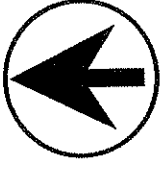
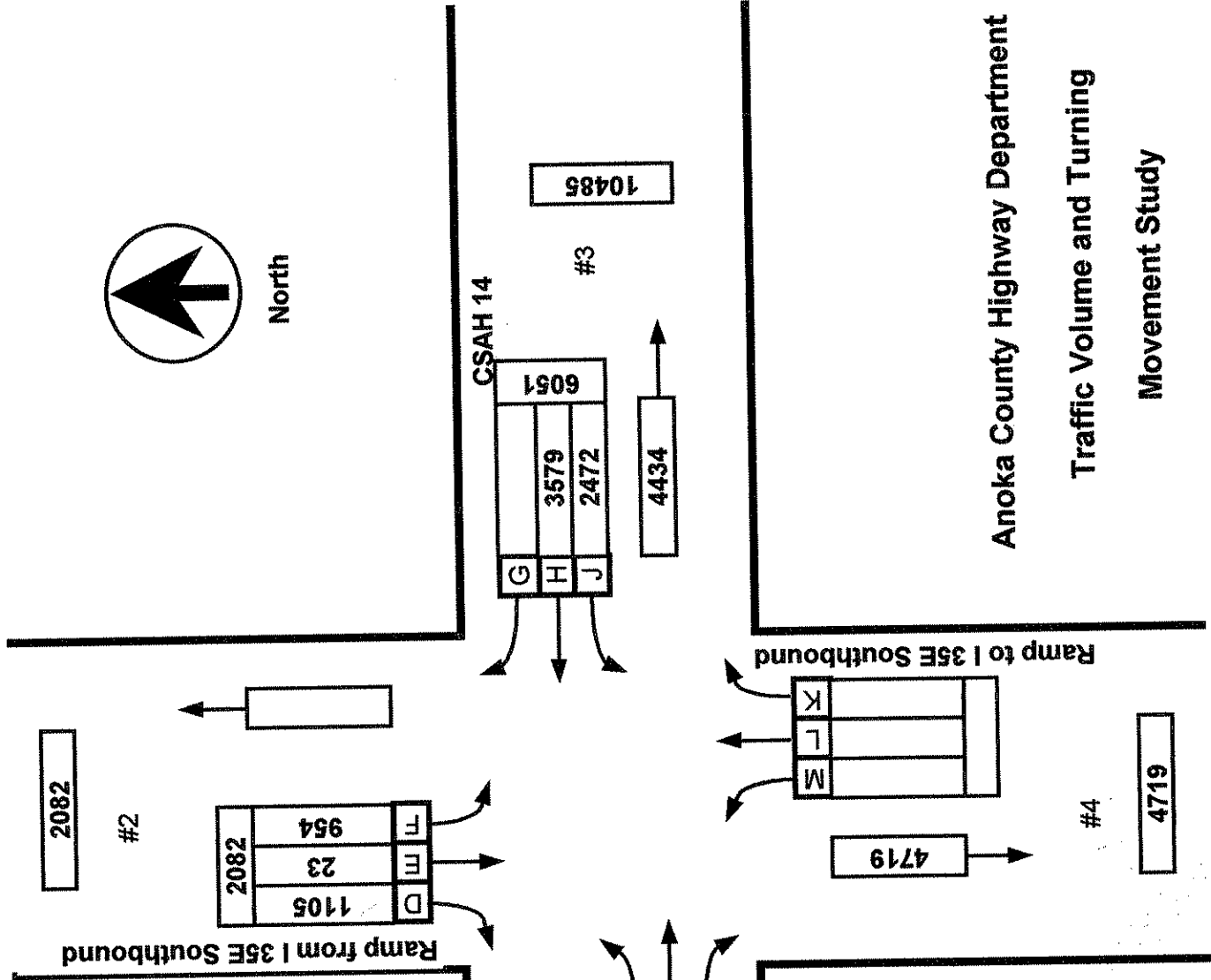


Date : 07/26/00  
 Count Number : TMC0018  
 Location : CSAH 14 @  
 I 35E (West Ramps)



North



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

# Anoka County Highway Department

## Traffic Engineering

### Traffic Volume and Turning Movement Study

Weather: Partly Cloudy

Counter: TDC-8

Counted by: Ryan & Justin

File Name : TMC0018

Site Code : 00180101

Start Date : 07/26/2000

Page No : 1

Groups Printed- 1 - 1 - Unshifted

Start Time	Ramp from 35E Southbound Southbound					CSAH 14 Westbound					Ramp to 35E Southbound Northbound					CSAH 14 Eastbound					Exclu. Total	Inclu. 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			
	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	1.0	1.0	1.0	1.0			
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	1.0	1.0	1.0	1.0			
06:00	15	1	25	0	41	98	36	0	1	134	0	0	0	0	0	0	33	94	4	127	5	302	307
06:15	24	0	60	1	84	86	34	0	2	120	0	0	0	0	0	0	54	75	4	129	7	333	340
06:30	50	0	73	3	123	53	58	0	1	111	0	0	0	0	0	0	68	67	1	135	5	369	374
06:45	37	1	60	1	98	58	60	0	1	118	0	0	0	0	0	0	75	55	1	130	3	346	349
Total	126	2	218	5	346	295	188	0	5	483	0	0	0	0	0	0	230	291	10	521	20	1350	1370
07:00	34	0	38	0	72	64	48	0	3	112	0	0	0	0	0	0	97	63	3	160	6	344	350
07:15	45	0	43	0	88	58	72	0	4	130	0	0	0	0	0	0	69	72	1	141	5	359	364
07:30	32	0	38	0	70	56	54	0	3	110	0	0	0	0	0	0	59	66	4	125	7	305	312
07:45	42	0	43	0	85	48	60	0	5	108	0	0	0	0	0	0	64	65	4	129	9	322	331
Total	153	0	162	0	315	226	234	0	15	460	0	0	0	0	0	0	289	266	12	555	27	1330	1357
08:00	23	1	9	0	33	68	29	0	5	97	0	0	0	0	0	0	59	59	2	118	7	248	255
08:15	13	0	18	0	31	34	40	0	2	74	0	0	0	0	0	0	48	58	2	106	4	211	215
08:30	20	1	10	1	31	50	46	0	3	96	0	0	0	0	0	0	54	54	2	108	6	235	241
08:45	20	0	7	0	27	53	56	0	3	109	0	0	0	0	0	0	54	28	1	82	4	218	222
Total	76	2	44	1	122	205	171	0	13	376	0	0	0	0	0	0	215	199	7	414	21	912	933
09:00	9	1	13	0	23	39	36	0	3	75	0	0	0	0	0	0	60	36	1	96	4	194	198
09:15	17	0	10	0	27	59	41	0	6	100	0	0	0	0	0	0	44	61	2	105	8	232	240
09:30	4	0	10	1	14	28	29	0	1	57	0	0	0	0	0	0	42	65	1	107	3	178	181
09:45	16	5	6	0	27	48	26	0	4	74	0	0	0	0	0	0	59	41	2	100	6	201	207
Total	46	6	39	1	91	174	132	0	14	306	0	0	0	0	0	0	205	203	6	408	21	805	826
10:00	8	0	18	1	26	42	42	0	0	84	0	0	0	0	0	0	48	45	1	93	2	203	205
10:15	12	0	13	0	25	32	33	0	0	65	0	0	0	0	0	0	56	28	2	84	2	174	176
10:30	8	0	5	0	13	26	38	0	0	64	0	0	0	0	0	0	43	17	0	60	0	137	137
10:45	11	0	13	0	24	21	37	0	1	58	0	0	0	0	0	0	52	24	2	76	3	158	161
Total	39	0	49	1	88	121	150	0	1	271	0	0	0	0	0	0	199	114	5	313	7	672	679
11:00	10	0	10	1	20	20	42	0	2	62	0	0	0	0	0	0	53	18	0	71	3	153	156
11:15	7	0	8	1	15	26	43	0	2	69	0	0	0	0	0	0	41	30	2	71	5	155	160
11:30	7	1	10	0	18	43	52	0	1	95	0	0	0	0	0	0	46	23	1	69	2	182	184
11:45	10	0	10	1	20	44	75	0	2	119	0	0	0	0	0	0	59	28	1	87	4	226	230
Total	34	1	38	3	73	133	212	0	7	345	0	0	0	0	0	0	199	99	4	298	14	716	730
12:00	6	0	12	1	18	14	42	0	5	56	0	0	0	0	0	0	45	24	0	69	6	143	149
12:15	14	0	10	0	24	21	50	0	3	71	0	0	0	0	0	0	52	19	1	71	4	166	170
12:30	8	0	13	1	21	33	36	0	2	69	0	0	0	0	0	0	48	35	1	83	4	173	177
12:45	13	0	12	1	25	36	60	0	4	96	0	0	0	0	0	0	64	31	1	95	6	216	222
Total	41	0	47	3	88	104	188	0	14	292	0	0	0	0	0	0	209	109	3	318	20	698	718
13:00	21	0	9	1	30	36	55	0	4	91	0	0	0	0	0	0	65	28	0	93	5	214	219
13:15	9	0	10	0	19	38	36	0	3	74	0	0	0	0	0	0	47	22	0	69	3	162	165
13:30	13	0	11	1	24	23	50	0	2	73	0	0	0	0	0	0	46	22	0	68	3	165	168
13:45	11	1	16	1	28	41	49	0	4	90	0	0	0	0	0	0	51	27	1	78	6	196	202
Total	54	1	46	3	101	138	190	0	13	328	0	0	0	0	0	0	209	99	1	308	17	737	754
14:00	20	5	12	1	37	32	46	0	2	78	0	0	0	0	0	0	57	20	3	77	6	192	198
14:15	13	0	14	2	27	28	70	0	2	98	0	0	0	0	0	0	59	23	3	82	7	207	214
14:30	10	0	4	2	14	39	77	0	4	116	0	0	0	0	0	0	61	26	2	87	8	217	225
14:45	14	0	7	2	21	27	63	0	3	90	0	0	0	0	0	0	64	27	1	91	6	202	208
Total	57	5	37	7	99	126	256	0	11	382	0	0	0	0	0	0	241	96	9	337	27	818	845
15:00	12	0	9	0	21	28	61	0	3	89	0	0	0	0	0	0	61	24	1	85	4	195	199
15:15	19	0	14	0	33	60	80	0	3	140	0	0	0	0	0	0	79	40	0	119	3	292	295
15:30	18	0	8	0	26	33	95	0	3	128	0	0	0	0	0	0	76	27	1	103	4	257	261
15:45	14	0	6	0	20	38	87	0	1	125	0	0	0	0	0	0	72	27	1	99	2	244	246
Total	63	0	37	0	100	159	323	0	10	482	0	0	0	0	0	0	288	118	3	406	13	988	1001
16:00	21	0	24	0	45	41	88	0	2	129	0	0	0	0	0	0	76	21	1	97	3	271	274
16:15	13	0	20	2	33	64	107	0	3	171	0	0	0	0	0	0	67	40	0	107	5	311	316
16:30	13	1	24	0	38	41	138	0	2	179	0	0	0	0	0	0	79	30	1	109	3	326	329
16:45	16	0	32	1	48	47	110	0	3	157	0	0	0	0	0	0	73	38	0	111	4	316	320
Total	63	1	100	3	164	193	443	0	10	636	0	0	0	0	0	0	295	129	2	424	15	1224	1239
17:00	14	0	20	0	34	43	87	0	1	130	0	0	0	0	0	0	87	45	1	132	2	296	298
17:15	21	0	12	0	33	48	85	0	1	133	0	0	0	0	0	0	96	43	0	139	1	305	306
17:30	16	1	25	1	42	37	88	0	0	125	0	0	0	0	0	0	77	48	1	125	2	292	294
17:45	10	0	18	0	28	32	64	0	0	96	0	0	0	0	0	0	75	30	2	105	2	229	231
Total	61	1	75	1	137	160	324	0	2	484	0	0	0	0	0	0	335	166	4	501	7	1122	1129

18:00	15	0	16	0	31	50	71	0	2	121	0	0	0	0	0	0	67	32	1	99	3	251	254
18:15	15	1	20	0	36	46	70	0	0	116	0	0	0	0	0	0	53	22	0	75	0	227	227
18:30	6	1	13	0	20	33	74	0	3	107	0	0	0	0	0	0	48	19	0	67	3	194	197
18:45	9	0	20	0	29	29	50	0	0	79	0	0	0	0	0	0	58	31	0	89	0	197	197
Total	45	2	69	0	116	158	265	0	5	423	0	0	0	0	0	0	226	104	1	330	6	869	875
19:00	16	0	19	0	35	36	48	0	1	84	0	0	0	0	0	0	38	21	0	59	1	178	179
19:15	8	0	23	0	31	34	61	0	0	95	0	0	0	0	0	0	45	36	0	81	0	207	207
19:30	18	0	9	1	27	21	48	0	0	69	0	0	0	0	0	0	30	19	0	49	1	145	146
19:45	9	0	6	0	15	24	53	0	0	77	0	0	0	0	0	0	30	28	0	58	0	150	150
Total	51	0	57	1	108	115	210	0	1	325	0	0	0	0	0	0	143	104	0	247	2	680	682
20:00	4	0	12	0	16	12	43	0	0	55	0	0	0	0	0	0	26	9	0	35	0	106	106
20:15	11	1	9	0	21	30	34	0	0	64	0	0	0	0	0	0	21	12	0	33	0	118	118
20:30	7	0	13	0	20	38	30	0	0	68	0	0	0	0	0	0	25	17	0	42	0	130	130
20:45	7	1	13	0	21	15	43	0	1	58	0	0	0	0	0	0	23	15	0	38	1	117	118
Total	29	2	47	0	78	95	150	0	1	245	0	0	0	0	0	0	95	53	0	148	1	471	472
21:00	5	0	11	0	16	32	45	0	0	77	0	0	0	0	0	0	28	24	0	52	0	145	145
21:15	4	0	9	0	13	13	38	0	0	51	0	0	0	0	0	0	26	19	0	45	0	109	109
21:30	2	0	9	0	11	16	32	0	0	48	0	0	0	0	0	0	23	14	0	37	0	96	96
21:45	5	0	11	0	16	9	28	0	0	37	0	0	0	0	0	0	25	17	5	42	5	95	100
Total	16	0	40	0	56	70	143	0	0	213	0	0	0	0	0	0	102	74	5	176	5	445	450
Grand Total	954	23	110	29	2082	247	357	0	122	6051	0	0	0	0	0	0	348	222	72	5704	223	13837	14060
Apprch %	45.8	1.1	53.1			40.9	59.1	0.0			0.0	0.0	0.0				0.0	61.0	39.0				
Total %	6.9	0.2	8.0		15.0	17.9	25.9	0.0		43.7	0.0	0.0	0.0	0.0			0.0	25.1	16.1	41.2	1.6	98.4	

or Street Approaches:

Lastbound:

CSAH 14

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0018.war  
 Count Type: IMC. Channel: 0. Count Date: 7/26/ 0  
 Number of Lanes: 1  
 Approach Speed: 50  
 Total Approach Traffic: 5704

Westbound:

CSAH 14

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0018.war  
 Count Type: IMC. Channel: 0. Count Date: 7/26/ 0  
 Number of Lanes: 2  
 Approach Speed: 50  
 Total Approach Traffic: 6051

Minor Street Approaches:

Northbound:

Ramp to 35E Southbound

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0018.war  
 Count Type: IMC. Channel: 0. Count Date: 7/26/ 0  
 Number of Lanes: 1  
 Approach Speed: 50  
 Total Approach Traffic: 0

Southbound:

Ramp from 35E Southbound

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0018.war  
 Count Type: IMC. Channel: 0. Count Date: 7/26/ 0  
 Number of Lanes: 1  
 Approach Speed: 40  
 Total Approach Traffic: 2082

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 S 17	105	52	84
1	0	0 S 18	105	52	84
2	0	0 S 19	105	52	84
3	0	0 S 20	105	52	84
4	0	0 S 21	105	52	84
5	0	0 S 22	105	52	84
6	1004	346 S 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
7	1015	315 S 2	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
8	790	122 S 5	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
9	714	91 S 11	MAIN 105	--BOTH-- 52	--BOTH-- 84
10	584	88 S 12	MAIN 105	SIDE 52	--BOTH-- 84
11	643	73 S 15	MAIN 105	--BOTH-- 52	MAIN 84
12	610	88 S 13	MAIN 105	SIDE 52	--BOTH-- 84
13	636	101 S 8	MAIN 105	--BOTH-- 52	--BOTH-- 84
14	719	99 S 10	MAIN 105	--BOTH-- 52	--BOTH-- 84
15	888	100 S 9	MAIN 105	--BOTH-- 52	--BOTH-- 84
16	1060	164 S 3	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
17	985	137 S 4	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
18	753	116 S 6	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
19	572	108 S 7	--BOTH-- 105	SIDE 52	--BOTH-- 84
20	393	78 S 14	105	SIDE 52	84
21	389	56 S 16	105	SIDE 52	84
22	0	0 S 23	105	52	84
23	0	0 S 24	105	52	84

## 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

SATISFIED for 11 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

## Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. 8th-High Hour--Pedestrians: 1; Vehicles: 714. Criteria--Pedestrians: 105; Vehicles: 420.

## 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: 1350.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which connect areas of principal traffic generation.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which have surface street freeway or expressway ramp terminals.
- Approaches which appear as a major route in an official transportation plan.

## Warrant 8 - Combination of Warrants

SATISFIED for 13 hours. Criteria--Main: 504; Side: See Volume Summary.

## Warrant 9 - Four Hour Volumes

SATISFIED for 8 hours.

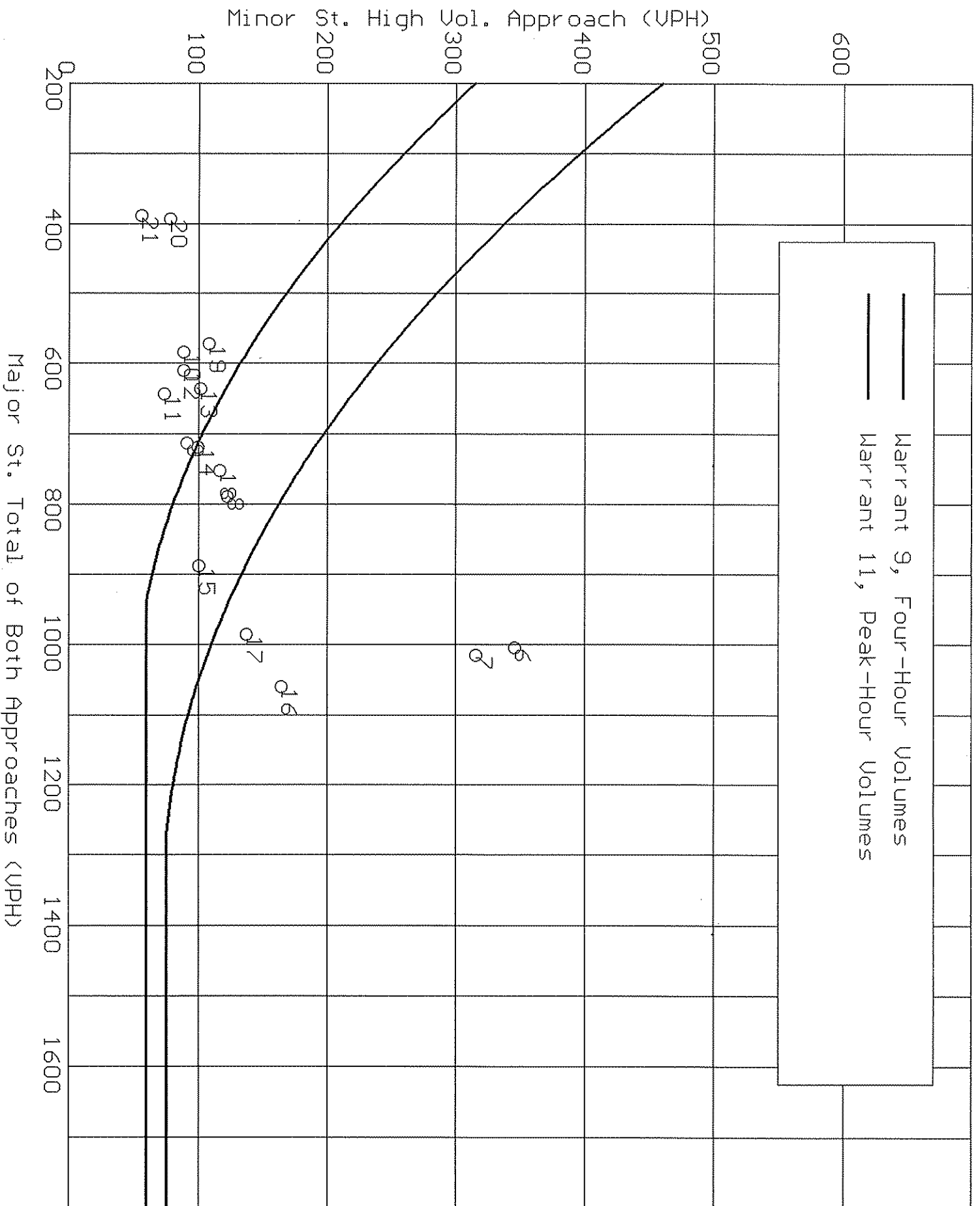
## Warrant 10 - Peak Hour Delay

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

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

## Warrant 11 - Peak Hour Volume

SATISFIED for 4 hours.





NORTH

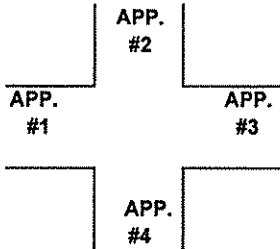
COUNT LOCATION:

CSAH 14@  
I 35E (West Ramps)

DATE:

7/26/00

APP. #1 = EB CSAH 14
APP. #2 = SB I 35E (West Ramps)
APP. #3 = WB CSAH 14
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		
6:15-6:30						7		
6:30-6:45						5		
6:45-7:00						3		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>20</b>
7:00-7:15						5		1
7:15-7:30						4		1
7:30-7:45						6		1
7:45-8:00						8		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>27</b>
8:00-8:15						6		1
8:15-8:30						4		
8:30-8:45						5		1
8:45-9:00						3		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>21</b>
9:00-9:15						4		
9:15-9:30						8		
9:30-9:45						3		
9:45-10:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>21</b>
10:00-10:15						2		
10:15-10:30						2		
10:30-10:45								
10:45-11:00						3		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>7</b>
11:00-11:15						2		1
11:15-11:30						5		
11:30-11:45						3		
11:45-12:00						4		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>15</b>
12:00-12:15						6		
12:15-12:30						4		
12:30-12:45						4		
12:45-1:00						5		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>20</b>
1:00-1:15						5		
1:15-1:30						3		
1:30-1:45						3		
1:45-2:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>17</b>



**NORTH**

**COUNT LOCATION:** CSAH 14@  
I 35E (West Ramps)

**DATE:** 7/24/00

APP. #1 = EB CSAH 14  
APP. #2 = SB I 35E  
(West Ramps)  
APP. #3 = WB CSAH 14  
APP. #4 =

APP. #2  
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						6		
2:15-2:30						6		
2:30-2:45						8		
2:45-3:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>26</b>
3:00-3:15						4		
3:15-3:30						3		
3:30-3:45						4		
3:45-4:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>13</b>
4:00-4:15						3		
4:15-4:30						4		1
4:30-4:45						3		
4:45-5:00						4		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>15</b>
5:00-5:15						2		
5:15-5:30						1		
5:30-5:45						2		
5:45-6:00						2		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>7</b>
6:00-6:15						3		
6:15-6:30								
6:30-6:45						3		
6:45-7:00								
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>6</b>
7:00-7:15						1		
7:15-7:30								
7:30-7:45						1		
7:45-8:00								
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>2</b>
8:00-8:15								
8:15-8:30								
8:30-8:45								
8:45-9:00						1		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>1</b>
9:00-9:15								
9:15-9:30								
9:30-9:45								
9:45-10:00								
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		