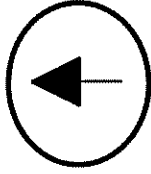


Date : 6/19/96AM 6/17/96PM

Count Number : TMC 9613

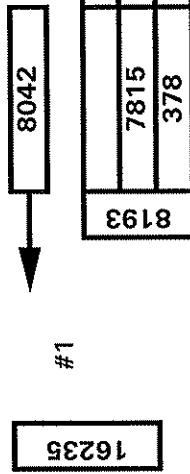
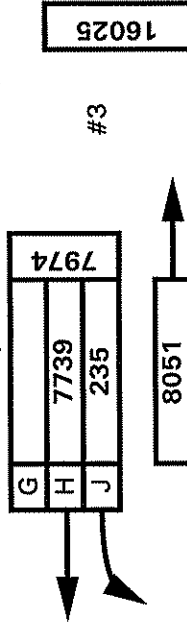
Location : CSAH 116 (BUNKER LK BLVD)

@ CROOKED LAKE BLVD



North

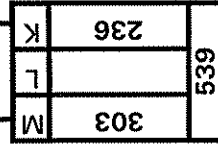
CSAH 116 (BUNKER LAKE BLVD)



CSAH 116 (BUNKER LAKE BLVD)

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

CROOKED LAKE BLVD



Anoka County Highway Department
Traffic Volume and Turning
Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT

Weather : CLOUDY, RAINY, COOL

TRAFFIC ENGINEERING SECTION

Study Name: TMC9613

Counted by: ANN AND GABE

TRAFFIC STUDY

Site Code : 96130202

Board # :

Start Date: 06/17/96

Other :

Page : 1

Vehicle group 1

Start Time	CSAH 116 (BUNKER LAKE From East			CROOKED LAKE BLVD From South			CSAH 116 (BUNKER LAKE From West			Intrvl. Total	Exclude Total	Include Total
	Thru	Left	HEAVY	Right	Left	HEAVY	Right	Thru	HEAVY			
06/17/96												
06:00	65	1	2	1	1	0	2	47	0	119	2	117
06:15	78	1	2	0	0	0	1	81	6	169	8	161
06:30	106	2	3	2	4	0	1	94	9	221	12	209
06:45	130	2	4	1	2	0	0	117	13	269	17	252
Hour	379	6	11	4	7	0	4	339	28	778	39	739
07:00	107	3	7	6	4	0	3	92	2	224	9	215
07:15	129	1	7	6	5	1	0	108	7	264	15	249
07:30	139	4	12	5	5	0	5	122	11	303	23	280
07:45	193	2	12	1	2	0	1	111	20	342	32	310
Hour	568	10	38	18	16	1	9	433	40	1133	79	1054
08:00	110	6	6	4	2	0	2	104	7	241	13	228
08:15	107	2	13	4	4	1	5	89	15	240	29	211
08:30	102	3	9	2	0	0	1	81	7	205	16	189
08:45	116	4	16	4	6	0	3	102	12	263	28	235
Hour	435	15	44	14	12	1	11	376	41	949	86	863
09:00	90	1	7	4	4	1	5	81	15	208	23	185
09:15	101	2	17	2	7	0	6	74	11	220	28	192
09:30	92	9	8	5	2	1	4	84	7	212	16	196
09:45	98	1	6	4	3	1	6	95	11	225	18	207
Hour	381	13	38	15	16	3	21	334	44	865	85	780
10:00	111	4	12	4	3	0	3	100	8	245	20	225
10:15	92	3	9	7	9	0	7	86	10	223	19	204
10:30	88	3	9	3	5	0	4	96	8	216	17	199
10:45	125	6	12	3	5	0	8	117	12	288	24	264
Hour	416	16	42	17	22	0	22	399	38	972	80	892
11:00	120	3	11	6	6	0	5	110	14	275	25	250
11:15	105	3	11	3	6	0	4	104	12	248	23	225
11:30	123	9	15	0	6	0	8	94	6	261	21	240
11:45	120	1	9	4	10	0	3	125	11	283	20	263
Hour	468	16	46	13	28	0	20	433	43	1067	89	978
12:00	133	5	9	6	5	0	6	98	6	268	15	253
12:15	113	7	13	7	5	0	4	146	11	306	24	282
12:30	108	3	8	3	7	0	8	133	12	282	20	262
12:45	128	2	14	5	5	0	7	121	8	290	22	268
Hour	482	17	44	21	22	0	25	498	37	1146	81	1065

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather : CLOUDY, RAINY, COOL

Counted by: ANN AND GABE

Board # :

ther :

Study Name: TMC9613

Site Code : 96130202

Start Date: 06/17/96

Page : 2

Vehicle group 1

Start Time	CSAH 116 (BUNKER LAKE From East			CROOKED LAKE BLVD From South			CSAH 116 (BUNKER LAKE From West			Intrvl. Total	Exclude Total	Include Total
	Thru	Left	HEAVY	Right	Left	HEAVY	Right	Thru	HEAVY			
13:00	115	4	7	5	8	1	7	115	9	271	17	254
13:15	110	4	9	4	4	0	8	115	13	267	22	245
13:30	115	5	9	3	6	0	10	116	8	272	17	255
13:45	99	1	9	4	6	1	11	125	11	267	21	246
Hour	439	14	34	16	24	2	36	471	41	1077	77	1000
14:00	101	3	6	1	4	0	3	105	5	228	11	217
14:15	107	3	5	1	2	0	5	106	3	232	8	224
14:30	103	4	6	4	6	0	6	101	1	231	7	224
14:45	114	4	5	5	1	0	7	112	5	253	10	243
Hour	425	14	22	11	13	0	21	424	14	944	36	908
15:00	118	5	7	2	5	0	1	129	4	271	11	260
15:15	111	4	1	2	4	0	9	147	6	284	7	277
15:30	123	3	3	4	4	0	10	139	6	292	9	283
15:45	121	1	2	5	3	0	12	142	5	291	7	284
Hour	473	13	13	13	16	0	32	557	21	1138	34	1104
16:00	132	4	2	3	8	0	7	147	1	304	3	301
16:15	146	8	2	2	5	0	4	165	6	338	8	330
16:30	129	5	4	7	7	0	7	158	2	319	6	313
16:45	204	10	5	6	3	0	13	199	3	443	8	435
Hour	611	27	13	18	23	0	31	669	12	1404	25	1379
17:00	175	10	2	9	7	0	8	192	4	407	6	401
17:15	162	6	2	8	9	1	9	183	4	384	7	377
17:30	185	3	2	4	8	0	6	188	0	396	2	394
17:45	194	4	2	2	8	0	13	180	1	404	3	401
Hour	716	23	8	23	32	1	36	743	9	1591	18	1573
18:00	172	4	3	3	5	0	11	190	3	391	6	385
18:15	131	4	0	4	6	0	5	148	0	298	0	298
18:30	167	1	0	1	5	0	9	141	3	327	3	324
18:45	170	3	0	1	5	0	6	149	0	334	0	334
Hour	640	12	3	9	21	0	31	628	6	1350	9	1341
19:00	175	2	2	4	6	0	7	163	1	360	3	357
19:15	141	6	0	9	4	0	5	158	1	324	1	323
19:30	124	1	0	1	4	0	10	142	1	283	1	282
19:45	131	1	0	5	1	0	11	159	1	309	1	308
Hour	571	10	2	19	15	0	33	622	4	1276	6	1270

ANOKA COUNTY HIGHWAY DEPARTMENT

TRAFFIC ENGINEERING SECTION

TRAFFIC STUDY

Weather : CLOUDY, RAINY, COOL

Counted by: ANN AND GABE

Board # :

ther :

Study Name: TMC9613

Site Code : 96130202

Start Date: 06/17/96

Page : 3

Vehicle group 1

Start Time	CSAH 116 (BUNKER LAKE From East			CROOKED LAKE BLVD From South			CSAH 116 (BUNKER LAKE From West			Intrvl. Total	Exclude Total	Include Total
	Thru	Left	HEAVY	Right	Left	HEAVY	Right	Thru	HEAVY			
20:00	112	4	1	6	5	0	6	145	0	279	1	278
20:15	115	1	0	2	1	0	7	126	1	253	1	252
20:30	106	4	2	6	3	0	8	111	1	241	3	238
20:45	80	5	1	3	7	0	1	125	0	222	1	221
Hour	413	14	4	17	16	0	22	507	2	995	6	989
21:00	75	4	1	1	5	0	10	117	0	213	1	212
21:15	99	5	0	4	8	0	6	94	1	217	1	216
21:30	88	2	1	1	5	0	5	78	0	180	1	179
21:45	60	4	0	2	2	0	3	93	1	165	1	164
Hour	322	15	2	8	20	0	24	382	2	775	4	771
Total	7739	235	364	236	303	8	378	7815	382	17460	754	16706
% Apr.	92.8	2.8	4.3	43.1	55.3	1.4	4.4	91.1	4.4	-	-	-
% Int.	44.3	1.3	2.0	1.3	1.7	-	2.1	44.7	2.1	-	-	-

Major Street Approaches:

Eastbound:

CSAH 116 (BUNKER LAKE BLVD)
 Data File: C:\PETRA2\DATAFILE\TMC9613.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/96
 Number of Lanes: 2
 Approach Speed: 50
 Total Approach Traffic: 8193

Westbound:

CSAH 116 (BUNKER LAKE BLVD)
 Data File: C:\PETRA2\DATAFILE\TMC9613.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/96
 Number of Lanes: 2
 Approach Speed: 50
 Total Approach Traffic: 7974

Minor Street Approaches:

Northbound:

CROOKED LAKE BLVD
 Data File: C:\PETRA2\DATAFILE\TMC9613.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/96
 Number of Lanes: 1
 Approach Speed: 30
 Total Approach Traffic: 539

Southbound:

Data File: C:\PETRA2\DATAFILE\TMC9613.PDF
 Count Type: IMC. Channel: 0. Count Date: 6/17/96
 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	N	17		105		52		84
1	0	0	N	18		105		52		84
2	0	0	N	19		105		52		84
3	0	0	N	20		105		52		84
4	0	0	N	21		105		52		84
5	0	0	N	22		105		52		84
6	728	11	N	16	MAIN	105	MAIN	52	MAIN	84
7	1020	34	N	7	MAIN	105	MAIN	52	MAIN	84
8	837	26	N	14	MAIN	105	MAIN	52	MAIN	84
9	749	31	N	10	MAIN	105	MAIN	52	MAIN	84
10	853	39	N	6	MAIN	105	MAIN	52	MAIN	84
11	937	41	N	3	MAIN	105	MAIN	52	MAIN	84
12	1022	43	N	2	MAIN	105	MAIN	52	MAIN	84
13	960	40	N	5	MAIN	105	MAIN	52	MAIN	84
14	884	24	N	15	MAIN	105	MAIN	52	MAIN	84
15	1075	29	N	12	MAIN	105	MAIN	52	MAIN	84
16	1338	41	N	4	MAIN	105	MAIN	52	MAIN	84
17	1518	55	N	1	MAIN	105	--BOTH--	52	MAIN	84
18	1311	30	N	11	MAIN	105	MAIN	52	MAIN	84
19	1236	34	N	8	MAIN	105	MAIN	52	MAIN	84
20	956	33	N	9	MAIN	105	MAIN	52	MAIN	84
21	743	28	N	13	MAIN	105	MAIN	52	MAIN	84
22	0	0	N	23		105		52		84
23	0	0	N	24		105		52		84

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 1 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: 1573.

- 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: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 0 hours.

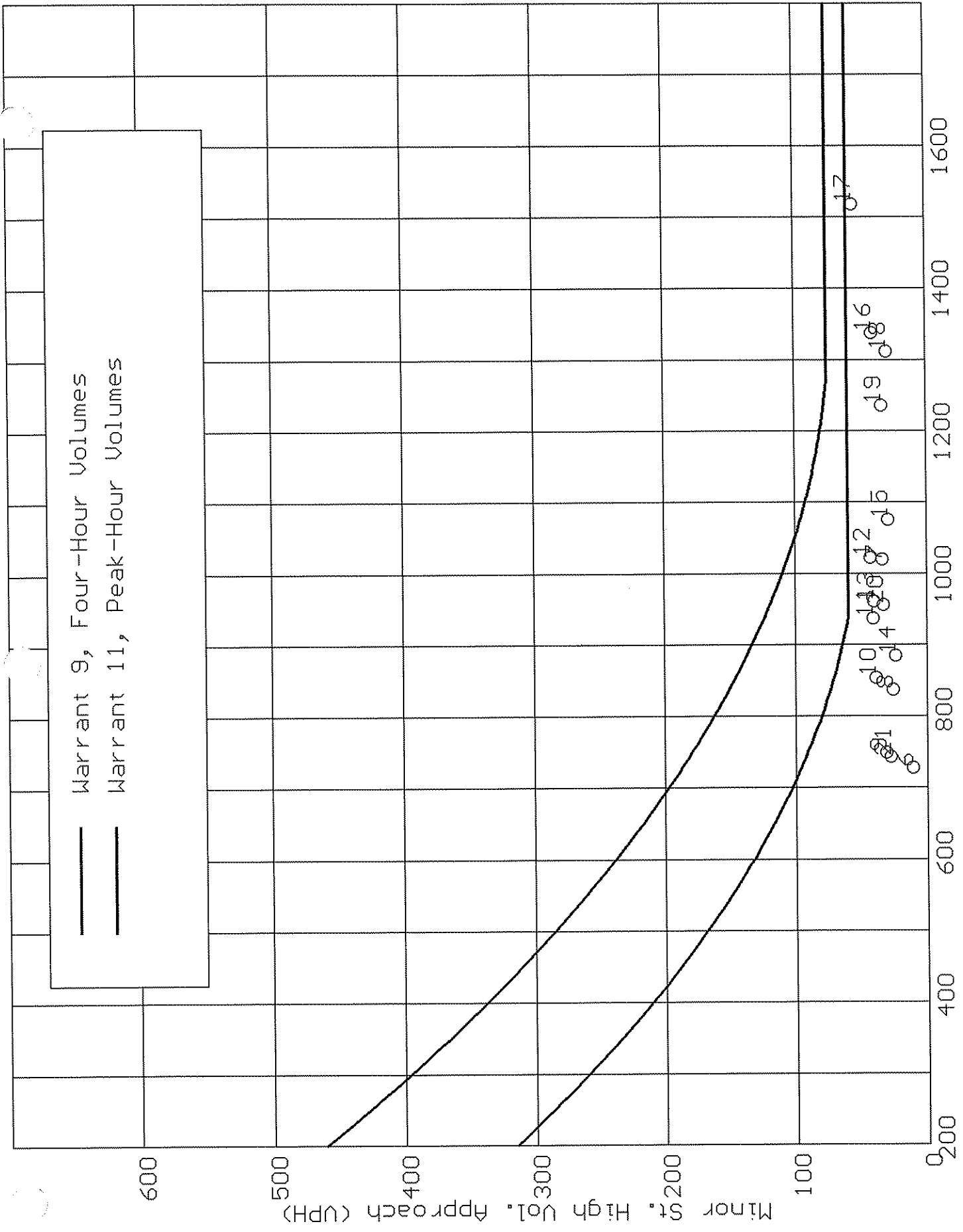
Warrant 10 - Peak Hour Delay

NOT SATISFIED. Peak hour (1700 hours) volume not adequate.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

NOT SATISFIED.



Major St. Total of Both Approaches (UPH)



NORTH

COUNT LOCATION:

CSAH 116 (BUNKER LAKE BLVD) @
CROOKED LAKE BLVD

DATE:

6/19/96

APP. #1= EB CSAH 116
(BUNKER LAKE BLVD)

APP. #3= WB CSAH 116
(BUNKER LAKE BLVD)

APP. #4= NB CROOKED
LAKE BLVD

APP.
#1

50MPH

APP.
#3

50MPH

30MPH

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		
6:15-6:30						8		
6:30-6:45						10		2
6:45-7:00						17		
HOURLY TOTAL						HOURLY TOTAL		39
7:00-7:15						9		
7:15-7:30				1	1	13		2
7:30-7:45						18		5
7:45-8:00						31		1
HOURLY TOTAL					1	HOURLY TOTAL		79
8:00-8:15						12		1
8:15-8:30						29		
8:30-8:45						16		
8:45-9:00						23	1	4
HOURLY TOTAL						HOURLY TOTAL		86
9:00-9:15						20		3
9:15-9:30						26		2
9:30-9:45						16		
9:45-10:00						18		
HOURLY TOTAL						HOURLY TOTAL		85
10:00-10:15						19	1	
10:15-10:30						18		1
10:30-10:45						17		
10:45-11:00						21		3
HOURLY TOTAL						HOURLY TOTAL		80
11:00-11:15				1	1	24		1
11:15-11:30						17		6
11:30-11:45						20	1	
11:45-12:00				1	1	20		
HOURLY TOTAL					2	HOURLY TOTAL		89
12:00-12:15						12	1	2
12:15-12:30						22		2
12:30-12:45						20		
12:45-1:00						21		1
HOURLY TOTAL						HOURLY TOTAL		81
1:00-1:15						17		
1:15-1:30						21	1	
1:30-1:45						16		1
1:45-2:00						20		1
HOURLY TOTAL						HOURLY TOTAL		77



NORTH

COUNT LOCATION:

CSAH 116 (BUNKER LAKE BLVD) @
CROOKED LAKE BLVD

DATE:

6/17/96

APP. #1= EB CSAH 116
(BUNKER LAKE BLVD)

APP. #3= WB CSAH 116
(BUNKER LAKE BLVD)

APP. #4= NB CROOKED
LAKE BLVD

APP. #1	APP. #3
50MPH	50MPH
	30MPH
	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						11		
2:15-2:30						7		
2:30-2:45						10		2
2:45-3:00						6		2
HOURLY TOTAL						HOURLY TOTAL		38
3:00-3:15						10		1
3:15-3:30						7		
3:30-3:45						9		
3:45-4:00						5		2
HOURLY TOTAL						HOURLY TOTAL		34
4:00-4:15						3		
4:15-4:30						4		4
4:30-4:45						5		1
4:45-5:00						7		1
HOURLY TOTAL						HOURLY TOTAL		25
5:00-5:15						6		
5:15-5:30						7		
5:30-5:45						2		
5:45-6:00						1		
HOURLY TOTAL						HOURLY TOTAL		16
6:00-6:15				1	1	6		
6:15-6:30	1		1	1	3			
6:30-6:45						2	1	
6:45-7:00								
HOURLY TOTAL					4	HOURLY TOTAL		9
7:00-7:15						3		
7:15-7:30						1		
7:30-7:45						1		
7:45-8:00						1		
HOURLY TOTAL						HOURLY TOTAL		6
8:00-8:15						1		
8:15-8:30						1		
8:30-8:45						3		
8:45-9:00	5				5	1		
HOURLY TOTAL					5	HOURLY TOTAL		6
9:00-9:15	5			5	10	1		
9:15-9:30						1		
9:30-9:45						1		
9:45-10:00				5	5	1		
HOURLY TOTAL					15	HOURLY TOTAL		4