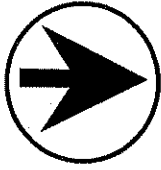


Date : 6/19/02

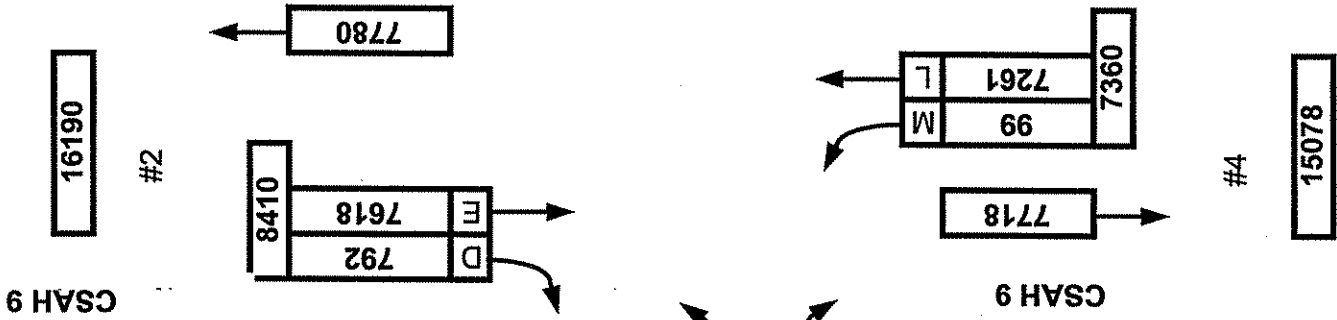
Count Number : TMC0209

Location : CSAH 9 (Round Lake Blvd.)

@ South Coon Creek Dr. NW



North



#1

891
619
519
100
C
A

	LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	0	0	1	1
#2	1	0	1	2
#4	0	0	1	1

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department
Traffic Engineering

Weather: Cloudy, Warm
Counter TDC-8
Counted by: Melissa/Jessica

Traffic Volume and Turning Movement Stud

File Name : TMC 0209
Site Code : 02090101
Start Date : 06/19/2002
Page No : 1

Groups Printed- Unshifted

Start Time	CSAH 9 Southbound					S. Coon Creek Dr. Westbound					CSAH 9 Northbound					Eastbound					Exclu Total	Inclu. Total	Int. Total
	Left	Thru	Rght	Heavy	App. Total	Left	Thru	Rght	Heavy	App. Total	Left	Thru	Rght	Heavy	App. Total	Left	Thru	Rght	Heavy	App. Total			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
06:00	1	163	0	4	164	7	0	1	0	8	0	25	0	0	25	0	0	0	0	0	4	197	201
06:15	0	216	0	3	216	7	0	0	0	7	0	25	4	1	29	0	0	0	0	0	4	252	256
06:30	1	247	0	5	248	5	0	1	0	6	0	35	2	3	37	0	0	0	0	0	8	291	299
06:45	0	208	0	4	208	10	0	0	0	10	0	31	7	3	38	0	0	0	0	0	7	256	263
Total	2	834	0	16	836	29	0	2	0	31	0	116	13	7	129	0	0	0	0	0	23	996	1019
07:00	1	188	0	2	189	7	0	0	0	7	0	36	11	4	47	0	0	0	0	0	6	243	249
07:15	0	200	0	4	200	11	0	0	0	11	0	41	11	7	52	0	0	0	0	0	11	263	274
07:30	0	231	0	4	231	10	0	2	0	12	0	54	5	5	59	0	0	0	0	0	9	302	311
07:45	0	181	0	6	181	14	0	2	0	16	0	43	6	4	49	0	0	0	0	0	10	246	256
Total	1	800	0	16	801	42	0	4	0	46	0	174	33	20	207	0	0	0	0	0	36	1054	1090
08:00	1	157	0	6	158	8	0	2	0	10	0	38	4	2	42	0	0	0	0	0	8	210	218
08:15	0	143	0	1	143	6	0	0	0	6	0	42	7	1	49	0	0	0	0	0	2	198	200
08:30	0	121	0	2	121	12	0	2	2	14	0	47	9	3	56	0	0	0	0	0	7	191	198
08:45	5	128	0	4	133	11	0	0	0	11	0	38	8	4	46	0	0	0	0	0	8	190	198
Total	6	549	0	13	555	37	0	4	2	41	0	165	28	10	193	0	0	0	0	0	25	789	814
09:00	0	101	0	4	101	6	0	0	0	6	0	51	6	10	57	0	0	0	0	0	14	164	178
09:15	2	133	0	6	135	5	0	0	0	5	0	65	2	9	67	0	0	0	0	0	15	207	222
09:30	3	115	0	3	118	3	0	1	0	4	0	60	7	3	67	0	0	0	0	0	6	189	195
09:45	3	110	0	2	113	3	0	1	0	4	0	51	14	3	65	0	0	0	0	0	5	182	187
Total	8	459	0	15	467	17	0	2	0	19	0	227	29	25	256	0	0	0	0	0	40	742	782
10:00	2	111	0	0	113	5	0	1	0	6	0	48	7	4	55	0	0	0	0	0	4	174	178
10:15	2	115	0	1	117	5	0	1	0	6	0	55	12	1	67	0	0	0	0	0	2	190	192
10:30	5	99	0	5	104	6	0	1	0	7	0	54	5	3	59	0	0	0	0	0	8	170	178
10:45	0	93	0	6	93	7	0	0	0	7	0	75	8	4	83	0	0	0	0	0	10	183	193
Total	9	418	0	12	427	23	0	3	0	26	0	232	32	12	264	0	0	0	0	0	24	717	741
11:00	3	76	0	7	79	8	0	0	0	8	0	67	10	4	77	0	0	0	0	0	11	164	175
11:15	0	73	0	4	73	11	0	0	0	11	0	97	14	1	111	0	0	0	0	0	5	195	200
11:30	1	79	0	7	80	13	0	4	0	17	0	86	12	9	98	0	0	0	0	0	16	195	211
11:45	1	85	0	5	86	4	0	0	0	4	0	86	8	9	94	0	0	0	0	0	14	184	198
Total	5	313	0	23	318	36	0	4	0	40	0	336	44	23	380	0	0	0	0	0	46	738	784
12:00	3	91	0	4	94	17	0	2	1	19	0	96	10	3	106	0	0	0	0	0	8	219	227
12:15	2	113	0	6	115	3	0	2	1	5	0	111	13	2	124	0	0	0	0	0	9	244	253
12:30	1	105	0	5	106	7	0	4	0	11	0	104	16	3	120	0	0	0	0	0	8	237	245
12:45	3	107	0	6	110	13	0	2	1	15	0	83	9	6	92	0	0	0	0	0	13	217	230
Total	9	416	0	21	425	40	0	10	3	50	0	394	48	14	442	0	0	0	0	0	38	917	955
13:00	0	114	0	6	114	8	0	1	0	9	0	122	8	3	130	0	0	0	0	0	9	253	262
13:15	0	77	0	1	77	5	0	1	1	6	0	103	10	5	113	0	0	0	0	0	7	196	203
13:30	1	113	0	3	114	5	0	0	0	5	0	117	9	7	126	0	0	0	0	0	10	245	255
13:45	1	110	0	2	111	4	0	1	0	5	0	120	9	6	129	0	0	0	0	0	8	245	253
Total	2	414	0	12	416	22	0	3	1	25	0	462	36	21	498	0	0	0	0	0	34	939	973
14:00	0	95	0	6	95	10	0	1	0	11	0	124	4	4	128	0	0	0	0	0	10	234	244
14:15	1	125	0	7	126	7	0	2	0	9	0	139	15	5	154	0	0	0	0	0	12	289	301
14:30	1	95	0	2	96	9	0	1	0	10	0	149	6	2	155	0	0	0	0	0	4	261	265
14:45	1	84	0	4	85	7	0	2	1	9	0	143	11	6	154	0	0	0	0	0	11	248	259
Total	3	399	0	19	402	33	0	6	1	39	0	555	36	17	591	0	0	0	0	0	37	1032	1069
15:00	3	85	0	4	88	6	0	2	0	8	0	176	15	4	191	0	0	0	0	0	8	287	295
15:15	0	87	0	3	87	12	0	1	1	13	0	202	17	3	219	0	0	0	0	0	7	319	326
15:30	0	80	0	6	80	9	0	4	0	13	0	177	19	3	196	0	0	0	0	0	9	289	298
15:45	5	98	0	6	103	5	0	3	0	8	0	216	22	5	233	0	0	0	0	0	11	349	360
Total	8	350	0	19	358	32	0	10	1	42	0	771	73	15	844	0	0	0	0	0	35	1244	1279
16:00	1	87	0	5	88	7	0	1	0	8	0	209	21	5	230	0	0	0	0	0	10	326	336
16:15	1	88	0	2	89	4	0	3	0	7	0	196	27	7	223	0	0	0	0	0	9	319	328
16:30	3	100	0	2	103	11	0	5	0	16	0	234	15	8	249	0	0	0	0	0	10	368	378
16:45	2	112	0	4	114	3	0	4	0	7	0	270	18	6	288	0	0	0	0	0	10	409	419
Total	7	387	0	13	394	25	0	13	0	38	0	909	81	26	990	0	0	0	0	0	39	1422	1461
17:00	4	100	0	4	104	7	0	1	1	8	0	191	20	6	211	0	0	0	0	0	11	323	334
17:15	1	105	0	2	106	13	0	1	0	14	0	258	16	4	274	0	0	0	0	0	6	394	400
17:30	6	141	0	3	147	6	0	6	0	12	0	217	27	0	244	0	0	0	0	0	3	403	406
17:45	6	134	0	3	140	11	0	1	0	12	0	203	23	7	226	0	0	0	0	0	7	378	385
Total	17	480	0	9	497	37	0	9	1	46	0	869	86	17	955	0	0	0	0	0	27	1498	1525

North Street Approaches:

Northbound:

CSAH 9

Data File: C:\Program Files\PC-Warrants\TMC 0208.war
 Count Type: IMC. Channel: 0. Count Date: 6/19/ 2
 Number of Lanes: 2
 Approach Speed: 45
 Total Approach Traffic: 8410

Southbound:

CSAH 9

Data File: C:\Program Files\PC-Warrants\TMC 0208.war
 Count Type: IMC. Channel: 0. Count Date: 6/19/ 2
 Number of Lanes: 1
 Approach Speed: 45
 Total Approach Traffic: 7360

Minor Street Approaches:

Eastbound:

Data File: C:\Program Files\PC-Warrants\TMC 0208.war
 Count Type: IMC. Channel: 0. Count Date: 6/19/ 2
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

Westbound:

S. Coon Creek Dr.

Data File: C:\Program Files\PC-Warrants\TMC 0208.war
 Count Type: IMC. Channel: 0. Count Date: 6/19/ 2
 Number of Lanes: 1
 Approach Speed: 30
 Total Approach Traffic: 619

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main	Side	Warrant 1	Warrant 2	Warrant 8	
Begin (Total)	Vol.	Dir.	Rank	Meets? Criteria	Meets? Criteria	Meets? Criteria
0	0	0 W	17	105	52	84
1	0	0 W	18	105	52	84
2	0	0 W	19	105	52	84
3	0	0 W	20	105	52	84
4	0	0 W	21	105	52	84
5	0	0 W	22	105	52	84
6	965	31 W	12	MAIN 105	MAIN 52	MAIN 84
7	1008	46 W	3	MAIN 105	MAIN 52	MAIN 84
8	748	41 W	8	MAIN 105	MAIN 52	MAIN 84
9	723	19 W	16	MAIN 105	MAIN 52	MAIN 84
10	691	26 W	13	MAIN 105	MAIN 52	MAIN 84
11	698	40 W	9	MAIN 105	MAIN 52	MAIN 84
12	867	50 W	2	MAIN 105	MAIN 52	MAIN 84
13	914	25 W	14	MAIN 105	MAIN 52	MAIN 84
14	993	39 W	10	MAIN 105	MAIN 52	MAIN 84
15	1202	42 W	7	MAIN 105	MAIN 52	MAIN 84
16	1384	38 W	11	MAIN 105	MAIN 52	MAIN 84
17	1452	46 W	4	MAIN 105	MAIN 52	MAIN 84
18	1323	63 W	1	MAIN 105	--BOTH-- 52	MAIN 84
19	1052	44 W	6	MAIN 105	MAIN 52	MAIN 84
20	924	45 W	5	MAIN 105	MAIN 52	MAIN 84
21	826	24 W	15	MAIN 105	MAIN 52	MAIN 84
22	0	0 W	23	105	52	84
23	0	0 W	24	105	52	84

Warrant Summary:
Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 1 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. Ped volumes too low. Criteria--190 Peds in peak hour, 100 peds in 4th high hour.

Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches. Peak hour total entering volume: 1498.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 1 hours.

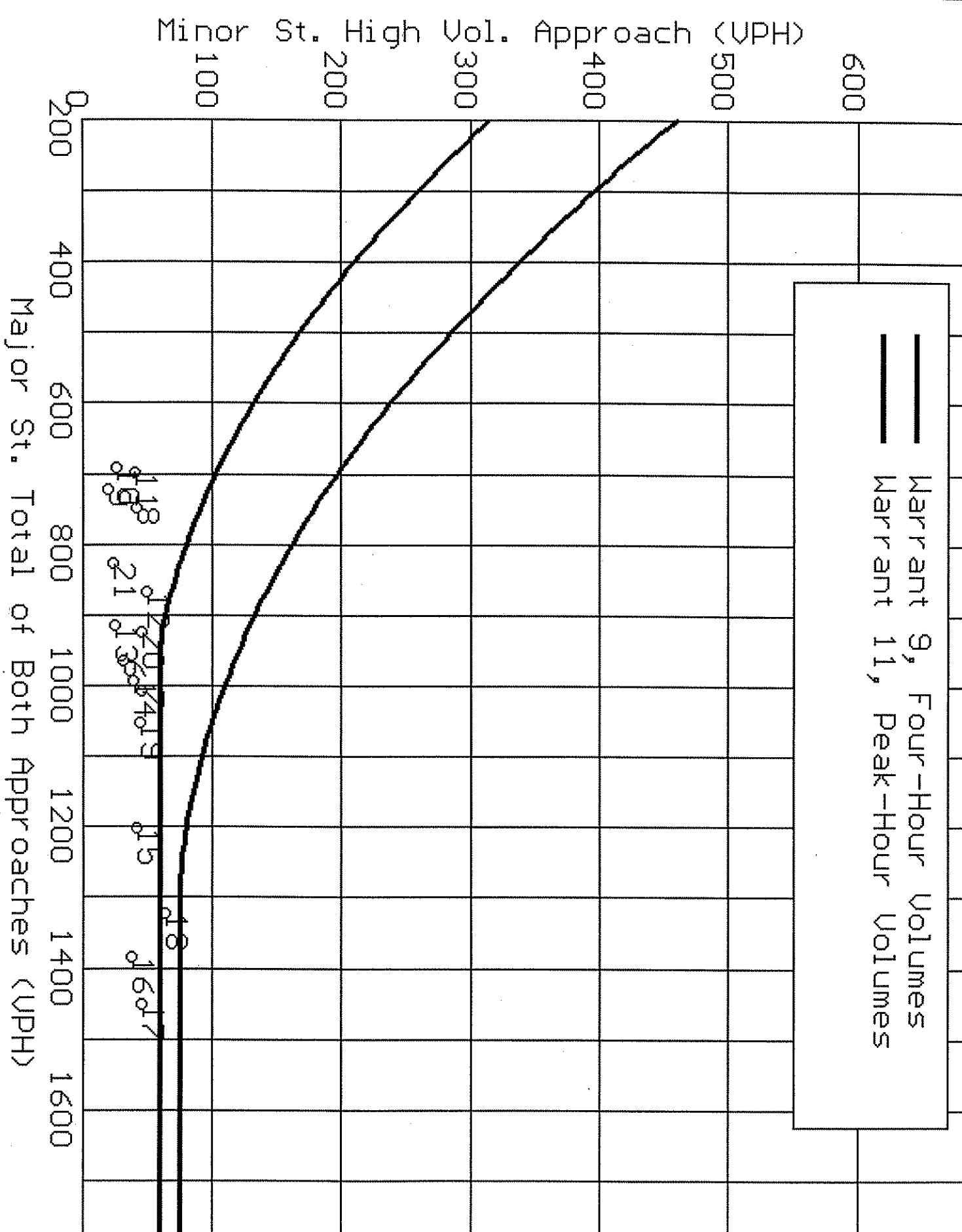
Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1700 hours) volume not adequate.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

NOT SATISFIED.



Multiway Stop Warrant Analysis
TMC 0208 CSAH 9 @ SOUTH COON CREEK DR. NW
Speed Limit of Major Roadway..... 45

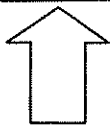
Minimum Traffic Volumes Multiway Stop Warrant Criteria:

- a) The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour (vph) for any 8 hours of an average day, AND:
- b) The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 vph for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour, BUT:
- c) When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum volume warrant is 70% of the above requirements.

Hour	Total Vehicular Traffic Entering the Intersection	Vehicular Traffic Entering on First Minor Roadway	Vehicular Traffic Entering on Second Minor Roadway	Sum of Minor Approaches	Is Stop Warrant Met?
6 AM - 7 AM	996	0	31	31	NO
7 AM - 8 AM	1054	0	46	46	NO
8 AM - 9 AM	789	0	41	41	NO
9 AM - 10 AM	742	0	19	19	NO
10 AM - 11 AM	717	0	26	26	NO
11 AM - 12 PM	738	0	40	40	NO
12 PM - 13 PM	917	0	50	50	NO
1 PM - 2 PM	939	0	25	25	NO
2 PM - 3 PM	1032	0	39	39	NO
3 PM - 4 PM	1244	0	42	42	NO
4 PM - 5 PM	1422	0	38	38	NO
5 PM - 6 PM	1498	0	46	46	NO
6 PM - 7 PM	1386	0	63	63	NO
7 PM - 8 PM	1096	0	44	44	NO
8 PM - 9 PM	969	0	45	45	NO
9 PM - 10 PM	850	0	24	24	NO

TOTAL HOURS MET: 0

MULTIWAY STOP WARRANT IS NOT MET



NORTH

COUNT LOCATION:

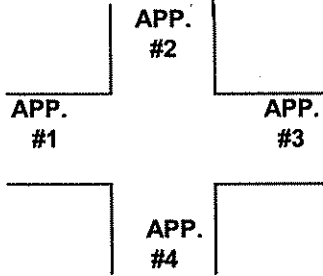
CSAH 9 @

DATE:

6/19/02

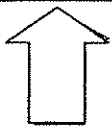
South Coon Creek Dr.

APP. #1 =
APP. #2 = CSAH 9
APP. #3 = S. Coon Creek
APP. #4 = CSAH 9



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						4		
6:15-6:30						4		
6:30-6:45						6		2
6:45-7:00						7		
HOURLY TOTAL						HOURLY TOTAL		23
7:00-7:15						4		2
7:15-7:30						10		1
7:30-7:45				1	1	8		1
7:45-8:00						10		
HOURLY TOTAL					1	HOURLY TOTAL		36
8:00-8:15						8		
8:15-8:30						2		
8:30-8:45		1			1	7		
8:45-9:00						8		
HOURLY TOTAL					1	HOURLY TOTAL		25
9:00-9:15				1	1	14		
9:15-9:30						15		
9:30-9:45				1	1	6		
9:45-10:00				1	1	5		
HOURLY TOTAL					3	HOURLY TOTAL		40
10:00-10:15						4		
10:15-10:30						2		
10:30-10:45						8		
10:45-11:00						9	1	
HOURLY TOTAL						HOURLY TOTAL		24
11:00-11:15						9	1	1
11:15-11:30						4	1	
11:30-11:45						14	1	1
11:45-12:00						13	1	
HOURLY TOTAL						HOURLY TOTAL		46
12:00-12:15						8		
12:15-12:30						9		
12:30-12:45						7		1
12:45-1:00						12		1
HOURLY TOTAL						HOURLY TOTAL		38
1:00-1:15				1	1	9		
1:15-1:30						7		
1:30-1:45						10		
1:45-2:00						8		
HOURLY TOTAL					1	HOURLY TOTAL		34



NORTH

COUNT LOCATION:

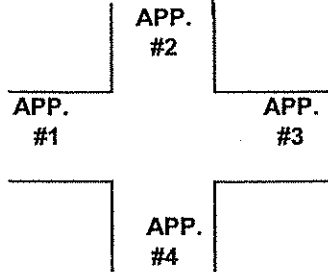
CSAH 9 @

DATE:

6/19/02

South Coon Creek Dr. NW

APP. #1 = S. Coon Creek Dr
APP. #2 = CSAH 9
APP. #3 =
APP. #4 = CSAH 9



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						10		
2:15-2:30			2	2	4	11		1
2:30-2:45			1		1	4		
2:45-3:00						10	1	
HOURLY TOTAL					5	HOURLY TOTAL		37
3:00-3:15						7		1
3:15-3:30		2	2	4	8	6		1
3:30-3:45				1	1	7		2
3:45-4:00						10		1
HOURLY TOTAL					9	HOURLY TOTAL		35
4:00-4:15						9	1	
4:15-4:30				2	2	8		1
4:30-4:45						9		1
4:45-5:00		2			2	9		1
HOURLY TOTAL					4	HOURLY TOTAL		39
5:00-5:15						11		
5:15-5:30						5	1	
5:30-5:45						3		
5:45-6:00						7		
HOURLY TOTAL						HOURLY TOTAL		27
6:00-6:15						6		
6:15-6:30						8		
6:30-6:45						5		
6:45-7:00						4	1	
HOURLY TOTAL						HOURLY TOTAL		24
7:00-7:15		1		3	4	3		
7:15-7:30		1	2		3	6		
7:30-7:45						11		
7:45-8:00						4		
HOURLY TOTAL					7	HOURLY TOTAL		24
8:00-8:15						1		
8:15-8:30						4		
8:30-8:45						4		
8:45-9:00				1	1	3		
HOURLY TOTAL					1	HOURLY TOTAL		12
9:00-9:15				1	1	6		
9:15-9:30						1		
9:30-9:45						2		
9:45-10:00								
HOURLY TOTAL					1	HOURLY TOTAL		9