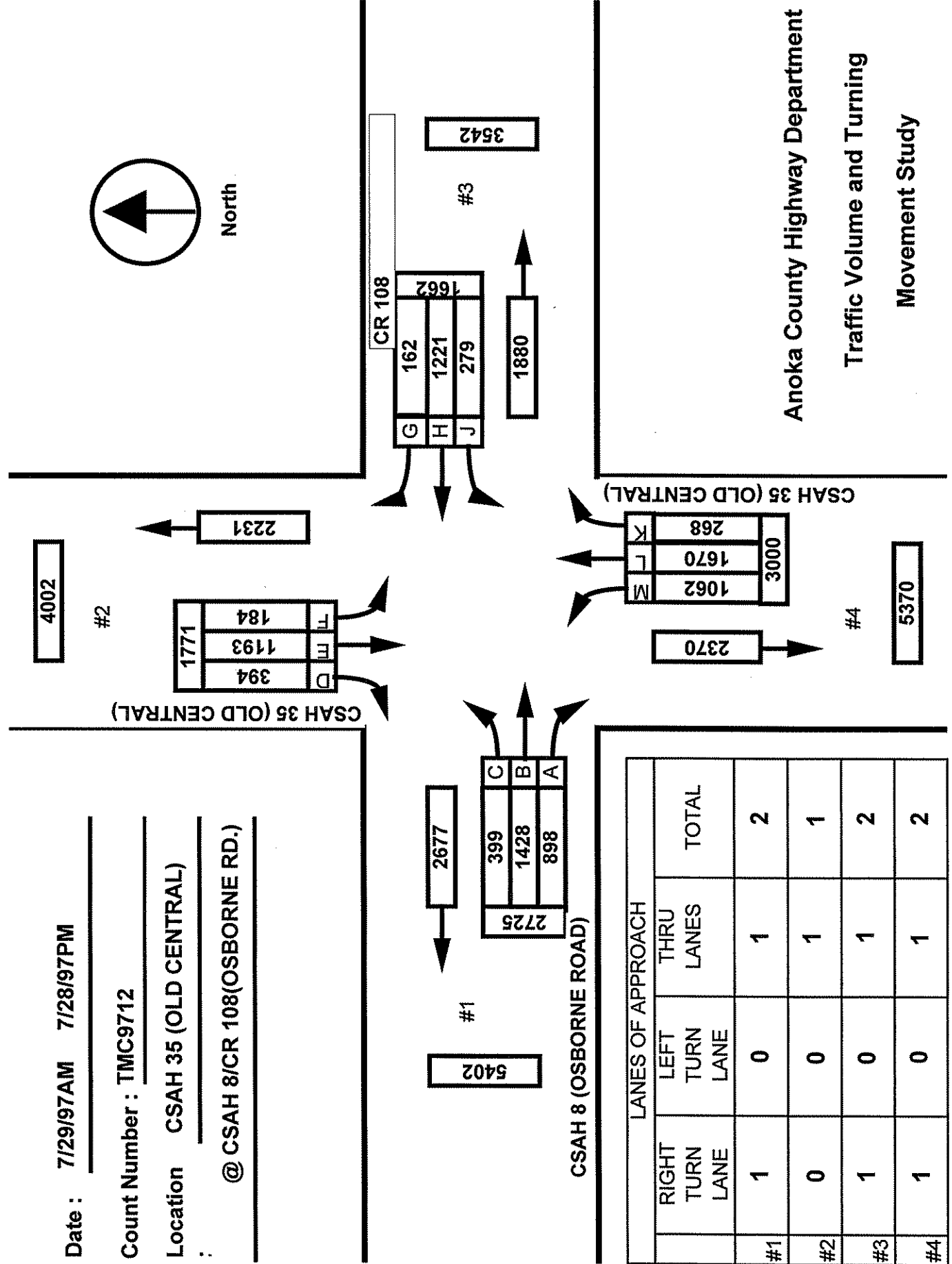


Date : 7/29/97AM 7/28/97PM

Count Number : TMC9712

Location CSAH 35 (OLD CENTRAL)

@ CSAH 8/CR 108(OSBORNE RD.)



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

PETRA Software

Weather :SUNNY AND 80  
 Counted by:SARAM AND JANELLE  
 Board # :  
 ther :

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Study Name: TMC9712  
 Site Code : 97120202  
 Start Date: 07/29/97  
 Page : 1

Vehicle group 1

Start Time	CSAH 35 (OLD CENTRAL) Southbound				CR 108 Westbound				CSAH 35 (OLD CENTRAL) Northbound				CSAH 8 (OSBORNE ROAD) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
07/29/97																			
06:00	1	14	7	2	3	4	1	0	6	6	2	1	2	5	4	0	58	3	55
06:15	2	17	5	2	8	15	3	0	4	4	0	0	3	8	9	0	80	2	78
06:30	0	29	7	5	6	20	0	0	14	10	1	1	5	14	8	2	122	8	114
06:45	1	26	7	3	9	13	2	1	9	13	2	1	3	8	11	1	110	6	104
Hour	4	86	26	12	26	52	6	1	33	33	5	3	13	35	32	3	370	19	351
07:00	4	25	6	3	5	11	3	1	4	7	0	0	4	12	11	3	99	7	92
07:15	4	26	7	3	10	16	0	0	12	11	1	1	2	11	8	0	112	4	108
07:30	0	27	2	0	14	35	7	0	14	14	1	1	7	16	24	3	165	4	161
07:45	2	28	4	4	8	17	1	3	7	16	1	2	4	14	15	2	128	11	117
Hour	10	106	19	10	37	79	11	4	37	48	3	4	17	53	58	8	504	26	478
08:00	2	14	4	0	5	20	2	0	11	19	10	2	6	8	12	0	115	2	113
08:15	1	10	3	2	3	20	3	1	14	8	5	2	6	16	6	2	102	7	95
08:30	1	13	5	1	6	22	3	1	13	29	4	0	6	3	10	2	119	4	115
08:45	0	10	7	0	6	12	0	0	11	14	0	1	6	20	6	2	95	3	92
Hour	4	47	19	3	20	74	8	2	49	70	19	5	24	47	34	6	431	16	415
09:00	1	10	7	5	3	26	2	1	4	15	5	3	6	14	6	2	110	11	99
09:15	3	14	9	1	2	21	2	2	11	7	2	2	3	17	19	4	119	9	110
09:30	4	11	6	1	2	17	2	0	13	18	6	6	5	11	22	3	127	10	117
09:45	3	12	7	1	4	17	0	2	12	16	3	5	6	23	11	2	124	10	114
Hour	11	47	29	8	11	81	6	5	40	56	16	16	20	65	58	11	480	40	440
10:00	2	6	7	3	4	13	6	3	15	21	3	3	2	22	8	3	121	12	109
10:15	6	18	7	2	4	25	4	2	20	12	1	3	8	22	10	2	146	9	137
10:30	1	7	3	0	4	14	0	3	17	19	7	4	10	24	7	2	122	9	113
10:45	2	8	7	0	2	21	1	3	12	20	2	1	4	22	12	0	117	4	113
Hour	11	39	24	5	14	73	11	11	64	72	13	11	24	90	37	7	506	34	472
11:00	2	18	7	1	7	17	2	0	20	28	4	3	5	20	7	2	143	6	137
11:15	1	25	17	3	5	14	1	0	21	44	8	4	4	30	18	4	199	11	188
11:30	4	18	12	2	2	21	2	1	36	43	3	3	10	25	20	5	207	11	196
11:45	2	31	12	1	3	14	4	0	27	34	11	2	9	30	21	4	205	7	198
Hour	9	92	48	7	17	66	9	1	104	149	26	12	28	105	66	15	754	35	719
12:00	2	26	14	6	6	23	2	1	24	31	4	4	7	32	15	1	198	12	186
12:15	2	32	9	3	4	18	2	0	20	35	5	1	9	19	24	1	184	5	179
12:30	4	29	7	2	10	29	4	1	20	26	3	1	11	27	29	4	207	8	199
12:45	0	29	7	1	4	10	1	0	9	25	7	1	8	23	19	0	144	2	142
Hour	8	116	37	12	24	80	9	2	73	117	19	7	35	101	87	6	733	27	706

Weather :SUNNY AND 80  
 Counted by:SARAH AND JANELLE  
 Board # :  
 ther :

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Study Name: TMC9712  
 Site Code : 97120202  
 Start Date: 07/29/97  
 Page : 2

Vehicle group 1

Start Time	CSAH 35 (OLD CENTRAL) Southbound				CR 108 Westbound				CSAH 35 (OLD CENTRAL) Northbound				CSAH 8 (OSBORNE ROAD) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
13:00	4	20	5	0	7	14	3	0	24	21	7	4	6	17	16	4	152	8	144
13:15	2	17	4	1	7	17	5	2	25	29	4	1	8	20	14	2	158	6	152
13:30	6	27	6	2	6	19	0	0	14	19	4	1	10	26	22	3	165	6	159
13:45	4	19	8	1	2	12	0	2	16	31	2	1	6	19	15	1	139	5	134
Hour	16	83	23	4	22	62	8	4	79	100	17	7	30	82	67	10	614	25	589
14:00	6	19	6	3	2	19	3	1	14	22	1	2	7	21	15	2	143	8	135
14:15	3	21	8	1	5	9	2	0	15	17	6	0	11	25	13	4	140	5	135
14:30	3	18	6	0	6	27	1	1	22	25	6	3	7	21	23	3	172	7	165
14:45	5	17	7	0	2	25	2	1	15	26	4	3	13	18	15	7	160	11	149
Hour	17	75	27	4	15	80	8	3	66	90	17	8	38	85	66	16	615	31	584
15:00	6	19	4	0	9	14	2	1	13	62	4	1	11	33	22	1	202	3	199
15:15	1	17	11	2	4	29	0	1	23	46	6	3	4	23	17	2	189	8	181
15:30	3	15	10	3	4	20	5	0	38	60	6	4	15	40	19	4	246	11	235
15:45	4	23	6	0	4	33	5	1	29	39	8	5	13	35	18	3	226	9	217
Hour	14	74	31	5	21	96	12	3	103	207	24	13	43	131	76	10	863	31	832
16:00	7	22	7	2	2	20	4	0	23	75	3	2	12	40	9	1	229	5	224
16:15	5	33	10	2	2	35	4	1	20	58	7	1	17	32	21	3	251	7	244
16:30	4	34	9	0	4	33	9	0	34	66	3	1	10	46	17	2	272	3	269
16:45	6	27	6	0	3	26	3	1	31	74	8	2	7	36	20	5	255	8	247
Hour	22	116	32	4	11	114	20	2	108	273	21	6	46	154	67	11	1007	23	984
17:00	2	24	8	2	5	29	5	1	32	77	7	1	11	45	23	3	275	7	268
17:15	4	27	9	0	5	26	4	0	30	46	6	1	5	35	13	1	212	2	210
17:30	4	19	6	0	1	33	3	1	22	62	4	1	6	45	22	1	230	3	227
17:45	5	20	1	0	2	22	6	1	23	38	8	1	7	36	15	1	186	3	183
Hour	15	90	24	2	13	110	18	3	107	223	25	4	29	161	73	6	903	15	888
18:00	6	29	4	0	4	28	2	0	23	31	8	0	4	34	18	1	192	1	191
18:15	4	11	6	0	3	11	3	0	18	26	7	2	6	21	15	1	134	3	131
18:30	5	14	2	0	7	19	2	0	18	17	8	1	5	32	13	1	144	2	142
18:45	5	12	5	0	2	21	2	1	10	23	6	0	3	27	15	2	134	3	131
Hour	20	66	17	0	16	79	9	1	69	97	29	3	18	114	61	5	604	9	595
19:00	1	17	4	0	5	21	3	0	14	9	6	0	3	17	9	0	109	0	109
19:15	4	13	4	1	5	18	4	0	13	18	7	0	4	16	10	1	118	2	116
19:30	4	13	6	0	5	18	2	0	6	13	4	1	2	23	9	1	107	2	105
19:45	2	20	4	2	4	22	2	1	10	13	1	0	5	17	7	0	110	3	107
Hour	11	63	18	3	19	79	11	1	43	53	18	1	14	73	35	2	444	7	437

PETRA Software

Weather :SUNNY AND 80  
 Counted by:SARAH AND JANELLE  
 Board # :  
 ther :

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Study Name: TMC9712  
 Site Code : 97120202  
 Start Date: 07/29/97  
 Page : 3

Vehicle group 1

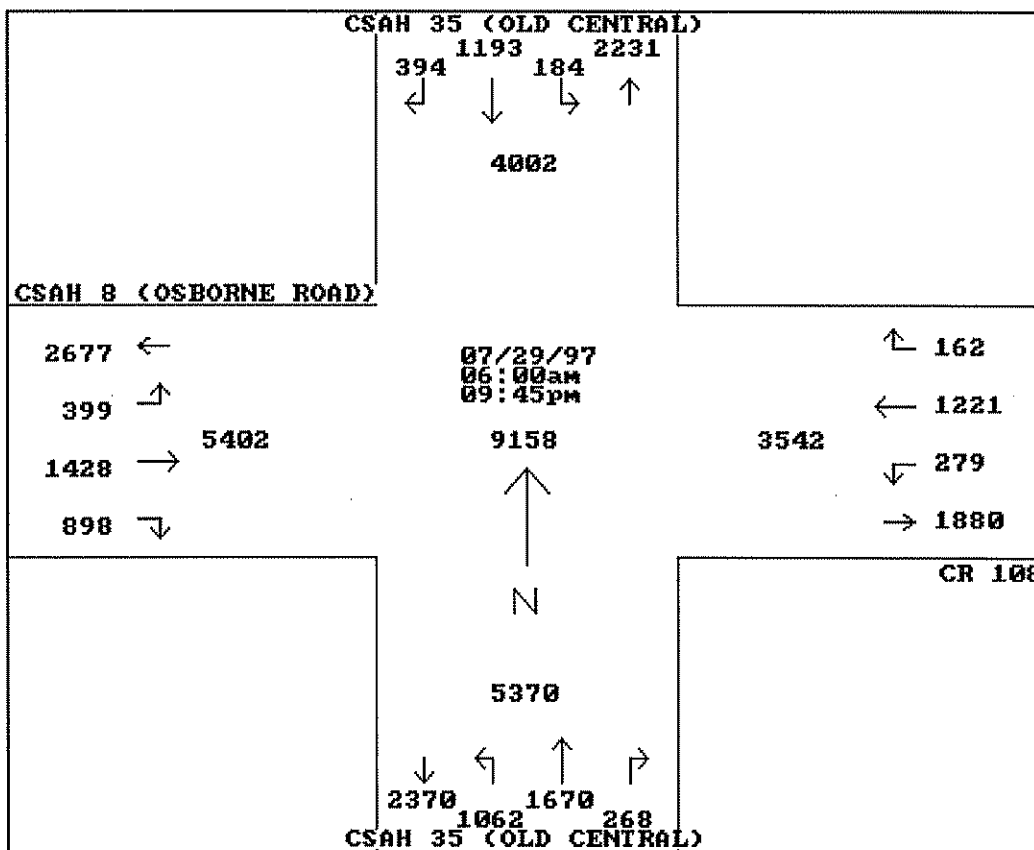
Start Time	CSAH 35 (OLD CENTRAL) Southbound				CR 108 Westbound				CSAH 35 (OLD CENTRAL) Northbound				CSAH 8 (OSBORNE ROAD) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
20:00	1	16	3	0	2	11	1	0	16	13	3	0	5	28	14	0	113	0	113
20:15	4	12	1	0	2	22	1	0	12	12	4	0	2	17	12	1	102	1	101
20:30	1	14	4	0	1	10	1	1	11	13	5	1	3	18	11	0	94	2	92
20:45	1	10	2	1	3	13	3	0	12	14	0	3	3	15	10	0	90	4	86
Hour	7	52	10	1	8	56	6	1	51	52	12	4	13	78	47	1	399	7	392
21:00	3	9	2	0	3	11	1	0	9	5	1	1	3	24	9	0	81	1	80
21:15	2	7	3	1	2	12	4	0	5	15	1	0	2	17	9	0	80	1	79
21:30	0	10	3	0	0	10	4	0	12	6	1	1	2	9	8	1	67	2	65
21:45	0	15	2	0	0	7	1	1	10	4	1	0	0	4	8	1	54	2	52
Hour	5	41	10	1	5	40	10	1	36	30	4	2	7	54	34	2	282	6	276
Total	184	1193	394	81	279	1221	162	45	1062	1670	268	106	399	1428	898	119	9509	351	9158
% Apr.	9.9	64.4	21.2	4.3	16.3	71.5	9.4	2.6	34.1	53.7	8.6	3.4	14.0	50.2	31.5	4.1	-	-	-
% Int.	1.9	12.5	4.1	0.8	2.9	12.8	1.7	0.4	11.1	17.5	2.8	1.1	4.1	15.0	9.4	1.2	-	-	-

Weather :SUNNY AND 80  
Counted by:SARAH AND JANELLE  
Board # :  
Other :

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Study Name: TMC9712  
Site Code : 97120202  
Start Date: 07/29/97

Southbound: CSAH 35 (OLD CENTRAL)  
Westbound: CR 108  
Northbound: CSAH 35 (OLD CENTRAL)  
Eastbound: CSAH 8 (OSBORNE ROAD)



Major Street Approaches:

Northbound:

CSAH 35 (OLD CENTRAL)  
 Data File: C:\APPS\PETRA2\DATAFILE\TMC9712.PDF  
 Count Type: IMC. Channel: 0. Count Date: 7/29/97  
 Number of Lanes: 2  
 Approach Speed: 40  
 Total Approach Traffic: 3000

Southbound:

CSAH 35 (OLD CENTRAL)  
 Data File: C:\APPS\PETRA2\DATAFILE\TMC9712.PDF  
 Count Type: IMC. Channel: 0. Count Date: 7/29/97  
 Number of Lanes: 1  
 Approach Speed: 40  
 Total Approach Traffic: 1771

Minor Street Approaches:

Eastbound:

CSAH 8 (OSBORNE ROAD)  
 Data File: C:\APPS\PETRA2\DATAFILE\TMC9712.PDF  
 Count Type: IMC. Channel: 0. Count Date: 7/29/97  
 Number of Lanes: 2  
 Approach Speed: 40  
 Total Approach Traffic: 2725

Westbound:

CR 108  
 Data File: C:\APPS\PETRA2\DATAFILE\TMC9712.PDF  
 Count Type: IMC. Channel: 0. Count Date: 7/29/97  
 Number of Lanes: 2  
 Approach Speed: 40  
 Total Approach Traffic: 1662

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

Hour	Main (Total)	Side Vol.	Dir.	Rank	Warrant 1 Meets?	Warrant 1 Criteria	Warrant 2 Meets?	Warrant 2 Criteria	Warrant 8 Meets?	Warrant 8 Criteria
0	0	0	W	17		200		100		160
1	0	0	W	18		200		100		160
2	0	0	W	19		200		100		160
3	0	0	W	20		200		100		160
4	0	0	W	21		200		100		160
5	0	0	W	22		200		100		160
6	187	84	W	16		200		100		160
7	223	128	E	12		200	SIDE	100		160
8	208	105	E	14		200	SIDE	100		160
9	199	143	E	10		200	SIDE	100		160
10	223	151	E	9		200	SIDE	100		160
11	428	199	E	5	SIDE	200	SIDE	100	SIDE	160
12	370	223	E	4		200	SIDE	100	SIDE	160
13	318	179	E	8		200	SIDE	100	SIDE	160
14	292	189	E	7		200	SIDE	100	SIDE	160
15	453	250	E	3	SIDE	200	SIDE	100	SIDE	160
16	572	267	E	1	SIDE	200	SIDE	100	SIDE	160
17	484	263	E	2	SIDE	200	SIDE	100	SIDE	160
18	298	193	E	6		200	SIDE	100	SIDE	160
19	206	122	E	13		200	SIDE	100		160
20	184	138	E	11		200	SIDE	100		160
21	126	95	E	15		200		100		160
22	0	0	W	23		200		100		160
23	0	0	W	24		200		100		160

## Warrant Summary:

Urban values apply.

## Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 600; Side St.: See Volume Summary.

## Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 900; 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. Peak hour total entering volume 984 does not meet criteria of 1000

- 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: 720; Side: See Volume Summary.

## Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 0 hours.

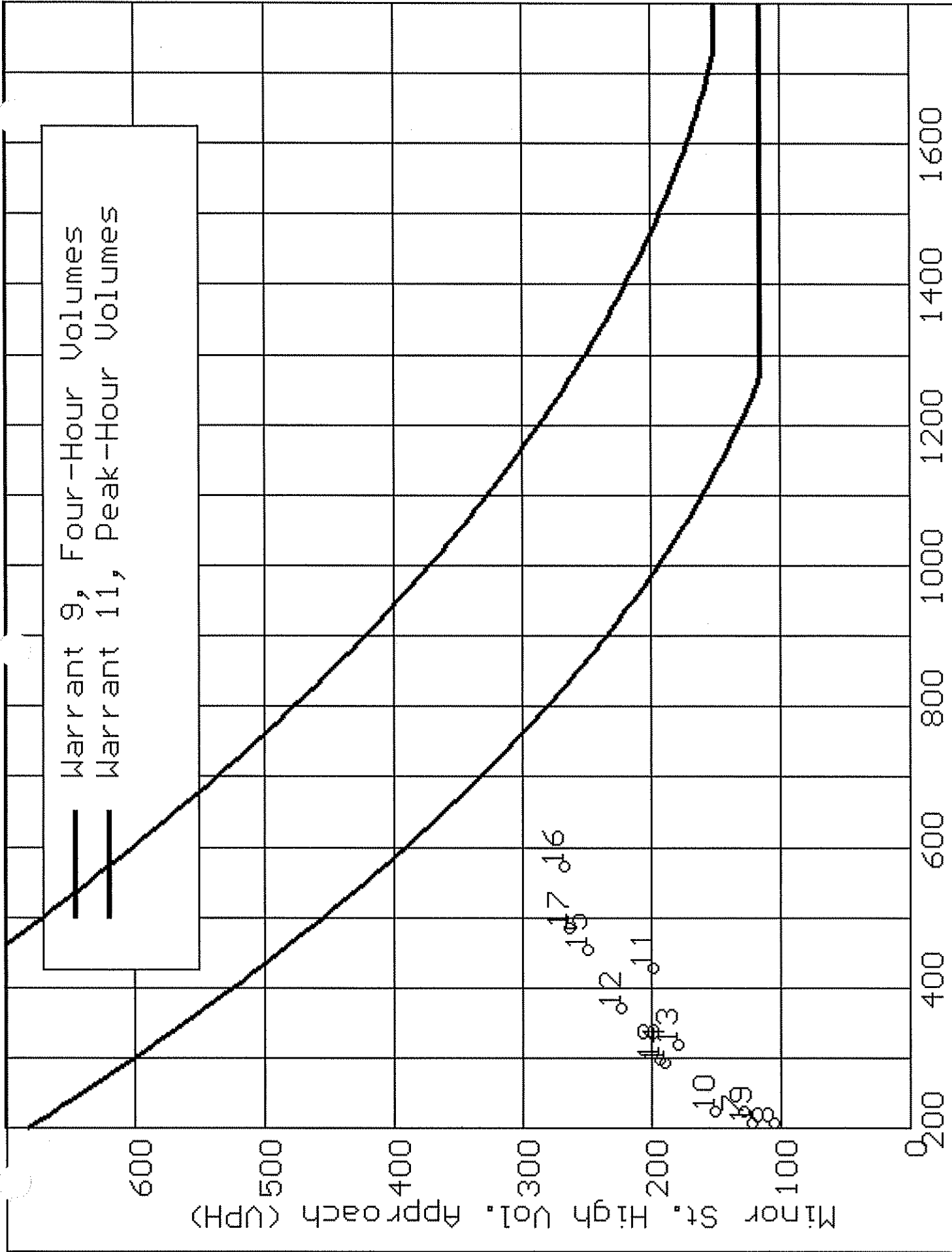
## Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1600 hours) volume not adequate.

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

## Warrant 11 - Peak Hour Volume

NOT SATISFIED.



Major St. Total of Both Approaches (UPH)





**NORTH**

**COUNT LOCATION:** TMC 9712 CSAH 35 (OLD CENTRAL)  
@ CSAH 8/CR 108 (OSBORNE RD.)

**DATE:**

7/29/97

APP. #1=SB CSAH 35  
(OLD CENTRAL)

APP. #2 =WB CR 108

APP. #3=NB CSAH 35  
(OLD CENTRAL)

APP. #4=EB CSAH 8  
(OSBORNE RD.)

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
6:00-6:15AM						2		1
6:15-6:30		1			1	2		
6:30-6:45						6		2
6:45-7:00						4		2
<b>HOURLY TOTAL</b>					<b>1</b>	<b>HOURLY TOTAL</b>		<b>19</b>
7:00-7:15						4		2
7:15-7:30						2		1
7:30-7:45			1	1	2	3		
7:45-8:00						10		1
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>23</b>
8:00-8:15						2		1
8:15-8:30						3		3
8:30-8:45		1			1	3		1
8:45-9:00	1	10			11	3		
<b>HOURLY TOTAL</b>					<b>12</b>	<b>HOURLY TOTAL</b>		<b>16</b>
9:00-9:15						11		
9:15-9:30			1	1	2	9		
9:30-9:45						6		4
9:45-10:00						5		3
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>38</b>
10:00-10:15				1	1	11		1
10:15-10:30		1			1	7		2
10:30-10:45						8		1
10:45-11:00						3		1
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>34</b>
11:00-11:15	2	2		2	6	4		1
11:15-11:30						11		2
11:30-11:45		2				8		1
11:45-12:00	1	1			2	6		1
<b>HOURLY TOTAL</b>					<b>8</b>	<b>HOURLY TOTAL</b>		<b>34</b>
12:00-12:15						11		1
12:15-12:30				5	5	5		
12:30-12:45		2	2		4	8		1
12:45-1:00						2		
<b>HOURLY TOTAL</b>					<b>9</b>	<b>HOURLY TOTAL</b>		<b>28</b>
1:00-1:15	2	2			4	8		
1:15-1:30				1	1	6		
1:30-1:45	2	2			4	6		1
1:45-2:00	1	1		3	5	2		1
<b>HOURLY TOTAL</b>					<b>14</b>	<b>HOURLY TOTAL</b>		<b>24</b>



NORTH

COUNT LOCATION: TMC 9712 CSAH 35 (OLD CENTRAL)  
@ CSAH 8/CR 108 (OSBORNE RD.)

DATE:

7/28/97

APP. #1=SB CSAH 35 (OLD CENTRAL)

APP. #2 =WB CR 108

APP. #3=NB CSAH 35 (OLD CENTRAL)

APP. #4=EB CSAH 8 (OSBORNE RD.)

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						4		1
2:15-2:30	1	1	2	1	5	5		
2:30-2:45	1	1			2	5		2
2:45-3:00	1				1	11		
<b>HOURLY TOTAL</b>					<b>8</b>	<b>HOURLY TOTAL</b>		<b>28</b>
3:00-3:15				2	2	4		
3:15-3:30						6		1
3:30-3:45		1	1		2	9		2
3:45-4:00						6		1
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>29</b>
4:00-4:15			1		1	5		
4:15-4:30	1				1	10		
4:30-4:45								1
4:45-5:00	2				2	4		4
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>24</b>
5:00-5:15	1				1	5		1
5:15-5:30	3			1	4			1
5:30-5:45							1	2
5:45-6:00		1	1		2	1		2
<b>HOURLY TOTAL</b>					<b>7</b>	<b>HOURLY TOTAL</b>		<b>13</b>
6:00-6:15						1		
6:15-6:30						2		1
6:30-6:45						2		
6:45-7:00	1				1	2		1
<b>HOURLY TOTAL</b>					<b>1</b>	<b>HOURLY TOTAL</b>		<b>9</b>
7:00-7:15		1			1			
7:15-7:30						2		
7:30-7:45			2	1	3	2		
7:45-8:00		3			3	2		
<b>HOURLY TOTAL</b>					<b>7</b>	<b>HOURLY TOTAL</b>		<b>6</b>
8:00-8:15	6	1			7			
8:15-8:30								
8:30-8:45			1	4	5	2		
8:45-9:00						1		
<b>HOURLY TOTAL</b>					<b>12</b>	<b>HOURLY TOTAL</b>		<b>3</b>
9:00-9:15						1		
9:15-9:30			2		2			1
9:30-9:45						2		
9:45-10:00						2		
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>6</b>