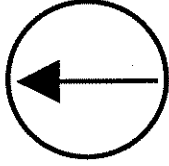


Date : 2/26/99AM 2/25/99PM)

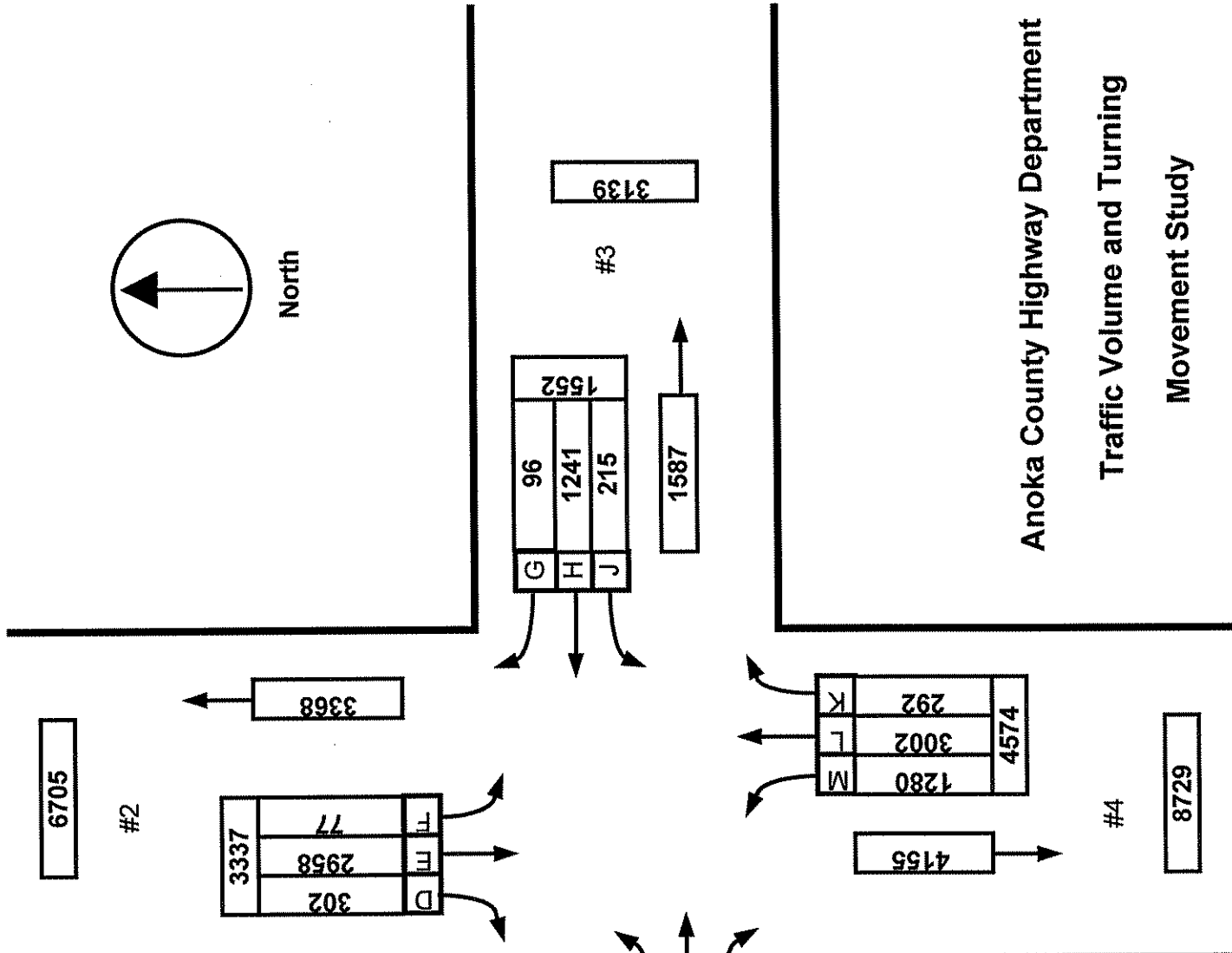
Count Number : TMC9904

Location : CSAH 52 (RADISSON RD) @

CSAH 12 (109TH AVE)



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department

Traffic Engineering

Traffic Volume and Turning Movement Study

WEATHER:
COUNTER TDC-8
COUNTED BY: DICK AND JOSIE

File Name : TMC9904
Site Code : 99040101
Start Date : 02/26/1999
Page : 1

Groups Printed: 1 - Unshifted

Start Time	CSAH 52 (RADISSON RD) Southbound				CSAH 12 (109TH AVE) Westbound				CSAH 52 (RADISSON RD) Northbound				CSAH 12 (109TH AVE) Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy			
06:00	1	96	5	0	9	10	0	1	2	5	3	1	0	9	25	0	2	165	167
06:15	1	130	2	0	4	7	0	0	9	5	2	1	0	16	23	2	3	199	202
06:30	3	175	4	0	10	17	3	0	7	8	2	2	0	24	18	0	2	271	273
06:45	4	153	7	0	13	19	1	0	15	8	1	3	2	42	41	0	3	306	309
Total	9	554	18	0	36	53	4	1	33	26	8	7	2	91	107	2	10	941	951
07:00	1	207	6	0	8	21	0	0	10	10	2	1	2	30	27	1	2	324	326
07:15	6	182	9	1	9	22	1	0	15	20	4	2	2	34	44	1	4	348	352
07:30	5	202	8	0	15	25	1	0	15	16	5	2	4	33	21	1	3	350	353
07:45	4	176	9	0	11	21	0	0	8	22	7	3	1	37	34	2	5	330	335
Total	16	767	32	1	43	89	2	0	48	68	18	8	9	134	126	5	14	1352	1366
08:00	2	125	3	0	12	24	2	0	9	14	3	5	1	36	36	4	9	267	276
08:15	2	109	4	0	7	26	0	0	14	16	1	4	3	23	24	2	6	229	235
08:30	4	70	6	0	2	15	0	0	11	20	2	5	5	21	15	1	6	171	177
08:45	4	77	10	0	3	14	0	0	9	17	0	3	4	22	25	6	9	185	194
Total	12	381	23	0	24	79	2	0	43	67	6	17	13	102	100	13	30	852	882
09:00	1	47	3	0	4	16	0	0	6	21	3	4	5	14	20	0	4	140	144
09:15	0	45	9	0	3	14	0	0	7	20	0	5	4	17	18	1	6	137	143
09:30	0	40	7	0	3	10	2	0	13	16	4	3	2	14	16	3	6	127	133
09:45	0	34	7	1	2	20	1	1	11	24	4	8	1	8	11	3	13	123	136
Total	1	166	26	1	12	60	3	1	37	81	11	20	12	53	65	7	29	527	556
10:00	2	35	13	3	0	5	0	0	12	15	0	6	3	10	8	2	11	103	114
10:15	1	31	4	0	1	8	1	0	5	24	3	6	3	13	22	5	11	116	127
10:30	1	29	4	0	2	16	0	0	11	12	5	5	5	11	11	0	5	107	112
10:45	0	30	6	0	3	15	1	0	6	22	1	6	3	9	10	0	6	106	112
Total	4	125	27	3	6	44	2	0	34	73	9	23	14	43	51	7	33	432	465
11:00	1	36	4	0	1	16	0	0	17	26	6	8	2	15	13	1	9	137	146
11:15	0	23	5	0	2	17	2	0	14	20	3	4	5	22	16	3	7	129	136
11:30	1	26	7	0	3	12	1	0	10	14	2	3	6	19	9	1	4	110	114
11:45	0	36	9	0	2	11	1	0	22	39	4	5	4	15	15	3	8	158	166
Total	2	121	25	0	8	56	4	0	63	99	15	20	17	71	53	8	28	534	562
12:00	1	29	6	0	2	17	1	0	13	34	4	3	4	27	18	1	4	156	160
12:15	1	31	0	0	2	16	3	0	24	32	10	6	6	9	20	1	7	154	161
12:30	4	34	7	0	3	23	2	0	17	28	2	3	4	20	15	4	7	159	166
12:45	1	36	4	0	1	13	0	0	17	37	3	4	5	16	12	3	7	145	152
Total	7	130	17	0	8	69	6	0	71	131	19	16	19	72	65	9	25	614	639
13:00	3	28	3	0	2	13	1	0	21	27	6	6	4	16	12	3	9	136	145
13:15	2	32	1	0	2	23	0	0	12	36	3	7	5	24	12	2	9	152	161
13:30	1	27	2	2	5	17	1	0	17	40	4	3	4	23	16	4	9	157	166
13:45	1	24	4	3	4	23	2	1	15	35	2	7	3	17	14	1	12	144	156
Total	7	111	10	5	13	76	4	1	65	138	15	23	16	80	54	10	39	589	628
14:00	1	25	3	1	4	11	2	0	14	24	5	7	6	12	15	1	9	122	131
14:15	2	24	6	0	3	13	0	0	24	37	7	7	8	22	19	2	9	165	174
14:30	0	30	5	0	4	9	1	0	17	46	7	4	6	27	19	7	11	171	182
14:45	0	22	5	0	2	23	1	0	25	58	5	3	2	25	10	3	6	178	184
Total	3	101	19	1	13	56	4	0	80	165	24	21	22	86	63	13	35	636	671
15:00	0	24	5	0	1	32	2	0	47	77	12	5	5	15	7	3	8	227	235
15:15	1	22	4	0	9	43	1	0	37	75	6	6	8	18	13	0	6	237	243
15:30	0	15	3	0	1	38	3	0	49	110	6	4	6	23	11	1	5	265	270
15:45	0	32	3	0	3	31	3	0	42	116	10	8	6	20	19	3	11	285	296
Total	1	93	15	0	14	144	9	0	175	378	34	23	25	76	50	7	30	1014	1044
16:00	0	18	3	0	3	49	2	0	45	122	11	5	6	30	16	3	8	305	313
16:15	2	33	5	0	4	42	6	0	50	153	8	7	7	27	25	1	8	362	370
16:30	1	36	5	0	7	43	2	0	54	132	14	3	12	33	16	1	4	355	359
16:45	2	31	6	0	5	48	3	0	68	188	14	7	5	38	21	0	7	429	436
Total	5	118	19	0	19	182	13	0	217	595	47	22	30	128	78	5	27	1451	1478

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

File Name : TMC9904
 Site Code : 99040101
 Start Date : 02/26/1999
 Page : 2

Groups Printed: 1 - Unshifted

Start Time	CSAH 52 (RADISSON RD) Southbound				CSAH 12 (109TH AVE) Westbound				CSAH 52 (RADISSON RD) Northbound				CSAH 12 (109TH AVE) Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy			
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			
17:00	0	31	4	0	3	41	9	0	46	185	14	2	5	30	12	0	2	360	362
17:15	2	27	4	0	2	60	10	0	78	195	12	3	8	32	24	2	5	454	459
17:30	2	23	3	0	2	43	3	0	42	172	16	3	9	37	14	2	5	366	371
17:45	0	25	9	0	1	35	3	0	45	151	9	2	9	20	28	1	3	335	338
Total	4	106	20	0	8	179	25	0	211	683	51	10	31	119	78	5	15	1515	1530
18:00	1	23	7	0	1	27	7	0	46	118	10	1	11	30	16	1	2	297	299
18:15	0	36	9	0	3	28	3	0	44	94	7	0	7	24	8	2	2	263	265
18:30	1	26	10	0	0	20	1	0	29	76	7	1	11	24	12	1	2	217	219
18:45	1	24	8	0	3	30	3	0	20	56	0	3	5	24	4	1	4	178	182
Total	3	109	34	0	7	105	14	0	139	344	24	5	34	102	40	5	10	955	965
19:00	1	20	9	0	0	10	0	0	10	49	3	1	5	13	10	1	2	130	132
19:15	0	12	2	0	0	11	1	0	14	44	5	3	7	12	15	0	3	123	126
19:30	2	18	4	0	0	17	1	0	27	32	2	3	8	14	15	0	3	140	143
19:45	0	26	2	0	4	11	2	0	13	29	1	0	6	22	12	0	0	128	128
Total	3	76	17	0	4	49	4	0	64	154	11	7	26	61	52	1	8	521	529
Grand Total	77	2958	302	11	215	1241	96	3	1280	3002	292	222	270	1218	982	97	333	11933	12266
Apprch %	2.3	88.4	9.0	0.3	13.8	79.8	6.2	0.2	26.7	62.6	6.1	4.6	10.5	47.4	38.3	3.8			
Total %	0.6	24.1	2.5	0.1	1.8	10.1	0.8	0.0	10.4	24.5	2.4	1.8	2.2	9.9	8.0	0.8	2.7	97.3	

Major Street Approaches:

Northbound:

CSAH 52 (RADISSON RD)

Data File: No Count Defined
Count Type: None. Channel: 0. Count Date: 0/ 0/ 0
Number of Lanes: 2
Approach Speed: 50
Total Approach Traffic: 4574

Southbound:

CSAH 52 (RADISSON RD)

Data File: No Count Defined
Count Type: None. Channel: 0. Count Date: 0/ 0/ 0
Number of Lanes: 2
Approach Speed: 55
Total Approach Traffic: 3337

Minor Street Approaches:

Eastbound:

CSAH 12 (109TH AVE)

Data File: No Count Defined
Count Type: None. Channel: 0. Count Date: 0/ 0/ 0
Number of Lanes: 2
Approach Speed: 55
Total Approach Traffic: 2470

Westbound:

CSAH 12 (109TH AVE.)

Data File: No Count Defined
Count Type: None. Channel: 0. Count Date: 0/ 0/ 0
Number of Lanes: 2
Approach Speed: 55
Total Approach Traffic: 1552

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

Table with columns: Hour, Main (Total), Side (Vol., Dir., Rank), Warrant 1 (Meets?, Criteria), Warrant 2 (Meets?, Criteria), Warrant 8 (Meets?, Criteria). Rows 0-23.

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 7 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 6 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: 1515.

- 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 7 hours. Criteria--Main: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

SATISFIED for 7 hours.

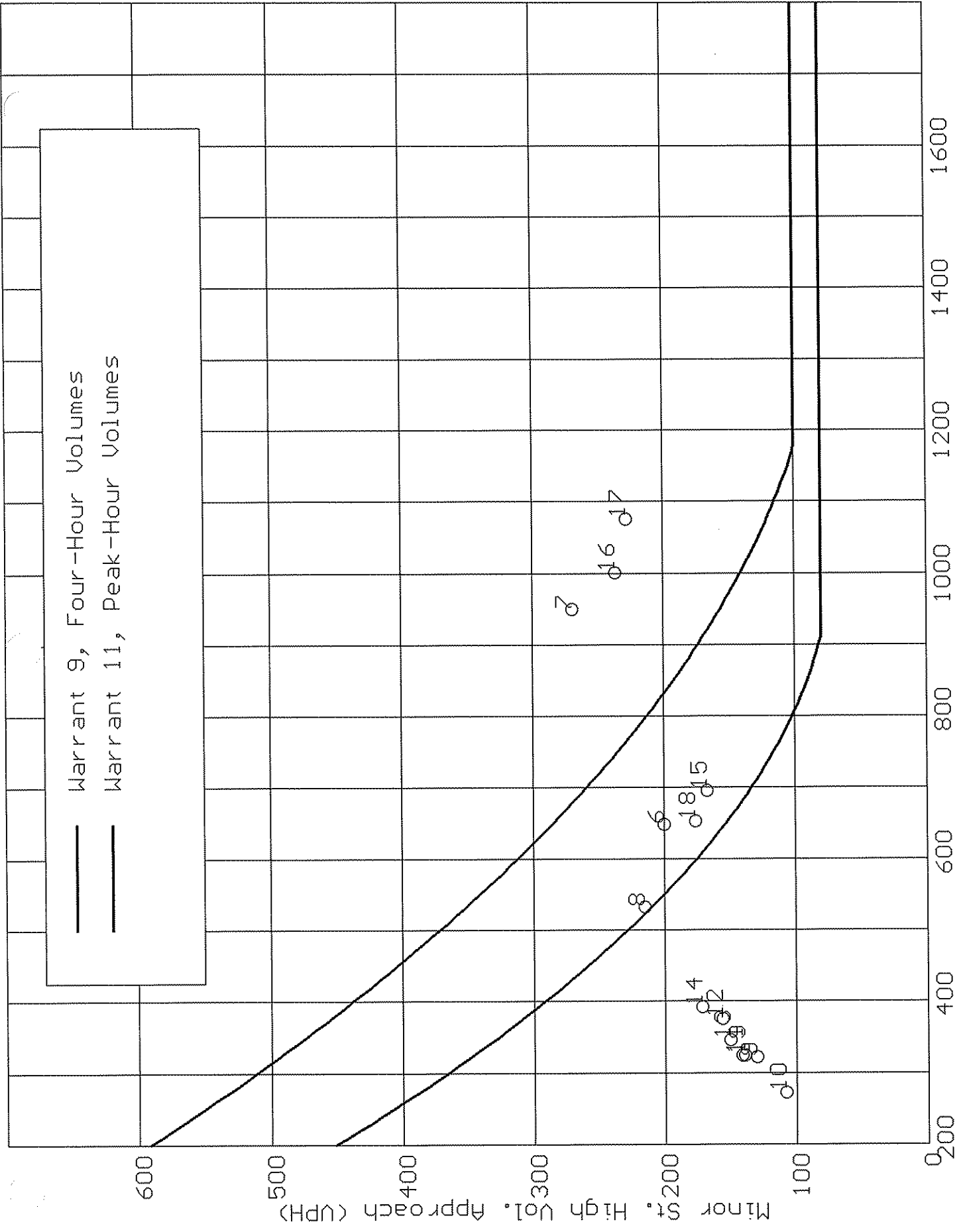
Warrant 10 - Peak Hour Delay

NOT APPLICABLE. Volume requirements satisfied, but side street peak hour delay not defined.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 150.

Warrant 11 - Peak Hour Volume

SATISFIED for 3 hours.



Major St. Total of Both Approaches (UPH)

←

NORTH

APP. #1=SB CSAH 52
(RADISSON RD)

APP. #2 =WB CSAH 12
(109TH AVE)

APP. #3=NB CSAH 52
(RADISSON RD)

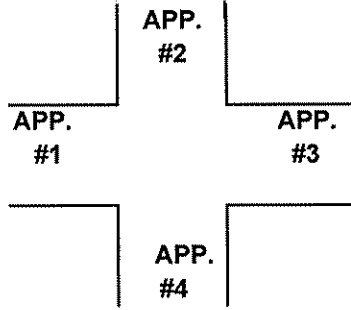
APP. #4=EB CSAH 12
(109TH AVE)

COUNT LOCATION:

CSAH 52 (RADISSON RD) @
CSAH 12 (109TH AVE)

DATE:

2/26/99



- 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						2		1
6:45-7:00						5		2
HOURLY TOTAL						HOURLY TOTAL		18
7:00-7:15						2		3
7:15-7:30						5		2
7:30-7:45						4		2
7:45-8:00						11		2
HOURLY TOTAL						HOURLY TOTAL		31
8:00-8:15						11		2
8:15-8:30						10		1
8:30-8:45						10		
8:45-9:00						12		4
HOURLY TOTAL						HOURLY TOTAL		50
9:00-9:15						8		
9:15-9:30						7		
9:30-9:45						10		1
9:45-10:00						10		3
HOURLY TOTAL						HOURLY TOTAL		39
10:00-10:15						18		
10:15-10:30						13		2
10:30-10:45						8		
10:45-11:00						12		
HOURLY TOTAL						HOURLY TOTAL		53
11:00-11:15						14		
11:15-11:30						12		
11:30-11:45						7		1
11:45-12:00						9		
HOURLY TOTAL						HOURLY TOTAL		43
12:00-12:15						6		1
12:15-12:30						8		
12:30-12:45						9		
12:45-1:00						6		
HOURLY TOTAL						HOURLY TOTAL		30
1:00-1:15						13		
1:15-1:30						17		
1:30-1:45						10		
1:45-2:00						12		
HOURLY TOTAL						HOURLY TOTAL		52



COUNT LOCATION:

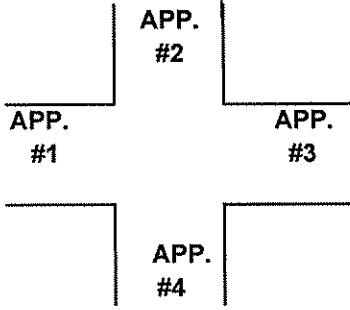
CSAH 52 (RADISSON RD) @

DATE:

2/25/99

CSAH 12 (109TH AVE)

NORTH
 APP. #1=SB CSAH 52 (RADISSON RD)
 APP. #2 =WB CSAH 12 (109TH AVE)
 APP. #3=NB CSAH 52 (RADISSON RD)
 APP. #4=EB CSAH 12 (109TH AVE)



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						11		
2:15-2:30						13		3
2:30-2:45						15		1
2:45-3:00						5		6
HOURLY TOTAL						HOURLY TOTAL		54
3:00-3:15						9		3
3:15-3:30						7		5
3:30-3:45						6		3
3:45-4:00						13		1
HOURLY TOTAL						HOURLY TOTAL		47
4:00-4:15						10		3
4:15-4:30						11		1
4:30-4:45						4		2
4:45-5:00						6		1
HOURLY TOTAL						HOURLY TOTAL		38
5:00-5:15						2		
5:15-5:30						4		2
5:30-5:45						4		1
5:45-6:00						4		1
HOURLY TOTAL						HOURLY TOTAL		18
6:00-6:15						3		1
6:15-6:30						1	1	
6:30-6:45						3		
6:45-7:00						3		
HOURLY TOTAL						HOURLY TOTAL		12
7:00-7:15						5		
7:15-7:30						2		
7:30-7:45						1		1
7:45-8:00						2		
HOURLY TOTAL						HOURLY TOTAL		11
8:00-8:15								
8:15-8:30								
8:30-8:45								
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		
9:00-9:15								
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		