

Date : 05/26/11

Count Number : TMC1106

Location : CSAH 9 (Round Lake Blvd.)

@ S. Coon Creek Dr.

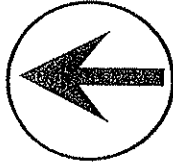
Collection Period : 6:00AM - 10:00PM

14748

#2

7071	D	4
6941	E	
126	T	

7677



North

S. Coon Creek Dr.

126	G	690
2	H	
562	J	

#3

1456

766

21	M	8212
7551	L	
640	K	

#4

7503

15715

CSAH 9

	EXISTING LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	0	0	0	0
#2	0	1	2	3
#3	1	1	0	2
#4	1	1	2	4

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

Date : 05/25/11

Count Number : TMC1106

Location : CSAH 9 (Round Lake Blvd.)

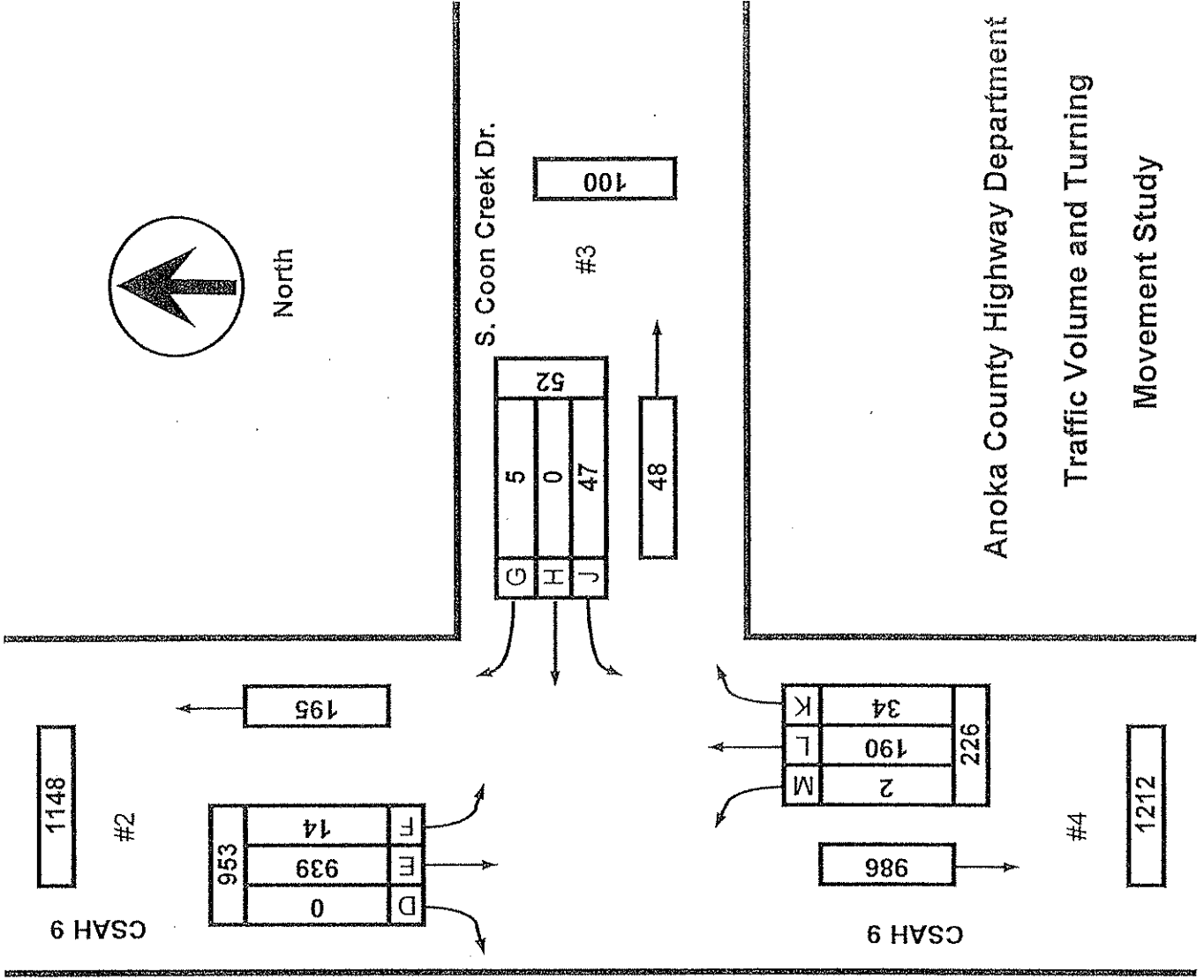
@ S. Coon Creek Dr.

Collection Period : AM PEAK

Hour : 7:00 AM - 8:00 AM



North



	EXISTING LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	0	0	0	0
#2	0	1	2	3
#3	1	1	0	2
#4	1	1	2	4

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date : 05/26/11

Count Number : TMC1106

Location : CSAH 9 (Round Lake Blvd.)

@ S. Coon Creek Dr.

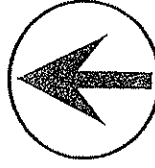
Collection Period : PM PEAK

Hour : 5:15 PM - 6:15 PM

CSAH 9  
#2  
1354

449	D	0
432	E	432
17	F	17

905



North

S. Coon Creek Dr.

12	G
0	H
45	J

#3

146

89

	EXISTING LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	0	0	0	0
#2	0	1	2	3
#3	1	1	0	2
#4	1	1	2	4

966	L	893
1	M	1
72	K	72

477

CSAH 9

#4

1443

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

# Anoka County Highway Department

## Traffic Engineering Section

### Traffic Volume and Turning Movement Study

Weather: Cloudy and Mild  
 Counter: DB-400  
 study conducted by: Paige/Rachel

File Name : TMC1106  
 Site Code : 11060201  
 Start Date : 05/26/2011  
 Page No : 1

#### Groups Printed- Unshifted

Start Time	CSAH 9 Southbound					South Coon Creek Dr. Westbound					CSAH 9 Northbound					NONE Eastbound					Excl. Total	Incl. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
06:00	0	116	0	3	116	5	0	2	0	7	1	21	2	2	24	0	0	0	0	0	5	147	152
06:15	2	201	0	9	203	10	0	0	0	10	1	25	0	1	26	0	0	0	0	0	10	239	249
06:30	3	208	0	2	211	19	0	0	0	19	0	36	2	1	38	0	0	0	0	0	3	268	271
06:45	0	212	0	2	212	10	0	2	0	12	1	29	8	4	36	0	0	0	0	0	6	262	268
Total	5	737	0	16	742	44	0	4	0	48	3	111	12	8	126	0	0	0	0	0	24	916	940
07:00	1	221	0	6	222	10	0	3	1	13	0	34	5	1	39	0	0	0	0	0	8	274	282
07:15	4	259	0	5	263	10	0	0	0	10	0	59	18	3	77	0	0	0	0	0	8	350	358
07:30	8	263	0	4	271	11	0	0	0	11	2	45	7	1	54	0	0	0	0	0	5	336	341
07:45	1	196	0	3	197	16	0	2	0	18	0	52	4	5	56	0	0	0	0	0	8	271	279
Total	14	939	0	18	953	47	0	5	1	52	2	190	34	10	226	0	0	0	0	0	29	1231	1260
08:00	0	144	0	4	144	7	0	0	0	7	0	60	3	4	63	0	0	0	0	0	8	214	222
08:15	1	137	0	4	138	10	0	3	0	13	0	43	4	3	47	0	0	0	0	0	7	198	205
08:30	0	147	0	5	147	10	0	0	0	10	0	44	5	3	49	0	0	0	0	0	8	206	214
08:45	2	134	0	5	136	7	0	1	0	8	1	46	6	5	53	0	0	0	0	0	10	197	207
Total	3	562	0	18	565	34	0	4	0	38	1	193	18	15	212	0	0	0	0	0	33	815	848
09:00	1	109	0	1	110	8	0	4	0	12	1	46	3	3	50	0	0	0	0	0	4	172	176
09:15	1	142	0	7	143	7	0	0	0	7	0	64	2	3	66	0	0	0	0	0	10	216	226
09:30	0	124	0	5	124	7	0	3	0	10	0	52	7	0	59	0	0	0	0	0	5	193	198
09:45	0	120	0	2	120	13	0	0	0	13	1	85	6	2	92	0	0	0	0	0	4	225	229
Total	2	495	0	15	497	35	0	7	0	42	2	247	18	8	267	0	0	0	0	0	23	806	829
10:00	1	110	0	5	111	10	0	3	0	13	0	75	6	2	81	0	0	0	0	0	7	205	212
10:15	1	129	0	3	130	7	0	2	0	9	0	74	8	2	82	0	0	0	0	0	5	221	226
10:30	3	108	0	3	111	10	0	0	0	10	0	71	5	4	76	0	0	0	0	0	7	197	204
10:45	0	101	0	1	101	12	0	2	1	14	0	66	7	3	73	0	0	0	0	0	5	188	193
Total	5	448	0	12	453	39	0	7	1	46	0	286	26	11	312	0	0	0	0	0	24	811	835
11:00	1	96	0	1	97	4	0	3	0	7	0	73	6	0	79	0	0	0	0	0	1	183	184
11:15	6	99	0	2	105	12	0	1	0	13	0	77	9	3	86	0	0	0	0	0	5	204	209
11:30	3	78	0	1	81	7	0	0	0	7	1	100	12	3	113	0	0	0	0	0	4	201	205
11:45	1	91	0	2	92	10	0	5	1	15	1	70	6	1	77	0	0	0	0	0	4	184	188
Total	11	364	0	6	375	33	0	9	1	42	2	320	33	7	355	0	0	0	0	0	14	772	786
12:00	4	101	0	0	105	11	0	1	0	12	0	90	8	0	98	0	0	0	0	0	0	215	215
12:15	1	109	0	2	110	12	0	4	0	16	0	94	3	2	97	0	0	0	0	0	4	223	227
12:30	2	81	0	3	83	5	0	0	0	5	1	100	10	3	111	0	0	0	0	0	6	199	205
12:45	2	98	0	0	100	8	0	2	0	10	0	86	7	4	93	0	0	0	0	0	4	203	207
Total	9	389	0	5	398	36	0	7	0	43	1	370	28	9	399	0	0	0	0	0	14	840	854
13:00	7	91	0	3	98	4	1	2	0	7	0	152	16	2	168	0	0	0	0	0	5	273	278
13:15	1	118	0	5	119	11	0	3	0	14	0	128	13	1	141	0	0	0	0	0	6	274	280
13:30	0	89	0	3	89	6	0	1	0	7	0	104	9	2	113	0	0	0	0	0	5	209	214
13:45	0	90	0	7	90	6	0	0	0	6	1	100	11	5	112	0	0	0	0	0	12	208	220
Total	8	388	0	18	396	27	1	6	0	34	1	484	49	10	534	0	0	0	0	0	28	964	992
14:00	3	95	0	4	98	5	0	0	0	5	0	127	5	7	132	0	0	0	0	0	11	235	246
14:15	1	98	0	1	99	6	0	3	0	9	1	127	11	3	139	0	0	0	0	0	4	247	251
14:30	0	81	1	3	82	12	0	5	1	17	0	153	14	4	167	0	0	0	0	0	8	266	274
14:45	2	82	0	2	84	8	0	6	1	14	1	164	8	4	173	0	0	0	0	0	7	271	278
Total	6	356	1	10	363	31	0	14	2	45	2	571	38	18	611	0	0	0	0	0	30	1019	1049
15:00	3	78	0	3	81	5	0	1	0	6	0	200	14	5	214	0	0	0	0	0	8	301	309
15:15	3	107	0	2	110	7	0	2	0	9	0	184	13	5	197	0	0	0	0	0	7	316	323
15:30	4	77	1	2	82	9	0	0	0	9	0	202	12	1	214	0	0	0	0	0	3	305	308
15:45	2	110	0	2	112	11	0	4	2	15	2	209	8	3	219	0	0	0	0	0	7	346	353
Total	12	372	1	9	385	32	0	7	2	39	2	795	47	14	844	0	0	0	0	0	25	1268	1293
16:00	2	80	0	3	82	7	0	4	0	11	2	192	17	3	211	0	0	0	0	0	6	304	310
16:15	1	120	0	2	121	14	0	6	0	20	1	228	15	1	244	0	0	0	0	0	3	385	388
16:30	3	90	0	3	93	9	0	2	0	11	0	186	15	2	201	0	0	0	0	0	5	305	310
16:45	2	103	0	2	105	7	0	3	0	10	0	232	16	2	248	0	0	0	0	0	4	363	367
Total	8	393	0	10	401	37	0	15	0	52	3	838	63	8	904	0	0	0	0	0	18	1357	1375
17:00	1	97	0	2	98	8	0	0	0	8	0	242	23	3	265	0	0	0	0	0	5	371	376
17:15	3	95	0	0	98	11	0	1	0	12	1	231	20	3	252	0	0	0	0	0	3	362	365
17:30	5	115	0	1	120	10	0	3	0	13	0	215	12	4	227	0	0	0	0	0	5	360	365
17:45	6	111	0	4	117	9	0	3	0	12	0	207	22	0	229	0	0	0	0	0	4	358	362
Total	15	418	0	7	433	38	0	7	0	45	1	895	77	10	973	0	0	0	0	0	17	1451	1468

**Anoka County Highway Department**  
 Traffic Engineering Section  
 Traffic Volume and Turning Movement Study

File Name : TMC1106  
 Site Code : 11060201  
 Start Date : 05/26/2011  
 Page No : 2

Weather: Cloudy and Mild  
 Counter: DB-400  
 study conducted by: Paige/Rachel

**Groups Printed- Unshifted**

Start Time	CSAH 9 Southbound					South Coon Creek Dr. Westbound					CSAH 9 Northbound					NONE Eastbound					Exclu. Total	Inclu. Total	Int. Total		
	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total					
18:00	3	111	0	0	114	15	0	5	0	20	0	240	18	0	258	0	0	0	0	0	0	0	0	392	392
18:15	3	100	0	0	103	10	0	4	0	14	0	178	13	1	191	0	0	0	0	0	0	0	1	308	309
18:30	5	107	0	2	112	11	0	3	0	14	0	201	20	3	221	0	0	0	0	0	0	0	5	347	352
18:45	1	85	0	1	86	8	0	3	0	11	0	162	14	3	176	0	0	0	0	0	0	0	4	273	277
<b>Total</b>	<b>12</b>	<b>403</b>	<b>0</b>	<b>3</b>	<b>415</b>	<b>44</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>59</b>	<b>0</b>	<b>781</b>	<b>65</b>	<b>7</b>	<b>846</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1320</b>	<b>1330</b>
19:00	3	59	0	1	62	5	0	2	0	7	0	162	13	2	175	0	0	0	0	0	0	0	3	244	247
19:15	1	57	0	0	58	16	0	1	0	17	0	156	14	0	170	0	0	0	0	0	0	0	0	245	245
19:30	3	78	0	1	81	9	1	3	0	13	0	138	14	1	152	0	0	0	0	0	0	0	2	246	248
19:45	2	61	0	0	63	2	0	0	0	2	1	108	11	1	120	0	0	0	0	0	0	0	1	185	186
<b>Total</b>	<b>9</b>	<b>255</b>	<b>0</b>	<b>2</b>	<b>264</b>	<b>32</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>39</b>	<b>1</b>	<b>564</b>	<b>52</b>	<b>4</b>	<b>617</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>920</b>	<b>926</b>
20:00	1	51	0	0	52	5	0	1	0	6	0	133	14	0	147	0	0	0	0	0	0	0	0	205	205
20:15	1	81	0	0	82	9	0	2	0	11	0	136	11	2	147	0	0	0	0	0	0	0	2	240	242
20:30	0	67	0	0	67	16	0	4	0	20	0	140	15	3	155	0	0	0	0	0	0	0	3	242	245
20:45	1	38	2	0	41	6	0	5	0	11	0	104	10	1	114	0	0	0	0	0	0	0	1	166	167
<b>Total</b>	<b>3</b>	<b>237</b>	<b>2</b>	<b>0</b>	<b>242</b>	<b>36</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>48</b>	<b>0</b>	<b>513</b>	<b>50</b>	<b>6</b>	<b>563</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>853</b>	<b>859</b>
21:00	2	49	0	1	51	7	0	0	0	7	0	123	7	0	130	0	0	0	0	0	0	0	1	188	189
21:15	1	49	0	0	50	4	0	0	0	4	0	100	8	0	108	0	0	0	0	0	0	0	0	162	162
21:30	0	44	0	1	44	3	0	0	0	3	0	89	6	0	95	0	0	0	0	0	0	0	1	142	143
21:45	1	43	0	1	44	3	0	1	0	4	0	81	9	0	90	0	0	0	0	0	0	0	1	138	139
<b>Total</b>	<b>4</b>	<b>185</b>	<b>0</b>	<b>3</b>	<b>189</b>	<b>17</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>393</b>	<b>30</b>	<b>0</b>	<b>423</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>630</b>	<b>633</b>
<b>Grand Total</b>	<b>126</b>	<b>6941</b>	<b>4</b>	<b>152</b>	<b>7071</b>	<b>562</b>	<b>2</b>	<b>126</b>	<b>7</b>	<b>690</b>	<b>21</b>	<b>7551</b>	<b>640</b>	<b>145</b>	<b>8212</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>304</b>	<b>15973</b>	<b>16277</b>
prch %	1.8	98.2	0.1			81.4	0.3	18.3			0.3	92	7.8			0	0	0							
Total %	0.8	43.5	0		44.3	3.5	0	0.8		4.3	0.1	47.3	4		51.4	0	0	0				1.9	98.1		

Start Time	CSAH 9 Southbound				South Coon Creek Dr. Westbound				CSAH 9 Northbound				NONE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	1	221	0	222	10	0	3	13	0	34	5	39	0	0	0	0	274
07:15	4	259	0	263	10	0	0	10	0	59	18	77	0	0	0	0	350
07:30	8	263	0	271	11	0	0	11	2	45	7	54	0	0	0	0	336
07:45	1	196	0	197	16	0	2	18	0	52	4	56	0	0	0	0	271
<b>Total Volume</b>	<b>14</b>	<b>939</b>	<b>0</b>	<b>953</b>	<b>47</b>	<b>0</b>	<b>5</b>	<b>52</b>	<b>2</b>	<b>190</b>	<b>34</b>	<b>226</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1231</b>
<b>% App. Total</b>	<b>1.5</b>	<b>98.5</b>	<b>0</b>		<b>90.4</b>	<b>0</b>	<b>9.6</b>		<b>0.9</b>	<b>84.1</b>	<b>15</b>		<b>0</b>	<b>0</b>	<b>0</b>		
<b>PHF</b>	<b>.438</b>	<b>.893</b>	<b>.000</b>	<b>.879</b>	<b>.734</b>	<b>.000</b>	<b>.417</b>	<b>.722</b>	<b>.250</b>	<b>.805</b>	<b>.472</b>	<b>.734</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.879</b>

Start Time	CSAH 9 Southbound				South Coon Creek Dr. Westbound				CSAH 9 Northbound				NONE Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 to 21:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 17:15																	
17:15	3	95	0	98	11	0	1	12	1	231	20	252	0	0	0	0	362
17:30	5	115	0	120	10	0	3	13	0	215	12	227	0	0	0	0	360
17:45	6	111	0	117	9	0	3	12	0	207	22	229	0	0	0	0	358
18:00	3	111	0	114	15	0	5	20	0	240	18	258	0	0	0	0	392
<b>Total Volume</b>	<b>17</b>	<b>432</b>	<b>0</b>	<b>449</b>	<b>45</b>	<b>0</b>	<b>12</b>	<b>57</b>	<b>1</b>	<b>893</b>	<b>72</b>	<b>966</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1472</b>
<b>% App. Total</b>	<b>3.8</b>	<b>96.2</b>	<b>0</b>		<b>78.9</b>	<b>0</b>	<b>21.1</b>		<b>0.1</b>	<b>92.4</b>	<b>7.5</b>		<b>0</b>	<b>0</b>	<b>0</b>		
<b>PHF</b>	<b>.708</b>	<b>.939</b>	<b>.000</b>	<b>.935</b>	<b>.750</b>	<b>.000</b>	<b>.600</b>	<b>.713</b>	<b>.250</b>	<b>.930</b>	<b>.818</b>	<b>.936</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.000</b>	<b>.939</b>



Anoka County Highway  
PC-WARRANTS  
Traffic Signal Warrant Analysis

Study Name : TMC1106  
Study Date : 06/03/11  
Page No. : 1

**Signal Warrants - Summary**

**Major Street Approaches**

**Northbound: CSAH 9**  
Number of Lanes: 2  
Approach Speed: 45  
Total Approach Volume: 8,212

**Southbound: CSAH 9**  
Number of Lanes: 2  
Approach Speed: 45  
Total Approach Volume: 7,071

**Minor Street Approaches**

**Westbound: South Coon Creek Dr.**  
Number of Lanes: 2  
  
Total Approach Volume: 690

**Warrant Summary (Rural values apply.)**

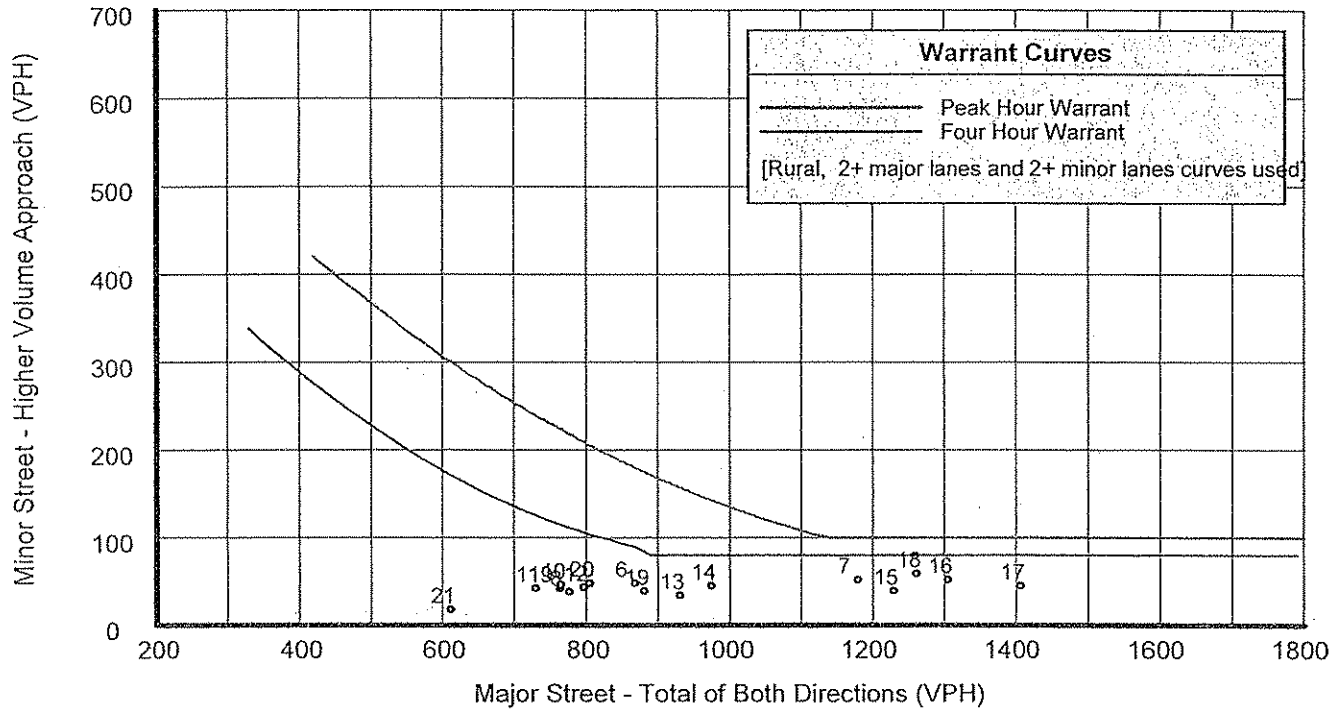
- Warrant 1 - Eight Hour Vehicular Volumes ..... Not Satisfied
  - Warrant 1A - Minimum Vehicular Volume ..... Not Satisfied  
Required volumes reached for 0 hours, 8 are needed
  - Warrant 1B - Interruption of Continuous Traffic ..... Not Satisfied  
Required volumes reached for 0 hours, 8 are needed
  - Warrant 1 A&B - Combination of Warrants ..... Not Satisfied  
Required volumes reached for 0 hours, 8 are needed
  
- Warrant 2 - Four Hour Volumes ..... Not Satisfied  
Number of hours (0) volumes exceed minimum < minimum required (4).
  
- Warrant 3 - Peak Hour ..... Not Satisfied
  - Warrant 3A - Peak Hour Delay ..... Not Satisfied  
Approach volumes on minor street don't exceed minimums for any hour. Delay data not evaluated.
  - Warrant 3B - Peak Hour Volumes ..... Not Satisfied  
Volumes do not exceed minimums for any hour.
  
- Warrant 4 - Pedestrian Volumes ..... Not Evaluated
  
- Warrant 5 - School Crossing ..... Not Evaluated
  
- Warrant 6 - Coordinated Signal System ..... Not Evaluated
  
- Warrant 7 - Crash Experience ..... Not Evaluated
  
- Warrant 8 - Roadway Network ..... Not Evaluated



# Anoka County Highway PC-WARRANTS Traffic Signal Warrant Analysis

Study Name : TMC1106  
Study Date : 06/03/11  
Page No. : 2

## Signal Warrants - Summary



### Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor Vol	Dir	War-1A			War-1B			War-1A&B		
				Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	868	48	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
07:00	1,179	52	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
08:00	777	38	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
09:00	764	42	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
10:00	765	46	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
11:00	730	42	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
12:00	797	43	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
13:00	930	34	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
14:00	974	45	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
15:00	1,229	39	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
16:00	1,305	52	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
17:00	1,406	45	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
18:00	1,261	59	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
19:00	881	39	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
20:00	805	48	WB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
21:00	612	18	WB	420-Yes	140-No	Major	630-No	70-No	---	504-Yes	112-No	Major
22:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---



**Anoka County Highway**  
**PC-WARRANTS**  
 Traffic Signal Warrant Analysis

Study Name : TMC1106  
 Study Date : 06/03/11  
 Page No. : 1

**Multi-Way Stop Warrant Report**

**Major Street Approaches**

**Northbound: CSAH 9**  
 Total Approach Volume: 8,212  
 Approach Speed: 45

**Southbound: CSAH 9**  
 Total Approach Volume: 7,071  
 Approach Speed: 45

**Minor Street Approaches**

**Westbound: South Coon Creek Dr.**  
 Total Approach Volume: 690

**Warrant Summary**

Criteria A - Interim Measure ..... Not Evaluated  
 If traffic signals are justified, stop signs can be installed as an interim measure.

Criteria B - Crash Experience ..... Not Evaluated

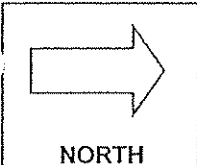
Criteria C - Minimum Volumes and Delays ..... Not Satisfied  
 Delay data not evaluated  
 Required volumes reached for 0 hours, 8 are needed

Criteria D - 80% of Volumes, Delays, and Crashes ..... Not Evaluated  
 Delay data not evaluated  
 Number of crashes (-1) is less than the minimum required (4).  
 Required volumes reached for 8 hours, 8 are needed

**Analysis of 8 Hour Volume Warrants:**

Time	Major Total	Minor Total	Crit C			Crit D		
			Major	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
05:30 - 06:30	369	17	210-Yes	140-No	Major	240-Yes	160-No	Major
05:45 - 06:45	618	36	210-Yes	140-No	Major	240-Yes	160-No	Major
06:00 - 07:00	868	48	210-Yes	140-No	Major	240-Yes	160-No	Major
06:15 - 07:15	989	54	210-Yes	140-No	Major	240-Yes	160-No	Major
06:30 - 07:30	1,100	54	210-Yes	140-No	Major	240-Yes	160-No	Major
06:45 - 07:45	1,176	46	210-Yes	140-No	Major	240-Yes	160-No	Major
07:00 - 08:00	1,179	52	210-Yes	140-No	Major	240-Yes	160-No	Major
07:15 - 08:15	1,125	46	210-Yes	140-No	Major	240-Yes	160-No	Major
07:30 - 08:30	970	49	210-Yes	140-No	Major	240-Yes	160-No	Major
07:45 - 08:45	841	48	210-Yes	140-No	Major	240-Yes	160-No	Major
08:00 - 09:00	777	38	210-Yes	140-No	Major	240-Yes	160-No	Major
08:15 - 09:15	730	43	210-Yes	140-No	Major	240-Yes	160-No	Major
08:30 - 09:30	754	37	210-Yes	140-No	Major	240-Yes	160-No	Major
08:45 - 09:45	741	37	210-Yes	140-No	Major	240-Yes	160-No	Major
09:00 - 10:00	764	42	210-Yes	140-No	Major	240-Yes	160-No	Major
09:15 - 10:15	796	43	210-Yes	140-No	Major	240-Yes	160-No	Major
09:30 - 10:30	799	45	210-Yes	140-No	Major	240-Yes	160-No	Major
09:45 - 10:45	803	45	210-Yes	140-No	Major	240-Yes	160-No	Major
10:00 - 11:00	765	46	210-Yes	140-No	Major	240-Yes	160-No	Major
10:15 - 11:15	749	40	210-Yes	140-No	Major	240-Yes	160-No	Major
10:30 - 11:30	728	44	210-Yes	140-No	Major	240-Yes	160-No	Major
10:45 - 11:45	735	41	210-Yes	140-No	Major	240-Yes	160-No	Major
11:00 - 12:00	730	42	210-Yes	140-No	Major	240-Yes	160-No	Major
11:15 - 12:15	757	47	210-Yes	140-No	Major	240-Yes	160-No	Major





COUNT LOCATION:

CSAH 9 (Round Lake Blvd.)

DATE:

05/26/2011

@ S. Coon Creek Dr.

NORTH

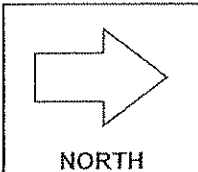
APP. #1 = CSAH 9  
 APP. #2 =  
 APP. #3 = CSAH 9  
 APP. #4 = S. Coon Creek Dr.

APP. #1      APP. #3  
 APP. #4

- 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						5		3
6:15-6:30						6		2
6:30-6:45						1		1
6:45-7:00	2		1	1	4	3		4
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>25</b>
7:00-7:15						5		2
7:15-7:30	3			3	6	3		4
7:30-7:45						4		3
7:45-8:00						2		5
<b>HOURLY TOTAL</b>					<b>6</b>	<b>HOURLY TOTAL</b>		<b>28</b>
8:00-8:15	1			1	2	6		2
8:15-8:30	1			1	2	7		
8:30-8:45						7		1
8:45-9:00						8		2
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>33</b>
9:00-9:15						2		2
9:15-9:30						7		4
9:30-9:45						7		5
9:45-10:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>29</b>
10:00-10:15						3		
10:15-10:30						8	1	1
10:30-10:45	2		1	1	4	3		2
10:45-11:00						4		
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>22</b>
11:00-11:15	1		1		2	1		
11:15-11:30						4		
11:30-11:45	2		2		4	4		1
11:45-12:00	2		2		4	2		
<b>HOURLY TOTAL</b>					<b>10</b>	<b>HOURLY TOTAL</b>		<b>12</b>
12:00-12:15	2		2		4	4		
12:15-12:30						4		
12:30-12:45						5		
12:45-1:00	1		1		2	2		2
<b>HOURLY TOTAL</b>					<b>6</b>	<b>HOURLY TOTAL</b>		<b>17</b>
1:00-1:15	1		1		2	2	1	2
1:15-1:30	2		2		4	2		1
1:30-1:45						3		1
1:45-2:00			1	1	2	5		6
<b>HOURLY TOTAL</b>					<b>8</b>	<b>HOURLY TOTAL</b>		<b>23</b>
<b>TOTAL</b>					<b>42</b>	<b>TOTAL</b>		<b>189</b>

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COUNT LOCATION:

CSAH 9 (Round Lake Blvd.)

DATE:

05/25/2011

@ S. Coon Creek Dr.

NORTH

APP. #1 = CSAH 9

APP. #2 =

APP. #3 = CSAH 9

APP. #4 = S. Coon Creek Dr.

APP.  
#1

APP.  
#3

APP.  
#4

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						9		1
2:15-2:30						3	1	1
2:30-2:45						5		4
2:45-3:00	1		1			1		6
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>31</b>
3:00-3:15						5		3
3:15-3:30						5		1
3:30-3:45	2		1	1		2		1
3:45-4:00	2		2			3		4
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>24</b>
4:00-4:15	1		1		2	2		3
4:15-4:30						1		1
4:30-4:45	2		2		4	2	1	2
4:45-5:00						4		1
<b>HOURLY TOTAL</b>					<b>6</b>	<b>HOURLY TOTAL</b>		<b>17</b>
5:00-5:15						6		
5:15-5:30								
5:30-5:45						4		1
5:45-6:00	1			1	2	2	1	2
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>16</b>
6:00-6:15	2		2		4			
6:15-6:30						1		
6:30-6:45						4	1	1
6:45-7:00						4		
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>11</b>
7:00-7:15	3		3		6	3		
7:15-7:30	1		1		2	1		
7:30-7:45	4		2	2	8	1		
7:45-8:00						1		
<b>HOURLY TOTAL</b>					<b>16</b>	<b>HOURLY TOTAL</b>		<b>6</b>
8:00-8:15	2		2		4			
8:15-8:30						1	1	
8:30-8:45						2	1	
8:45-9:00						1		
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>6</b>
9:00-9:15						1		
9:15-9:30								
9:30-9:45						1		
9:45-10:00	1		1		2	1		
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>3</b>
<b>TOTAL</b>					<b>76</b>	<b>TOTAL</b>		<b>303</b>

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