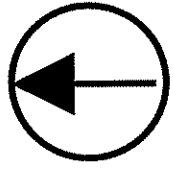


Date : 8/19/98AM 8/17/98PM

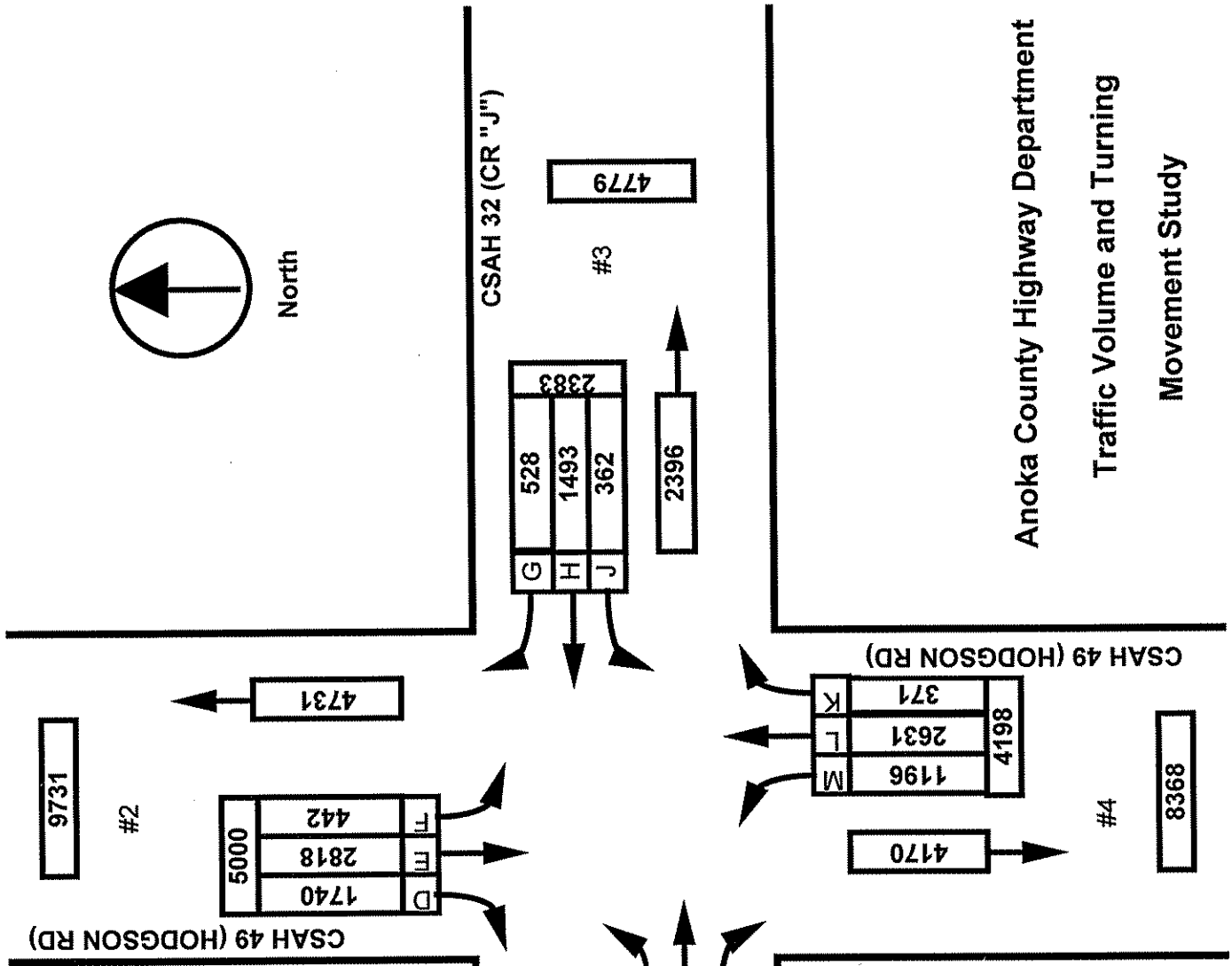
Count Number : TMC9833

Location : CSAH 49 (HODGSON RD) @

CSAH 32 (CR "J")



North



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

Weather :  
 Counted by: Sarah and Vallie  
 Board # :  
 Other :

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 Horsham, PA.

Study Name: TMC9833  
 Site Code : 98330202  
 Start Date: 08/19/98  
 Page : 1

Vehicle group 1

Start Time	CSAH 49 (HODGSON RD) Southbound				CSAH 32 (CR "J") Westbound				CSAH 49 (HODGSON RD) Northbound				CSAH 32 (CR "J") Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
08/19/98																			
06:00	5	57	56	2	1	15	2	0	9	9	2	1	6	13	11	1	190	4	186
06:15	8	102	50	0	6	28	3	1	10	8	1	1	3	19	15	2	257	4	253
06:30	7	128	43	2	13	22	3	2	12	10	4	1	7	29	17	4	304	9	295
06:45	6	114	59	0	10	34	2	3	10	20	1	4	10	34	20	4	331	11	320
Hour	26	401	208	4	30	99	10	6	41	47	8	7	26	95	63	11	1082	28	1054
07:00	9	113	72	5	11	38	9	2	22	9	4	0	19	32	20	6	371	13	358
07:15	9	134	77	1	11	39	3	2	10	17	3	0	6	50	29	7	398	10	388
07:30	6	111	51	2	13	30	3	1	21	18	5	1	11	41	31	3	348	7	341
07:45	9	112	64	3	12	35	6	3	20	23	2	2	15	34	36	3	379	11	368
Hour	33	470	264	11	47	142	21	8	73	67	14	3	51	157	116	19	1496	41	1455
08:00	7	89	43	6	7	34	1	6	23	24	5	1	13	40	24	6	329	19	310
08:15	12	56	48	5	4	20	2	3	21	24	2	2	10	25	14	2	250	12	238
08:30	8	50	37	3	5	21	6	5	19	24	0	2	8	23	14	3	228	13	215
08:45	5	50	36	3	3	17	3	4	20	22	2	2	19	14	21	4	225	13	212
Hour	32	245	164	17	19	92	12	18	83	94	9	7	50	102	73	15	1032	57	975
09:00	6	38	23	4	5	7	4	3	22	20	3	2	12	21	5	6	181	15	166
09:15	6	40	25	2	4	15	4	1	16	16	6	3	11	17	16	3	185	9	176
09:30	9	38	29	1	5	12	8	1	13	18	5	1	12	13	20	2	187	5	182
09:45	8	42	23	2	3	21	6	1	14	12	4	5	10	12	8	3	174	11	163
Hour	29	158	100	9	17	55	22	6	65	66	18	11	45	63	49	14	727	40	687
10:00	4	34	19	4	1	10	2	1	12	18	2	4	17	21	15	5	169	14	155
10:15	3	34	17	2	3	11	13	3	16	18	3	4	12	17	9	3	168	12	156
10:30	3	45	29	6	8	10	3	4	8	28	6	0	13	13	9	0	185	10	175
10:45	6	32	16	2	4	10	6	0	14	23	5	5	15	19	9	2	168	9	159
Hour	16	145	81	14	16	41	24	8	50	87	16	13	57	70	42	10	690	45	645
11:00	7	24	17	1	7	12	2	3	14	23	3	1	23	23	10	3	173	8	165
11:15	13	32	13	3	3	14	6	3	9	33	8	3	13	16	12	6	187	15	172
11:30	7	38	21	3	4	8	6	0	10	37	4	2	22	14	21	2	199	7	192
11:45	6	41	33	1	2	14	6	0	13	33	2	4	20	18	17	1	211	6	205
Hour	33	135	84	8	16	48	20	6	46	126	17	10	78	71	60	12	770	36	734
12:00	6	32	20	5	1	15	10	1	19	37	8	3	16	22	18	5	218	14	204
12:15	6	33	23	5	6	14	10	1	14	40	6	3	21	20	11	3	216	12	204
12:30	2	39	23	0	5	19	6	0	21	28	5	4	13	15	14	6	200	10	190
12:45	7	31	22	2	6	19	9	1	26	34	3	2	20	16	17	5	220	10	210
Hour	21	135	88	12	18	67	35	3	80	139	22	12	70	73	60	19	854	46	808

Weather :  
 Counted by: Sarah and Vallia  
 Board # :  
 Other :

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 Horsham, PA.

Study Name: TMC9833  
 Site Code : 98330202  
 Start Date: 08/19/98  
 Page : 2

Vehicle group 1

Start Time	CSAH 49 (HODGSON RD) Southbound				CSAH 32 (CR "J") Westbound				CSAH 49 (HODGSON RD) Northbound				CSAH 32 (CR "J") Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
13:00	9	35	23	1	2	15	3	1	19	37	5	3	15	21	21	1	211	6	205
13:15	4	37	31	4	5	17	7	4	18	30	4	3	17	23	10	4	218	15	203
13:30	4	18	23	0	7	17	9	2	28	40	6	3	17	19	13	6	212	11	201
13:45	6	30	25	1	9	16	9	3	28	40	5	6	16	20	12	4	230	14	216
Hour	23	120	102	6	23	65	28	10	93	147	20	15	65	83	56	15	871	46	825
14:00	5	24	24	1	5	21	6	1	17	27	9	3	15	20	16	3	197	8	189
14:15	6	29	19	3	6	23	5	0	13	35	5	0	18	28	22	5	217	8	209
14:30	4	39	16	2	6	21	11	3	29	37	7	2	18	27	14	2	238	9	229
14:45	4	31	17	2	5	27	9	0	20	48	5	3	36	15	19	2	243	7	236
Hour	19	123	76	8	22	92	31	4	79	147	26	8	87	90	71	12	895	32	863
15:00	12	25	24	5	8	16	5	1	29	48	8	1	21	17	7	0	227	7	220
15:15	7	29	26	1	5	23	6	2	30	70	5	4	30	35	13	3	289	10	279
15:30	8	36	19	0	3	24	8	1	29	77	6	2	36	31	8	3	291	6	285
15:45	6	39	28	3	2	37	12	6	34	84	7	3	40	32	9	4	346	16	330
Hour	33	129	97	9	18	100	31	10	122	279	26	10	127	115	37	10	1153	39	1114
16:00	9	28	15	3	3	46	8	2	20	86	7	5	40	26	19	3	320	13	307
16:15	7	37	16	4	5	33	13	3	24	93	10	2	41	41	11	1	341	10	331
16:30	16	41	26	2	10	38	19	3	20	99	9	0	55	40	23	1	402	6	396
16:45	7	37	24	6	6	55	23	5	30	93	15	2	65	41	21	3	433	16	417
Hour	39	143	81	15	24	172	63	13	94	371	41	9	201	148	74	8	1496	45	1451
17:00	6	39	18	1	6	62	26	7	21	99	18	1	66	31	17	4	422	13	409
17:15	11	44	22	2	7	54	28	1	21	93	9	3	68	44	19	1	427	7	420
17:30	7	35	20	1	5	41	14	0	26	100	12	2	67	47	17	3	397	6	391
17:45	6	44	22	0	9	42	14	0	28	81	7	4	67	51	23	3	401	7	394
Hour	30	162	82	4	27	199	82	8	96	373	46	10	268	173	76	11	1647	33	1614
18:00	8	46	26	1	13	37	13	1	26	86	4	1	46	36	13	0	357	3	354
18:15	12	40	26	0	8	33	8	1	24	60	12	4	46	36	13	1	324	6	318
18:30	12	30	30	1	8	20	12	0	22	49	10	0	54	38	15	0	301	1	300
18:45	8	45	33	0	4	26	12	0	28	37	12	0	45	32	21	0	303	0	303
Hour	40	161	115	2	33	116	45	2	100	232	38	5	191	142	62	1	1285	10	1275
19:00	8	37	23	0	8	21	10	2	17	43	6	1	27	25	20	0	248	3	245
19:15	7	28	23	0	5	20	13	1	15	46	11	1	25	27	15	2	239	4	235
19:30	5	30	29	0	4	20	6	0	11	32	4	0	23	20	10	1	195	1	194
19:45	7	24	20	0	2	17	6	2	15	33	4	1	31	21	17	1	201	4	197
Hour	27	119	95	0	19	78	35	5	58	154	25	3	106	93	62	4	883	12	871

Weather :  
 Counted by: Sarah and Vallie  
 Board # :  
 ther :

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Study Name: TMC9833  
 Site Code : 98330202  
 Start Date: 08/19/98  
 Page : 3

Vehicle group 1

Start Time	CSAH 49 (HODGSON RD) Southbound				CSAH 32 (CR "J") Westbound				CSAH 49 (HODGSON RD) Northbound				CSAH 32 (CR "J") Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
20:00	7	26	11	0	2	22	8	0	16	38	10	1	27	13	12	1	194	2	192
20:15	6	31	21	1	4	21	6	0	17	34	5	1	17	21	14	0	199	2	197
20:30	1	32	17	0	8	22	8	0	20	49	4	0	20	15	14	0	210	0	210
20:45	10	27	16	0	6	13	12	0	16	37	5	1	21	7	13	0	184	1	183
Hour	24	116	65	1	20	78	34	0	69	158	24	3	85	56	53	1	787	5	782
21:00	6	12	9	2	2	11	11	2	11	47	4	0	26	15	12	0	170	4	166
21:15	1	17	7	0	3	12	12	0	15	43	6	1	18	13	6	0	154	1	153
21:30	6	15	11	1	2	14	7	0	12	24	9	0	14	12	11	0	138	1	137
21:45	4	12	11	0	5	11	5	0	9	30	2	0	7	12	7	0	115	0	115
Hour	17	56	38	3	12	48	35	2	47	144	21	1	65	52	36	0	577	6	571
Total	442	2818	1740	123	361	1492	528	109	1196	2631	371	127	1572	1583	990	162	16245	521	15724
% Apr.	8.6	55.0	33.9	2.4	14.4	59.9	21.2	4.3	27.6	60.8	8.5	2.9	36.4	36.7	22.9	3.7	-	-	-
% Int.	2.7	17.3	10.7	0.7	2.2	9.1	3.2	0.6	7.3	16.1	2.2	0.7	9.6	9.7	6.0	0.9	-	-	-

Major Street Approaches:

Northbound:

CSAH 49 (HODGSON RD)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9833.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/19/98  
 Number of Lanes: 2  
 Approach Speed: 0  
 Total Approach Traffic: 4198

Southbound:

CSAH 49 (HODGSON RD)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9833.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/19/98  
 Number of Lanes: 2  
 Approach Speed: 50  
 Total Approach Traffic: 5000

Minor Street Approaches:

Eastbound:

CSAH 32 (CR "J")

Data File: C:\APPS\PETRA2\DATAFILE\TMC9833.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/19/98  
 Number of Lanes: 2  
 Approach Speed: 35  
 Total Approach Traffic: 4145

Westbound:

CSAH 32 (CR "J")

Data File: C:\APPS\PETRA2\DATAFILE\TMC9833.PDF  
 Count Type: IMC. Channel: 0. Count Date: 8/19/98  
 Number of Lanes: 1  
 Approach Speed: 35  
 Total Approach Traffic: 2383

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	731	184 E 13	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
7	921	324 E 4	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
8	627	225 E 8	--BOTH-- 140	SIDE 70	--BOTH-- 112
9	436	157 E 15	--BOTH-- 140	SIDE 70	SIDE 112
10	395	169 E 14	SIDE 140	SIDE 70	SIDE 112
11	441	209 E 9	--BOTH-- 140	SIDE 70	SIDE 112
12	485	203 E 11	--BOTH-- 140	SIDE 70	SIDE 112
13	505	204 E 10	--BOTH-- 140	SIDE 70	--BOTH-- 112
14	470	248 E 7	--BOTH-- 140	SIDE 70	SIDE 112
15	686	279 E 5	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
16	769	423 E 2	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
17	789	517 E 1	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
18	686	395 E 3	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
19	478	261 E 6	--BOTH-- 140	SIDE 70	SIDE 112
20	456	194 E 12	--BOTH-- 140	SIDE 70	SIDE 112
21	323	153 E 16	SIDE 140	SIDE 70	SIDE 112
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

SATISFIED for 14 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: 1614.

- 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

SATISFIED for 8 hours. Criteria--Main: 504; Side: See Volume Summary.

## Warrant 9 - Four Hour Volumes

SATISFIED for 9 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.: 150.

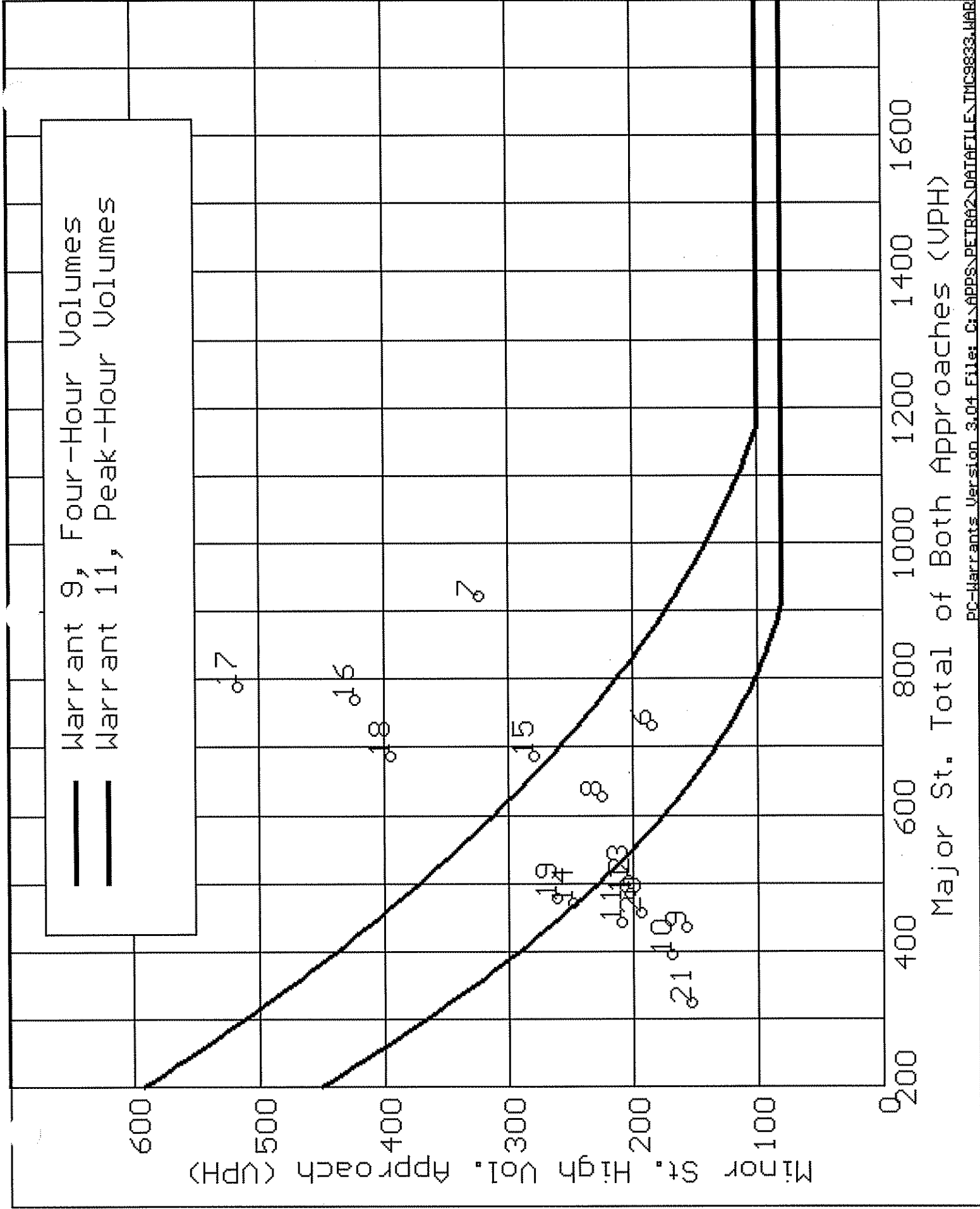
## Warrant 11 - Peak Hour Volume

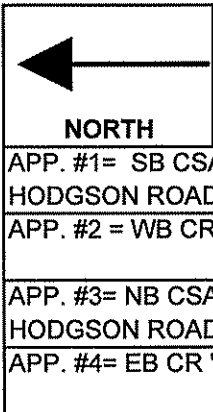
SATISFIED for 5 hours.

Minor St. High Vol. Approach (VPH)

Warrant 9, Four-Hour Volumes  
Warrant 11, Peak-Hour Volumes

Major St. Total of Both Approaches (VPH)





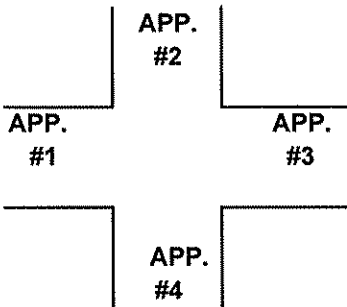
COUNT LOCATION:

CR "J"

DATE:

8/19/98

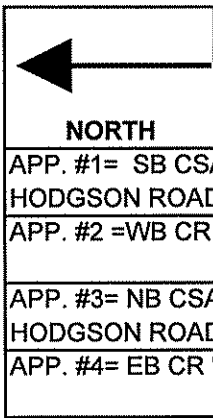
@ CSAH 49 (HODGSON ROAD)



- 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				1	1	5		
6:15-6:30						3		
6:30-6:45						7	1	1
6:45-7:00						8	1	2
<b>HOURLY TOTAL</b>					<b>1</b>	<b>HOURLY TOTAL</b>		<b>28</b>
7:00-7:15						11		
7:15-7:30						9		2
7:30-7:45				1	1	8		
7:45-8:00						11		
<b>HOURLY TOTAL</b>					<b>1</b>	<b>HOURLY TOTAL</b>		<b>41</b>
8:00-8:15			1		1	18	1	1
8:15-8:30			1		1	12		
8:30-8:45						12		
8:45-9:00						11		
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>55</b>
9:00-9:15			6		6	16		
9:15-9:30						9		
9:30-9:45						5		
9:45-10:00			1		1	11		
<b>HOURLY TOTAL</b>					<b>7</b>	<b>HOURLY TOTAL</b>		<b>41</b>
10:00-10:15		3	6		9	12	1	
10:15-10:30	1		2		3	12		
10:30-10:45						12		
10:45-11:00		1	1	2	4	5		
<b>HOURLY TOTAL</b>					<b>16</b>	<b>HOURLY TOTAL</b>		<b>42</b>
11:00-11:15			2		2	8		
11:15-11:30						8		
11:30-11:45		2	2		4	14		
11:45-12:00				1	1	5		1
<b>HOURLY TOTAL</b>					<b>7</b>	<b>HOURLY TOTAL</b>		<b>36</b>
12:00-12:15			2		2	14		
12:15-12:30						12		
12:30-12:45			5		5	10		
12:45-1:00	4	2	1		7	9	1	
<b>HOURLY TOTAL</b>					<b>14</b>	<b>HOURLY TOTAL</b>		<b>46</b>
1:00-1:15	1		2		3	6		
1:15-1:30	2				2	14		
1:30-1:45			6		6	11		
1:45-2:00			2		2	12	2	
<b>HOURLY TOTAL</b>					<b>13</b>	<b>HOURLY TOTAL</b>		<b>45</b>





COUNT LOCATION:

CR "J"

DATE:

8/17/98

@ CSAH 49 (HODGSON ROAD)

APP. #2

HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT

APP. #1

APP. #3

A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.

APP. #4

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						7		1
2:15-2:30		1	1		2	9		
2:30-2:45						9		
2:45-3:00		2	2		4	7		
<b>HOURLY TOTAL</b>					<b>6</b>	<b>HOURLY TOTAL</b>		<b>33</b>
3:00-3:15			6		6	7		
3:15-3:30	1			1	2	11		
3:30-3:45						6		
3:45-4:00		2	10		12	14		
<b>HOURLY TOTAL</b>					<b>20</b>	<b>HOURLY TOTAL</b>		<b>38</b>
4:00-4:15						14		
4:15-4:30						4		
4:30-4:45						7		
4:45-5:00						13		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>39</b>
5:00-5:15	1				1	13		
5:15-5:30		1			1	6		1
5:30-5:45	1			2	3	5		1
5:45-6:00		1	1		2	6		1
<b>HOURLY TOTAL</b>					<b>7</b>	<b>HOURLY TOTAL</b>		<b>33</b>
6:00-6:15			2	1	3	3		
6:15-6:30		2	1	1	4	8		
6:30-6:45			6	1	7	2		
6:45-7:00			2		2			
<b>HOURLY TOTAL</b>					<b>16</b>	<b>HOURLY TOTAL</b>		<b>13</b>
7:00-7:15		2	2		4	1	1	1
7:15-7:30			2	2	4	4		
7:30-7:45			2		2	1		
7:45-8:00		2			2	4		
<b>HOURLY TOTAL</b>					<b>12</b>	<b>HOURLY TOTAL</b>		<b>12</b>
8:00-8:15			2		2	2		
8:15-8:30						2		
8:30-8:45								
8:45-9:00						1		
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>5</b>
9:00-9:15			1		1	4		
9:15-9:30						1		
9:30-9:45			2		2	1		
9:45-10:00								
<b>HOURLY TOTAL</b>					<b>3</b>	<b>HOURLY TOTAL</b>		<b>6</b>