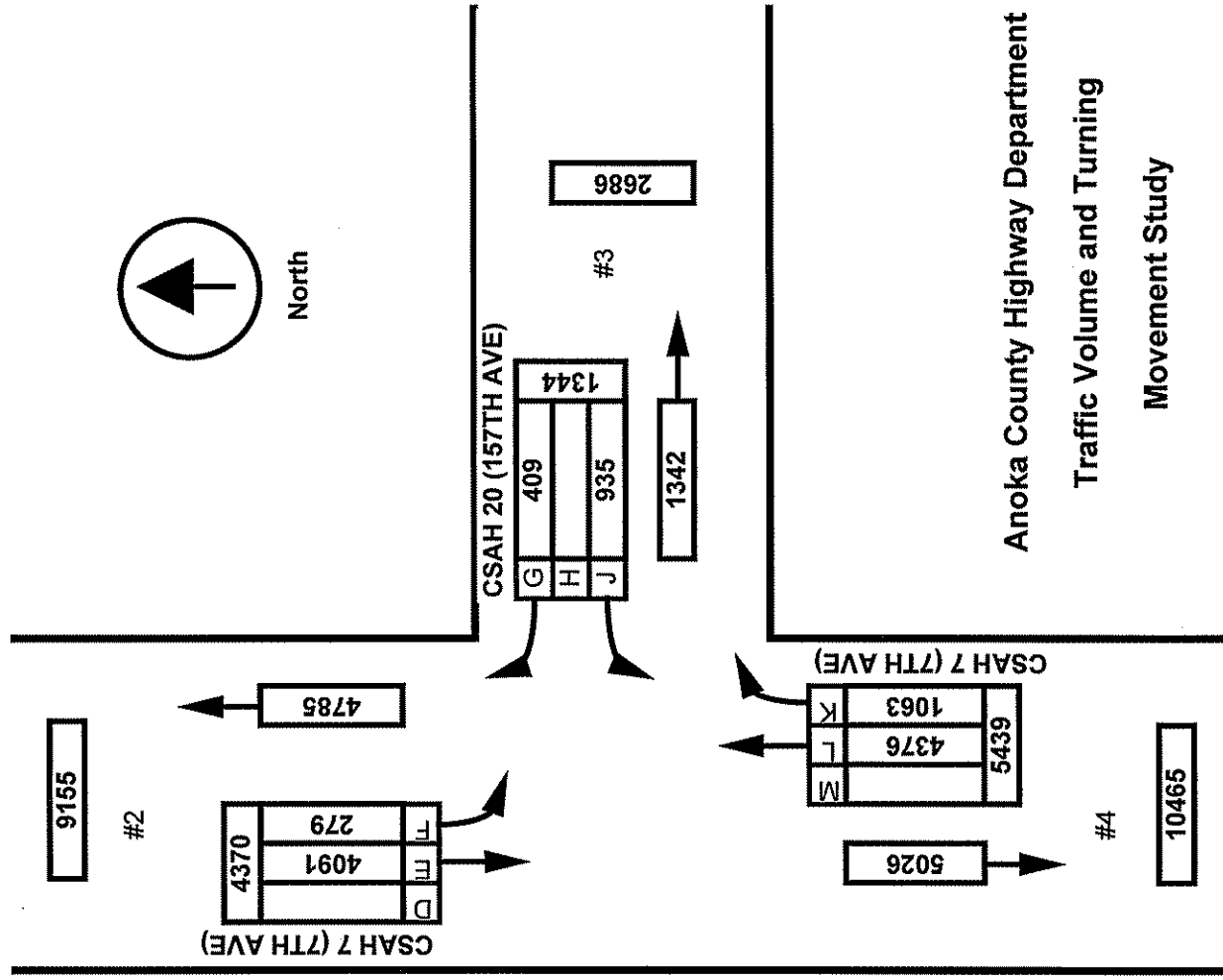


Date : 7/10/98AM 7/9/98PM

Count Number : TMC9827

Location CSAH 7 (7TH AVE) @

CSAH 20 (157TH AVE)



Anoka County Highway Department
Traffic Volume and Turning
Movement Study

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

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

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Study Name: TMC9827
 Site Code : 98270202
 Start Date: 07/10/98
 Page : 1

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound			CSAH 20 (157TH AVE) Westbound			CSAH 7 (7TH AVE) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
07/10/98												
06:00	1	143	3	24	4	1	10	9	2	197	6	191
06:15	8	170	2	24	2	0	15	7	1	229	3	226
06:30	5	164	2	38	5	4	15	4	0	237	6	231
06:45	8	142	0	19	3	0	24	9	3	208	3	205
Hour	22	619	7	105	14	5	64	29	6	871	18	853
07:00	6	141	2	29	1	2	29	8	6	224	10	214
07:15	1	142	4	26	4	1	30	4	6	218	11	207
07:30	3	143	2	39	2	0	33	9	2	233	4	229
07:45	6	106	4	25	0	3	25	9	6	184	13	171
Hour	16	532	12	119	7	6	117	30	20	859	38	821
08:00	3	89	3	26	5	1	22	5	3	157	7	150
08:15	2	94	3	15	2	2	39	6	3	166	8	158
08:30	4	77	3	16	2	1	40	11	3	157	7	150
08:45	8	76	3	12	3	1	32	11	4	150	8	142
Hour	17	336	12	69	12	5	133	33	13	630	30	600
09:00	2	60	0	6	0	0	26	4	4	102	4	98
09:15	5	63	5	16	6	3	36	10	4	148	12	136
09:30	3	63	5	12	6	2	35	11	6	143	13	130
09:45	6	48	1	10	5	4	35	15	2	126	7	119
Hour	16	234	11	44	17	9	132	40	16	519	36	483
10:00	3	32	1	16	4	2	40	13	8	119	11	108
10:15	2	48	3	11	5	1	39	8	5	122	9	113
10:30	4	68	5	13	3	1	43	17	4	158	10	148
10:45	2	56	6	6	5	1	29	10	5	120	12	108
Hour	11	204	15	46	17	5	151	48	22	519	42	477
11:00	2	56	4	12	4	1	47	11	3	140	8	132
11:15	1	55	2	7	11	4	37	9	1	127	7	120
11:30	2	65	2	20	3	1	52	8	5	158	8	150
11:45	2	57	4	8	4	0	37	8	2	122	6	116
Hour	7	233	12	47	22	6	173	36	11	547	29	518
12:00	5	56	7	16	6	1	63	15	2	171	10	161
12:15	4	53	6	10	3	2	54	6	4	142	12	130
12:30	3	51	3	13	6	1	57	9	2	145	6	139
12:45	5	55	2	6	4	2	55	14	5	148	9	139
Hour	17	215	18	45	19	6	229	44	13	606	37	569

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

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Study Name: TMC9827
 Site Code : 98270202
 Start Date: 07/10/98
 Page : 2

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound			CSAH 20 (157TH AVE) Westbound			CSAH 7 (7TH AVE) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
13:00	3	56	4	10	3	1	75	14	7	173	12	161
13:15	4	56	2	16	12	3	54	19	2	168	7	161
13:30	5	60	4	14	7	1	59	16	5	171	10	161
13:45	2	45	5	20	7	5	66	23	11	184	21	163
Hour	14	217	15	60	29	10	254	72	25	696	50	646
14:00	6	57	5	12	6	1	41	17	7	152	13	139
14:15	3	48	4	13	5	1	42	15	6	137	11	126
14:30	4	60	3	19	3	2	71	16	7	185	12	173
14:45	1	42	5	21	9	2	65	23	5	173	12	161
Hour	14	207	17	65	23	6	219	71	25	647	48	599
15:00	3	44	6	15	2	2	103	14	6	195	14	181
15:15	3	47	2	19	3	1	129	28	3	235	6	229
15:30	2	56	2	14	12	1	120	44	2	253	5	248
15:45	6	51	4	13	13	2	140	31	3	263	9	254
Hour	14	198	14	61	30	6	492	117	14	946	34	912
16:00	0	38	2	15	13	2	149	42	5	266	9	257
16:15	4	48	3	10	8	0	138	35	2	248	5	243
16:30	5	53	1	14	11	0	150	48	7	289	8	281
16:45	6	55	0	16	11	3	148	32	7	278	10	268
Hour	15	194	6	55	43	5	585	157	21	1081	32	1049
17:00	5	56	2	17	9	1	171	24	4	289	7	282
17:15	5	44	1	15	13	0	198	31	5	312	6	306
17:30	10	57	1	11	14	1	149	32	5	280	7	273
17:45	10	68	2	23	10	0	110	24	0	247	2	245
Hour	30	225	6	66	46	2	628	111	14	1128	22	1106
18:00	3	62	1	10	15	0	125	19	7	242	8	234
18:15	6	52	1	17	3	0	118	28	1	226	2	224
18:30	7	66	2	16	8	1	86	16	3	205	6	199
18:45	6	68	1	14	9	0	86	17	3	204	4	200
Hour	22	248	5	57	35	1	415	80	14	877	20	857
19:00	4	53	1	8	5	0	81	16	2	170	3	167
19:15	6	52	1	12	5	0	57	16	4	153	5	148
19:30	7	39	1	6	7	0	91	25	3	179	4	175
19:45	5	34	0	7	9	0	60	12	2	129	2	127
Hour	22	178	3	33	26	0	289	69	11	631	14	617

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

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Study Name: TMC9827
 Site Code : 98270202
 Start Date: 07/10/98
 Page : 3

Vehicle group 1

Start Time	CSAH 7 (7TH AVE) Southbound			CSAH 20 (157TH AVE) Westbound			CSAH 7 (7TH AVE) Northbound			Intrvl. Total	Exclude Total	Include Total
	Left	Thru	Other	Left	Right	Other	Thru	Right	Other			
20:00	9	33	0	7	3	2	48	22	2	126	4	122
20:15	5	36	3	11	9	0	61	23	2	150	5	145
20:30	2	28	1	2	14	1	62	8	2	120	4	116
20:45	5	44	0	10	9	0	57	12	3	140	3	137
Hour	21	141	4	30	35	3	228	65	9	536	16	520
21:00	6	25	0	8	10	0	73	19	1	142	1	141
21:15	2	31	0	8	6	0	75	14	0	136	0	136
21:30	6	33	0	8	10	0	61	15	1	134	1	133
21:45	7	21	1	9	8	2	58	13	1	120	4	116
Hour	21	110	1	33	34	2	267	61	3	532	6	526
Total	279	4091	158	935	409	77	4376	1063	237	11625	472	11153
% Apr.	6.1	90.3	3.4	65.7	28.7	5.4	77.0	18.7	4.1	-	-	-
% Int.	2.4	35.1	1.3	8.0	3.5	0.6	37.6	9.1	2.0	-	-	-

Major Street Approaches:

Northbound:

CSAH 7 (7TH AVE)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9827.PDF
 Count Type: IMC. Channel: 0. Count Date: 7/10/98
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 5439

Southbound:

CSAH 7 (7TH AVE)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9827.PDF
 Count Type: IMC. Channel: 0. Count Date: 7/10/98
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 4370

Minor Street Approaches:

Eastbound:

Data File: C:\APPS\PETRA2\DATAFILE\TMC9827.PDF
 Count Type: IMC. Channel: 0. Count Date: 7/10/98
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

Westbound:

CSAH 20 (157TH AVE)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9827.PDF
 Count Type: IMC. Channel: 0. Count Date: 7/10/98
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 1344

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	734	119 W 2	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
7	695	126 W 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
8	519	81 W 9	MAIN 105	SIDE 52	MAIN 84
9	422	61 W 15	MAIN 105	SIDE 52	84
10	414	63 W 14	105	SIDE 52	84
11	449	69 W 10	MAIN 105	SIDE 52	84
12	505	64 W 13	MAIN 105	SIDE 52	MAIN 84
13	557	89 W 7	MAIN 105	SIDE 52	--BOTH-- 84
14	511	88 W 8	MAIN 105	SIDE 52	--BOTH-- 84
15	821	91 W 6	MAIN 105	--BOTH-- 52	--BOTH-- 84
16	951	98 W 4	MAIN 105	--BOTH-- 52	--BOTH-- 84
17	994	112 W 3	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
18	765	92 W 5	MAIN 105	--BOTH-- 52	--BOTH-- 84
19	558	59 W 16	MAIN 105	SIDE 52	MAIN 84
20	455	65 W 12	MAIN 105	SIDE 52	84
21	459	67 W 11	MAIN 105	SIDE 52	84
22	0	0 W 23	105	52	84
23	0	0 W 24	105	52	84

Warrant Summary:

Rural values apply.

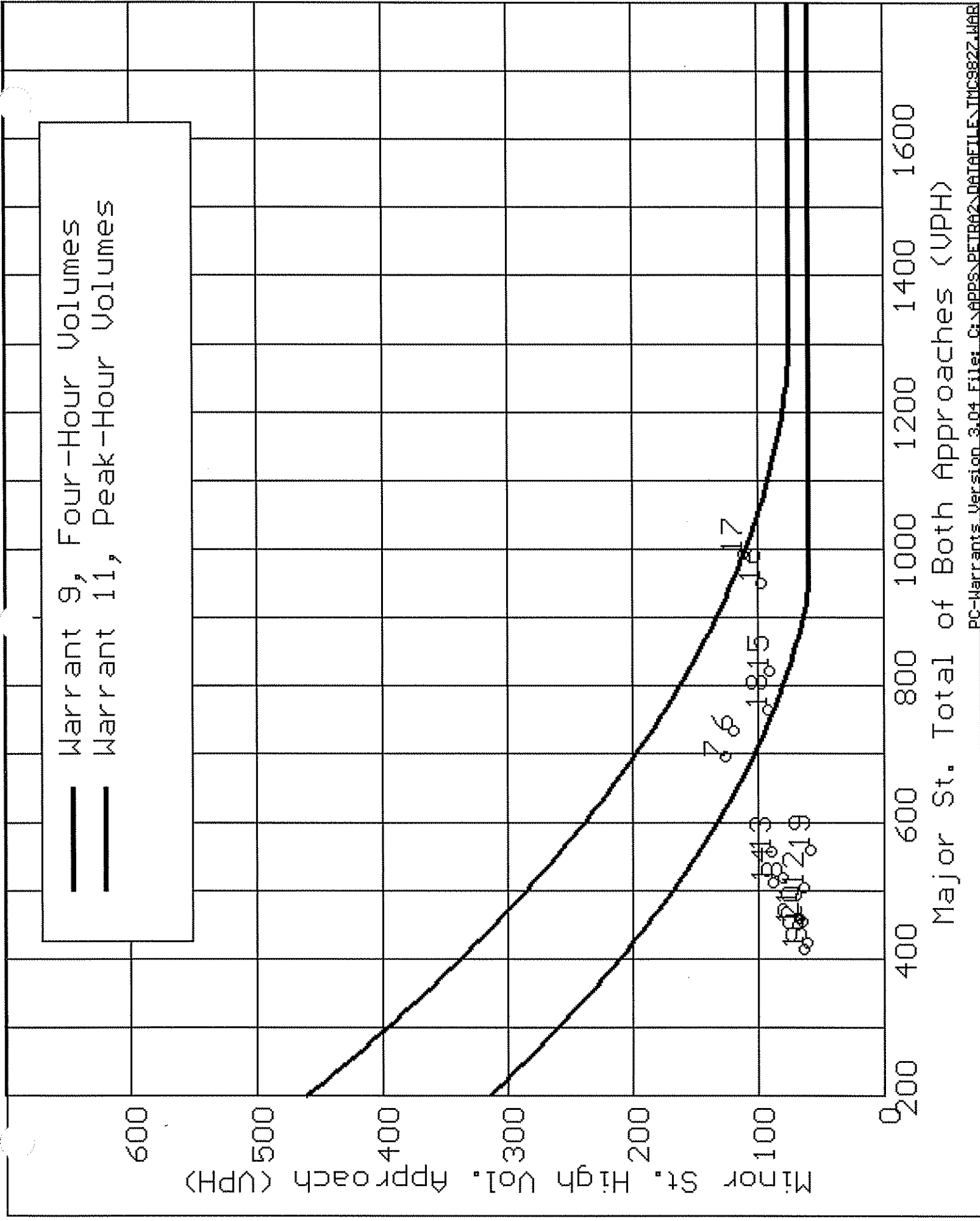
- Warrant 1 - Minimum Vehicular Volumes
NOT SATISFIED. Required values reached for 3 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.
- Warrant 2 - Interruption of Continuous Traffic
NOT SATISFIED. Required values reached for 6 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.
- 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: 1106.
- 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 6 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 1 hours.

Minor St. High Vol. Approach (UPH)

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

200 400 600 800 1000 1200 1400 1600

Major St. Total of Both Approaches (UPH)





NORTH

COUNT LOCATION:

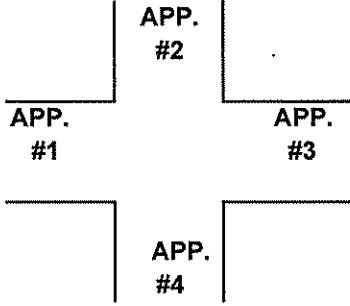
CSAH 7 (7TH AVE) @

DATE:

7/10/98

CSAH 20 (157TH AVE)

APP. #1= NB CSAH 7 (7TH AVE)
APP. #2 = EB (DRIVEWAY)
APP. #3= SB CSAH 7 (7TH AVE)
APP. #4= WB CSAH 20 (157TH AVE)



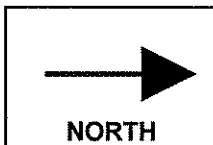
HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT

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
6:00-6:15AM		2		1	3	5	1	
6:15-6:30		1			1	1	2	
6:30-6:45						2	3	1
6:45-7:00						1	2	
HOURLY TOTAL					4	HOURLY TOTAL		18
7:00-7:15						6	1	3
7:15-7:30						10	1	
7:30-7:45			1		1	4		
7:45-8:00			1		1	11	3	
HOURLY TOTAL					2	HOURLY TOTAL		39
8:00-8:15						5	1	
8:15-8:30		1			1	7		1
8:30-8:45				1	1	7		
8:45-9:00						5	3	
HOURLY TOTAL					2	HOURLY TOTAL		29
9:00-9:15						4		
9:15-9:30						7	5	
9:30-9:45						10	3	
9:45-10:00						7		
HOURLY TOTAL						HOURLY TOTAL		36
10:00-10:15						6	4	1
10:15-10:30						8	1	
10:30-10:45						8	2	
10:45-11:00						12		
HOURLY TOTAL						HOURLY TOTAL		42
11:00-11:15						8		
11:15-11:30						6	1	
11:30-11:45						7	2	
11:45-12:00						3	3	
HOURLY TOTAL						HOURLY TOTAL		30
12:00-12:15			1	1	2	9	1	
12:15-12:30				2	2	10	2	
12:30-12:45						4	1	
12:45-1:00						7	2	
HOURLY TOTAL					4	HOURLY TOTAL		36
1:00-1:15						6	3	2
1:15-1:30						6	1	
1:30-1:45				2	2	4	2	
1:45-2:00				1	1	20	4	1
HOURLY TOTAL					3	HOURLY TOTAL		49



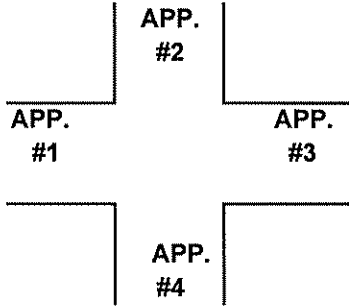
COUNT LOCATION:

CSAH 7 (7TH AVE) @
CSAH 20 (157TH AVE)

DATE:

7/9/98

APP. #1= NB CSAH 7
(7TH AVE)
APP. #2 = EB
(DRIVEWAY)
APP. #3= SB CSAH 7
(7TH AVE)
APP. #4= WB CSAH 20
(157TH 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	1				1	10	2	
2:15-2:30						9	1	1
2:30-2:45						10	2	
2:45-3:00		1			1	8	4	
HOURLY TOTAL					2	HOURLY TOTAL		47
3:00-3:15						15	1	
3:15-3:30						5	1	
3:30-3:45	1				1	2	1	
3:45-4:00						4	5	
HOURLY TOTAL					1	HOURLY TOTAL		34
4:00-4:15						6	2	1
4:15-4:30		1			1	4	2	
4:30-4:45						4	4	1
4:45-5:00						7	4	
HOURLY TOTAL					1	HOURLY TOTAL		35
5:00-5:15				1	1	5	2	
5:15-5:30			1	1	2	5	1	
5:30-5:45		4			4	2	5	
5:45-6:00		1	1		2	1	1	
HOURLY TOTAL					9	HOURLY TOTAL		22
6:00-6:15						4	3	
6:15-6:30				3	3		3	
6:30-6:45				1	1	2	3	
6:45-7:00						3	1	
HOURLY TOTAL					4	HOURLY TOTAL		19
7:00-7:15						1	2	
7:15-7:30				1	1	3	3	
7:30-7:45		1			1		4	
7:45-8:00				1	1	2		
HOURLY TOTAL					3	HOURLY TOTAL		15
8:00-8:15						1	3	
8:15-8:30						1	4	
8:30-8:45		2			2	5		
8:45-9:00		2			2	1	2	
HOURLY TOTAL					4	HOURLY TOTAL		17
9:00-9:15						1		
9:15-9:30		1			1			
9:30-9:45						1		
9:45-10:00						1	2	
HOURLY TOTAL					1	HOURLY TOTAL		5