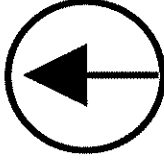


Date : 6/18/97 AM 6/17/97 PM

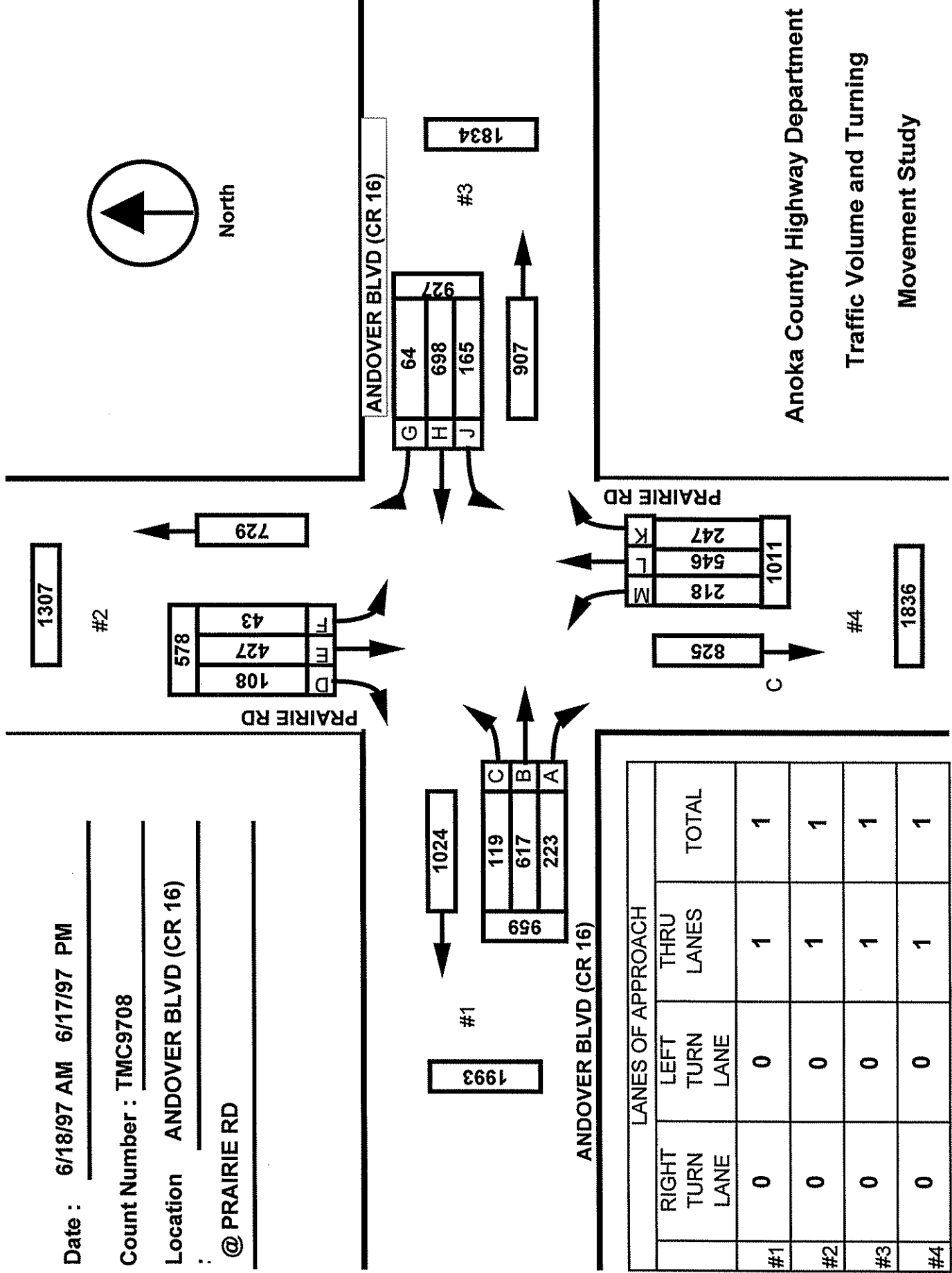
Count Number : TMC9708

Location ANDOVER BLVD (CR 16)

@ PRAIRIE RD



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

PETRA Software

Weather :PARTLY CLOUDY RAINY 65

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Study Name: TMC9708

Counted by:SARAH AND JANELLE

Jamar Technologies, Inc.

Site Code : 97080202

Board # :

Horsham, PA.

Start Date: 06/18/97

ther :

Page : 1

Vehicle group 1

Start Time	PRAIRIE RD. Southbound				ANDOVER BLVD. (CR 16) Westbound				PRAIRIE RD. Northbound				ANDOVER BLVD. (CR 16) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
06/18/97																			
06:00	1	10	0	0	3	6	1	2	2	1	2	0	0	4	9	0	41	2	39
06:15	1	15	0	0	2	10	0	0	3	5	0	0	0	16	7	2	61	2	59
06:30	0	10	2	2	3	4	3	4	2	2	1	0	0	11	6	0	50	6	44
06:45	3	12	1	1	7	10	0	2	0	4	3	1	3	8	9	3	67	7	60
Hour	5	47	3	3	15	30	4	8	7	12	6	1	3	39	31	5	219	17	202
07:00	1	11	1	0	3	6	0	0	1	2	3	1	0	17	8	1	55	2	53
07:15	2	10	0	0	5	15	0	2	1	3	1	0	1	18	7	1	66	3	63
07:30	1	10	1	2	0	8	0	1	1	1	2	0	1	11	3	1	43	4	39
07:45	1	8	0	1	0	11	1	2	3	4	1	1	1	14	7	2	57	6	51
Hour	5	39	2	3	8	40	1	5	6	10	7	2	3	60	25	5	221	15	206
08:00	0	12	1	2	6	6	1	2	4	2	4	2	0	13	4	1	60	7	53
08:15	0	9	1	2	3	5	2	1	7	4	3	2	0	5	2	0	46	5	41
08:30	0	5	2	1	3	6	0	1	3	10	2	1	1	12	7	0	54	3	51
08:45	1	4	1	1	2	5	1	0	3	9	3	3	1	6	3	3	46	7	39
Hour	1	30	5	6	14	22	4	4	17	25	12	8	2	36	16	4	206	22	184
09:00	0	6	0	2	3	11	0	0	3	4	2	2	2	1	1	2	39	6	33
09:15	1	8	1	2	1	12	1	0	1	3	1	2	1	5	1	0	40	4	36
09:30	0	5	2	2	2	10	0	1	3	6	3	1	4	13	6	3	61	7	54
09:45	1	9	0	2	3	10	0	1	1	8	10	1	1	11	3	1	62	5	57
Hour	2	28	3	8	9	43	1	2	8	21	16	6	8	30	11	6	202	22	180
10:00	0	2	1	1	1	6	0	0	2	6	1	1	0	8	3	1	33	3	30
10:15	0	5	0	0	2	5	0	0	3	8	4	3	1	7	4	1	43	4	39
10:30	0	5	1	2	4	7	0	3	4	4	3	1	2	5	4	0	45	6	39
10:45	0	3	1	1	2	4	0	0	5	7	2	2	0	12	4	4	47	7	40
Hour	0	15	3	4	9	22	0	3	14	25	10	7	3	32	15	6	168	20	148
11:00	1	8	4	2	2	11	2	2	2	5	7	3	2	7	1	1	60	8	52
11:15	1	7	0	2	2	11	1	1	2	11	2	2	1	5	2	1	51	6	45
11:30	0	7	4	4	2	4	2	0	2	9	4	1	2	6	0	1	48	6	42
11:45	0	7	1	1	2	9	0	0	1	5	2	2	0	7	4	2	43	5	38
Hour	2	29	9	9	8	35	5	3	7	30	15	8	5	25	7	5	202	25	177
12:00	0	5	2	1	1	5	0	0	0	0	1	0	0	14	1	1	31	2	29
12:15	0	2	0	1	3	6	0	2	3	8	1	2	2	8	0	2	40	7	33
12:30	0	8	1	2	3	5	0	1	1	9	2	0	2	4	5	1	44	4	40
12:45	1	4	3	0	1	13	1	2	0	6	5	3	1	7	2	3	52	8	44
Hour	1	19	6	4	8	29	1	5	4	23	9	5	5	33	8	7	167	21	146

Weather :PARTLY CLOUDY RAINY 65
 Counted by:SARAH AND JANELLE
 Board # :
 ther :

PETRA Software
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 Jamar Technologies, Inc.
 Horsham, PA.

Study Name: TMC9708
 Site Code : 97080202
 Start Date: 06/18/97
 Page : 2

Vehicle group 1

Start Time	PRAIRIE RD. Southbound				ANDOVER BLVD. (CR 16) Westbound				PRAIRIE RD. Northbound				ANDOVER BLVD. (CR 16) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
13:00	1	8	0	2	4	4	2	2	4	5	1	2	2	6	6	0	49	6	43
13:15	0	4	0	2	0	12	0	1	6	6	4	0	0	4	6	2	47	5	42
13:30	1	6	3	0	3	5	0	1	0	4	3	0	2	11	3	4	46	5	41
13:45	1	5	1	3	3	6	1	0	4	1	8	1	2	16	3	2	57	6	51
Hour	3	23	4	7	10	27	3	4	14	16	16	3	6	37	18	8	199	22	177
14:00	0	4	0	1	2	10	0	4	4	7	4	0	2	13	7	1	59	6	53
14:15	0	4	1	1	7	6	1	0	1	5	2	0	1	9	3	1	42	2	40
14:30	1	4	1	1	1	3	1	0	2	8	2	0	1	12	1	3	41	4	37
14:45	1	5	2	1	2	9	2	1	4	12	4	0	0	3	1	1	48	3	45
Hour	2	17	4	4	12	28	4	5	11	32	12	0	4	37	12	6	190	15	175
15:00	0	3	0	0	2	11	1	0	4	9	2	4	1	6	1	2	46	6	40
15:15	1	5	3	3	2	4	0	1	2	10	11	0	3	6	3	3	57	7	50
15:30	2	6	1	0	2	10	2	1	3	9	3	0	0	11	4	0	54	1	53
15:45	0	2	1	0	3	14	2	0	1	7	7	0	2	6	3	1	49	1	48
Hour	3	16	5	3	9	39	5	2	10	35	23	4	6	29	11	6	206	15	191
16:00	0	4	2	0	4	18	1	0	7	19	5	0	1	17	4	1	83	1	82
16:15	0	6	4	0	1	22	0	0	9	12	9	1	6	18	6	3	97	4	93
16:30	1	5	2	0	4	21	0	1	5	23	7	0	2	13	5	0	89	1	88
16:45	0	8	3	0	4	23	1	1	11	21	9	1	3	8	3	0	96	2	94
Hour	1	23	11	0	13	84	2	2	32	75	30	2	12	56	18	4	365	8	357
17:00	2	3	0	0	1	18	5	0	11	27	11	0	5	16	7	2	108	2	106
17:15	1	9	3	0	1	18	4	2	11	13	10	1	4	7	6	1	91	4	87
17:30	0	4	2	1	3	33	0	0	11	19	7	0	2	15	1	4	102	5	97
17:45	0	8	6	0	3	24	4	0	7	21	4	0	3	12	4	0	96	0	96
Hour	3	24	11	1	8	93	13	2	40	80	32	1	14	50	18	7	397	11	386
18:00	1	12	0	1	3	19	2	0	4	26	6	0	10	20	3	0	107	1	106
18:15	1	7	1	0	1	24	3	0	6	16	4	0	3	11	2	0	79	0	79
18:30	0	6	0	0	4	15	1	1	4	8	2	0	6	16	5	1	69	2	67
18:45	2	7	2	0	4	24	2	0	3	12	5	1	4	14	3	1	84	2	82
Hour	4	32	3	1	12	82	8	1	17	62	17	1	23	61	13	2	339	5	334
19:00	1	6	2	0	2	17	2	0	5	11	5	0	5	18	1	0	75	0	75
19:15	1	7	3	0	5	17	1	0	3	11	6	2	4	13	4	1	78	3	75
19:30	1	4	1	0	1	11	0	0	3	7	1	0	4	13	3	0	49	0	49
19:45	1	12	10	0	3	10	0	0	0	8	5	1	3	7	4	1	65	2	63
Hour	4	29	16	0	11	55	3	0	11	37	17	3	16	51	12	2	267	5	262

PETRA Software

Weather :PARTLY CLOUDY RAINY 65

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Study Name: TMC9708

Counted by:SARAH AND JANELLE

Jamar Technologies, Inc.

Site Code : 97080202

Board # :

Horsham, PA.

Start Date: 06/18/97

ther :

Page : 3

Vehicle group 1

Start Time	PRAIRIE RD. Southbound				ANDOVER BLVD. (CR 16) Westbound				PRAIRIE RD. Northbound				ANDOVER BLVD. (CR 16) Eastbound				Intvl	Exclu	Inclu
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
20:00	1	12	8	0	8	11	2	0	7	7	4	0	1	8	5	1	75	1	74
20:15	1	7	6	0	4	8	0	0	3	11	7	0	4	5	4	0	60	0	60
20:30	2	4	2	0	1	4	0	0	2	7	2	0	2	9	2	1	38	1	37
20:45	1	9	3	0	2	8	2	0	1	6	1	0	0	5	2	0	40	0	40
Hour	5	32	19	0	15	31	4	0	13	31	14	0	7	27	13	2	213	2	211
21:00	1	9	2	0	3	15	1	0	3	7	2	0	2	5	3	0	53	0	53
21:15	1	5	0	0	0	9	3	1	3	12	3	0	0	5	0	0	42	1	41
21:30	0	4	2	0	0	8	1	0	0	6	5	0	0	3	1	0	30	0	30
21:45	0	6	0	0	1	6	1	1	1	7	1	0	0	1	1	0	26	1	25
Hour	2	24	4	0	4	38	6	2	7	32	11	0	2	14	5	0	151	2	149
Total	43	427	108	53	165	698	64	48	218	546	247	51	119	617	233	75	3712	227	3485
% Apr.	6.8	67.6	17.1	8.3	16.9	71.5	6.5	4.9	20.5	51.4	23.2	4.8	11.3	59.0	22.3	7.1	-	-	-
% Int.	1.1	11.5	2.9	1.4	4.4	18.8	1.7	1.2	5.8	14.7	6.6	1.3	3.2	16.6	6.2	2.0	-	-	-

major Street Approaches:

Eastbound:

ANDOVER BLVD. (CR 16)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9708.PDF

Count Type: IMC. Channel: 0. Count Date: 6/18/97

Number of Lanes: 1

Approach Speed: 50

Total Approach Traffic: 969

Westbound:

ANDOVER BLVD. (CR 16)

Data File: C:\APPS\PETRA2\DATAFILE\TMC9708.PDF

Count Type: IMC. Channel: 0. Count Date: 6/18/97

Number of Lanes: 1

Approach Speed: 50

Total Approach Traffic: 927

Minor Street Approaches:

Northbound:

PRAIRIE RD.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9708.PDF

Count Type: IMC. Channel: 0. Count Date: 6/18/97

Number of Lanes: 1

Approach Speed: 35

Total Approach Traffic: 1011

Southbound:

PRAIRIE RD.

Data File: C:\APPS\PETRA2\DATAFILE\TMC9708.PDF

Count Type: IMC. Channel: 0. Count Date: 6/18/97

Number of Lanes: 1

Approach Speed: 35

Total Approach Traffic: 578

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

Hour	Main (Total)	Side			Warrant 1		Warrant 2		Warrant 8	
		Vol.	Dir.	Rank	Meets?	Criteria	Meets?	Criteria	Meets?	Criteria
0	0	0	S	17		105		52		84
1	0	0	S	18		105		52		84
2	0	0	S	19		105		52		84
3	0	0	S	20		105		52		84
4	0	0	S	21		105		52		84
5	0	0	S	22		105		52		84
6	122	55	S	7		105	SIDE	52		84
7	137	46	S	13		105		52		84
8	94	54	N	9		105	SIDE	52		84
9	102	45	N	15		105		52		84
10	81	49	N	12		105		52		84
11	85	52	N	10		105	SIDE	52		84
12	84	36	N	16		105		52		84
13	101	46	N	14		105		52		84
14	97	55	N	8		105	SIDE	52		84
15	99	68	N	4		105	SIDE	52		84
16	185	137	N	2	SIDE	105	SIDE	52	SIDE	84
17	196	152	N	1	SIDE	105	SIDE	52	SIDE	84
18	199	96	N	3		105	SIDE	52	SIDE	84
19	148	65	N	5		105	SIDE	52		84
20	97	58	N	6		105	SIDE	52		84
21	69	50	N	11		105		52		84
22	0	0	S	23		105		52		84
23	0	0	S	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.: 350; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 0 hours. Criteria--Main St.: 525; 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 386 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: 420; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

NOT SATISFIED. Required values reached for 0 hours.

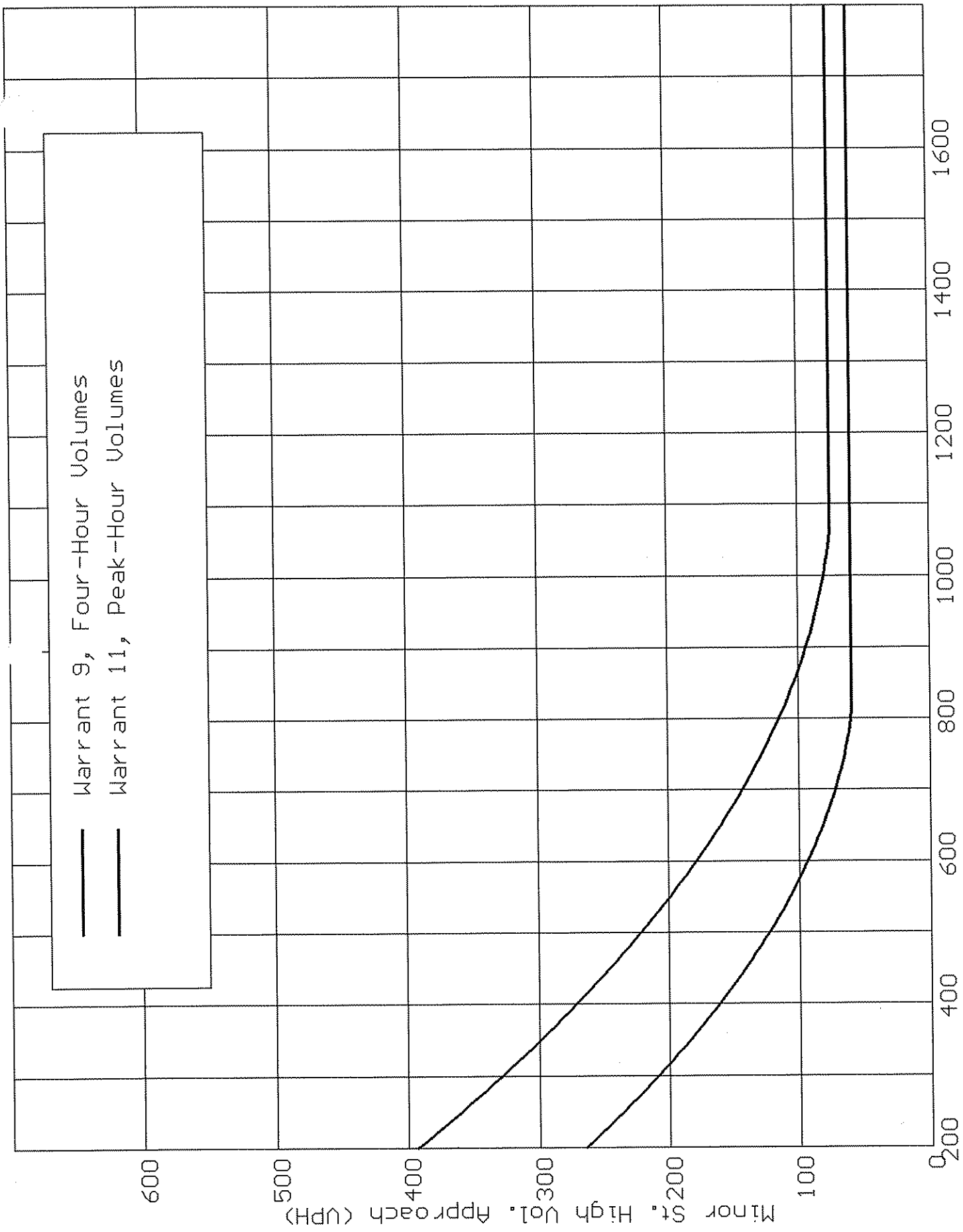
Warrant 10 - Peak Hour Delay

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

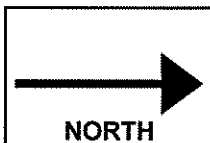
Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

NOT SATISFIED.



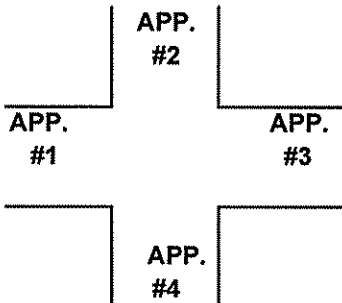
Major St. Total of Both Approaches (UPH)



COUNT LOCATION: TMC 9708 CR 16 (ANDOVER BLVD.)
 @ PRAIRIE RD.

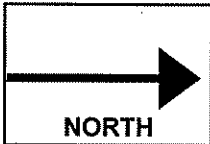
DATE: 6/18/97

APP. #1=NB PRAIRIE RD.
 APP. #2 =EB CR 16
 (ANDOVER BLVD.)
 APP. #3=SB PRAIRIE RD.
 APP. #4=WB CR 16
 (ANDOVER BLVD.)



- 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.

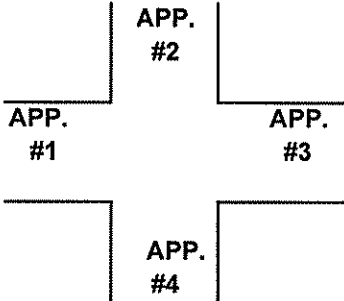
TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						1		
6:15-6:30						2		
6:30-6:45		1			1	4		
6:45-7:00						5		
HOURLY TOTAL					1	HOURLY TOTAL		12
7:00-7:15						5		1
7:15-7:30				1	1	3		
7:30-7:45						4		
7:45-8:00						9		
HOURLY TOTAL					1	HOURLY TOTAL		22
8:00-8:15						2		
8:15-8:30						6		
8:30-8:45						3		
8:45-9:00						6		
HOURLY TOTAL						HOURLY TOTAL		17
9:00-9:15						6		
9:15-9:30						4		
9:30-9:45						8		
9:45-10:00						3		
HOURLY TOTAL						HOURLY TOTAL		21
10:00-10:15						4		
10:15-10:30	1				1	3		
10:30-10:45						5		
10:45-11:00				1	1	7		
HOURLY TOTAL					2	HOURLY TOTAL		19
11:00-11:15						5		2
11:15-11:30						8		1
11:30-11:45						5		
11:45-12:00						5		
HOURLY TOTAL						HOURLY TOTAL		26
12:00-12:15						1		
12:15-12:30						6		
12:30-12:45						4		
12:45-1:00	1				1	8		
HOURLY TOTAL					1	HOURLY TOTAL		19
1:00-1:15				1	1	6		
1:15-1:30						5		
1:30-1:45						5		
1:45-2:00			1		1	7		
HOURLY TOTAL					2	HOURLY TOTAL		23



COUNT LOCATION: TMC 9708 CR 16 (ANDOVER BLVD.)
 @ PRAIRIE RD.

DATE: 6/17/97

APP. #1=NB PRAIRIE RD.
 APP. #2 =EB CR 16
 (ANDOVER BLVD.)
 APP. #3=SB PRAIRIE RD.
 APP. #4=WB CR 16
 (ANDOVER BLVD.)



- 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	6		
2:15-2:30		2			2	4		
2:30-2:45						5		
2:45-3:00		1			1	1		
HOURLY TOTAL					5	HOURLY TOTAL		16
3:00-3:15						5		
3:15-3:30			1	1	2	7		
3:30-3:45						1		
3:45-4:00						1		
HOURLY TOTAL					2	HOURLY TOTAL		14
4:00-4:15						1		
4:15-4:30						4		
4:30-4:45				1	1	1		
4:45-5:00		1			1			
HOURLY TOTAL					2	HOURLY TOTAL		6
5:00-5:15						2		
5:15-5:30						3		
5:30-5:45						5		
5:45-6:00								
HOURLY TOTAL						HOURLY TOTAL		10
6:00-6:15				1	1	1		
6:15-6:30		1			1			
6:30-6:45						2		
6:45-7:00						1		
HOURLY TOTAL					2	HOURLY TOTAL		4
7:00-7:15		4		2	6			
7:15-7:30						3		
7:30-7:45		1			1			
7:45-8:00						2		
HOURLY TOTAL					7	HOURLY TOTAL		5
8:00-8:15						1		
8:15-8:30								
8:30-8:45						1		
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		2
9:00-9:15		1			1	1		
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL					1	HOURLY TOTAL		1