/h)	79	54	0	39	8	1	1	845	36	1	463	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1846	1846	1846	1660	1660	1660	1906	1906	1906	1738	1738	1738
Adj Flow Rate, veh/h	84	57	0	41	9	1	1	899	38	1	493	9
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
Percent Heavy Veh, %	2	2	2	0	0	0	3	3	3	4	4	4
Cap, veh/h	116	78	0	64	14	2	38	1223	52	38	1145	21
Arrive On Green	0.10	0.11	0.00	0.04	0.05	0.04	0.66	0.67	0.66	0.66	0.67	0.66
Sat Flow, veh/h	1068	725	0	1279	281	31	0	1815	77	0	1701	31
Grp Volume(v), veh/h	141	0	0	51	0	0	938	0	0	503	0	0
Grp Sat Flow(s),veh/h/ln	1793	0	0	1591	0	0	1892	0	0	1732	0	0
Q Serve(g_s), s	7.2	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	0.0	3.0	0.0	0.0	31.0	0.0	0.0	12.8	0.0	0.0
Prop In Lane	0.60		0.00	0.80		0.02	0.00		0.04	0.00		0.02
Lane Grp Cap(c), veh/h	194	0	0	79	0	0	1292	0	0	1186	0	0
V/C Ratio(X)	0.73	0.00	0.00	0.64	0.00	0.00	0.73	0.00	0.00	0.42	0.00	0.00
Avail Cap(c_a), veh/h	396	0	0	268	0	0	1292	0	0	1186	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	41.3	0.0	0.0	44.7	0.0	0.0	10.1	0.0	0.0	7.2	0.0	0.0
Incr Delay (d2), s/veh	5.1	0.0	0.0	8.4	0.0	0.0	3.6	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.2	0.0	0.0	2.4	0.0	0.0	16.8	0.0	0.0	7.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.4	0.0	0.0	53.1	0.0	0.0	13.7	0.0	0.0	8.3	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	B	A	A	A	A	A
Approach Vol, veh/h		141			51			938			503	
Approach Delay, s/veh		46.4			53.1			13.7			8.3	
Approach LOS		D			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		15.3		70.0		9.7				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		20.0		63.0		15.0				
Max Q Clear Time (g_c+l1), s		33.0		9.2		14.8		5.0				
Green Ext Time (p_c), s		26.4		0.3		20.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)		17.7	3.3	6.1	4.5

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	LR	<LT
Maximum Queue (ft)	9	9	134
Average Queue (ft)	2	3	54
95th Queue (ft)	11	15	212
Link Distance (ft)	685	528	1020
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	9	1	952	480	5
Future Volume (vph)	8	9	1	952	480	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1664	1740	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1664	1740	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	9	10	1	1013	511	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	10	1	1013	511	5
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	9	1	952	480	5
Future Vol, veh/h	8	9	1	952	480	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	5	0
Mvmt Flow	9	10	1	1013	511	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1526	511	516	0	-	0
Stage 1	511	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	197	630	797	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	197	630	797	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.1	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	797	-	197	630	-	-
HCM Lane V/C Ratio	0.001	-	0.043	0.015	-	-
HCM Control Delay (s)	9.5	-	24.1	10.8	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	17	0	973	1	7	482	0
Future Volume (vph)	0	0	0	1	0	17	0	973	1	7	482	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.872							
Flt Protected					0.997						0.999	
Satd. Flow (prot)	0	1680	0	0	1409	0	0	1740	0	0	1704	0
Flt Permitted					0.997						0.999	
Satd. Flow (perm)	0	1680	0	0	1409	0	0	1740	0	0	1704	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	1	0	17	0	993	1	7	492	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	18	0	0	994	0	0	499	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	0	0	1	0	17	0	973	1	7	482	0
Future Vol, veh/h	0	0	0	1	0	17	0	973	1	7	482	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0
Mvmt Flow	0	0	0	1	0	17	0	993	1	7	492	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1508	1500	492	1500	1500	994	492	0	0	994	0	0
Stage 1	506	506	-	994	994	-	-	-	-	-	-	-
Stage 2	1002	994	-	506	506	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	108	123	611	61	69	257	813	-	-	538	-	-
Stage 1	624	543	-	223	221	-	-	-	-	-	-	-
Stage 2	324	326	-	513	446	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	99	121	611	60	68	257	813	-	-	538	-	-
Mov Cap-2 Maneuver	99	121	-	60	68	-	-	-	-	-	-	-
Stage 1	624	533	-	223	221	-	-	-	-	-	-	-
Stage 2	302	326	-	504	438	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		23.1		0		0.2					
HCM LOS	A		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	813	-	-	-	217	538	-	-				
HCM Lane V/C Ratio	-	-	-	-	0.085	0.013	-	-				
HCM Control Delay (s)	0	-	-	0	23.1	11.8	0	-				
HCM Lane LOS	A	-	-	A	C	B	A	-				
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0	-	-				

												
Lane Group	NBL	NBT	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	1	0	9	1	0	6	19	1	33	3	939	45
Future Volume (vph)	1	0	9	1	0	6	19	1	33	3	939	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	13	13	13	13	13	13	13	12	12	14
Grade (%)		1%			-2%		1%				1%	
Storage Length (ft)	0			0		0	0	110		120		150
Storage Lanes	0			0		0	1	1		1		1
Taper Length (ft)	25			25			25			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.949		0.992		0.850			0.850
Flt Protected		0.950			0.970		0.955			0.950		
Satd. Flow (prot)	0	1872	0	0	1729	0	1497	0	1573	1701	1756	1504
Flt Permitted					0.878		0.955			0.474		
Satd. Flow (perm)	0	1970	0	0	1565	0	1497	0	1573	849	1756	1504
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					208				208			
Link Speed (mph)		25			25		25				45	
Link Distance (ft)		376			644		391				470	
Travel Time (s)		10.3			17.6		10.7				7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	18%	0%	0%	0%	2%	8%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%		0%				0%	
Adj. Flow (vph)	1	0	9	1	0	6	19	1	34	3	958	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	16	0	20	0	34	3	958	46
Number of Detectors	1	1	1	4	4		4		4	0	1	0
Detector Template	Left		Left									
Leading Detector (ft)	20	9	20	66	66		60		60	0	336	0
Trailing Detector (ft)	0	-3	0	-3	-3		-6		-6	0	330	0
Turn Type	Perm	NA	Perm	Perm	NA		Prot		Prot	Perm	NA	Perm
Protected Phases		8			4		9		9		2	
Permitted Phases	8		4	4			9		9	2		2
Detector Phase	8	8	4	4	4		9		9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0	10.0	10.0	10.0
Minimum Split (s)	12.0	12.0	12.0	12.0	12.0		12.0		12.0	18.0	18.0	18.0
Total Split (s)	16.0	16.0	16.0	16.0	16.0		16.0		16.0	64.0	64.0	64.0
Total Split (%)	14.5%	14.5%	14.5%	14.5%	14.5%		14.5%		14.5%	58.2%	58.2%	58.2%
Maximum Green (s)	7.0	7.0	7.0	7.0	7.0		7.0		7.0	56.0	56.0	56.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0		3.0		3.0	5.0	5.0	5.0
All-Red Time (s)	6.0	6.0	6.0	6.0	6.0		6.0		6.0	3.0	3.0	3.0
Lost Time Adjust (s)		-1.0			-1.0		-1.0		-1.0	-1.0	-1.0	-1.0

Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development AM.synSynchro 10 (10.3.55.0)



Lane Group	SWL2	SWT	SWR
Lane Configurations			
Traffic Volume (vph)	29	473	6
Future Volume (vph)	29	473	6
Ideal Flow (vphpl)	1800	1800	1800
Lane Width (ft)	12	13	13
Grade (%)		-5%	
Storage Length (ft)			0
Storage Lanes			0
Taper Length (ft)			
Lane Util. Factor	1.00	0.95	0.95
Ped Bike Factor			
Frt		0.998	
Flt Protected	0.950		
Satd. Flow (prot)	1753	3478	0
Flt Permitted	0.109		
Satd. Flow (perm)	201	3478	0
Right Turn on Red			Yes
Satd. Flow (RTOR)		2	
Link Speed (mph)		45	
Link Distance (ft)		1386	
Travel Time (s)		21.0	
Confl. Peds. (#/hr)			
Confl. Bikes (#/hr)			
Peak Hour Factor	0.98	0.98	0.98
Growth Factor	100%	100%	100%
Heavy Vehicles (%)	0%	4%	0%
Bus Blockages (#/hr)	0	0	0
Parking (#/hr)			
Mid-Block Traffic (%)		0%	
Adj. Flow (vph)	30	483	6
Shared Lane Traffic (%)			
Lane Group Flow (vph)	30	489	0
Number of Detectors	1	1	
Detector Template	Left		
Leading Detector (ft)	20	336	
Trailing Detector (ft)	0	330	
Turn Type	pm+pt	NA	
Protected Phases	1	6	
Permitted Phases	6		
Detector Phase	1	6	
Switch Phase			
Minimum Initial (s)	3.0	10.0	
Minimum Split (s)	10.0	18.0	
Total Split (s)	14.0	78.0	
Total Split (%)	12.7%	70.9%	
Maximum Green (s)	7.0	70.0	
Yellow Time (s)	5.0	5.0	
All-Red Time (s)	2.0	3.0	
Lost Time Adjust (s)	-1.0	-1.0	

												
Lane Group	NBL	NBT	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Total Lost Time (s)	8.0				8.0	8.0			8.0	7.0	7.0	7.0
Lead/Lag										Lag	Lag	Lag
Lead-Lag Optimize?										Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0		4.0		4.0	5.0	5.0	5.0
Minimum Gap (s)	4.0	4.0	4.0	4.0	4.0		4.0		4.0	2.7	2.7	2.7
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	35.0	35.0	35.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0		0.0	15.0	15.0	15.0
Recall Mode	None	None	None	None	None		None		None	C-Min	C-Min	C-Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effect Green (s)	7.7				7.7	7.9			7.9	81.8	81.8	81.8
Actuated g/C Ratio	0.07				0.07	0.07			0.07	0.74	0.74	0.74
v/c Ratio	0.01				0.05	0.19			0.11	0.00	0.73	0.04
Control Delay	48.0				0.3	52.3			0.7	12.0	21.3	10.5
Queue Delay	0.0				0.0	0.0			0.0	0.0	0.0	0.0
Total Delay	48.0				0.3	52.3			0.7	12.0	21.3	10.5
LOS	D				A	D			A	B	C	B
Approach Delay	48.0				0.3	19.8					20.8	
Approach LOS	D				A	B					C	
Queue Length 50th (ft)	1				0	14			0	1	437	10
Queue Length 95th (ft)	6				0	39			0	6	#985	35
Internal Link Dist (ft)	296				564	311					390	
Turn Bay Length (ft)									110	120		150
Base Capacity (vph)	143				306	108			307	631	1306	1118
Starvation Cap Reductn	0				0	0			0	0	0	0
Spillback Cap Reductn	0				0	0			0	0	0	0
Storage Cap Reductn	0				0	0			0	0	0	0
Reduced v/c Ratio	0.01				0.05	0.19			0.11	0.00	0.73	0.04

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 14.8

Intersection LOS: B

Intersection Capacity Utilization 78.0%

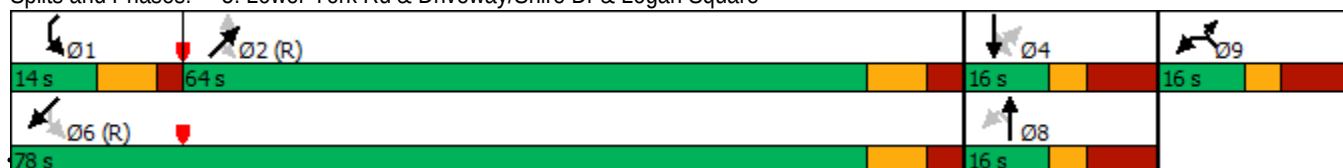
ICU Level of Service D

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square



Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development AM.synSynchro 10 (10.3.55.0)



Lane Group	SWL2	SWT	SWR
Total Lost Time (s)	6.0	7.0	
Lead/Lag	Lead		
Lead-Lag Optimize?	Yes		
Vehicle Extension (s)	3.0	5.0	
Minimum Gap (s)	3.0	2.7	
Time Before Reduce (s)	0.0	35.0	
Time To Reduce (s)	0.0	15.0	
Recall Mode	None	C-Min	
Walk Time (s)			
Flash Dont Walk (s)			
Pedestrian Calls (#/hr)			
Act Effct Green (s)	88.1	89.9	
Actuated g/C Ratio	0.80	0.82	
v/c Ratio	0.12	0.17	
Control Delay	4.5	2.8	
Queue Delay	0.0	0.0	
Total Delay	4.5	2.8	
LOS	A	A	
Approach Delay		2.9	
Approach LOS		A	
Queue Length 50th (ft)	1	7	
Queue Length 95th (ft)	16	72	
Internal Link Dist (ft)		1306	
Turn Bay Length (ft)	200		
Base Capacity (vph)	273	2842	
Starvation Cap Reductn	0	0	
Spillback Cap Reductn	0	0	
Storage Cap Reductn	0	0	
Reduced v/c Ratio	0.11	0.17	
Intersection Summary			

										
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	14	34	48	177	7	6	7	607	1	334
Future Volume (vph)	14	34	48	177	7	6	7	607	1	334
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12
Grade (%)					1%			1%		0%
Storage Length (ft)	75	0		0		0	100		200	
Storage Lanes	1	1		1		0	1		1	
Taper Length (ft)	50			25			100		200	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95
Ped Bike Factor										
Frt		0.850			0.991					
Flt Protected	0.950			0.950	0.959		0.950		0.950	
Satd. Flow (prot)	1710	1613	0	1674	1681	0	1701	1756	826	3257
Flt Permitted	0.950			0.950	0.959		0.547		0.950	
Satd. Flow (perm)	1710	1613	0	1674	1681	0	980	1756	826	3257
Right Turn on Red			Yes			Yes				
Satd. Flow (RTOR)		169			3					
Link Speed (mph)					35			45		45
Link Distance (ft)					163			375		1460
Travel Time (s)					3.2			5.7		22.1
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	3%	0%	0%	0%	2%	100%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Mid-Block Traffic (%)					0%			0%		0%
Adj. Flow (vph)	14	35	49	181	7	6	7	619	1	341
Shared Lane Traffic (%)				46%						
Lane Group Flow (vph)	14	84	0	98	96	0	7	619	1	341
Number of Detectors	1	1		1	1		1	1	1	1
Detector Template										
Leading Detector (ft)	37	37		37	37		37	336	37	356
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA
Protected Phases	8	8		4	4		1	6	5	2
Permitted Phases							6			
Detector Phase	8	8		4	4		1	6	5	2
Switch Phase										
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0
Total Split (s)	13.0	13.0		26.0	26.0		14.0	57.0	14.0	57.0
Total Split (%)	11.8%	11.8%		23.6%	23.6%		12.7%	51.8%	12.7%	51.8%
Maximum Green (s)	7.0	7.0		20.0	20.0		7.0	50.0	7.0	50.0
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2040 Future without Development Conditions
Weekday Morning Peak Hour

										
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0
Recall Mode	None	None		None	None		None	C-Max	None	C-Max
Walk Time (s)										
Flash Dont Walk (s)										
Pedestrian Calls (#/hr)										
Act Effect Green (s)	8.0	8.0		12.8	12.8		74.5	73.1	6.8	73.2
Actuated g/C Ratio	0.07	0.07		0.12	0.12		0.68	0.66	0.06	0.67
v/c Ratio	0.11	0.31		0.50	0.48		0.01	0.53	0.02	0.16
Control Delay	50.0	2.9		53.8	51.4		0.9	4.0	44.0	8.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	50.0	2.9		53.8	51.4		0.9	4.0	44.0	8.3
LOS	D	A		D	D		A	A	D	A
Approach Delay					52.6			4.0		8.5
Approach LOS					D			A		A
Queue Length 50th (ft)	9	0		69	65		0	15	0	41
Queue Length 95th (ft)	30	0		121	116		m0	29	m2	74
Internal Link Dist (ft)					83			295		1380
Turn Bay Length (ft)	75						100		200	
Base Capacity (vph)	124	274		319	323		717	1166	60	2166
Starvation Cap Reductn	0	0		0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0
Reduced v/c Ratio	0.11	0.31		0.31	0.30		0.01	0.53	0.02	0.16

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 43 (39%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		57 s		26 s		13 s	
	Ø5		Ø6 (R)				
14 s		57 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development AM.synSynchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	117	5	10	32	149	3	613	11	52	314	6
Future Volume (vph)	53	117	5	10	32	149	3	613	11	52	314	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.895			0.997			0.997	
Flt Protected		0.985			0.997		0.950			0.950		
Satd. Flow (prot)	0	1766	0	0	1559	0	1292	1769	0	1573	1719	0
Flt Permitted		0.672			0.981		0.527			0.313		
Satd. Flow (perm)	0	1205	0	0	1534	0	717	1769	0	518	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			142			1			1	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	4%	1%	33%	2%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	60	131	6	11	36	167	3	689	12	58	353	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	0	0	214	0	3	701	0	58	360	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	55.0	55.0		55.0	55.0		55.0	55.0		55.0	55.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		50.0%	50.0%		50.0%	50.0%	
Maximum Green (s)	48.0	48.0		48.0	48.0		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sугan Rd

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development AM.synSynchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.79			0.50			0.01	0.58		0.16	0.31	
Control Delay	62.2			16.9			1.3	3.1		9.1	8.6	
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	
Total Delay	62.2			16.9			1.3	3.1		9.1	8.6	
Queue Length 50th (ft)	132			43			0	26		13	90	
Queue Length 95th (ft)	197			103			m0	37		38	168	
Internal Link Dist (ft)	496			309			1380			910		
Turn Bay Length (ft)							75			140		
Base Capacity (vph)	537			762			491	1211		354	1177	
Starvation Cap Reductn	0			0			0	0		0	0	
Spillback Cap Reductn	0			0			0	0		0	0	
Storage Cap Reductn	0			0			0	0		0	0	
Reduced v/c Ratio	0.37			0.28			0.01	0.58		0.16	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

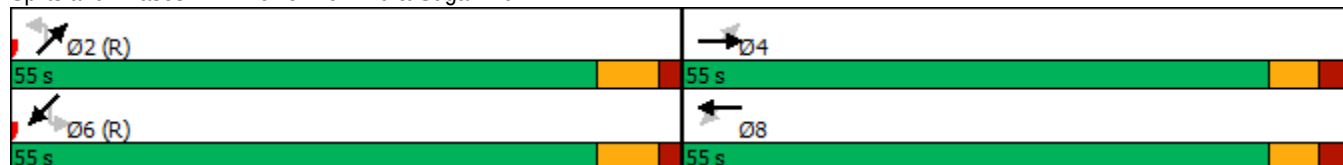
Offset: 67 (61%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sugan Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	53	117	5	10	32	149	3	613	11	52	314	6
Future Volume (veh/h)	53	117	5	10	32	149	3	613	11	52	314	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1906	1906	1906	1694	1694	1694	1368	1809	1809	1809	1766	1766
Adj Flow Rate, veh/h	60	131	4	11	36	94	3	689	11	58	353	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	4	4	4	33	2	2	2	5	5
Cap, veh/h	108	188	5	44	72	161	595	1303	21	625	1271	22
Arrive On Green	0.15	0.16	0.16	0.15	0.16	0.15	1.00	1.00	1.00	0.73	0.73	0.73
Sat Flow, veh/h	413	1201	34	59	456	1030	789	1775	28	762	1731	29
Grp Volume(v), veh/h	195	0	0	141	0	0	3	0	700	58	0	359
Grp Sat Flow(s),veh/h/ln	1647	0	0	1545	0	0	789	0	1804	762	0	1761
Q Serve(g_s), s	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	7.5
Cycle Q Clear(g_c), s	12.7	0.0	0.0	9.5	0.0	0.0	7.0	0.0	0.0	2.4	0.0	7.5
Prop In Lane	0.31		0.02	0.08		0.67	1.00		0.02	1.00		0.02
Lane Grp Cap(c), veh/h	286	0	0	263	0	0	595	0	1324	625	0	1293
V/C Ratio(X)	0.68	0.00	0.00	0.54	0.00	0.00	0.01	0.00	0.53	0.09	0.00	0.28
Avail Cap(c_a), veh/h	774	0	0	688	0	0	595	0	1324	625	0	1293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.84	0.00	0.84	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.5	0.0	0.0	43.5	0.0	0.0	0.3	0.0	0.0	4.2	0.0	4.9
Incr Delay (d2), s/veh	6.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	1.3	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.4	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.8	0.6	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	0.0	0.0	47.1	0.0	0.0	0.3	0.0	1.3	4.5	0.0	5.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		195			141			703			417	
Approach Delay, s/veh		50.5			47.1			1.3			5.3	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		86.8		23.2		86.8		23.2				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		48.0		48.0		48.0		48.0				
Max Q Clear Time (g_c+l1), s		9.5		14.7		9.5		11.5				
Green Ext Time (p_c), s		29.5		1.6		15.6		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2040 Future without Development Conditions
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	17	0	40	65	8	0	646	45	9	805	90
Future Volume (vph)	53	17	0	40	65	8	0	646	45	9	805	90
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991			0.991			0.987	
Flt Protected		0.964			0.983							
Satd. Flow (prot)	0	1565	0	0	1564	0	0	1723	0	0	1733	0
Flt Permitted		0.964			0.983						0.993	
Satd. Flow (perm)	0	1565	0	0	1564	0	0	1723	0	0	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					3			5			8	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	0%	0%	3%	0%	14%	0%	2%	3%	13%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	56	18	0	42	68	8	0	680	47	9	847	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	118	0	0	727	0	0	951	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA			NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	21.0	21.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	18.8%	18.8%		18.8%	18.8%		62.5%	62.5%		62.5%	62.5%	
Maximum Green (s)	15.0	15.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development PM.synSynchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.43			0.58			0.67			0.87		
Control Delay	52.1			54.6			18.0			28.8		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	52.1			54.6			18.0			28.8		
Queue Length 50th (ft)	48			74			308			520		
Queue Length 95th (ft)	95			139			522			#934		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	247			249			1091			1091		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.30			0.47			0.67			0.87		

Intersection Summary

Area Type: Other

Cycle Length: 112

Actuated Cycle Length: 102.3

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd

 Ø2	 Ø4	 Ø8
70 s	21 s	21 s
 Ø6		
70 s		

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	17	0	40	65	8	0	646	45	9	805	90
Future Volume (veh/h)	53	17	0	40	65	8	0	646	45	9	805	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1875	1875	1875	1660	1660	1660	1921	1921	1921	1766	1766	1766
Adj Flow Rate, veh/h	56	18	0	42	68	6	0	680	47	9	847	94
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
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	2	2	2
Cap, veh/h	87	28	0	58	93	8	0	1190	82	42	1040	115
Arrive On Green	0.05	0.06	0.00	0.09	0.10	0.09	0.00	0.67	0.66	0.66	0.67	0.66
Sat Flow, veh/h	1367	439	0	585	947	84	0	1776	123	5	1552	171
Grp Volume(v), veh/h	74	0	0	116	0	0	0	0	727	950	0	0
Grp Sat Flow(s),veh/h/ln	1806	0	0	1616	0	0	0	0	1899	1728	0	0
Q Serve(g_s), s	3.8	0.0	0.0	6.7	0.0	0.0	0.0	0.0	19.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	6.7	0.0	0.0	0.0	0.0	19.6	38.9	0.0	0.0
Prop In Lane	0.76		0.00	0.36		0.05	0.00		0.06	0.01		0.10
Lane Grp Cap(c), veh/h	115	0	0	159	0	0	0	0	1272	1178	0	0
V/C Ratio(X)	0.64	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.57	0.81	0.00	0.00
Avail Cap(c_a), veh/h	303	0	0	271	0	0	0	0	1272	1178	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	0.0	0.0	42.0	0.0	0.0	0.0	0.0	8.4	11.6	0.0	0.0
Incr Delay (d2), s/veh	5.8	0.0	0.0	6.3	0.0	0.0	0.0	0.0	1.9	6.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	0.0	5.2	0.0	0.0	0.0	0.0	11.1	19.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.8	0.0	0.0	48.3	0.0	0.0	0.0	0.0	10.3	17.6	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	B	B	A	A
Approach Vol, veh/h		74			116			727			950	
Approach Delay, s/veh		49.8			48.3			10.3			17.6	
Approach LOS		D			D			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		11.1		70.0		14.4				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		15.0		63.0		15.0				
Max Q Clear Time (g_c+I1), s		21.6		5.8		40.9		8.7				
Green Ext Time (p_c), s		28.2		0.1		20.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				17.9								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.1	0.0
Total Delay (hr)	0.0	0.1	0.2	0.3
Total Del/Veh (s)	10.6	2.7	5.2	4.2

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NW	SW
Directions Served	LR	<LT
Maximum Queue (ft)	13	120
Average Queue (ft)	3	44
95th Queue (ft)	16	144
Link Distance (ft)	528	1020
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	3	8	715	943	14
Future Volume (vph)	8	3	8	715	943	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1791	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1791	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	8	3	8	737	972	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	3	8	737	972	14
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	8	715	943	14
Future Vol, veh/h	8	3	8	715	943	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	8	3	8	737	972	14
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1725	972	986	0	-	0
Stage 1	972	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	155	358	542	-	-	-
Stage 1	506	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	153	358	542	-	-	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	498	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	25.9	0.1	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	542	-	153	358	-	-
HCM Lane V/C Ratio	0.015	-	0.054	0.009	-	-
HCM Control Delay (s)	11.7	-	29.9	15.1	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	6	0	15	0	710	9	27	965	1
Future Volume (vph)	0	0	0	6	0	15	0	710	9	27	965	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.904			0.998				
Flt Protected					0.986						0.999	
Satd. Flow (prot)	0	1680	0	0	1367	0	0	1751	0	0	1754	0
Flt Permitted					0.986						0.999	
Satd. Flow (perm)	0	1680	0	0	1367	0	0	1751	0	0	1754	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	20%	0%	0%	0%	2%	13%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	6	0	15	0	724	9	28	985	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	21	0	0	733	0	0	1014	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	0	6	0	15	0	710	9	27	965	1
Future Vol, veh/h	0	0	0	6	0	15	0	710	9	27	965	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	20	0	0	0	2	13	0	1	0
Mvmt Flow	0	0	0	6	0	15	0	724	9	28	985	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1778	1775	986	1771	1771	729	986	0	0	733	0	0
Stage 1	1042	1042	-	729	729	-	-	-	-	-	-	-
Stage 2	736	733	-	1042	1042	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.7	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3.2	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	69	84	315	31	42	387	542	-	-	668	-	-
Stage 1	307	309	-	321	325	-	-	-	-	-	-	-
Stage 2	461	429	-	186	206	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	62	76	315	29	38	387	542	-	-	668	-	-
Mov Cap-2 Maneuver	62	76	-	29	38	-	-	-	-	-	-	-
Stage 1	307	280	-	321	325	-	-	-	-	-	-	-
Stage 2	443	429	-	169	187	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	61.1	0	0.3
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	542	-	-	-	85	668	-
HCM Lane V/C Ratio	-	-	-	-	0.252	0.041	-
HCM Control Delay (s)	0	-	-	0	61.1	10.6	0
HCM Lane LOS	A	-	-	A	F	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0.9	0.1	-

												
Lane Group	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR2	NEL	NET	NER
Lane Configurations												
Traffic Volume (vph)	1	1	2	3	2	0	5	137	172	7	630	103
Future Volume (vph)	1	1	2	3	2	0	5	137	172	7	630	103
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	15	13	13	13	13	13	13	12	12	14
Grade (%)		1%				-2%		1%			1%	
Storage Length (ft)	0		0		0		0	0		120		150
Storage Lanes	0		0		0		0	1		1		1
Taper Length (ft)	25				25			25		75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.932				0.932			0.850			0.850
Flt Protected		0.988				0.976		0.950		0.950		
Satd. Flow (prot)	0	1814	0	0	0	1709	0	1707	1573	1701	1756	1624
Flt Permitted								0.950		0.308		
Satd. Flow (perm)	0	1836	0	0	0	1751	0	1707	1573	552	1756	1624
Right Turn on Red							Yes		Yes			
Satd. Flow (RTOR)						229			229			240
Link Speed (mph)		25				25		25			45	
Link Distance (ft)		376				644		391			470	
Travel Time (s)		10.3				17.6		10.7			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%				0%		0%			0%	
Adj. Flow (vph)	1	1	2	3	2	0	5	141	177	7	649	106
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	4	0	0	0	10	0	141	177	7	649	107
Number of Detectors	1	1		1	4	4		4	4	0	1	0
Detector Template	Left			Left								
Leading Detector (ft)	20	9		20	66	66		60	60	0	336	0
Trailing Detector (ft)	0	-3		0	-3	-3		-6	-6	0	330	0
Turn Type	Perm	NA		Perm	Perm	NA		Prot	Prot	Perm	NA	Perm
Protected Phases		8				4		9	9		2	
Permitted Phases	8			4	4			9	9	2		2
Detector Phase	8	8		4	4	4		9	9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	10.0	10.0	10.0
Minimum Split (s)	12.0	12.0		12.0	12.0	12.0		12.0	12.0	18.0	18.0	18.0
Total Split (s)	16.0	16.0		16.0	16.0	16.0		21.0	21.0	49.0	49.0	49.0
Total Split (%)	16.0%	16.0%		16.0%	16.0%	16.0%		21.0%	21.0%	49.0%	49.0%	49.0%
Maximum Green (s)	7.0	7.0		7.0	7.0	7.0		12.0	12.0	41.0	41.0	41.0
Yellow Time (s)	3.0	3.0		3.0	3.0	3.0		3.0	3.0	5.0	5.0	5.0
All-Red Time (s)	6.0	6.0		6.0	6.0	6.0		6.0	6.0	3.0	3.0	3.0
Lost Time Adjust (s)		-1.0				-1.0		-1.0	-1.0	-1.0	-1.0	-1.0



Lane Group	NER2	SWL2	SWL	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	1	120	1	893	5
Future Volume (vph)	1	120	1	893	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800
Lane Width (ft)	14	12	12	13	13
Grade (%)				-5%	
Storage Length (ft)			200		0
Storage Lanes			1		0
Taper Length (ft)			25		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor					
Frt				0.999	
Flt Protected		0.950			
Satd. Flow (prot)	0	1753	0	3583	0
Flt Permitted		0.201		0.955	
Satd. Flow (perm)	0	371	0	3422	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)				1	
Link Speed (mph)				45	
Link Distance (ft)				1386	
Travel Time (s)				21.0	
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0
Parking (#/hr)					
Mid-Block Traffic (%)				0%	
Adj. Flow (vph)	1	124	1	921	5
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	124	0	927	0
Number of Detectors		1	1	1	
Detector Template		Left			
Leading Detector (ft)		20	37	336	
Trailing Detector (ft)		0	-3	330	
Turn Type		pm+pt	Perm	NA	
Protected Phases		1		6	
Permitted Phases		6	6		
Detector Phase		1	6	6	
Switch Phase					
Minimum Initial (s)		3.0	10.0	10.0	
Minimum Split (s)		10.0	18.0	18.0	
Total Split (s)		14.0	63.0	63.0	
Total Split (%)		14.0%	63.0%	63.0%	
Maximum Green (s)		7.0	55.0	55.0	
Yellow Time (s)		5.0	5.0	5.0	
All-Red Time (s)		2.0	3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	

												
Lane Group	NBL	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR2	NEL	NET	NER
Total Lost Time (s)	8.0					8.0		8.0	8.0	7.0	7.0	7.0
Lead/Lag										Lag	Lag	Lag
Lead-Lag Optimize?										Yes	Yes	Yes
Vehicle Extension (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	5.0	5.0	5.0
Minimum Gap (s)	4.0	4.0		4.0	4.0	4.0		4.0	4.0	2.7	2.7	2.7
Time Before Reduce (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	35.0	35.0	35.0
Time To Reduce (s)	0.0	0.0		0.0	0.0	0.0		0.0	0.0	15.0	15.0	15.0
Recall Mode	None	None		None	None	None		None	None	C-Min	C-Min	C-Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.8					7.7		12.5	12.5	55.5	55.5	55.5
Actuated g/C Ratio	0.08					0.08		0.12	0.12	0.56	0.56	0.56
v/c Ratio	0.03					0.03		0.66	0.45	0.02	0.67	0.11
Control Delay	43.0					0.2		57.4	5.8	13.9	22.0	0.2
Queue Delay	0.0					0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	43.0					0.2		57.4	5.8	13.9	22.0	0.2
LOS	D					A		E	A	B	C	A
Approach Delay	43.0					0.2		28.7			18.9	
Approach LOS	D					A		C			B	
Queue Length 50th (ft)	2					0		87	0	2	258	0
Queue Length 95th (ft)	13					0		#162	28	12	#589	0
Internal Link Dist (ft)	296					564		311			390	
Turn Bay Length (ft)									110	120		150
Base Capacity (vph)	146					350		221	403	306	974	1008
Starvation Cap Reductn	0					0		0	0	0	0	0
Spillback Cap Reductn	0					0		0	0	0	0	0
Storage Cap Reductn	0					0		0	0	0	0	0
Reduced v/c Ratio	0.03					0.03		0.64	0.44	0.02	0.67	0.11

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 97.6%

ICU Level of Service F

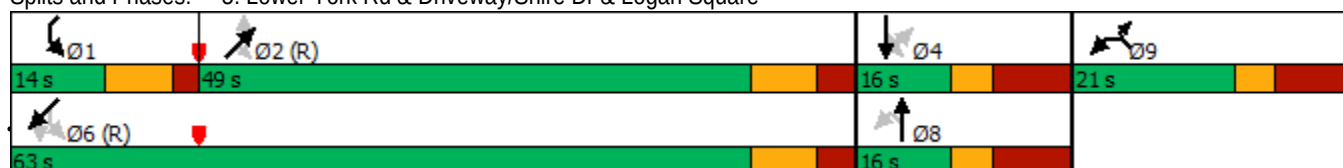
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square





Lane Group	NER2	SWL2	SWL	SWT	SWR
Total Lost Time (s)		6.0		7.0	
Lead/Lag		Lead			
Lead-Lag Optimize?		Yes			
Vehicle Extension (s)		3.0	5.0	5.0	
Minimum Gap (s)		3.0	2.7	2.7	
Time Before Reduce (s)		0.0	35.0	35.0	
Time To Reduce (s)		0.0	15.0	15.0	
Recall Mode		None	C-Min	C-Min	
Walk Time (s)					
Flash Dont Walk (s)					
Pedestrian Calls (#/hr)					
Act Effect Green (s)		70.3		69.3	
Actuated g/C Ratio		0.70		0.69	
v/c Ratio		0.34		0.39	
Control Delay		3.7		2.8	
Queue Delay		0.0		0.0	
Total Delay		3.7		2.8	
LOS		A		A	
Approach Delay				2.9	
Approach LOS				A	
Queue Length 50th (ft)		3		12	
Queue Length 95th (ft)		m23		142	
Internal Link Dist (ft)				1306	
Turn Bay Length (ft)		200			
Base Capacity (vph)		371		2371	
Starvation Cap Reductn		0		0	
Spillback Cap Reductn		0		0	
Storage Cap Reductn		0		0	
Reduced v/c Ratio		0.33		0.39	
Intersection Summary					

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	6	18	62	547	33	3	101	397	3	573	10
Future Volume (vph)	6	18	62	547	33	3	101	397	3	573	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.999					0.997	
Flt Protected	0.950			0.950	0.958		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1707	1722	0	1685	1756	1653	3338	0
Flt Permitted	0.950			0.950	0.958		0.302		0.950		
Satd. Flow (perm)	1710	1607	0	1707	1722	0	536	1756	1653	3338	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		185								2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	1%	0%	0%	1%	2%	0%	2%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	6	19	65	576	35	3	106	418	3	603	11
Shared Lane Traffic (%)				47%							
Lane Group Flow (vph)	6	84	0	305	309	0	106	418	3	614	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		34.0	34.0		14.0	39.0	14.0	39.0	
Total Split (%)	13.0%	13.0%		34.0%	34.0%		14.0%	39.0%	14.0%	39.0%	
Maximum Green (s)	7.0	7.0		28.0	28.0		7.0	32.0	7.0	32.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2040 Future without Development Conditions
Weekday Afternoon Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effect Green (s)	8.0	8.0		23.7	23.7		53.8	52.2	6.8	41.1	
Actuated g/C Ratio	0.08	0.08		0.24	0.24		0.54	0.52	0.07	0.41	
v/c Ratio	0.04	0.28		0.75	0.76		0.28	0.46	0.03	0.45	
Control Delay	43.3	2.4		47.0	47.2		7.0	10.6	59.3	18.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	43.3	2.4		47.0	47.2		7.0	10.6	59.3	18.0	
LOS	D	A		D	D		A	B	E	B	
Approach Delay					47.1			9.9		18.2	
Approach LOS					D			A		B	
Queue Length 50th (ft)	4	0		189	191		21	156	2	78	
Queue Length 95th (ft)	16	0		272	275		m17	226	m3	118	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	136	298		495	499		380	916	132	1372	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.04	0.28		0.62	0.62		0.28	0.46	0.02	0.45	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 46 (46%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 66.0%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		39 s		34 s		13 s	
	Ø5		Ø6 (R)				
14 s		39 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development PM.synSynchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	23	102	8	27	136	79	18	365	25	149	554	46
Future Volume (vph)	23	102	8	27	136	79	18	365	25	149	554	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.956			0.990			0.988	
Flt Protected		0.992			0.994		0.950			0.950		
Satd. Flow (prot)	0	1807	0	0	1685	0	1719	1758	0	1573	1755	0
Flt Permitted		0.888			0.951		0.357			0.498		
Satd. Flow (perm)	0	1617	0	0	1612	0	646	1758	0	824	1755	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			26			5			7	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	104	8	28	139	81	18	372	26	152	565	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	0	248	0	18	398	0	152	612	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	40.0	40.0		40.0	40.0		60.0	60.0		60.0	60.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%		60.0%	60.0%	
Maximum Green (s)	33.0	33.0		33.0	33.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sугan Rd

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development PM.synSynchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.38			0.66			0.04	0.34		0.28	0.53	
Control Delay	34.0			39.6			9.0	6.9		10.1	11.9	
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	
Total Delay	34.0			39.6			9.0	6.9		10.1	11.9	
Queue Length 50th (ft)	72			130			1	22		36	181	
Queue Length 95th (ft)	116			194			m11	148		87	334	
Internal Link Dist (ft)	496			309			1380			910		
Turn Bay Length (ft)							75			140		
Base Capacity (vph)	551			565			425	1160		543	1159	
Starvation Cap Reductn	0			0			0	0		0	0	
Spillback Cap Reductn	0			0			0	0		0	0	
Storage Cap Reductn	0			0			0	0		0	0	
Reduced v/c Ratio	0.25			0.44			0.04	0.34		0.28	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

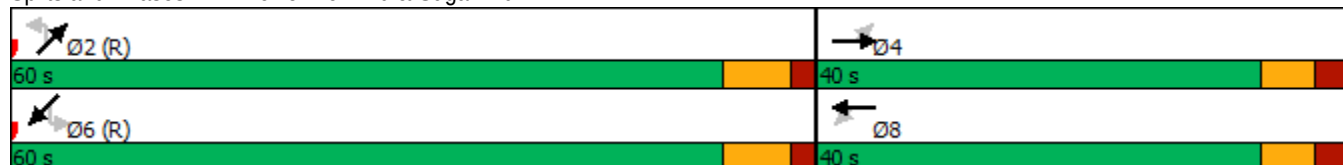
Offset: 33 (33%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Suga Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	23	102	8	27	136	79	18	365	25	149	554	46
Future Volume (veh/h)	23	102	8	27	136	79	18	365	25	149	554	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1949	1949	1949	1750	1750	1750	1837	1809	1809	1809	1809	1809
Adj Flow Rate, veh/h	23	104	5	28	139	47	18	372	21	152	565	44
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	2	2	2
Cap, veh/h	74	269	12	64	194	61	547	1204	68	790	1176	92
Arrive On Green	0.16	0.17	0.17	0.16	0.17	0.16	1.00	1.00	1.00	0.71	0.71	0.70
Sat Flow, veh/h	185	1579	69	136	1142	360	842	1696	96	1012	1657	129
Grp Volume(v), veh/h	132	0	0	214	0	0	18	0	393	152	0	609
Grp Sat Flow(s),veh/h/ln	1834	0	0	1637	0	0	842	0	1792	1012	0	1786
Q Serve(g_s), s	0.0	0.0	0.0	6.4	0.0	0.0	0.5	0.0	0.0	5.1	0.0	15.0
Cycle Q Clear(g_c), s	6.1	0.0	0.0	12.5	0.0	0.0	15.0	0.0	0.0	5.1	0.0	15.0
Prop In Lane	0.17		0.04	0.13		0.22	1.00		0.05	1.00		0.07
Lane Grp Cap(c), veh/h	336	0	0	303	0	0	547	0	1272	790	0	1268
V/C Ratio(X)	0.39	0.00	0.00	0.71	0.00	0.00	0.03	0.00	0.31	0.19	0.00	0.48
Avail Cap(c_a), veh/h	640	0	0	576	0	0	547	0	1272	790	0	1268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	0.0	39.7	0.0	0.0	1.5	0.0	0.0	5.0	0.0	6.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	6.3	0.0	0.0	0.1	0.0	0.6	0.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.4	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.4	1.6	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	0.0	0.0	46.1	0.0	0.0	1.6	0.0	0.6	5.5	0.0	7.7
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	132			214			411			761		
Approach Delay, s/veh	38.6			46.1			0.6			7.3		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	77.0			23.0			77.0			23.0		
Change Period (Y+Rc), s	7.0			7.0			7.0			7.0		
Max Green Setting (Gmax), s	53.0			33.0			53.0			33.0		
Max Q Clear Time (g_c+I1), s	17.5			8.1			17.0			14.5		
Green Ext Time (p_c), s	16.3			0.9			25.6			1.5		
Intersection Summary												
HCM 6th Ctrl Delay	13.7											
HCM 6th LOS	B											

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	32	2	44	23	5	2	677	59	3	622	40
Future Volume (vph)	69	32	2	44	23	5	2	677	59	3	622	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.991			0.989			0.992	
Flt Protected		0.968			0.970							
Satd. Flow (prot)	0	1565	0	0	1504	0	0	1721	0	0	1757	0
Flt Permitted		0.968			0.970			0.999			0.998	
Satd. Flow (perm)	0	1565	0	0	1504	0	0	1719	0	0	1754	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			3			6			4	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	11%	0%	5%	5%	0%	0%	2%	2%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	73	34	2	46	24	5	2	713	62	3	655	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	75	0	0	777	0	0	700	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Split	NA		Split	NA		Perm	NA		Perm	NA	
Protected Phases	4	4		8	8			2			6	
Permitted Phases							2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	26.0	26.0		21.0	21.0		70.0	70.0		70.0	70.0	
Total Split (%)	22.2%	22.2%		17.9%	17.9%		59.8%	59.8%		59.8%	59.8%	
Maximum Green (s)	20.0	20.0		15.0	15.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0			-1.0			-1.0	

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2040 Future without Development Conditions
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)	5.0			5.0			6.0			6.0		
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.53			0.45			0.72			0.63		
Control Delay	52.3			52.0			20.4			17.5		
Queue Delay	0.0			0.0			0.0			0.0		
Total Delay	52.3			52.0			20.4			17.5		
Queue Length 50th (ft)	69			46			343			283		
Queue Length 95th (ft)	130			97			639			519		
Internal Link Dist (ft)	992			1189			750			440		
Turn Bay Length (ft)												
Base Capacity (vph)	324			239			1084			1105		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.34			0.31			0.72			0.63		

Intersection Summary

Area Type: Other

Cycle Length: 117

Actuated Cycle Length: 102.9

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Lower York Rd & Aquetong Rd

 Ø2	 Ø4	 Ø8
70 s	26 s	21 s
 Ø6		
70 s		

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

2040 Future without Development Conditions
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	32	2	44	23	5	2	677	59	3	622	40
Future Volume (veh/h)	69	32	2	44	23	5	2	677	59	3	622	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1718	1718	1718	1590	1590	1590	1921	1921	1921	1780	1780	1780
Adj Flow Rate, veh/h	73	34	2	46	24	5	2	713	61	3	655	42
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
Percent Heavy Veh, %	11	11	11	5	5	5	2	2	2	1	1	1
Cap, veh/h	103	48	3	66	35	7	38	1166	100	39	1105	71
Arrive On Green	0.08	0.09	0.08	0.06	0.07	0.06	0.66	0.67	0.66	0.66	0.67	0.66
Sat Flow, veh/h	1110	517	30	935	488	102	1	1743	149	1	1652	106
Grp Volume(v), veh/h	109	0	0	75	0	0	776	0	0	700	0	0
Grp Sat Flow(s),veh/h/ln	1657	0	0	1525	0	0	1893	0	0	1759	0	0
Q Serve(g_s), s	6.1	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	0.0	0.0	4.6	0.0	0.0	22.3	0.0	0.0	21.1	0.0	0.0
Prop In Lane	0.67		0.02	0.61		0.07	0.00		0.08	0.00		0.06
Lane Grp Cap(c), veh/h	154	0	0	108	0	0	1284	0	0	1196	0	0
V/C Ratio(X)	0.71	0.00	0.00	0.69	0.00	0.00	0.60	0.00	0.00	0.59	0.00	0.00
Avail Cap(c_a), veh/h	364	0	0	255	0	0	1284	0	0	1196	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	42.5	0.0	0.0	43.8	0.0	0.0	8.9	0.0	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.0	0.0	7.7	0.0	0.0	2.1	0.0	0.0	2.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.9	0.0	0.0	3.5	0.0	0.0	12.7	0.0	0.0	11.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.4	0.0	0.0	51.4	0.0	0.0	11.1	0.0	0.0	10.9	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	B	A	A	B	A	A
Approach Vol, veh/h		109			75			776			700	
Approach Delay, s/veh		48.4			51.4			11.1			10.9	
Approach LOS		D			D			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.0		13.9		70.0		11.8				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		63.0		20.0		63.0		15.0				
Max Q Clear Time (g_c+I1), s		24.3		8.1		23.1		6.6				
Green Ext Time (p_c), s		28.5		0.2		26.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				15.2								
HCM 6th LOS				B								

2: Lower York Rd & Ingham Rd & Lower Mountain Rd Performance by approach

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.2	0.3
Total Del/Veh (s)		25.6	2.4	5.0	4.2

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	<LR	<LT
Maximum Queue (ft)	4	7	85
Average Queue (ft)	1	3	33
95th Queue (ft)	9	19	129
Link Distance (ft)	685	528	1020
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	6	9	781	714	12
Future Volume (vph)	18	6	9	781	714	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	12	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1809	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1809	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	19	6	10	840	768	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	6	10	840	768	13
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	6	9	781	714	12
Future Vol, veh/h	18	6	9	781	714	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	19	6	10	840	768	13
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1628	768	781	0	-	0
Stage 1	768	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	174	461	642	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	171	461	642	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	599	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	24.8	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	642	-	171	461	-	-
HCM Lane V/C Ratio	0.015	-	0.113	0.014	-	-
HCM Control Delay (s)	10.7	-	28.7	12.9	-	-
HCM Lane LOS	B	-	D	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	24	1	824	2	17	731	0
Future Volume (vph)	1	0	0	0	0	24	1	824	2	17	731	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	12	12	12
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.865							
Flt Protected		0.950									0.999	
Satd. Flow (prot)	0	1596	0	0	1402	0	0	1757	0	0	1754	0
Flt Permitted		0.950									0.999	
Satd. Flow (perm)	0	1596	0	0	1402	0	0	1757	0	0	1754	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	0	0	25	1	858	2	18	761	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	25	0	0	861	0	0	779	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	0	0	0	24	1	824	2	17	731	0
Future Vol, veh/h	1	0	0	0	0	24	1	824	2	17	731	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	0
Mvmt Flow	1	0	0	0	0	25	1	858	2	18	761	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1671	1659	761	1658	1658	859	761	0	0	860	0	0
Stage 1	797	797	-	861	861	-	-	-	-	-	-	-
Stage 2	874	862	-	797	797	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	82	99	427	44	52	317	653	-	-	602	-	-
Stage 1	426	401	-	280	268	-	-	-	-	-	-	-
Stage 2	384	375	-	312	294	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	72	94	427	42	49	317	653	-	-	602	-	-
Mov Cap-2 Maneuver	72	94	-	42	49	-	-	-	-	-	-	-
Stage 1	425	380	-	279	267	-	-	-	-	-	-	-
Stage 2	353	374	-	296	279	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	55.7		17.3		0		0.3	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	653	-	-	72 317	602	-	-
HCM Lane V/C Ratio	0.002	-	-	0.014 0.079	0.029	-	-
HCM Control Delay (s)	10.5	0	-	55.7 17.3	11.2	0	-
HCM Lane LOS	B	A	-	F C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.3	0.1	-	-

	↑	↗	↘	↙	↓	↖	↗	↘	↙	↖	↗	↘
Lane Group	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Lane Configurations	↕				↕		↗		↗	↗	↖	↖
Traffic Volume (vph)	0	8	10	3	0	6	122	3	247	5	661	149
Future Volume (vph)	0	8	10	3	0	6	122	3	247	5	661	149
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	13	13	13	13	13	13	13	12	12	14
Grade (%)	1%				-2%		1%				1%	
Storage Length (ft)		0		0		0	0	110		120		150
Storage Lanes		0		0		0	1	1		1		1
Taper Length (ft)				25			25			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt	0.865				0.957		0.996		0.850			0.850
Flt Protected					0.967		0.953			0.950		
Satd. Flow (prot)	1495	0	0	0	1738	0	1723	0	1573	1701	1756	1608
Flt Permitted					0.910		0.953			0.377		
Satd. Flow (perm)	1495	0	0	0	1636	0	1723	0	1573	675	1756	1608
Right Turn on Red						Yes			Yes			
Satd. Flow (RTOR)					208				249			218
Link Speed (mph)	25				25		25				45	
Link Distance (ft)	376				644		391				470	
Travel Time (s)	10.3				17.6		10.7				7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	14%	0%	0%	0%	0%	2%	0%	0%	0%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)	0%				0%		0%				0%	
Adj. Flow (vph)	0	8	10	3	0	6	123	3	249	5	668	151
Shared Lane Traffic (%)												
Lane Group Flow (vph)	8	0	0	0	19	0	126	0	249	5	668	153
Number of Detectors	1		1	4	4		4		4	0	1	0
Detector Template			Left									
Leading Detector (ft)	9		20	66	66		60		60	0	336	0
Trailing Detector (ft)	-3		0	-3	-3		-6		-6	0	330	0
Turn Type	NA		Perm	Perm	NA		Prot		Prot	Perm	NA	Perm
Protected Phases	8				4		9		9		2	
Permitted Phases			4	4			9		9	2		2
Detector Phase	8		4	4	4		9		9	2	2	2
Switch Phase												
Minimum Initial (s)	3.0		3.0	3.0	3.0		3.0		3.0	10.0	10.0	10.0
Minimum Split (s)	12.0		12.0	12.0	12.0		12.0		12.0	18.0	18.0	18.0
Total Split (s)	16.0		16.0	16.0	16.0		22.0		22.0	55.0	55.0	55.0
Total Split (%)	14.5%		14.5%	14.5%	14.5%		20.0%		20.0%	50.0%	50.0%	50.0%
Maximum Green (s)	7.0		7.0	7.0	7.0		13.0		13.0	47.0	47.0	47.0
Yellow Time (s)	3.0		3.0	3.0	3.0		3.0		3.0	5.0	5.0	5.0
All-Red Time (s)	6.0		6.0	6.0	6.0		6.0		6.0	3.0	3.0	3.0
Lost Time Adjust (s)	-1.0				-1.0		-1.0		-1.0	-1.0	-1.0	-1.0



Lane Group	NER2	SWL2	SWL	SWT	SWR
Lane Configurations					
Traffic Volume (vph)	2	217	6	695	14
Future Volume (vph)	2	217	6	695	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800
Lane Width (ft)	14	12	12	13	13
Grade (%)				-5%	
Storage Length (ft)			200		0
Storage Lanes			1		0
Taper Length (ft)			25		
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95
Ped Bike Factor					
Frt				0.997	
Flt Protected		0.950			
Satd. Flow (prot)	0	1735	0	3571	0
Flt Permitted		0.190		0.950	
Satd. Flow (perm)	0	347	0	3392	0
Right Turn on Red	Yes				Yes
Satd. Flow (RTOR)				3	
Link Speed (mph)				45	
Link Distance (ft)				1386	
Travel Time (s)				21.0	
Confl. Peds. (#/hr)					
Confl. Bikes (#/hr)					
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	20%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0
Parking (#/hr)					
Mid-Block Traffic (%)				0%	
Adj. Flow (vph)	2	219	6	702	14
Shared Lane Traffic (%)					
Lane Group Flow (vph)	0	219	0	722	0
Number of Detectors		1	1	1	
Detector Template		Left			
Leading Detector (ft)		20	37	336	
Trailing Detector (ft)		0	-3	330	
Turn Type		pm+pt	Perm	NA	
Protected Phases		1		6	
Permitted Phases		6	6		
Detector Phase		1	6	6	
Switch Phase					
Minimum Initial (s)		3.0	10.0	10.0	
Minimum Split (s)		10.0	18.0	18.0	
Total Split (s)		17.0	72.0	72.0	
Total Split (%)		15.5%	65.5%	65.5%	
Maximum Green (s)		10.0	64.0	64.0	
Yellow Time (s)		5.0	5.0	5.0	
All-Red Time (s)		2.0	3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	

	↑	↗	↘	↓	↙	↖	↗	↘	↙	↖	↗	↘
Lane Group	NBT	NBR	SBL2	SBL	SBT	SBR	NWL	NWR	NWR2	NEL	NET	NER
Total Lost Time (s)	8.0				8.0		8.0		8.0	7.0	7.0	7.0
Lead/Lag										Lag	Lag	Lag
Lead-Lag Optimize?										Yes	Yes	Yes
Vehicle Extension (s)	4.0		4.0	4.0	4.0		4.0		4.0	5.0	5.0	5.0
Minimum Gap (s)	4.0		4.0	4.0	4.0		4.0		4.0	2.7	2.7	2.7
Time Before Reduce (s)	0.0		0.0	0.0	0.0		0.0		0.0	35.0	35.0	35.0
Time To Reduce (s)	0.0		0.0	0.0	0.0		0.0		0.0	15.0	15.0	15.0
Recall Mode	None		None	None	None		None		None	C-Min	C-Min	C-Min
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	7.8				7.7		13.1		13.1	59.1	59.1	59.1
Actuated g/C Ratio	0.07				0.07		0.12		0.12	0.54	0.54	0.54
v/c Ratio	0.08				0.06		0.61		0.61	0.01	0.71	0.16
Control Delay	49.4				0.4		59.2		12.6	16.8	26.9	1.0
Queue Delay	0.0				0.0		0.0		0.0	0.0	0.0	0.0
Total Delay	49.4				0.4		59.2		12.6	16.8	26.9	1.0
LOS	D				A		E		B	B	C	A
Approach Delay	49.4				0.4		28.3				22.0	
Approach LOS	D				A		C				C	
Queue Length 50th (ft)	5				0		85		0	1	300	0
Queue Length 95th (ft)	22				0		149		74	9	#643	10
Internal Link Dist (ft)	296				564		311				390	
Turn Bay Length (ft)									110	120		150
Base Capacity (vph)	108				311		219		417	362	943	964
Starvation Cap Reductn	0				0		0		0	0	0	0
Spillback Cap Reductn	0				0		0		0	0	0	0
Storage Cap Reductn	0				0		0		0	0	0	0
Reduced v/c Ratio	0.07				0.06		0.58		0.60	0.01	0.71	0.16

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NETL and 6:SWTL, Start of Green, Master Intersection

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 16.4

Intersection LOS: B

Intersection Capacity Utilization 97.8%

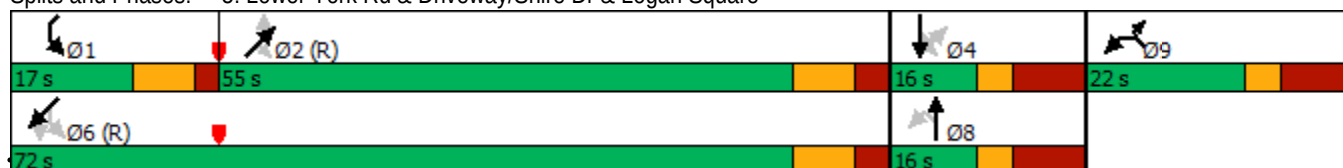
ICU Level of Service F

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 5: Lower York Rd & Driveway/Shire Dr & Logan Square



Lanes, Volumes, Timings

5: Lower York Rd & Driveway/Shire Dr & Logan Square

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Lane Group	NER2	SWL2	SWL	SWT	SWR
Total Lost Time (s)		6.0		7.0	
Lead/Lag		Lead			
Lead-Lag Optimize?		Yes			
Vehicle Extension (s)		3.0	5.0	5.0	
Minimum Gap (s)		3.0	2.7	2.7	
Time Before Reduce (s)		0.0	35.0	35.0	
Time To Reduce (s)		0.0	15.0	15.0	
Recall Mode		None	C-Min	C-Min	
Walk Time (s)					
Flash Dont Walk (s)					
Pedestrian Calls (#/hr)					
Act Effect Green (s)		76.5		75.5	
Actuated g/C Ratio		0.70		0.69	
v/c Ratio		0.59		0.31	
Control Delay		18.6		3.2	
Queue Delay		0.0		0.0	
Total Delay		18.6		3.2	
LOS		B		A	
Approach Delay				6.8	
Approach LOS				A	
Queue Length 50th (ft)		31		7	
Queue Length 95th (ft)		105		84	
Internal Link Dist (ft)				1306	
Turn Bay Length (ft)		200			
Base Capacity (vph)		380		2330	
Starvation Cap Reductn		0		0	
Spillback Cap Reductn		0		0	
Storage Cap Reductn		0		0	
Reduced v/c Ratio		0.58		0.31	
Intersection Summary					

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	12	26	92	566	24	6	73	418	6	420	7
Future Volume (vph)	12	26	92	566	24	6	73	418	6	420	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.997					0.998	
Flt Protected	0.950			0.950	0.957		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1724	1732	0	1701	1756	1322	3380	0
Flt Permitted	0.950			0.950	0.957		0.423		0.950		
Satd. Flow (perm)	1710	1607	0	1724	1732	0	758	1756	1322	3380	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		169			1					2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	2%	25%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	13	27	96	590	25	6	76	435	6	438	7
Shared Lane Traffic (%)				47%							
Lane Group Flow (vph)	13	123	0	313	308	0	76	435	6	445	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		36.0	36.0		14.0	47.0	14.0	47.0	
Total Split (%)	11.8%	11.8%		32.7%	32.7%		12.7%	42.7%	12.7%	42.7%	
Maximum Green (s)	7.0	7.0		30.0	30.0		7.0	40.0	7.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

2040 Future without Development Conditions
Saturday Midday Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effect Green (s)	8.0	8.0		25.7	25.7		59.1	57.5	7.1	49.2	
Actuated g/C Ratio	0.07	0.07		0.23	0.23		0.54	0.52	0.06	0.45	
v/c Ratio	0.10	0.45		0.78	0.76		0.16	0.47	0.07	0.29	
Control Delay	49.8	8.1		52.9	51.4		7.1	12.1	57.5	16.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	49.8	8.1		52.9	51.4		7.1	12.1	57.5	16.9	
LOS	D	A		D	D		A	B	E	B	
Approach Delay					52.1			11.4		17.4	
Approach LOS					D			B		B	
Queue Length 50th (ft)	9	0		217	212		18	191	4	75	
Queue Length 95th (ft)	29	24		306	301		m19	246	m12	112	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	124	273		485	488		476	918	96	1511	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.10	0.45		0.65	0.63		0.16	0.47	0.06	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 43 (39%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln

	Ø1		Ø2 (R)		Ø4		Ø8
14 s		47 s		36 s		13 s	
	Ø5		Ø6 (R)				
14 s		47 s					

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development Sat.synSynchro 10 (10.3.55.0)

McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	43	121	17	61	149	161	17	404	36	102	341	27
Future Volume (vph)	43	121	17	61	149	161	17	404	36	102	341	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.941			0.988			0.989	
Flt Protected		0.988			0.992		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1648	0	1719	1739	0	1588	1757	0
Flt Permitted		0.781			0.910		0.483			0.427		
Satd. Flow (perm)	0	1406	0	0	1512	0	874	1739	0	714	1757	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			44			5			5	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	44	125	18	63	154	166	18	416	37	105	352	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	187	0	0	383	0	18	453	0	105	380	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	54.0	54.0		54.0	54.0		56.0	56.0		56.0	56.0	
Total Split (%)	49.1%	49.1%		49.1%	49.1%		50.9%	50.9%		50.9%	50.9%	
Maximum Green (s)	47.0	47.0		47.0	47.0		49.0	49.0		49.0	49.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sугan Rd

A:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Synchro\2040 without Development Sat.synSynchro 10 (10.3.55.0)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0			6.0			6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.43			0.77			0.04	0.45		0.25	0.37	
Control Delay	30.6			40.2			7.9	7.0		15.8	15.1	
Queue Delay	0.0			0.0			0.0	0.0		0.0	0.0	
Total Delay	30.6			40.2			7.9	7.0		15.8	15.1	
Queue Length 50th (ft)	101			218			1	19		34	133	
Queue Length 95th (ft)	143			287			m6	103		85	248	
Internal Link Dist (ft)	496			309			1380			910		
Turn Bay Length (ft)							75			140		
Base Capacity (vph)	616			684			508	1013		414	1023	
Starvation Cap Reductn	0			0			0	0		0	0	
Spillback Cap Reductn	0			0			0	0		0	0	
Storage Cap Reductn	0			0			0	0		0	0	
Reduced v/c Ratio	0.30			0.56			0.04	0.45		0.25	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

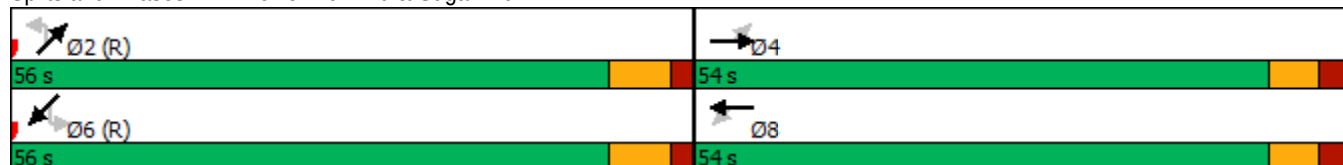
Offset: 45 (41%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sугan Rd



McMahon Associates, Inc.
7: Lower York Rd & Sугan Rd

2040 Future without Development Conditions
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	43	121	17	61	149	161	17	404	36	102	341	27
Future Volume (veh/h)	43	121	17	61	149	161	17	404	36	102	341	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1736	1736	1736	1837	1795	1795	1823	1809	1809
Adj Flow Rate, veh/h	44	125	7	63	154	142	18	416	37	105	352	26
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
Percent Heavy Veh, %	1	1	1	1	1	1	0	3	3	1	2	2
Cap, veh/h	111	301	15	97	198	168	608	1005	89	663	1030	76
Arrive On Green	0.26	0.27	0.27	0.26	0.27	0.26	1.00	1.00	1.00	0.62	0.62	0.61
Sat Flow, veh/h	256	1105	56	217	730	619	1042	1624	144	965	1664	123
Grp Volume(v), veh/h	176	0	0	359	0	0	18	0	453	105	0	378
Grp Sat Flow(s),veh/h/ln	1418	0	0	1566	0	0	1042	0	1769	965	0	1787
Q Serve(g_s), s	0.0	0.0	0.0	14.2	0.0	0.0	0.3	0.0	0.0	5.1	0.0	11.3
Cycle Q Clear(g_c), s	9.7	0.0	0.0	23.9	0.0	0.0	11.1	0.0	0.0	5.1	0.0	11.3
Prop In Lane	0.25		0.04	0.18		0.40	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	414	0	0	450	0	0	608	0	1095	663	0	1106
V/C Ratio(X)	0.43	0.00	0.00	0.80	0.00	0.00	0.03	0.00	0.41	0.16	0.00	0.34
Avail Cap(c_a), veh/h	686	0	0	700	0	0	608	0	1095	663	0	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.88	0.00	0.88	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	0.0	37.9	0.0	0.0	0.9	0.0	0.0	9.0	0.0	10.2
Incr Delay (d2), s/veh	1.5	0.0	0.0	7.0	0.0	0.0	0.1	0.0	1.0	0.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.2	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.6	1.8	0.0	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	0.0	44.9	0.0	0.0	1.0	0.0	1.0	9.5	0.0	11.0
LnGrp LOS	C	A	A	D	A	A	A	A	A	A	A	B
Approach Vol, veh/h		176			359			471			483	
Approach Delay, s/veh		33.8			44.9			1.0			10.7	
Approach LOS		C			D			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.1		35.9		74.1		35.9				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		49.0		47.0		49.0		47.0				
Max Q Clear Time (g_c+I1), s		13.6		11.7		13.3		25.9				
Green Ext Time (p_c), s		18.7		1.5		16.1		3.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.6								
HCM 6th LOS				B								

Appendix I

Build Alternative 1 Future (2040) with Development Capacity/Level-of-Service Analysis Worksheets

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	54	0	39	8	1	1	935	36	1	508	8
Future Volume (vph)	79	54	0	39	8	1	1	935	36	1	508	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.994			0.998	
Flt Protected		0.971			0.961		0.950			0.950		
Satd. Flow (prot)	0	1625	0	0	1569	0	1686	1715	0	1645	1659	0
Flt Permitted		0.788			0.728		0.414			0.138		
Satd. Flow (perm)	0	1319	0	0	1189	0	735	1715	0	239	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			4			2	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	0%	0%	0%	3%	0%	0%	4%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	57	0	41	9	1	1	995	38	1	540	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	51	0	1	1033	0	1	549	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.59			0.23		0.00	0.89		0.01	0.49	
Control Delay		39.7			29.4		6.0	23.5		6.0	8.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		39.7			29.4		6.0	23.5		6.0	8.7	
Queue Length 50th (ft)		65			21		0	353		0	111	
Queue Length 95th (ft)		120			51		2	#804		2	231	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		414			374		498	1164		162	1125	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.34			0.14		0.00	0.89		0.01	0.49	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 79.8

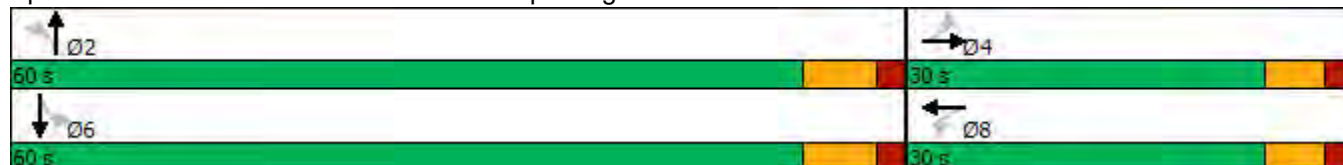
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	54	0	39	8	1	1	935	36	1	508	8
Future Volume (veh/h)	79	54	0	39	8	1	1	935	36	1	508	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1846	1846	1846	1660	1660	1660	1949	1906	1906	1794	1738	1738
Adj Flow Rate, veh/h	84	57	0	41	9	1	1	995	38	1	540	9
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
Percent Heavy Veh, %	2	2	2	0	0	0	0	3	3	0	4	4
Cap, veh/h	193	90	0	215	40	3	671	1327	51	322	1240	21
Arrive On Green	0.11	0.12	0.00	0.11	0.12	0.11	0.73	0.73	0.71	0.73	0.73	0.71
Sat Flow, veh/h	929	729	0	1026	321	27	944	1824	70	553	1705	28
Grp Volume(v), veh/h	141	0	0	51	0	0	1	0	1033	1	0	549
Grp Sat Flow(s),veh/h/ln	1658	0	0	1374	0	0	944	0	1894	553	0	1733
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	0.1	0.0	9.4
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.4	0.0	0.0	8.9	0.0	24.3	23.9	0.0	9.4
Prop In Lane	0.60		0.00	0.80		0.02	1.00		0.04	1.00		0.02
Lane Grp Cap(c), veh/h	261	0	0	240	0	0	671	0	1378	322	0	1261
V/C Ratio(X)	0.54	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.44
Avail Cap(c_a), veh/h	601	0	0	520	0	0	671	0	1378	322	0	1261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	0.0	29.9	0.0	0.0	5.7	0.0	6.1	13.1	0.0	4.0
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	3.8	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	10.2	0.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	0.0	30.3	0.0	0.0	5.7	0.0	9.9	13.1	0.0	5.1
LnGrp LOS	C	A	A	C	A	A	A	A	A	B	A	A
Approach Vol, veh/h		141			51			1034			550	
Approach Delay, s/veh		33.0			30.3			9.8			5.1	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.0		14.2		60.0		14.2				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		53.0		24.0		53.0		24.0				
Max Q Clear Time (g_c+I1), s		26.3		8.0		26.4		4.4				
Green Ext Time (p_c), s		24.9		0.3		15.5		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				10.8								
HCM 6th LOS				B								

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.1	0.3
Total Del/Veh (s)	15.8	19.2	3.5	2.6	3.6

Movement	NB	NW	SW
Directions Served	LR>	LR	<L
Maximum Queue (ft)	6	12	22
Average Queue (ft)	2	4	4
95th Queue (ft)	8	17	21
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Lanes, Volumes, Timings 3: Lower York Rd & Silvertail Ln
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Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	9	1	1042	525	5
Future Vol, veh/h	8	9	1	1042	525	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	5	0
Mvmt Flow	9	10	1	1109	559	5
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1670	559	564	0	-	0
Stage 1	559	-	-	-	-	-
Stage 2	1111	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	165	594	767	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	165	594	767	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	445	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	13.7	0	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	767	-	322	594	-	-
HCM Lane V/C Ratio	0.001	-	0.026	0.016	-	-
HCM Control Delay (s)	9.7	-	16.5	11.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	1	0	17	0	1063	1	7	527	0
Future Volume (vph)	0	0	0	1	0	17	0	1063	1	7	527	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.872							
Flt Protected					0.997					0.950		
Satd. Flow (prot)	0	1680	0	0	1409	0	1792	1740	0	1628	1648	0
Flt Permitted					0.997					0.950		
Satd. Flow (perm)	0	1680	0	0	1409	0	1792	1740	0	1628	1648	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	1	0	17	0	1085	1	7	538	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	18	0	0	1086	0	7	538	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection													
Int Delay, s/veh	0.4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕		↕	↕		↕	↕		
Traffic Vol, veh/h	0	0	0	1	0	17	0	1063	1	7	527	0	
Future Vol, veh/h	0	0	0	1	0	17	0	1063	1	7	527	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-	
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-	
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-	
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	4	0	
Mvmt Flow	0	0	0	1	0	17	0	1085	1	7	538	0	

Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	1646	1638	538	1638	1638	1086	538	0	0	1086	0	0	
Stage 1	552	552	-	1086	1086	-	-	-	-	-	-	-	
Stage 2	1094	1086	-	552	552	-	-	-	-	-	-	-	
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-	
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-	
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-	
Pot Cap-1 Maneuver	86	102	574	46	54	223	783	-	-	498	-	-	
Stage 1	588	518	-	190	193	-	-	-	-	-	-	-	
Stage 2	287	295	-	474	418	-	-	-	-	-	-	-	
Platoon blocked, %								-	-		-	-	
Mov Cap-1 Maneuver	78	101	574	45	53	223	783	-	-	498	-	-	
Mov Cap-2 Maneuver	78	101	-	45	53	-	-	-	-	-	-	-	
Stage 1	588	511	-	190	193	-	-	-	-	-	-	-	
Stage 2	265	295	-	467	412	-	-	-	-	-	-	-	

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	26.9	0	0.2
HCM LOS	A	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	783	-	-	-	183	498	-	-
HCM Lane V/C Ratio	-	-	-	-	0.10	0.014	-	-
HCM Control Delay (s)	0	-	-	0	26.9	12.3	-	-
HCM Lane LOS	A	-	-	A	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.3	0	-	-

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	6	20	1	33	3	1027	45	29	521	6
Future Volume (vph)	9	1	6	20	1	33	3	1027	45	29	521	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.949			0.854			0.994			0.998	
Flt Protected		0.973		0.950			0.950			0.950		
Satd. Flow (prot)	0	1735	0	1490	1580	0	1645	3198	0	1694	3253	0
Flt Permitted		0.806		0.747			0.452			0.211		
Satd. Flow (perm)	0	1437	0	1172	1580	0	783	3198	0	376	3253	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			34			8			3	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			315			470			989	
Travel Time (s)		17.6			8.6			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	18%	0%	0%	0%	2%	8%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	1	6	20	1	34	3	1048	46	30	532	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	20	35	0	3	1094	0	30	538	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	20.0	20.0		20.0	20.0		56.0	56.0		14.0	70.0	
Total Split (%)	22.2%	22.2%		22.2%	22.2%		62.2%	62.2%		15.6%	77.8%	
Maximum Green (s)	14.0	14.0		14.0	14.0		48.0	48.0		7.0	62.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.11		0.17	0.18		0.01	0.45		0.07	0.19	
Control Delay		29.8		39.4	15.5		7.3	8.2		2.9	2.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		29.8		39.4	15.5		7.3	8.2		2.9	2.6	
Queue Length 50th (ft)		5		11	1		1	166		1	10	
Queue Length 95th (ft)		24		32	28		4	245		19	92	
Internal Link Dist (ft)		564			235			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		244		195	291		598	2447		430	2772	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.07		0.10	0.12		0.01	0.45		0.07	0.19	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1	6	20	1	33	3	1027	45	29	521	6
Future Volume (veh/h)	9	1	6	20	1	33	3	1027	45	29	521	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1950	1950	1950	1603	1866	1866	1794	1766	1766	1986	1929	1929
Adj Flow Rate, veh/h	9	1	4	20	1	17	3	1048	46	30	532	6
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
Percent Heavy Veh, %	0	0	0	18	0	0	0	2	2	0	4	4
Cap, veh/h	87	2	9	130	3	55	725	2406	106	487	3082	35
Arrive On Green	0.03	0.04	0.04	0.04	0.04	0.04	0.73	0.73	0.73	0.03	0.83	0.82
Sat Flow, veh/h	582	65	259	1277	89	1506	878	3275	144	1892	3713	42
Grp Volume(v), veh/h	14	0	0	20	0	18	3	537	557	30	263	275
Grp Sat Flow(s),veh/h/ln	905	0	0	1277	0	1595	878	1678	1740	1892	1833	1922
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	1.0	0.1	11.2	11.2	0.3	2.6	2.6
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.2	0.0	1.0	0.1	11.2	11.2	0.3	2.6	2.6
Prop In Lane	0.64		0.29	1.00		0.94	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	89	0	0	130	0	58	725	1233	1279	487	1521	1595
V/C Ratio(X)	0.16	0.00	0.00	0.15	0.00	0.31	0.00	0.44	0.44	0.06	0.17	0.17
Avail Cap(c_a), veh/h	296	0	0	296	0	266	725	1233	1279	601	1521	1595
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	43.4	0.0	0.0	42.3	0.0	42.2	3.2	4.7	4.7	3.1	1.5	1.5
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.8	0.0	4.2	0.0	1.1	1.1	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0	0.8	0.0	0.8	0.0	5.1	5.2	0.1	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	0.0	0.0	43.1	0.0	46.4	3.2	5.8	5.7	3.2	1.8	1.8
LnGrp LOS	D	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	14			38			1097			568		
Approach Delay, s/veh	44.6			44.7			5.8			1.8		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.6	73.1		8.3		81.7		8.3				
Change Period (Y+Rc), s	7.0	8.0		6.0		8.0		6.0				
Max Green Setting (Gmax),s	48.0			14.0		62.0		14.0				
Max Q Clear Time (g_c+l1)2s	13.7			3.8		5.1		3.7				
Green Ext Time (p_c), s	0.0	27.7		0.0		17.8		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				5.6								
HCM 6th LOS				A								

										
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations										
Traffic Volume (vph)	14	34	48	217	7	6	7	638	1	379
Future Volume (vph)	14	34	48	217	7	6	7	638	1	379
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12
Grade (%)					1%			1%		0%
Storage Length (ft)	75	0		0		0	100		200	
Storage Lanes	1	1		1		0	1		1	
Taper Length (ft)	50			25			100		200	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95
Ped Bike Factor										
Frt		0.850			0.992					
Flt Protected	0.950			0.950	0.957		0.950		0.950	
Satd. Flow (prot)	1710	1613	0	1674	1678	0	1701	1756	826	3257
Flt Permitted	0.950			0.950	0.957		0.523		0.950	
Satd. Flow (perm)	1710	1613	0	1674	1678	0	937	1756	826	3257
Right Turn on Red			Yes			Yes				
Satd. Flow (RTOR)		206			2					
Link Speed (mph)					35			45		45
Link Distance (ft)					163			375		1460
Travel Time (s)					3.2			5.7		22.1
Confl. Peds. (#/hr)										
Confl. Bikes (#/hr)										
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	3%	0%	0%	0%	2%	100%	5%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)										
Mid-Block Traffic (%)					0%			0%		0%
Adj. Flow (vph)	14	35	49	221	7	6	7	651	1	387
Shared Lane Traffic (%)				47%						
Lane Group Flow (vph)	14	84	0	117	117	0	7	651	1	387
Number of Detectors	1	1		1	1		1	1	1	1
Detector Template										
Leading Detector (ft)	37	37		37	37		37	336	37	356
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA
Protected Phases	8	8		4	4		1	6	5	2
Permitted Phases							6			
Detector Phase	8	8		4	4		1	6	5	2
Switch Phase										
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0
Total Split (s)	13.0	13.0		16.0	16.0		14.0	47.0	14.0	47.0
Total Split (%)	14.4%	14.4%		17.8%	17.8%		15.6%	52.2%	15.6%	52.2%
Maximum Green (s)	7.0	7.0		10.0	10.0		7.0	40.0	7.0	40.0
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

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Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0
Recall Mode	None	None		None	None		None	C-Max	None	C-Max
Walk Time (s)										
Flash Dont Walk (s)										
Pedestrian Calls (#/hr)										
Act Effct Green (s)	8.0	8.0		10.4	10.4		56.9	55.5	6.8	55.6
Actuated g/C Ratio	0.09	0.09		0.12	0.12		0.63	0.62	0.08	0.62
v/c Ratio	0.09	0.25		0.61	0.60		0.01	0.60	0.02	0.19
Control Delay	39.3	1.8		51.7	50.5		2.3	8.8	35.0	12.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	39.3	1.8		51.7	50.5		2.3	8.8	35.0	12.7
LOS	D	A		D	D		A	A	C	B
Approach Delay					51.1			8.8		12.8
Approach LOS					D			A		B
Queue Length 50th (ft)	7	0		67	66		1	4	1	45
Queue Length 95th (ft)	26	0		#127	#125		m1	#477	m2	120
Internal Link Dist (ft)					83			295		1380
Turn Bay Length (ft)	75						100		200	
Base Capacity (vph)	152	331		204	206		662	1083	73	2012
Starvation Cap Reductn	0	0		0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0
Reduced v/c Ratio	0.09	0.25		0.57	0.57		0.01	0.60	0.01	0.19

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 29 (32%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 17.0

Intersection LOS: B

Intersection Capacity Utilization 60.9%

ICU Level of Service B

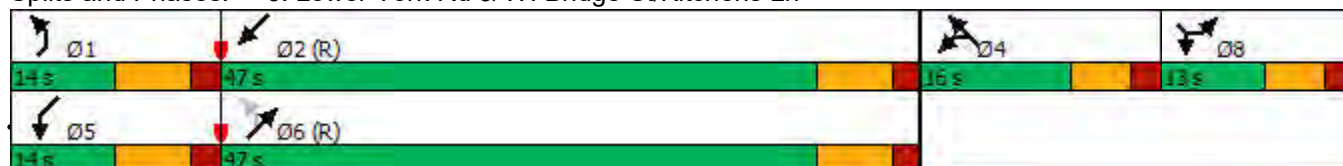
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln



McMahon Associates, Inc.
7: Lower York Rd & Sugan Rd

Build Alternative 1
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	117	5	10	32	149	3	641	11	62	359	6
Future Volume (vph)	53	117	5	10	32	149	3	641	11	62	359	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.996			0.895			0.998			0.997	
Flt Protected		0.985			0.997		0.950			0.950		
Satd. Flow (prot)	0	1766	0	0	1559	0	1292	1771	0	1573	1719	0
Flt Permitted		0.723			0.978		0.492			0.283		
Satd. Flow (perm)	0	1296	0	0	1530	0	669	1771	0	468	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			167			2			2	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	4%	1%	33%	2%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	60	131	6	11	36	167	3	720	12	70	403	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	0	0	214	0	3	732	0	70	410	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	23.0	23.0		23.0	23.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sugan Rd

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	→↗	→	↘	↖	←	↙	↘	↗	↖	↘	↖	↗
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.70			0.46		0.01	0.64		0.23	0.37	
Control Delay		44.9			11.2		1.0	4.6		10.2	9.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		44.9			11.2		1.0	4.6		10.2	9.1	
Queue Length 50th (ft)		102			22		0	22		15	97	
Queue Length 95th (ft)		165			75		m0	32		42	169	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)							75			140		
Base Capacity (vph)		347			530		434	1150		303	1116	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.57			0.40		0.01	0.64		0.23	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

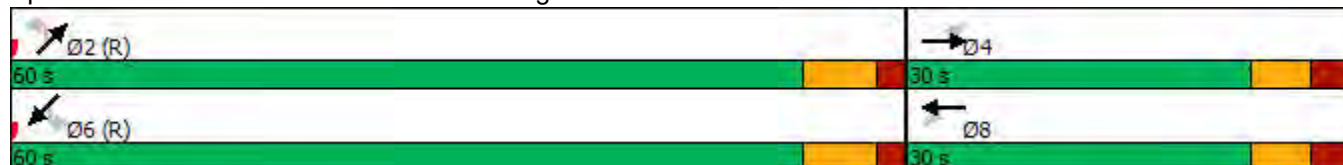
Offset: 39 (43%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sугan Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	53	117	5	10	32	149	3	641	11	62	359	6
Future Volume (veh/h)	53	117	5	10	32	149	3	641	11	62	359	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1906	1906	1906	1694	1694	1694	1368	1809	1809	1809	1766	1766
Adj Flow Rate, veh/h	60	131	4	11	36	94	3	720	11	70	403	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	4	4	4	33	2	2	2	5	5
Cap, veh/h	117	192	5	52	70	158	556	1267	19	608	1237	18
Arrive On Green	0.14	0.15	0.15	0.14	0.15	0.14	1.00	1.00	1.00	0.71	0.71	0.70
Sat Flow, veh/h	424	1249	35	58	457	1030	754	1777	27	740	1736	26
Grp Volume(v), veh/h	195	0	0	141	0	0	3	0	731	70	0	409
Grp Sat Flow(s),veh/h/ln	1708	0	0	1545	0	0	754	0	1804	740	0	1762
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	7.8
Cycle Q Clear(g_c), s	9.9	0.0	0.0	7.8	0.0	0.0	7.4	0.0	0.0	2.7	0.0	7.8
Prop In Lane	0.31		0.02	0.08		0.67	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	296	0	0	264	0	0	556	0	1286	608	0	1256
V/C Ratio(X)	0.66	0.00	0.00	0.53	0.00	0.00	0.01	0.00	0.57	0.12	0.00	0.33
Avail Cap(c_a), veh/h	487	0	0	429	0	0	556	0	1286	608	0	1256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.78	0.00	0.78	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	0.0	35.9	0.0	0.0	0.4	0.0	0.0	4.1	0.0	4.8
Incr Delay (d2), s/veh	5.3	0.0	0.0	3.6	0.0	0.0	0.0	0.0	1.4	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.9	0.6	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.7	0.0	0.0	39.5	0.0	0.0	0.4	0.0	1.4	4.5	0.0	5.5
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	195			141			734			479		
Approach Delay, s/veh	41.7			39.5			1.4			5.4		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	70.2			19.8			70.2			19.8		
Change Period (Y+Rc), s	7.0			7.0			7.0			7.0		
Max Green Setting (Gmax), s	53.0			23.0			53.0			23.0		
Max Q Clear Time (g_c+l1), s	9.9			11.9			9.8			9.8		
Green Ext Time (p_c), s	33.5			1.0			19.2			0.8		
Intersection Summary												
HCM 6th Ctrl Delay	11.2											
HCM 6th LOS	B											

McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 1
Weekday Morning Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	31	19	1015	50	68	525
Future Volume (vph)	31	19	1015	50	68	525
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.993			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3218	0	1661	3322
Flt Permitted	0.950				0.192	
Satd. Flow (perm)	1676	1500	3218	0	336	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		21	9			
Link Speed (mph)	25		45			45
Link Distance (ft)	343		989			397
Travel Time (s)	9.4		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	34	21	1103	54	74	571
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	21	1157	0	74	571
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	20.0	20.0	56.0		14.0	70.0
Total Split (%)	22.2%	22.2%	62.2%		15.6%	77.8%
Maximum Green (s)	14.0	14.0	48.0		7.0	62.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

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McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

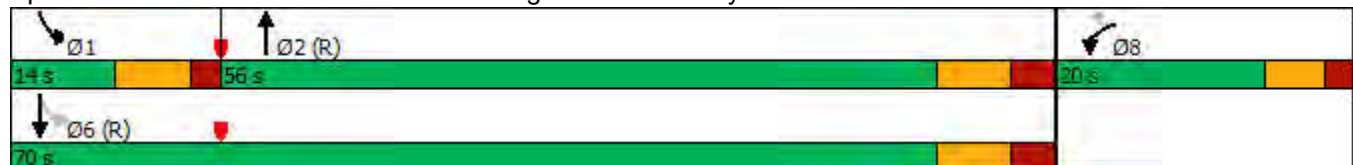
Build Alternative 1
Weekday Morning Peak Hour

	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.22	0.13	0.50		0.19	0.20
Control Delay	40.5	17.2	3.8		2.7	1.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	40.5	17.2	3.8		2.7	1.3
Queue Length 50th (ft)	18	0	55		1	5
Queue Length 95th (ft)	46	22	20		m16	46
Internal Link Dist (ft)	263		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	279	267	2328		399	2849
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.08	0.50		0.19	0.20

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 22 (24%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Lower York Rd & Signalized Driveway



HCM 6th Signalized Intersection Summary 8: Lower York Rd & Signalized Driveway
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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	17	0	40	65	8	0	774	45	9	936	90
Future Volume (vph)	53	17	0	40	65	8	0	774	45	9	936	90
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991			0.992			0.987	
Flt Protected		0.964			0.983					0.950		
Satd. Flow (prot)	0	1565	0	0	1564	0	1775	1725	0	1456	1677	0
Flt Permitted		0.701			0.878					0.257		
Satd. Flow (perm)	0	1138	0	0	1397	0	1775	1725	0	394	1677	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			6			10	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	0%	0%	3%	0%	14%	0%	2%	3%	13%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	56	18	0	42	68	8	0	815	47	9	985	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	118	0	0	862	0	9	1080	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.41			0.51			0.67		0.03	0.86	
Control Delay		35.9			36.7			10.9		5.1	20.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		35.9			36.7			10.9		5.1	20.3	
Queue Length 50th (ft)		33			51			209		1	367	
Queue Length 95th (ft)		71			100			441		7	#823	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)										200		
Base Capacity (vph)		364			449			1290		294	1256	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.20			0.26			0.67		0.03	0.86	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.2

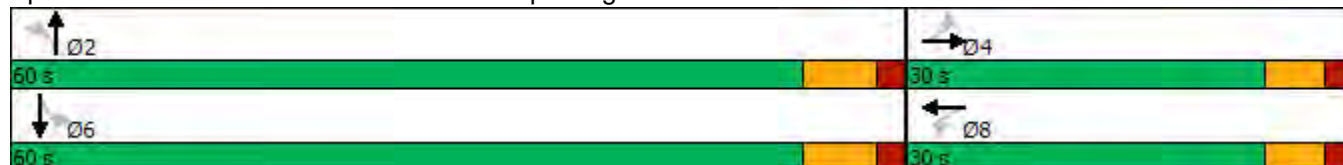
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	17	0	40	65	8	0	774	45	9	936	90
Future Volume (veh/h)	53	17	0	40	65	8	0	774	45	9	936	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1875	1875	1875	1660	1660	1660	1949	1921	1921	1612	1766	1766
Adj Flow Rate, veh/h	56	18	0	42	68	6	0	815	47	9	985	94
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	13	2	2
Cap, veh/h	210	59	0	118	116	9	98	1324	76	404	1169	112
Arrive On Green	0.10	0.11	0.00	0.10	0.11	0.10	0.00	0.74	0.72	0.74	0.74	0.72
Sat Flow, veh/h	1094	515	0	453	1023	81	575	1798	104	583	1588	152
Grp Volume(v), veh/h	74	0	0	116	0	0	0	0	862	9	0	1079
Grp Sat Flow(s),veh/h/ln	1609	0	0	1557	0	0	575	0	1902	583	0	1739
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	16.1	0.5	0.0	31.7
Cycle Q Clear(g_c), s	3.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	16.1	16.1	0.0	31.7
Prop In Lane	0.76		0.00	0.36		0.05	1.00		0.05	1.00		0.09
Lane Grp Cap(c), veh/h	247	0	0	222	0	0	98	0	1401	404	0	1281
V/C Ratio(X)	0.30	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.62	0.02	0.00	0.84
Avail Cap(c_a), veh/h	587	0	0	563	0	0	98	0	1401	404	0	1281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	31.3	0.0	0.0	0.0	0.0	4.7	8.4	0.0	6.7
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	2.0	0.1	0.0	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.0	0.0	3.7	0.0	0.0	0.0	0.0	6.6	0.1	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	0.0	0.0	33.2	0.0	0.0	0.0	0.0	6.7	8.5	0.0	13.6
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	B
Approach Vol, veh/h	74			116			862			1088		
Approach Delay, s/veh	31.1			33.2			6.7			13.6		
Approach LOS	C			C			A			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	60.0			13.3			60.0			13.3		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	53.0			24.0			53.0			24.0		
Max Q Clear Time (g_c+I1), s	18.1			5.0			33.7			7.2		
Green Ext Time (p_c), s	28.6			0.2			18.5			0.3		
Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.1	0.2	0.3
Total Del/Veh (s)		19.6	2.7	3.7	3.5

Movement	NB	NW	SW
Directions Served	LR>	LR	<L
Maximum Queue (ft)	4	13	34
Average Queue (ft)	1	3	18
95th Queue (ft)	5	20	43
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	3	8	843	1074	14
Future Volume (vph)	8	3	8	843	1074	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1731	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1731	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	8	3	8	869	1107	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	3	8	869	1107	14
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	3	8	843	1074	14
Future Vol, veh/h	8	3	8	843	1074	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	8	3	8	869	1107	14

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1992	1107	1121	0	-	0
Stage 1	1107	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	111	303	484	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	303	484	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	484	-	271	303	-	-
HCM Lane V/C Ratio	0.017	-	0.03	0.01	-	-
HCM Control Delay (s)	12.6	-	18.7	17	-	-
HCM Lane LOS	B	-	C	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	6	0	15	0	838	9	27	1096	1
Future Volume (vph)	0	0	0	6	0	15	0	838	9	27	1096	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.904			0.998				
Flt Protected					0.986					0.950		
Satd. Flow (prot)	0	1680	0	0	1367	0	1792	1752	0	1628	1697	0
Flt Permitted					0.986					0.950		
Satd. Flow (perm)	0	1680	0	0	1367	0	1792	1752	0	1628	1697	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	20%	0%	0%	0%	2%	13%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	6	0	15	0	855	9	28	1118	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	21	0	0	864	0	28	1119	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection													
Int Delay, s/veh	1.4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕		↕	↕		↕	↕		
Traffic Vol, veh/h	0	0	0	6	0	15	0	838	9	27	1096	1	
Future Vol, veh/h	0	0	0	6	0	15	0	838	9	27	1096	1	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-	
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-	
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-	
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98	
Heavy Vehicles, %	0	0	0	20	0	0	0	2	13	0	1	0	
Mvmt Flow	0	0	0	6	0	15	0	855	9	28	1118	1	

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow	All2042	2039	1119	2035	2035	860	1119	0	0	864	0	0		
Stage 1	1175	1175	-	860	860	-	-	-	-	-	-	-	-	-
Stage 2	867	864	-	1175	1175	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.7	7.9	6.9	4.3	-	-	4.3	-	-	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.7	6.9	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3.2	4	3.1	3	-	-	3	-	-	-	-
Pot Cap-1 Maneuver	45	57	263	18	26	316	485	-	-	600	-	-	-	-
Stage 1	257	268	-	256	269	-	-	-	-	-	-	-	-	-
Stage 2	388	374	-	147	170	-	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-	-	-
Mov Cap-1 Maneuver	41	54	263	17	25	316	485	-	-	600	-	-	-	-
Mov Cap-2 Maneuver	41	54	-	17	25	-	-	-	-	-	-	-	-	-
Stage 1	257	255	-	256	269	-	-	-	-	-	-	-	-	-
Stage 2	369	374	-	140	162	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	116.1	0	0.3
HCM LOS	A	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	485	-	-	-	52	600	-	-
HCM Lane V/C Ratio	-	-	-	-0.412	0.046	-	-	-
HCM Control Delay (s)	0	-	-	0	116.1	11.3	-	-
HCM Lane LOS	A	-	-	A	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	-	1.5	0.1	-	-

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	138	1	174	7	760	104	121	1022	5
Future Volume (vph)	3	2	5	138	1	174	7	760	104	121	1022	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.932			0.851			0.982			0.999	
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1725	0	1707	1575	0	1645	3174	0	1694	3352	0
Flt Permitted		0.911		0.751			0.270			0.241		
Satd. Flow (perm)	0	1595	0	1349	1575	0	467	3174	0	430	3352	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			179			24			1	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			315			470			989	
Travel Time (s)		17.6			8.6			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	2	5	142	1	179	7	784	107	125	1054	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	142	180	0	7	891	0	125	1059	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	23.0	23.0		23.0	23.0		53.0	53.0		14.0	67.0	
Total Split (%)	25.6%	25.6%		25.6%	25.6%		58.9%	58.9%		15.6%	74.4%	
Maximum Green (s)	17.0	17.0		17.0	17.0		45.0	45.0		7.0	59.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.06		0.62	0.43		0.03	0.51		0.30	0.45	
Control Delay		25.7		46.2	8.6		11.4	14.5		4.8	4.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		25.7		46.2	8.6		11.4	14.5		4.8	4.4	
Queue Length 50th (ft)		3		74	1		2	160		13	22	
Queue Length 95th (ft)		16		133	54		9	222		39	155	
Internal Link Dist (ft)		564			235			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		323		269	458		253	1735		416	2333	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.03		0.53	0.39		0.03	0.51		0.30	0.45	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	2	5	138	1	174	7	760	104	121	1022	5
Future Volume (veh/h)	3	2	5	138	1	174	7	760	104	121	1022	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1950	1950	1950	1822	1866	1866	1794	1766	1766	1986	1972	1972
Adj Flow Rate, veh/h	3	2	2	142	1	66	7	784	102	125	1054	5
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
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	2	0	1	1
Cap, veh/h	121	83	59	282	3	207	408	1816	236	521	2807	13
Arrive On Green	0.12	0.13	0.13	0.13	0.13	0.13	0.61	0.61	0.61	0.06	0.73	0.72
Sat Flow, veh/h	480	628	443	1453	24	1561	540	2986	388	1892	3824	18
Grp Volume(v), veh/h	7	0	0	142	0	67	7	441	445	125	516	543
Grp Sat Flow(s),veh/h/ln	1551	0	0	1453	0	1585	540	1678	1696	1892	1873	1969
Q Serve(g_s), s	0.0	0.0	0.0	4.9	0.0	3.4	0.5	12.5	12.6	1.9	9.1	9.1
Cycle Q Clear(g_c), s	3.4	0.0	0.0	7.8	0.0	3.4	0.5	12.5	12.6	1.9	9.1	9.1
Prop In Lane	0.43		0.29	1.00		0.99	1.00		0.23	1.00		0.01
Lane Grp Cap(c), veh/h	246	0	0	282	0	210	408	1021	1032	521	1375	1445
V/C Ratio(X)	0.03	0.00	0.00	0.50	0.00	0.32	0.02	0.43	0.43	0.24	0.38	0.38
Avail Cap(c_a), veh/h	356	0	0	380	0	317	408	1021	1032	578	1375	1445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	34.2	0.0	0.0	37.1	0.0	35.3	7.0	9.4	9.4	6.0	4.4	4.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.0	0.0	1.2	0.1	1.3	1.3	0.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.0	0.0	5.6	0.0	2.5	0.1	7.4	7.5	1.0	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	0.0	0.0	39.1	0.0	36.6	7.1	10.7	10.7	6.2	5.1	5.1
LnGrp LOS	C	A	A	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h	7			209			893			1184		
Approach Delay, s/veh	34.2			38.3			10.7			5.2		
Approach LOS	C			D			B			A		
Timer - Assigned Phs	1	2	4			6	8					
Phs Duration (G+Y+Rc), s	11.3	61.7	16.9			73.1	16.9					
Change Period (Y+Rc), s	7.0	8.0	6.0			8.0	6.0					
Max Green Setting (Gmax),s	45.0	17.0			59.0			17.0				
Max Q Clear Time (g_c+l1),s	4.4	15.0			11.6			10.3				
Green Ext Time (p_c), s	0.1	21.4			35.0			0.7				
Intersection Summary												
HCM 6th Ctrl Delay				10.4								
HCM 6th LOS				B								

McMahon Associates, Inc.
6: Lower York Rd & W. Bridge St/Kitchens Ln

Build Alternative 1
Weekday Afternoon Peak Hour

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	6	18	62	610	33	3	101	477	3	636	10
Future Volume (vph)	6	18	62	610	33	3	101	477	3	636	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.999					0.998	
Flt Protected	0.950			0.950	0.957		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1707	1720	0	1685	1756	1653	3341	0
Flt Permitted	0.950			0.950	0.957		0.264		0.950		
Satd. Flow (perm)	1710	1607	0	1707	1720	0	468	1756	1653	3341	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		206								2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	1%	0%	0%	1%	2%	0%	2%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	6	19	65	642	35	3	106	502	3	669	11
Shared Lane Traffic (%)				47%							
Lane Group Flow (vph)	6	84	0	340	340	0	106	502	3	680	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		28.0	28.0		14.0	35.0	14.0	35.0	
Total Split (%)	14.4%	14.4%		31.1%	31.1%		15.6%	38.9%	15.6%	38.9%	
Maximum Green (s)	7.0	7.0		22.0	22.0		7.0	28.0	7.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

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Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effct Green (s)	8.0	8.0		21.5	21.5		46.0	44.4	6.8	35.9	
Actuated g/C Ratio	0.09	0.09		0.24	0.24		0.51	0.49	0.08	0.40	
v/c Ratio	0.04	0.25		0.84	0.83		0.31	0.58	0.02	0.51	
Control Delay	38.2	1.9		51.2	50.5		7.8	11.7	29.3	38.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	38.2	1.9		51.2	50.5		7.8	11.7	29.3	38.7	
LOS	D	A		D	D		A	B	C	D	
Approach Delay					50.8			11.0		38.7	
Approach LOS					D			B		D	
Queue Length 50th (ft)	3	0		189	189		7	33	2	216	
Queue Length 95th (ft)	15	0		#328	#326		27	#427	m3	276	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	152	330		436	439		347	866	146	1333	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.04	0.25		0.78	0.77		0.31	0.58	0.02	0.51	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 29 (32%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 33.0

Intersection LOS: C

Intersection Capacity Utilization 72.2%

ICU Level of Service C

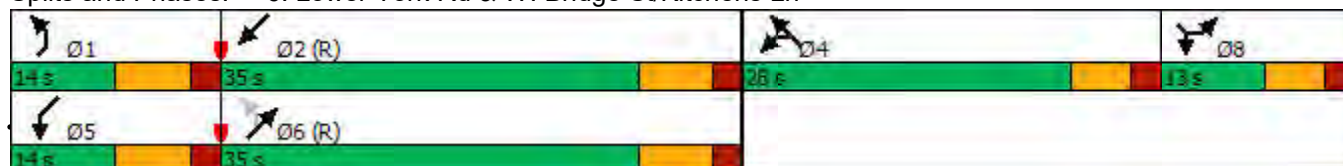
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	23	102	8	27	136	79	18	444	25	163	617	46
Future Volume (vph)	23	102	8	27	136	79	18	444	25	163	617	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.992			0.956			0.992			0.990	
Flt Protected		0.992			0.994		0.950			0.950		
Satd. Flow (prot)	0	1807	0	0	1685	0	1719	1761	0	1573	1758	0
Flt Permitted		0.891			0.950		0.315			0.443		
Satd. Flow (perm)	0	1623	0	0	1610	0	570	1761	0	733	1758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			26			6			7	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	104	8	28	139	81	18	453	26	166	630	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	135	0	0	248	0	18	479	0	166	677	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	23.0	23.0		23.0	23.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sugan Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.38			0.66		0.05	0.42		0.35	0.59	
Control Delay		31.2			36.9		0.4	2.0		10.9	12.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		31.2			36.9		0.4	2.0		10.9	12.6	
Queue Length 50th (ft)		63			115		0	3		40	200	
Queue Length 95th (ft)		110			185		m0	25		89	342	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)							75			140		
Base Capacity (vph)		435			448		368	1140		473	1138	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.31			0.55		0.05	0.42		0.35	0.59	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

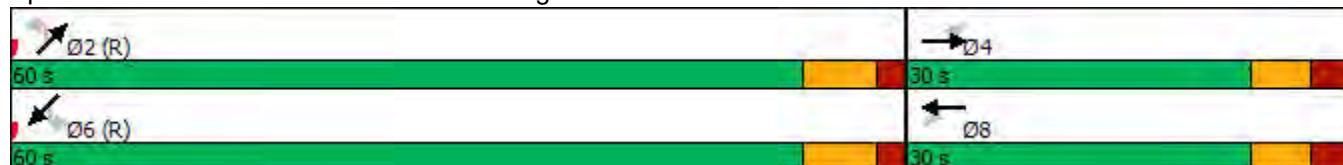
Offset: 39 (43%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sugas Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	23	102	8	27	136	79	18	444	25	163	617	46
Future Volume (veh/h)	23	102	8	27	136	79	18	444	25	163	617	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1949	1949	1949	1750	1750	1750	1837	1809	1809	1809	1809	1809
Adj Flow Rate, veh/h	23	104	5	28	139	47	18	453	21	166	630	44
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	2	2	2
Cap, veh/h	79	272	12	68	195	61	491	1195	55	734	1164	81
Arrive On Green	0.16	0.17	0.17	0.16	0.17	0.16	1.00	1.00	1.00	0.70	0.70	0.69
Sat Flow, veh/h	186	1596	70	134	1143	360	793	1715	80	939	1671	117
Grp Volume(v), veh/h	132	0	0	214	0	0	18	0	474	166	0	674
Grp Sat Flow(s),veh/h/ln	1853	0	0	1637	0	0	793	0	1795	939	0	1788
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.0	0.5	0.0	0.0	5.9	0.0	16.6
Cycle Q Clear(g_c), s	5.5	0.0	0.0	11.3	0.0	0.0	16.6	0.0	0.0	5.9	0.0	16.6
Prop In Lane	0.17		0.04	0.13		0.22	1.00		0.04	1.00		0.07
Lane Grp Cap(c), veh/h	342	0	0	306	0	0	491	0	1250	734	0	1245
V/C Ratio(X)	0.39	0.00	0.00	0.70	0.00	0.00	0.04	0.00	0.38	0.23	0.00	0.54
Avail Cap(c_a), veh/h	514	0	0	461	0	0	491	0	1250	734	0	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.80	0.00	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.4	0.0	0.0	35.8	0.0	0.0	2.1	0.0	0.0	5.0	0.0	6.7
Incr Delay (d2), s/veh	1.5	0.0	0.0	6.1	0.0	0.0	0.1	0.0	0.7	0.7	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.8	0.0	0.0	8.7	0.0	0.0	0.1	0.0	0.4	1.6	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	0.0	0.0	41.9	0.0	0.0	2.2	0.0	0.7	5.7	0.0	8.4
LnGrp LOS	C	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		132			214			492			840	
Approach Delay, s/veh		34.9			41.9			0.8			7.8	
Approach LOS		C			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		68.7		21.3		68.7		21.3				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		53.0		23.0		53.0		23.0				
Max Q Clear Time (g_c+I1), s		19.1		7.5		18.6		13.3				
Green Ext Time (p_c), s		19.1		0.7		26.9		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.2								
HCM 6th LOS				B								

McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 1
Weekday Afternoon Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	90	61	879	64	87	1058
Future Volume (vph)	90	61	879	64	87	1058
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3209	0	1661	3322
Flt Permitted	0.950				0.217	
Satd. Flow (perm)	1676	1500	3209	0	379	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		66	13			
Link Speed (mph)	25		45			45
Link Distance (ft)	343		989			397
Travel Time (s)	9.4		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	98	66	955	70	95	1150
Shared Lane Traffic (%)						
Lane Group Flow (vph)	98	66	1025	0	95	1150
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	20.0	20.0	56.0		14.0	70.0
Total Split (%)	22.2%	22.2%	62.2%		15.6%	77.8%
Maximum Green (s)	14.0	14.0	48.0		7.0	62.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

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McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 1
Weekday Afternoon Peak Hour

	←	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.46	0.27	0.48		0.24	0.44
Control Delay	42.8	11.9	5.0		5.4	7.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	42.8	11.9	5.0		5.4	7.8
Queue Length 50th (ft)	52	0	61		17	125
Queue Length 95th (ft)	97	35	57		m22	257
Internal Link Dist (ft)	263		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	279	305	2123		408	2600
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.35	0.22	0.48		0.23	0.44

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

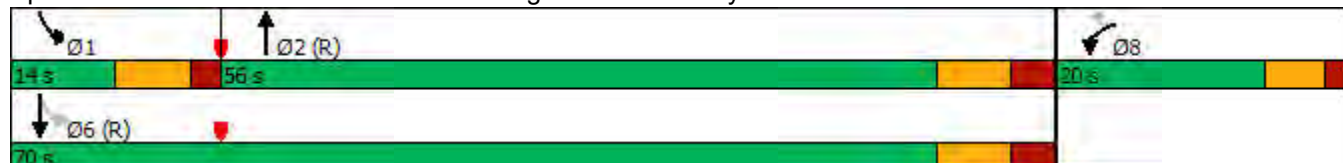
Offset: 22 (24%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

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

Splits and Phases: 8: Lower York Rd & Signalized Driveway



McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 1
Weekday Afternoon Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	90	61	879	64	87	1058
Future Volume (veh/h)	90	61	879	64	87	1058
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1958	1958
Adj Flow Rate, veh/h	98	66	955	70	95	1150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	162	144	2076	152	414	2868
Arrive On Green	0.10	0.10	0.22	0.21	0.05	0.77
Sat Flow, veh/h	1688	1502	3269	233	1865	3818
Grp Volume(v), veh/h	98	66	505	520	95	1150
Grp Sat Flow(s),veh/h/ln	1688	1502	1683	1730	1865	1860
Q Serve(g_s), s	5.0	3.7	23.5	23.5	1.3	9.2
Cycle Q Clear(g_c), s	5.0	3.7	23.5	23.5	1.3	9.2
Prop In Lane	1.00	1.00		0.13	1.00	
Lane Grp Cap(c), veh/h	162	144	1099	1129	414	2868
V/C Ratio(X)	0.61	0.46	0.46	0.46	0.23	0.40
Avail Cap(c_a), veh/h	281	250	1099	1129	484	2868
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.85	0.85	1.00	1.00
Uniform Delay (d), s/veh	39.1	38.5	21.5	21.5	7.9	3.4
Incr Delay (d2), s/veh	3.6	2.3	1.2	1.1	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.0	2.6	15.7	16.0	0.8	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.7	40.8	22.7	22.7	8.1	3.8
LnGrp LOS	D	D	C	C	A	A
Approach Vol, veh/h	164		1025			1245
Approach Delay, s/veh	41.9		22.7			4.2
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.6	65.8			76.4	13.6
Change Period (Y+Rc), s	7.0	8.0			8.0	6.0
Max Green Setting (Gmax),s	70	48.0			62.0	14.0
Max Q Clear Time (g_c+l1),s	38	26.0			11.7	7.5
Green Ext Time (p_c), s	0.1	6.3			10.0	0.2
Intersection Summary						
HCM 6th Ctrl Delay			14.5			
HCM 6th LOS			B			

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	32	2	44	23	5	2	839	59	3	749	40
Future Volume (vph)	69	32	2	44	23	5	2	839	59	3	749	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.991			0.990			0.992	
Flt Protected		0.968			0.970			0.950			0.950	
Satd. Flow (prot)	0	1565	0	0	1504	0	1686	1723	0	1645	1699	0
Flt Permitted		0.803			0.783			0.270			0.211	
Satd. Flow (perm)	0	1298	0	0	1214	0	479	1723	0	365	1699	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			7			5	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	11%	0%	5%	5%	0%	0%	2%	2%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	73	34	2	46	24	5	2	883	62	3	788	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	75	0	2	945	0	3	830	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.50			0.37		0.01	0.74		0.01	0.66	
Control Delay		37.4			32.6		5.0	13.7		5.3	11.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		37.4			32.6		5.0	13.7		5.3	11.0	
Queue Length 50th (ft)		48			31		0	261		0	203	
Queue Length 95th (ft)		96			69		3	#660		4	431	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		413			389		356	1282		271	1264	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.26			0.19		0.01	0.74		0.01	0.66	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.7

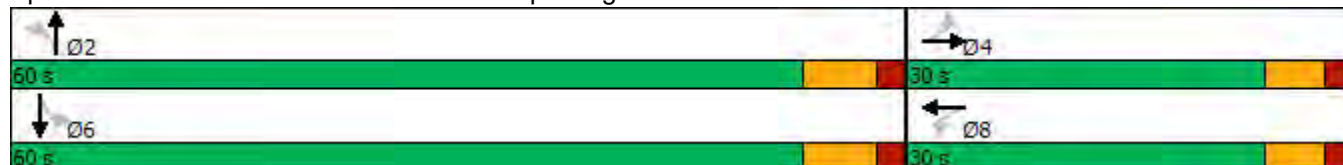
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 1
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	32	2	44	23	5	2	839	59	3	749	40
Future Volume (veh/h)	69	32	2	44	23	5	2	839	59	3	749	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1718	1718	1718	1590	1590	1590	1949	1921	1921	1794	1780	1780
Adj Flow Rate, veh/h	73	34	2	46	24	5	2	883	61	3	788	42
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
Percent Heavy Veh, %	11	11	11	5	5	5	0	2	2	0	1	1
Cap, veh/h	190	58	3	163	67	11	474	1315	91	394	1241	66
Arrive On Green	0.09	0.11	0.09	0.09	0.11	0.09	0.74	0.74	0.73	0.74	0.74	0.73
Sat Flow, veh/h	988	533	28	766	620	99	727	1776	123	601	1675	89
Grp Volume(v), veh/h	109	0	0	75	0	0	2	0	944	3	0	830
Grp Sat Flow(s),veh/h/ln	1550	0	0	1485	0	0	727	0	1899	601	0	1764
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	18.7	0.2	0.0	16.8
Cycle Q Clear(g_c), s	4.8	0.0	0.0	3.3	0.0	0.0	16.4	0.0	18.7	18.4	0.0	16.8
Prop In Lane	0.67		0.02	0.61		0.07	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	229	0	0	220	0	0	474	0	1406	394	0	1307
V/C Ratio(X)	0.48	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.67	0.01	0.00	0.64
Avail Cap(c_a), veh/h	567	0	0	533	0	0	474	0	1406	394	0	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	0.0	30.8	0.0	0.0	8.5	0.0	4.9	9.5	0.0	4.6
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	7.6	0.0	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	0.0	31.7	0.0	0.0	8.6	0.0	7.5	9.6	0.0	7.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		109			75			946			833	
Approach Delay, s/veh		32.9			31.7			7.5			7.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.0		12.9		60.0		12.9				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		53.0		24.0		53.0		24.0				
Max Q Clear Time (g_c+l1), s		20.7		6.8		20.9		5.3				
Green Ext Time (p_c), s		28.3		0.3		25.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				9.6								
HCM 6th LOS				A								

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.1	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)		12.1	3.1	3.5	3.5

Movement	NB	NW	SW
Directions Served	LR>	<LR	<L
Maximum Queue (ft)	6	4	42
Average Queue (ft)	1	2	19
95th Queue (ft)	7	10	48
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

Lanes, Volumes, Timings 3: Lower York Rd & Silvertail Ln
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Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	6	9	943	841	12
Future Vol, veh/h	18	6	9	943	841	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	19	6	10	1014	904	13
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1938	904	917	0	-	0
Stage 1	904	-	-	-	-	-
Stage 2	1034	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	119	390	574	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	117	390	574	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	17.6	0.1	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	574	-	282	390	-	-
HCM Lane V/C Ratio	0.017	-	0.069	0.017	-	-
HCM Control Delay (s)	11.4	-	18.7	14.4	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	0	0	24	1	986	2	17	858	0
Future Volume (vph)	1	0	0	0	0	24	1	986	2	17	858	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.865							
Flt Protected		0.950					0.950			0.950		
Satd. Flow (prot)	0	1596	0	0	1402	0	1703	1757	0	1628	1697	0
Flt Permitted		0.950					0.950			0.950		
Satd. Flow (perm)	0	1596	0	0	1402	0	1703	1757	0	1628	1697	0
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	0	0	25	1	1027	2	18	894	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	0	25	0	1	1029	0	18	894	0
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											

Intersection													
Int Delay, s/veh	0.4												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕			↕		↕	↕		↕	↕		
Traffic Vol, veh/h	1	0	0	0	0	24	1	986	2	17	858	0	
Future Vol, veh/h	1	0	0	0	0	24	1	986	2	17	858	0	
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free	
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None	
Storage Length	-	-	-	-	-	-	200	-	-	200	-	-	
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-	
Grade, %	-	0	-	-	7	-	-	-6	-	-	3	-	
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96	
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	0	
Mvmt Flow	1	0	0	0	0	25	1	1027	2	18	894	0	

Major/Minor	Minor2		Minor1		Major1		Major2							
Conflicting Flow All	1973	1961	894	1960	1960	1028	894	0	0	1029	0	0		
Stage 1	930	930	-	1030	1030	-	-	-	-	-	-	-	-	-
Stage 2	1043	1031	-	930	930	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	8.5	7.9	6.9	4.3	-	-	4.3	-	-	-	-
Critical Hdwy Stg 1	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	7.5	6.9	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-	-	-
Pot Cap-1 Maneuver	50	64	357	24	30	244	585	-	-	523	-	-	-	-
Stage 1	357	349	-	209	210	-	-	-	-	-	-	-	-	-
Stage 2	307	313	-	248	243	-	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-		
Mov Cap-1 Maneuver	44	62	357	23	29	244	585	-	-	523	-	-	-	-
Mov Cap-2 Maneuver	44	62	-	23	29	-	-	-	-	-	-	-	-	-
Stage 1	356	337	-	209	210	-	-	-	-	-	-	-	-	-
Stage 2	275	312	-	239	235	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	88.8		21.4		0		0.2	
HCM LOS	F		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	585	-	-	44	244	523	-	-
HCM Lane V/C Ratio	0.002	-	-	0.024	0.102	0.034	-	-
HCM Control Delay (s)	11.2	-	-	88.8	21.4	12.1	-	-
HCM Lane LOS	B	-	-	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0.1	-	-

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	3	6	122	3	255	5	822	151	223	825	14
Future Volume (vph)	10	3	6	122	3	255	5	822	151	223	825	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.957			0.852			0.977			0.998	
Flt Protected		0.974		0.950			0.950			0.950		
Satd. Flow (prot)	0	1751	0	1724	1577	0	1645	3156	0	1678	3349	0
Flt Permitted		0.653		0.745			0.334			0.210		
Satd. Flow (perm)	0	1174	0	1352	1577	0	578	3156	0	371	3349	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			258			34			4	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			315			470			989	
Travel Time (s)		17.6			8.6			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	2%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	3	6	123	3	258	5	830	153	225	833	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	123	261	0	5	983	0	225	847	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	23.0	23.0		23.0	23.0		53.0	53.0		14.0	67.0	
Total Split (%)	25.6%	25.6%		25.6%	25.6%		58.9%	58.9%		15.6%	74.4%	
Maximum Green (s)	17.0	17.0		17.0	17.0		45.0	45.0		7.0	59.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

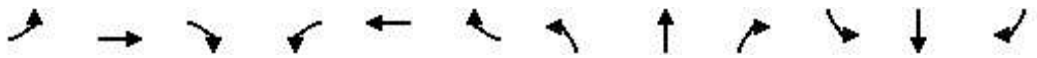
Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.12		0.55	0.55		0.02	0.57		0.59	0.36	
Control Delay		26.1		43.2	9.2		11.0	15.1		16.9	4.8	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		26.1		43.2	9.2		11.0	15.1		16.9	4.8	
Queue Length 50th (ft)		7		64	1		1	181		45	88	
Queue Length 95th (ft)		25		117	64		7	252		134	132	
Internal Link Dist (ft)		564			235			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		239		270	521		315	1737		380	2347	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.08		0.46	0.50		0.02	0.57		0.59	0.36	

Intersection Summary

Area Type: Other

Cycle Length: 90

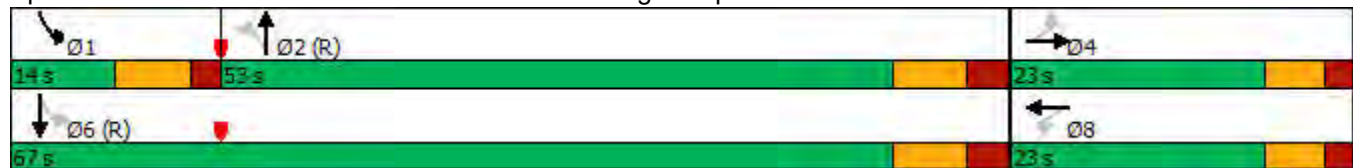
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 1
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	3	6	122	3	255	5	822	151	223	825	14
Future Volume (veh/h)	10	3	6	122	3	255	5	822	151	223	825	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1950	1950	1950	1837	1866	1866	1794	1766	1766	1972	1972	1972
Adj Flow Rate, veh/h	10	3	2	123	3	123	5	830	152	225	833	14
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	2	0	0	0	2	2	1	1	1
Cap, veh/h	116	35	13	269	5	202	468	1668	305	498	2775	47
Arrive On Green	0.12	0.13	0.13	0.13	0.13	0.13	0.59	0.59	0.59	0.08	0.74	0.72
Sat Flow, veh/h	375	266	99	1463	38	1549	659	2832	519	1878	3771	63
Grp Volume(v), veh/h	15	0	0	123	0	126	5	492	490	225	414	433
Grp Sat Flow(s),veh/h/ln	740	0	0	1463	0	1587	659	1678	1673	1878	1873	1961
Q Serve(g_s), s	0.1	0.0	0.0	1.0	0.0	6.7	0.3	15.3	15.3	3.7	6.7	6.7
Cycle Q Clear(g_c), s	6.8	0.0	0.0	7.3	0.0	6.7	0.3	15.3	15.3	3.7	6.7	6.7
Prop In Lane	0.67		0.13	1.00		0.98	1.00		0.31	1.00		0.03
Lane Grp Cap(c), veh/h	155	0	0	269	0	207	468	988	985	498	1379	1443
V/C Ratio(X)	0.10	0.00	0.00	0.46	0.00	0.61	0.01	0.50	0.50	0.45	0.30	0.30
Avail Cap(c_a), veh/h	260	0	0	371	0	317	468	988	985	514	1379	1443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	34.8	0.0	0.0	37.2	0.0	36.9	7.7	10.8	10.8	7.4	4.0	4.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.7	0.0	4.0	0.0	1.8	1.8	0.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	0.0	0.0	4.9	0.0	5.1	0.1	8.9	8.9	2.0	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	0.0	0.0	38.9	0.0	41.0	7.7	12.5	12.6	8.0	4.5	4.5
LnGrp LOS	D	A	A	D	A	D	A	B	B	A	A	A
Approach Vol, veh/h	15			249			987			1072		
Approach Delay, s/veh	35.1			40.0			12.5			5.3		
Approach LOS	D			D			B			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.2	60.0		16.8		73.2		16.8				
Change Period (Y+Rc), s	7.0	8.0		6.0		8.0		6.0				
Max Green Setting (Gmax),s	75.0	45.0		17.0		59.0		17.0				
Max Q Clear Time (g_c+l1),s	6.0	17.8		8.8		9.2		9.8				
Green Ext Time (p_c), s	0.1	21.3		0.0		28.9		1.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

											
Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Traffic Volume (vph)	12	26	92	646	24	6	73	498	6	500	7
Future Volume (vph)	12	26	92	646	24	6	73	498	6	500	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	14	14	14	14	12	12	11	12	12
Grade (%)					1%			1%		0%	
Storage Length (ft)	75	0		0		0	100		200		300
Storage Lanes	1	1		1		0	1		1		1
Taper Length (ft)	50			25			100		200		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor											
Frt		0.850			0.997					0.998	
Flt Protected	0.950			0.950	0.956		0.950		0.950		
Satd. Flow (prot)	1710	1607	0	1724	1730	0	1701	1756	1322	3380	0
Flt Permitted	0.950			0.950	0.956		0.344		0.950		
Satd. Flow (perm)	1710	1607	0	1724	1730	0	616	1756	1322	3380	0
Right Turn on Red			Yes			Yes					Yes
Satd. Flow (RTOR)		206			1					2	
Link Speed (mph)					35			45		45	
Link Distance (ft)					163			375		1460	
Travel Time (s)					3.2			5.7		22.1	
Confl. Peds. (#/hr)											
Confl. Bikes (#/hr)											
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%	0%	2%	25%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)											
Mid-Block Traffic (%)					0%			0%		0%	
Adj. Flow (vph)	13	27	96	673	25	6	76	519	6	521	7
Shared Lane Traffic (%)				48%							
Lane Group Flow (vph)	13	123	0	350	354	0	76	519	6	528	0
Number of Detectors	1	1		1	1		1	1	1	1	
Detector Template											
Leading Detector (ft)	37	37		37	37		37	336	37	356	
Trailing Detector (ft)	-3	-3		-3	-3		-3	330	-3	350	
Turn Type	Prot	Prot		Split	NA		pm+pt	NA	Prot	NA	
Protected Phases	8	8		4	4		1	6	5	2	
Permitted Phases							6				
Detector Phase	8	8		4	4		1	6	5	2	
Switch Phase											
Minimum Initial (s)	3.0	3.0		3.0	3.0		3.0	10.0	3.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		10.0	17.0	10.0	17.0	
Total Split (s)	13.0	13.0		28.0	28.0		14.0	35.0	14.0	35.0	
Total Split (%)	14.4%	14.4%		31.1%	31.1%		15.6%	38.9%	15.6%	38.9%	
Maximum Green (s)	7.0	7.0		22.0	22.0		7.0	28.0	7.0	28.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

6: Lower York Rd & W. Bridge St/Kitchens Ln

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Lane Group	SEL	SER	SER2	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Total Lost Time (s)	5.0	5.0		5.0	5.0		6.0	6.0	6.0	6.0	
Lead/Lag							Lead	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	
Vehicle Extension (s)	5.0	5.0		3.0	3.0		3.0	5.0	3.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	2.7	3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	35.0	0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	15.0	0.0	15.0	
Recall Mode	None	None		None	None		None	C-Max	None	C-Max	
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
Act Effct Green (s)	8.0	8.0		21.7	21.7		43.1	41.5	7.0	33.1	
Actuated g/C Ratio	0.09	0.09		0.24	0.24		0.48	0.46	0.08	0.37	
v/c Ratio	0.09	0.37		0.84	0.85		0.20	0.64	0.06	0.42	
Control Delay	39.2	3.6		51.6	52.0		11.9	17.8	35.7	37.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	39.2	3.6		51.6	52.0		11.9	17.8	35.7	37.0	
LOS	D	A		D	D		B	B	D	D	
Approach Delay					51.8			17.0		36.9	
Approach LOS					D			B		D	
Queue Length 50th (ft)	7	0		195	197		7	49	3	160	
Queue Length 95th (ft)	25	4		#341	#345		m40	#458	m7	210	
Internal Link Dist (ft)					83			295		1380	
Turn Bay Length (ft)	75						100		200		
Base Capacity (vph)	152	330		440	442		390	808	117	1244	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	
Reduced v/c Ratio	0.09	0.37		0.80	0.80		0.19	0.64	0.05	0.42	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 29 (32%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 34.2

Intersection LOS: C

Intersection Capacity Utilization 76.8%

ICU Level of Service D

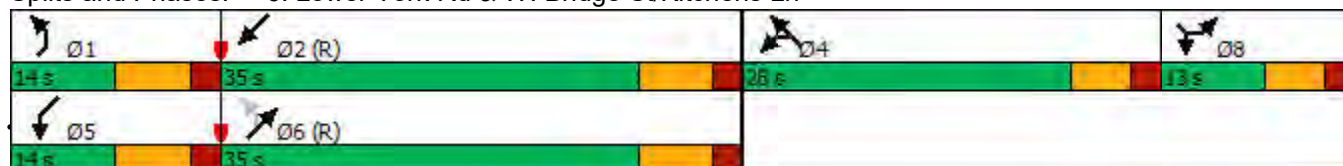
Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 6: Lower York Rd & W. Bridge St/Kitchens Ln



McMahon Associates, Inc.
7: Lower York Rd & Sugan Rd

Build Alternative 1
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	43	121	17	61	149	161	17	481	36	120	421	27
Future Volume (vph)	43	121	17	61	149	161	17	481	36	120	421	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	0		0	0		0	75		0	140		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.987			0.941			0.990			0.991	
Flt Protected		0.988			0.992		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1648	0	1719	1742	0	1588	1760	0
Flt Permitted		0.776			0.911		0.429			0.376		
Satd. Flow (perm)	0	1397	0	0	1514	0	776	1742	0	629	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			45			7			6	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	44	125	18	63	154	166	18	496	37	124	434	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	187	0	0	383	0	18	533	0	124	462	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	35.0	35.0		35.0	35.0		55.0	55.0		55.0	55.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		61.1%	61.1%		61.1%	61.1%	
Maximum Green (s)	28.0	28.0		28.0	28.0		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sugan Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.46			0.81		0.04	0.53		0.34	0.45	
Control Delay		28.5			40.5		0.9	3.4		14.5	13.3	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		28.5			40.5		0.9	3.4		14.5	13.3	
Queue Length 50th (ft)		81			173		0	13		37	147	
Queue Length 95th (ft)		140			#290		m1	m61		80	229	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)							75			140		
Base Capacity (vph)		454			518		447	1007		362	1017	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.41			0.74		0.04	0.53		0.34	0.45	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 39 (43%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 55

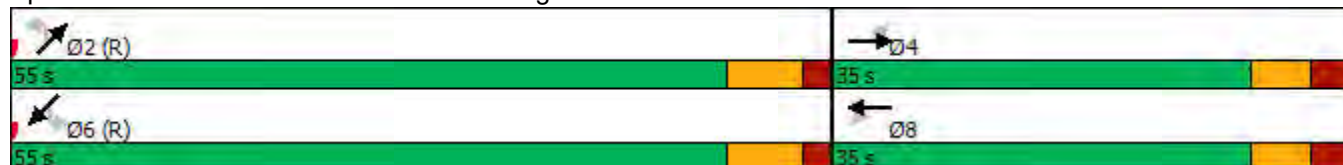
Control Type: Actuated-Coordinated

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: Lower York Rd & Sugan Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	43	121	17	61	149	161	17	481	36	120	421	27
Future Volume (veh/h)	43	121	17	61	149	161	17	481	36	120	421	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1935	1935	1935	1736	1736	1736	1837	1795	1795	1823	1809	1809
Adj Flow Rate, veh/h	44	125	7	63	154	142	18	496	37	124	434	26
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
Percent Heavy Veh, %	1	1	1	1	1	1	0	3	3	1	2	2
Cap, veh/h	119	320	16	103	198	166	527	984	73	615	1008	60
Arrive On Green	0.26	0.27	0.27	0.26	0.27	0.26	1.00	1.00	1.00	0.60	0.60	0.59
Sat Flow, veh/h	255	1184	60	207	734	616	966	1649	123	896	1689	101
Grp Volume(v), veh/h	176	0	0	359	0	0	18	0	533	124	0	460
Grp Sat Flow(s),veh/h/ln	1499	0	0	1558	0	0	966	0	1772	896	0	1791
Q Serve(g_s), s	0.0	0.0	0.0	12.7	0.0	0.0	0.4	0.0	0.0	5.8	0.0	12.6
Cycle Q Clear(g_c), s	7.2	0.0	0.0	19.9	0.0	0.0	12.4	0.0	0.0	5.8	0.0	12.6
Prop In Lane	0.25		0.04	0.18		0.40	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	438	0	0	450	0	0	527	0	1058	615	0	1069
V/C Ratio(X)	0.40	0.00	0.00	0.80	0.00	0.00	0.03	0.00	0.50	0.20	0.00	0.43
Avail Cap(c_a), veh/h	525	0	0	530	0	0	527	0	1058	615	0	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.74	0.00	0.74	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.6	0.0	0.0	31.3	0.0	0.0	1.4	0.0	0.0	8.5	0.0	9.9
Incr Delay (d2), s/veh	1.3	0.0	0.0	9.4	0.0	0.0	0.1	0.0	1.3	0.7	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	0.0	13.5	0.0	0.0	0.0	0.0	0.7	1.9	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	0.0	40.7	0.0	0.0	1.5	0.0	1.3	9.2	0.0	11.1
LnGrp LOS	C	A	A	D	A	A	A	A	A	A	A	B
Approach Vol, veh/h		176			359			551			584	
Approach Delay, s/veh		27.8			40.7			1.3			10.7	
Approach LOS		C			D			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		59.7		30.3		59.7		30.3				
Change Period (Y+Rc), s		7.0		7.0		7.0		7.0				
Max Green Setting (Gmax), s		48.0		28.0		48.0		28.0				
Max Q Clear Time (g_c+l1), s		14.9		9.2		14.6		21.9				
Green Ext Time (p_c), s		20.9		1.2		19.0		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	81	56	1004	76	111	981
Future Volume (vph)	81	56	1004	76	111	981
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3206	0	1661	3322
Flt Permitted	0.950				0.171	
Satd. Flow (perm)	1676	1500	3206	0	299	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		61	14			
Link Speed (mph)	25		45			45
Link Distance (ft)	343		989			397
Travel Time (s)	9.4		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	88	61	1091	83	121	1066
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	61	1174	0	121	1066
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	20.0	20.0	56.0		14.0	70.0
Total Split (%)	22.2%	22.2%	62.2%		15.6%	77.8%
Maximum Green (s)	14.0	14.0	48.0		7.0	62.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

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	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.43	0.26	0.59		0.35	0.41
Control Delay	42.2	12.2	7.0		6.1	4.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	42.2	12.2	7.0		6.1	4.8
Queue Length 50th (ft)	47	0	66		6	34
Queue Length 95th (ft)	89	34	363		m47	230
Internal Link Dist (ft)	263		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	279	300	1992		354	2613
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.32	0.20	0.59		0.34	0.41

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

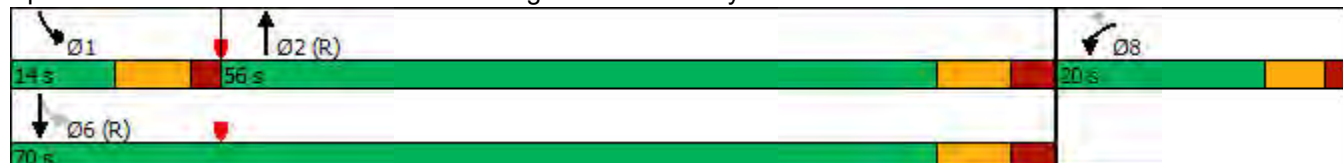
Offset: 22 (24%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

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

Splits and Phases: 8: Lower York Rd & Signalized Driveway



McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 1
Saturday Midday Peak Hour

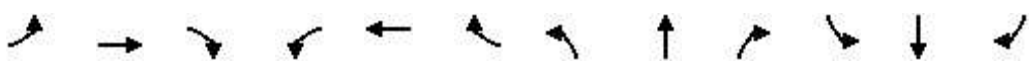
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	81	56	1004	76	111	981
Future Volume (veh/h)	81	56	1004	76	111	981
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1958	1958
Adj Flow Rate, veh/h	88	61	1091	83	121	1066
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	151	134	2077	158	369	2891
Arrive On Green	0.09	0.09	0.22	0.21	0.06	0.78
Sat Flow, veh/h	1688	1502	3259	241	1865	3818
Grp Volume(v), veh/h	88	61	579	595	121	1066
Grp Sat Flow(s),veh/h/ln	1688	1502	1683	1729	1865	1860
Q Serve(g_s), s	4.5	3.5	27.4	27.4	1.6	8.1
Cycle Q Clear(g_c), s	4.5	3.5	27.4	27.4	1.6	8.1
Prop In Lane	1.00	1.00		0.14	1.00	
Lane Grp Cap(c), veh/h	151	134	1103	1132	369	2891
V/C Ratio(X)	0.58	0.45	0.53	0.53	0.33	0.37
Avail Cap(c_a), veh/h	281	250	1103	1132	431	2891
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.80	0.80	1.00	1.00
Uniform Delay (d), s/veh	39.4	38.9	22.9	22.9	9.7	3.1
Incr Delay (d2), s/veh	3.5	2.4	1.4	1.4	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.6	2.5	17.7	18.1	1.4	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.9	41.3	24.3	24.3	10.2	3.5
LnGrp LOS	D	D	C	C	B	A
Approach Vol, veh/h	149		1174			1187
Approach Delay, s/veh	42.2		24.3			4.2
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.0	66.0			77.0	13.0
Change Period (Y+Rc), s	7.0	8.0			8.0	6.0
Max Green Setting (Gmax),s	48.0				62.0	14.0
Max Q Clear Time (g_c+l1),s	29.9				10.6	7.0
Green Ext Time (p_c), s	0.1	6.9			8.9	0.2
Intersection Summary						
HCM 6th Ctrl Delay			15.9			
HCM 6th LOS			B			

Appendix J

Build Alternative 2 Future (2040) with Development Capacity/Level-of-Service Analysis Worksheets

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	79	54	0	39	8	1	1	935	36	1	508	8
Future Volume (vph)	79	54	0	39	8	1	1	935	36	1	508	8
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.997			0.994			0.998	
Flt Protected		0.971			0.961		0.950			0.950		
Satd. Flow (prot)	0	1625	0	0	1569	0	1686	1715	0	1645	1659	0
Flt Permitted		0.788			0.728		0.414			0.138		
Satd. Flow (perm)	0	1319	0	0	1189	0	735	1715	0	239	1659	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					1			4			2	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	0%	0%	0%	3%	0%	0%	4%	14%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	84	57	0	41	9	1	1	995	38	1	540	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	141	0	0	51	0	1	1033	0	1	549	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Morning Peak Hour

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.59			0.23		0.00	0.89		0.01	0.49	
Control Delay		39.7			29.4		6.0	23.5		6.0	8.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		39.7			29.4		6.0	23.5		6.0	8.7	
Queue Length 50th (ft)		65			21		0	353		0	111	
Queue Length 95th (ft)		120			51		2	#804		2	231	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		414			374		498	1164		162	1125	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.34			0.14		0.00	0.89		0.01	0.49	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 79.8

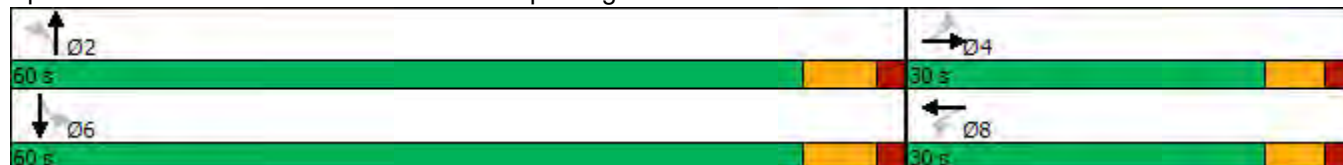
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	54	0	39	8	1	1	935	36	1	508	8
Future Volume (veh/h)	79	54	0	39	8	1	1	935	36	1	508	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1846	1846	1846	1660	1660	1660	1949	1906	1906	1794	1738	1738
Adj Flow Rate, veh/h	84	57	0	41	9	1	1	995	38	1	540	9
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
Percent Heavy Veh, %	2	2	2	0	0	0	0	3	3	0	4	4
Cap, veh/h	193	90	0	215	40	3	671	1327	51	322	1240	21
Arrive On Green	0.11	0.12	0.00	0.11	0.12	0.11	0.73	0.73	0.71	0.73	0.73	0.71
Sat Flow, veh/h	929	729	0	1026	321	27	944	1824	70	553	1705	28
Grp Volume(v), veh/h	141	0	0	51	0	0	1	0	1033	1	0	549
Grp Sat Flow(s),veh/h/ln	1658	0	0	1374	0	0	944	0	1894	553	0	1733
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.3	0.1	0.0	9.4
Cycle Q Clear(g_c), s	6.0	0.0	0.0	2.4	0.0	0.0	8.9	0.0	24.3	23.9	0.0	9.4
Prop In Lane	0.60		0.00	0.80		0.02	1.00		0.04	1.00		0.02
Lane Grp Cap(c), veh/h	261	0	0	240	0	0	671	0	1378	322	0	1261
V/C Ratio(X)	0.54	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.44
Avail Cap(c_a), veh/h	601	0	0	520	0	0	671	0	1378	322	0	1261
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.3	0.0	0.0	29.9	0.0	0.0	5.7	0.0	6.1	13.1	0.0	4.0
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.4	0.0	0.0	0.0	0.0	3.8	0.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	10.2	0.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	0.0	30.3	0.0	0.0	5.7	0.0	9.9	13.1	0.0	5.1
LnGrp LOS	C	A	A	C	A	A	A	A	A	B	A	A
Approach Vol, veh/h	141			51			1034			550		
Approach Delay, s/veh	33.0			30.3			9.8			5.1		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	60.0			14.2			60.0			14.2		
Change Period (Y+Rc), s	7.0			6.0			7.0			6.0		
Max Green Setting (Gmax), s	53.0			24.0			53.0			24.0		
Max Q Clear Time (g_c+I1), s	26.3			8.0			26.4			4.4		
Green Ext Time (p_c), s	24.9			0.3			15.5			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	10.8											
HCM 6th LOS	B											

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.2	0.1	0.3
Total Del/Veh (s)		19.0	3.5	2.3	3.6

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	LR	<L
Maximum Queue (ft)	4	21	23
Average Queue (ft)	1	5	9
95th Queue (ft)	5	22	30
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	9	1	1042	525	5
Future Volume (vph)	8	9	1	1042	525	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1664	1682	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1664	1682	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	9	10	1	1109	559	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	10	1	1109	559	5
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	9	1	1042	525	5
Future Vol, veh/h	8	9	1	1042	525	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	3	5	0
Mvmt Flow	9	10	1	1109	559	5

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1670	559	564
Stage 1	559	-	-
Stage 2	1111	-	-
Critical Hdwy	5.6	5.8	4.3
Critical Hdwy Stg 1	4.6	-	-
Critical Hdwy Stg 2	4.6	-	-
Follow-up Hdwy	3	3.1	3
Pot Cap-1 Maneuver	165	594	767
Stage 1	735	-	-
Stage 2	445	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	165	594	767
Mov Cap-2 Maneuver	322	-	-
Stage 1	734	-	-
Stage 2	445	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	767	-	322	594	-	-
HCM Lane V/C Ratio	0.001	-	0.026	0.016	-	-
HCM Control Delay (s)	9.7	-	16.5	11.2	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	21	0	17	0	953	111	7	507	0
Future Volume (vph)	0	0	0	21	0	17	0	953	111	7	507	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	200		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.850			0.984				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1680	0	1540	1378	0	1792	1717	0	1628	1648	0
Flt Permitted				0.757						0.201		
Satd. Flow (perm)	0	1680	0	1227	1378	0	1792	1717	0	344	1648	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					203			19				
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	21	0	17	0	972	113	7	517	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	21	17	0	0	1085	0	7	517	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left											
Leading Detector (ft)	20	35		35	35		6	336		6	336	
Trailing Detector (ft)	0	-5		-5	-5		0	0		0	0	
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.0	18.0		18.0	18.0	
Total Split (s)	15.0	15.0		15.0	15.0		75.0	75.0		75.0	75.0	
Total Split (%)	16.7%	16.7%		16.7%	16.7%		83.3%	83.3%		83.3%	83.3%	
Maximum Green (s)	9.0	9.0		9.0	9.0		67.0	67.0		67.0	67.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

4: Lower York Rd & Private Driveway/Reeder Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio				0.19	0.06		0.73			0.02	0.36	
Control Delay				41.3	0.4		9.3			0.7	2.6	
Queue Delay				0.0	0.0		0.0			0.0	0.0	
Total Delay				41.3	0.4		9.3			0.7	2.6	
Queue Length 50th (ft)				11	0		280			0	6	
Queue Length 95th (ft)				34	0		558			m1	47	
Internal Link Dist (ft)		247			507		2444				563	
Turn Bay Length (ft)				200						200		
Base Capacity (vph)				136	333		1478			295	1417	
Starvation Cap Reductn				0	0		0			0	0	
Spillback Cap Reductn				0	0		0			0	0	
Storage Cap Reductn				0	0		0			0	0	
Reduced v/c Ratio				0.15	0.05		0.73			0.02	0.36	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

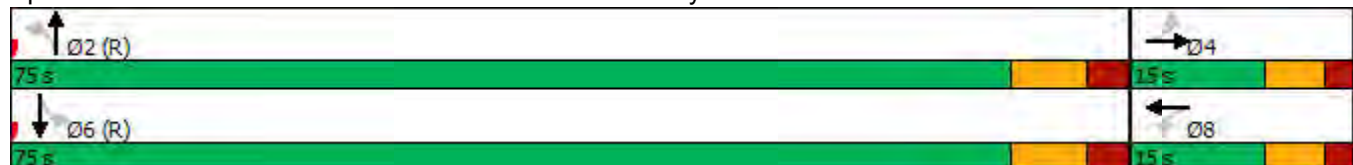
Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 4: Lower York Rd & Private Driveway/Reeder Rd



4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	21	0	17	0	953	111	7	507	0
Future Volume (veh/h)	0	0	0	21	0	17	0	953	111	7	507	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1800	1800	1800	1527	1527	1527	2024	1981	1981	1750	1694	1694
Adj Flow Rate, veh/h	0	0	0	21	0	17	0	972	113	7	517	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	3	3	0	4	4
Cap, veh/h	0	67	0	134	0	48	80	1445	168	398	1405	0
Arrive On Green	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.83	0.82	0.83	0.83	0.00
Sat Flow, veh/h	0	1800	0	1454	0	1294	1010	1742	203	513	1694	0
Grp Volume(v), veh/h	0	0	0	21	0	17	0	0	1085	7	517	0
Grp Sat Flow(s),veh/h/ln	0	1800	0	1454	0	1294	1010	0	1944	513	1694	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	1.2	0.0	0.0	19.4	0.5	6.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	1.3	0.0	1.2	0.0	0.0	19.4	19.4	6.7	0.0
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.10	1.00		0.00
Lane Grp Cap(c), veh/h	0	67	0	134	0	48	80	0	1613	398	1405	0
V/C Ratio(X)	0.00	0.00	0.00	0.16	0.00	0.36	0.00	0.00	0.67	0.02	0.37	0.00
Avail Cap(c_a), veh/h	0	200	0	242	0	144	80	0	1613	398	1405	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	42.3	0.0	42.8	0.0	0.0	3.0	6.6	1.9	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	4.4	0.0	0.0	2.3	0.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.8	0.0	0.8	0.0	0.0	5.0	0.1	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	42.9	0.0	47.2	0.0	0.0	5.2	6.7	2.6	0.0
LnGrp LOS	A	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	0			38			1085			524		
Approach Delay, s/veh	0.0			44.8			5.2			2.7		
Approach LOS				D			A			A		
Timer - Assigned Phs	2			4		6		8				
Phs Duration (G+Y+Rc), s	81.7			8.3		81.7		8.3				
Change Period (Y+Rc), s	8.0			6.0		8.0		6.0				
Max Green Setting (Gmax), s	67.0			9.0		67.0		9.0				
Max Q Clear Time (g_c+I1), s	21.4			0.0		21.9		3.8				
Green Ext Time (p_c), s	33.8			0.0		11.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				5.3								
HCM 6th LOS				A								

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	6	86	1	20	3	768	192	29	433	6
Future Volume (vph)	9	1	6	86	1	20	3	768	192	29	433	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.949			0.857			0.970			0.998	
Flt Protected		0.973		0.950			0.950			0.950		
Satd. Flow (prot)	0	1735	0	1490	1586	0	1645	3092	0	1694	3253	0
Flt Permitted		0.862		0.747			0.493			0.229		
Satd. Flow (perm)	0	1537	0	1172	1586	0	854	3092	0	408	3253	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			20			48			3	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			398			470			989	
Travel Time (s)		17.6			10.9			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	18%	0%	0%	0%	2%	8%	0%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	9	1	6	88	1	20	3	784	196	30	442	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	88	21	0	3	980	0	30	448	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	25.0	25.0		25.0	25.0		51.0	51.0		14.0	65.0	
Total Split (%)	27.8%	27.8%		27.8%	27.8%		56.7%	56.7%		15.6%	72.2%	
Maximum Green (s)	19.0	19.0		19.0	19.0		43.0	43.0		7.0	57.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.09		0.49	0.08		0.01	0.47		0.07	0.18	
Control Delay		26.2		42.7	13.8		7.0	6.8		4.0	3.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		26.2		42.7	13.8		7.0	6.8		4.0	3.4	
Queue Length 50th (ft)		5		46	1		1	105		2	15	
Queue Length 95th (ft)		21		87	19		m1	185		16	68	
Internal Link Dist (ft)		564			318			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		346		260	368		570	2082		421	2463	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.05		0.34	0.06		0.01	0.47		0.07	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

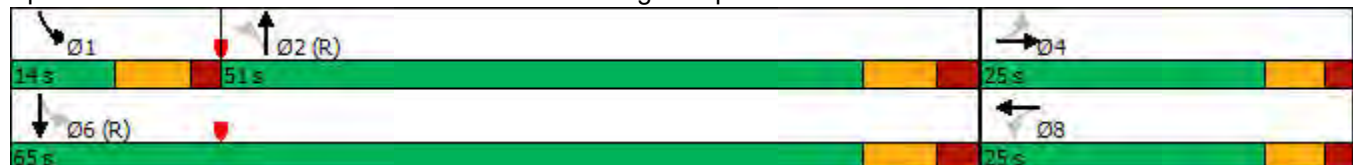
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 50

Control Type: Actuated-Coordinated

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

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Weekday Morning Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	1	6	86	1	20	3	768	192	29	433	6
Future Volume (veh/h)	9	1	6	86	1	20	3	768	192	29	433	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1950	1950	1950	1603	1866	1866	1794	1766	1766	1986	1929	1929
Adj Flow Rate, veh/h	9	1	4	88	1	10	3	784	196	30	442	6
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
Percent Heavy Veh, %	0	0	0	18	0	0	0	2	2	0	4	4
Cap, veh/h	155	28	47	209	15	147	720	1783	446	477	2836	38
Arrive On Green	0.09	0.10	0.10	0.10	0.10	0.10	0.67	0.67	0.67	0.03	0.77	0.75
Sat Flow, veh/h	888	278	466	1277	146	1458	954	2660	665	1892	3703	50
Grp Volume(v), veh/h	14	0	0	88	0	11	3	495	485	30	219	229
Grp Sat Flow(s),veh/h/ln	1632	0	0	1277	0	1604	954	1678	1647	1892	1833	1920
Q Serve(g_s), s	0.0	0.0	0.0	5.8	0.0	0.6	0.1	12.4	12.4	0.4	2.9	2.9
Cycle Q Clear(g_c), s	0.6	0.0	0.0	6.0	0.0	0.6	0.1	12.4	12.4	0.4	2.9	2.9
Prop In Lane	0.64		0.29	1.00		0.91	1.00		0.40	1.00		0.03
Lane Grp Cap(c), veh/h	212	0	0	209	0	162	720	1125	1104	477	1404	1471
V/C Ratio(X)	0.07	0.00	0.00	0.42	0.00	0.07	0.00	0.44	0.44	0.06	0.16	0.16
Avail Cap(c_a), veh/h	406	0	0	364	0	356	720	1125	1104	591	1404	1471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	36.9	0.0	0.0	39.0	0.0	36.6	4.9	6.9	6.9	4.7	2.8	2.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	1.9	0.0	0.2	0.0	1.2	1.3	0.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	0.0	0.0	3.6	0.0	0.4	0.0	6.6	6.5	0.2	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	0.0	41.0	0.0	36.9	4.9	8.2	8.2	4.8	3.0	3.0
LnGrp LOS	D	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	14			99			983			478		
Approach Delay, s/veh	37.1			40.5			8.2			3.1		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	1	2	4		6		8					
Phs Duration (G+Y+Rc), s	8.6	67.3	14.1		75.9		14.1					
Change Period (Y+Rc), s	7.0	8.0	6.0		8.0		6.0					
Max Green Setting (Gmax),s	43.0	19.0		57.0		19.0						
Max Q Clear Time (g_c+l1)2s	14.9	2.6		5.4		8.5						
Green Ext Time (p_c), s	0.0	21.9	0.0		13.8		0.4					
Intersection Summary												
HCM 6th Ctrl Delay	8.9											
HCM 6th LOS	A											

HCM 6th Signalized Intersection Summary

5: Lower York Rd & Shire Dr/Logan Square

I:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Route 202 - Transportation Master Plan\chro4 - Build Alternative 2

						
Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	14	48	7	638	414	0
Future Volume (vph)	14	48	7	638	414	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	12	12	12	12
Grade (%)	0%			1%	0%	
Storage Length (ft)	75	0	0			300
Storage Lanes	1	1	1			1
Taper Length (ft)	50		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850				
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1710	1600	1701	1756	3257	0
Flt Permitted	0.950		0.462			
Satd. Flow (perm)	1710	1600	827	1756	3257	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		49				
Link Speed (mph)	35			45	45	
Link Distance (ft)	647			375	1460	
Travel Time (s)	12.6			5.7	22.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	14	49	7	651	422	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	49	7	651	422	0
Number of Detectors	1	1	1	2	2	
Detector Template		Right				
Leading Detector (ft)	37	20	37	336	356	
Trailing Detector (ft)	-3	0	-3	0	0	
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	8		1	6	2	
Permitted Phases		8	6			
Detector Phase	8	8	1	6	2	
Switch Phase						
Minimum Initial (s)	3.0	3.0	3.0	10.0	10.0	
Minimum Split (s)	9.0	9.0	10.0	17.0	17.0	
Total Split (s)	20.0	20.0	14.0	70.0	56.0	
Total Split (%)	22.2%	22.2%	15.6%	77.8%	62.2%	
Maximum Green (s)	14.0	14.0	7.0	63.0	49.0	
Yellow Time (s)	4.0	4.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

6: Lower York Rd & Kitchens Ln

I:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Route 202 - Transportation Master Plan\chro4 - Build Alternative 2



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	5.0	5.0	3.0	5.0	5.0	
Minimum Gap (s)	3.0	3.0	3.0	2.7	2.7	
Time Before Reduce (s)	0.0	0.0	0.0	35.0	35.0	
Time To Reduce (s)	0.0	0.0	0.0	15.0	15.0	
Recall Mode	None	None	None	C-Max	C-Max	
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.08	0.23	0.01	0.43	0.16	
Control Delay	36.5	13.8	0.3	1.6	3.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	36.5	13.8	0.3	1.6	3.1	
Queue Length 50th (ft)	7	0	0	11	21	
Queue Length 95th (ft)	25	32	m0	22	64	
Internal Link Dist (ft)	567			295	1380	
Turn Bay Length (ft)	75					
Base Capacity (vph)	285	307	765	1507	2703	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.16	0.01	0.43	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

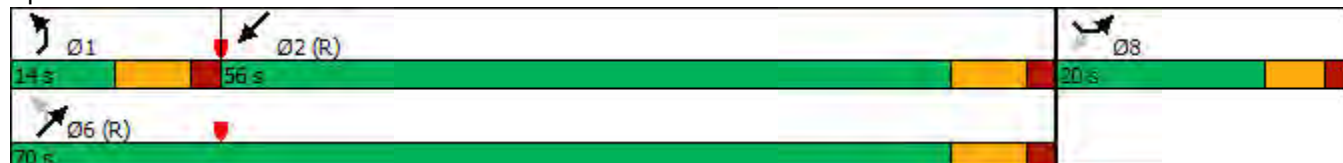
Offset: 31 (34%), Referenced to phase 2:SWT and 6:NETL, Start of Green

Natural Cycle: 40

Control Type: Actuated-Coordinated

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

Splits and Phases: 6: Lower York Rd & Kitchens Ln





Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	14	48	7	638	414	0
Future Volume (veh/h)	14	48	7	638	414	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1843	1794	1766	1730	1730
Adj Flow Rate, veh/h	14	49	7	651	422	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	0	2	5	5
Cap, veh/h	101	92	827	1447	2419	0
Arrive On Green	0.06	0.06	0.02	0.82	1.00	0.00
Sat Flow, veh/h	1714	1562	1709	1766	3460	0
Grp Volume(v), veh/h	14	49	7	651	422	0
Grp Sat Flow(s),veh/h/ln	1714	1562	1709	1766	1643	0
Q Serve(g_s), s	0.7	2.7	0.1	9.5	0.0	0.0
Cycle Q Clear(g_c), s	0.7	2.7	0.1	9.5	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	101	92	827	1447	2419	0
V/C Ratio(X)	0.14	0.53	0.01	0.45	0.17	0.00
Avail Cap(c_a), veh/h	286	260	951	1447	2419	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.95	0.00
Uniform Delay (d), s/veh	40.2	41.2	2.2	2.3	0.0	0.0
Incr Delay (d2), s/veh	1.3	9.9	0.0	1.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	2.3	0.0	2.5	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.5	51.1	2.2	3.3	0.1	0.0
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	63			658	422	
Approach Delay, s/veh	49.0			3.3	0.1	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.5	72.2			79.7	10.3
Change Period (Y+Rc), s	7.0	7.0			7.0	6.0
Max Green Setting (Gmax),s	49.0				63.0	14.0
Max Q Clear Time (g_c+l1)2s	2.5				12.0	5.2
Green Ext Time (p_c), s	0.0	13.8			24.5	0.2
Intersection Summary						
HCM 6th Ctrl Delay			4.7			
HCM 6th LOS			A			

McMahon Associates, Inc.
7: Lower York Rd & Sugan Rd

Build Alternative 2
Weekday Morning Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	151	5	45	39	155	3	635	11	63	358	6
Future Volume (vph)	53	151	5	45	39	155	3	635	11	63	358	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	75		0	75		0	75		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.880			0.998			0.997	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1744	1775	0	1684	1536	0	1292	1771	0	1573	1719	0
Flt Permitted	0.473			0.574			0.501			0.303		
Satd. Flow (perm)	868	1775	0	1018	1536	0	681	1771	0	502	1719	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			174			1			2	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	4%	1%	33%	2%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	60	170	6	51	44	174	3	713	12	71	402	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	176	0	51	218	0	3	725	0	71	409	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	35.0	35.0		35.0	35.0		55.0	55.0		55.0	55.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		61.1%	61.1%		61.1%	61.1%	
Maximum Green (s)	28.0	28.0		28.0	28.0		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sugan Rd

I:\eng\819079 - Solebury Transportation Master Plan\Traffic\2-Analysis\Route 202 - Transportation Master Plan\chro4 - Bu

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.37	0.52		0.27	0.51		0.01	0.60		0.21	0.35	
Control Delay	37.0	37.4		33.2	12.3		1.0	5.5		8.4	7.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	37.0	37.4		33.2	12.3		1.0	5.5		8.4	7.8	
Queue Length 50th (ft)	30	90		25	21		0	22		13	85	
Queue Length 95th (ft)	63	141		53	77		m0	43		39	159	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)	75			75			75			140		
Base Capacity (vph)	279	573		328	612		461	1200		339	1165	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.22	0.31		0.16	0.36		0.01	0.60		0.21	0.35	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

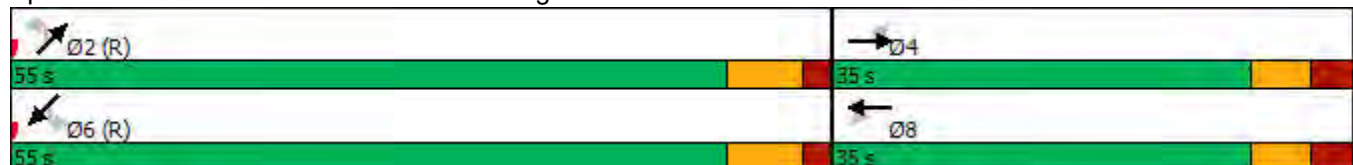
Offset: 47 (52%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sogan Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	53	151	5	45	39	155	3	635	11	63	358	6
Future Volume (veh/h)	53	151	5	45	39	155	3	635	11	63	358	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1949	1906	1906	1750	1694	1694	1368	1809	1809	1809	1766	1766
Adj Flow Rate, veh/h	60	170	4	51	44	101	3	713	11	71	402	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	3	3	0	4	4	33	2	2	2	5	5
Cap, veh/h	210	329	8	200	81	186	533	1224	19	593	1196	18
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.17	1.00	1.00	1.00	0.69	0.69	0.68
Sat Flow, veh/h	1367	1855	44	1196	457	1048	755	1776	27	745	1736	26
Grp Volume(v), veh/h	60	0	174	51	0	145	3	0	724	71	0	408
Grp Sat Flow(s),veh/h/ln	1367	0	1899	1196	0	1505	755	0	1804	745	0	1761
Q Serve(g_s), s	3.7	0.0	7.5	3.6	0.0	7.9	0.0	0.0	0.0	2.9	0.0	8.4
Cycle Q Clear(g_c), s	11.2	0.0	7.5	10.6	0.0	7.9	8.0	0.0	0.0	2.9	0.0	8.4
Prop In Lane	1.00		0.02	1.00		0.70	1.00		0.02	1.00		0.01
Lane Grp Cap(c), veh/h	210	0	337	200	0	267	533	0	1243	593	0	1214
V/C Ratio(X)	0.29	0.00	0.52	0.26	0.00	0.54	0.01	0.00	0.58	0.12	0.00	0.34
Avail Cap(c_a), veh/h	408	0	612	373	0	485	533	0	1243	593	0	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	0.0	33.5	38.1	0.0	34.0	0.5	0.0	0.0	4.8	0.0	5.7
Incr Delay (d2), s/veh	1.6	0.0	2.6	1.4	0.0	3.6	0.0	0.0	1.8	0.4	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	6.5	2.0	0.0	5.7	0.0	0.0	1.1	0.7	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	36.1	39.5	0.0	37.6	0.5	0.0	1.8	5.2	0.0	6.4
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	234			196			727			479		
Approach Delay, s/veh	37.1			38.1			1.8			6.2		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	68.0			22.0			68.0			22.0		
Change Period (Y+Rc), s	7.0			7.0			7.0			7.0		
Max Green Setting (Gmax), s	48.0			28.0			48.0			28.0		
Max Q Clear Time (g_c+l1), s	10.5			13.7			10.4			13.1		
Green Ext Time (p_c), s	29.6			1.3			17.7			1.2		
Intersection Summary												
HCM 6th Ctrl Delay	12.5											
HCM 6th LOS	B											

McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Morning Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	98	11	621	167	41	370
Future Volume (vph)	98	11	621	167	41	370
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.968			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3137	0	1661	3322
Flt Permitted	0.950				0.276	
Satd. Flow (perm)	1676	1500	3137	0	483	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		12	53			
Link Speed (mph)	25		45			45
Link Distance (ft)	397		989			397
Travel Time (s)	10.8		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	107	12	675	182	45	402
Shared Lane Traffic (%)						
Lane Group Flow (vph)	107	12	857	0	45	402
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	25.0	25.0	51.0		14.0	65.0
Total Split (%)	27.8%	27.8%	56.7%		15.6%	72.2%
Maximum Green (s)	19.0	19.0	43.0		7.0	57.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

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McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Morning Peak Hour

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.48	0.06	0.39		0.10	0.16
Control Delay	42.5	16.9	2.7		2.4	2.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	42.5	16.9	2.7		2.4	2.5
Queue Length 50th (ft)	57	0	37		3	17
Queue Length 95th (ft)	103	15	15		12	47
Internal Link Dist (ft)	317		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	372	342	2170		477	2580
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.29	0.04	0.39		0.09	0.16

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 26 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 45
 Control Type: Actuated-Coordinated

Splits and Phases: 8: Lower York Rd & Signalized Driveway



McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Morning Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	98	11	621	167	41	370
Future Volume (veh/h)	98	11	621	167	41	370
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1958	1958
Adj Flow Rate, veh/h	107	12	675	182	45	402
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	165	147	1734	467	504	2861
Arrive On Green	0.10	0.10	0.44	0.44	0.04	0.77
Sat Flow, veh/h	1688	1502	2710	706	1865	3818
Grp Volume(v), veh/h	107	12	433	424	45	402
Grp Sat Flow(s),veh/h/ln	1688	1502	1683	1645	1865	1860
Q Serve(g_s), s	5.5	0.7	15.6	15.7	0.6	2.5
Cycle Q Clear(g_c), s	5.5	0.7	15.6	15.7	0.6	2.5
Prop In Lane	1.00	1.00		0.43	1.00	
Lane Grp Cap(c), veh/h	165	147	1113	1088	504	2861
V/C Ratio(X)	0.65	0.08	0.39	0.39	0.09	0.14
Avail Cap(c_a), veh/h	375	334	1113	1088	593	2861
HCM Platoon Ratio	1.00	1.00	0.67	0.67	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.88	0.88	1.00	1.00
Uniform Delay (d), s/veh	39.1	36.9	12.8	12.9	5.3	2.7
Incr Delay (d2), s/veh	4.3	0.2	0.9	0.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	0.4	10.2	10.1	0.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.4	37.2	13.7	13.9	5.4	2.8
LnGrp LOS	D	D	B	B	A	A
Approach Vol, veh/h	119		857			447
Approach Delay, s/veh	42.8		13.8			3.1
Approach LOS	D		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.7	66.5			76.2	13.8
Change Period (Y+Rc), s	7.0	8.0			8.0	6.0
Max Green Setting (Gmax),s	43.0				57.0	19.0
Max Q Clear Time (g_c+l1)3s	18.1				5.0	8.0
Green Ext Time (p_c), s	0.0	5.3			2.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			12.8			
HCM 6th LOS			B			

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	17	0	40	65	8	0	774	45	9	936	90
Future Volume (vph)	53	17	0	40	65	8	0	774	45	9	936	90
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.991			0.992			0.987	
Flt Protected		0.964			0.983					0.950		
Satd. Flow (prot)	0	1565	0	0	1564	0	1775	1725	0	1456	1677	0
Flt Permitted		0.701			0.878					0.257		
Satd. Flow (perm)	0	1138	0	0	1397	0	1775	1725	0	394	1677	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					4			6			10	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	6%	0%	0%	3%	0%	14%	0%	2%	3%	13%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	56	18	0	42	68	8	0	815	47	9	985	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	74	0	0	118	0	0	862	0	9	1080	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.41			0.51			0.67		0.03	0.86	
Control Delay		35.9			36.7			10.9		5.1	20.3	
Queue Delay		0.0			0.0			0.0		0.0	0.0	
Total Delay		35.9			36.7			10.9		5.1	20.3	
Queue Length 50th (ft)		33			51			209		1	367	
Queue Length 95th (ft)		71			100			441		7	#823	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)										200		
Base Capacity (vph)		364			449			1290		294	1256	
Starvation Cap Reductn		0			0			0		0	0	
Spillback Cap Reductn		0			0			0		0	0	
Storage Cap Reductn		0			0			0		0	0	
Reduced v/c Ratio		0.20			0.26			0.67		0.03	0.86	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.2

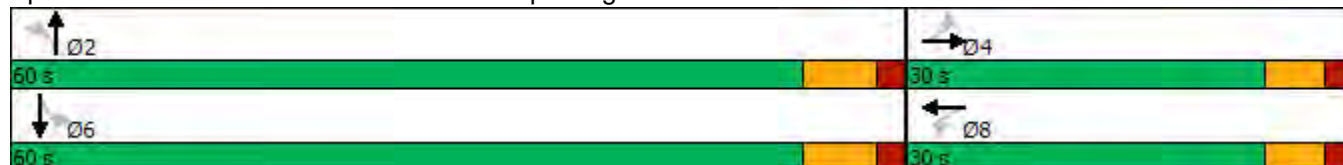
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	17	0	40	65	8	0	774	45	9	936	90
Future Volume (veh/h)	53	17	0	40	65	8	0	774	45	9	936	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1875	1875	1875	1660	1660	1660	1949	1921	1921	1612	1766	1766
Adj Flow Rate, veh/h	56	18	0	42	68	6	0	815	47	9	985	94
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	13	2	2
Cap, veh/h	210	59	0	118	116	9	98	1324	76	404	1169	112
Arrive On Green	0.10	0.11	0.00	0.10	0.11	0.10	0.00	0.74	0.72	0.74	0.74	0.72
Sat Flow, veh/h	1094	515	0	453	1023	81	575	1798	104	583	1588	152
Grp Volume(v), veh/h	74	0	0	116	0	0	0	0	862	9	0	1079
Grp Sat Flow(s),veh/h/ln	1609	0	0	1557	0	0	575	0	1902	583	0	1739
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	16.1	0.5	0.0	31.7
Cycle Q Clear(g_c), s	3.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	16.1	16.1	0.0	31.7
Prop In Lane	0.76		0.00	0.36		0.05	1.00		0.05	1.00		0.09
Lane Grp Cap(c), veh/h	247	0	0	222	0	0	98	0	1401	404	0	1281
V/C Ratio(X)	0.30	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.62	0.02	0.00	0.84
Avail Cap(c_a), veh/h	587	0	0	563	0	0	98	0	1401	404	0	1281
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.5	0.0	0.0	31.3	0.0	0.0	0.0	0.0	4.7	8.4	0.0	6.7
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	2.0	0.1	0.0	6.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.0	0.0	3.7	0.0	0.0	0.0	0.0	6.6	0.1	0.0	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	0.0	0.0	33.2	0.0	0.0	0.0	0.0	6.7	8.5	0.0	13.6
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	B
Approach Vol, veh/h		74			116			862			1088	
Approach Delay, s/veh		31.1			33.2			6.7			13.6	
Approach LOS		C			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.0		13.3		60.0		13.3				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		53.0		24.0		53.0		24.0				
Max Q Clear Time (g_c+I1), s		18.1		5.0		33.7		7.2				
Green Ext Time (p_c), s		28.6		0.2		18.5		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				12.5								
HCM 6th LOS				B								

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.2	0.3
Total Del/Veh (s)		20.8	2.9	4.1	3.8

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	LR	<L
Maximum Queue (ft)	4	5	39
Average Queue (ft)	1	2	20
95th Queue (ft)	5	15	49
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	8	3	8	843	1074	14
Future Volume (vph)	8	3	8	843	1074	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1731	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1731	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	8	3	8	869	1107	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	3	8	869	1107	14
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection

Int Delay, s/veh 0.1

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations						
Traffic Vol, veh/h	8	3	8	843	1074	14
Future Vol, veh/h	8	3	8	843	1074	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	8	3	8	869	1107	14

Major/Minor Minor2 Major1 Major2

Conflicting Flow All	1992	1107	1121	0	-	0
Stage 1	1107	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	111	303	484	-	-	-
Stage 1	447	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	303	484	-	-	-
Mov Cap-2 Maneuver	271	-	-	-	-	-
Stage 1	439	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach EB NB SB

HCM Control Delay, s	18.2	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt NBL NBT EBLn1 EBLn2 SBT SBR

Capacity (veh/h)	484	-	271	303	-	-
HCM Lane V/C Ratio	0.017	-	0.03	0.01	-	-
HCM Control Delay (s)	12.6	-	18.7	17	-	-
HCM Lane LOS	B	-	C	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	65	0	15	0	745	102	27	1037	1
Future Volume (vph)	0	0	0	65	0	15	0	745	102	27	1037	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	200		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.850			0.982				
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	1680	0	1283	1378	0	1792	1703	0	1628	1697	0
Flt Permitted				0.757						0.274		
Satd. Flow (perm)	0	1680	0	1023	1378	0	1792	1703	0	470	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					272			19				
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	20%	0%	0%	0%	2%	13%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	0	0	0	66	0	15	0	760	104	28	1058	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	66	15	0	0	864	0	28	1059	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left											
Leading Detector (ft)	20	35		35	35		6	336		6	336	
Trailing Detector (ft)	0	-5		-5	-5		0	0		0	0	
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.0	18.0		18.0	18.0	
Total Split (s)	19.0	19.0		19.0	19.0		71.0	71.0		71.0	71.0	
Total Split (%)	21.1%	21.1%		21.1%	21.1%		78.9%	78.9%		78.9%	78.9%	
Maximum Green (s)	13.0	13.0		13.0	13.0		63.0	63.0		63.0	63.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

4: Lower York Rd & Private Driveway/Reeder Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio				0.51	0.04		0.65			0.08	0.80	
Control Delay				50.1	0.1		9.0			3.7	13.0	
Queue Delay				0.0	0.0		0.0			0.0	0.0	
Total Delay				50.1	0.1		9.0			3.7	13.0	
Queue Length 50th (ft)				35	0		216			1	82	
Queue Length 95th (ft)				76	0		375			m9	m#697	
Internal Link Dist (ft)		247			507		2444				563	
Turn Bay Length (ft)				200						200		
Base Capacity (vph)				159	444		1336			367	1327	
Starvation Cap Reductn				0	0		0			0	0	
Spillback Cap Reductn				0	0		0			0	0	
Storage Cap Reductn				0	0		0			0	0	
Reduced v/c Ratio				0.42	0.03		0.65			0.08	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 61 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 4: Lower York Rd & Private Driveway/Reeder Rd



4: Lower York Rd & Private Driveway/Reeder Rd

Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	65	0	15	0	745	102	27	1037	1
Future Volume (veh/h)	0	0	0	65	0	15	0	745	102	27	1037	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1800	1800	1800	1246	1527	1527	2024	1995	1995	1750	1736	1736
Adj Flow Rate, veh/h	0	0	0	66	0	15	0	760	104	28	1058	1
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
Percent Heavy Veh, %	0	0	0	20	0	0	0	2	2	0	1	1
Cap, veh/h	0	149	0	178	0	107	80	1346	184	470	1359	1
Arrive On Green	0.00	0.00	0.00	0.08	0.00	0.07	0.00	0.78	0.77	0.78	0.78	0.77
Sat Flow, veh/h	0	1800	0	1186	0	1294	608	1718	235	632	1734	2
Grp Volume(v), veh/h	0	0	0	66	0	15	0	0	864	28	0	1059
Grp Sat Flow(s),veh/h/ln	0	1800	0	1186	0	1294	608	0	1953	632	0	1735
Q Serve(g_s), s	0.0	0.0	0.0	4.9	0.0	1.0	0.0	0.0	15.5	1.6	0.0	30.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	4.9	0.0	1.0	0.0	0.0	15.5	16.6	0.0	30.5
Prop In Lane	0.00		0.00	1.00		1.00	1.00		0.12	1.00		0.00
Lane Grp Cap(c), veh/h	0	149	0	178	0	107	80	0	1530	470	0	1360
V/C Ratio(X)	0.00	0.00	0.00	0.37	0.00	0.14	0.00	0.00	0.56	0.06	0.00	0.78
Avail Cap(c_a), veh/h	0	280	0	265	0	201	80	0	1530	470	0	1360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	40.1	0.0	38.8	0.0	0.0	3.8	6.9	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	0.6	0.0	0.0	1.5	0.2	0.0	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	2.6	0.0	0.6	0.0	0.0	6.3	0.4	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	41.3	0.0	39.3	0.0	0.0	5.3	7.2	0.0	9.9
LnGrp LOS	A	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	0			81			864			1087		
Approach Delay, s/veh	0.0			41.0			5.3			9.8		
Approach LOS				D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	77.5			12.5			77.5			12.5		
Change Period (Y+Rc), s	8.0			6.0			8.0			6.0		
Max Green Setting (Gmax), s	63.0			13.0			63.0			13.0		
Max Q Clear Time (g_c+l1), s	17.5			0.0			32.5			7.4		
Green Ext Time (p_c), s	24.7			0.0			24.0			0.1		
Intersection Summary												
HCM 6th Ctrl Delay				9.1								
HCM 6th LOS				A								

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Weekday Afternoon Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	2	5	338	1	105	7	536	227	121	756	5
Future Volume (vph)	3	2	5	338	1	105	7	536	227	121	756	5
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.932			0.851			0.955			0.999	
Flt Protected		0.985		0.950			0.950			0.950		
Satd. Flow (prot)	0	1725	0	1707	1575	0	1645	3098	0	1694	3352	0
Flt Permitted		0.945		0.751			0.355			0.243		
Satd. Flow (perm)	0	1655	0	1349	1575	0	615	3098	0	433	3352	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			108			92			1	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			398			470			989	
Travel Time (s)		17.6			10.9			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	3%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	3	2	5	348	1	108	7	553	234	125	779	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	10	0	348	109	0	7	787	0	125	784	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	30.0	30.0		30.0	30.0		46.0	46.0		14.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		51.1%	51.1%		15.6%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		38.0	38.0		7.0	52.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.05		0.93	0.21		0.03	0.56		0.34	0.40	
Control Delay		23.0		66.5	6.5		8.6	11.9		6.4	5.6	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		23.0		66.5	6.5		8.6	11.9		6.4	5.6	
Queue Length 50th (ft)		3		192	0		1	133		18	89	
Queue Length 95th (ft)		14		#359	38		m2	131		m17	39	
Internal Link Dist (ft)		564			318			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		463		374	515		268	1403		372	1978	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.02		0.93	0.21		0.03	0.56		0.34	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 60

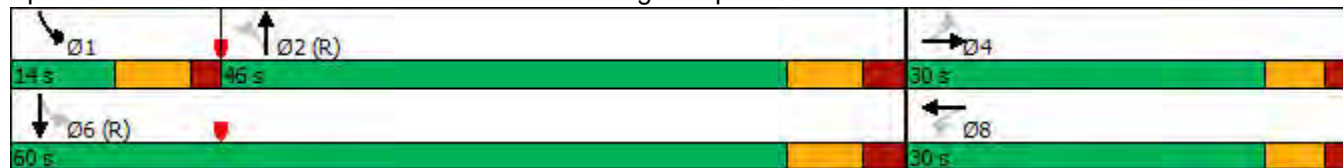
Control Type: Actuated-Coordinated

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Weekday Afternoon Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	2	5	338	1	105	7	536	227	121	756	5
Future Volume (veh/h)	3	2	5	338	1	105	7	536	227	121	756	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1950	1950	1950	1822	1866	1866	1794	1766	1766	1986	1972	1972
Adj Flow Rate, veh/h	3	2	2	348	1	40	7	553	229	125	779	5
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
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	2	0	1	1
Cap, veh/h	227	154	130	474	10	420	402	1067	441	435	2273	15
Arrive On Green	0.26	0.27	0.27	0.27	0.27	0.27	0.46	0.46	0.46	0.07	0.60	0.58
Sat Flow, veh/h	628	570	479	1453	39	1549	699	2316	956	1892	3817	24
Grp Volume(v), veh/h	7	0	0	348	0	41	7	400	382	125	382	402
Grp Sat Flow(s),veh/h/ln	1677	0	0	1453	0	1587	699	1678	1594	1892	1873	1968
Q Serve(g_s), s	0.0	0.0	0.0	20.7	0.0	1.7	0.5	15.2	15.3	2.8	9.3	9.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	20.7	0.0	1.7	0.5	15.2	15.3	2.8	9.3	9.3
Prop In Lane	0.43		0.29	1.00		0.98	1.00		0.60	1.00		0.01
Lane Grp Cap(c), veh/h	493	0	0	474	0	430	402	773	735	435	1116	1172
V/C Ratio(X)	0.01	0.00	0.00	0.73	0.00	0.10	0.02	0.52	0.52	0.29	0.34	0.34
Avail Cap(c_a), veh/h	504	0	0	484	0	441	402	773	735	474	1116	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	24.2	0.0	0.0	31.4	0.0	24.5	13.2	17.2	17.2	11.5	9.2	9.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	6.1	0.0	0.1	0.1	2.5	2.6	0.3	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.0	12.5	0.0	1.2	0.1	9.7	9.4	1.9	6.1	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	0.0	0.0	37.6	0.0	24.7	13.3	19.6	19.8	11.9	10.0	10.0
LnGrp LOS	C	A	A	D	A	C	B	B	B	B	A	A
Approach Vol, veh/h	7			389			789			909		
Approach Delay, s/veh	24.2			36.2			19.7			10.2		
Approach LOS	C			D			B			B		
Timer - Assigned Phs	1	2	4			6	8					
Phs Duration (G+Y+Rc), s	12.1	48.5	29.4			60.6	29.4					
Change Period (Y+Rc), s	7.0	8.0	6.0			8.0	6.0					
Max Green Setting (Gmax),s	7.0	38.0	24.0			52.0	24.0					
Max Q Clear Time (g_c+I1),s	5.8	17.7	2.5			11.8	23.2					
Green Ext Time (p_c), s	0.0	14.4	0.0			23.3	0.2					
Intersection Summary												
HCM 6th Ctrl Delay				18.7								
HCM 6th LOS				B								



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	6	62	101	477	745	10
Future Volume (vph)	6	62	101	477	745	10
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	12	12	12	12
Grade (%)	0%			1%	0%	
Storage Length (ft)	75	0	0			300
Storage Lanes	1	1	1			1
Taper Length (ft)	50		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1710	1600	1685	1756	3342	0
Flt Permitted	0.950		0.299			
Satd. Flow (perm)	1710	1600	530	1756	3342	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		65			2	
Link Speed (mph)	35			45	45	
Link Distance (ft)	647			375	1460	
Travel Time (s)	12.6			5.7	22.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	1%	2%	2%	11%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	6	65	106	502	784	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	65	106	502	795	0
Number of Detectors	1	1	1	2	2	
Detector Template		Right				
Leading Detector (ft)	37	20	37	336	356	
Trailing Detector (ft)	-3	0	-3	0	0	
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	8		1	6	2	
Permitted Phases		8	6			
Detector Phase	8	8	1	6	2	
Switch Phase						
Minimum Initial (s)	3.0	3.0	3.0	10.0	10.0	
Minimum Split (s)	9.0	9.0	10.0	17.0	17.0	
Total Split (s)	20.0	20.0	14.0	70.0	56.0	
Total Split (%)	22.2%	22.2%	15.6%	77.8%	62.2%	
Maximum Green (s)	14.0	14.0	7.0	63.0	49.0	
Yellow Time (s)	4.0	4.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	

Lanes, Volumes, Timings

6: Lower York Rd & Kitchens Ln

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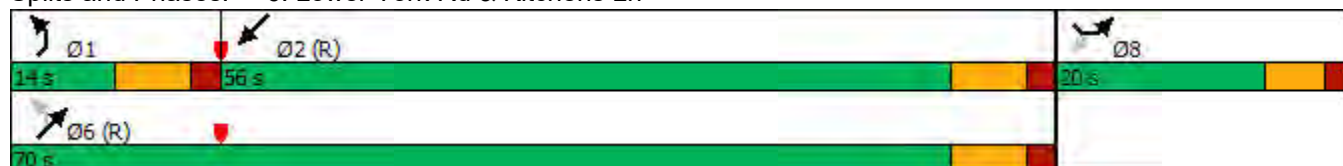


Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	5.0	5.0	3.0	5.0	5.0	
Minimum Gap (s)	3.0	3.0	3.0	2.7	2.7	
Time Before Reduce (s)	0.0	0.0	0.0	35.0	35.0	
Time To Reduce (s)	0.0	0.0	0.0	15.0	15.0	
Recall Mode	None	None	None	C-Max	C-Max	
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.03	0.28	0.20	0.35	0.34	
Control Delay	35.3	13.1	5.7	10.1	5.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.3	13.1	5.7	10.1	5.4	
Queue Length 50th (ft)	3	0	13	187	71	
Queue Length 95th (ft)	14	36	54	363	86	
Internal Link Dist (ft)	567			295	1380	
Turn Bay Length (ft)	75					
Base Capacity (vph)	285	320	527	1429	2312	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.02	0.20	0.20	0.35	0.34	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 58 (64%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 6: Lower York Rd & Kitchens Ln





Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	6	62	101	477	745	10
Future Volume (veh/h)	6	62	101	477	745	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1843	1780	1766	1772	1772
Adj Flow Rate, veh/h	6	65	106	502	784	11
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	1	2	2	2
Cap, veh/h	119	108	641	1428	2345	33
Arrive On Green	0.07	0.07	0.05	0.81	1.00	1.00
Sat Flow, veh/h	1714	1562	1696	1766	3488	48
Grp Volume(v), veh/h	6	65	106	502	388	407
Grp Sat Flow(s),veh/h/ln	1714	1562	1696	1766	1683	1763
Q Serve(g_s), s	0.3	3.6	1.4	6.8	0.0	0.0
Cycle Q Clear(g_c), s	0.3	3.6	1.4	6.8	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.03
Lane Grp Cap(c), veh/h	119	108	641	1428	1161	1216
V/C Ratio(X)	0.05	0.60	0.17	0.35	0.33	0.33
Avail Cap(c_a), veh/h	286	260	704	1428	1161	1216
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.78	0.78
Uniform Delay (d), s/veh	39.1	40.7	2.6	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.4	10.9	0.1	0.7	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	3.0	0.5	2.0	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.5	51.5	2.7	3.0	0.6	0.6
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	71			608	795	
Approach Delay, s/veh	50.5			2.9	0.6	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.7	68.1			78.8	11.2
Change Period (Y+Rc), s	7.0	7.0			7.0	6.0
Max Green Setting (Gmax),s	49.0				63.0	14.0
Max Q Clear Time (g_c+l1)3s	2.5				9.3	6.1
Green Ext Time (p_c), s	0.1	27.0			17.7	0.2
Intersection Summary						
HCM 6th Ctrl Delay			4.0			
HCM 6th LOS			A			

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	23	120	8	136	169	82	18	441	25	166	614	46
Future Volume (vph)	23	120	8	136	169	82	18	441	25	166	614	46
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	75		0	75		0	75		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.991			0.951			0.992			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1744	1819	0	1684	1686	0	1719	1761	0	1573	1758	0
Flt Permitted	0.443			0.674			0.311			0.441		
Satd. Flow (perm)	813	1819	0	1195	1686	0	563	1761	0	730	1758	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			29			5			7	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	2%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	23	122	8	139	172	84	18	450	26	169	627	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	130	0	139	256	0	18	476	0	169	674	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	35.0	35.0		35.0	35.0		55.0	55.0		55.0	55.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		61.1%	61.1%		61.1%	61.1%	
Maximum Green (s)	28.0	28.0		28.0	28.0		48.0	48.0		48.0	48.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sugan Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.12	0.31		0.50	0.62		0.05	0.42		0.37	0.60	
Control Delay	26.1	28.1		35.3	33.3		2.3	3.5		12.2	13.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.1	28.1		35.3	33.3		2.3	3.5		12.2	13.7	
Queue Length 50th (ft)	10	60		70	117		1	21		40	198	
Queue Length 95th (ft)	28	97		113	173		m3	34		105	391	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)	75			75			75			140		
Base Capacity (vph)	261	588		385	562		357	1120		463	1119	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.09	0.22		0.36	0.46		0.05	0.42		0.37	0.60	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

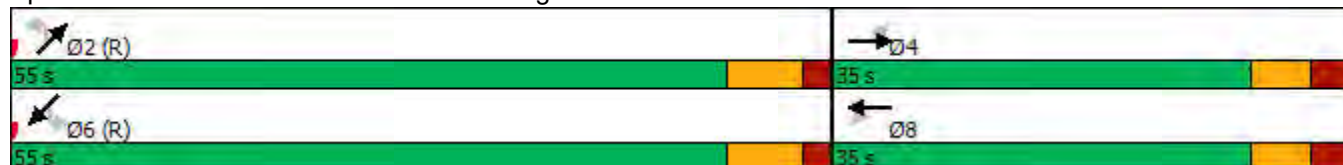
Offset: 46 (51%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sogan Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	23	120	8	136	169	82	18	441	25	166	614	46
Future Volume (veh/h)	23	120	8	136	169	82	18	441	25	166	614	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1949	1949	1949	1750	1750	1750	1837	1809	1809	1809	1809	1809
Adj Flow Rate, veh/h	23	122	5	139	172	50	18	450	21	169	627	44
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	2	2	2
Cap, veh/h	210	402	16	288	281	82	434	1116	52	693	1087	76
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.20	1.00	1.00	1.00	0.65	0.65	0.64
Sat Flow, veh/h	1275	1859	76	1248	1303	379	795	1714	80	942	1670	117
Grp Volume(v), veh/h	23	0	127	139	0	222	18	0	471	169	0	671
Grp Sat Flow(s),veh/h/ln	1275	0	1935	1248	0	1682	795	0	1794	942	0	1788
Q Serve(g_s), s	1.5	0.0	5.0	9.4	0.0	10.7	0.7	0.0	0.0	6.9	0.0	18.9
Cycle Q Clear(g_c), s	11.7	0.0	5.0	13.9	0.0	10.7	19.1	0.0	0.0	6.9	0.0	18.9
Prop In Lane	1.00		0.04	1.00		0.23	1.00		0.04	1.00		0.07
Lane Grp Cap(c), veh/h	210	0	418	288	0	363	434	0	1168	693	0	1163
V/C Ratio(X)	0.11	0.00	0.30	0.48	0.00	0.61	0.04	0.00	0.40	0.24	0.00	0.58
Avail Cap(c_a), veh/h	346	0	624	420	0	542	434	0	1168	693	0	1163
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.95	0.00	0.95	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	0.0	29.6	35.2	0.0	32.0	3.0	0.0	0.0	6.7	0.0	8.8
Incr Delay (d2), s/veh	0.5	0.0	0.9	2.7	0.0	3.5	0.2	0.0	1.0	0.8	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	0.0	4.2	5.5	0.0	8.3	0.1	0.0	0.6	2.1	0.0	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	30.5	37.9	0.0	35.5	3.2	0.0	1.0	7.5	0.0	10.9
LnGrp LOS	D	A	C	D	A	D	A	A	A	A	A	B
Approach Vol, veh/h	150		361				489				840	
Approach Delay, s/veh	31.5		36.4				1.1				10.2	
Approach LOS	C		D				A				B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	64.6		25.4		64.6		25.4					
Change Period (Y+Rc), s	7.0		7.0		7.0		7.0					
Max Green Setting (Gmax), s	48.0		28.0		48.0		28.0					
Max Q Clear Time (g_c+l1), s	21.6		14.2		20.9		16.4					
Green Ext Time (p_c), s	15.9		0.7		21.9		2.1					
Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									

McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Afternoon Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	290	37	472	166	52	592
Future Volume (vph)	290	37	472	166	52	592
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.961			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3115	0	1661	3322
Flt Permitted	0.950				0.303	
Satd. Flow (perm)	1676	1500	3115	0	530	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		40	67			
Link Speed (mph)	25		45			45
Link Distance (ft)	397		989			397
Travel Time (s)	10.8		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	315	40	513	180	57	643
Shared Lane Traffic (%)						
Lane Group Flow (vph)	315	40	693	0	57	643
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	31.0	31.0	45.0		14.0	59.0
Total Split (%)	34.4%	34.4%	50.0%		15.6%	65.6%
Maximum Green (s)	25.0	25.0	37.0		7.0	51.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

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McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Afternoon Peak Hour



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.77	0.10	0.44		0.13	0.31
Control Delay	44.0	8.5	7.2		3.9	4.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.0	8.5	7.2		3.9	4.8
Queue Length 50th (ft)	164	0	47		5	60
Queue Length 95th (ft)	248	23	53		21	106
Internal Link Dist (ft)	317		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	484	461	1589		435	2064
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.65	0.09	0.44		0.13	0.31

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 19 (21%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

Splits and Phases: 8: Lower York Rd & Signalized Driveway



McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Weekday Afternoon Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	290	37	472	166	52	592
Future Volume (veh/h)	290	37	472	166	52	592
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1958	1958
Adj Flow Rate, veh/h	315	40	513	180	57	643
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	378	336	1300	454	451	2390
Arrive On Green	0.22	0.22	0.18	0.17	0.04	0.64
Sat Flow, veh/h	1688	1502	2536	854	1865	3818
Grp Volume(v), veh/h	315	40	352	341	57	643
Grp Sat Flow(s),veh/h/ln	1688	1502	1683	1618	1865	1860
Q Serve(g_s), s	16.0	1.9	16.7	16.8	1.1	6.7
Cycle Q Clear(g_c), s	16.0	1.9	16.7	16.8	1.1	6.7
Prop In Lane	1.00	1.00		0.53	1.00	
Lane Grp Cap(c), veh/h	378	336	894	859	451	2390
V/C Ratio(X)	0.83	0.12	0.39	0.40	0.13	0.27
Avail Cap(c_a), veh/h	488	434	894	859	533	2390
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.81	0.81	1.00	1.00
Uniform Delay (d), s/veh	33.3	27.8	24.3	24.4	9.5	6.9
Incr Delay (d2), s/veh	9.4	0.2	1.1	1.1	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.0	1.3	11.7	11.4	0.7	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.7	28.0	25.3	25.5	9.6	7.2
LnGrp LOS	D	C	C	C	A	A
Approach Vol, veh/h	355		693			700
Approach Delay, s/veh	41.1		25.4			7.4
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.0	54.8			64.8	25.2
Change Period (Y+Rc), s	7.0	8.0			8.0	6.0
Max Green Setting (Gmax),s	70	37.0			51.0	25.0
Max Q Clear Time (g_c+l1),s	36	19.2			9.2	18.5
Green Ext Time (p_c), s	0.0	3.7			4.4	0.6
Intersection Summary						
HCM 6th Ctrl Delay			21.4			
HCM 6th LOS			C			

McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	32	2	44	23	5	2	839	59	3	749	40
Future Volume (vph)	69	32	2	44	23	5	2	839	59	3	749	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		-2%			5%			-4%			1%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.998			0.991			0.990			0.992	
Flt Protected		0.968			0.970		0.950			0.950		
Satd. Flow (prot)	0	1565	0	0	1504	0	1686	1723	0	1645	1699	0
Flt Permitted		0.803			0.783		0.270			0.211		
Satd. Flow (perm)	0	1298	0	0	1214	0	479	1723	0	365	1699	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			4			7			5	
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1072			1269			830			520	
Travel Time (s)		20.9			24.7			12.6			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	11%	0%	5%	5%	0%	0%	2%	2%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	73	34	2	46	24	5	2	883	62	3	788	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	109	0	0	75	0	2	945	0	3	830	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left			Left			Left		
Leading Detector (ft)	20	35		20	35		20	406		20	406	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		22.0	22.0		22.0	22.0	
Total Split (s)	30.0	30.0		30.0	30.0		60.0	60.0		60.0	60.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		66.7%	66.7%		66.7%	66.7%	
Maximum Green (s)	24.0	24.0		24.0	24.0		53.0	53.0		53.0	53.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		-1.0			-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

1: Lower York Rd & Aquetong Rd

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McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		5.0	5.0		5.0	5.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		42.0	42.0		42.0	42.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		21.0	21.0		21.0	21.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.50			0.37		0.01	0.74		0.01	0.66	
Control Delay		37.4			32.6		5.0	13.7		5.3	11.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		37.4			32.6		5.0	13.7		5.3	11.0	
Queue Length 50th (ft)		48			31		0	261		0	203	
Queue Length 95th (ft)		96			69		3	#660		4	431	
Internal Link Dist (ft)		992			1189			750			440	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		413			389		356	1282		271	1264	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.26			0.19		0.01	0.74		0.01	0.66	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78.7

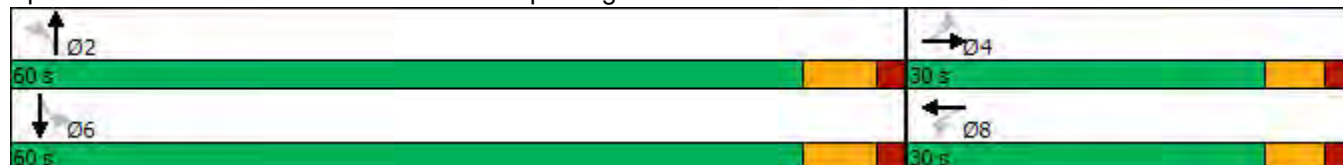
Natural Cycle: 60

Control Type: Actuated-Uncoordinated

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

Queue shown is maximum after two cycles.

Splits and Phases: 1: Lower York Rd & Aquetong Rd



McMahon Associates, Inc.
1: Lower York Rd & Aquetong Rd

Build Alternative 2
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	32	2	44	23	5	2	839	59	3	749	40
Future Volume (veh/h)	69	32	2	44	23	5	2	839	59	3	749	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1718	1718	1718	1590	1590	1590	1949	1921	1921	1794	1780	1780
Adj Flow Rate, veh/h	73	34	2	46	24	5	2	883	61	3	788	42
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
Percent Heavy Veh, %	11	11	11	5	5	5	0	2	2	0	1	1
Cap, veh/h	190	58	3	163	67	11	474	1315	91	394	1241	66
Arrive On Green	0.09	0.11	0.09	0.09	0.11	0.09	0.74	0.74	0.73	0.74	0.74	0.73
Sat Flow, veh/h	988	533	28	766	620	99	727	1776	123	601	1675	89
Grp Volume(v), veh/h	109	0	0	75	0	0	2	0	944	3	0	830
Grp Sat Flow(s),veh/h/ln	1550	0	0	1485	0	0	727	0	1899	601	0	1764
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	18.7	0.2	0.0	16.8
Cycle Q Clear(g_c), s	4.8	0.0	0.0	3.3	0.0	0.0	16.4	0.0	18.7	18.4	0.0	16.8
Prop In Lane	0.67		0.02	0.61		0.07	1.00		0.06	1.00		0.05
Lane Grp Cap(c), veh/h	229	0	0	220	0	0	474	0	1406	394	0	1307
V/C Ratio(X)	0.48	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.67	0.01	0.00	0.64
Avail Cap(c_a), veh/h	567	0	0	533	0	0	474	0	1406	394	0	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	0.0	30.8	0.0	0.0	8.5	0.0	4.9	9.5	0.0	4.6
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.9	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	0.0	2.3	0.0	0.0	0.0	0.0	7.6	0.0	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	0.0	31.7	0.0	0.0	8.6	0.0	7.5	9.6	0.0	7.0
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		109			75			946			833	
Approach Delay, s/veh		32.9			31.7			7.5			7.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		60.0		12.9		60.0		12.9				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		53.0		24.0		53.0		24.0				
Max Q Clear Time (g_c+l1), s		20.7		6.8		20.9		5.3				
Green Ext Time (p_c), s		28.3		0.3		25.8		0.2				
Intersection Summary												
HCM 6th Ctrl Delay				9.6								
HCM 6th LOS				A								

Approach	NB	NW	NE	SW	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)		9.8	2.9	2.9	3.1

Intersection: 2: Lower York Rd & Ingham Rd & Lower Mountain Rd

Movement	NB	NW	SW
Directions Served	LR>	<LR	<L
Maximum Queue (ft)	4	17	39
Average Queue (ft)	1	4	17
95th Queue (ft)	7	18	46
Link Distance (ft)	662	533	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			200
Storage Blk Time (%)			
Queuing Penalty (veh)			

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	18	6	9	943	841	12
Future Volume (vph)	18	6	9	943	841	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	11	11	11	11
Grade (%)	-4%			3%	-3%	
Storage Length (ft)	0	100	175			250
Storage Lanes	1	1	1			1
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1802	1613	1628	1680	1749	1501
Flt Permitted	0.950		0.950			
Satd. Flow (perm)	1802	1613	1628	1680	1749	1501
Link Speed (mph)	25			45	45	
Link Distance (ft)	272			1070	2524	
Travel Time (s)	7.4			16.2	38.2	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	19	6	10	1014	904	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	6	10	1014	904	13
Sign Control	Stop			Free	Free	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	6	9	943	841	12
Future Vol, veh/h	18	6	9	943	841	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	175	-	-	250
Veh in Median Storage	0	-	-	0	0	-
Grade, %	-4	-	-	3	-3	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	2	1	0
Mvmt Flow	19	6	10	1014	904	13
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1938	904	917	0	-	0
Stage 1	904	-	-	-	-	-
Stage 2	1034	-	-	-	-	-
Critical Hdwy	5.6	5.8	4.3	-	-	-
Critical Hdwy Stg 1	4.6	-	-	-	-	-
Critical Hdwy Stg 2	4.6	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	119	390	574	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	117	390	574	-	-	-
Mov Cap-2 Maneuver	282	-	-	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	478	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.6	0.1		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	574	-	282	390	-	-
HCM Lane V/C Ratio	0.017	-	0.069	0.017	-	-
HCM Control Delay (s)	11.4	-	18.7	14.4	-	-
HCM Lane LOS	B	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.1	-	-

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	0	0	62	0	24	1	855	133	17	796	0
Future Volume (vph)	1	0	0	62	0	24	1	855	133	17	796	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	11	11	11	11	11	11
Grade (%)		0%			7%			-6%			3%	
Storage Length (ft)	0		0	200		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.850			0.980				
Flt Protected		0.950		0.950			0.950			0.950		
Satd. Flow (prot)	0	1596	0	1540	1378	0	1703	1726	0	1628	1697	0
Flt Permitted		0.741		0.757			0.295			0.200		
Satd. Flow (perm)	0	1245	0	1227	1378	0	529	1726	0	343	1697	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					218			22				
Link Speed (mph)		25			35			45			45	
Link Distance (ft)		327			587			2524			643	
Travel Time (s)		8.9			11.4			38.2			9.7	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	1	0	0	65	0	25	1	891	139	18	829	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1	0	65	25	0	1	1030	0	18	829	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left											
Leading Detector (ft)	20	35		35	35		6	336		6	336	
Trailing Detector (ft)	0	-5		-5	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	9.0	9.0		9.0	9.0		18.0	18.0		18.0	18.0	
Total Split (s)	18.0	18.0		18.0	18.0		72.0	72.0		72.0	72.0	
Total Split (%)	20.0%	20.0%		20.0%	20.0%		80.0%	80.0%		80.0%	80.0%	
Maximum Green (s)	12.0	12.0		12.0	12.0		64.0	64.0		64.0	64.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

4: Lower York Rd & Private Driveway/Reeder Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.01		0.45	0.07		0.00	0.75		0.07	0.62	
Control Delay		33.0		46.4	0.4		4.0	11.8		1.3	5.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		33.0		46.4	0.4		4.0	11.8		1.3	5.1	
Queue Length 50th (ft)		1		35	0		0	297		0	82	
Queue Length 95th (ft)		5		74	0		1	550		m2	m188	
Internal Link Dist (ft)		247			507			2444			563	
Turn Bay Length (ft)				200			200			200		
Base Capacity (vph)		179		177	385		418	1368		271	1341	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.01		0.37	0.06		0.00	0.75		0.07	0.62	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 71 (79%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 4: Lower York Rd & Private Driveway/Reeder Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	0	62	0	24	1	855	133	17	796	0
Future Volume (veh/h)	1	0	0	62	0	24	1	855	133	17	796	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1800	1800	1800	1527	1527	1527	2024	1995	1995	1750	1736	1736
Adj Flow Rate, veh/h	1	0	0	65	0	25	1	891	139	18	829	0
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
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	1	1
Cap, veh/h	164	0	0	182	0	105	526	1324	207	377	1364	0
Arrive On Green	0.07	0.00	0.00	0.08	0.00	0.07	0.79	0.79	0.77	0.79	0.79	0.00
Sat Flow, veh/h	1039	0	0	1221	0	1294	755	1685	263	541	1736	0
Grp Volume(v), veh/h	1	0	0	65	0	25	1	0	1030	18	829	0
Grp Sat Flow(s),veh/h/ln	1039	0	0	1221	0	1294	755	0	1948	541	1736	0
Q Serve(g_s), s	0.1	0.0	0.0	3.2	0.0	1.6	0.0	0.0	21.7	1.4	17.6	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	4.4	0.0	1.6	17.7	0.0	21.7	22.6	17.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.13	1.00		0.00
Lane Grp Cap(c), veh/h	153	0	0	182	0	105	526	0	1530	377	1364	0
V/C Ratio(X)	0.01	0.00	0.00	0.36	0.00	0.24	0.00	0.00	0.67	0.05	0.61	0.00
Avail Cap(c_a), veh/h	242	0	0	260	0	187	526	0	1530	377	1364	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.0	0.0	0.0	40.0	0.0	39.2	7.6	0.0	4.4	9.4	4.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	1.2	0.0	0.0	2.4	0.2	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	2.6	0.0	1.0	0.0	0.0	8.7	0.3	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	0.0	41.1	0.0	40.4	7.6	0.0	6.8	9.7	6.0	0.0
LnGrp LOS	D	A	A	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h	1			90			1031			847		
Approach Delay, s/veh	40.1			40.9			6.8			6.1		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	77.7			12.3			77.7			12.3		
Change Period (Y+Rc), s	8.0			6.0			8.0			6.0		
Max Green Setting (Gmax), s	64.0			12.0			64.0			12.0		
Max Q Clear Time (g_c+I1), s	23.7			3.7			25.1			6.9		
Green Ext Time (p_c), s	28.9			0.0			21.4			0.1		
Intersection Summary												
HCM 6th Ctrl Delay				8.1								
HCM 6th LOS				A								

McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	3	6	330	3	156	5	508	325	223	545	14
Future Volume (vph)	10	3	6	330	3	156	5	508	325	223	545	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	13	13	13	11	11	11	11	11	11
Grade (%)		-2%			1%			1%			-5%	
Storage Length (ft)	0		0	0		0	200		0	200		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.957			0.853			0.941			0.996	
Flt Protected		0.974		0.950			0.950			0.950		
Satd. Flow (prot)	0	1751	0	1724	1579	0	1645	3046	0	1678	3342	0
Flt Permitted		0.870		0.745			0.440			0.215		
Satd. Flow (perm)	0	1564	0	1352	1579	0	762	3046	0	380	3342	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			158			194			5	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		644			398			470			989	
Travel Time (s)		17.6			10.9			7.1			15.0	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	0%	2%	1%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	10	3	6	333	3	158	5	513	328	225	551	14
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	333	161	0	5	841	0	225	565	0
Number of Detectors	1	4		4	2		1	2		1	2	
Detector Template	Left				Thru					Left		
Leading Detector (ft)	20	66		60	100		6	336		20	336	
Trailing Detector (ft)	0	-3		-6	0		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		10.0	10.0		3.0	10.0	
Minimum Split (s)	13.0	13.0		13.0	13.0		18.0	18.0		10.0	18.0	
Total Split (s)	32.0	32.0		32.0	32.0		44.0	44.0		14.0	58.0	
Total Split (%)	35.6%	35.6%		35.6%	35.6%		48.9%	48.9%		15.6%	64.4%	
Maximum Green (s)	26.0	26.0		26.0	26.0		36.0	36.0		7.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0		2.0	3.0	
Lost Time Adjust (s)		-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

5: Lower York Rd & Shire Dr/Logan Square

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McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Saturday Midday Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Lost Time (s)		5.0		5.0	5.0		7.0	7.0		6.0	7.0	
Lead/Lag							Lag	Lag		Lead		
Lead-Lag Optimize?							Yes	Yes		Yes		
Vehicle Extension (s)	4.0	4.0		4.0	4.0		5.0	5.0		3.0	5.0	
Minimum Gap (s)	4.0	4.0		4.0	4.0		2.7	2.7		3.0	2.7	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		35.0	35.0		0.0	35.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		15.0	15.0		0.0	15.0	
Recall Mode	None	None		None	None		C-Min	C-Min		None	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio		0.07		0.86	0.29		0.02	0.60		0.66	0.29	
Control Delay		20.2		53.1	5.8		15.4	12.9		19.7	6.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		20.2		53.1	5.8		15.4	12.9		19.7	6.3	
Queue Length 50th (ft)		7		175	1		1	82		61	88	
Queue Length 95th (ft)		21		#321	45		m2	148		#95	63	
Internal Link Dist (ft)		564			318			390			909	
Turn Bay Length (ft)							200			200		
Base Capacity (vph)		473		405	584		323	1405		339	1941	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.04		0.82	0.28		0.02	0.60		0.66	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 55

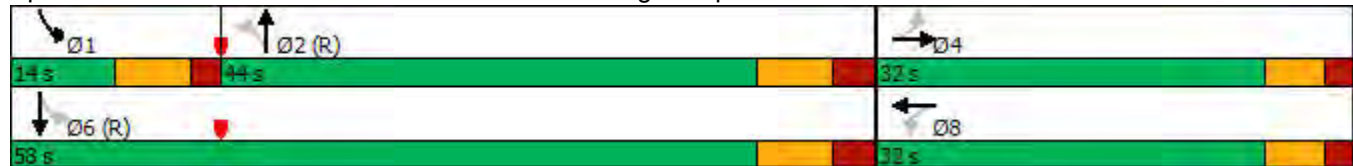
Control Type: Actuated-Coordinated

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

Queue shown is maximum after two cycles.

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

Splits and Phases: 5: Lower York Rd & Shire Dr/Logan Square



McMahon Associates, Inc.
5: Lower York Rd & Shire Dr/Logan Square

Build Alternative 2
Saturday Midday Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	3	6	330	3	156	5	508	325	223	545	14
Future Volume (veh/h)	10	3	6	330	3	156	5	508	325	223	545	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1950	1950	1950	1837	1866	1866	1794	1766	1766	1972	1972	1972
Adj Flow Rate, veh/h	10	3	2	333	3	77	5	513	327	225	551	14
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	2	0	0	0	2	2	1	1	1
Cap, veh/h	295	88	49	472	16	400	465	885	563	434	2261	57
Arrive On Green	0.25	0.26	0.26	0.26	0.26	0.26	0.45	0.45	0.45	0.09	0.61	0.59
Sat Flow, veh/h	875	336	186	1463	60	1531	856	1967	1252	1878	3734	95
Grp Volume(v), veh/h	15	0	0	333	0	80	5	437	403	225	276	289
Grp Sat Flow(s),veh/h/ln	1397	0	0	1463	0	1591	856	1678	1541	1878	1873	1955
Q Serve(g_s), s	0.0	0.0	0.0	15.8	0.0	3.5	0.3	17.5	17.5	5.3	6.1	6.2
Cycle Q Clear(g_c), s	3.5	0.0	0.0	18.8	0.0	3.5	0.3	17.5	17.5	5.3	6.1	6.2
Prop In Lane	0.67		0.13	1.00		0.96	1.00		0.81	1.00		0.05
Lane Grp Cap(c), veh/h	416	0	0	472	0	415	465	755	693	434	1134	1184
V/C Ratio(X)	0.04	0.00	0.00	0.71	0.00	0.19	0.01	0.58	0.58	0.52	0.24	0.24
Avail Cap(c_a), veh/h	476	0	0	529	0	477	465	755	693	434	1134	1184
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	25.0	0.0	0.0	31.3	0.0	25.9	13.7	18.4	18.4	12.8	8.2	8.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	4.3	0.0	0.3	0.0	3.2	3.5	1.0	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	0.0	0.0	11.7	0.0	2.5	0.1	10.9	10.3	3.5	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	0.0	0.0	35.6	0.0	26.2	13.7	21.6	22.0	13.8	8.7	8.7
LnGrp LOS	C	A	A	D	A	C	B	C	C	B	A	A
Approach Vol, veh/h		15			413			845			790	
Approach Delay, s/veh		25.1			33.8			21.7			10.1	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	14.0	47.5		28.5		61.5		28.5				
Change Period (Y+Rc), s	7.0	8.0		6.0		8.0		6.0				
Max Green Setting (Gmax),s	36.0			26.0		50.0		26.0				
Max Q Clear Time (g_c+I1),s	20.0			5.5		8.6		21.3				
Green Ext Time (p_c), s	0.0	12.4		0.0		16.6		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				19.7								
HCM 6th LOS				B								



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	12	92	73	498	613	7
Future Volume (vph)	12	92	73	498	613	7
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	14	12	12	12	12
Grade (%)	0%			1%	0%	
Storage Length (ft)	75	0	0			300
Storage Lanes	1	1	1			1
Taper Length (ft)	50		100			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Ped Bike Factor						
Frt		0.850			0.998	
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1710	1600	1701	1756	3380	0
Flt Permitted	0.950		0.360			
Satd. Flow (perm)	1710	1600	645	1756	3380	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		96			2	
Link Speed (mph)	35			45	45	
Link Distance (ft)	647			375	1460	
Travel Time (s)	12.6			5.7	22.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	13	96	76	519	639	7
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	96	76	519	646	0
Number of Detectors	1	1	1	2	2	
Detector Template		Right				
Leading Detector (ft)	37	20	37	336	356	
Trailing Detector (ft)	-3	0	-3	0	0	
Turn Type	Prot	Perm	pm+pt	NA	NA	
Protected Phases	8		1	6	2	
Permitted Phases		8	6			
Detector Phase	8	8	1	6	2	
Switch Phase						
Minimum Initial (s)	3.0	3.0	3.0	10.0	10.0	
Minimum Split (s)	9.0	9.0	10.0	17.0	17.0	
Total Split (s)	20.0	20.0	14.0	70.0	56.0	
Total Split (%)	22.2%	22.2%	15.6%	77.8%	62.2%	
Maximum Green (s)	14.0	14.0	7.0	63.0	49.0	
Yellow Time (s)	4.0	4.0	5.0	5.0	5.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	

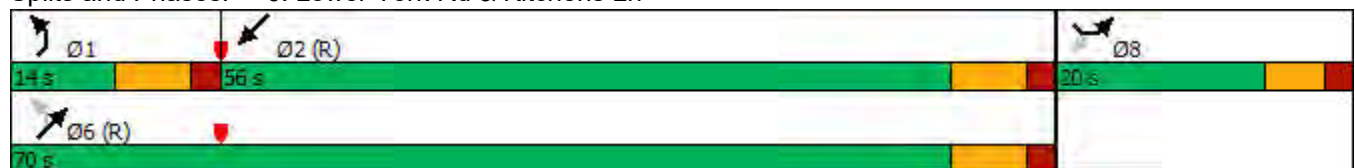


Lane Group	SEL	SER	NEL	NET	SWT	SWR
Total Lost Time (s)	5.0	5.0	6.0	6.0	6.0	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	5.0	5.0	3.0	5.0	5.0	
Minimum Gap (s)	3.0	3.0	3.0	2.7	2.7	
Time Before Reduce (s)	0.0	0.0	0.0	35.0	35.0	
Time To Reduce (s)	0.0	0.0	0.0	15.0	15.0	
Recall Mode	None	None	None	C-Max	C-Max	
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.07	0.37	0.13	0.36	0.28	
Control Delay	35.6	12.1	1.3	1.8	5.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	35.6	12.1	1.3	1.8	5.5	
Queue Length 50th (ft)	7	0	3	19	57	
Queue Length 95th (ft)	23	43	6	29	91	
Internal Link Dist (ft)	567			295	1380	
Turn Bay Length (ft)	75					
Base Capacity (vph)	285	346	608	1423	2332	
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.05	0.28	0.13	0.36	0.28	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 29 (32%), Referenced to phase 2:SWT and 6:NETL, Start of Green
Natural Cycle: 40
Control Type: Actuated-Coordinated

Splits and Phases: 6: Lower York Rd & Kitchens Ln





Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (veh/h)	12	92	73	498	613	7
Future Volume (veh/h)	12	92	73	498	613	7
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1800	1843	1794	1766	1786	1786
Adj Flow Rate, veh/h	12	96	76	519	639	7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	0	2	1	1
Cap, veh/h	163	148	690	1382	2306	25
Arrive On Green	0.10	0.10	0.05	0.78	1.00	1.00
Sat Flow, veh/h	1714	1562	1709	1766	3527	38
Grp Volume(v), veh/h	12	96	76	519	315	331
Grp Sat Flow(s),veh/h/ln	1714	1562	1709	1766	1697	1779
Q Serve(g_s), s	0.6	5.3	1.1	8.1	0.0	0.0
Cycle Q Clear(g_c), s	0.6	5.3	1.1	8.1	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.02
Lane Grp Cap(c), veh/h	163	148	690	1382	1138	1193
V/C Ratio(X)	0.07	0.65	0.11	0.38	0.28	0.28
Avail Cap(c_a), veh/h	286	260	765	1382	1138	1193
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.87	0.87
Uniform Delay (d), s/veh	37.1	39.3	3.1	3.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	9.7	0.1	0.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	4.3	0.4	3.0	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.5	48.9	3.2	3.8	0.5	0.5
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	108			595	646	
Approach Delay, s/veh	47.7			3.7	0.5	
Approach LOS	D			A	A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	66.4			76.4	13.6
Change Period (Y+Rc), s	7.0	7.0			7.0	6.0
Max Green Setting (Gmax),s	49.0				63.0	14.0
Max Q Clear Time (g_c+l1),s	3.6	2.5			10.6	7.8
Green Ext Time (p_c), s	0.0	21.4			18.3	0.3
Intersection Summary						
HCM 6th Ctrl Delay			5.7			
HCM 6th LOS			A			

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	43	147	17	174	173	167	17	475	36	126	415	27
Future Volume (vph)	43	147	17	174	173	167	17	475	36	126	415	27
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	12	12	12	12	12	12	10	12	12
Grade (%)		-4%			3%			-1%			-1%	
Storage Length (ft)	75		0	75		0	75		0	140		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.984			0.926			0.989			0.991	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1744	1791	0	1684	1633	0	1719	1741	0	1588	1760	0
Flt Permitted	0.338			0.629			0.438			0.386		
Satd. Flow (perm)	621	1791	0	1115	1633	0	792	1741	0	645	1760	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			60			6			5	
Link Speed (mph)		35			25			45			50	
Link Distance (ft)		576			389			1460			990	
Travel Time (s)		11.2			10.6			22.1			13.5	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	3%	0%	1%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	44	152	18	179	178	172	18	490	37	130	428	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	44	170	0	179	350	0	18	527	0	130	456	0
Number of Detectors	1	1		1	1		1	2		1	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	35		20	35		6	456		6	456	
Trailing Detector (ft)	0	-5		0	-5		0	0		0	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	3.0	3.0		3.0	3.0		25.0	25.0		25.0	25.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		32.0	32.0		32.0	32.0	
Total Split (s)	38.0	38.0		38.0	38.0		52.0	52.0		52.0	52.0	
Total Split (%)	42.2%	42.2%		42.2%	42.2%		57.8%	57.8%		57.8%	57.8%	
Maximum Green (s)	31.0	31.0		31.0	31.0		45.0	45.0		45.0	45.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		5.0	5.0		5.0	5.0	
All-Red Time (s)	3.0	3.0		3.0	3.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	

Lanes, Volumes, Timings

7: Lower York Rd & Sujan Rd

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	5.0	5.0		5.0	5.0		6.0	6.0		6.0	6.0	
Minimum Gap (s)	5.0	5.0		5.0	5.0		2.0	2.0		2.0	2.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		47.0	47.0		47.0	47.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		23.0	23.0		23.0	23.0	
Recall Mode	Min	Min		Min	Min		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
v/c Ratio	0.26	0.34		0.58	0.71		0.04	0.51		0.34	0.44	
Control Delay	26.9	25.3		34.7	31.3		5.7	6.6		14.6	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.9	25.3		34.7	31.3		5.7	6.6		14.6	13.1	
Queue Length 50th (ft)	19	73		87	147		1	38		36	132	
Queue Length 95th (ft)	44	114		139	219		m6	90		91	244	
Internal Link Dist (ft)		496			309			1380			910	
Turn Bay Length (ft)	75			75			75			140		
Base Capacity (vph)	220	641		396	619		466	1028		380	1039	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.20	0.27		0.45	0.57		0.04	0.51		0.34	0.44	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

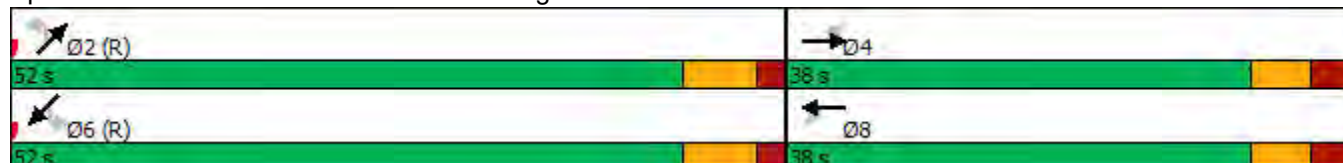
Offset: 33 (37%), Referenced to phase 2:NETL and 6:SWTL, Start of Green

Natural Cycle: 55

Control Type: Actuated-Coordinated

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

Splits and Phases: 7: Lower York Rd & Sogan Rd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (veh/h)	43	147	17	174	173	167	17	475	36	126	415	27
Future Volume (veh/h)	43	147	17	174	173	167	17	475	36	126	415	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1949	1935	1935	1750	1736	1736	1837	1795	1795	1823	1809	1809
Adj Flow Rate, veh/h	44	152	7	179	178	148	18	490	37	130	428	26
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
Percent Heavy Veh, %	0	1	1	0	1	1	0	3	3	1	2	2
Cap, veh/h	182	494	23	333	236	196	533	984	74	618	1008	61
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.26	1.00	1.00	1.00	0.60	0.60	0.59
Sat Flow, veh/h	1159	1835	85	1212	876	728	972	1648	124	901	1688	103
Grp Volume(v), veh/h	44	0	159	179	0	326	18	0	527	130	0	454
Grp Sat Flow(s),veh/h/ln	1159	0	1920	1212	0	1605	972	0	1772	901	0	1790
Q Serve(g_s), s	3.2	0.0	5.9	12.3	0.0	16.8	0.4	0.0	0.0	6.1	0.0	12.3
Cycle Q Clear(g_c), s	19.5	0.0	5.9	17.8	0.0	16.8	12.2	0.0	0.0	6.1	0.0	12.3
Prop In Lane	1.00		0.04	1.00		0.45	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	182	0	517	333	0	432	533	0	1058	618	0	1069
V/C Ratio(X)	0.24	0.00	0.31	0.54	0.00	0.75	0.03	0.00	0.50	0.21	0.00	0.42
Avail Cap(c_a), veh/h	282	0	683	438	0	571	533	0	1058	618	0	1069
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	26.2	33.0	0.0	30.4	1.3	0.0	0.0	8.5	0.0	9.8
Incr Delay (d2), s/veh	1.4	0.0	0.7	2.9	0.0	6.5	0.1	0.0	1.6	0.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	4.9	6.9	0.0	11.6	0.0	0.0	0.8	2.0	0.0	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	0.0	26.9	35.9	0.0	36.9	1.5	0.0	1.6	9.3	0.0	11.0
LnGrp LOS	D	A	C	D	A	D	A	A	A	A	A	B
Approach Vol, veh/h	203			505			545			584		
Approach Delay, s/veh	29.8			36.5			1.6			10.7		
Approach LOS	C			D			A			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	59.7			30.3			59.7			30.3		
Change Period (Y+Rc), s	7.0			7.0			7.0			7.0		
Max Green Setting (Gmax), s	45.0			31.0			45.0			31.0		
Max Q Clear Time (g_c+l1), s	14.7			22.0			14.3			20.3		
Green Ext Time (p_c), s	19.4			0.8			17.8			3.0		
Intersection Summary												
HCM 6th Ctrl Delay	17.2											
HCM 6th LOS	B											

McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Saturday Midday Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	289	34	438	218	66	493
Future Volume (vph)	289	34	438	218	66	493
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	11	11
Grade (%)	0%		0%			-5%
Storage Length (ft)	0	0		0	200	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	0.95
Ped Bike Factor						
Frt		0.850	0.950			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1676	1500	3079	0	1661	3322
Flt Permitted	0.950				0.293	
Satd. Flow (perm)	1676	1500	3079	0	512	3322
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		37	117			
Link Speed (mph)	25		45			45
Link Distance (ft)	397		989			397
Travel Time (s)	10.8		15.0			6.0
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%		0%			0%
Adj. Flow (vph)	314	37	476	237	72	536
Shared Lane Traffic (%)						
Lane Group Flow (vph)	314	37	713	0	72	536
Number of Detectors	1	1	2		1	2
Detector Template	Left	Right	Thru		Left	Thru
Leading Detector (ft)	20	20	100		20	100
Trailing Detector (ft)	0	0	0		0	0
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8			6	
Detector Phase	8	8	2		1	6
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	10.0	10.0	12.0		11.0	12.0
Total Split (s)	32.0	32.0	44.0		14.0	58.0
Total Split (%)	35.6%	35.6%	48.9%		15.6%	64.4%
Maximum Green (s)	26.0	26.0	36.0		7.0	50.0
Yellow Time (s)	4.0	4.0	5.0		5.0	5.0
All-Red Time (s)	2.0	2.0	3.0		2.0	3.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0		-1.0	-1.0

Lanes, Volumes, Timings

8: Lower York Rd & Signalized Driveway

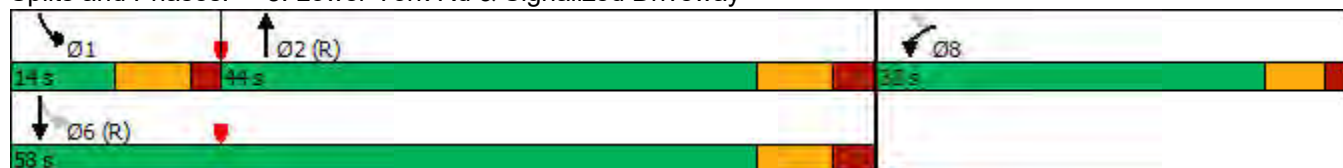
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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Lost Time (s)	5.0	5.0	7.0		6.0	7.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0		3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0
Recall Mode	None	None	C-Min		None	C-Min
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
v/c Ratio	0.76	0.09	0.45		0.17	0.26
Control Delay	43.2	8.5	7.8		7.7	9.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	43.2	8.5	7.8		7.7	9.2
Queue Length 50th (ft)	164	0	48		17	91
Queue Length 95th (ft)	242	22	81		39	116
Internal Link Dist (ft)	317		909			317
Turn Bay Length (ft)					200	
Base Capacity (vph)	502	475	1588		424	2058
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.63	0.08	0.45		0.17	0.26

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 23 (26%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 8: Lower York Rd & Signalized Driveway



McMahon Associates, Inc.
8: Lower York Rd & Signalized Driveway

Build Alternative 2
Saturday Midday Peak Hour

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	289	34	438	218	66	493
Future Volume (veh/h)	289	34	438	218	66	493
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1772	1772	1772	1772	1958	1958
Adj Flow Rate, veh/h	314	37	476	237	72	536
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	378	336	1151	570	442	2391
Arrive On Green	0.22	0.22	0.17	0.17	0.05	0.64
Sat Flow, veh/h	1688	1502	2270	1080	1865	3818
Grp Volume(v), veh/h	314	37	367	346	72	536
Grp Sat Flow(s),veh/h/ln	1688	1502	1683	1578	1865	1860
Q Serve(g_s), s	16.0	1.8	17.4	17.6	1.4	5.4
Cycle Q Clear(g_c), s	16.0	1.8	17.4	17.6	1.4	5.4
Prop In Lane	1.00	1.00		0.68	1.00	
Lane Grp Cap(c), veh/h	378	336	888	833	442	2391
V/C Ratio(X)	0.83	0.11	0.41	0.42	0.16	0.22
Avail Cap(c_a), veh/h	506	450	888	833	518	2391
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.77	0.77	1.00	1.00
Uniform Delay (d), s/veh	33.3	27.8	24.8	24.9	9.8	6.7
Incr Delay (d2), s/veh	8.5	0.1	1.1	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	1.2	12.0	11.5	0.9	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.8	27.9	25.8	26.1	9.9	6.9
LnGrp LOS	D	C	C	C	A	A
Approach Vol, veh/h	351		713			608
Approach Delay, s/veh	40.3		26.0			7.3
Approach LOS	D		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	54.5			64.8	25.2
Change Period (Y+Rc), s	7.0	8.0			8.0	6.0
Max Green Setting (Gmax),s	70	36.0			50.0	26.0
Max Q Clear Time (g_c+l1)3s	19.9				7.9	18.5
Green Ext Time (p_c), s	0.0	3.7			3.6	0.7
Intersection Summary						
HCM 6th Ctrl Delay			22.2			
HCM 6th LOS			C			

Appendix K

Build Alternative 3 – VISSIM Matrix Tables

Route 202 Transportation Master Plan
2040 Future Traffic Conditions - Build Alternative 3
Vissim Traffic Simulation Results for Adjacent Intersections

INTERSECTION	MOVEMENT		TURN LANE STORAGE (FEET)	MAX QUEUE (FEET)	AVERAGE OF FIVE SIMULATION RUNS	
					LOS	VEHICLE DELAY (SECONDS)
Lower York Road (S.R. 0202) and Logan Square Shopping Center/Shire Drive	Shire Drive	EBL		60.07	D	50.47
		EBT			C	34.47
		EBR			C	23.31
	Logan Square Shopping Center Access	WBL	300	174.05	D	35.89
		WBT		178.65	C	34.27
		WBR			B	10.56
	Lower York Road (S.R. 0202)	NBL	200	52.67	A	4.35
		NBT		235.1	B	12.75
		NBR			B	10.98
		SBL	200	148.69	B	12.41
		SBT		238.82	A	8.73
		SBR			A	8.82
		Overall			B	13.45
Lower York Road (S.R. 0202) and Suga n Road	Suga n Road	EBL		203.21	C	31.14
		EBT			C	28.63
		EBR			C	22.21
		WBL		340.5	C	26.51
		WBT			D	35.18
		WBR			D	42.85
	Lower York Road (S.R. 0202)	NBL	75	72.93	B	11.16
		NBT		369.81	B	11.4
		NBR			A	9.52
		SBL	140	270.31	C	26.94
		SBT		594.42	B	10.92
		SBR			A	9.59
		Overall			B	16.58

Route 202 Transportation Master Plan
2040 Future Traffic Conditions - Build Alternative 3
Vissim Traffic Simulation Results
Roundabout at Lower York Road (S.R. 0202) and Bridge Street (S.R. 0179)/Kitchens Lane

APPROACH	LANES	MAX QUEUE (FEET)	TURN LANE STORAGE (FEET)	MOVEMENT	AVERAGE OF FIVE SIMULATION RUNS		
					LOS	VEHICLE DELAY (SECONDS)	
Kitchens Lane	EB L/T/R	167.47		EBL	C	24.75	
				EBT	C	24.18	
				EBR	B	10.18	
Bridge Street (S.R. 0179)	WBL	255.23	150	WBL	B	13.53	
	WB L/T/R	269.01		WBL	B	13.53	
				WBT	B	13.14	
				WBR	B	13.07	
Lower York Road (S.R. 0202)	NB U/L/T	228.77		NBU	A	2.01	
				NBL	A	2.84	
				NBT	A	2.29	
	NB T/R	252.63		NBT	A	2.29	
				NBR	A	2.63	
	SB L/T	256.32		200	SBL	C	23.76
					SBT	C	16.67
	SB T/R	268.89			SBT	C	16.67
SBR			C		20.66		
Overall					A	9.2	

Appendix L

Pedestrian Crossing Warrants

Lower York Road (Route 202) and Lower Mountain Road

Existing Facility Description

This intersection is a stop-controlled T-intersection, with Lower York Road (Route 202) running free and Lower Mountain Road as stop condition. Sidewalks are unavailable along both sides of Route 202 and both sides of Lower Mountain Road. The existing roadway characteristics are summarized in the table below:

Existing Roadway Characteristics					
Roadway	Travel Lanes (per direction)	Pedestrian Refuge Island	Parking	Roadway Width	Speed Limit (mph)
Lower York Road (Route 202)	1	No	No	39ft	45
Lower Mountain Road	1	No	No	20ft	NPSL

The existing land uses for each quadrant are described as follows:

Northeast: This corner consists of Aquetong Spring Park.

Southeast: This corner consists of vegetation and Ingham Road

West Side: This side consists of vegetation.

Pedestrian Determination Using Engineering Judgment

Based on engineering evaluation of this intersection, we have determined that a pedestrian crossing should **NOT** be provided for crossing Lower York Road (Route 202). In making the determination, the following factors were taken into consideration:

1. Speed Limit – The posted speed limit is 45 mph.
2. Other Nearby Marked Crosswalks – There are no crosswalks within 300' of the intersection.
3. Traffic Volumes - Per ATR Data collected in January/February 2019, the current average daily traffic (ADT) along Route 202 is approximately 16,920 vehicles, which is over the maximum threshold of 10,000 for one-lane roadways.
4. Parking Restrictions – Parking is not available along Route 202.
5. Number of Lanes – Route 202 has one travel lane in both directions with a total of approximately 39' cartway width.
6. Pedestrian Gap Analysis - Using the “Pedestrian Delay at Unsignalized Intersections” calculation spreadsheet from the Highway Capacity Manual (HCM) the pedestrian delay is significant. A crosswalk length of 39' was utilized. The pedestrian delay in the AM Peak is 254.8 seconds, while the delay in the PM Peak is 492.0 seconds. Both are LOS F, and would result in a **very high likelihood of pedestrian risk-taking behavior**.

Due to the speed limit, high traffic volume, and high pedestrian delay resulting in a very high likelihood of pedestrian risk-taking behavior, crossing Route 202 would create an unsafe condition for pedestrians.

Commonwealth of Pennsylvania
Department of Transportation
Pedestrian Delay at Unsignalized Intersections



Analyst Name:	AGR
Department/Organization:	McMahon Associates
Intersection:	Route 202/Lower Mountain Road
Analysis Period:	AM / PM Peak
85th Percentile Speed (in MPH)	45

Date: October 22, 2020

user input required

	AM Peak	PM Peak
Pedestrian Walking Speed, Sp (ft/s)	3.5	3.5
Pedestrian start-up time, ts (s)	2	2
Length of crosswalk, L (ft)	39	39
Single Pedestrian critical gap, tc (s)	13.1	13.1

Typical pedestrian number in crossing platoon, Nc	1	1
Spatial Pedestrian Distribution, Np (p)	1	1
Group critical gap, tG (s)	13.1	13.1
Vehicular flow rate (veh/hr)	1243	1459
Vehicular flow rate, v (veh/s)	0.345	0.405
Average pedestrian delay, dp (s)	254.8	492.0

LOS	dp	Likelihood of risk-taking behavior
A	less than 5	low
B	5 to 10	
C	10 to 20	moderate
D	20 to 30	
E	30 to 45	high
F	greater than 45	very high

From Highway Capacity Manual 2000 - Chapter 18, pages 18-13 to 18-15

Lower York Road (Route 202) and Silvertail Lane

Existing Facility Description

This intersection is a stop-controlled T-intersection, with Lower York Road (Route 202) running free and Silvertail Lane as stop condition. Sidewalks are unavailable along both sides of Route 202 and available along the south side of Silvertail Lane. The existing roadway characteristics are summarized in the table below:

Existing Roadway Characteristics					
Roadway	Travel Lanes (per direction)	Pedestrian Refuge Island	Parking	Roadway Width	Speed Limit (mph)
Lower York Road (Route 202)	1	No	No	53ft	45
Silvertail Lane	1	No	No	50ft	NPSL

The existing land uses for each quadrant are described as follows:

Northwest: This corner consists of the Fox Runs development.

Southwest: This corner consists of the Fox Runs development.

East Side: This side consists of vegetation and an entrance to Aquetong Spring Park to the south.

Pedestrian Determination Using Engineering Judgment

Based on engineering evaluation of this intersection, we have determined that a pedestrian crossing should **NOT** be provided for crossing Lower York Road (Route 202). In making the determination, the following factors were taken into consideration:

1. Speed Limit – The posted speed limit is 45 mph.
2. Other Nearby Marked Crosswalks – There are no crosswalks within 300' of the intersection.
3. Traffic Volumes - Per ATR Data collected in January/February 2019, the current average daily traffic (ADT) along Route 202 is approximately 16,920 vehicles, which is over the maximum threshold of 10,000 for one-lane roadways.
4. Parking Restrictions – Parking is not available along Route 202.
5. Number of Lanes – Route 202 has one travel lane in both directions with a total of approximately 53' cartway width.
6. Pedestrian Gap Analysis - Using the "Pedestrian Delay at Unsignalized Intersections" calculation spreadsheet from the Highway Capacity Manual (HCM) the pedestrian delay is significant. A crosswalk length of 53' was utilized. The pedestrian delay in the AM Peak is 1,169.9 seconds, while the delay in the PM Peak is 2,801.0 seconds. Both are **LOS F**, and would result in a **very high likelihood of pedestrian risk-taking behavior**.

Due to the speed limit, high traffic volume, and high pedestrian delay resulting in a very high likelihood of pedestrian risk-taking behavior, crossing Route 202 would create an unsafe condition for pedestrians.

Commonwealth of Pennsylvania
Department of Transportation
Pedestrian Delay at Unsignalized Intersections



Analyst Name:	AGR
Department/Organization:	McMahon Associates
Intersection:	Route 202/Silvertail Lane
Analysis Period:	AM / PM Peak
85th Percentile Speed (in MPH)	45

Date: October 22, 2020

user input required

	AM Peak	PM Peak
Pedestrian Walking Speed, Sp (ft/s)	3.5	3.5
Pedestrian start-up time, ts (s)	2	2
Length of crosswalk, L (ft)	53	53
Single Pedestrian critical gap, tc (s)	17.1	17.1

Typical pedestrian number in crossing platoon, Nc	1	1
Spatial Pedestrian Distribution, Np (p)	1	1
Group critical gap, tG (s)	17.1	17.1
Vehicular flow rate (veh/hr)	1268	1482
Vehicular flow rate, v (veh/s)	0.352	0.412
Average pedestrian delay, dp (s)	1169.9	2801.0

LOS	dp	Likelihood of risk-taking behavior
A	less than 5	low
B	5 to 10	
C	10 to 20	moderate
D	20 to 30	
E	30 to 45	high
F	greater than 45	very high

From Highway Capacity Manual 2000 - Chapter 18, pages 18-13 to 18-15

Appendix M

Auxiliary Turn Lane Warrants

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township County: Bucks County PennDOT Engineering District: 6	Analysis Date: 10/12/2020 Conducted By: AGR Checked By: Agency/Company Name: McMahon
Intersection & Approach Description: Route 202 and Sугan Road - WBR	
Analysis Period: 2040 Build Alt 1 & 3 Design Hour: AM Peak Hour Intersection Control: Signalized Posted Speed Limit (MPH): 25 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Advancing Volume: N/A Opposing Volume: N/A Left Turn Volume: N/A % Left Turns in Advancing Volume: N/A					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	10	0.0%	10
	Through	-	32	4.0%	33
	Right	-	149	1.0%	150
Advancing Volume: 193 Right Turn Volume: 150					

TURN LANE WARRANT FINDINGS

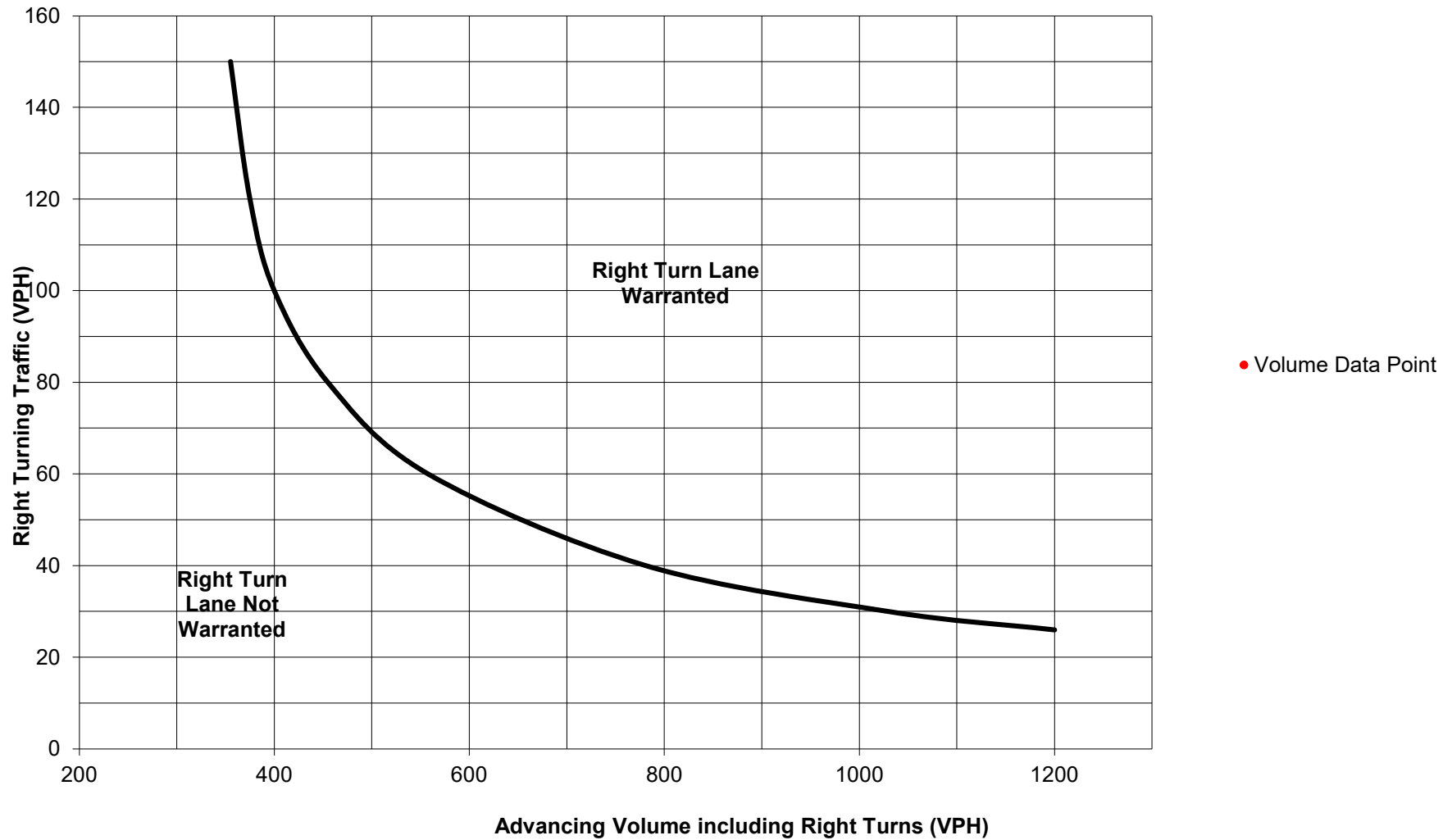
Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: N/A Warrant Met?: N/A	Applicable Warrant Figure: Figure 9 Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized Design Hour Volume of Turning Lane: 150 Cycles Per Hour (Assumed): Known Cycles Per Hour (If Known): 40	Average # of Vehicles/Cycle: N/A																																								
PennDOT Publication 46, Exhibit 11-6																																									
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="3">Type of Traffic Control</th> <th colspan="6">Speed (MPH)</th> </tr> <tr> <th colspan="2">25-35</th> <th colspan="2" rowspan="2">40-45</th> <th colspan="2" rowspan="2">50-60</th> </tr> <tr> <th colspan="6">Turn Demand Volume</th> </tr> <tr> <td></td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> </tr> <tr> <td>Signalized</td> <td>A</td> <td>A</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> </tr> <tr> <td>Unsignalized</td> <td>A</td> <td>A</td> <td>C</td> <td>B</td> <td>B or C</td> <td>B</td> </tr> </table>		Type of Traffic Control	Speed (MPH)						25-35		40-45		50-60		Turn Demand Volume							High	Low	High	Low	High	Low	Signalized	A	A	B or C	B or C	B or C	B or C	Unsignalized	A	A	C	B	B or C	B
Type of Traffic Control	Speed (MPH)																																								
	25-35		40-45		50-60																																				
	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Right Turn Lane Storage Length, Condition A: N/A Feet Condition B: N/A Feet Condition C: N/A Feet Required Right Turn Lane Storage Length: N/A Feet																																									
Additional Findings: N/A																																									

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township
County: Bucks County
PennDOT Engineering District: 6

Analysis Date: 10/12/2020
Conducted By: AGR
Checked By:
Agency/Company Name: McMahon

Intersection & Approach Description: Route 202 and Sугan Road - WBR

Analysis Period: 2040 Build Alt 1 & 3
Design Hour: PM Peak Hour
Intersection Control: Signalized
Posted Speed Limit (MPH): 25
Type of Terrain: Level

Number of Approach Lanes: 1
Undivided or Divided Highway: Undivided

Type of Analysis: Right Turn Lane
Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A

Advancing Volume: N/A
Opposing Volume: N/A
Left Turn Volume: N/A

% Left Turns in Advancing Volume: N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	27	0.0%	27
	Through	-	136	0.0%	136
	Right	-	79	0.0%	79

Advancing Volume: 242
Right Turn Volume: 79

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: N/A
Warrant Met?: N/A

Right Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 9
Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized
Design Hour Volume of Turning Lane: 79
Cycles Per Hour (Assumed): Known
Cycles Per Hour (If Known): 40

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

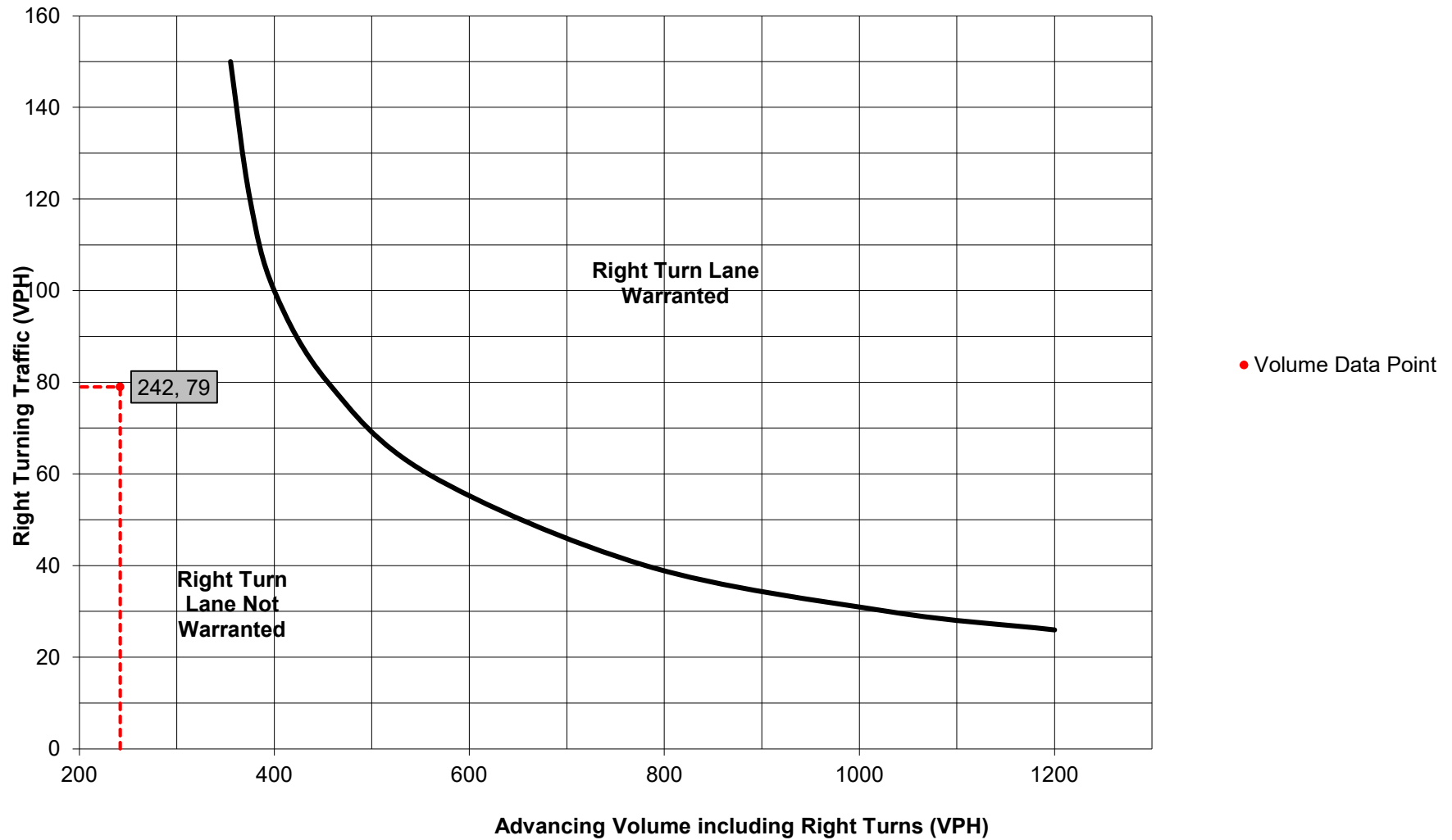
Right Turn Lane Storage Length, Condition A: N/A Feet
Condition B: N/A Feet
Condition C: N/A Feet
Required Right Turn Lane Storage Length: N/A Feet

Additional Findings:

N/A

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township County: Bucks County PennDOT Engineering District: 6	Analysis Date: 10/12/2020 Conducted By: AGR Checked By: Agency/Company Name: McMahon
Intersection & Approach Description: Route 202 and Sугan Road - WBR	
Analysis Period: 2040 Build Alt 1 & 3 Design Hour: SAT Peak Hour Intersection Control: Signalized Posted Speed Limit (MPH): 25 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Advancing Volume: N/A Opposing Volume: N/A Left Turn Volume: N/A % Left Turns in Advancing Volume: N/A					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	61	0.0%	61
	Through	-	149	1.0%	150
	Right	-	161	0.0%	161
Advancing Volume: 372 Right Turn Volume: 161					

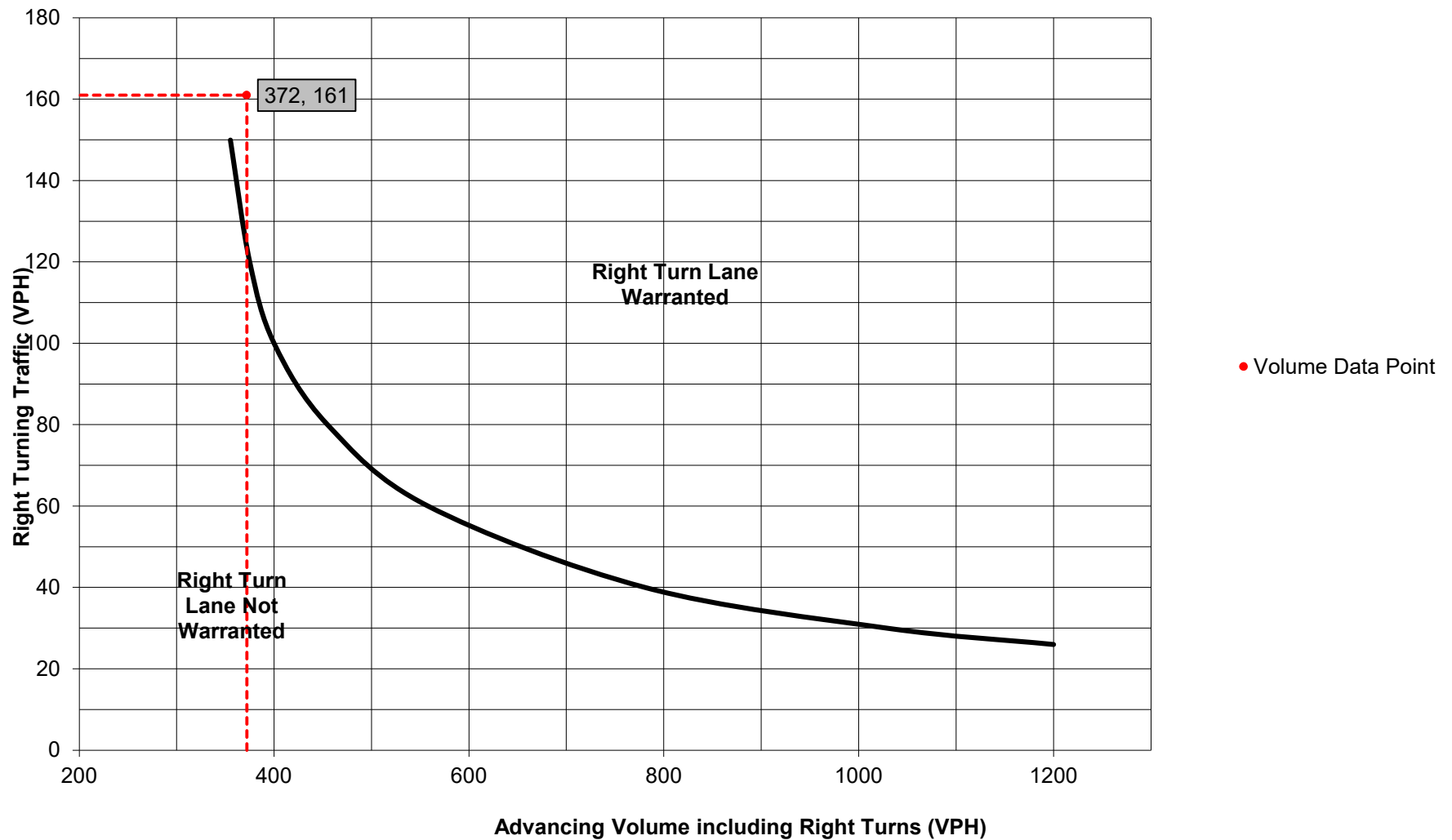
TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: N/A Warrant Met?: N/A	Applicable Warrant Figure: Figure 9 Warrant Met?: Yes

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized Design Hour Volume of Turning Lane: 161 Cycles Per Hour (Assumed): Known Cycles Per Hour (If Known): 40	Average # of Vehicles/Cycle: 4.0																																								
PennDOT Publication 46, Exhibit 11-6																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th rowspan="3" style="width: 15%;">Type of Traffic Control</th> <th colspan="6" style="background-color: #f5deb3;">Speed (MPH)</th> </tr> <tr> <th colspan="2" style="background-color: #f5deb3;">25-35</th> <th colspan="2" style="background-color: #f5deb3;">40-45</th> <th colspan="2" style="background-color: #f5deb3;">50-60</th> </tr> <tr> <th colspan="6" style="background-color: #f5deb3;">Turn Demand Volume</th> </tr> <tr> <td></td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> </tr> <tr> <td>Signalized</td> <td>A</td> <td>A</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> </tr> <tr> <td>Unsignalized</td> <td>A</td> <td>A</td> <td>C</td> <td>B</td> <td>B or C</td> <td>B</td> </tr> </table>		Type of Traffic Control	Speed (MPH)						25-35		40-45		50-60		Turn Demand Volume							High	Low	High	Low	High	Low	Signalized	A	A	B or C	B or C	B or C	B or C	Unsignalized	A	A	C	B	B or C	B
Type of Traffic Control	Speed (MPH)																																								
	25-35		40-45		50-60																																				
	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Right Turn Lane Storage Length, Condition A: 175 Feet Condition B: N/A Feet Condition C: N/A Feet Required Right Turn Lane Storage Length: 175 Feet																																									
Additional Findings: N/A																																									
Additional Comments / Justifications:																																									

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township
County: Bucks County
PennDOT Engineering District: 6

Analysis Date: 10/12/2020
Conducted By: AGR
Checked By:
Agency/Company Name: McMahon

Intersection & Approach Description: Route 202 and Sугan Road - WBR

Analysis Period: 2040 Build Alt 2
Design Hour: AM Peak Hour
Intersection Control: Signalized
Posted Speed Limit (MPH): 25
Type of Terrain: Level

Number of Approach Lanes: 1
Undivided or Divided Highway: Undivided

Type of Analysis: Right Turn Lane
Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A

Advancing Volume: N/A
Opposing Volume: N/A
Left Turn Volume: N/A

% Left Turns in Advancing Volume: N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	45	0.0%	N/A
	Through	-	39	4.0%	40
	Right	-	155	1.0%	156

Advancing Volume: 196
Right Turn Volume: 156

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: N/A
Warrant Met?: N/A

Right Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 9
Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized
Design Hour Volume of Turning Lane: 156
Cycles Per Hour (Assumed): Known
Cycles Per Hour (If Known): 40

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

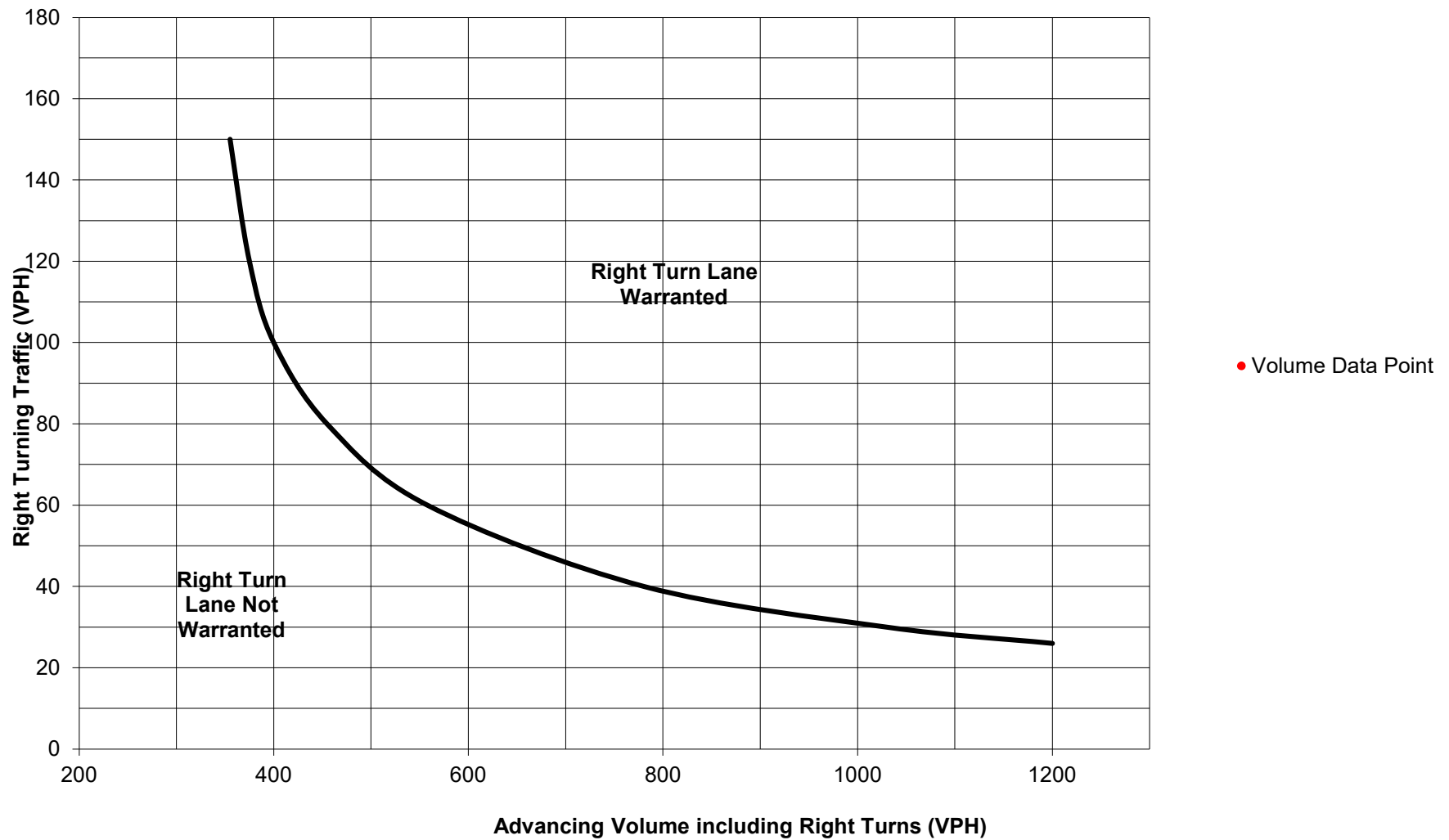
Right Turn Lane Storage Length, Condition A: N/A Feet
Condition B: N/A Feet
Condition C: N/A Feet
Required Right Turn Lane Storage Length: N/A Feet

Additional Findings:

N/A

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township County: Bucks County PennDOT Engineering District: 6	Analysis Date: 10/12/2020 Conducted By: AGR Checked By: Agency/Company Name: McMahon
Intersection & Approach Description: Route 202 and Sугan Road - WBR	
Analysis Period: 2040 Build Alt 2 Design Hour: PM Peak Hour Intersection Control: Signalized Posted Speed Limit (MPH): 25 Type of Terrain: Level	Number of Approach Lanes: 1 Undivided or Divided Highway: Undivided Type of Analysis Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Advancing Volume: N/A Opposing Volume: N/A Left Turn Volume: N/A % Left Turns in Advancing Volume: N/A					
Right Turn Lane Volume Calculations					
Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	136	0.0%	N/A
	Through	-	169	0.0%	169
	Right	-	82	0.0%	82
Advancing Volume: 251 Right Turn Volume: 82					

TURN LANE WARRANT FINDINGS

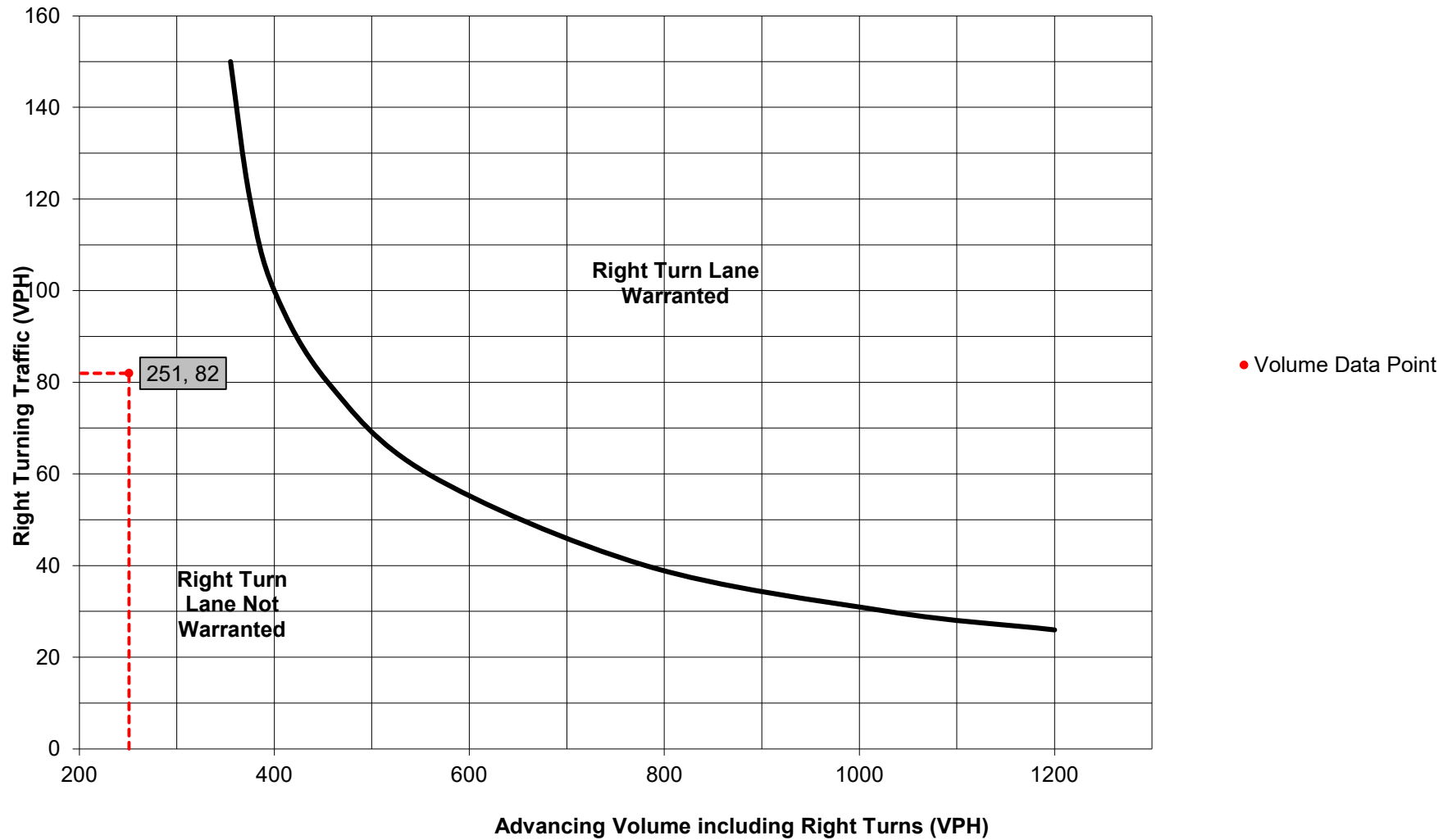
Left Turn Lane Warrant Findings	Right Turn Lane Warrant Findings
Applicable Warrant Figure: N/A Warrant Met?: N/A	Applicable Warrant Figure: Figure 9 Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized Design Hour Volume of Turning Lane: 82 Cycles Per Hour (Assumed): Known Cycles Per Hour (If Known): 40	Average # of Vehicles/Cycle: N/A																																								
PennDOT Publication 46, Exhibit 11-6																																									
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="3">Type of Traffic Control</th> <th colspan="6">Speed (MPH)</th> </tr> <tr> <th colspan="2">25-35</th> <th colspan="2" rowspan="2">40-45</th> <th colspan="2" rowspan="2">50-60</th> </tr> <tr> <th colspan="6">Turn Demand Volume</th> </tr> <tr> <td></td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> </tr> <tr> <td>Signalized</td> <td>A</td> <td>A</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> <td>B or C</td> </tr> <tr> <td>Unsignalized</td> <td>A</td> <td>A</td> <td>C</td> <td>B</td> <td>B or C</td> <td>B</td> </tr> </table>		Type of Traffic Control	Speed (MPH)						25-35		40-45		50-60		Turn Demand Volume							High	Low	High	Low	High	Low	Signalized	A	A	B or C	B or C	B or C	B or C	Unsignalized	A	A	C	B	B or C	B
Type of Traffic Control	Speed (MPH)																																								
	25-35		40-45		50-60																																				
	Turn Demand Volume																																								
	High	Low	High	Low	High	Low																																			
Signalized	A	A	B or C	B or C	B or C	B or C																																			
Unsignalized	A	A	C	B	B or C	B																																			
Right Turn Lane Storage Length, Condition A: N/A Feet Condition B: N/A Feet Condition C: N/A Feet Required Right Turn Lane Storage Length: N/A Feet																																									
Additional Findings: N/A																																									

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality: Solebury Township
County: Bucks County
PennDOT Engineering District: 6

Analysis Date: 10/12/2020
Conducted By: AGR
Checked By:
Agency/Company Name: McMahon

Intersection & Approach Description: Route 202 and Sугan Road - WBR

Analysis Period: 2040 Build Alt 2
Design Hour: SAT Peak Hour
Intersection Control: Signalized
Posted Speed Limit (MPH): 25
Type of Terrain: Level

Number of Approach Lanes: 1
Undivided or Divided Highway: Undivided

Type of Analysis: Right Turn Lane
Left or Right-Turn Lane Analysis?: Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A
Opposing	Left	No	0	0.0%	N/A
	Through	-	0	0.0%	N/A
	Right	No	0	0.0%	N/A

Advancing Volume: N/A
Opposing Volume: N/A
Left Turn Volume: N/A

% Left Turns in Advancing Volume: N/A

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	No	174	0.0%	N/A
	Through	-	173	1.0%	174
	Right	-	167	0.0%	167

Advancing Volume: 341
Right Turn Volume: 167

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: N/A
Warrant Met?: N/A

Right Turn Lane Warrant Findings

Applicable Warrant Figure: Figure 9
Warrant Met?: No

TURN LANE LENGTH CALCULATIONS

Intersection Control: Signalized
Design Hour Volume of Turning Lane: 167
Cycles Per Hour (Assumed): Known
Cycles Per Hour (If Known): 40

Average # of Vehicles/Cycle: N/A

PennDOT Publication 46, Exhibit 11-6

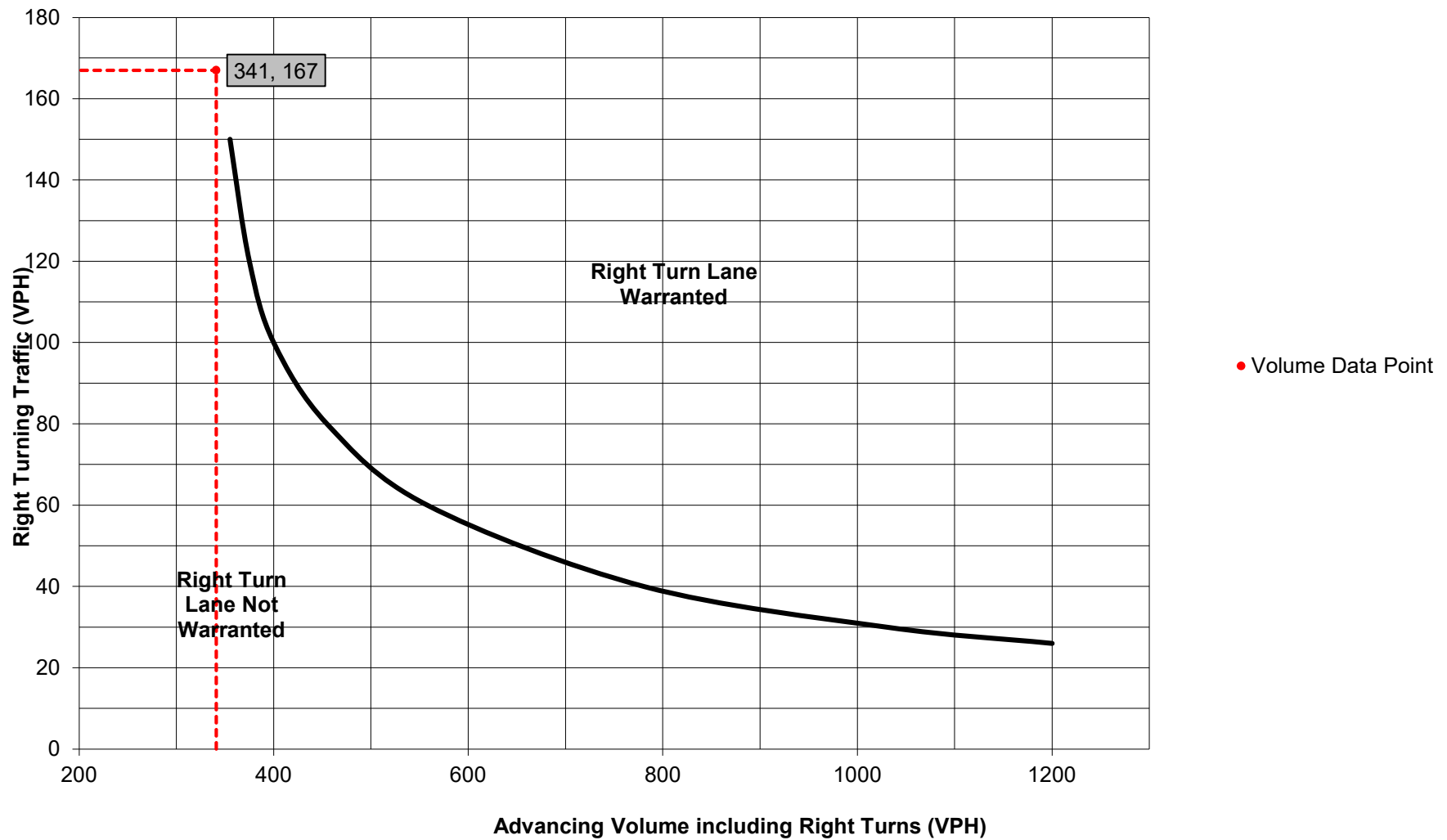
Type of Traffic Control	Speed (MPH)					
	25-35		40-45		50-60	
	Turn Demand Volume					
	High	Low	High	Low	High	Low
Signalized	A	A	B or C	B or C	B or C	B or C
Unsignalized	A	A	C	B	B or C	B

Right Turn Lane Storage Length, Condition A: N/A Feet
Condition B: N/A Feet
Condition C: N/A Feet
Required Right Turn Lane Storage Length: N/A Feet

Additional Findings:
N/A

Additional Comments / Justifications:

**Figure 9. Warrant for right turn lanes on two-lane roadways
(40 mph or lower speeds, unsignalized and signalized intersections)**



Appendix N

Traffic Signal Warrants

STUDY AND ANALYSIS INFORMATION

Municipality: Solebury Township
 County: Bucks County
 PennDOT Engineering District: 6

Analysis Date: 10/9/2020
 Conducted By: AGR
 Agency/Company Name: McMahon

Analysis Information

Data Collection Date: 1/31/2019
 Day of the Week: Thursday

Is the intersection in a built-up area of an isolated community of <10,000 population? No

Major Street Information

Major Street Name and Route Number: Lower York Road (Route 202)
 Major Street Approach #1 Direction: N-Bound
 Major Street Approach #2 Direction: S-Bound

Number of Lanes for Moving Traffic on Each Major Street Approach: 1 LANE(S)
 Speed Limit or 85th Percentile Speed on the Major Street: 45 MPH

Minor Street Information

Minor Street Name and Route Number: Silvertail Lane
 Minor Street Approach #1 Direction: E-Bound
 Minor Street Approach #2 Direction: N/A

Number of Lanes for Moving Traffic on Each Minor Street Approach: 1 LANE(S)

TRAFFIC SIGNAL WARRANT ANALYSIS FINDINGS

	Applicable?	Warrant Met?
Warrant 1, Eight-Hour Vehicular Volume	No	N/A
Warrant 2, Four-Hour Vehicular Volume	No	N/A
Warrant 3, Peak Hour	Yes	No
Warrant 4, Pedestrian Volume	No	N/A
Warrant 5, School Crossing	No	N/A
Warrant 6, Coordinated Signal System	No	N/A
Warrant 7, Crash Experience	No	N/A
Warrant 8, Roadway Network	No	N/A
Warrant 9, Intersection Near a Grade Crossing	No	N/A
Warrant PA-1, ADT Volume Warrant	No	N/A
Warrant PA-2, Midblock and Trail Crossings	No	N/A

MUTCD WARRANT 3, PEAK HOUR

Number of Lanes for Moving Traffic on Each Approach	
Major Street:	1 Lane
Minor Street:	1 Lane

Built-up Isolated Community With Less Than 10,000 Population or Above 40 MPH on Major Street?	Yes

Is this signal warrant being applied for an unusual case, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time?

N/A

Indicate whether all three of the following conditions for the same 1 hour (any four consecutive 15-minute periods) of an average day are present*

Does the total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceed 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach?	N/A
Does the volume on the same minor-street approach (one direction only) equal or exceed 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes?	N/A
Does the total entering volume serviced during the hour equal or exceed 650 vehicles per hour for intersection with three approaches or 800 vehicles per hour for intersections with four or more approaches?	N/A

**If applicable, attach all supporting calculations and documentation.*

Total Number of Unique Hours Met On Figure 4C-4
0

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
12:00 AM	0	0	
12:15 AM	0	0	
12:30 AM	0	0	
12:45 AM	0	0	
1:00 AM	0	0	
1:15 AM	0	0	
1:30 AM	0	0	
1:45 AM	0	0	
2:00 AM	0	0	
2:15 AM	0	0	
2:30 AM	0	0	
2:45 AM	0	0	
3:00 AM	0	0	
3:15 AM	0	0	
3:30 AM	0	0	
3:45 AM	0	0	
4:00 AM	0	0	
4:15 AM	0	0	
4:30 AM	0	0	
4:45 AM	0	0	
5:00 AM	0	0	
5:15 AM	0	0	
5:30 AM	0	0	
5:45 AM	0	0	
6:00 AM	0	0	
6:15 AM	1573	17	
6:30 AM	1573	17	
6:45 AM	1573	17	
7:00 AM	1573	17	
7:15 AM	0	0	
7:30 AM	0	0	
7:45 AM	0	0	
8:00 AM	0	0	
8:15 AM	0	0	

Hourly Vehicular Volume			
Hour Interval	Major Street Combined	Highest Minor Street Approach	Hour Met?
Beginning At	Vehicles Per Hour (VPH)	Vehicles Per Hour (VPH)	
8:30 AM	0	0	
8:45 AM	0	0	
9:00 AM	0	0	
9:15 AM	0	0	
9:30 AM	0	0	
9:45 AM	0	0	
10:00 AM	0	0	
10:15 AM	1805	24	
10:30 AM	1805	24	
10:45 AM	1805	24	
11:00 AM	1805	24	
11:15 AM	0	0	
11:30 AM	0	0	
11:45 AM	0	0	
12:00 PM	0	0	
12:15 PM	0	0	
12:30 PM	0	0	
12:45 PM	0	0	
1:00 PM	0	0	
1:15 PM	0	0	
1:30 PM	0	0	
1:45 PM	0	0	
2:00 PM	0	0	
2:15 PM	0	0	
2:30 PM	0	0	
2:45 PM	0	0	
3:00 PM	0	0	
3:15 PM	1939	11	
3:30 PM	1939	11	
3:45 PM	1939	11	
4:00 PM	1939	11	
4:15 PM	0	0	
4:30 PM	0	0	
4:45 PM	0	0	
5:00 PM	0	0	
5:15 PM	0	0	
5:30 PM	0	0	
5:45 PM	0	0	
6:00 PM	0	0	
6:15 PM	0	0	
6:30 PM	0	0	
6:45 PM	0	0	
7:00 PM	0	0	
7:15 PM	0	0	
7:30 PM	0	0	
7:45 PM	0	0	
8:00 PM	0	0	
8:15 PM	0	0	
8:30 PM	0	0	
8:45 PM	0	0	
9:00 PM	0	0	
9:15 PM	0	0	
9:30 PM	0	0	
9:45 PM	0	0	
10:00 PM	0	0	
10:15 PM	0	0	
10:30 PM	0	0	
10:45 PM	0	0	
11:00 PM	0	0	

MUTCD Figure 4C-4. Warrant 3, Peak Hour (70% Factor)