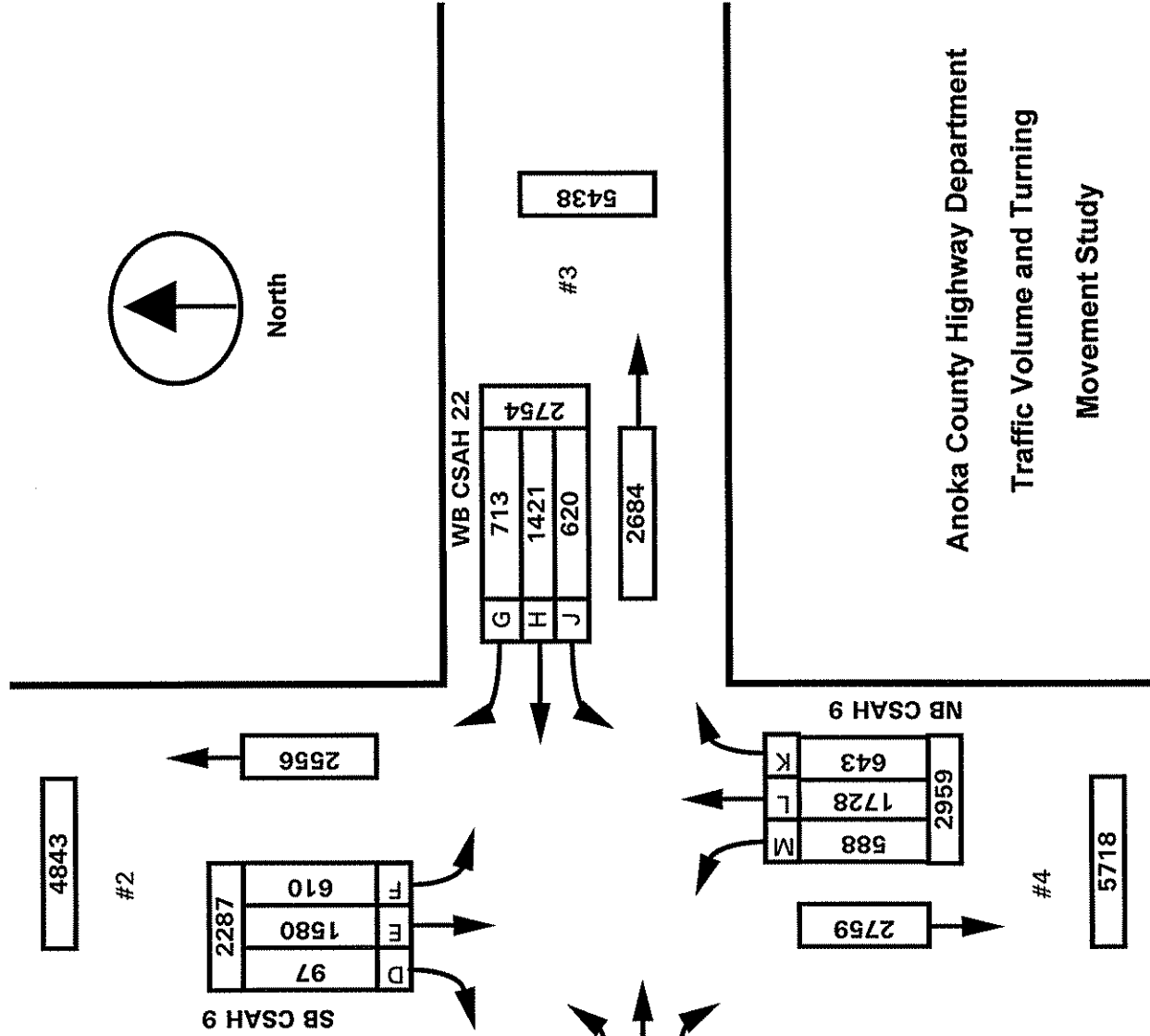


Date: 8/7/96 AM 8/5/96 PM

Count Number: TMC 9621

Location: CSAH 9 (LK GEORGE BLVD) @

CSAH 22 (VIKING BLVD)



Anoka County Highway Department
Traffic Volume and Turning
Movement Study

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

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :SUNNY HOT
 Counted by:Ann and Gabe
 Board # :
 Other :

Study Name: TMC9621
 Site Code : 96210202
 Start Date: 08/05/96
 Page : 1

Vehicle group 1

Start Time	CSAH 9 (LAKE GEORGE BL)				CSAH 22 (VIKING BLVD)				CSAH 9 (LAKE GEORGE BL)				CSAH 22 (VIKING BLVD)				Intvl	Exclu	Inclu
	From North		From East		From South		From West		From North		From East		From South		From West				
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Total	Total	Total
08/05/96																			
06:00	1	44	19	2	2	13	23	0	3	1	5	1	9	19	0	1	143	4	139
06:15	2	45	16	4	1	19	17	1	1	7	4	0	6	27	1	3	154	8	146
06:30	3	55	18	4	12	36	14	3	4	15	10	4	13	24	0	1	216	12	204
06:45	2	35	21	4	11	34	21	2	6	19	6	6	12	24	0	2	205	14	191
Hour	8	179	74	14	26	102	75	6	14	42	25	11	40	94	1	7	718	38	680
07:00	1	36	10	2	5	18	17	2	3	13	8	4	4	29	0	1	153	9	144
07:15	2	45	18	5	4	17	11	1	7	13	11	3	6	22	1	1	167	10	157
07:30	1	34	18	1	6	33	23	3	4	14	5	1	9	30	2	5	189	10	179
07:45	3	37	16	4	9	35	11	7	2	15	5	0	12	31	1	6	194	17	177
Hour	7	152	62	12	24	103	62	13	16	55	29	8	31	112	4	13	703	46	657
08:00	1	25	10	2	6	21	12	6	7	16	7	2	5	20	1	4	145	14	131
08:15	1	25	9	1	2	16	10	2	4	11	5	3	8	23	0	3	123	9	114
08:30	3	27	12	3	7	11	3	2	6	9	6	2	18	26	3	12	150	19	131
08:45	1	21	6	1	10	25	7	6	7	16	2	4	9	17	0	6	138	17	121
Hour	6	98	37	7	25	73	32	16	24	52	20	11	40	86	4	25	556	59	497
09:00	0	15	7	0	5	22	9	7	7	19	7	2	7	20	4	3	134	12	122
09:15	0	18	7	2	10	19	9	5	3	10	4	0	6	20	5	7	125	14	111
09:30	2	26	3	2	5	12	7	2	3	6	6	2	10	21	1	5	113	11	102
09:45	3	20	9	2	6	21	2	6	3	19	10	3	7	14	1	6	132	17	115
Hour	5	79	26	6	26	74	27	20	16	54	27	7	30	75	11	21	504	54	450
10:00	1	23	2	1	4	20	6	4	9	18	2	4	3	16	2	4	119	13	106
10:15	0	16	5	2	4	15	5	0	7	11	3	0	9	17	0	2	96	4	92
10:30	1	22	7	4	6	17	4	5	5	17	9	4	11	21	2	4	139	17	122
10:45	1	13	10	5	11	14	7	5	6	19	3	2	10	14	2	3	125	15	110
Hour	3	74	24	12	25	66	22	14	27	65	17	10	33	68	6	13	479	49	430
11:00	4	21	2	4	9	13	8	1	5	14	8	2	3	22	2	6	124	13	111
11:15	1	19	6	3	12	14	11	3	3	17	7	1	7	12	2	2	120	9	111
11:30	0	22	6	1	7	11	10	2	5	15	4	0	5	15	3	2	108	5	103
11:45	1	33	15	2	10	19	8	3	7	14	7	3	8	15	4	3	152	11	141
Hour	6	95	29	10	38	57	37	9	20	60	26	6	23	64	11	13	504	38	466
12:00	1	20	9	2	15	12	3	4	4	10	3	1	5	21	1	1	112	8	104
12:15	1	23	10	1	8	13	10	2	4	27	5	2	3	15	1	1	126	6	120
12:30	5	26	8	1	9	18	3	5	5	31	11	5	14	17	3	4	165	15	150
12:45	1	26	3	1	8	16	6	3	5	26	4	4	8	20	2	3	136	11	125
Hour	8	95	30	5	40	59	22	14	18	94	23	12	30	73	7	9	539	40	499

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :SUNNY HOT
 Counted by:Ann and Gabe
 Board # :
 Other :

Study Name: TMC9621
 Site Code : 96210202
 Start Date: 08/05/96
 Page : 2

Vehicle group 1

Start Time	CSAH 9 (LAKE GEORGE BL From North				CSAH 22 (VIKING BLVD) From East				CSAH 9 (LAKE GEORGE BL From South				CSAH 22 (VIKING BLVD) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
13:00	2	12	7	0	12	18	8	3	13	16	7	3	3	13	0	3	120	9	111
13:15	1	30	7	1	14	17	6	7	10	33	7	1	6	19	4	4	167	13	154
13:30	2	28	9	3	9	20	14	8	8	31	8	3	8	15	0	3	169	17	152
13:45	3	27	11	4	16	18	7	1	10	35	9	1	7	14	2	2	167	8	159
Hour	8	97	34	8	51	73	35	19	41	115	31	8	24	61	6	12	623	47	576
14:00	2	35	9	1	9	22	7	3	10	25	7	2	7	22	1	7	169	13	156
14:15	1	28	6	2	9	20	11	4	5	40	9	4	4	24	0	7	174	17	157
14:30	1	33	11	1	9	20	12	3	4	29	10	2	5	24	1	5	170	11	159
14:45	1	19	4	1	14	25	4	4	13	41	13	1	5	22	2	4	173	10	163
Hour	5	115	30	5	41	87	34	14	32	135	39	9	21	92	4	23	686	51	635
15:00	0	24	6	1	9	21	9	5	9	24	8	2	6	23	4	8	159	16	143
15:15	3	20	15	2	18	22	6	6	20	30	8	0	10	23	0	3	186	11	175
15:30	2	21	12	2	19	29	9	6	10	40	21	0	15	26	0	3	215	11	204
15:45	1	25	9	2	16	31	9	2	15	39	13	4	6	25	1	4	202	12	190
Hour	6	90	42	7	62	103	33	19	54	133	50	6	37	97	5	18	762	50	712
16:00	4	23	15	1	19	38	9	7	20	49	10	2	11	28	2	4	242	14	228
16:15	1	26	12	1	18	26	8	2	13	55	17	1	9	40	3	5	237	9	228
16:30	0	20	6	4	18	37	11	2	19	60	12	2	11	31	4	5	242	13	229
16:45	1	24	8	1	26	26	9	5	19	55	11	4	15	38	4	9	255	19	236
Hour	6	93	41	7	81	127	37	16	71	219	50	9	46	137	13	23	976	55	921
17:00	0	24	12	1	16	40	7	4	17	61	19	1	15	35	4	8	264	14	250
17:15	0	23	14	1	33	34	9	1	24	62	15	5	16	39	4	4	284	11	273
17:30	4	24	15	1	27	32	13	4	30	54	17	0	20	31	1	1	274	6	268
17:45	2	28	8	0	26	39	14	3	24	40	18	0	10	39	5	1	257	4	253
Hour	6	99	49	3	102	145	43	12	95	217	69	6	61	144	14	14	1079	35	1044
18:00	2	21	14	0	26	35	16	3	20	51	15	1	19	28	6	4	261	8	253
18:15	1	38	10	1	25	26	20	3	16	48	11	1	20	35	2	1	258	6	252
18:30	5	18	7	1	14	30	14	5	21	41	16	1	12	20	3	3	211	10	201
18:45	2	13	7	1	12	28	18	2	12	31	17	1	11	35	2	6	198	10	188
Hour	10	90	38	3	77	119	68	13	69	171	59	4	62	118	13	14	928	34	894
19:00	2	20	10	0	8	34	13	1	13	36	13	1	7	26	2	4	190	6	184
19:15	0	15	6	1	16	25	12	3	9	41	14	0	12	14	3	0	171	4	167
19:30	0	20	8	1	19	17	8	0	13	30	6	2	10	29	2	0	165	3	162
19:45	3	18	6	1	6	17	5	1	13	15	7	0	7	15	2	2	118	4	114
Hour	5	73	30	3	49	93	38	5	48	122	40	3	36	84	9	6	644	17	627

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather :SUNNY HOT
 Counted by:Ann and Gabe
 Board # :
 Other :

Study Name: TMC9621
 Site Code : 96210202
 Start Date: 08/05/96
 Page : 3

Vehicle group 1

Start Time	CSAH 9 (LAKE GEORGE BL From North)				CSAH 22 (VIKING BLVD) From East				CSAH 9 (LAKE GEORGE BL) From South				CSAH 22 (VIKING BLVD) From West				Intvl	Exclu	Inclu
	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY	Right	Thru	Left	HEAVY			
20:00	0	23	7	0	7	16	7	0	15	22	12	0	3	17	1	0	130	0	130
20:15	0	22	9	0	4	19	11	0	13	27	9	0	5	19	3	1	142	1	141
20:30	1	14	15	0	8	16	7	1	12	33	8	0	4	19	0	1	139	2	137
20:45	2	21	10	0	4	13	4	1	7	25	9	1	6	20	2	1	126	3	123
Hour	3	80	41	0	23	64	29	2	47	107	38	1	18	75	6	3	537	6	531
21:00	2	27	12	0	8	17	10	1	6	20	12	0	5	13	1	0	134	1	133
21:15	0	19	7	0	7	26	5	0	11	20	4	0	11	18	0	1	129	1	128
21:30	2	12	3	0	3	16	4	0	23	21	14	1	5	11	0	0	115	1	114
21:45	1	13	1	0	5	17	7	0	11	26	15	1	6	9	0	0	112	1	111
Hour	5	71	23	0	23	76	26	1	51	87	45	2	27	51	1	1	490	4	486
Total	97	1580	610	102	713	1421	620	193	643	1728	588	113	559	1431	115	215	10728	623	10105
% Apr.	4.0	66.1	25.5	4.2	24.1	48.2	21.0	6.5	20.9	56.2	19.1	3.6	24.0	61.6	4.9	9.2	-	-	-
% Int.	0.9	14.7	5.6	0.9	6.6	13.2	5.7	1.7	5.9	16.1	5.4	1.0	5.2	13.3	1.0	2.0	-	-	-

or Street Approaches:

Northbound:

CSAH 9 (LAKE GEORGE BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9621.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 5/96
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 2959

Southbound:

CSAH 9 (LAKE GEORGE BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9621.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 5/96
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 2287

Minor Street Approaches:

Eastbound:

CSAH 22 (VIKING BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9621.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 5/96
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 2105

Westbound:

CSAH 22 (VIKING BLVD)

Data File: C:\PETRA2\DATAFILE\TMC9621.PDF
 Count Type: IMC. Channel: 0. Count Date: 8/ 5/96
 Number of Lanes: 2
 Approach Speed: 55
 Total Approach Traffic: 2754

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
0	0	0	W	17		140	70	112
1	0	0	W	18		140	70	112
2	0	0	W	19		140	70	112
3	0	0	W	20		140	70	112
4	0	0	W	21		140	70	112
5	0	0	W	22		140	70	112
6	342	203	W	4	SIDE	140	SIDE 70	SIDE 112
7	321	189	W	6	SIDE	140	SIDE 70	SIDE 112
8	237	130	W	11		140	SIDE 70	SIDE 112
9	207	127	W	12		140	SIDE 70	SIDE 112
10	210	113	W	16		140	SIDE 70	SIDE 112
11	236	132	W	10		140	SIDE 70	SIDE 112
12	268	121	W	14		140	SIDE 70	SIDE 112
13	326	159	W	9	SIDE	140	SIDE 70	SIDE 112
14	356	162	W	8	SIDE	140	SIDE 70	SIDE 112
15	375	198	W	5	SIDE	140	SIDE 70	SIDE 112
16	480	245	W	3	--BOTH--	140	SIDE 70	SIDE 112
17	535	290	W	1	--BOTH--	140	SIDE 70	--BOTH-- 112
18	437	264	W	2	--BOTH--	140	SIDE 70	SIDE 112
19	318	180	W	7	SIDE	140	SIDE 70	SIDE 112
20	316	116	W	15		140	SIDE 70	SIDE 112
21	282	125	W	13		140	SIDE 70	SIDE 112
22	0	0	W	23		140	70	112
23	0	0	W	24		140	70	112

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 0 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: 1044.

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

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 3 hours.

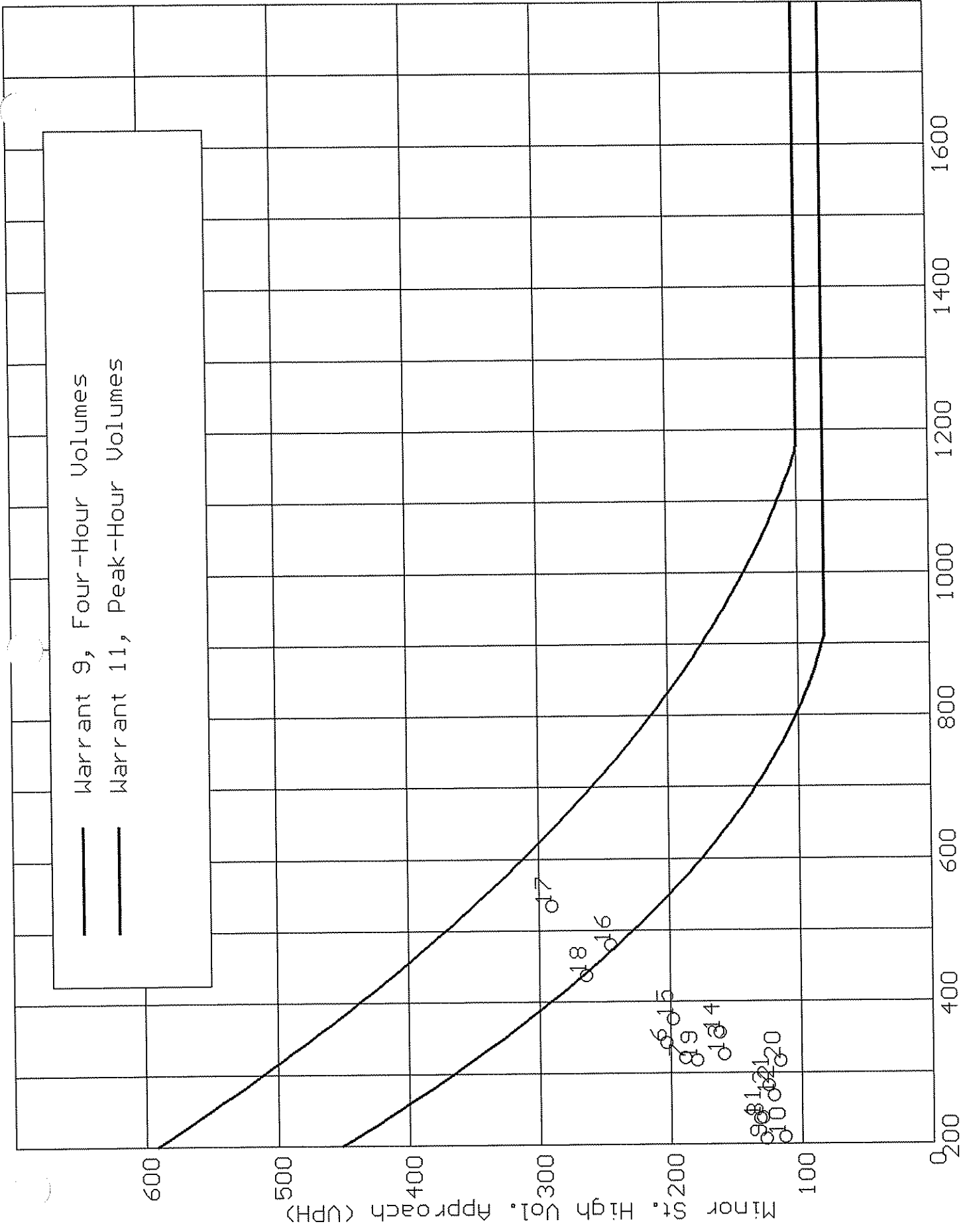
Warrant 10 - Peak Hour Delay

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

NOT SATISFIED.



Major St. Total of Both Approaches (UPH)



NORTH

APP. #1= EB CSAH 22

APP. #2 =SB CSAH 9

APP. #3= WB CSAH 22

APP. #4=NB CSAH 9

COUNT LOCATION: CSAH 9 (LK GEORGE BLVD)@
CSAH 22 (VIKING BLVD)

DATE: 8/7/96

APP. #2
55MPH

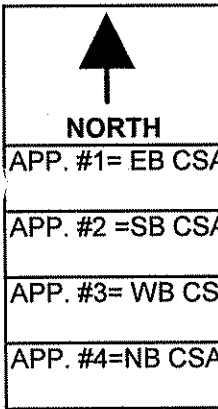
APP. #1
55MPH

55MPH
APP. #4

APP. #3
55MPH

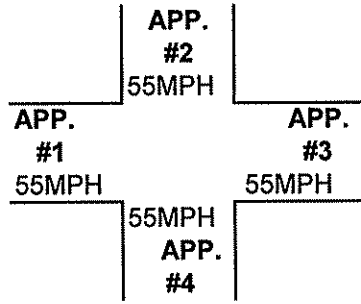
- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR 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						4		
6:15-6:30						7		1
6:30-6:45						12		
6:45-7:00						14		
HOURLY TOTAL						HOURLY TOTAL		38
7:00-7:15						9		
7:15-7:30						9	1	
7:30-7:45						9		1
7:45-8:00						17		
HOURLY TOTAL						HOURLY TOTAL		46
8:00-8:15						13		1
8:15-8:30				1	1	9		
8:30-8:45						19		
8:45-9:00						16		1
HOURLY TOTAL					1	HOURLY TOTAL		59
9:00-9:15						12		
9:15-9:30						14		
9:30-9:45						11		
9:45-10:00						16		1
HOURLY TOTAL						HOURLY TOTAL		54
10:00-10:15						12		1
10:15-10:30						4		
10:30-10:45						17		
10:45-11:00						15		
HOURLY TOTAL						HOURLY TOTAL		49
11:00-11:15						13		
11:15-11:30						9		
11:30-11:45						5		
11:45-12:00						11		
HOURLY TOTAL						HOURLY TOTAL		38
12:00-12:15						7		1
12:15-12:30						6		
12:30-12:45						14		1
12:45-1:00						10	1	
HOURLY TOTAL						HOURLY TOTAL		40
1:00-1:15						9		
1:15-1:30						13		
1:30-1:45						17		
1:45-2:00						8		
HOURLY TOTAL						HOURLY TOTAL		47



COUNT LOCATION: CSAH 9 (LK GEORGE BLVD)@
 CSAH 22 (VIKING BLVD)

DATE: 8/5/96



- 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	2			2	4	13		
2:15-2:30						16		1
2:30-2:45	1				1	11		
2:45-3:00						10		
HOURLY TOTAL					5	HOURLY TOTAL		51
3:00-3:15						15		1
3:15-3:30						11		
3:30-3:45						11		
3:45-4:00						10	1	1
HOURLY TOTAL						HOURLY TOTAL		50
4:00-4:15						14		
4:15-4:30						8		1
4:30-4:45						12		1
4:45-5:00						19		
HOURLY TOTAL						HOURLY TOTAL		55
5:00-5:15						14		
5:15-5:30						10	1	
5:30-5:45						6		
5:45-6:00						4		
HOURLY TOTAL						HOURLY TOTAL		35
6:00-6:15						8		
6:15-6:30						6		
6:30-6:45						9	1	
6:45-7:00						10		
HOURLY TOTAL						HOURLY TOTAL		34
7:00-7:15						5	1	
7:15-7:30						4		
7:30-7:45						3		
7:45-8:00						4		
HOURLY TOTAL						HOURLY TOTAL		17
8:00-8:15								
8:15-8:30						1		
8:30-8:45						2		
8:45-9:00						2	1	
HOURLY TOTAL						HOURLY TOTAL		6
9:00-9:15						1		
9:15-9:30						1		
9:30-9:45						1		
9:45-10:00						1		
HOURLY TOTAL						HOURLY TOTAL		4