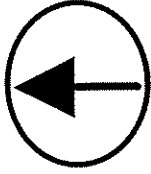


Date : 6/25/96PM 6/27/96AM

Count Number : TMC9607

Location : TH 47 (St. Francis Blvd) @

CSAH 5 (Nowthen Blvd)



North

12047

#2

5979		T
5851	E	
128	D	

6068

TH 47 (ST FRANCIS BLVD.)

2549

#1

4931

2382	C
89	B
2293	A

CSAH 5 (NOWTHEN BLVD)

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

8144

#4

16544

8400		K
5979	L	
2421	M	

Anoka County Highway Department
Traffic Volume and Turning
Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :sunny 85
 Counted by:Ann and Gabe
 Board # :
 ther :

Study Name: TMC9607
 Site Code : 96070202
 Start Date: 06/25/96
 Page : 1

Vehicle group 1

Start Time	TH47 (St. Francis Blvd) From North				From East				TH47 (St. Francis Blvd) From South				CSAH5 (Nowthen Blvd) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
06/25/96																			
06:00	1	176	0	4	0	0	0	0	0	14	8	2	44	0	1	0	250	6	244
06:15	0	187	0	2	0	0	0	0	0	20	9	0	49	0	2	1	270	3	267
06:30	3	197	0	3	0	0	0	0	0	41	13	2	57	0	2	3	321	8	313
06:45	3	185	0	6	0	0	0	0	0	29	22	4	49	0	1	1	300	11	289
Hour	7	745	0	15	0	0	0	0	0	104	52	8	199	0	6	5	1141	28	1113
07:00	0	165	0	3	0	0	0	0	0	47	16	2	39	0	1	0	273	5	268
07:15	6	153	0	3	0	0	0	0	0	44	17	7	49	0	0	1	280	11	269
07:30	3	172	0	7	0	0	0	0	0	51	18	7	58	0	0	1	317	15	302
07:45	1	167	0	3	0	0	0	0	0	59	14	6	40	0	0	3	293	12	281
Hour	10	657	0	16	0	0	0	0	0	201	65	22	186	0	1	5	1163	43	1120
08:00	2	108	0	5	0	0	0	0	0	39	23	8	48	0	1	3	237	16	221
08:15	1	114	0	6	0	0	0	0	0	54	18	6	29	0	1	1	230	13	217
08:30	2	101	0	4	0	0	0	0	0	48	20	7	35	0	1	1	219	12	207
08:45	4	99	0	5	0	0	0	0	0	51	20	5	43	0	1	1	229	11	218
Hour	9	422	0	20	0	0	0	0	0	192	81	26	155	0	4	6	915	52	863
09:00	1	70	0	1	0	0	0	0	0	54	32	3	26	0	3	0	190	4	186
09:15	0	82	0	5	0	0	0	0	0	34	20	7	31	0	2	1	182	13	169
09:30	1	73	0	2	0	0	0	0	0	61	27	7	39	0	2	3	215	12	203
09:45	3	93	0	10	0	0	0	0	0	59	21	9	36	0	0	1	232	20	212
Hour	5	318	0	18	0	0	0	0	0	208	100	26	132	0	7	5	819	49	770
10:00	4	62	0	4	0	0	0	0	0	64	21	6	39	0	0	3	203	13	190
10:15	3	81	0	4	0	0	0	0	0	46	21	4	34	0	2	2	197	10	187
10:30	4	84	0	7	0	0	0	0	0	72	19	8	30	0	1	5	230	20	210
10:45	6	75	0	5	0	0	0	0	0	61	26	7	24	0	0	3	207	15	192
Hour	17	302	0	20	0	0	0	0	0	243	87	25	127	0	3	13	837	58	779
11:00	3	70	0	7	0	0	0	0	0	96	21	9	37	0	1	2	246	18	228
11:15	2	85	0	9	0	0	0	0	0	76	41	7	41	0	1	2	264	18	246
11:30	2	102	0	5	0	0	0	0	0	65	21	9	34	0	2	2	242	16	226
11:45	3	65	0	5	0	0	0	0	0	77	30	3	39	0	1	4	227	12	215
Hour	10	322	0	26	0	0	0	0	0	314	113	28	151	0	5	10	979	64	915
12:00	2	76	0	3	0	0	0	0	0	94	34	7	25	0	1	2	244	12	232
12:15	1	74	0	4	0	0	0	0	0	84	27	7	30	0	2	4	233	15	218
12:30	1	80	0	8	0	0	0	0	0	74	32	7	37	0	1	0	240	15	225
12:45	1	97	0	4	0	0	0	0	0	89	43	13	24	0	0	0	271	17	254
Hour	5	327	0	19	0	0	0	0	0	341	136	34	116	0	4	6	988	59	929

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :sunny 85
 Counted by:Ann and Gabe
 Board # :
 Ther :

Study Name: TMC9607
 Site Code : 96070202
 Start Date: 06/25/96
 Page : 2

Vehicle group 1

Start Time	TH47 (St. Francis Blvd) From North				TH47 (St. Francis Blvd) From East				TH47 (St. Francis Blvd) From South				CSAH5 (Nowthen Blvd) From West				Intvl Total	Exclu Total	Inclu Total
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
13:00	1	65	0	4	0	0	0	0	0	93	41	8	34	0	2	2	250	14	236
13:15	1	79	0	8	0	0	0	0	0	76	30	9	29	0	1	1	234	18	216
13:30	1	78	0	5	0	0	0	0	0	72	27	4	37	0	0	2	226	11	215
13:45	0	91	0	2	0	0	0	0	0	69	18	3	42	0	3	2	230	7	223
Hour	3	313	0	19	0	0	0	0	0	310	116	24	142	0	6	7	940	50	890
14:00	2	71	0	5	0	0	0	0	0	74	26	7	33	0	0	4	222	16	206
14:15	1	76	0	2	0	0	0	0	0	91	34	10	30	0	1	4	249	16	233
14:30	0	86	0	4	0	0	0	0	0	96	36	5	24	0	1	1	253	10	243
14:45	1	80	0	4	0	0	0	0	0	83	33	6	26	0	3	3	239	13	226
Hour	4	313	0	15	0	0	0	0	0	344	129	28	113	0	5	12	963	55	908
15:00	2	61	0	2	0	0	0	0	0	113	41	10	33	0	1	3	266	15	251
15:15	0	75	0	3	0	0	0	0	0	140	56	8	30	0	1	0	313	11	302
15:30	0	78	0	6	0	0	0	0	0	142	50	4	40	0	1	4	325	14	311
15:45	3	82	0	2	0	0	0	0	0	143	59	7	25	0	1	0	322	9	313
Hour	5	296	0	13	0	0	0	0	0	538	206	29	128	0	4	7	1226	49	1177
16:00	3	75	0	2	0	0	0	0	0	162	72	6	39	0	0	2	361	10	351
16:15	2	67	0	2	0	0	0	0	0	205	64	9	34	0	5	1	389	12	377
16:30	2	87	0	4	0	0	0	0	0	202	69	4	28	0	2	0	398	8	390
16:45	3	90	0	3	0	0	0	0	0	175	78	10	42	0	1	2	404	15	389
Hour	10	319	0	11	0	0	0	0	0	744	283	29	143	0	8	5	1552	45	1507
17:00	5	86	0	2	0	0	0	0	0	205	65	3	47	0	2	1	416	6	410
17:15	3	99	0	2	0	0	0	0	0	177	90	6	34	0	4	0	415	8	407
17:30	2	124	0	2	0	0	0	0	0	174	77	1	46	0	1	2	429	5	424
17:45	3	80	0	2	0	0	0	0	0	172	82	5	51	0	0	2	397	9	388
Hour	13	389	0	8	0	0	0	0	0	728	314	15	178	0	7	5	1657	28	1629
18:00	1	76	0	1	0	0	0	0	0	153	62	7	38	0	5	1	344	9	335
18:15	3	91	0	1	0	0	0	0	0	155	61	3	28	0	0	0	342	4	338
18:30	0	92	0	4	0	0	0	0	0	90	38	1	36	0	4	0	265	5	260
18:45	2	80	0	1	0	0	0	0	0	115	71	2	48	0	0	0	319	3	316
Hour	6	339	0	7	0	0	0	0	0	513	232	13	150	0	9	1	1270	21	1249
19:00	1	63	0	1	0	0	0	0	0	118	50	2	35	0	0	1	271	4	267
19:15	1	60	0	1	0	0	0	0	0	118	31	3	29	0	2	0	245	4	241
19:30	4	67	0	1	0	0	0	0	0	114	57	1	27	0	2	0	273	2	271
19:45	1	65	0	0	0	0	0	0	0	108	42	3	41	0	2	0	262	3	259
Hour	7	255	0	3	0	0	0	0	0	458	180	9	132	0	6	1	1051	13	1038

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :sunny 85
 Counted by:Ann and Gabe
 Board # :
 Ther :

Study Name: TMC9607
 Site Code : 96070202
 Start Date: 06/25/96
 Page : 3

Vehicle group 1

Start Time	TH47 (St. Francis Blvd) From North				From East				TH47 (St. Francis Blvd) From South				CSAH5 (Nowthen Blvd) From West				Intvl	Exclu	Inclu	
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY				Total
20:00	2	78	0	1	0	0	0	0	0	0	92	40	2	24	0	2	0	241	3	238
20:15	2	73	0	1	0	0	0	0	0	0	104	45	1	26	0	0	1	253	3	250
20:30	2	73	0	0	0	0	0	0	0	0	84	55	0	40	0	3	0	257	0	257
20:45	2	65	0	0	0	0	0	0	0	0	93	43	1	33	0	3	0	240	1	239
Hour	8	289	0	2	0	0	0	0	0	0	373	183	4	123	0	8	1	991	7	984
21:00	2	62	0	0	0	0	0	0	0	0	106	30	2	29	0	1	0	232	2	230
21:15	2	56	0	1	0	0	0	0	0	0	111	47	1	43	0	2	0	263	2	261
21:30	3	68	0	0	0	0	0	0	0	0	82	34	0	24	0	3	0	214	0	214
21:45	2	59	0	0	0	0	0	0	0	0	69	33	1	22	0	0	0	186	1	185
Hour	9	245	0	1	0	0	0	0	0	0	368	144	4	118	0	6	0	895	5	890
Total	128	5851	0	213	0	0	0	0	0	0	5979	2421	324	2293	0	89	89	17387	626	16761
% Apr.	2.0	94.4	-	3.4	-	-	-	-	-	-	68.5	27.7	3.7	92.7	-	3.6	3.6	-	-	-
% Int.	0.7	33.6	-	1.2	-	-	-	-	-	-	34.3	13.9	1.8	13.1	-	0.5	0.5	-	-	-

Major Street Approaches:

Northbound:

TH47 (St. Francis Blvd)

Data File: C:\PETRA2\DATAFILE\TMC9607.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/25/96
 Number of Lanes: 2
 Approach Speed: 45
 Total Approach Traffic: 8400

Southbound:

TH47 (St. Francis Blvd)

Data File: C:\PETRA2\DATAFILE\TMC9607.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/25/96
 Number of Lanes: 1
 Approach Speed: 50
 Total Approach Traffic: 5979

Minor Street Approaches:

Eastbound:

CSAH5 (Nowthen Blvd)

Data File: C:\PETRA2\DATAFILE\TMC9607.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/25/96
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 2382

Westbound:

Data File: C:\PETRA2\DATAFILE\TMC9607.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/25/96
 Number of Lanes: 1
 Approach Speed: 0
 Total Approach Traffic: 0

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 E 17	140	70	112
1	0	0 E 18	140	70	112
2	0	0 E 19	140	70	112
3	0	0 E 20	140	70	112
4	0	0 E 21	140	70	112
5	0	0 E 22	140	70	112
6	908	205 E 1	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
7	933	187 E 2	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
8	704	159 E 4	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
9	631	139 E 9	MAIN 140	--BOTH-- 70	--BOTH-- 112
10	649	130 E 13	MAIN 140	--BOTH-- 70	--BOTH-- 112
11	759	156 E 6	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
12	809	120 E 15	MAIN 140	--BOTH-- 70	--BOTH-- 112
13	742	148 E 8	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
14	790	118 E 16	MAIN 140	--BOTH-- 70	--BOTH-- 112
15	1045	132 E 11	MAIN 140	--BOTH-- 70	--BOTH-- 112
16	1356	151 E 7	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
17	1444	185 E 3	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
18	1090	159 E 5	--BOTH-- 140	--BOTH-- 70	--BOTH-- 112
19	900	138 E 10	MAIN 140	--BOTH-- 70	--BOTH-- 112
20	853	131 E 12	MAIN 140	--BOTH-- 70	--BOTH-- 112
21	766	124 E 14	MAIN 140	--BOTH-- 70	--BOTH-- 112
22	0	0 E 23	140	70	112
23	0	0 E 24	140	70	112

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

SATISFIED for 8 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

SATISFIED for 16 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: 1629.

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

Warrant 9 - Four Hour Volumes

SATISFIED for 14 hours.

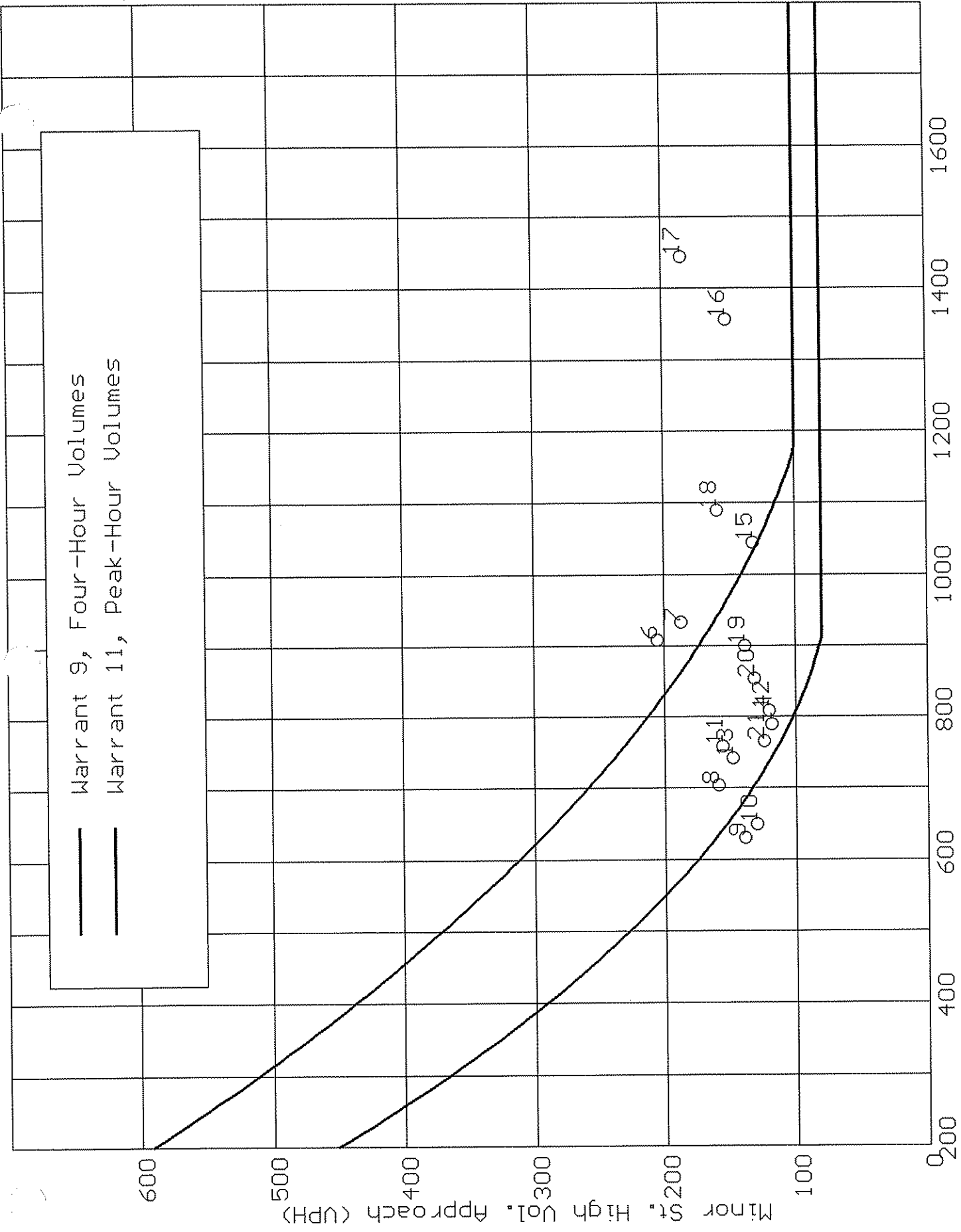
Warrant 10 - Peak Hour Delay

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 6 hours.



Major St. Total of Both Approaches (UPH)



NORTH

APP. #1= NB TH 47

APP. #2= EB CSAH 5

APP. #3= SB TH 47

COUNT LOCATION: TH 47 (ST. FRANCIS BLVD.)
 @ CSAH 5 (NOWTHEN BLVD.)

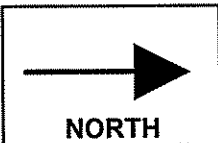
DATE: 6/27/96

APP. #2
55MPH

APP. #1 **APP. #3**
45MPH 50MPH

- 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						3		
6:30-6:45						7		1
6:45-7:00						11		
HOURLY TOTAL						HOURLY TOTAL		27
7:00-7:15						3		2
7:15-7:30						10		1
7:30-7:45						13		2
7:45-8:00						11		1
HOURLY TOTAL						HOURLY TOTAL		43
8:00-8:15						15		1
8:15-8:30						12		1
8:30-8:45						10		2
8:45-9:00						11		
HOURLY TOTAL						HOURLY TOTAL		52
9:00-9:15						4		
9:15-9:30						11		2
9:30-9:45						11		1
9:45-10:00						18		2
HOURLY TOTAL						HOURLY TOTAL		49
10:00-10:15						12		1
10:15-10:30						9		1
10:30-10:45						19		1
10:45-11:00						15		
HOURLY TOTAL						HOURLY TOTAL		58
11:00-11:15						16		2
11:15-11:30						12		6
11:30-11:45						15		1
11:45-12:00						10		2
HOURLY TOTAL						HOURLY TOTAL		64
12:00-12:15						11		1
12:15-12:30						12		3
12:30-12:45						13		2
12:45-1:00						15	1	2
HOURLY TOTAL						HOURLY TOTAL		60
1:00-1:15						13		1
1:15-1:30	2	2			4	18		
1:30-1:45						8	1	2
1:45-2:00						7		
HOURLY TOTAL					4	HOURLY TOTAL		50



COUNT LOCATION: TH 47 (ST. FRANCIS BLVD.)
 @ CSAH 5 (NOWTHEN BLVD.)

DATE: 6/25/96

APP. #1= NB TH 47
 APP. #2= EB CSAH 5
 APP. #3= SB TH 47

APP. #2
 55MPH
 APP. #1 45MPH APP. #3 50MPH

- 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						14		
2:15-2:30						16		
2:30-2:45						10		
2:45-3:00						13		
HOURLY TOTAL						HOURLY TOTAL		53
3:00-3:15						13		2
3:15-3:30						10		1
3:30-3:45						12		2
3:45-4:00						9		
HOURLY TOTAL						HOURLY TOTAL		49
4:00-4:15						9		
4:15-4:30						12		
4:30-4:45						9		
4:45-5:00						13		2
HOURLY TOTAL						HOURLY TOTAL		45
5:00-5:15						5	1	
5:15-5:30						8		
5:30-5:45						5		
5:45-6:00						9		
HOURLY TOTAL						HOURLY TOTAL		28
6:00-6:15						9		
6:15-6:30						4		
6:30-6:45						4		
6:45-7:00						3		
HOURLY TOTAL						HOURLY TOTAL		20
7:00-7:15						4		
7:15-7:30						4		
7:30-7:45						2		
7:45-8:00						3		
HOURLY TOTAL						HOURLY TOTAL		13
8:00-8:15						3		
8:15-8:30						2	1	
8:30-8:45								
8:45-9:00						1		
HOURLY TOTAL						HOURLY TOTAL		7
9:00-9:15						2		
9:15-9:30						2		
9:30-9:45								
9:45-10:00						1		
HOURLY TOTAL						HOURLY TOTAL		5