HCS 2010: MUTCD Signal Warrants Release 6.70

Analyst: R. Jacox
Agency: TranSystems
Date: 2/1/2016
Project ID: Bryn Mawr Phase II TIS
EW Street: IL Route 176

Intersection: IL 176/Bryn Mawr Ln
Jurisdiction: Crystal Lake
Units: U.S. Customary
Analysis Year: 2016
NS Street: Bryn Mawr Lane

General Information

Major St. Speed (mph): 55
Nearest Signal (ft): 4065
Crashes per Yr: 0

Population: Not less than 10000
Coordinated Signal System: N

School Crossing

Students in Highest Hour: 0
Adequate Gaps in Period: 0
Minutes in Period: 0

Roadway Network

Two Major Routes: 0
Weekend Count: 0
5-yr Growth Factor: 0

Geometry and Traffic

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	0	0	0	1	0	1
LaneUsage	L	T			T	R				L		R

Results

Warrant 1: Eight-Hour Vehicular Volume	[ ]
1 A. Minimum Vehicular Volumes	[ ]
1 B. Interruption of Continuous Traffic	[ ]
1 56% Vehicular --and-- Interruption Volumes	[ ]
Warrant 2: Four-Hour Vehicular Volume	
2 A. Four-Hour Vehicular Volumes	[ ]
Warrant 3: Peak Hour	[ ]
3 A. Peak-Hour Conditions	[ ]
3 B. Peak-Hour Vehicular Volume Hours Met	[ ]
Warrant 4: Pedestrian Volume	[ ]
4 A. Four Hour Volumes	[ ]
4 B. One-Hour Volumes	[ ]
Warrant 5: School Crossing	[ ]
5 A. Student Volumes	[ ]
5 B. Gaps Same Period	[ ]
Warrant 6: Coordinated Signal System	
6 Degree of Platooning	[ ]
Warrant 7: Crash Experience	[ ]
7 A. Adequate trials of alternatives	[ ]

7 B. Reported crashes [ ]
7 56% Volumes for Warrants 1A, 1B --or-- 4 [ ]

Warrant 8: Roadway Network [ ]
8 A. Weekday Volume [ ]
8 B. Weekend Volume [ ]

Warrant 9: Grade Crossing [ ]
9 A. Grade Crossing within 140 ft --and-- [ ]
9 B. Peak-Hour Vehicular Volumes [ ]

Summary

Hours	Major Volume	Minor Volume	Total Volume	Delay (Veh-hr)	1A 70%	1A 56%	1B 70%	1B 56%	2 70%	3A 70%	3B 70%
07-08	751	31	782	0.0	No	No	No	No	No	No	No
08-09	621	39	660	0.0	No	No	No	No	No	No	No
09-10	508	18	526	0.0	No	No	No	No	No	No	No
10-11	422	20	442	0.0	No	No	No	No	No	No	No
11-12	453	11	464	0.0	No	No	No	No	No	No	No
12-13	537	9	546	0.0	No	No	No	No	No	No	No
13-14	508	12	520	0.0	No	No	No	No	No	No	No
14-15	566	15	581	0.0	No	No	No	No	No	No	No
15-16	741	15	756	0.0	No	No	No	No	No	No	No
16-17	797	17	814	0.0	No	No	No	No	No	No	No
17-18	833	16	849	0.0	No	No	No	No	No	No	No
18-19	581	19	600	0.0	No	No	No	No	No	No	No
Total	7318	222	7540		0	0	0	0	0	0	0

Traffic Volumes (vph)

Eastbound			Westbound			Northbound			Southbound		
L	T	R	L	T	R	L	T	R	L	T	R
5	443	0	0	293	10	0	0	0	25	0	6
6	355	0	0	253	7	0	0	0	24	0	15
2	287	0	0	211	8	0	0	0	9	0	9
2	220	0	0	192	8	0	0	0	17	0	3
2	228	0	0	212	11	0	0	0	8	0	3
3	269	0	0	255	10	0	0	0	7	0	2
2	278	0	0	220	8	0	0	0	7	0	5
11	271	0	0	268	16	0	0	0	10	0	5
9	342	0	0	376	14	0	0	0	11	0	4
11	362	0	0	411	13	0	0	0	14	0	3
13	387	0	0	405	28	0	0	0	11	0	5
10	256	0	0	289	26	0	0	0	11	0	8

Pedestrian Volumes and Gaps (Per Hour)

Volume	Gap	Volume	Gap	Volume	Gap	Volume	Gap
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

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Delay	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Jurisdiction: Crystal Lake
Units: U.S. Customary
Analysis Year: 2030
NS Street: Bryn Mawr Lane

General Information

Major St. Speed (mph): 55
Nearest Signal (ft): 4065
Crashes per Yr: 0

Population: Not less than 10000
Coordinated Signal System: N

School Crossing

Students in Highest Hour: 0
Adequate Gaps in Period: 0
Minutes in Period: 0

Roadway Network

Two Major Routes: 0
Weekend Count: 0
5-yr Growth Factor: 0

Geometry and Traffic

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	0	0	0	1	0	1
LaneUsage	L	T			T	R				L		R

Results

Warrant 1: Eight-Hour Vehicular Volume	[ ]
1 A. Minimum Vehicular Volumes	[ ]
1 B. Interruption of Continuous Traffic	[ ]
1 56% Vehicular --and-- Interruption Volumes	[ ]
Warrant 2: Four-Hour Vehicular Volume	
2 A. Four-Hour Vehicular Volumes	[ ]
Warrant 3: Peak Hour	[ ]
3 A. Peak-Hour Conditions	[ ]
3 B. Peak-Hour Vehicular Volume Hours Met	[ ]
Warrant 4: Pedestrian Volume	[ ]
4 A. Four Hour Volumes	[ ]
4 B. One-Hour Volumes	[ ]
Warrant 5: School Crossing	[ ]
5 A. Student Volumes	[ ]
5 B. Gaps Same Period	[ ]
Warrant 6: Coordinated Signal System	
6 Degree of Platooning	[ ]
Warrant 7: Crash Experience	[ ]
7 A. Adequate trials of alternatives	[ ]

7 B. Reported crashes [ ]
7 56% Volumes for Warrants 1A, 1B --or-- 4 [ ]

Warrant 8: Roadway Network [ ]
8 A. Weekday Volume [ ]
8 B. Weekend Volume [ ]

Warrant 9: Grade Crossing [ ]
9 A. Grade Crossing within 140 ft --and-- [ ]
9 B. Peak-Hour Vehicular Volumes [ ]

Summary

Hours	Major Volume	Minor Volume	Total Volume	Delay (Veh-hr)	1A 70%	1A 56%	1B 70%	1B 56%	2 70%	3A 70%	3B 70%
07-08	986	34	1020	0.0	No	No	No	No	No	No	No
08-09	0	0	0	0.0	No	No	No	No	No	No	No
09-10	0	0	0	0.0	No	No	No	No	No	No	No
10-11	0	0	0	0.0	No	No	No	No	No	No	No
11-12	0	0	0	0.0	No	No	No	No	No	No	No
12-13	0	0	0	0.0	No	No	No	No	No	No	No
13-14	0	0	0	0.0	No	No	No	No	No	No	No
14-15	0	0	0	0.0	No	No	No	No	No	No	No
15-16	0	0	0	0.0	No	No	No	No	No	No	No
16-17	0	0	0	0.0	No	No	No	No	No	No	No
17-18	1107	18	1125	0.0	No	No	No	No	No	No	No
18-19	0	0	0	0.0	No	No	No	No	No	No	No
Total	2093	52	2145		0	0	0	0	0	0	0

Traffic Volumes (vph)

Eastbound			Westbound			Northbound			Southbound		
L	T	R	L	T	R	L	T	R	L	T	R
6	609	0	0	360	11	0	0	0	27	0	7
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
14	482	0	0	581	30	0	0	0	12	0	6
0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes and Gaps (Per Hour)

Volume	Gap	Volume	Gap	Volume	Gap	Volume	Gap
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

!

Delay	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Population: Not less than 10000
Coordinated Signal System: N

School Crossing

Students in Highest Hour: 0
Adequate Gaps in Period: 0
Minutes in Period: 0

Roadway Network

Two Major Routes: 0
Weekend Count: 0
5-yr Growth Factor: 0

Geometry and Traffic

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	1	0	0	1	1	0	0	0	1	0	1
LaneUsage	L	T			T	R				L		R

Results

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Summary

Hours	Major Volume	Minor Volume	Total Volume	Delay (Veh-hr)	1A 70%	1A 56%	1B 70%	1B 56%	2 70%	3A 70%	3B 70%
07-08	866	179	1045	0.0	Yes	Yes	Yes	Yes	Yes	No	No
08-09	0	0	0	0.0	No	No	No	No	No	No	No
09-10	0	0	0	0.0	No	No	No	No	No	No	No
10-11	0	0	0	0.0	No	No	No	No	No	No	No
11-12	0	0	0	0.0	No	No	No	No	No	No	No
12-13	0	0	0	0.0	No	No	No	No	No	No	No
13-14	0	0	0	0.0	No	No	No	No	No	No	No
14-15	0	0	0	0.0	No	No	No	No	No	No	No
15-16	0	0	0	0.0	No	No	No	No	No	No	No
16-17	0	0	0	0.0	No	No	No	No	No	No	No
17-18	1083	89	1172	0.0	No	No	Yes	Yes	Yes	No	No
18-19	0	0	0	0.0	No	No	No	No	No	No	No
Total	1949	268	2217		1	1	2	2	2	0	0

Traffic Volumes (vph)

Eastbound			Westbound			Northbound			Southbound		
L	T	R	L	T	R	L	T	R	L	T	R
20	480	0	0	320	46	0	0	0	134	0	45
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
69	428	0	0	439	147	0	0	0	67	0	22
0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Volumes and Gaps (Per Hour)

Volume	Gap	Volume	Gap	Volume	Gap	Volume	Gap
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Delay	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs	sec/veh	veh-hrs
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0