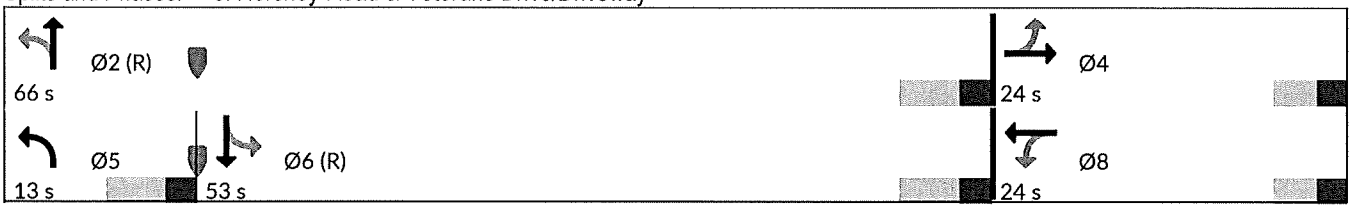
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0					0	0			0	
Storage Cap Reductn	0	0					0	0			0	
Reduced v/c Ratio	0.66	0.20					0.43	0.46			0.90	

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
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay (s/veh): 24.4 Intersection LOS: C
Intersection Capacity Utilization 105.7% ICU Level of Service G
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

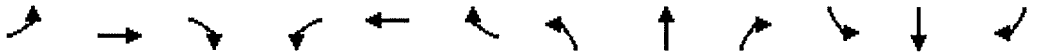
Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway



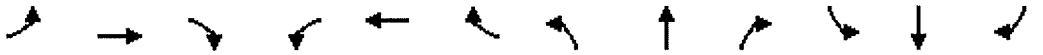
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	0	110	0	0	0	114	566	0	0	682	194
Future Volume (veh/h)	166	0	110	0	0	0	114	566	0	0	682	194
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1669	1711	1697	1875	1875	1875	1912	1869	1912	1750	1708	1708
Adj Flow Rate, veh/h	168	0	111	0	0	0	115	572	0	0	689	196
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, %	3	0	1	0	0	0	0	3	0	0	3	3
Cap, veh/h	290	0	192	0	248	0	297	1393	0	0	801	228
Arrive On Green	0.13	0.00	0.13	0.00	0.00	0.00	0.05	0.75	0.00	0.00	0.63	0.63
Sat Flow, veh/h	1589	0	1450	0	1875	0	1821	1869	0	0	1278	364
Grp Volume(v), veh/h	168	0	111	0	0	0	115	572	0	0	0	885
Grp Sat Flow(s),veh/h/ln	1589	0	1450	0	1875	0	1821	1869	0	0	0	1642
Q Serve(g_s), s	9.2	0.0	6.5	0.0	0.0	0.0	1.8	10.1	0.0	0.0	0.0	39.3
Cycle Q Clear(g_c), s	9.2	0.0	6.5	0.0	0.0	0.0	1.8	10.1	0.0	0.0	0.0	39.3
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	0.00		0.22
Lane Grp Cap(c), veh/h	290	0	192	0	248	0	297	1393	0	0	0	1029
V/C Ratio(X)	0.58	0.00	0.58	0.00	0.00	0.00	0.39	0.41	0.00	0.00	0.00	0.86
Avail Cap(c_a), veh/h	415	0	306	0	396	0	343	1393	0	0	0	1029
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	1.00	0.00	0.00	0.00	0.52	0.52	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	36.7	0.0	0.0	0.0	15.8	4.2	0.0	0.0	0.0	13.6
Incr Delay (d2), s/veh	1.8	0.0	2.7	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	9.4
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	6.7	0.0	4.4	0.0	0.0	0.0	2.1	4.4	0.0	0.0	0.0	19.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.7	0.0	39.4	0.0	0.0	0.0	16.3	4.7	0.0	0.0	0.0	23.0
LnGrp LOS	D		D				B	A				C
Approach Vol, veh/h		279			0			687			885	
Approach Delay, s/veh		39.6			0.0			6.6			23.0	
Approach LOS		D						A			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		73.1		16.9	10.7	62.4		16.9				
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s		60.0		19.0	7.0	47.0		19.0				
Max Q Clear Time (g_c+I1), s		12.1		11.2	3.8	41.3		0.0				
Green Ext Time (p_c), s		3.8		0.7	0.1	2.1		0.0				

Intersection Summary												
HCM 6th Ctrl Delay, s/veh			19.4									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	0	56	0	0	1	66	425	0	1	369	29
Future Volume (vph)	41	0	56	0	0	1	66	425	0	1	369	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		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
Frt		0.850			0.865						0.990	
Flt Protected	0.950							0.993				
Satd. Flow (prot)	1533	1470	0	0	1573	0	0	1779	0	0	1739	0
Flt Permitted	0.870							0.899			0.999	
Satd. Flow (perm)	1404	1470	0	0	1573	0	0	1610	0	0	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		475			417						15	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	45	0	61	0	0	1	72	462	0	1	401	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	61	0	0	1	0	0	534	0	0	434	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



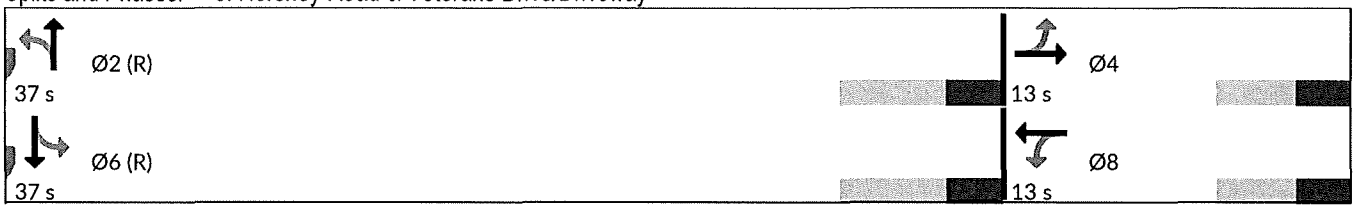
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	13.0	13.0		13.0	13.0		37.0	37.0		37.0	37.0	
Total Split (%)	26.0%	26.0%		26.0%	26.0%		74.0%	74.0%		74.0%	74.0%	
Maximum Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	6.9	6.9			6.6			38.8			38.8	
Actuated g/C Ratio	0.14	0.14			0.13			0.78			0.78	
v/c Ratio	0.23	0.10			0.00			0.43			0.32	
Control Delay (s/veh)	21.8	0.3			0.0			5.5			4.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay (s/veh)	21.8	0.3			0.0			5.5			4.4	
LOS	C	A			A			A			A	
Approach Delay (s/veh)		9.4						5.5			4.4	
Approach LOS		A						A			A	
90th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
70th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
50th %ile Green (s)	7.2	7.2		7.2	7.2		31.8	31.8		31.8	31.8	
50th %ile Term Code	Gap	Gap		Hold	Hold		Coord	Coord		Coord	Coord	
30th %ile Green (s)	0.0	0.0		0.0	0.0		44.0	44.0		44.0	44.0	
30th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Coord	Coord	
10th %ile Green (s)	0.0	0.0		0.0	0.0		44.0	44.0		44.0	44.0	
10th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Coord	Coord	
Stops (vph)	37	0			0			226			136	
Fuel Used(gal)	0	0			0			7			8	
CO Emissions (g/hr)	32	13			1			502			540	
NOx Emissions (g/hr)	6	2			0			98			105	
VOC Emissions (g/hr)	7	3			0			116			125	
Dilemma Vehicles (#)	0	0			0			21			30	
Queue Length 50th (ft)	12	0			0			207			47	
Queue Length 95th (ft)	34	0			0			131			91	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225											
Base Capacity (vph)	224	634			601			1248			1350	
Starvation Cap Reductn	0	0			0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.20	0.10			0.00			0.43			0.32	

Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 15 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 5.5 Intersection LOS: A
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway

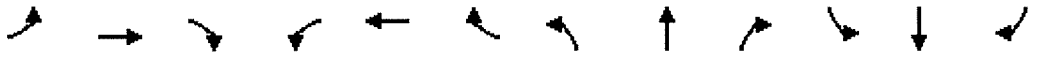


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	0	56	0	0	1	66	425	0	1	369	29
Future Volume (veh/h)	41	0	56	0	0	1	66	425	0	1	369	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	45	0	61	0	0	1	72	462	0	1	401	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	242	0	112	0	0	123	187	1118	0	72	1114	89
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.08	0.70	0.70	0.00	0.70	0.70	0.70
Sat Flow, veh/h	1274	0	1450	0	0	1588	149	1591	0	0	1586	126
Grp Volume(v), veh/h	45	0	61	0	0	1	534	0	0	434	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1740	0	0	1713	0	0
Q Serve(g_s), s	1.7	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	2.0	0.0	0.0	0.0	5.9	0.0	0.0	5.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	0.13		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	242	0	112	0	0	123	1305	0	0	1275	0	0
V/C Ratio(X)	0.19	0.00	0.54	0.00	0.00	0.01	0.41	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	347	0	232	0	0	254	1305	0	0	1275	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	1.00	0.00	0.00	1.00	0.83	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.1	0.0	22.2	0.0	0.0	21.3	3.1	0.0	0.0	3.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	4.1	0.0	0.0	0.0	0.8	0.0	0.0	0.7	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	0.9	0.0	1.4	0.0	0.0	0.0	1.3	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.5	0.0	26.3	0.0	0.0	21.3	3.9	0.0	0.0	3.7	0.0	0.0
LnGrp LOS	C		C			C	A			A		
Approach Vol, veh/h		106			1			534			434	
Approach Delay, s/veh		24.6			21.3			3.9			3.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	41.1	8.9	41.1	8.9
Change Period (Y+Rc), s	6.0	5.0	6.0	5.0
Max Green Setting (Gmax), s	31.0	8.0	31.0	8.0
Max Q Clear Time (g_c+I1), s	7.9	4.0	7.0	2.0
Green Ext Time (p_c), s	3.4	0.1	1.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay, s/veh	5.9
HCM 6th LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	0	56	0	0	1	66	427	0	1	371	29
Future Volume (vph)	41	0	56	0	0	1	66	427	0	1	371	29
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		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
Frt		0.850			0.865						0.990	
Flt Protected	0.950							0.993				
Satd. Flow (prot)	1533	1470	0	0	1573	0	0	1779	0	0	1739	0
Flt Permitted	0.870							0.899			0.999	
Satd. Flow (perm)	1404	1470	0	0	1573	0	0	1610	0	0	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		472			415						15	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	45	0	61	0	0	1	72	464	0	1	403	32
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	61	0	0	1	0	0	536	0	0	436	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



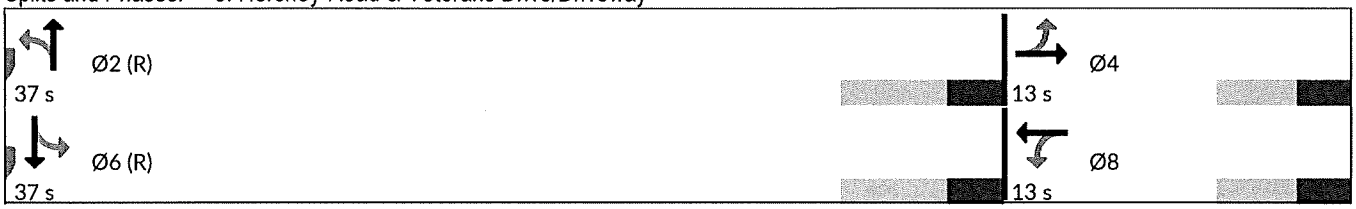
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	13.0	13.0		13.0	13.0		37.0	37.0		37.0	37.0	
Total Split (%)	26.0%	26.0%		26.0%	26.0%		74.0%	74.0%		74.0%	74.0%	
Maximum Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	6.9	6.9			6.6			38.8			38.8	
Actuated g/C Ratio	0.14	0.14			0.13			0.78			0.78	
v/c Ratio	0.23	0.10			0.00			0.43			0.32	
Control Delay (s/veh)	21.8	0.3			0.0			5.6			4.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay (s/veh)	21.8	0.3			0.0			5.6			4.4	
LOS	C	A			A			A			A	
Approach Delay (s/veh)		9.4						5.6			4.4	
Approach LOS		A						A			A	
90th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
70th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
50th %ile Green (s)	7.2	7.2		7.2	7.2		31.8	31.8		31.8	31.8	
50th %ile Term Code	Gap	Gap		Hold	Hold		Coord	Coord		Coord	Coord	
30th %ile Green (s)	0.0	0.0		0.0	0.0		44.0	44.0		44.0	44.0	
30th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Coord	Coord	
10th %ile Green (s)	0.0	0.0		0.0	0.0		44.0	44.0		44.0	44.0	
10th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Coord	Coord	
Stops (vph)	37	0			0			227			136	
Fuel Used(gal)	0	0			0			7			8	
CO Emissions (g/hr)	32	13			1			504			542	
NOx Emissions (g/hr)	6	2			0			98			105	
VOC Emissions (g/hr)	7	3			0			117			126	
Dilemma Vehicles (#)	0	0			0			21			30	
Queue Length 50th (ft)	12	0			0			209			47	
Queue Length 95th (ft)	34	0			0			132			92	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225											
Base Capacity (vph)	224	631			600			1248			1350	
Starvation Cap Reductn	0	0			0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.20	0.10			0.00			0.43			0.32	

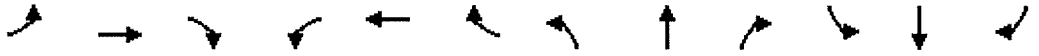
Intersection Summary

Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 15 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.43
Intersection Signal Delay (s/veh): 5.5 Intersection LOS: A
Intersection Capacity Utilization 73.3% ICU Level of Service D
Analysis Period (min) 15

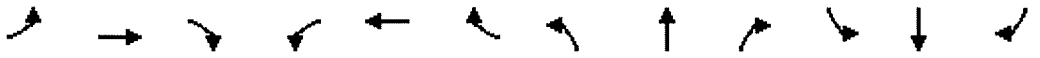
Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	0	56	0	0	1	66	427	0	1	371	29
Future Volume (veh/h)	41	0	56	0	0	1	66	427	0	1	371	29
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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	45	0	61	0	0	1	72	464	0	1	403	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	242	0	112	0	0	123	186	1119	0	72	1115	88
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.08	0.70	0.70	0.00	0.70	0.70	0.70
Sat Flow, veh/h	1274	0	1450	0	0	1588	148	1592	0	0	1587	126
Grp Volume(v), veh/h	45	0	61	0	0	1	536	0	0	436	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1741	0	0	1713	0	0
Q Serve(g_s), s	1.7	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	2.0	0.0	0.0	0.0	5.9	0.0	0.0	5.1	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	0.13		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	242	0	112	0	0	123	1305	0	0	1276	0	0
V/C Ratio(X)	0.19	0.00	0.54	0.00	0.00	0.01	0.41	0.00	0.00	0.34	0.00	0.00
Avail Cap(c_a), veh/h	347	0	232	0	0	254	1305	0	0	1276	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	1.00	0.00	0.00	1.00	0.83	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.1	0.0	22.2	0.0	0.0	21.3	3.1	0.0	0.0	3.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	4.1	0.0	0.0	0.0	0.8	0.0	0.0	0.7	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	0.9	0.0	1.4	0.0	0.0	0.0	1.3	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.5	0.0	26.3	0.0	0.0	21.3	3.9	0.0	0.0	3.7	0.0	0.0
LnGrp LOS	C		C			C	A			A		
Approach Vol, veh/h		106			1			536			436	
Approach Delay, s/veh		24.6			21.3			3.9			3.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.1		8.9		41.1		8.9				
Change Period (Y+Rc), s		6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s		31.0		8.0		31.0		8.0				
Max Q Clear Time (g_c+I1), s		7.9		4.0		7.1		2.0				
Green Ext Time (p_c), s		3.4		0.1		1.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			5.9									
HCM 6th LOS			A									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	0	101	0	0	1	115	409	0	1	357	170
Future Volume (vph)	185	0	101	0	0	1	115	409	0	1	357	170
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		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
Frt		0.850			0.865						0.956	
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1533	1470	0	0	1573	0	0	1771	0	0	1684	0
Flt Permitted	0.757							0.781			0.999	
Satd. Flow (perm)	1222	1470	0	0	1573	0	0	1399	0	0	1682	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		488			432						90	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	201	0	110	0	0	1	125	445	0	1	388	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	110	0	0	1	0	0	570	0	0	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



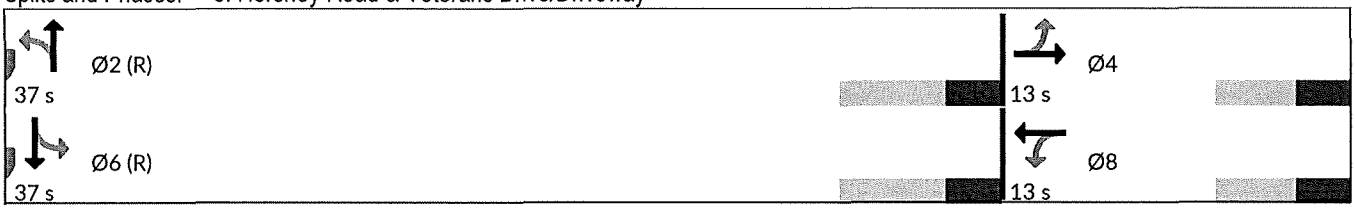
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	13.0	13.0		13.0	13.0		37.0	37.0		37.0	37.0	
Total Split (%)	26.0%	26.0%		26.0%	26.0%		74.0%	74.0%		74.0%	74.0%	
Maximum Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	8.0	8.0			8.0			31.0			31.0	
Actuated g/C Ratio	0.16	0.16			0.16			0.62			0.62	
v/c Ratio	1.03	0.17			0.00			0.66			0.53	
Control Delay (s/veh)	101.6	0.6			0.0			14.2			6.6	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay (s/veh)	101.6	0.6			0.0			14.2			6.6	
LOS	F	A			A			B			A	
Approach Delay (s/veh)		65.9						14.2			6.6	
Approach LOS		E						B			A	
90th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
70th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
50th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
50th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
30th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
30th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
10th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
Stops (vph)	143	0			0			407			231	
Fuel Used(gal)	5	0			0			11			11	
CO Emissions (g/hr)	347	23			1			744			776	
NOx Emissions (g/hr)	68	5			0			145			151	
VOC Emissions (g/hr)	80	5			0			172			180	
Dilemma Vehicles (#)	0	0			0			47			53	
Queue Length 50th (ft)	~62	0			0			244			61	
Queue Length 95th (ft)	#167	0			0			197			121	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225											
Base Capacity (vph)	195	645			614			867			1077	
Starvation Cap Reductn	0	0			0			0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	1.03	0.17			0.00			0.66			0.53	

Intersection Summary

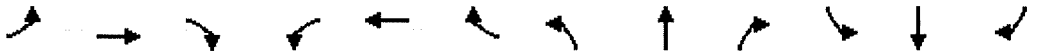
Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 15 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay (s/veh): 22.2 Intersection LOS: C
Intersection Capacity Utilization 91.9% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	0	101	0	0	1	115	409	0	1	357	170
Future Volume (veh/h)	185	0	101	0	0	1	115	409	0	1	357	170
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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	201	0	110	0	0	1	125	445	0	1	388	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	347	0	232	0	0	254	250	838	0	72	689	328
Arrive On Green	0.16	0.00	0.16	0.00	0.00	0.16	0.20	0.20	0.00	0.62	0.62	0.62
Sat Flow, veh/h	1274	0	1450	0	0	1588	261	1352	0	0	1111	529
Grp Volume(v), veh/h	201	0	110	0	0	1	570	0	0	574	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1613	0	0	1640	0	0
Q Serve(g_s), s	7.9	0.0	3.4	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	3.4	0.0	0.0	0.0	14.4	0.0	0.0	10.2	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	0.22		0.00	0.00		0.32
Lane Grp Cap(c), veh/h	347	0	232	0	0	254	1088	0	0	1089	0	0
V/C Ratio(X)	0.58	0.00	0.47	0.00	0.00	0.00	0.52	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	347	0	232	0	0	254	1088	0	0	1089	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.80	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.0	0.0	19.1	0.0	0.0	17.7	13.0	0.0	0.0	5.6	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	1.5	0.0	0.0	0.0	1.4	0.0	0.0	1.8	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	4.3	0.0	2.1	0.0	0.0	0.0	10.0	0.0	0.0	3.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.4	0.0	20.6	0.0	0.0	17.7	14.4	0.0	0.0	7.4	0.0	0.0
LnGrp LOS	C		C			B	B			A		
Approach Vol, veh/h		311			1			570			574	
Approach Delay, s/veh		22.4			17.7			14.4			7.4	
Approach LOS		C			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		13.0		37.0		13.0				
Change Period (Y+Rc), s		6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s		31.0		8.0		31.0		8.0				
Max Q Clear Time (g_c+I1), s		16.4		9.9		12.2		2.0				
Green Ext Time (p_c), s		3.3		0.0		2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	0	101	0	0	1	115	409	0	1	357	170
Future Volume (vph)	185	0	101	0	0	1	115	409	0	1	357	170
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		0	0		0	1		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
Frt		0.850			0.865						0.956	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1533	1470	0	0	1573	0	1702	1791	0	0	1684	0
Flt Permitted	0.757						0.343					
Satd. Flow (perm)	1222	1470	0	0	1573	0	614	1791	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		451			391						30	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	201	0	110	0	0	1	125	445	0	1	388	185
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	110	0	0	1	0	125	445	0	0	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



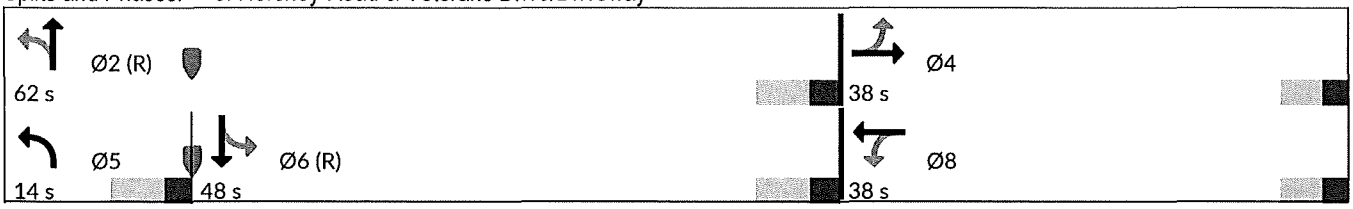
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		13.0	24.0		24.0	24.0	
Total Split (s)	38.0	38.0		38.0	38.0		14.0	62.0		48.0	48.0	
Total Split (%)	38.0%	38.0%		38.0%	38.0%		14.0%	62.0%		48.0%	48.0%	
Maximum Green (s)	33.0	33.0		33.0	33.0		8.0	56.0		42.0	42.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0		6.0	6.0			6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	21.9	21.9			21.9		67.1	67.1			53.0	
Actuated g/C Ratio	0.22	0.22			0.22		0.67	0.67			0.53	
v/c Ratio	0.75	0.16			0.00		0.25	0.37			0.63	
Control Delay (s/veh)	52.9	0.5			0.0		2.6	2.2			21.9	
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	
Total Delay (s/veh)	52.9	0.5			0.0		2.6	2.2			21.9	
LOS	D	A			A		A	A			C	
Approach Delay (s/veh)		34.4						2.3			21.9	
Approach LOS		C						A			C	
90th %ile Green (s)	31.1	31.1		31.1	31.1		9.9	57.9		42.0	42.0	
90th %ile Term Code	Gap	Gap		Hold	Hold		Max	Coord		Coord	Coord	
70th %ile Green (s)	25.5	25.5		25.5	25.5		9.2	63.5		48.3	48.3	
70th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
50th %ile Green (s)	21.9	21.9		21.9	21.9		8.1	67.1		53.0	53.0	
50th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
30th %ile Green (s)	18.2	18.2		18.2	18.2		7.1	70.8		57.7	57.7	
30th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
10th %ile Green (s)	12.9	12.9		12.9	12.9		6.0	76.1		64.1	64.1	
10th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
Stops (vph)	168	0			0		7	25			358	
Fuel Used(gal)	3	0			0		1	4			14	
CO Emissions (g/hr)	225	23			1		73	257			1000	
NOx Emissions (g/hr)	44	5			0		14	50			195	
VOC Emissions (g/hr)	52	5			0		17	59			232	
Dilemma Vehicles (#)	0	0			0		0	11			26	
Queue Length 50th (ft)	120	0			0		4	14			233	
Queue Length 95th (ft)	179	0			0		m12	37			#449	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225						175					
Base Capacity (vph)	403	787			781		505	1201			906	
Starvation Cap Reductn	0	0			0		0	0			0	

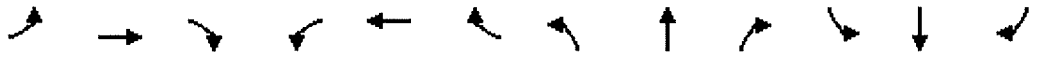
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.50	0.14			0.00		0.25	0.37			0.63	

Intersection Summary

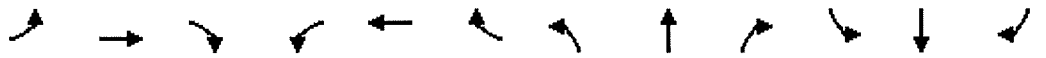
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 15 (15%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 16.9 Intersection LOS: B
Intersection Capacity Utilization 85.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway

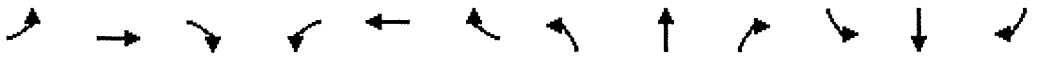




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	0	101	0	0	1	115	409	0	1	357	170
Future Volume (veh/h)	185	0	101	0	0	1	115	409	0	1	357	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	201	0	110	0	0	1	125	445	0	1	388	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	307	0	269	0	0	294	547	1327	0	36	663	315
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.19	0.10	1.00	0.00	0.60	0.60	0.60
Sat Flow, veh/h	1274	0	1450	0	0	1588	1794	1883	0	0	1111	529
Grp Volume(v), veh/h	201	0	110	0	0	1	125	445	0	574	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1794	1883	0	1640	0	0
Q Serve(g_s), s	15.3	0.0	6.7	0.0	0.0	0.1	2.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	15.3	0.0	6.7	0.0	0.0	0.1	2.6	0.0	0.0	21.7	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	0.00		0.32
Lane Grp Cap(c), veh/h	307	0	269	0	0	294	547	1327	0	1014	0	0
V/C Ratio(X)	0.65	0.00	0.41	0.00	0.00	0.00	0.23	0.34	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	492	0	478	0	0	524	604	1327	0	1014	0	0
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	1.00	0.00	0.00	1.00	0.74	0.74	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.5	0.0	35.9	0.0	0.0	33.2	5.7	0.0	0.0	12.5	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	1.0	0.0	0.0	0.0	0.2	0.5	0.0	2.3	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	8.6	0.0	4.4	0.0	0.0	0.0	1.3	0.3	0.0	11.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.8	0.0	36.9	0.0	0.0	33.2	5.9	0.5	0.0	14.8	0.0	0.0
LnGrp LOS	D		D			C	A	A		B		
Approach Vol, veh/h		311			1			570			574	
Approach Delay, s/veh		40.1			33.2			1.7			14.8	
Approach LOS		D			C			A			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		76.5		23.5	10.8	65.6		23.5				
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s		56.0		33.0	8.0	42.0		33.0				
Max Q Clear Time (g_c+I1), s		2.0		17.3	4.6	23.7		2.1				
Green Ext Time (p_c), s		2.7		1.2	0.1	2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.1									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	58	56	0	0	1	68	438	0	1	380	30
Future Volume (vph)	42	58	56	0	0	1	68	438	0	1	380	30
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		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
Frt		0.926			0.865						0.990	
Flt Protected	0.950							0.993				
Satd. Flow (prot)	1533	1618	0	0	1573	0	0	1779	0	0	1739	0
Flt Permitted	0.757							0.895			0.999	
Satd. Flow (perm)	1222	1618	0	0	1573	0	0	1603	0	0	1737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		61			405						15	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	46	63	61	0	0	1	74	476	0	1	413	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	124	0	0	1	0	0	550	0	0	447	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

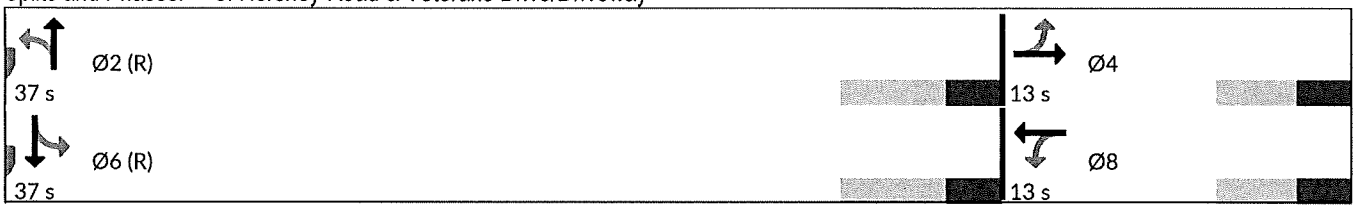


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	13.0	13.0		13.0	13.0		37.0	37.0		37.0	37.0	
Total Split (%)	26.0%	26.0%		26.0%	26.0%		74.0%	74.0%		74.0%	74.0%	
Maximum Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	7.0	7.0			6.9			35.3			35.3	
Actuated g/C Ratio	0.14	0.14			0.14			0.71			0.71	
v/c Ratio	0.27	0.44			0.00			0.49			0.36	
Control Delay (s/veh)	23.0	16.8			0.0			7.7			5.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay (s/veh)	23.0	16.8			0.0			7.7			5.2	
LOS	C	B			A			A			A	
Approach Delay (s/veh)		18.5						7.7			5.2	
Approach LOS		B						A			A	
90th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
70th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
50th %ile Green (s)	7.4	7.4		7.4	7.4		31.6	31.6		31.6	31.6	
50th %ile Term Code	Gap	Gap		Hold	Hold		Coord	Coord		Coord	Coord	
30th %ile Green (s)	6.1	6.1		6.1	6.1		32.9	32.9		32.9	32.9	
30th %ile Term Code	Gap	Gap		Hold	Hold		Coord	Coord		Coord	Coord	
10th %ile Green (s)	0.0	0.0		0.0	0.0		44.0	44.0		44.0	44.0	
10th %ile Term Code	Skip	Skip		Skip	Skip		Coord	Coord		Coord	Coord	
Stops (vph)	41	60			0			304			164	
Fuel Used(gal)	0	1			0			9			8	
CO Emissions (g/hr)	34	69			1			594			582	
NOx Emissions (g/hr)	7	13			0			116			113	
VOC Emissions (g/hr)	8	16			0			138			135	
Dilemma Vehicles (#)	0	0			0			29			37	
Queue Length 50th (ft)	12	17			0			217			50	
Queue Length 95th (ft)	35	54			0			152			95	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225											
Base Capacity (vph)	195	310			591			1131			1230	
Starvation Cap Reductn	0	0			0			0			0	

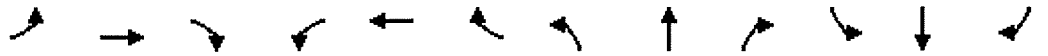
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.24	0.40			0.00			0.49			0.36	

Intersection Summary			
Area Type:	Other		
Cycle Length: 50			
Actuated Cycle Length: 50			
Offset: 15 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay (s/veh): 8.3		Intersection LOS: A	
Intersection Capacity Utilization 74.7%		ICU Level of Service D	
Analysis Period (min) 15			

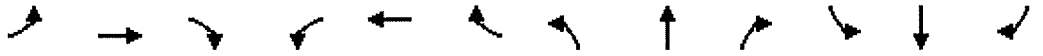
Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	58	56	0	0	1	68	438	0	1	380	30
Future Volume (veh/h)	42	58	56	0	0	1	68	438	0	1	380	30
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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	46	63	61	0	0	1	74	476	0	1	413	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	281	87	84	0	0	172	180	1071	0	72	1065	85
Arrive On Green	0.11	0.11	0.11	0.00	0.00	0.11	0.45	0.45	0.00	0.67	0.67	0.67
Sat Flow, veh/h	1274	798	773	0	0	1588	146	1595	0	0	1586	126
Grp Volume(v), veh/h	46	0	124	0	0	1	550	0	0	447	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1572	0	0	1589	1740	0	0	1713	0	0
Q Serve(g_s), s	1.7	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	3.8	0.0	0.0	0.0	10.0	0.0	0.0	5.8	0.0	0.0
Prop In Lane	1.00		0.49	0.00		1.00	0.13		0.00	0.00		0.07
Lane Grp Cap(c), veh/h	281	0	170	0	0	172	1251	0	0	1222	0	0
V/C Ratio(X)	0.16	0.00	0.73	0.00	0.00	0.01	0.44	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	347	0	251	0	0	254	1251	0	0	1222	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.82	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.6	0.0	21.6	0.0	0.0	19.9	7.3	0.0	0.0	3.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	5.8	0.0	0.0	0.0	0.9	0.0	0.0	0.8	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	0.9	0.0	2.8	0.0	0.0	0.0	3.9	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.9	0.0	27.4	0.0	0.0	19.9	8.2	0.0	0.0	4.5	0.0	0.0
LnGrp LOS	C		C			B	A			A		
Approach Vol, veh/h		170			1			550			447	
Approach Delay, s/veh		25.7			19.9			8.2			4.5	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		39.6		10.4		39.6		10.4				
Change Period (Y+Rc), s		6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s		31.0		8.0		31.0		8.0				
Max Q Clear Time (g_c+I1), s		12.0		5.8		7.8		2.0				
Green Ext Time (p_c), s		3.3		0.2		1.5		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			9.3									
HCM 6th LOS			A									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	0	103	0	0	1	117	420	0	1	366	171
Future Volume (vph)	186	0	103	0	0	1	117	420	0	1	366	171
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		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
Frt		0.850			0.865						0.957	
Flt Protected	0.950							0.989				
Satd. Flow (prot)	1533	1470	0	0	1573	0	0	1771	0	0	1685	0
Flt Permitted	0.757							0.778			0.999	
Satd. Flow (perm)	1222	1470	0	0	1573	0	0	1394	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		478			422						88	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	202	0	112	0	0	1	127	457	0	1	398	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	112	0	0	1	0	0	584	0	0	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	



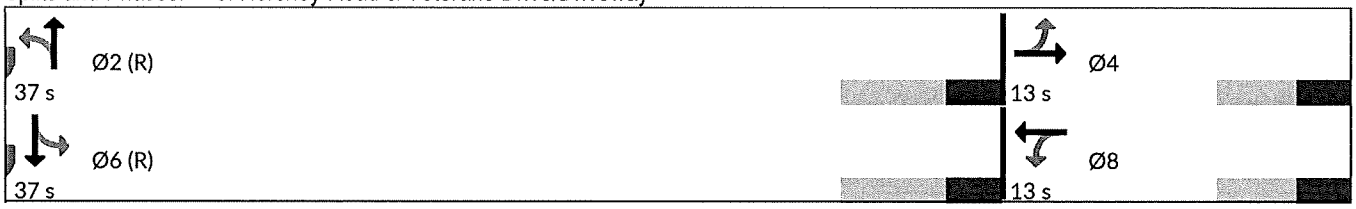
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	13.0	13.0		13.0	13.0		37.0	37.0		37.0	37.0	
Total Split (%)	26.0%	26.0%		26.0%	26.0%		74.0%	74.0%		74.0%	74.0%	
Maximum Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0			6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Act Effct Green (s)	8.0	8.0			8.0			31.0			31.0	
Actuated g/C Ratio	0.16	0.16			0.16			0.62			0.62	
v/c Ratio	1.04	0.18			0.00			0.68			0.54	
Control Delay (s/veh)	103.1	0.6			0.0			14.8			6.8	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay (s/veh)	103.1	0.6			0.0			14.8			6.8	
LOS	F	A			A			B			A	
Approach Delay (s/veh)		66.5						14.8			6.8	
Approach LOS		E						B			A	
90th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
70th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
50th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
50th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
30th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
30th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
10th %ile Green (s)	8.0	8.0		8.0	8.0		31.0	31.0		31.0	31.0	
10th %ile Term Code	Max	Max		Hold	Hold		Coord	Coord		Coord	Coord	
Stops (vph)	143	0			0			469			241	
Fuel Used(gal)	5	0			0			12			11	
CO Emissions (g/hr)	352	24			1			812			797	
NOx Emissions (g/hr)	69	5			0			158			155	
VOC Emissions (g/hr)	82	6			0			188			185	
Dilemma Vehicles (#)	0	0			0			49			54	
Queue Length 50th (ft)	~63	0			0			245			64	
Queue Length 95th (ft)	#168	0			0			198			125	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225											
Base Capacity (vph)	195	636			606			864			1077	
Starvation Cap Reductn	0	0			0			0			0	

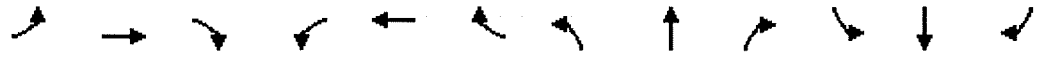
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	1.04	0.18			0.00			0.68			0.54	

Intersection Summary

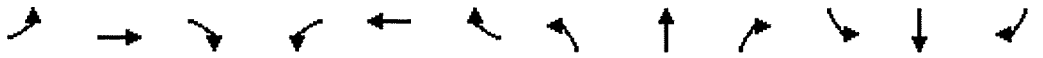
Area Type: Other
Cycle Length: 50
Actuated Cycle Length: 50
Offset: 15 (30%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay (s/veh): 22.6 Intersection LOS: C
Intersection Capacity Utilization 93.3% ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	0	103	0	0	1	117	420	0	1	366	171
Future Volume (veh/h)	186	0	103	0	0	1	117	420	0	1	366	171
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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	202	0	112	0	0	1	127	457	0	1	398	186
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	347	0	232	0	0	254	248	841	0	72	694	324
Arrive On Green	0.16	0.00	0.16	0.00	0.00	0.16	0.20	0.20	0.00	0.62	0.62	0.62
Sat Flow, veh/h	1274	0	1450	0	0	1588	258	1357	0	0	1119	522
Grp Volume(v), veh/h	202	0	112	0	0	1	584	0	0	585	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1615	0	0	1641	0	0
Q Serve(g_s), s	7.9	0.0	3.5	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.9	0.0	3.5	0.0	0.0	0.0	14.8	0.0	0.0	10.5	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	0.22		0.00	0.00		0.32
Lane Grp Cap(c), veh/h	347	0	232	0	0	254	1089	0	0	1090	0	0
V/C Ratio(X)	0.58	0.00	0.48	0.00	0.00	0.00	0.54	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	347	0	232	0	0	254	1089	0	0	1090	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00	0.82	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.0	0.0	19.1	0.0	0.0	17.7	13.1	0.0	0.0	5.6	0.0	0.0
Incr Delay (d2), s/veh	2.5	0.0	1.6	0.0	0.0	0.0	1.6	0.0	0.0	1.9	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	4.3	0.0	2.1	0.0	0.0	0.0	10.8	0.0	0.0	3.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.4	0.0	20.7	0.0	0.0	17.7	14.7	0.0	0.0	7.5	0.0	0.0
LnGrp LOS	C		C			B	B			A		
Approach Vol, veh/h		314			1			584			585	
Approach Delay, s/veh		22.5			17.7			14.7			7.5	
Approach LOS		C			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		37.0		13.0		37.0		13.0				
Change Period (Y+Rc), s		6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s		31.0		8.0		31.0		8.0				
Max Q Clear Time (g_c+I1), s		16.8		9.9		12.5		2.0				
Green Ext Time (p_c), s		3.4		0.0		2.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			13.5									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	186	0	103	0	0	1	117	420	0	1	366	171
Future Volume (vph)	186	0	103	0	0	1	117	420	0	1	366	171
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		4%			-2%			-3%			3%	
Storage Length (ft)	225		0	0		0	175		0	0		225
Storage Lanes	1		0	0		0	1		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
Frt		0.850			0.865						0.957	
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1533	1470	0	0	1573	0	1702	1791	0	0	1685	0
Flt Permitted	0.757						0.338					
Satd. Flow (perm)	1222	1470	0	0	1573	0	605	1791	0	0	1685	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		442			380						29	
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		373			1995			1196			2191	
Travel Time (s)		10.2			54.4			18.1			33.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	2%	0%	0%	0%	2%	2%	0%	0%	1%	0%
Adj. Flow (vph)	202	0	112	0	0	1	127	457	0	1	398	186
Shared Lane Traffic (%)												
Lane Group Flow (vph)	202	112	0	0	1	0	127	457	0	0	585	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		10			10			13			13	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.20	1.10	1.10	1.06	1.06	1.06	1.05	1.05	1.05	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

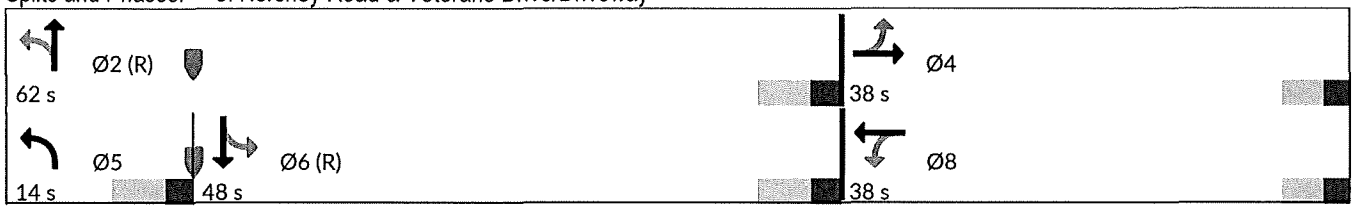
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		13.0	24.0		24.0	24.0	
Total Split (s)	38.0	38.0		38.0	38.0		14.0	62.0		48.0	48.0	
Total Split (%)	38.0%	38.0%		38.0%	38.0%		14.0%	62.0%		48.0%	48.0%	
Maximum Green (s)	33.0	33.0		33.0	33.0		8.0	56.0		42.0	42.0	
Yellow Time (s)	3.0	3.0		3.0	3.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)	5.0	5.0			5.0		6.0	6.0			6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		2.0	2.0		3.0	3.0		2.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Act Effct Green (s)	22.0	22.0			22.0		67.0	67.0			53.0	
Actuated g/C Ratio	0.22	0.22			0.22		0.67	0.67			0.53	
v/c Ratio	0.75	0.17			0.00		0.26	0.38			0.65	
Control Delay (s/veh)	53.1	0.5			0.0		2.9	2.5			22.4	
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	
Total Delay (s/veh)	53.1	0.5			0.0		2.9	2.5			22.4	
LOS	D	A			A		A	A			C	
Approach Delay (s/veh)		34.3						2.6			22.4	
Approach LOS		C						A			C	
90th %ile Green (s)	31.1	31.1		31.1	31.1		9.9	57.9		42.0	42.0	
90th %ile Term Code	Gap	Gap		Hold	Hold		Max	Coord		Coord	Coord	
70th %ile Green (s)	25.6	25.6		25.6	25.6		9.3	63.4		48.1	48.1	
70th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
50th %ile Green (s)	21.9	21.9		21.9	21.9		8.1	67.1		53.0	53.0	
50th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
30th %ile Green (s)	18.2	18.2		18.2	18.2		7.1	70.8		57.7	57.7	
30th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
10th %ile Green (s)	13.0	13.0		13.0	13.0		6.0	76.0		64.0	64.0	
10th %ile Term Code	Gap	Gap		Hold	Hold		Gap	Coord		Coord	Coord	
Stops (vph)	168	0			0		7	31			366	
Fuel Used(gal)	3	0			0		1	4			15	
CO Emissions (g/hr)	227	24			1		74	270			1024	
NOx Emissions (g/hr)	44	5			0		14	53			199	
VOC Emissions (g/hr)	53	5			0		17	63			237	
Dilemma Vehicles (#)	0	0			0		0	11			26	
Queue Length 50th (ft)	121	0			0		5	18			241	
Queue Length 95th (ft)	180	0			0		m15	43			#495	
Internal Link Dist (ft)		293			1915			1116			2111	
Turn Bay Length (ft)	225						175					
Base Capacity (vph)	403	781			773		500	1200			905	
Starvation Cap Reductn	0	0			0		0	0			0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.50	0.14			0.00		0.25	0.38			0.65	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 15 (15%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 17.1 Intersection LOS: B
Intersection Capacity Utilization 86.4% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Hershey Road & Veterans Drive/Driveway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	0	103	0	0	1	117	420	0	1	366	171
Future Volume (veh/h)	186	0	103	0	0	1	117	420	0	1	366	171
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	1683	1711	1683	1875	1875	1875	1883	1883	1912	1750	1736	1750
Adj Flow Rate, veh/h	202	0	112	0	0	1	127	457	0	1	398	186
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2	0	0	0	2	2	0	0	1	0
Cap, veh/h	309	0	270	0	0	296	538	1326	0	36	666	311
Arrive On Green	0.19	0.00	0.19	0.00	0.00	0.19	0.10	1.00	0.00	0.60	0.60	0.60
Sat Flow, veh/h	1274	0	1450	0	0	1588	1794	1883	0	0	1119	522
Grp Volume(v), veh/h	202	0	112	0	0	1	127	457	0	585	0	0
Grp Sat Flow(s),veh/h/ln	1274	0	1450	0	0	1589	1794	1883	0	1641	0	0
Q Serve(g_s), s	15.3	0.0	6.8	0.0	0.0	0.1	2.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	15.4	0.0	6.8	0.0	0.0	0.1	2.6	0.0	0.0	22.4	0.0	0.0
Prop In Lane	1.00		1.00	0.00		1.00	1.00		0.00	0.00		0.32
Lane Grp Cap(c), veh/h	309	0	270	0	0	296	538	1326	0	1013	0	0
V/C Ratio(X)	0.65	0.00	0.42	0.00	0.00	0.00	0.24	0.34	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	492	0	478	0	0	524	594	1326	0	1013	0	0
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	1.00	0.00	0.00	1.00	0.77	0.77	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.4	0.0	35.9	0.0	0.0	33.1	5.8	0.0	0.0	12.7	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	1.0	0.0	0.0	0.0	0.2	0.5	0.0	2.4	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	8.7	0.0	4.5	0.0	0.0	0.0	1.4	0.4	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.8	0.0	36.9	0.0	0.0	33.1	6.0	0.5	0.0	15.1	0.0	0.0
LnGrp LOS	D		D			C	A	A		B		
Approach Vol, veh/h		314			1			584			585	
Approach Delay, s/veh		40.0			33.1			1.7			15.1	
Approach LOS		D			C			A			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		76.4		23.6	10.9	65.5		23.6				
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0		5.0				
Max Green Setting (Gmax), s		56.0		33.0	8.0	42.0		33.0				
Max Q Clear Time (g_c+I1), s		2.0		17.4	4.6	24.4		2.1				
Green Ext Time (p_c), s		2.8		1.2	0.1	2.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay, s/veh			15.1									
HCM 6th LOS			B									

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	23	4	6	23	8	3	216	10	14	419	44	2
Future Volume (vph)	23	4	6	23	8	3	216	10	14	419	44	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.944			0.871				0.985		
Flt Protected			0.977			0.998			0.950			
Satd. Flow (prot)	0	0	1742	0	0	1559	0	0	1596	1777	0	0
Flt Permitted			0.598			0.991			0.528			
Satd. Flow (perm)	0	0	1066	0	0	1548	0	0	887	1777	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			26			2						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
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
Heavy Vehicles (%)	0%	0%	0%	4%	38%	0%	2%	30%	0%	6%	11%	0%
Adj. Flow (vph)	26	4	7	26	9	3	243	11	16	471	49	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	63	0	0	266	0	0	16	522	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	23	97	329	24	9	58	8	138
Future Volume (vph)	23	97	329	24	9	58	8	138
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990			0.907		
Flt Protected		0.950				0.985		
Satd. Flow (prot)	0	1582	1622	0	0	1490	0	0
Flt Permitted		0.950				0.985		
Satd. Flow (perm)	0	1582	1622	0	0	1490	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	13%	10%	13%	4%	22%	3%	0%	4%
Adj. Flow (vph)	26	109	370	27	10	65	9	155
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	135	397	0	0	239	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	31.0	31.0	31.0		31.0	31.0			37.0	37.0		
Total Split (%)	25.8%	25.8%	25.8%		25.8%	25.8%			30.8%	30.8%		
Maximum Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			23.9			23.9			44.5	44.5		
Actuated g/C Ratio			0.20			0.20			0.37	0.37		
v/c Ratio			0.27			0.86			0.05	0.79		
Control Delay (s/veh)			28.6			71.4			31.4	46.4		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			28.6			71.4			31.4	46.4		
LOS			C			E			C	D		
Approach Delay (s/veh)			28.6			71.4				46.0		
Approach LOS			C			E				D		
90th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			34.8	34.8		
70th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
50th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			41.1	41.1		
50th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
30th %ile Green (s)	22.9	22.9	22.9		22.9	22.9			49.2	49.2		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			62.1	62.1		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			30			215			11	352		
Fuel Used(gal)			1			7			0	15		
CO Emissions (g/hr)			57			500			29	1060		
NOx Emissions (g/hr)			11			97			6	206		
VOC Emissions (g/hr)			13			116			7	246		
Dilemma Vehicles (#)			0			0			0	17		

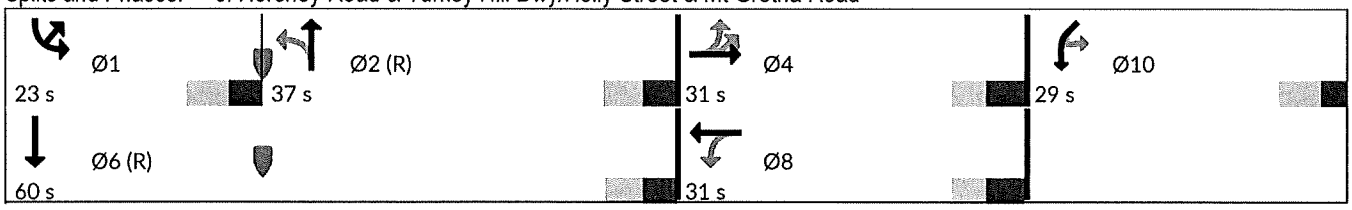
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	23.0	23.0	60.0		29.0	29.0		
Total Split (%)	19.2%	19.2%	50.0%		24.2%	24.2%		
Maximum Green (s)	16.5	16.5	53.7		23.0	23.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		15.5	65.7			14.7		
Actuated g/C Ratio		0.13	0.55			0.12		
v/c Ratio		0.66	0.45			0.77		
Control Delay (s/veh)		72.8	18.0			35.1		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		72.8	18.0			35.1		
LOS		E	B			D		
Approach Delay (s/veh)			31.9			35.1		
Approach LOS			C			D		
90th %ile Green (s)	16.6	16.6	53.8		22.9	22.9		
90th %ile Term Code	Max	Max	Coord		Gap	Gap		
70th %ile Green (s)	17.9	17.9	59.4		17.3	17.3		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	15.5	15.5	63.3		13.4	13.4		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	13.0	13.0	68.9		9.6	9.6		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	9.4	9.4	78.2		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		117	193			85		
Fuel Used(gal)		4	6			4		
CO Emissions (g/hr)		258	405			269		
NOx Emissions (g/hr)		50	79			52		
VOC Emissions (g/hr)		60	94			62		
Dilemma Vehicles (#)		0	4			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			24			196			8	369		
Queue Length 95th (ft)			64			#324			28	#669		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			248			333			329	659		
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			0.80			0.05	0.79		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay (s/veh): 43.3 Intersection LOS: D
Intersection Capacity Utilization 82.2% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		111	166			68		
Queue Length 95th (ft)		168	223			144		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		234	889			416		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.58	0.45			0.57		

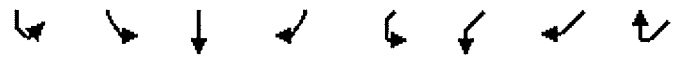
Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	23	4	6	23	8	3	217	10	14	421	44	2
Future Volume (vph)	23	4	6	23	8	3	217	10	14	421	44	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.944			0.871				0.985		
Flt Protected			0.977			0.998			0.950			
Satd. Flow (prot)	0	0	1742	0	0	1559	0	0	1596	1777	0	0
Flt Permitted			0.599			0.991			0.527			
Satd. Flow (perm)	0	0	1068	0	0	1549	0	0	885	1777	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			26			2						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
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
Heavy Vehicles (%)	0%	0%	0%	4%	38%	0%	2%	30%	0%	6%	11%	0%
Adj. Flow (vph)	26	4	7	26	9	3	244	11	16	473	49	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	63	0	0	267	0	0	16	524	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	23	97	331	24	9	58	8	139
Future Volume (vph)	23	97	331	24	9	58	8	139
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990			0.907		
Flt Protected		0.950				0.985		
Satd. Flow (prot)	0	1582	1622	0	0	1490	0	0
Flt Permitted		0.950				0.985		
Satd. Flow (perm)	0	1582	1622	0	0	1490	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	13%	10%	13%	4%	22%	3%	0%	4%
Adj. Flow (vph)	26	109	372	27	10	65	9	156
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	135	399	0	0	240	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	31.0	31.0	31.0		31.0	31.0			37.0	37.0		
Total Split (%)	25.8%	25.8%	25.8%		25.8%	25.8%			30.8%	30.8%		
Maximum Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			24.0			24.0			44.5	44.5		
Actuated g/C Ratio			0.20			0.20			0.37	0.37		
v/c Ratio			0.27			0.86			0.05	0.80		
Control Delay (s/veh)			28.6			71.5			31.4	46.8		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			28.6			71.5			31.4	46.8		
LOS			C			E			C	D		
Approach Delay (s/veh)			28.6			71.5				46.4		
Approach LOS			C			E				D		
90th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			34.6	34.6		
70th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
50th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			41.0	41.0		
50th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
30th %ile Green (s)	22.9	22.9	22.9		22.9	22.9			49.2	49.2		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	17.8	17.8	17.8		17.8	17.8			62.0	62.0		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			30			216			11	353		
Fuel Used(gal)			1			7			0	15		
CO Emissions (g/hr)			57			503			29	1065		
NOx Emissions (g/hr)			11			98			6	207		
VOC Emissions (g/hr)			13			117			7	247		
Dilemma Vehicles (#)			0			0			0	17		



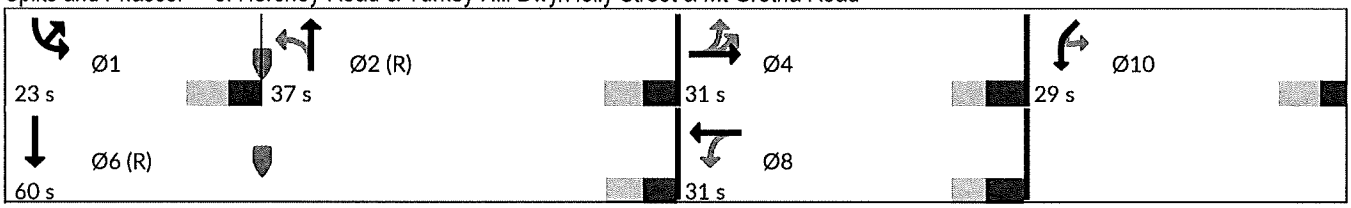
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	23.0	23.0	60.0		29.0	29.0		
Total Split (%)	19.2%	19.2%	50.0%		24.2%	24.2%		
Maximum Green (s)	16.5	16.5	53.7		23.0	23.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		15.5	65.6			14.8		
Actuated g/C Ratio		0.13	0.55			0.12		
v/c Ratio		0.67	0.45			0.77		
Control Delay (s/veh)		72.8	18.1			35.2		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		72.8	18.1			35.2		
LOS		E	B			D		
Approach Delay (s/veh)			31.9			35.2		
Approach LOS			C			D		
90th %ile Green (s)	16.5	16.5	53.7		23.0	23.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	17.9	17.9	59.2		17.5	17.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	15.5	15.5	63.2		13.5	13.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	13.0	13.0	68.9		9.6	9.6		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	9.4	9.4	78.1		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		117	193			85		
Fuel Used(gal)		4	6			4		
CO Emissions (g/hr)		258	407			271		
NOx Emissions (g/hr)		50	79			53		
VOC Emissions (g/hr)		60	94			63		
Dilemma Vehicles (#)		0	4			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			24			196			8	372		
Queue Length 95th (ft)			64			#324			28	#672		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			249			333			327	658		
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			0.80			0.05	0.80		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay (s/veh): 43.4 Intersection LOS: D
Intersection Capacity Utilization 82.4% 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: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		110	167			68		
Queue Length 95th (ft)		168	224			146		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		234	888			416		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.58	0.45			0.58		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	23	4	6	23	8	3	221	10	14	434	44	2
Future Volume (vph)	23	4	6	23	8	3	221	10	14	434	44	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.944			0.871				0.986		
Flt Protected			0.977			0.998			0.950			
Satd. Flow (prot)	0	0	1742	0	0	1560	0	0	1596	1779	0	0
Flt Permitted			0.595			0.991			0.520			
Satd. Flow (perm)	0	0	1061	0	0	1549	0	0	874	1779	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			26			2						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
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
Heavy Vehicles (%)	0%	0%	0%	4%	38%	0%	2%	30%	0%	6%	11%	0%
Adj. Flow (vph)	26	4	7	26	9	3	248	11	16	488	49	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	63	0	0	271	0	0	16	539	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	27	101	344	24	9	58	8	143
Future Volume (vph)	27	101	344	24	9	58	8	143
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990			0.906		
Flt Protected		0.950				0.985		
Satd. Flow (prot)	0	1581	1622	0	0	1488	0	0
Flt Permitted		0.950				0.985		
Satd. Flow (perm)	0	1581	1622	0	0	1488	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	13%	10%	13%	4%	22%	3%	0%	4%
Adj. Flow (vph)	30	113	387	27	10	65	9	161
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	143	414	0	0	245	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	31.0	31.0	31.0		31.0	31.0			37.0	37.0		
Total Split (%)	25.8%	25.8%	25.8%		25.8%	25.8%			30.8%	30.8%		
Maximum Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			24.1			24.1			43.6	43.6		
Actuated g/C Ratio			0.20			0.20			0.36	0.36		
v/c Ratio			0.27			0.87			0.05	0.83		
Control Delay (s/veh)			28.6			72.4			31.8	50.1		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			28.6			72.4			31.8	50.1		
LOS			C			E			C	D		
Approach Delay (s/veh)			28.6			72.4				49.6		
Approach LOS			C			E				D		
90th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			33.6	33.6		
70th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
50th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			40.0	40.0		
50th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
30th %ile Green (s)	23.3	23.3	23.3		23.3	23.3			47.9	47.9		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	18.2	18.2	18.2		18.2	18.2			61.2	61.2		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			30			219			11	362		
Fuel Used(gal)			1			7			0	16		
CO Emissions (g/hr)			57			512			29	1119		
NOx Emissions (g/hr)			11			100			6	218		
VOC Emissions (g/hr)			13			119			7	259		
Dilemma Vehicles (#)			0			0			0	17		

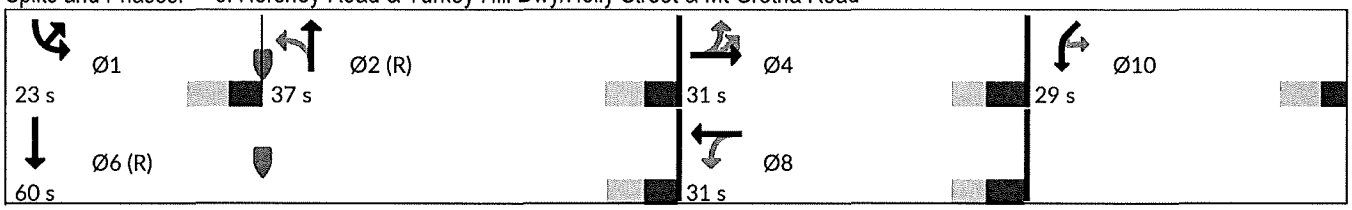
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	23.0	23.0	60.0		29.0	29.0		
Total Split (%)	19.2%	19.2%	50.0%		24.2%	24.2%		
Maximum Green (s)	16.5	16.5	53.7		23.0	23.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		15.9	65.2			15.1		
Actuated g/C Ratio		0.13	0.54			0.13		
v/c Ratio		0.69	0.47			0.78		
Control Delay (s/veh)		70.4	17.7			36.1		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		70.4	17.7			36.1		
LOS		E	B			D		
Approach Delay (s/veh)			31.2			36.1		
Approach LOS			C			D		
90th %ile Green (s)	16.5	16.5	53.7		23.0	23.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	18.5	18.5	58.8		17.9	17.9		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	16.0	16.0	62.7		14.0	14.0		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	13.5	13.5	68.1		10.0	10.0		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	9.8	9.8	77.7		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		124	202			89		
Fuel Used(gal)		4	6			4		
CO Emissions (g/hr)		269	421			280		
NOx Emissions (g/hr)		52	82			54		
VOC Emissions (g/hr)		62	98			65		
Dilemma Vehicles (#)		0	4			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			24			200			8	392		
Queue Length 95th (ft)			64			#332			28	#697		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			247			333			318	646		
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			0.26			0.81			0.05	0.83		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay (s/veh): 44.5 Intersection LOS: D
Intersection Capacity Utilization 84.0% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road

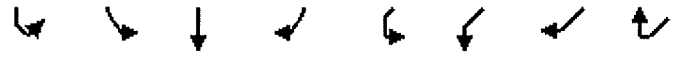


Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		116	176			72		
Queue Length 95th (ft)		m173	249			151		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		235	883			416		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.61	0.47			0.59		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	4	6	24	8	3	222	10	14	432	45	2
Future Volume (vph)	24	4	6	24	8	3	222	10	14	432	45	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.944			0.871				0.985		
Flt Protected			0.977			0.998			0.950			
Satd. Flow (prot)	0	0	1742	0	0	1560	0	0	1596	1777	0	0
Flt Permitted			0.589			0.991			0.522			
Satd. Flow (perm)	0	0	1050	0	0	1549	0	0	877	1777	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			27			2						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
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
Heavy Vehicles (%)	0%	0%	0%	4%	38%	0%	2%	30%	0%	6%	11%	0%
Adj. Flow (vph)	27	4	7	27	9	3	249	11	16	485	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	65	0	0	272	0	0	16	538	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	24	100	339	25	9	60	8	142
Future Volume (vph)	24	100	339	25	9	60	8	142
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990			0.907		
Flt Protected		0.950				0.985		
Satd. Flow (prot)	0	1582	1622	0	0	1490	0	0
Flt Permitted		0.950				0.985		
Satd. Flow (perm)	0	1582	1622	0	0	1490	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	13%	10%	13%	4%	22%	3%	0%	4%
Adj. Flow (vph)	27	112	381	28	10	67	9	160
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	139	409	0	0	246	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	31.0	31.0	31.0		31.0	31.0			37.0	37.0		
Total Split (%)	25.8%	25.8%	25.8%		25.8%	25.8%			30.8%	30.8%		
Maximum Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			24.2			24.2			43.8	43.8		
Actuated g/C Ratio			0.20			0.20			0.37	0.37		
v/c Ratio			0.28			0.87			0.05	0.83		
Control Delay (s/veh)			28.6			72.6			31.7	49.7		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			28.6			72.6			31.7	49.7		
LOS			C			E			C	D		
Approach Delay (s/veh)			28.6			72.6				49.2		
Approach LOS			C			E				D		
90th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			33.8	33.8		
70th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
50th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			40.2	40.2		
50th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
30th %ile Green (s)	23.4	23.4	23.4		23.4	23.4			48.0	48.0		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	18.3	18.3	18.3		18.3	18.3			61.3	61.3		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			30			219			11	361		
Fuel Used(gal)			1			7			0	16		
CO Emissions (g/hr)			59			515			29	1114		
NOx Emissions (g/hr)			12			100			6	217		
VOC Emissions (g/hr)			14			119			7	258		
Dilemma Vehicles (#)			0			0			0	17		

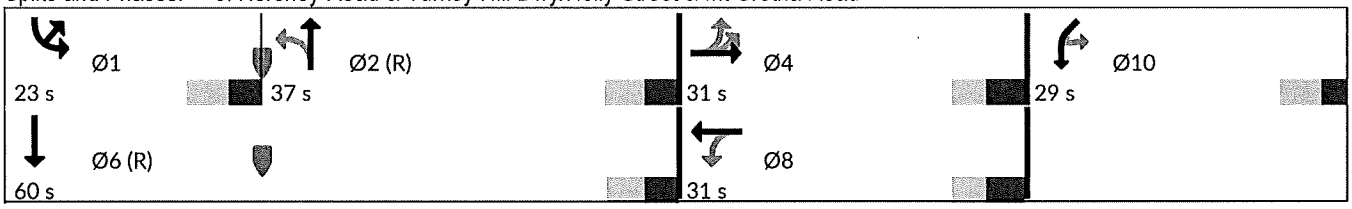
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	23.0	23.0	60.0		29.0	29.0		
Total Split (%)	19.2%	19.2%	50.0%		24.2%	24.2%		
Maximum Green (s)	16.5	16.5	53.7		23.0	23.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		15.6	65.1			15.1		
Actuated g/C Ratio		0.13	0.54			0.13		
v/c Ratio		0.67	0.46			0.78		
Control Delay (s/veh)		73.3	18.5			36.3		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		73.3	18.5			36.3		
LOS		E	B			D		
Approach Delay (s/veh)			32.4			36.3		
Approach LOS			C			D		
90th %ile Green (s)	16.5	16.5	53.7		23.0	23.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	18.2	18.2	58.7		18.0	18.0		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	15.7	15.7	62.6		14.1	14.1		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	13.2	13.2	67.9		10.1	10.1		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	9.6	9.6	77.6		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		120	202			89		
Fuel Used(gal)		4	6			4		
CO Emissions (g/hr)		267	422			282		
NOx Emissions (g/hr)		52	82			55		
VOC Emissions (g/hr)		62	98			65		
Dilemma Vehicles (#)		0	4			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			24			201			8	390		
Queue Length 95th (ft)			65			#336			28	#696		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			246			333			320	648		
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			0.26			0.82			0.05	0.83		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay (s/veh): 44.8 Intersection LOS: D
Intersection Capacity Utilization 84.5% 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.

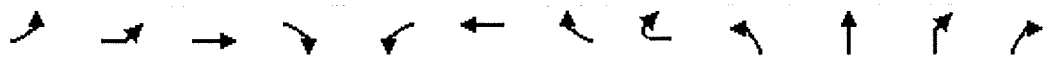
Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		114	172			73		
Queue Length 95th (ft)		171	230			151		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		235	881			416		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.59	0.46			0.59		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.



Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	4	6	24	8	3	226	10	14	445	45	2
Future Volume (vph)	24	4	6	24	8	3	226	10	14	445	45	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.944			0.871				0.986		
Flt Protected			0.977			0.998			0.950			
Satd. Flow (prot)	0	0	1742	0	0	1561	0	0	1596	1779	0	0
Flt Permitted			0.586			0.991			0.515			
Satd. Flow (perm)	0	0	1045	0	0	1550	0	0	865	1779	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			27			2						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
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
Heavy Vehicles (%)	0%	0%	0%	4%	38%	0%	2%	30%	0%	6%	11%	0%
Adj. Flow (vph)	27	4	7	27	9	3	254	11	16	500	51	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	65	0	0	277	0	0	16	553	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	28	104	352	25	9	60	8	146
Future Volume (vph)	28	104	352	25	9	60	8	146
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.990			0.907		
Flt Protected		0.950				0.985		
Satd. Flow (prot)	0	1581	1622	0	0	1490	0	0
Flt Permitted		0.950				0.985		
Satd. Flow (perm)	0	1581	1622	0	0	1490	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles (%)	13%	10%	13%	4%	22%	3%	0%	4%
Adj. Flow (vph)	31	117	396	28	10	67	9	164
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	148	424	0	0	250	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	31.0	31.0	31.0		31.0	31.0			37.0	37.0		
Total Split (%)	25.8%	25.8%	25.8%		25.8%	25.8%			30.8%	30.8%		
Maximum Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			24.4			24.4			42.8	42.8		
Actuated g/C Ratio			0.20			0.20			0.36	0.36		
v/c Ratio			0.28			0.88			0.05	0.87		
Control Delay (s/veh)			28.6			73.5			32.2	54.3		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			28.6			73.5			32.2	54.3		
LOS			C			E			C	D		
Approach Delay (s/veh)			28.6			73.5				53.7		
Approach LOS			C			E				D		
90th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			30.5	30.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			32.7	32.7		
70th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
50th %ile Green (s)	24.7	24.7	24.7		24.7	24.7			39.1	39.1		
50th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
30th %ile Green (s)	24.0	24.0	24.0		24.0	24.0			46.4	46.4		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	18.8	18.8	18.8		18.8	18.8			60.2	60.2		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			30			223			11	371		
Fuel Used(gal)			1			8			0	17		
CO Emissions (g/hr)			59			528			29	1176		
NOx Emissions (g/hr)			12			103			6	229		
VOC Emissions (g/hr)			14			122			7	273		
Dilemma Vehicles (#)			0			0			0	18		

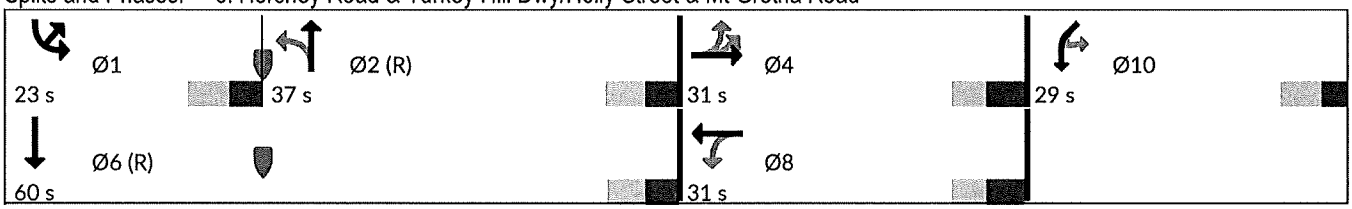
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	23.0	23.0	60.0		29.0	29.0		
Total Split (%)	19.2%	19.2%	50.0%		24.2%	24.2%		
Maximum Green (s)	16.5	16.5	53.7		23.0	23.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		16.2	64.7			15.3		
Actuated g/C Ratio		0.14	0.54			0.13		
v/c Ratio		0.69	0.48			0.78		
Control Delay (s/veh)		70.4	18.1			37.1		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		70.4	18.1			37.1		
LOS		E	B			D		
Approach Delay (s/veh)			31.6			37.1		
Approach LOS			C			D		
90th %ile Green (s)	16.5	16.5	53.7		23.0	23.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	19.0	19.0	58.4		18.3	18.3		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	16.5	16.5	62.3		14.4	14.4		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	13.9	13.9	67.0		10.4	10.4		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	10.2	10.2	77.1		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		128	208			93		
Fuel Used(gal)		4	6			4		
CO Emissions (g/hr)		279	434			290		
NOx Emissions (g/hr)		54	84			56		
VOC Emissions (g/hr)		65	101			67		
Dilemma Vehicles (#)		0	4			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			24			205			8	412		
Queue Length 95th (ft)			66			#344			28	#721		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			245			333			308	634		
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			0.27			0.83			0.05	0.87		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay (s/veh): 46.2 Intersection LOS: D
Intersection Capacity Utilization 86.0% 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.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		120	181			77		
Queue Length 95th (ft)		m176	261			156		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		237	876			416		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.62	0.48			0.60		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	10	10	22	4	5	106	9	16	391	109	4
Future Volume (vph)	24	10	10	22	4	5	106	9	16	391	109	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.874				0.966		
Flt Protected			0.975			0.998			0.950			
Satd. Flow (prot)	0	0	1786	0	0	1619	0	0	1596	1819	0	0
Flt Permitted			0.604			0.991			0.457			
Satd. Flow (perm)	0	0	1106	0	0	1608	0	0	768	1819	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	0%
Adj. Flow (vph)	25	10	10	23	4	5	110	9	17	407	114	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	68	0	0	128	0	0	17	525	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	99	119	503	28	5	88	12	92
Future Volume (vph)	99	119	503	28	5	88	12	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1723	1793	0	0	1579	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1723	1793	0	0	1579	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	103	124	524	29	5	92	13	96
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	227	553	0	0	206	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	24.0	24.0	24.0		24.0	24.0			41.0	41.0		
Total Split (%)	20.0%	20.0%	20.0%		20.0%	20.0%			34.2%	34.2%		
Maximum Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			15.1			15.1			50.6	50.6		
Actuated g/C Ratio			0.13			0.13			0.42	0.42		
v/c Ratio			0.44			0.63			0.05	0.68		
Control Delay (s/veh)			44.8			61.8			27.8	37.0		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			44.8			61.8			27.8	37.0		
LOS			D			E			C	D		
Approach Delay (s/veh)			44.8			61.8				36.7		
Approach LOS			D			E				D		
90th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	17.0	17.0	17.0		17.0	17.0			40.3	40.3		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	14.6	14.6	14.6		14.6	14.6			48.9	48.9		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	12.2	12.2	12.2		12.2	12.2			57.6	57.6		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	8.8	8.8	8.8		8.8	8.8			66.7	66.7		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			45			111			12	380		
Fuel Used(gal)			1			3			0	15		
CO Emissions (g/hr)			84			243			32	1080		
NOx Emissions (g/hr)			16			47			6	210		
VOC Emissions (g/hr)			20			56			7	250		
Dilemma Vehicles (#)			0			0			0	20		

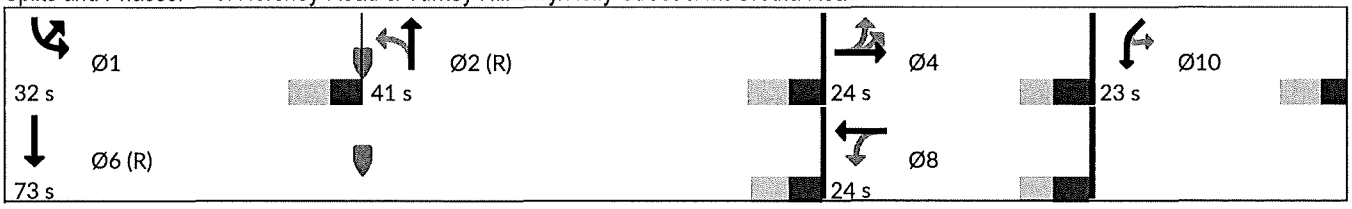
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	32.0	32.0	73.0		23.0	23.0		
Total Split (%)	26.7%	26.7%	60.8%		19.2%	19.2%		
Maximum Green (s)	25.5	25.5	66.7		17.0	17.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		21.4	77.7			11.6		
Actuated g/C Ratio		0.18	0.65			0.10		
v/c Ratio		0.74	0.48			0.72		
Control Delay (s/veh)		64.6	14.3			30.6		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		64.6	14.3			30.6		
LOS		E	B			C		
Approach Delay (s/veh)			28.9			30.6		
Approach LOS			C			C		
90th %ile Green (s)	25.5	25.5	66.7		17.0	17.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	23.8	23.8	70.8		13.6	13.6		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	21.0	21.0	76.6		10.2	10.2		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	18.1	18.1	82.4		6.8	6.8		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	13.7	13.7	87.1		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		206	263			63		
Fuel Used(gal)		6	8			3		
CO Emissions (g/hr)		440	567			229		
NOx Emissions (g/hr)		86	110			45		
VOC Emissions (g/hr)		102	131			53		
Dilemma Vehicles (#)		0	6			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			36			93			8	329		
Queue Length 95th (ft)			81			155			29	#627		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			187			253			324	767		
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			0.51			0.05	0.68		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay (s/veh): 34.6 Intersection LOS: C
Intersection Capacity Utilization 82.3% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		187	227			43		
Queue Length 95th (ft)		245	293			120		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		380	1162			362		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.60	0.48			0.57		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	10	10	22	4	5	107	9	16	393	110	4
Future Volume (vph)	24	10	10	22	4	5	107	9	16	393	110	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.874				0.966		
Flt Protected			0.975			0.998			0.950			
Satd. Flow (prot)	0	0	1786	0	0	1619	0	0	1596	1819	0	0
Flt Permitted			0.601			0.991			0.456			
Satd. Flow (perm)	0	0	1101	0	0	1608	0	0	766	1819	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	0%
Adj. Flow (vph)	25	10	10	23	4	5	111	9	17	409	115	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	68	0	0	129	0	0	17	528	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	99	120	506	28	5	88	12	92
Future Volume (vph)	99	120	506	28	5	88	12	92
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1723	1793	0	0	1579	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1723	1793	0	0	1579	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	103	125	527	29	5	92	13	96
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	228	556	0	0	206	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	24.0	24.0	24.0		24.0	24.0			41.0	41.0		
Total Split (%)	20.0%	20.0%	20.0%		20.0%	20.0%			34.2%	34.2%		
Maximum Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			15.1			15.1			50.5	50.5		
Actuated g/C Ratio			0.13			0.13			0.42	0.42		
v/c Ratio			0.44			0.63			0.05	0.69		
Control Delay (s/veh)			44.9			62.1			27.9	37.2		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			44.9			62.1			27.9	37.2		
LOS			D			E			C	D		
Approach Delay (s/veh)			44.9			62.1				36.9		
Approach LOS			D			E				D		
90th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	17.0	17.0	17.0		17.0	17.0			40.2	40.2		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	14.7	14.7	14.7		14.7	14.7			48.7	48.7		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	12.2	12.2	12.2		12.2	12.2			57.6	57.6		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	8.8	8.8	8.8		8.8	8.8			66.6	66.6		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			45			112			12	383		
Fuel Used(gal)			1			4			0	16		
CO Emissions (g/hr)			84			245			32	1089		
NOx Emissions (g/hr)			16			48			6	212		
VOC Emissions (g/hr)			20			57			7	252		
Dilemma Vehicles (#)			0			0			0	20		

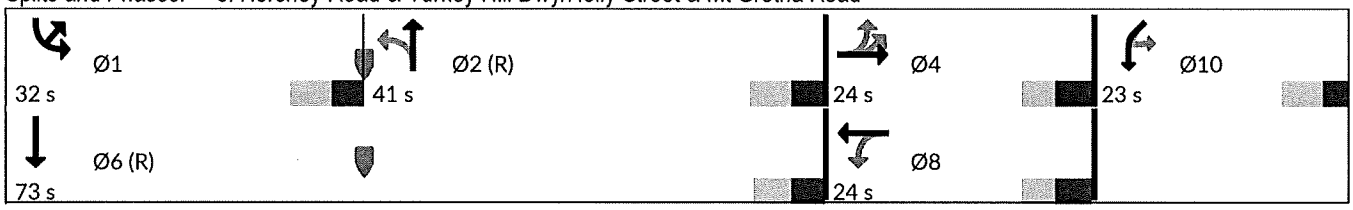
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	32.0	32.0	73.0		23.0	23.0		
Total Split (%)	26.7%	26.7%	60.8%		19.2%	19.2%		
Maximum Green (s)	25.5	25.5	66.7		17.0	17.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		21.5	77.7			11.6		
Actuated g/C Ratio		0.18	0.65			0.10		
v/c Ratio		0.74	0.48			0.72		
Control Delay (s/veh)		64.6	14.3			30.6		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		64.6	14.3			30.6		
LOS		E	B			C		
Approach Delay (s/veh)			29.0			30.6		
Approach LOS			C			C		
90th %ile Green (s)	25.5	25.5	66.7		17.0	17.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	23.9	23.9	70.8		13.6	13.6		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	21.1	21.1	76.5		10.2	10.2		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	18.1	18.1	82.4		6.8	6.8		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	13.8	13.8	87.1		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		207	264			63		
Fuel Used(gal)		6	8			3		
CO Emissions (g/hr)		442	570			229		
NOx Emissions (g/hr)		86	111			45		
VOC Emissions (g/hr)		103	132			53		
Dilemma Vehicles (#)		0	6			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			36			93			8	332		
Queue Length 95th (ft)			82			156			29	#633		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			186			253			322	765		
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			0.37			0.51			0.05	0.69		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay (s/veh): 34.7 Intersection LOS: C
Intersection Capacity Utilization 88.5% 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: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		187	228			43		
Queue Length 95th (ft)		246	292			120		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		380	1162			362		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.60	0.48			0.57		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	10	10	22	4	5	110	9	16	405	110	4
Future Volume (vph)	24	10	10	22	4	5	110	9	16	405	110	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.874				0.967		
Flt Protected			0.975			0.998			0.950			
Satd. Flow (prot)	0	0	1786	0	0	1619	0	0	1596	1820	0	0
Flt Permitted			0.594			0.991			0.451			
Satd. Flow (perm)	0	0	1088	0	0	1608	0	0	758	1820	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	0%
Adj. Flow (vph)	25	10	10	23	4	5	115	9	17	422	115	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	68	0	0	133	0	0	17	541	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	103	123	518	28	5	88	12	96
Future Volume (vph)	103	123	518	28	5	88	12	96
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992			0.927		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1723	1793	0	0	1576	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1723	1793	0	0	1576	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	107	128	540	29	5	92	13	100
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	235	569	0	0	210	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	24.0	24.0	24.0		24.0	24.0			41.0	41.0		
Total Split (%)	20.0%	20.0%	20.0%		20.0%	20.0%			34.2%	34.2%		
Maximum Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			15.3			15.3			49.8	49.8		
Actuated g/C Ratio			0.13			0.13			0.42	0.42		
v/c Ratio			0.44			0.64			0.05	0.72		
Control Delay (s/veh)			44.8			62.5			28.3	38.8		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			44.8			62.5			28.3	38.8		
LOS			D			E			C	D		
Approach Delay (s/veh)			44.8			62.5				38.4		
Approach LOS			D			E				D		
90th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	17.3	17.3	17.3		17.3	17.3			39.0	39.0		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	14.9	14.9	14.9		14.9	14.9			47.8	47.8		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	12.5	12.5	12.5		12.5	12.5			56.6	56.6		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	9.0	9.0	9.0		9.0	9.0			66.1	66.1		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			45			117			13	397		
Fuel Used(gal)			1			4			0	16		
CO Emissions (g/hr)			84			254			33	1129		
NOx Emissions (g/hr)			16			49			6	220		
VOC Emissions (g/hr)			20			59			8	262		
Dilemma Vehicles (#)			0			0			0	20		

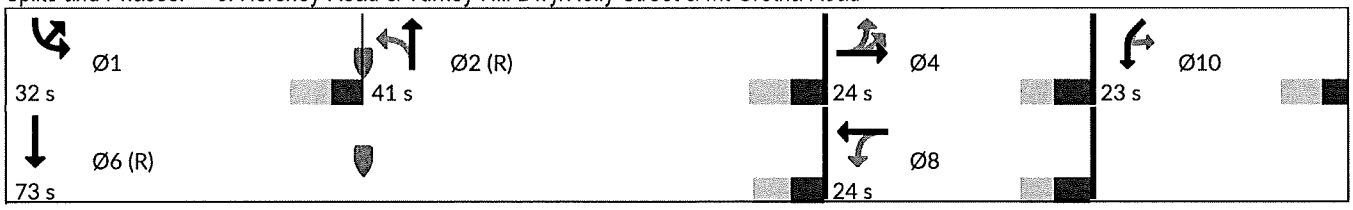
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	32.0	32.0	73.0		23.0	23.0		
Total Split (%)	26.7%	26.7%	60.8%		19.2%	19.2%		
Maximum Green (s)	25.5	25.5	66.7		17.0	17.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		21.8	77.3			11.8		
Actuated g/C Ratio		0.18	0.64			0.10		
v/c Ratio		0.75	0.49			0.73		
Control Delay (s/veh)		61.8	13.3			31.5		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		61.8	13.3			31.5		
LOS		E	B			C		
Approach Delay (s/veh)			27.5			31.5		
Approach LOS			C			C		
90th %ile Green (s)	25.5	25.5	66.7		17.0	17.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	24.4	24.4	70.1		14.0	14.0		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	21.5	21.5	76.0		10.5	10.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	18.5	18.5	81.8		7.1	7.1		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	14.1	14.1	86.9		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		217	273			67		
Fuel Used(gal)		6	8			3		
CO Emissions (g/hr)		449	577			238		
NOx Emissions (g/hr)		87	112			46		
VOC Emissions (g/hr)		104	134			55		
Dilemma Vehicles (#)		0	5			0		

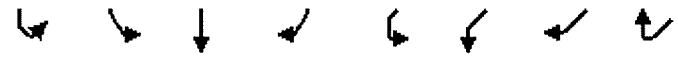
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			36			96			8	349		
Queue Length 95th (ft)			82			160			29	#656		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			184			253			314	755		
Starvation Cap Reductn			0			0			0	0		
Spillback Cap Reductn			0			0			0	0		
Storage Cap Reductn			0			0			0	0		
Reduced v/c Ratio			0.37			0.53			0.05	0.72		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 34.7 Intersection LOS: C
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road





Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		192	232			46		
Queue Length 95th (ft)		m230	m302			124		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		380	1156			362		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.62	0.49			0.58		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	25	10	10	23	4	5	109	9	16	403	112	4
Future Volume (vph)	25	10	10	23	4	5	109	9	16	403	112	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.874				0.966		
Flt Protected			0.975			0.998			0.950			
Satd. Flow (prot)	0	0	1786	0	0	1619	0	0	1596	1819	0	0
Flt Permitted			0.593			0.991			0.450			
Satd. Flow (perm)	0	0	1086	0	0	1608	0	0	756	1819	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			19			3						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	0%
Adj. Flow (vph)	26	10	10	24	4	5	114	9	17	420	117	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	70	0	0	132	0	0	17	541	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	102	123	518	29	5	91	12	95
Future Volume (vph)	102	123	518	29	5	91	12	95
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1723	1793	0	0	1579	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1723	1793	0	0	1579	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	106	128	540	30	5	95	13	99
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	234	570	0	0	212	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	24.0	24.0	24.0		24.0	24.0			41.0	41.0		
Total Split (%)	20.0%	20.0%	20.0%		20.0%	20.0%			34.2%	34.2%		
Maximum Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			15.3			15.3			49.7	49.7		
Actuated g/C Ratio			0.13			0.13			0.41	0.41		
v/c Ratio			0.45			0.64			0.05	0.72		
Control Delay (s/veh)			44.9			62.2			28.3	38.9		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			44.9			62.2			28.3	38.9		
LOS			D			E			C	D		
Approach Delay (s/veh)			44.9			62.2				38.5		
Approach LOS			D			E				D		
90th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	17.3	17.3	17.3		17.3	17.3			38.9	38.9		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	14.9	14.9	14.9		14.9	14.9			47.7	47.7		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	12.5	12.5	12.5		12.5	12.5			56.4	56.4		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	9.0	9.0	9.0		9.0	9.0			66.1	66.1		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			45			117			13	396		
Fuel Used(gal)			1			4			0	16		
CO Emissions (g/hr)			87			252			33	1129		
NOx Emissions (g/hr)			17			49			6	220		
VOC Emissions (g/hr)			20			58			8	262		
Dilemma Vehicles (#)			0			0			0	20		

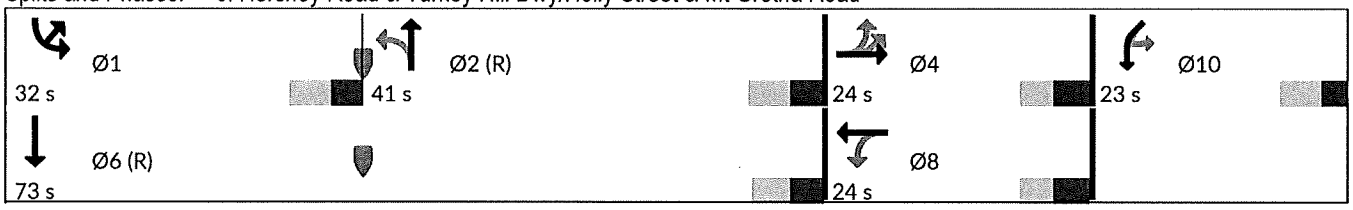
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	32.0	32.0	73.0		23.0	23.0		
Total Split (%)	26.7%	26.7%	60.8%		19.2%	19.2%		
Maximum Green (s)	25.5	25.5	66.7		17.0	17.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		21.8	77.2			11.9		
Actuated g/C Ratio		0.18	0.64			0.10		
v/c Ratio		0.75	0.49			0.73		
Control Delay (s/veh)		64.9	14.7			31.9		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		64.9	14.7			31.9		
LOS		E	B			C		
Approach Delay (s/veh)			29.3			31.9		
Approach LOS			C			C		
90th %ile Green (s)	25.5	25.5	66.7		17.0	17.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	24.4	24.4	70.0		14.1	14.1		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	21.4	21.4	75.8		10.7	10.7		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	18.5	18.5	81.6		7.3	7.3		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	14.1	14.1	86.9		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		213	274			68		
Fuel Used(gal)		7	8			3		
CO Emissions (g/hr)		456	589			242		
NOx Emissions (g/hr)		89	115			47		
VOC Emissions (g/hr)		106	136			56		
Dilemma Vehicles (#)		0	6			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			36			96			8	349		
Queue Length 95th (ft)			83			159			29	#656		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			185			253			313	753		
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			0.38			0.52			0.05	0.72		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 35.6 Intersection LOS: D
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		193	234			47		
Queue Length 95th (ft)		254	300			126		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		380	1154			362		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.62	0.49			0.59		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	25	10	10	23	4	5	109	9	16	403	112	4
Future Volume (vph)	25	10	10	23	4	5	109	9	16	403	112	4
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.874				0.966		
Flt Protected			0.975			0.998			0.950			
Satd. Flow (prot)	0	0	1786	0	0	1619	0	0	1596	1819	0	0
Flt Permitted			0.593			0.991			0.450			
Satd. Flow (perm)	0	0	1086	0	0	1608	0	0	756	1819	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			19			3						
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	2%	0%
Adj. Flow (vph)	26	10	10	24	4	5	114	9	17	420	117	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	70	0	0	132	0	0	17	541	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	102	123	518	29	5	91	12	95
Future Volume (vph)	102	123	518	29	5	91	12	95
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1723	1793	0	0	1579	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1723	1793	0	0	1579	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			4			148		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	2%	2%	0%	0%	0%	0%	0%
Adj. Flow (vph)	106	128	540	30	5	95	13	99
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	234	570	0	0	212	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	24.0	24.0	24.0		24.0	24.0			41.0	41.0		
Total Split (%)	20.0%	20.0%	20.0%		20.0%	20.0%			34.2%	34.2%		
Maximum Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			15.3			15.3			49.7	49.7		
Actuated g/C Ratio			0.13			0.13			0.41	0.41		
v/c Ratio			0.45			0.64			0.05	0.72		
Control Delay (s/veh)			44.9			62.2			28.3	38.9		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			44.9			62.2			28.3	38.9		
LOS			D			E			C	D		
Approach Delay (s/veh)			44.9			62.2				38.5		
Approach LOS			D			E				D		
90th %ile Green (s)	17.7	17.7	17.7		17.7	17.7			34.5	34.5		
90th %ile Term Code	Hold	Hold	Hold		Max	Max			Coord	Coord		
70th %ile Green (s)	17.3	17.3	17.3		17.3	17.3			38.9	38.9		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	14.9	14.9	14.9		14.9	14.9			47.7	47.7		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	12.5	12.5	12.5		12.5	12.5			56.4	56.4		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	9.0	9.0	9.0		9.0	9.0			66.1	66.1		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			45			117			13	396		
Fuel Used(gal)			1			4			0	16		
CO Emissions (g/hr)			87			252			33	1129		
NOx Emissions (g/hr)			17			49			6	220		
VOC Emissions (g/hr)			20			58			8	262		
Dilemma Vehicles (#)			0			0			0	20		

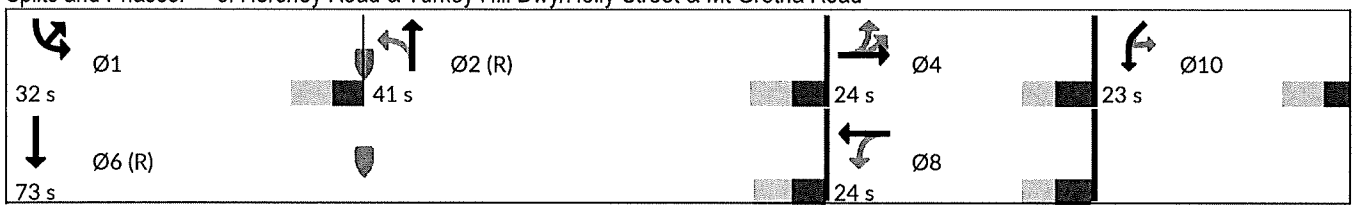
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	32.0	32.0	73.0		23.0	23.0		
Total Split (%)	26.7%	26.7%	60.8%		19.2%	19.2%		
Maximum Green (s)	25.5	25.5	66.7		17.0	17.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		21.8	77.2			11.9		
Actuated g/C Ratio		0.18	0.64			0.10		
v/c Ratio		0.75	0.49			0.73		
Control Delay (s/veh)		61.1	13.3			31.9		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		61.1	13.3			31.9		
LOS		E	B			C		
Approach Delay (s/veh)			27.2			31.9		
Approach LOS			C			C		
90th %ile Green (s)	25.5	25.5	66.7		17.0	17.0		
90th %ile Term Code	Max	Max	Coord		Max	Max		
70th %ile Green (s)	24.4	24.4	70.0		14.1	14.1		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	21.4	21.4	75.8		10.7	10.7		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	18.5	18.5	81.6		7.3	7.3		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	14.1	14.1	86.9		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		216	275			68		
Fuel Used(gal)		6	8			3		
CO Emissions (g/hr)		445	578			242		
NOx Emissions (g/hr)		87	112			47		
VOC Emissions (g/hr)		103	134			56		
Dilemma Vehicles (#)		0	4			0		

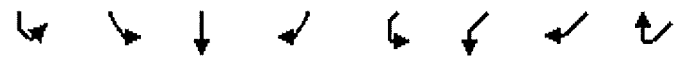
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			36			96			8	349		
Queue Length 95th (ft)			83			159			29	#656		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			185			253			313	753		
Starvation Cap Reductn			0			0			0	0		
Spillback Cap Reductn			0			0			0	0		
Storage Cap Reductn			0			0			0	0		
Reduced v/c Ratio			0.38			0.52			0.05	0.72		

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay (s/veh): 34.6 Intersection LOS: C
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road





Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		191	234			47		
Queue Length 95th (ft)		m223	m296			126		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		380	1154			362		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.62	0.49			0.59		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	4	6	17	1	9	91	8	11	349	73	6
Future Volume (vph)	24	4	6	17	1	9	91	8	11	349	73	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.877				0.972		
Flt Protected			0.973						0.950			
Satd. Flow (prot)	0	0	1782	0	0	1614	0	0	1596	1824	0	0
Flt Permitted			0.721			0.998			0.553			
Satd. Flow (perm)	0	0	1321	0	0	1611	0	0	929	1824	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3				1		
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	1%	0%	0%	2%	4%	0%
Adj. Flow (vph)	25	4	6	18	1	9	94	8	11	360	75	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	53	0	0	112	0	0	11	441	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	59	60	310	26	5	49	8	53
Future Volume (vph)	59	60	310	26	5	49	8	53
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1732	1786	0	0	1553	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1732	1786	0	0	1553	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			6			178		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	2%	0%	0%	4%	0%	0%
Adj. Flow (vph)	61	62	320	27	5	51	8	55
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	123	347	0	0	119	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	25.0	25.0	25.0		25.0	25.0			37.0	37.0		
Total Split (%)	25.0%	25.0%	25.0%		25.0%	25.0%			37.0%	37.0%		
Maximum Green (s)	18.7	18.7	18.7		18.7	18.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			13.1			13.1			45.5	45.5		
Actuated g/C Ratio			0.13			0.13			0.46	0.46		
v/c Ratio			0.28			0.53			0.03	0.53		
Control Delay (s/veh)			31.0			47.7			19.6	24.6		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			31.0			47.7			19.6	24.6		
LOS			C			D			B	C		
Approach Delay (s/veh)			31.0			47.7				24.4		
Approach LOS			C			D				C		
90th %ile Green (s)	16.9	16.9	16.9		16.9	16.9			33.6	33.6		
90th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
70th %ile Green (s)	14.1	14.1	14.1		14.1	14.1			40.8	40.8		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	12.1	12.1	12.1		12.1	12.1			44.8	44.8		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	10.1	10.1	10.1		10.1	10.1			48.7	48.7		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	7.1	7.1	7.1		7.1	7.1			54.5	54.5		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			33			96			8	311		
Fuel Used(gal)			1			3			0	12		
CO Emissions (g/hr)			56			192			21	836		
NOx Emissions (g/hr)			11			37			4	163		
VOC Emissions (g/hr)			13			45			5	194		
Dilemma Vehicles (#)			0			0			0	21		

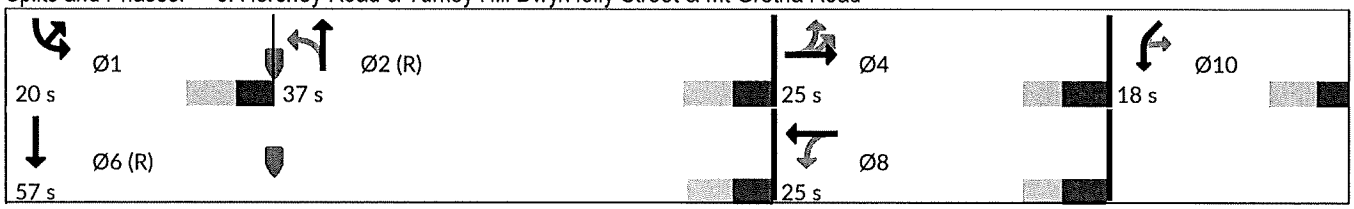
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	20.0	20.0	57.0		18.0	18.0		
Total Split (%)	20.0%	20.0%	57.0%		18.0%	18.0%		
Maximum Green (s)	13.5	13.5	50.7		12.0	12.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		13.3	64.5			6.8		
Actuated g/C Ratio		0.13	0.65			0.07		
v/c Ratio		0.53	0.30			0.44		
Control Delay (s/veh)		53.6	11.3			6.9		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		53.6	11.3			6.9		
LOS		D	B			A		
Approach Delay (s/veh)			22.3			6.9		
Approach LOS			C			A		
90th %ile Green (s)	17.0	17.0	57.3		7.2	7.2		
90th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
70th %ile Green (s)	14.3	14.3	61.8		5.5	5.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	12.3	12.3	63.8		5.5	5.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	10.4	10.4	65.8		5.5	5.5		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	7.6	7.6	68.8		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		112	150			5		
Fuel Used(gal)		3	5			1		
CO Emissions (g/hr)		222	336			78		
NOx Emissions (g/hr)		43	65			15		
VOC Emissions (g/hr)		51	78			18		
Dilemma Vehicles (#)		0	7			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			20			66			4	194		
Queue Length 95th (ft)			54			115			17	353		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			274			319			422	830		
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			0.19			0.35			0.03	0.53		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 24.3 Intersection LOS: C
Intersection Capacity Utilization 66.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		82	114			0		
Queue Length 95th (ft)		132	164			16		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		266	1154			356		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.46	0.30			0.33		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations			↕			↕			↰	↑		
Traffic Volume (vph)	24	4	6	17	1	9	91	8	11	351	73	6
Future Volume (vph)	24	4	6	17	1	9	91	8	11	351	73	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.877				0.973		
Flt Protected			0.973						0.950			
Satd. Flow (prot)	0	0	1782	0	0	1614	0	0	1596	1826	0	0
Flt Permitted			0.721			0.998			0.552			
Satd. Flow (perm)	0	0	1321	0	0	1611	0	0	927	1826	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3				1		
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	1%	0%	0%	2%	4%	0%
Adj. Flow (vph)	25	4	6	18	1	9	94	8	11	362	75	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	53	0	0	112	0	0	11	443	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	59	60	312	26	5	49	8	53
Future Volume (vph)	59	60	312	26	5	49	8	53
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			0.929		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1732	1786	0	0	1553	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1732	1786	0	0	1553	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			6			178		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	2%	0%	0%	4%	0%	0%
Adj. Flow (vph)	61	62	322	27	5	51	8	55
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	123	349	0	0	119	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	25.0	25.0	25.0		25.0	25.0			37.0	37.0		
Total Split (%)	25.0%	25.0%	25.0%		25.0%	25.0%			37.0%	37.0%		
Maximum Green (s)	18.7	18.7	18.7		18.7	18.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			13.1			13.1			45.5	45.5		
Actuated g/C Ratio			0.13			0.13			0.46	0.46		
v/c Ratio			0.28			0.53			0.03	0.53		
Control Delay (s/veh)			31.0			47.7			19.6	24.6		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			31.0			47.7			19.6	24.6		
LOS			C			D			B	C		
Approach Delay (s/veh)			31.0			47.7				24.5		
Approach LOS			C			D				C		
90th %ile Green (s)	16.9	16.9	16.9		16.9	16.9			33.6	33.6		
90th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
70th %ile Green (s)	14.1	14.1	14.1		14.1	14.1			40.8	40.8		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	12.1	12.1	12.1		12.1	12.1			44.8	44.8		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	10.1	10.1	10.1		10.1	10.1			48.7	48.7		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	7.1	7.1	7.1		7.1	7.1			54.5	54.5		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			33			96			8	314		
Fuel Used(gal)			1			3			0	12		
CO Emissions (g/hr)			56			192			21	841		
NOx Emissions (g/hr)			11			37			4	164		
VOC Emissions (g/hr)			13			45			5	195		
Dilemma Vehicles (#)			0			0			0	21		

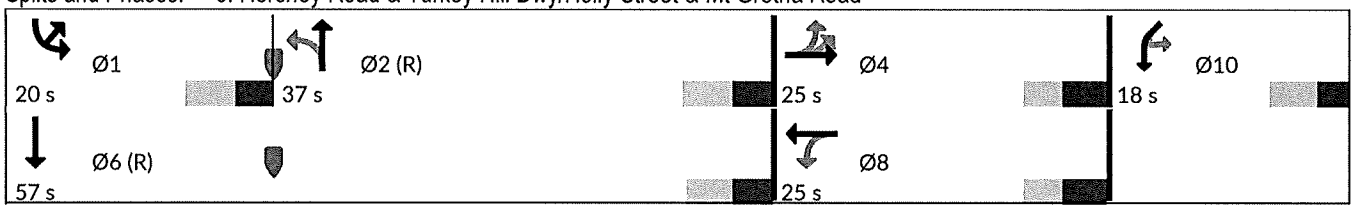
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	20.0	20.0	57.0		18.0	18.0		
Total Split (%)	20.0%	20.0%	57.0%		18.0%	18.0%		
Maximum Green (s)	13.5	13.5	50.7		12.0	12.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		13.3	64.5			6.8		
Actuated g/C Ratio		0.13	0.65			0.07		
v/c Ratio		0.53	0.30			0.44		
Control Delay (s/veh)		53.6	11.3			6.9		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		53.6	11.3			6.9		
LOS		D	B			A		
Approach Delay (s/veh)			22.3			6.9		
Approach LOS			C			A		
90th %ile Green (s)	17.0	17.0	57.3		7.2	7.2		
90th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
70th %ile Green (s)	14.3	14.3	61.8		5.5	5.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	12.3	12.3	63.8		5.5	5.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	10.4	10.4	65.8		5.5	5.5		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	7.6	7.6	68.8		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		112	151			5		
Fuel Used(gal)		3	5			1		
CO Emissions (g/hr)		222	338			78		
NOx Emissions (g/hr)		43	66			15		
VOC Emissions (g/hr)		51	78			18		
Dilemma Vehicles (#)		0	7			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			20			66			4	195		
Queue Length 95th (ft)			54			115			17	355		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			274			319			421	830		
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			0.19			0.35			0.03	0.53		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.53
Intersection Signal Delay (s/veh): 24.3 Intersection LOS: C
Intersection Capacity Utilization 66.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		83	115			0		
Queue Length 95th (ft)		132	164			16		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		266	1154			356		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.46	0.30			0.33		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	24	4	6	17	1	9	97	8	11	370	73	6
Future Volume (vph)	24	4	6	17	1	9	97	8	11	370	73	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.954			0.876				0.974		
Flt Protected			0.973						0.950			
Satd. Flow (prot)	0	0	1782	0	0	1613	0	0	1596	1828	0	0
Flt Permitted			0.713			0.998			0.542			
Satd. Flow (perm)	0	0	1306	0	0	1609	0	0	911	1828	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			18			3				1		
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	1%	0%	0%	2%	4%	0%
Adj. Flow (vph)	25	4	6	18	1	9	100	8	11	381	75	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	53	0	0	118	0	0	11	462	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	65	66	331	26	5	49	8	59
Future Volume (vph)	65	66	331	26	5	49	8	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.989			0.925		
Flt Protected		0.950				0.978		
Satd. Flow (prot)	0	1732	1788	0	0	1549	0	0
Flt Permitted		0.950				0.978		
Satd. Flow (perm)	0	1732	1788	0	0	1549	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			6			178		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	2%	0%	0%	4%	0%	0%
Adj. Flow (vph)	67	68	341	27	5	51	8	61
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	135	368	0	0	125	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	25.0	25.0	25.0		25.0	25.0			37.0	37.0		
Total Split (%)	25.0%	25.0%	25.0%		25.0%	25.0%			37.0%	37.0%		
Maximum Green (s)	18.7	18.7	18.7		18.7	18.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			13.4			13.4			44.3	44.3		
Actuated g/C Ratio			0.13			0.13			0.44	0.44		
v/c Ratio			0.28			0.54			0.03	0.57		
Control Delay (s/veh)			30.6			47.8			20.7	26.5		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			30.6			47.8			20.7	26.5		
LOS			C			D			C	C		
Approach Delay (s/veh)			30.6			47.8				26.4		
Approach LOS			C			D				C		
90th %ile Green (s)	17.5	17.5	17.5		17.5	17.5			31.5	31.5		
90th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
70th %ile Green (s)	14.5	14.5	14.5		14.5	14.5			39.6	39.6		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	12.4	12.4	12.4		12.4	12.4			43.8	43.8		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	10.4	10.4	10.4		10.4	10.4			47.9	47.9		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	7.3	7.3	7.3		7.3	7.3			53.9	53.9		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			32			101			8	332		
Fuel Used(gal)			1			3			0	13		
CO Emissions (g/hr)			55			202			21	891		
NOx Emissions (g/hr)			11			39			4	173		
VOC Emissions (g/hr)			13			47			5	206		
Dilemma Vehicles (#)			0			0			0	22		

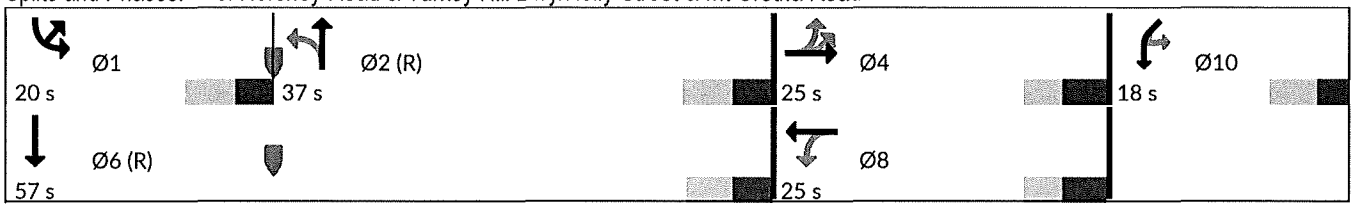
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	20.0	20.0	57.0		18.0	18.0		
Total Split (%)	20.0%	20.0%	57.0%		18.0%	18.0%		
Maximum Green (s)	13.5	13.5	50.7		12.0	12.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		14.0	64.0			7.0		
Actuated g/C Ratio		0.14	0.64			0.07		
v/c Ratio		0.56	0.32			0.46		
Control Delay (s/veh)		52.1	11.7			7.7		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		52.1	11.7			7.7		
LOS		D	B			A		
Approach Delay (s/veh)			22.5			7.7		
Approach LOS			C			A		
90th %ile Green (s)	17.9	17.9	56.1		7.8	7.8		
90th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
70th %ile Green (s)	15.1	15.1	61.4		5.5	5.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	13.0	13.0	63.5		5.5	5.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	10.9	10.9	65.5		5.5	5.5		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	8.0	8.0	68.6		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		123	167			6		
Fuel Used(gal)		3	5			1		
CO Emissions (g/hr)		241	362			84		
NOx Emissions (g/hr)		47	71			16		
VOC Emissions (g/hr)		56	84			19		
Dilemma Vehicles (#)		0	6			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			20			69			4	211		
Queue Length 95th (ft)			54			120			18	#413		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			271			319			404	811		
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			0.20			0.37			0.03	0.57		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.57
Intersection Signal Delay (s/veh): 25.2 Intersection LOS: C
Intersection Capacity Utilization 68.3% 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: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		89	116			0		
Queue Length 95th (ft)		138	174			21		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		272	1146			356		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.50	0.32			0.35		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	25	4	6	18	1	9	94	8	11	359	75	6
Future Volume (vph)	25	4	6	18	1	9	94	8	11	359	75	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.953			0.877				0.973		
Flt Protected			0.973						0.950			
Satd. Flow (prot)	0	0	1780	0	0	1614	0	0	1596	1826	0	0
Flt Permitted			0.710			0.998			0.548			
Satd. Flow (perm)	0	0	1299	0	0	1611	0	0	921	1826	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			19			3				1		
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	1%	0%	0%	2%	4%	0%
Adj. Flow (vph)	26	4	6	19	1	9	97	8	11	370	77	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	55	0	0	115	0	0	11	453	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	61	62	319	27	5	50	8	55
Future Volume (vph)	61	62	319	27	5	50	8	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			0.928		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1732	1786	0	0	1551	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1732	1786	0	0	1551	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			6			178		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	2%	0%	0%	4%	0%	0%
Adj. Flow (vph)	63	64	329	28	5	52	8	57
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	127	357	0	0	122	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	25.0	25.0	25.0		25.0	25.0			37.0	37.0		
Total Split (%)	25.0%	25.0%	25.0%		25.0%	25.0%			37.0%	37.0%		
Maximum Green (s)	18.7	18.7	18.7		18.7	18.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			13.2			13.2			45.0	45.0		
Actuated g/C Ratio			0.13			0.13			0.45	0.45		
v/c Ratio			0.29			0.53			0.03	0.55		
Control Delay (s/veh)			30.9			47.7			20.1	25.4		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			30.9			47.7			20.1	25.4		
LOS			C			D			C	C		
Approach Delay (s/veh)			30.9			47.7				25.3		
Approach LOS			C			D				C		
90th %ile Green (s)	17.2	17.2	17.2		17.2	17.2			32.6	32.6		
90th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
70th %ile Green (s)	14.3	14.3	14.3		14.3	14.3			40.4	40.4		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	12.2	12.2	12.2		12.2	12.2			44.4	44.4		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	10.2	10.2	10.2		10.2	10.2			48.4	48.4		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	7.3	7.3	7.3		7.3	7.3			54.2	54.2		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			33			97			8	327		
Fuel Used(gal)			1			3			0	12		
CO Emissions (g/hr)			57			197			21	867		
NOx Emissions (g/hr)			11			38			4	169		
VOC Emissions (g/hr)			13			46			5	201		
Dilemma Vehicles (#)			0			0			0	22		

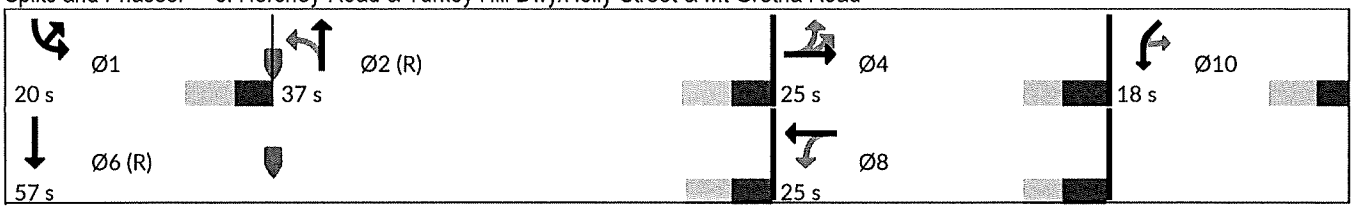
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	20.0	20.0	57.0		18.0	18.0		
Total Split (%)	20.0%	20.0%	57.0%		18.0%	18.0%		
Maximum Green (s)	13.5	13.5	50.7		12.0	12.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		13.6	64.3			6.9		
Actuated g/C Ratio		0.14	0.64			0.07		
v/c Ratio		0.54	0.31			0.45		
Control Delay (s/veh)		52.5	11.4			7.3		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		52.5	11.4			7.3		
LOS		D	B			A		
Approach Delay (s/veh)			22.2			7.3		
Approach LOS			C			A		
90th %ile Green (s)	17.4	17.4	56.7		7.5	7.5		
90th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
70th %ile Green (s)	14.5	14.5	61.6		5.5	5.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	12.6	12.6	63.7		5.5	5.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	10.6	10.6	65.7		5.5	5.5		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	7.7	7.7	68.6		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		114	157			5		
Fuel Used(gal)		3	5			1		
CO Emissions (g/hr)		226	347			80		
NOx Emissions (g/hr)		44	68			16		
VOC Emissions (g/hr)		52	81			19		
Dilemma Vehicles (#)		0	5			0		

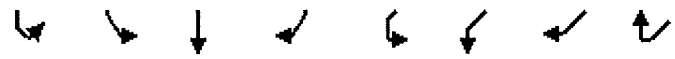
Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			21			67			4	203		
Queue Length 95th (ft)			55			118			18	372		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			271			319			414	822		
Starvation Cap Reductn			0			0			0	0		
Spillback Cap Reductn			0			0			0	0		
Storage Cap Reductn			0			0			0	0		
Reduced v/c Ratio			0.20			0.36			0.03	0.55		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 24.6 Intersection LOS: C
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road





Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		84	112			0		
Queue Length 95th (ft)		131	168			18		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		268	1149			356		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.47	0.31			0.34		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Lane Configurations												
Traffic Volume (vph)	25	4	6	18	1	9	94	8	11	359	75	6
Future Volume (vph)	25	4	6	18	1	9	94	8	11	359	75	6
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	14	14	14	14	14	14	14	14	10	14	14	14
Grade (%)			0%			5%				0%		
Storage Length (ft)		0		0	0		0		185		0	
Storage Lanes		0		0	0		0		1		0	
Taper Length (ft)		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
Frt			0.953			0.877				0.973		
Flt Protected			0.973						0.950			
Satd. Flow (prot)	0	0	1780	0	0	1614	0	0	1596	1826	0	0
Flt Permitted			0.710			0.998			0.548			
Satd. Flow (perm)	0	0	1299	0	0	1611	0	0	921	1826	0	0
Right Turn on Red				Yes				Yes				Yes
Satd. Flow (RTOR)			19			3				1		
Link Speed (mph)			25			25				35		
Link Distance (ft)			797			1429				2420		
Travel Time (s)			21.7			39.0				47.1		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	0%	0%	0%	0%	11%	1%	0%	0%	2%	4%	0%
Adj. Flow (vph)	26	4	6	19	1	9	97	8	11	370	77	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	55	0	0	115	0	0	11	453	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right	Left	Left	Right	Right
Median Width(ft)			0			0				13		
Link Offset(ft)			0			0				0		
Crosswalk Width(ft)			16			16				16		
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	1.02	1.02	1.02	1.02	1.17	0.99	0.99	0.99
Turning Speed (mph)	15	15		9	15		9	9	15		9	9
Number of Detectors	1	1	2		1	2			1	2		
Detector Template	Left	Left	Thru		Left	Thru			Left	Thru		
Leading Detector (ft)	20	20	100		20	100			20	100		
Trailing Detector (ft)	0	0	0		0	0			0	0		
Detector 1 Position(ft)	0	0	0		0	0			0	0		
Detector 1 Size(ft)	20	20	6		20	6			20	6		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex		
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0			0.0	0.0		
Detector 2 Position(ft)			94			94				94		
Detector 2 Size(ft)			6			6				6		
Detector 2 Type			Cl+Ex			Cl+Ex				Cl+Ex		
Detector 2 Channel												
Detector 2 Extend (s)			0.0			0.0				0.0		

Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Lane Configurations								
Traffic Volume (vph)	61	62	319	27	5	50	8	55
Future Volume (vph)	61	62	319	27	5	50	8	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	13	13	13	11	11	11	11
Grade (%)			2%			0%		
Storage Length (ft)		150		0		0	0	
Storage Lanes		1		0		1	0	
Taper Length (ft)		25				25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			0.928		
Flt Protected		0.950				0.977		
Satd. Flow (prot)	0	1732	1786	0	0	1551	0	0
Flt Permitted		0.950				0.977		
Satd. Flow (perm)	0	1732	1786	0	0	1551	0	0
Right Turn on Red				Yes				Yes
Satd. Flow (RTOR)			6			178		
Link Speed (mph)			35			35		
Link Distance (ft)			1196			1101		
Travel Time (s)			23.3			21.4		
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	2%	2%	0%	0%	4%	0%	0%
Adj. Flow (vph)	63	64	329	28	5	52	8	57
Shared Lane Traffic (%)								
Lane Group Flow (vph)	0	127	357	0	0	122	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Left	Right	Right
Median Width(ft)			13			11		
Link Offset(ft)			0			0		
Crosswalk Width(ft)			16			16		
Two way Left Turn Lane								
Headway Factor	1.13	1.04	1.04	1.04	1.12	1.12	1.12	1.12
Turning Speed (mph)	15	15		9	15	15	9	9
Number of Detectors	1	1	2		1	1		
Detector Template	Left	Left	Thru		Left	Left		
Leading Detector (ft)	20	20	100		20	20		
Trailing Detector (ft)	0	0	0		0	0		
Detector 1 Position(ft)	0	0	0		0	0		
Detector 1 Size(ft)	20	20	6		20	20		
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0		
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0		
Detector 2 Position(ft)			94					
Detector 2 Size(ft)			6					
Detector 2 Type			Cl+Ex					
Detector 2 Channel								
Detector 2 Extend (s)			0.0					

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Turn Type	Perm	Perm	NA		Perm	NA			Perm	NA		
Protected Phases			4			8				2		
Permitted Phases	4	4			8				2			
Detector Phase	4	4	4		8	8			2	2		
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0			5.0	5.0		
Minimum Split (s)	35.3	35.3	35.3		35.3	35.3			27.5	27.5		
Total Split (s)	25.0	25.0	25.0		25.0	25.0			37.0	37.0		
Total Split (%)	25.0%	25.0%	25.0%		25.0%	25.0%			37.0%	37.0%		
Maximum Green (s)	18.7	18.7	18.7		18.7	18.7			30.5	30.5		
Yellow Time (s)	3.0	3.0	3.0		3.0	3.0			3.7	3.7		
All-Red Time (s)	3.3	3.3	3.3		3.3	3.3			2.8	2.8		
Lost Time Adjust (s)			-1.0			-1.0			-1.0	-1.0		
Total Lost Time (s)			5.3			5.3			5.5	5.5		
Lead/Lag									Lag	Lag		
Lead-Lag Optimize?									Yes	Yes		
Vehicle Extension (s)	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		
Time Before Reduce (s)	0.0	0.0	0.0		0.0	0.0			28.0	28.0		
Time To Reduce (s)	0.0	0.0	0.0		0.0	0.0			14.0	14.0		
Recall Mode	None	None	None		None	None			C-Max	C-Max		
Walk Time (s)	7.0	7.0	7.0		7.0	7.0			7.0	7.0		
Flash Don't Walk (s)	22.0	22.0	22.0		22.0	22.0			14.0	14.0		
Pedestrian Calls (#/hr)	0	0	0		0	0			0	0		
Act Effct Green (s)			13.2			13.2			45.0	45.0		
Actuated g/C Ratio			0.13			0.13			0.45	0.45		
v/c Ratio			0.29			0.53			0.03	0.55		
Control Delay (s/veh)			30.9			47.7			20.1	25.4		
Queue Delay			0.0			0.0			0.0	0.0		
Total Delay (s/veh)			30.9			47.7			20.1	25.4		
LOS			C			D			C	C		
Approach Delay (s/veh)			30.9			47.7				25.3		
Approach LOS			C			D				C		
90th %ile Green (s)	17.2	17.2	17.2		17.2	17.2			32.6	32.6		
90th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
70th %ile Green (s)	14.3	14.3	14.3		14.3	14.3			40.4	40.4		
70th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
50th %ile Green (s)	12.2	12.2	12.2		12.2	12.2			44.4	44.4		
50th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
30th %ile Green (s)	10.2	10.2	10.2		10.2	10.2			48.4	48.4		
30th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
10th %ile Green (s)	7.3	7.3	7.3		7.3	7.3			54.2	54.2		
10th %ile Term Code	Hold	Hold	Hold		Gap	Gap			Coord	Coord		
Stops (vph)			33			97			8	327		
Fuel Used(gal)			1			3			0	12		
CO Emissions (g/hr)			57			197			21	867		
NOx Emissions (g/hr)			11			38			4	169		
VOC Emissions (g/hr)			13			46			5	201		
Dilemma Vehicles (#)			0			0			0	22		

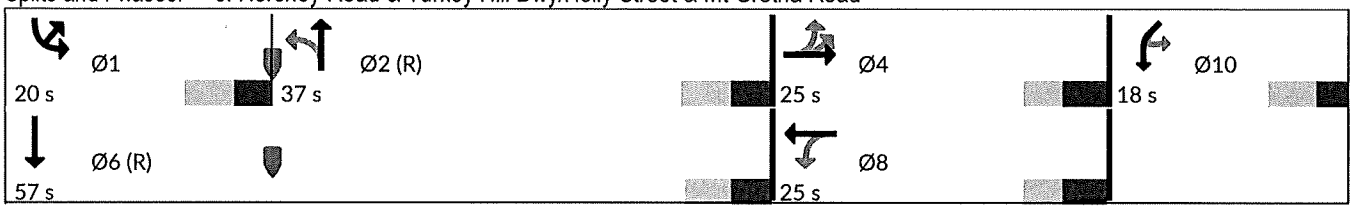
Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Turn Type	Prot	Prot	NA		Perm	Prot		
Protected Phases	1	1	6			10		
Permitted Phases					10			
Detector Phase	1	1	6		10	10		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0	5.0		
Minimum Split (s)	11.5	11.5	27.3		24.0	24.0		
Total Split (s)	20.0	20.0	57.0		18.0	18.0		
Total Split (%)	20.0%	20.0%	57.0%		18.0%	18.0%		
Maximum Green (s)	13.5	13.5	50.7		12.0	12.0		
Yellow Time (s)	3.7	3.7	3.5		3.6	3.6		
All-Red Time (s)	2.8	2.8	2.8		2.4	2.4		
Lost Time Adjust (s)		-1.0	-1.0			-1.0		
Total Lost Time (s)		5.5	5.3			5.0		
Lead/Lag	Lead	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	28.0		0.0	0.0		
Time To Reduce (s)	0.0	0.0	14.0		0.0	0.0		
Recall Mode	None	None	C-Max		None	None		
Walk Time (s)			7.0		7.0	7.0		
Flash Don't Walk (s)			14.0		10.0	10.0		
Pedestrian Calls (#/hr)			0		0	0		
Act Effct Green (s)		13.6	64.3			6.9		
Actuated g/C Ratio		0.14	0.64			0.07		
v/c Ratio		0.54	0.31			0.45		
Control Delay (s/veh)		52.0	11.4			7.3		
Queue Delay		0.0	0.0			0.0		
Total Delay (s/veh)		52.0	11.4			7.3		
LOS		D	B			A		
Approach Delay (s/veh)			22.1			7.3		
Approach LOS			C			A		
90th %ile Green (s)	17.4	17.4	56.7		7.5	7.5		
90th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
70th %ile Green (s)	14.5	14.5	61.6		5.5	5.5		
70th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
50th %ile Green (s)	12.6	12.6	63.7		5.5	5.5		
50th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
30th %ile Green (s)	10.6	10.6	65.7		5.5	5.5		
30th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
10th %ile Green (s)	7.7	7.7	68.6		5.5	5.5		
10th %ile Term Code	Gap	Gap	Coord		Gap	Gap		
Stops (vph)		115	161			5		
Fuel Used(gal)		3	5			1		
CO Emissions (g/hr)		226	350			80		
NOx Emissions (g/hr)		44	68			16		
VOC Emissions (g/hr)		52	81			19		
Dilemma Vehicles (#)		0	6			0		

Lane Group	EBL2	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	NBR2
Queue Length 50th (ft)			21			67			4	203		
Queue Length 95th (ft)			55			118			18	372		
Internal Link Dist (ft)			717			1349				2340		
Turn Bay Length (ft)									185			
Base Capacity (vph)			271			319			414	822		
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			0.20			0.36			0.03	0.55		

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.55
Intersection Signal Delay (s/veh): 24.6 Intersection LOS: C
Intersection Capacity Utilization 67.2% ICU Level of Service C
Analysis Period (min) 15

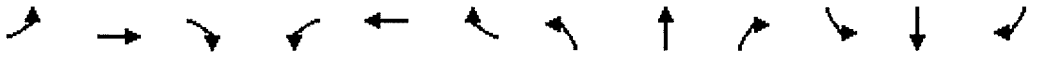
Splits and Phases: 6: Hershey Road & Turkey Hill Dwy/Holly Street & Mt Gretna Road



Lane Group	SBL2	SBL	SBT	SBR	SWL2	SWL	SWR	SWR2
Queue Length 50th (ft)		84	113			0		
Queue Length 95th (ft)		134	168			18		
Internal Link Dist (ft)			1116			1021		
Turn Bay Length (ft)		150						
Base Capacity (vph)		268	1149			356		
Starvation Cap Reductn		0	0			0		
Spillback Cap Reductn		0	0			0		
Storage Cap Reductn		0	0			0		
Reduced v/c Ratio		0.47	0.31			0.34		

Intersection Summary

HCM 6th Edition methodology does not support more than 4 approaches.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	1	27	0	14	8	21	0	1	36	64	3	0
Future Volume (vph)	1	27	0	14	8	21	0	1	36	64	3	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.934			0.868				
Flt Protected		0.999			0.984						0.954	
Satd. Flow (prot)	0	2058	0	0	1652	0	0	1482	0	0	1756	0
Flt Permitted		0.999			0.984						0.954	
Satd. Flow (perm)	0	2058	0	0	1652	0	0	1482	0	0	1756	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	7%	13%	10%	0%	100%	3%	6%	67%	2%
Adj. Flow (vph)	1	38	0	19	11	29	0	1	50	89	4	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	0	0	59	0	0	51	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

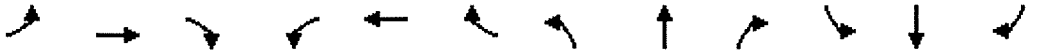
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	27	0	14	8	21	0	1	36	64	3	0
Future Vol, veh/h	1	27	0	14	8	21	0	1	36	64	3	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	7	13	10	0	100	3	6	67	2
Mvmt Flow	1	38	0	19	11	29	0	1	50	89	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.5	7.5	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	33%	96%
Vol Thru, %	3%	96%	19%	4%
Vol Right, %	97%	0%	49%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	28	43	67
LT Vol	0	1	14	64
Through Vol	1	27	8	3
RT Vol	36	0	21	0
Lane Flow Rate	51	39	60	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.075	0.047	0.07	0.114
Departure Headway (Hd)	5.262	4.334	4.197	4.405
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	674	831	858	804
Service Time	3.348	2.336	2.199	2.487
HCM Lane V/C Ratio	0.076	0.047	0.07	0.116
HCM Control Delay, s/veh	8.8	7.5	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	1	27	0	14	8	21	0	1	36	64	3	0
Future Volume (vph)	1	27	0	14	8	21	0	1	36	64	3	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.934			0.868				
Flt Protected		0.999			0.984						0.954	
Satd. Flow (prot)	0	2058	0	0	1652	0	0	1482	0	0	1756	0
Flt Permitted		0.999			0.984						0.954	
Satd. Flow (perm)	0	2058	0	0	1652	0	0	1482	0	0	1756	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	7%	13%	10%	0%	100%	3%	6%	67%	2%
Adj. Flow (vph)	1	38	0	19	11	29	0	1	50	89	4	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	0	0	59	0	0	51	0	0	93	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

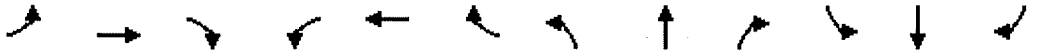
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.5%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	27	0	14	8	21	0	1	36	64	3	0
Future Vol, veh/h	1	27	0	14	8	21	0	1	36	64	3	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	7	13	10	0	100	3	6	67	2
Mvmt Flow	1	38	0	19	11	29	0	1	50	89	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.5	7.5	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	4%	33%	96%
Vol Thru, %	3%	96%	19%	4%
Vol Right, %	97%	0%	49%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	28	43	67
LT Vol	0	1	14	64
Through Vol	1	27	8	3
RT Vol	36	0	21	0
Lane Flow Rate	51	39	60	93
Geometry Grp	1	1	1	1
Degree of Util (X)	0.075	0.047	0.07	0.114
Departure Headway (Hd)	5.262	4.334	4.197	4.405
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	674	831	858	804
Service Time	3.348	2.336	2.199	2.487
HCM Lane V/C Ratio	0.076	0.047	0.07	0.116
HCM Control Delay, s/veh	8.8	7.5	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.2	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	1	28	0	14	9	23	0	1	36	66	3	0
Future Volume (vph)	1	28	0	14	9	23	0	1	36	66	3	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.932			0.868				
Flt Protected		0.999			0.985						0.954	
Satd. Flow (prot)	0	2058	0	0	1648	0	0	1482	0	0	1758	0
Flt Permitted		0.999			0.985						0.954	
Satd. Flow (perm)	0	2058	0	0	1648	0	0	1482	0	0	1758	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	7%	13%	10%	0%	100%	3%	6%	67%	2%
Adj. Flow (vph)	1	39	0	19	13	32	0	1	50	92	4	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	64	0	0	51	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

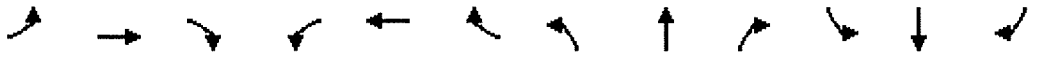
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	28	0	14	9	23	0	1	36	66	3	0
Future Vol, veh/h	1	28	0	14	9	23	0	1	36	66	3	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	7	13	10	0	100	3	6	67	2
Mvmt Flow	1	39	0	19	13	32	0	1	50	92	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.5	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	3%	30%	96%
Vol Thru, %	3%	97%	20%	4%
Vol Right, %	97%	0%	50%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	29	46	69
LT Vol	0	1	14	66
Through Vol	1	28	9	3
RT Vol	36	0	23	0
Lane Flow Rate	51	40	64	96
Geometry Grp	1	1	1	1
Degree of Util (X)	0.075	0.049	0.074	0.118
Departure Headway (Hd)	5.274	4.346	4.195	4.415
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	672	829	859	801
Service Time	3.363	2.348	2.197	2.499
HCM Lane V/C Ratio	0.076	0.048	0.075	0.12
HCM Control Delay, s/veh	8.8	7.6	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	1	28	0	14	8	22	0	1	37	66	3	0
Future Volume (vph)	1	28	0	14	8	22	0	1	37	66	3	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.931			0.868				
Flt Protected		0.999			0.985						0.954	
Satd. Flow (prot)	0	2058	0	0	1648	0	0	1482	0	0	1758	0
Flt Permitted		0.999			0.985						0.954	
Satd. Flow (perm)	0	2058	0	0	1648	0	0	1482	0	0	1758	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	7%	13%	10%	0%	100%	3%	6%	67%	2%
Adj. Flow (vph)	1	39	0	19	11	31	0	1	51	92	4	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	61	0	0	52	0	0	96	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

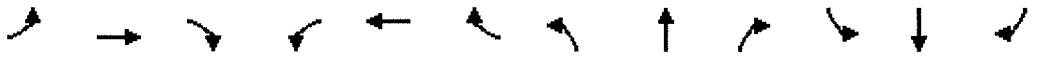
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	26.7%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	28	0	14	8	22	0	1	37	66	3	0
Future Vol, veh/h	1	28	0	14	8	22	0	1	37	66	3	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	7	13	10	0	100	3	6	67	2
Mvmt Flow	1	39	0	19	11	31	0	1	51	92	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.5	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	3%	32%	96%
Vol Thru, %	3%	97%	18%	4%
Vol Right, %	97%	0%	50%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	29	44	69
LT Vol	0	1	14	66
Through Vol	1	28	8	3
RT Vol	37	0	22	0
Lane Flow Rate	53	40	61	96
Geometry Grp	1	1	1	1
Degree of Util (X)	0.077	0.049	0.071	0.117
Departure Headway (Hd)	5.268	4.345	4.2	4.41
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	673	829	857	802
Service Time	3.356	2.347	2.202	2.495
HCM Lane V/C Ratio	0.079	0.048	0.071	0.12
HCM Control Delay, s/veh	8.8	7.6	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	1	29	0	14	9	24	0	1	37	68	3	0
Future Volume (vph)	1	29	0	14	9	24	0	1	37	68	3	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.931			0.868				
Flt Protected		0.999			0.986						0.954	
Satd. Flow (prot)	0	2058	0	0	1648	0	0	1482	0	0	1759	0
Flt Permitted		0.999			0.986						0.954	
Satd. Flow (perm)	0	2058	0	0	1648	0	0	1482	0	0	1759	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles (%)	0%	0%	0%	7%	13%	10%	0%	100%	3%	6%	67%	2%
Adj. Flow (vph)	1	40	0	19	13	33	0	1	51	94	4	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	41	0	0	65	0	0	52	0	0	98	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

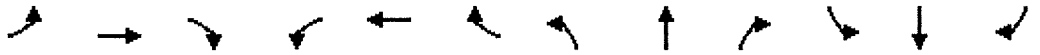
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	29	0	14	9	24	0	1	37	68	3	0
Future Vol, veh/h	1	29	0	14	9	24	0	1	37	68	3	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	7	13	10	0	100	3	6	67	2
Mvmt Flow	1	40	0	19	13	33	0	1	51	94	4	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.6	7.5	8.8	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	3%	30%	96%
Vol Thru, %	3%	97%	19%	4%
Vol Right, %	97%	0%	51%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	30	47	71
LT Vol	0	1	14	68
Through Vol	1	29	9	3
RT Vol	37	0	24	0
Lane Flow Rate	53	42	65	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.077	0.05	0.076	0.121
Departure Headway (Hd)	5.28	4.357	4.199	4.42
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	671	827	858	801
Service Time	3.372	2.359	2.2	2.507
HCM Lane V/C Ratio	0.079	0.051	0.076	0.124
HCM Control Delay, s/veh	8.8	7.6	7.5	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.2	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	20	2	32	31	72	4	7	25	58	7	2
Future Volume (vph)	2	20	2	32	31	72	4	7	25	58	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt		0.989			0.928			0.904			0.996	
Flt Protected		0.996			0.988			0.995			0.958	
Satd. Flow (prot)	0	1879	0	0	1797	0	0	1570	0	0	1850	0
Flt Permitted		0.996			0.988			0.995			0.958	
Satd. Flow (perm)	0	1879	0	0	1797	0	0	1570	0	0	1850	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
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
Heavy Vehicles (%)	50%	0%	50%	0%	0%	1%	0%	14%	0%	2%	0%	50%
Adj. Flow (vph)	2	21	2	34	33	77	4	7	27	62	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	144	0	0	38	0	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

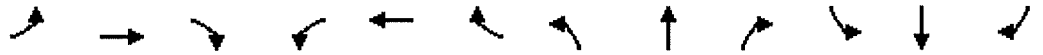
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	20	2	32	31	72	4	7	25	58	7	2
Future Vol, veh/h	2	20	2	32	31	72	4	7	25	58	7	2
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
Heavy Vehicles, %	50	0	50	0	0	1	0	14	0	2	0	50
Mvmt Flow	2	21	2	34	33	77	4	7	27	62	7	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	7.6	7.1	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	24%	87%
Vol Thru, %	19%	83%	23%	10%
Vol Right, %	69%	8%	53%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	24	135	67
LT Vol	4	2	32	58
Through Vol	7	20	31	7
RT Vol	25	2	72	2
Lane Flow Rate	38	26	144	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.036	0.153	0.087
Departure Headway (Hd)	3.855	5.02	3.836	4.414
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	706	923	802
Service Time	1.951	3.104	1.907	2.494
HCM Lane V/C Ratio	0.042	0.037	0.156	0.089
HCM Control Delay, s/veh	7.1	8.3	7.6	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.5	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	20	2	32	31	72	4	7	25	58	7	2
Future Volume (vph)	2	20	2	32	31	72	4	7	25	58	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt		0.989			0.928			0.904			0.996	
Flt Protected		0.996			0.988			0.995			0.958	
Satd. Flow (prot)	0	1879	0	0	1797	0	0	1570	0	0	1850	0
Flt Permitted		0.996			0.988			0.995			0.958	
Satd. Flow (perm)	0	1879	0	0	1797	0	0	1570	0	0	1850	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
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
Heavy Vehicles (%)	50%	0%	50%	0%	0%	1%	0%	14%	0%	2%	0%	50%
Adj. Flow (vph)	2	21	2	34	33	77	4	7	27	62	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	144	0	0	38	0	0	71	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

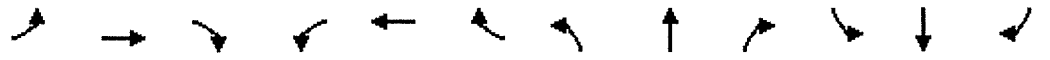
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	20	2	32	31	72	4	7	25	58	7	2
Future Vol, veh/h	2	20	2	32	31	72	4	7	25	58	7	2
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
Heavy Vehicles, %	50	0	50	0	0	1	0	14	0	2	0	50
Mvmt Flow	2	21	2	34	33	77	4	7	27	62	7	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	7.6	7.1	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	24%	87%
Vol Thru, %	19%	83%	23%	10%
Vol Right, %	69%	8%	53%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	24	135	67
LT Vol	4	2	32	58
Through Vol	7	20	31	7
RT Vol	25	2	72	2
Lane Flow Rate	38	26	144	71
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.036	0.153	0.087
Departure Headway (Hd)	3.855	5.02	3.836	4.414
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	912	706	923	802
Service Time	1.951	3.104	1.907	2.494
HCM Lane V/C Ratio	0.042	0.037	0.156	0.089
HCM Control Delay, s/veh	7.1	8.3	7.6	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.5	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	21	2	32	32	74	4	7	25	60	7	2
Future Volume (vph)	2	21	2	32	32	74	4	7	25	60	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt		0.990			0.927			0.904			0.996	
Flt Protected		0.996			0.989			0.995			0.958	
Satd. Flow (prot)	0	1887	0	0	1797	0	0	1570	0	0	1850	0
Flt Permitted		0.996			0.989			0.995			0.958	
Satd. Flow (perm)	0	1887	0	0	1797	0	0	1570	0	0	1850	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
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
Heavy Vehicles (%)	50%	0%	50%	0%	0%	1%	0%	14%	0%	2%	0%	50%
Adj. Flow (vph)	2	22	2	34	34	79	4	7	27	64	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	147	0	0	38	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

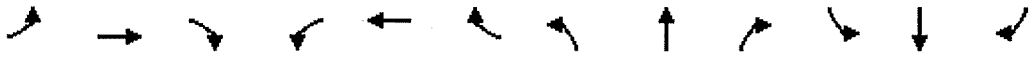
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	21	2	32	32	74	4	7	25	60	7	2
Future Vol, veh/h	2	21	2	32	32	74	4	7	25	60	7	2
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
Heavy Vehicles, %	50	0	50	0	0	1	0	14	0	2	0	50
Mvmt Flow	2	22	2	34	34	79	4	7	27	64	7	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	7.6	7.1	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	23%	87%
Vol Thru, %	19%	84%	23%	10%
Vol Right, %	69%	8%	54%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	25	138	69
LT Vol	4	2	32	60
Through Vol	7	21	32	7
RT Vol	25	2	74	2
Lane Flow Rate	38	27	147	73
Geometry Grp	1	1	1	1
Degree of Util (X)	0.042	0.037	0.157	0.09
Departure Headway (Hd)	3.963	5.027	3.838	4.421
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	909	704	922	800
Service Time	1.963	3.117	1.913	2.506
HCM Lane V/C Ratio	0.042	0.038	0.159	0.091
HCM Control Delay, s/veh	7.1	8.3	7.6	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.6	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	21	2	33	32	74	4	7	26	60	7	2
Future Volume (vph)	2	21	2	33	32	74	4	7	26	60	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt		0.990			0.928			0.903			0.996	
Flt Protected		0.996			0.988			0.995			0.958	
Satd. Flow (prot)	0	1887	0	0	1797	0	0	1570	0	0	1850	0
Flt Permitted		0.996			0.988			0.995			0.958	
Satd. Flow (perm)	0	1887	0	0	1797	0	0	1570	0	0	1850	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
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
Heavy Vehicles (%)	50%	0%	50%	0%	0%	1%	0%	14%	0%	2%	0%	50%
Adj. Flow (vph)	2	22	2	35	34	79	4	7	28	64	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	148	0	0	39	0	0	73	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

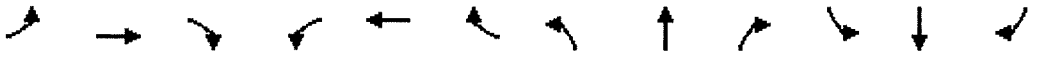
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	21	2	33	32	74	4	7	26	60	7	2
Future Vol, veh/h	2	21	2	33	32	74	4	7	26	60	7	2
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
Heavy Vehicles, %	50	0	50	0	0	1	0	14	0	2	0	50
Mvmt Flow	2	22	2	35	34	79	4	7	28	64	7	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	7.7	7.1	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	24%	87%
Vol Thru, %	19%	84%	23%	10%
Vol Right, %	70%	8%	53%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	25	139	69
LT Vol	4	2	33	60
Through Vol	7	21	32	7
RT Vol	26	2	74	2
Lane Flow Rate	39	27	148	73
Geometry Grp	1	1	1	1
Degree of Util (X)	0.043	0.037	0.158	0.09
Departure Headway (Hd)	3.96	5.03	3.843	4.424
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	910	703	921	799
Service Time	1.96	3.12	1.918	2.509
HCM Lane V/C Ratio	0.043	0.038	0.161	0.091
HCM Control Delay, s/veh	7.1	8.3	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.6	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	22	2	33	33	76	4	7	26	62	7	2
Future Volume (vph)	2	22	2	33	33	76	4	7	26	62	7	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt		0.990			0.928			0.903			0.996	
Flt Protected		0.996			0.989			0.995			0.958	
Satd. Flow (prot)	0	1892	0	0	1798	0	0	1570	0	0	1851	0
Flt Permitted		0.996			0.989			0.995			0.958	
Satd. Flow (perm)	0	1892	0	0	1798	0	0	1570	0	0	1851	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
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
Heavy Vehicles (%)	50%	0%	50%	0%	0%	1%	0%	14%	0%	2%	0%	50%
Adj. Flow (vph)	2	23	2	35	35	81	4	7	28	66	7	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	151	0	0	39	0	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

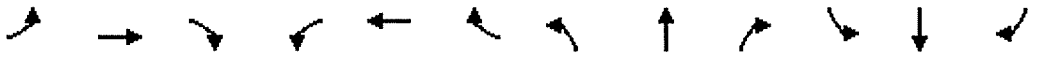
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	22	2	33	33	76	4	7	26	62	7	2
Future Vol, veh/h	2	22	2	33	33	76	4	7	26	62	7	2
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
Heavy Vehicles, %	50	0	50	0	0	1	0	14	0	2	0	50
Mvmt Flow	2	23	2	35	35	81	4	7	28	66	7	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	8.3	7.7	7.2	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	8%	23%	87%
Vol Thru, %	19%	85%	23%	10%
Vol Right, %	70%	8%	54%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	26	142	71
LT Vol	4	2	33	62
Through Vol	7	22	33	7
RT Vol	26	2	76	2
Lane Flow Rate	39	28	151	76
Geometry Grp	1	1	1	1
Degree of Util (X)	0.043	0.039	0.161	0.093
Departure Headway (Hd)	3.972	5.038	3.845	4.433
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	907	702	920	798
Service Time	1.972	3.13	1.923	2.52
HCM Lane V/C Ratio	0.043	0.04	0.164	0.095
HCM Control Delay, s/veh	7.2	8.3	7.7	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.6	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	16	0	37	6	44	1	2	31	45	3	1
Future Volume (vph)	2	16	0	37	6	44	1	2	31	45	3	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.932			0.875			0.998	
Flt Protected		0.995			0.979			0.999			0.956	
Satd. Flow (prot)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Flt Permitted		0.995			0.979			0.999			0.956	
Satd. Flow (perm)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	18	0	43	7	51	1	2	36	52	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	101	0	0	39	0	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	0	37	6	44	1	2	31	45	3	1
Future Vol, veh/h	2	16	0	37	6	44	1	2	31	45	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	18	0	43	7	51	1	2	36	52	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.4	6.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	43%	92%
Vol Thru, %	6%	89%	7%	6%
Vol Right, %	91%	0%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	18	87	49
LT Vol	1	2	37	45
Through Vol	2	16	6	3
RT Vol	31	0	44	1
Lane Flow Rate	39	21	100	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.024	0.107	0.067
Departure Headway (Hd)	3.61	4.165	3.862	4.311
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	981	853	923	826
Service Time	1.672	2.223	1.908	2.362
HCM Lane V/C Ratio	0.04	0.025	0.108	0.068
HCM Control Delay, s/veh	6.8	7.3	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	16	0	37	6	44	1	2	31	45	3	1
Future Volume (vph)	2	16	0	37	6	44	1	2	31	45	3	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.932			0.875			0.998	
Flt Protected		0.995			0.979			0.999			0.956	
Satd. Flow (prot)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Flt Permitted		0.995			0.979			0.999			0.956	
Satd. Flow (perm)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	18	0	43	7	51	1	2	36	52	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	101	0	0	39	0	0	56	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

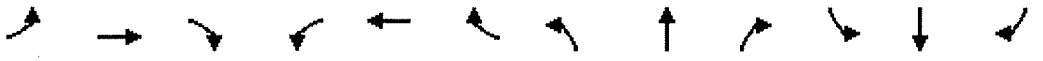
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	0	37	6	44	1	2	31	45	3	1
Future Vol, veh/h	2	16	0	37	6	44	1	2	31	45	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	18	0	43	7	51	1	2	36	52	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.4	6.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	43%	92%
Vol Thru, %	6%	89%	7%	6%
Vol Right, %	91%	0%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	18	87	49
LT Vol	1	2	37	45
Through Vol	2	16	6	3
RT Vol	31	0	44	1
Lane Flow Rate	39	21	100	56
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.024	0.107	0.067
Departure Headway (Hd)	3.61	4.165	3.862	4.311
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	981	853	923	826
Service Time	1.672	2.223	1.908	2.362
HCM Lane V/C Ratio	0.04	0.025	0.108	0.068
HCM Control Delay, s/veh	6.8	7.3	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	17	0	37	7	48	1	2	31	49	3	1
Future Volume (vph)	2	17	0	37	7	48	1	2	31	49	3	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.930			0.875			0.998	
Flt Protected		0.995			0.980			0.999			0.955	
Satd. Flow (prot)	0	2050	0	0	1796	0	0	1566	0	0	1906	0
Flt Permitted		0.995			0.980			0.999			0.955	
Satd. Flow (perm)	0	2050	0	0	1796	0	0	1566	0	0	1906	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	20	0	43	8	55	1	2	36	56	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	106	0	0	39	0	0	60	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

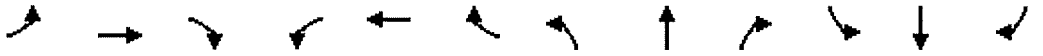
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	0	37	7	48	1	2	31	49	3	1
Future Vol, veh/h	2	17	0	37	7	48	1	2	31	49	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	20	0	43	8	55	1	2	36	56	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.4	6.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	40%	92%
Vol Thru, %	6%	89%	8%	6%
Vol Right, %	91%	0%	52%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	19	92	53
LT Vol	1	2	37	49
Through Vol	2	17	7	3
RT Vol	31	0	48	1
Lane Flow Rate	39	22	106	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.039	0.025	0.113	0.073
Departure Headway (Hd)	3.625	4.176	3.857	4.325
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	976	850	923	824
Service Time	1.691	2.239	1.907	2.377
HCM Lane V/C Ratio	0.04	0.026	0.115	0.074
HCM Control Delay, s/veh	6.8	7.3	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	16	0	38	6	45	1	2	32	46	3	1
Future Volume (vph)	2	16	0	38	6	45	1	2	32	46	3	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.932			0.875			0.998	
Flt Protected		0.995			0.979			0.999			0.956	
Satd. Flow (prot)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Flt Permitted		0.995			0.979			0.999			0.956	
Satd. Flow (perm)	0	2050	0	0	1798	0	0	1566	0	0	1908	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	18	0	44	7	52	1	2	37	53	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	103	0	0	40	0	0	57	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

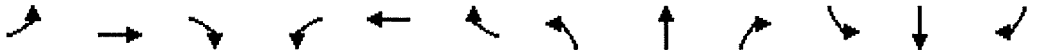
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	16	0	38	6	45	1	2	32	46	3	1
Future Vol, veh/h	2	16	0	38	6	45	1	2	32	46	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	18	0	44	7	52	1	2	37	53	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.3	7.4	6.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	43%	92%
Vol Thru, %	6%	89%	7%	6%
Vol Right, %	91%	0%	51%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	18	89	50
LT Vol	1	2	38	46
Through Vol	2	16	6	3
RT Vol	32	0	45	1
Lane Flow Rate	40	21	102	57
Geometry Grp	1	1	1	1
Degree of Util (X)	0.04	0.024	0.11	0.069
Departure Headway (Hd)	3.613	4.171	3.867	4.317
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	979	851	922	825
Service Time	1.678	2.231	1.914	2.369
HCM Lane V/C Ratio	0.041	0.025	0.111	0.069
HCM Control Delay, s/veh	6.8	7.3	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4	0.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	2	17	0	38	7	48	1	2	32	49	3	1
Future Volume (vph)	2	17	0	38	7	48	1	2	32	49	3	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	16	15	15	15	12	12	12	15	15	15
Grade (%)		-2%			1%			1%			-2%	
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
Frt					0.931			0.875			0.998	
Flt Protected		0.995			0.980			0.999			0.955	
Satd. Flow (prot)	0	2050	0	0	1797	0	0	1566	0	0	1906	0
Flt Permitted		0.995			0.980			0.999			0.955	
Satd. Flow (perm)	0	2050	0	0	1797	0	0	1566	0	0	1906	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		2185			645			288			427	
Travel Time (s)		59.6			17.6			7.9			11.6	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	2	20	0	44	8	55	1	2	37	56	3	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	107	0	0	40	0	0	60	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.90	0.90	0.90	0.95	0.95	0.95	1.08	1.08	1.08	0.94	0.94	0.94
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	17	0	38	7	48	1	2	32	49	3	1
Future Vol, veh/h	2	17	0	38	7	48	1	2	32	49	3	1
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	20	0	44	8	55	1	2	37	56	3	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	7.4	7.4	6.9	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	11%	41%	92%
Vol Thru, %	6%	89%	8%	6%
Vol Right, %	91%	0%	52%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	19	93	53
LT Vol	1	2	38	49
Through Vol	2	17	7	3
RT Vol	32	0	48	1
Lane Flow Rate	40	22	107	61
Geometry Grp	1	1	1	1
Degree of Util (X)	0.041	0.025	0.115	0.073
Departure Headway (Hd)	3.626	4.179	3.863	4.328
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	976	849	921	822
Service Time	1.693	2.244	1.915	2.383
HCM Lane V/C Ratio	0.041	0.026	0.116	0.074
HCM Control Delay, s/veh	6.9	7.4	7.4	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.4	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	130	3	186	44	3	185
Future Volume (vph)	130	3	186	44	3	185
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.867	
Flt Protected				0.961	0.999	
Satd. Flow (prot)	1727	0	0	1657	1551	0
Flt Permitted				0.961	0.999	
Satd. Flow (perm)	1727	0	0	1657	1551	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	2%	2%	9%	2%	2%
Adj. Flow (vph)	144	3	207	49	3	206
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	256	209	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	3	186	44	3	185
Future Vol, veh/h	130	3	186	44	3	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	2	2	9	2	2
Mvmt Flow	144	3	207	49	3	206

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	609	146
Stage 1	-	-	-	-	146	-
Stage 2	-	-	-	-	463	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1070	-	572	972
Stage 1	-	-	-	-	1048	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1070	-	458	972
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	1048	-
Stage 2	-	-	-	-	623	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.4	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	955	-	-	1070	-
HCM Lane V/C Ratio	0.219	-	-	0.193	-
HCM Control Delay (s/veh)	9.8	-	-	9.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.8	-	-	0.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	133	3	185	45	3	185
Future Volume (vph)	133	3	185	45	3	185
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.867	
Flt Protected				0.961	0.999	
Satd. Flow (prot)	1727	0	0	1657	1551	0
Flt Permitted				0.961	0.999	
Satd. Flow (perm)	1727	0	0	1657	1551	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	2%	2%	9%	2%	2%
Adj. Flow (vph)	148	3	206	50	3	206
Shared Lane Traffic (%)						
Lane Group Flow (vph)	151	0	0	256	209	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	133	3	185	45	3	185
Future Vol, veh/h	133	3	185	45	3	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	2	2	9	2	2
Mvmt Flow	148	3	206	50	3	206

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	151	0	612	150
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1066	-	570	967
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	779	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1066	-	457	967
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	1044	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	7.4	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	950	-	-	1066	-
HCM Lane V/C Ratio	0.22	-	-	0.193	-
HCM Control Delay (s/veh)	9.9	-	-	9.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.8	-	-	0.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	102	3	163	139	3	163
Future Volume (vph)	102	3	163	139	3	163
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.867	
Flt Protected				0.974	0.999	
Satd. Flow (prot)	1812	0	0	1709	1551	0
Flt Permitted				0.974	0.999	
Satd. Flow (perm)	1812	0	0	1709	1551	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	2%	1%	2%	2%
Adj. Flow (vph)	113	3	181	154	3	181
Shared Lane Traffic (%)						
Lane Group Flow (vph)	116	0	0	335	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	102	3	163	139	3	163
Future Vol, veh/h	102	3	163	139	3	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	2	2	1	2	2
Mvmt Flow	113	3	181	154	3	181

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	116	0	631	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	516	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1096	-	556	1010
Stage 1	-	-	-	-	1079	-
Stage 2	-	-	-	-	740	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1096	-	455	1010
Mov Cap-2 Maneuver	-	-	-	-	455	-
Stage 1	-	-	-	-	1079	-
Stage 2	-	-	-	-	606	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	4.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	988	-	-	1096	-
HCM Lane V/C Ratio	0.187	-	-	0.165	-
HCM Control Delay (s/veh)	9.5	-	-	8.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.7	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	104	3	163	142	3	163
Future Volume (vph)	104	3	163	142	3	163
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.997				0.867	
Flt Protected				0.974	0.999	
Satd. Flow (prot)	1812	0	0	1709	1551	0
Flt Permitted				0.974	0.999	
Satd. Flow (perm)	1812	0	0	1709	1551	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	2%	1%	2%	2%
Adj. Flow (vph)	116	3	181	158	3	181
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	0	0	339	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	104	3	163	142	3	163
Future Vol, veh/h	104	3	163	142	3	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	2	2	1	2	2
Mvmt Flow	116	3	181	158	3	181

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	119	0	638	118
Stage 1	-	-	-	-	118	-
Stage 2	-	-	-	-	520	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1093	-	552	1006
Stage 1	-	-	-	-	1076	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1093	-	452	1006
Mov Cap-2 Maneuver	-	-	-	-	452	-
Stage 1	-	-	-	-	1076	-
Stage 2	-	-	-	-	603	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	4.8	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	984	-	-	1093	-
HCM Lane V/C Ratio	0.187	-	-	0.166	-
HCM Control Delay (s/veh)	9.5	-	-	8.9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.7	-	-	0.6	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	90	5	190	86	5	189
Future Volume (vph)	90	5	190	86	5	189
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.992				0.869	
Flt Protected				0.967	0.999	
Satd. Flow (prot)	1801	0	0	1700	1555	0
Flt Permitted				0.967	0.999	
Satd. Flow (perm)	1801	0	0	1700	1555	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	2%	0%	2%	2%
Adj. Flow (vph)	100	6	211	96	6	210
Shared Lane Traffic (%)						
Lane Group Flow (vph)	106	0	0	307	216	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	90	5	190	86	5	189
Future Vol, veh/h	90	5	190	86	5	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	100	6	211	96	6	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	621	103
Stage 1	-	-	-	-	103	-
Stage 2	-	-	-	-	518	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1105	-	563	1024
Stage 1	-	-	-	-	1091	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1105	-	449	1024
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	1091	-
Stage 2	-	-	-	-	589	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	6.2	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	991	-	-	1105	-
HCM Lane V/C Ratio	0.218	-	-	0.191	-
HCM Control Delay (s/veh)	9.6	-	-	9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.8	-	-	0.7	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	93	5	190	89	5	189
Future Volume (vph)	93	5	190	89	5	189
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	-2%			2%	-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.869	
Flt Protected				0.967	0.999	
Satd. Flow (prot)	1803	0	0	1700	1555	0
Flt Permitted				0.967	0.999	
Satd. Flow (perm)	1803	0	0	1700	1555	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	645			373	379	
Travel Time (s)	17.6			10.2	10.3	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	2%	2%	0%	2%	2%
Adj. Flow (vph)	103	6	211	99	6	210
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	0	310	216	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	10			10	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.06	1.06	1.09	1.09	1.05	1.05
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	5	190	89	5	189
Future Vol, veh/h	93	5	190	89	5	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	2	-3	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	2	2	0	2	2
Mvmt Flow	103	6	211	99	6	210

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	109	0	627	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	-	-	4.3	-	5.82	5.92
Critical Hdwy Stg 1	-	-	-	-	4.82	-
Critical Hdwy Stg 2	-	-	-	-	4.82	-
Follow-up Hdwy	-	-	3	-	3	3.1
Pot Cap-1 Maneuver	-	-	1102	-	559	1021
Stage 1	-	-	-	-	1088	-
Stage 2	-	-	-	-	736	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1102	-	446	1021
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	1088	-
Stage 2	-	-	-	-	587	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	6.2	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	988	-	-	1102	-
HCM Lane V/C Ratio	0.218	-	-	0.192	-
HCM Control Delay (s/veh)	9.7	-	-	9	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q (veh)	0.8	-	-	0.7	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	0	37	1	0	17
Future Volume (vph)	1	0	37	1	0	17
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1676	0	1702	0	0	1533
Flt Permitted	0.950					
Satd. Flow (perm)	1676	0	1702	0	0	1533
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	5%	2%	2%	18%
Adj. Flow (vph)	1	0	41	1	0	19
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	42	0	0	19
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	37	1	0	17
Future Vol, veh/h	1	0	37	1	0	17
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	5	2	2	18
Mvmt Flow	1	0	41	1	0	19

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	61	42	0	0	42	0
Stage 1	42	-	-	-	-	-
Stage 2	19	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1104	1100	-	-	1161	-
Stage 1	1146	-	-	-	-	-
Stage 2	1175	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1104	1100	-	-	1161	-
Mov Cap-2 Maneuver	1104	-	-	-	-	-
Stage 1	1146	-	-	-	-	-
Stage 2	1175	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1104	1161	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s/veh)	-	-	8.3	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	0	38	1	0	18
Future Volume (vph)	1	0	38	1	0	18
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1676	0	1702	0	0	1533
Flt Permitted	0.950					
Satd. Flow (perm)	1676	0	1702	0	0	1533
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	5%	2%	2%	18%
Adj. Flow (vph)	1	0	42	1	0	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	43	0	0	20
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	38	1	0	18
Future Vol, veh/h	1	0	38	1	0	18
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	5	2	2	18
Mvmt Flow	1	0	42	1	0	20

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	63	43	0	0	43	0
Stage 1	43	-	-	-	-	-
Stage 2	20	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1101	1098	-	-	1160	-
Stage 1	1145	-	-	-	-	-
Stage 2	1174	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1101	1098	-	-	1160	-
Mov Cap-2 Maneuver	1101	-	-	-	-	-
Stage 1	1145	-	-	-	-	-
Stage 2	1174	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1101	1160	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s/veh)	-	-	8.3	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	0	36	1	0	41
Future Volume (vph)	1	0	36	1	0	41
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1676	0	1734	0	0	1774
Flt Permitted	0.950					
Satd. Flow (perm)	1676	0	1734	0	0	1774
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	1	0	40	1	0	46
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	41	0	0	46
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	36	1	0	41
Future Vol, veh/h	1	0	36	1	0	41
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	1	0	40	1	0	46

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	87	41	0	0	41	0
Stage 1	41	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1065	1101	-	-	1162	-
Stage 1	1148	-	-	-	-	-
Stage 2	1141	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1065	1101	-	-	1162	-
Mov Cap-2 Maneuver	1065	-	-	-	-	-
Stage 1	1148	-	-	-	-	-
Stage 2	1141	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1065	1162	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s/veh)	-	-	8.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	1	0	37	1	0	42
Future Volume (vph)	1	0	37	1	0	42
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1676	0	1734	0	0	1774
Flt Permitted	0.950					
Satd. Flow (perm)	1676	0	1734	0	0	1774
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	1	0	41	1	0	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1	0	42	0	0	47
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	0	37	1	0	42
Future Vol, veh/h	1	0	37	1	0	42
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	3	2	2	2
Mvmt Flow	1	0	41	1	0	47

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	89	42	0	0	42	0
Stage 1	42	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1062	1100	-	-	1161	-
Stage 1	1146	-	-	-	-	-
Stage 2	1140	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1062	1100	-	-	1161	-
Mov Cap-2 Maneuver	1062	-	-	-	-	-
Stage 1	1146	-	-	-	-	-
Stage 2	1140	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1062	1161	-
HCM Lane V/C Ratio	-	-	0.001	-	-
HCM Control Delay (s/veh)	-	-	8.4	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q (veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	0	34	2	40	0
Future Volume (vph)	2	0	34	2	40	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993			
Flt Protected	0.950					0.950
Satd. Flow (prot)	1676	0	1777	0	0	1685
Flt Permitted	0.950					0.950
Satd. Flow (perm)	1676	0	1777	0	0	1685
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	0%	2%	2%	0%
Adj. Flow (vph)	2	0	38	2	44	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	40	0	0	44
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	34	2	40	0
Future Vol, veh/h	2	0	34	2	40	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	0	2	2	0
Mvmt Flow	2	0	38	2	44	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	127	39	0	0	40	0
Stage 1	39	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1008	1104	-	-	1163	-
Stage 1	1150	-	-	-	-	-
Stage 2	1090	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	970	1104	-	-	1163	-
Mov Cap-2 Maneuver	970	-	-	-	-	-
Stage 1	1150	-	-	-	-	-
Stage 2	1049	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.7	0	8.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	970	1163	-
HCM Lane V/C Ratio	-	-	0.002	0.038	-
HCM Control Delay (s/veh)	-	-	8.7	8.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q (veh)	-	-	0	0.1	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	0	35	2	41	0
Future Volume (vph)	2	0	35	2	41	0
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Grade (%)	0%		1%			-1%
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993			
Flt Protected	0.950					0.950
Satd. Flow (prot)	1676	0	1777	0	0	1685
Flt Permitted	0.950					0.950
Satd. Flow (perm)	1676	0	1777	0	0	1685
Link Speed (mph)	25		25			25
Link Distance (ft)	335		550			288
Travel Time (s)	9.1		15.0			7.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	0%	2%	2%	0%
Adj. Flow (vph)	2	0	39	2	46	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	41	0	0	46
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.07	1.07	1.08	1.08	1.07	1.07
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	0	35	2	41	0
Future Vol, veh/h	2	0	35	2	41	0
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	1	-	-	-1
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	0	2	2	0
Mvmt Flow	2	0	39	2	46	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	132	40	0	0	41	0
Stage 1	40	-	-	-	-	-
Stage 2	92	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.3	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3	3.1	-	-	3	-
Pot Cap-1 Maneuver	1001	1103	-	-	1162	-
Stage 1	1149	-	-	-	-	-
Stage 2	1085	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	961	1103	-	-	1162	-
Mov Cap-2 Maneuver	961	-	-	-	-	-
Stage 1	1149	-	-	-	-	-
Stage 2	1042	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.8	0	8.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	961	1162	-
HCM Lane V/C Ratio	-	-	0.002	0.039	-
HCM Control Delay (s/veh)	-	-	8.8	8.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q (veh)	-	-	0	0.1	-

TURN LANE ANALYSIS

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	73	11.0%	86
	Through	-	738	4.0%	783
	Right	Yes	1	0.0%	1
Opposing	Left	Yes	0	0.0%	0
	Through	-	420	9.0%	477
	Right	Yes	158	6.0%	173

Advancing Volume:	870
Opposing Volume:	650
Left Turn Volume:	86
% Left Turns in Advancing Volume:	9.89%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	420	9.0%	N/A
	Right	-	158	6.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 3**

Warrant Met?: **Yes**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	86
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	60

Average # of Vehicles/Cycle: 1.0

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	125	Feet
Condition C:	150	Feet
Required Left Turn Lane Storage Length:	150	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	73	11.0%	N/A
	Through	-	738	4.0%	N/A
	Right	Yes	1	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	420	9.0%	N/A
	Right	Yes	158	6.0%	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	0	0.0%	0
	Through	-	420	9.0%	477
	Right	-	158	6.0%	173

Advancing Volume:	650
Right Turn Volume:	173

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 10**

Warrant Met?: **Yes**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	173
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	60

Average # of Vehicles/Cycle: 3.0

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:	125	Feet
Condition C:	225	Feet
Required Right Turn Lane Storage Length:	225	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	114	0.0%	114
	Through	-	566	3.0%	592
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	682	3.0%	713
	Right	Yes	194	3.0%	203

Advancing Volume:	706
Opposing Volume:	916
Left Turn Volume:	114
% Left Turns in Advancing Volume:	16.15%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	682	3.0%	N/A
	Right	-	194	3.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 3**

Warrant Met?: **Yes**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	114
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	60

Average # of Vehicles/Cycle: 2.0

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	125	Feet
Condition C:	175	Feet
Required Left Turn Lane Storage Length:	175	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	114	0.0%	N/A
	Through	-	566	3.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	682	3.0%	N/A
	Right	Yes	194	3.0%	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	0	0.0%	0
	Through	-	682	3.0%	713
	Right	-	194	3.0%	203

Advancing Volume:	916
Right Turn Volume:	203

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 10**

Warrant Met?: **Yes**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	203
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	60

Average # of Vehicles/Cycle: 3.0

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:	125	Feet
Condition C:	225	Feet
Required Right Turn Lane Storage Length:	225	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	Sat Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	117	2.0%	121
	Through	-	420	2.0%	433
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	1	0.0%	1
	Through	-	366	1.0%	372
	Right	Yes	171	0.0%	171

Advancing Volume:	554
Opposing Volume:	544
Left Turn Volume:	121
% Left Turns in Advancing Volume:	21.84%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	1	0.0%	N/A
	Through	-	366	1.0%	N/A
	Right	-	171	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 3**

Warrant Met?: **Yes**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	121
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	72

Average # of Vehicles/Cycle: 2.0

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	125	Feet
Condition C:	175	Feet
Required Left Turn Lane Storage Length:	175	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Hershey Road / Veterans Drive

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	Sat Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	45		Type of Analysis
Type of Terrain:	Rolling	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	117	2.0%	N/A
	Through	-	420	2.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	1	0.0%	N/A
	Through	-	366	1.0%	N/A
	Right	Yes	171	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	1	0.0%	1
	Through	-	366	1.0%	372
	Right	-	171	0.0%	171

Advancing Volume:	544
Right Turn Volume:	171

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 10**

Warrant Met?: **Yes**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	171
Cycles Per Hour (Assumed):	Known
Cycles Per Hour (If Known):	72

Average # of Vehicles/Cycle: 2.0

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:	**125**	Feet
Condition C:	**175**	Feet
Required Right Turn Lane Storage Length:	**175**	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		Type of Analysis
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	185	2.0%	187
	Through	-	45	5.0%	47
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	133	9.0%	139
	Right	Yes	3	2.0%	4

Advancing Volume:	234
Opposing Volume:	143
Left Turn Volume:	187
% Left Turns in Advancing Volume:	79.91%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	133	9.0%	N/A
	Right	-	3	2.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	187
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	AM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		Type of Analysis
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	185	2.0%	N/A
	Through	-	45	5.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	133	9.0%	N/A
	Right	Yes	3	2.0%	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	0	0.0%	0
	Through	-	133	9.0%	139
	Right	-	3	2.0%	4

Advancing Volume:	143
Right Turn Volume:	4

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:	4
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	PM ~~AM~~ Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		
Type of Terrain:	Level	Type of Analysis	
		Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	163	2.0%	165
	Through	-	142	1.0%	143
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	104	0.0%	104
	Right	Yes	3	0.0%	3

Advancing Volume:	308
Opposing Volume:	107
Left Turn Volume:	165
% Left Turns in Advancing Volume:	53.57%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	104	0.0%	N/A
	Right	-	3	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	165
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	PM Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		
Type of Terrain:	Level	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	Yes	163	2.0%	N/A
	Through	-	142	1.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	104	0.0%	N/A
	Right	Yes	3	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	0	0.0%	0
	Through	-	104	0.0%	104
	Right	-	3	0.0%	3

Advancing Volume:	107
Right Turn Volume:	3

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:	3
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	Sat Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		Type of Analysis
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Left Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	190	0.0%	190
	Through	-	89	0.0%	89
	Right	Yes	0	0.0%	0
Opposing	Left	Yes	0	0.0%	0
	Through	-	93	0.0%	93
	Right	Yes	5	0.0%	5

Advancing Volume:	279
Opposing Volume:	98
Left Turn Volume:	190
% Left Turns in Advancing Volume:	68.10%

Right Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	0	0.0%	N/A
	Through	-	93	0.0%	N/A
	Right	-	5	0.0%	N/A

Advancing Volume:	N/A
Right Turn Volume:	N/A

TURN LANE WARRANT FINDINGS

Left Turn Lane Warrant Findings

Applicable Warrant Figure: **Figure 1**

Warrant Met?: **No**

Right Turn Lane Warrant Findings

Applicable Warrant Figure: **N/A**

Warrant Met?: **N/A**

TURN LANE LENGTH CALCULATIONS

Intersection Control:	Signalized
Design Hour Volume of Turning Lane:	190
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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

Left Turn Lane Storage Length, Condition A:	N/A	Feet
Condition B:	N/A	Feet
Condition C:	N/A	Feet
Required Left Turn Lane Storage Length:	N/A	Feet

Additional Findings: N/A

Additional Comments / Justifications:

Turn Lane Warrant and Length Analysis Workbook

STUDY LOCATION AND ANALYSIS INFORMATION

Municipality:	Mount Joy Township	Analysis Date:	9/8/2024
County:	Lancaster County	Conducted By:	CES
PennDOT Engineering District:	8	Checked By:	
		Agency/Company Name:	

Intersection & Approach Description: Veterans Drive / Prop. Dwy

Analysis Period:	2030 Build	Number of Approach Lanes:	1
Design Hour:	Sat Peak Hour	Undivided or Divided Highway:	Undivided
Intersection Control:	Signalized		
Posted Speed Limit (MPH):	25		Type of Analysis
Type of Terrain:	Level	Left or Right-Turn Lane Analysis?:	Right Turn Lane

VOLUME CALCULATIONS

Left Turn Lane Volume Calculations

Movement		Include?	Volume	% Trucks	PCEV
Advancing	Left	Yes	190	0.0%	N/A
	Through	-	89	0.0%	N/A
	Right	Yes	0	0.0%	N/A
Opposing	Left	Yes	0	0.0%	N/A
	Through	-	93	0.0%	N/A
	Right	Yes	5	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	0	0.0%	0
	Through	-	93	0.0%	93
	Right	-	5	0.0%	5

Advancing Volume:	98
Right Turn Volume:	5

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:	5
Cycles Per Hour (Assumed):	60
Cycles Per Hour (If Known):	60

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:

LEFT TURN PHASING ANALYSIS

LEFT TURN SIGNALIZATION

COUNTY: Lancaster County
MUNICIPALITY: Mount Joy Township

INTERSECTION: Hershey Road / Veterans Drive
YEAR: 2030 Traffic Volumes With Development

Time	Left Turn				Opposing		Calculated Conflict Factor	Meet Warrants?
	Direction	Exclusive Lane	Volume	Per Cycle	Through Volume	Number of Lanes		
AM PEAK	EB	Y	213	3.55	1	1	213	No
	WB	N	0	0.00	109	1	0	No
	NB	Y	73	1.22	578	1	42,194	No
	SB	N	0	0.00	739	1	0	No
PM PEAK	EB	Y	166	2.77	0	1	0	No
	WB	N	0	0.00	110	1	0	No
	NB	Y	114	1.90	876	1	99,864	Yes
	SB	N	0	0.00	566	1	0	No
Sat PEAK	EB	Y	186	2.58	1	1	186	No
	WB	N	0	0.00	103	1	0	No
	NB	Y	117	1.63	537	1	62,829	Yes
	SB	N	1	0.01	420	1	420	No

Comments: A conflict factor of 50,000 is required for advanced left turn phasing for 2 - one hour periods.

AM Peak Cycle Length (seconds): 60
Mid Day Peak Cycle Length (seconds): 60
PM Peak Cycle Length (seconds): 50

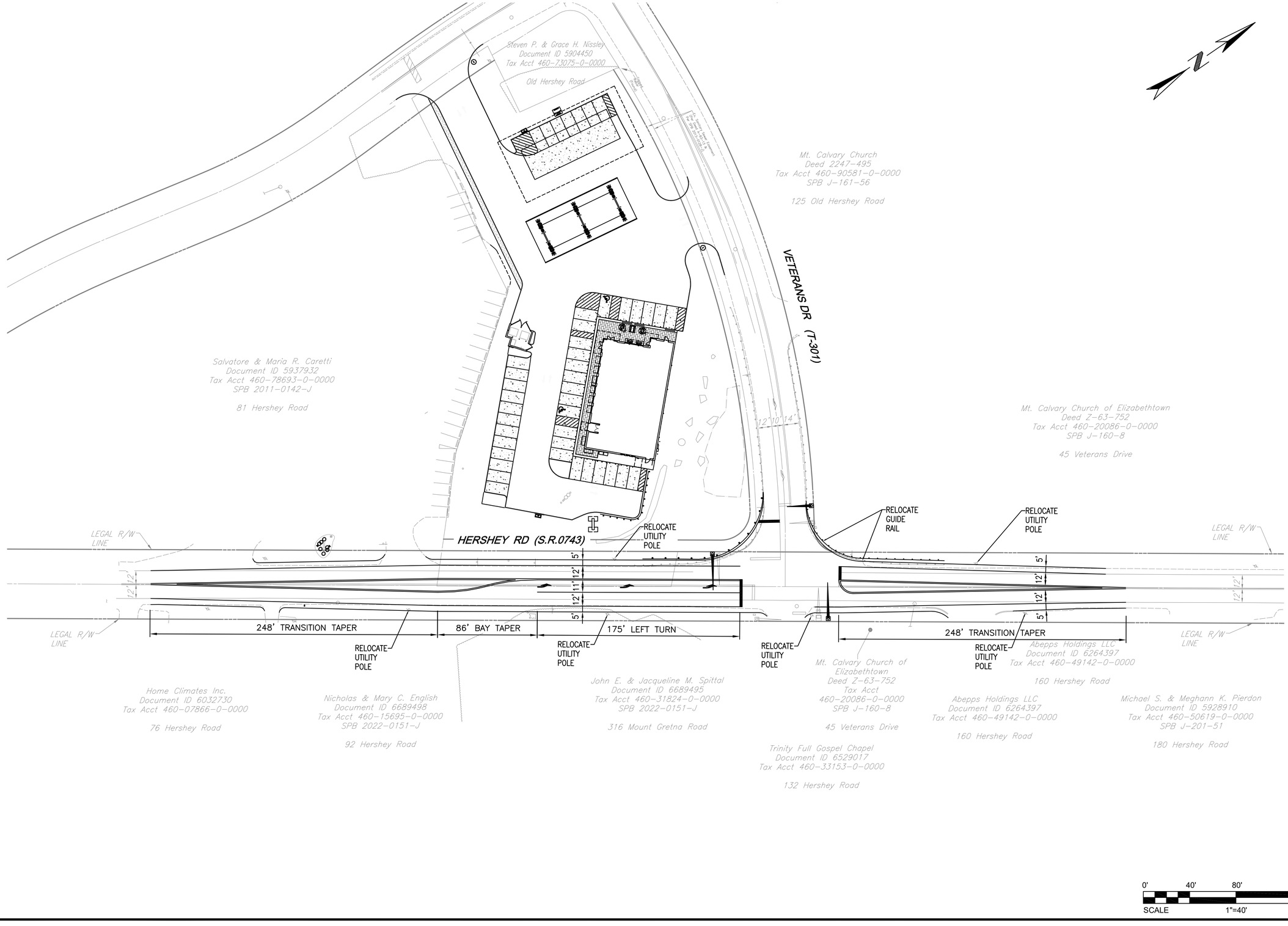
Conflict Factors:
1.1 Protected/Permitted Left Turn Phase

A. Without separate turning lanes
1 opposing lane; CF = 35,000
2 opposing lanes; CF = 45,000

B. With separate turning lane
1 opposing lane; CF = 50,000
2 opposing lanes; CF = 65,000

1.2 Protected/Prohibited Left Turn Phase
(must have a separate turning lane)
1 opposing lane; CF = 67,500
2 opposing lanes; CF = 90,000

CONCEPT PLAN



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TRG
TRANSPORTATION RESOURCE GROUP, INC.

Project No: 228.032.24
File: Concept 2
Date: 9-9-2024
Drawn By: APF
Checked By: CES

No.	Date	Description
Revisions		

SHEETZ - ELIZABETHTOWN

CONCEPT PLAN
FOR THE
HERSHEY RD (S.R.0743) & VETERANS DR
INTERSECTION IMPROVEMENTS

MT. JOY TOWNSHIP
LANCASTER COUNTY, PENNSYLVANIA

CONCEPT

Scale: 1"=40'
Sheet: 1 of 1

SIGHT DISTANCE

M-950S
(03-04)
PENNDOT

DRIVEWAY SIGHT DISTANCE MEASUREMENTS
(FOR LOCAL ROADS, USE PENNDOT PUB 70)

APPLICANT Sheetz APPLICATION NO. _____

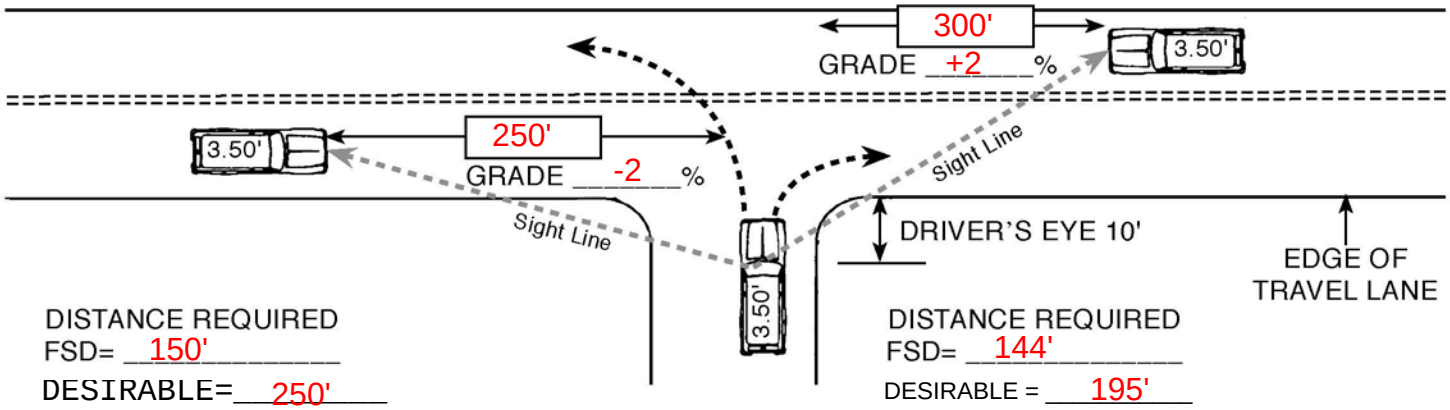
S.R. -- SEG. -- OFFSET -- LEGAL SPEED LIMIT 25 MPH

MEASURED BY CES DATE 8/21/2024

FOR DEPARTMENT USE ONLY: Safe-Running Speed _____ 85th Percentile Speed _____

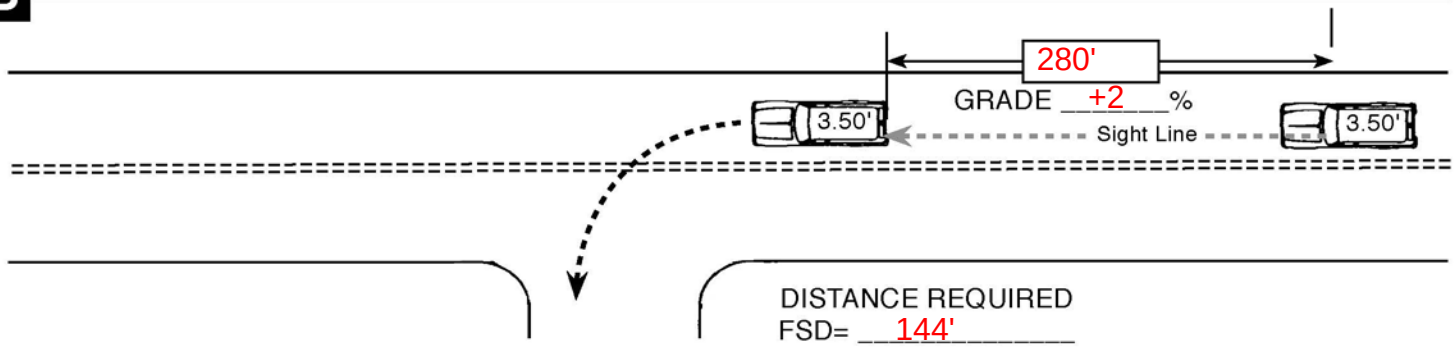
Veterans Drive / Proposed Driveway

A



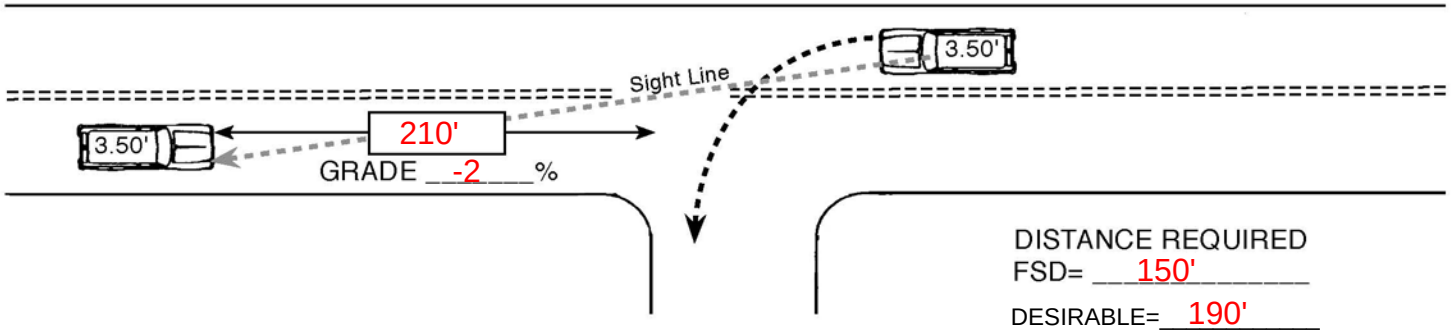
THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER AT A DRIVEWAY LOCATION CAN CONTINUOUSLY SEE ANOTHER VEHICLE APPROACHING ON THE ROADWAY.

B



THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER ON THE ROADWAY CAN CONTINUOUSLY SEE THE REAR OF A VEHICLE WHICH IS LOCATED IN THE DRIVER'S TRAVEL LANE AND WHICH IS POSITIONED TO MAKE A LEFT TURN INTO A DRIVEWAY.

C



THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER OF A VEHICLE INTENDING TO MAKE A LEFT TURN INTO A DRIVEWAY CAN CONTINUOUSLY SEE A VEHICLE APPROACHING FROM THE OPPOSITE DIRECTION.

M-950S
(03-04)
PENNDOT

DRIVEWAY SIGHT DISTANCE MEASUREMENTS
(FOR LOCAL ROADS, USE PENNDOT PUB 70)

APPLICANT Sheetz APPLICATION NO. _____

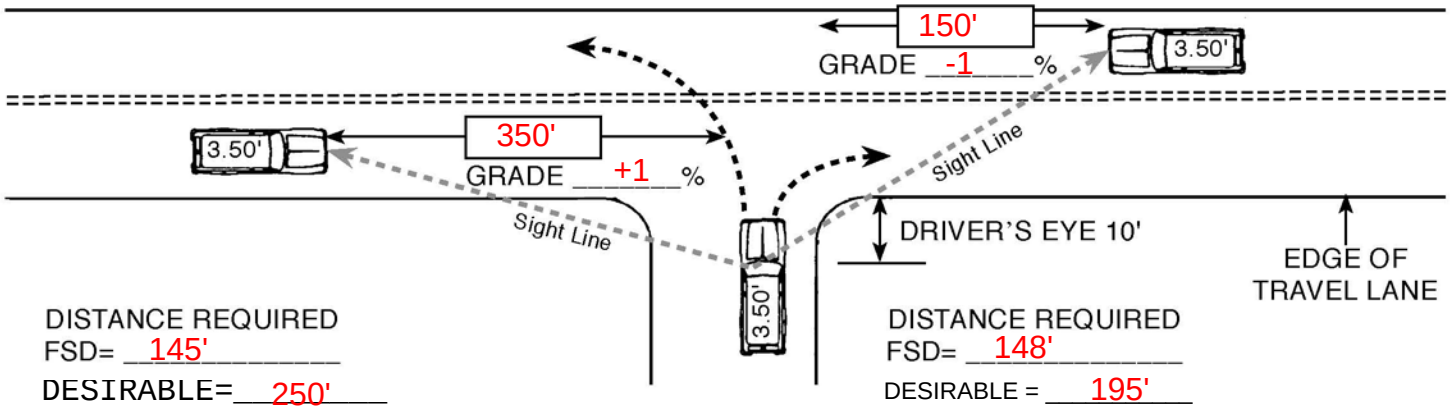
S.R. -- SEG. -- OFFSET -- LEGAL SPEED LIMIT 25 MPH

MEASURED BY CES DATE 8/21/2024

FOR DEPARTMENT USE ONLY: Safe-Running Speed _____ 85th Percentile Speed _____

Old Hershey Road / Proposed Driveway

A



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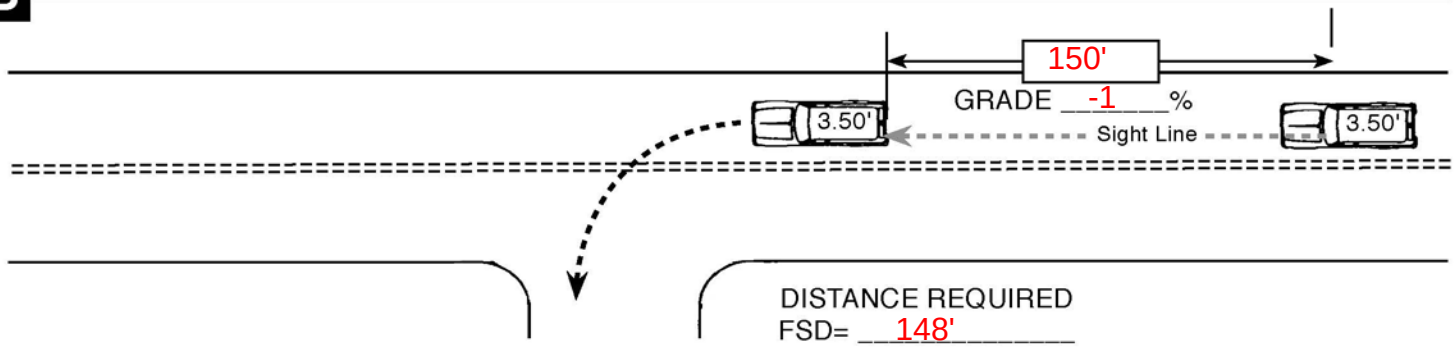
B



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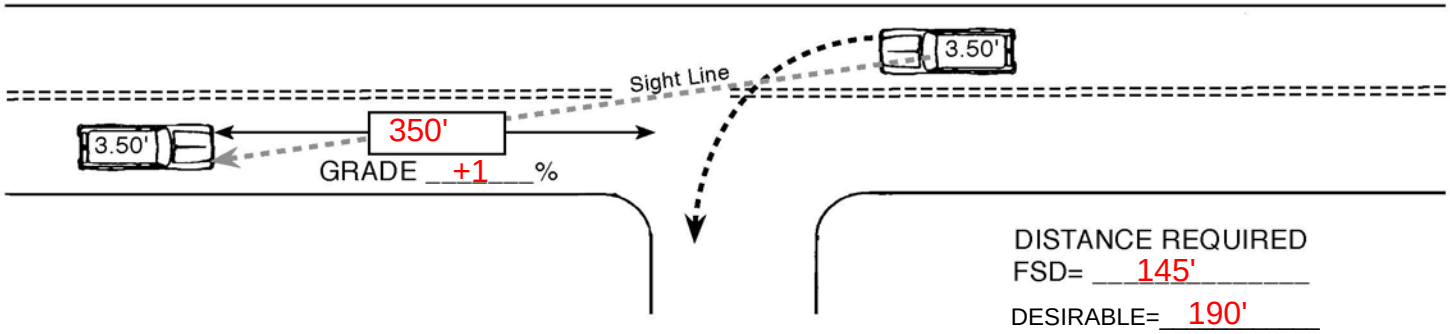
C



THE MAXIMUM LENGTH OF ROADWAY ALONG WHICH A DRIVER OF A VEHICLE INTENDING TO MAKE A LEFT TURN INTO A DRIVEWAY CAN CONTINUOUSLY SEE A VEHICLE APPROACHING FROM THE OPPOSITE DIRECTION.