



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-5 AT ISLAND VIEW RD

COUNTY: CARVER

REF. POINT: 035.206

DATE: 4/17/1996

OPERATOR: DR

Speed	Approach Description	Lanes
55	Major App1: TH-5 EB, W OF JCT OF ISLAND VIEW RD	2
55	Major App3: TH-5 WB, E OF JCT OF ISLAND VIEW RD	2
40	Minor App2: ISLAND VIEW RD SB, N OF JCT OF TH-5	2
0	Minor App4: N/A	0

0.70 FACTOR USED? YES

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

HOUR	420/630			140/70			0/0		MET SAME HOURS
	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	WARRANT MET	MINOR APP. 2	MINOR APP. 4	WARRANT MET APP. 2	WARRANT MET APP. 4	
0:00 - 1:00	16	40	56	/	2	0	/	/	/
1:00 - 2:00	14	26	40	/	2	0	/	/	/
2:00 - 3:00	16	29	45	/	1	0	/	/	/
3:00 - 4:00	31	15	46	/	0	0	/	/	/
4:00 - 5:00	79	20	99	/	0	0	/	/	/
5:00 - 6:00	331	51	382	/	2	0	/	/	/
6:00 - 7:00	680	184	864	X/X	4	0	/	/	/
7:00 - 8:00	708	357	1065	X/X	11	0	/	/	/
8:00 - 9:00	395	265	660	X/X	7	0	/	/	/
9:00 - 10:00	295	244	539	X/	8	0	/	/	/
10:00 - 11:00	307	227	534	X/	6	0	/	/	/
11:00 - 12:00	268	257	525	X/	7	0	/	/	/
12:00 - 13:00	255	258	513	X/	3	0	/	/	/
13:00 - 14:00	260	291	551	X/	6	0	/	/	/
14:00 - 15:00	295	417	712	X/X	8	0	/	/	/
15:00 - 16:00	352	566	918	X/X	9	0	/	/	/
16:00 - 17:00	364	740	1104	X/X	11	0	/	/	/
17:00 - 18:00	352	649	1001	X/X	8	0	/	/	/
18:00 - 19:00	267	426	693	X/X	6	0	/	/	/
19:00 - 20:00	176	272	448	X/	4	0	/	/	/
20:00 - 21:00	167	229	396	/	5	0	/	/	/
21:00 - 22:00	120	191	311	/	8	0	/	/	/
22:00 - 23:00	85	163	248	/	2	0	/	/	/
23:00 - 24:00	46	99	145	/	4	0	/	/	/

	Met (Hr)	Required (Hr)	
Warrant 1	0	8	Not satisfied
Warrant 2	0	8	Not satisfied
Warrant 6	0	8	Not satisfied
Warrant 8	0	8	Not satisfied
Warrant 9	0	4	Not satisfied
Warrant 11	0	1	Not satisfied

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55	Major App3: TH-5 WB, E OF JCT OF ISLAND VIEW RD	2
40	Minor App2: ISLAND VIEW RD SB, N OF JCT OF TH-5	2
0	Minor App4: N/A	0

0.70 FACTOR USED? YES
 POPULATION < 10,000? NO
 EXISTING SIGNAL ? NO

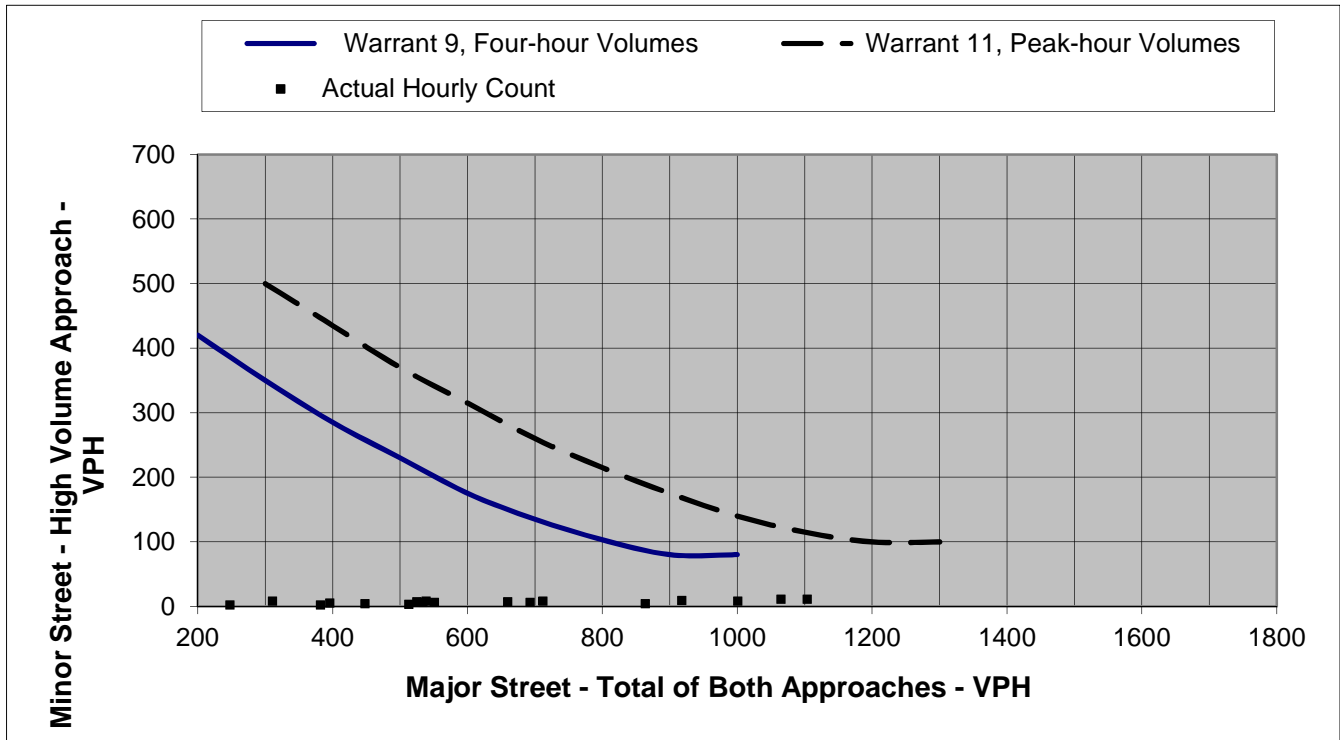


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Major	Warrant Criteria		Actual Hourly Count	
	Warrant 9, F	Warrant 11, P	Major	Actual Hourly Count
200	420		56	2
300	350	500	40	2
400	285	435	45	1
500	230	370	46	0
600	175	315	99	0
700	135	260	382	2
800	103	215	864	4
900	80	175	1065	11
1000	80	140	660	7
1100		115	539	8
1200		100	534	6
1300		100	525	7
1400			513	3
1500			551	6
1600			712	8
1700			918	9
1800			1104	11
			1001	8
			693	6
			448	4
			396	5
			311	8
			248	2
			145	4

Four Hour Warrant

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
300	360	440	590
400	310	390	530
500	260	340	460
600	215	290	390
700	180	245	330
800	150	205	280
900	125	170	235
1000	100	145	195
1100	85	120	165
1200	80	100	135
1300	80	83	110
1400	80	80	110

Peak Hour

Major App	1 & 1
400	475
500	425
600	370
700	330
800	280
900	240
1000	204
1100	175
1200	150
1300	130
1400	115
1500	100
1600	100
1700	100
1800	100

Four Hour Warrant Factored

Major App	Minor App		
	1 & 1	2 & 1	2 & 2
200	250	320	420
300	210	265	350
400	170	215	285
500	130	170	230
600	93	130	175
700	70	100	135
800	60	80	103
900	60	65	80
1000	60	60	80

Peak Hour

Major App	1 & 1
300	320
400	270
500	225
600	180
700	145
800	115
900	90
1000	75
1100	75
1200	75
1300	75

Warrant

Minor App

2 & 1	2 & 2
570	725
520	665
465	600
420	540
370	480
330	425
285	375
250	330
220	285
190	250
160	220
140	187
115	165
100	150
100	150

Warrant Factored

Minor App

2 & 1	2 & 2
380	500
335	435
285	370
240	315
200	260
160	215
135	175
110	140
95	115
75	100
75	100



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

ALL WAY STOP WARRANT

LOCATION: TH-5 AT ISLAND VIEW RD

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REF. POINT: 035.206

DATE: 4/17/1996

OPERATOR: DR

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55	Major App1: TH-5 EB, W OF JCT OF ISLAND VIEW RD	2
55	Major App3: TH-5 WB, E OF JCT OF ISLAND VIEW RD	2
40	Minor App2: ISLAND VIEW RD SB, N OF JCT OF TH-5	2
0	Minor App4: N/A	0

0.70 FACTOR USED? Yes

HOUR	MAJOR APP. 1	MAJOR APP. 3	MINOR APP. 2	MINOR APP. 4	350	140	WARRANT MET
					TOTAL Σ (APP.1 to APP. 4)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	16	40	2	0	58	2	/
1:00 - 2:00	14	26	2	0	42	2	/
2:00 - 3:00	16	29	1	0	46	1	/
3:00 - 4:00	31	15	0	0	46	0	/
4:00 - 5:00	79	20	0	0	99	0	/
5:00 - 6:00	331	51	2	0	384	2	X/
6:00 - 7:00	680	184	4	0	868	4	X/
7:00 - 8:00	708	357	11	0	1076	11	X/
8:00 - 9:00	395	265	7	0	667	7	X/
9:00 - 10:00	295	244	8	0	547	8	X/
10:00 - 11:00	307	227	6	0	540	6	X/
11:00 - 12:00	268	257	7	0	532	7	X/
12:00 - 13:00	255	258	3	0	516	3	X/
13:00 - 14:00	260	291	6	0	557	6	X/
14:00 - 15:00	295	417	8	0	720	8	X/
15:00 - 16:00	352	566	9	0	927	9	X/
16:00 - 17:00	364	740	11	0	1115	11	X/
17:00 - 18:00	352	649	8	0	1009	8	X/
18:00 - 19:00	267	426	6	0	699	6	X/
19:00 - 20:00	176	272	4	0	452	4	X/
20:00 - 21:00	167	229	5	0	401	5	X/
21:00 - 22:00	120	191	8	0	319	8	/
22:00 - 23:00	85	163	2	0	250	2	/
23:00 - 24:00	46	99	4	0	149	4	/

Allway Stop Warrant: Met (Hr) 0 Required (Hr) 8 Not satisfied

REMARKS: _____

