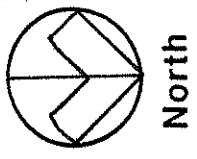


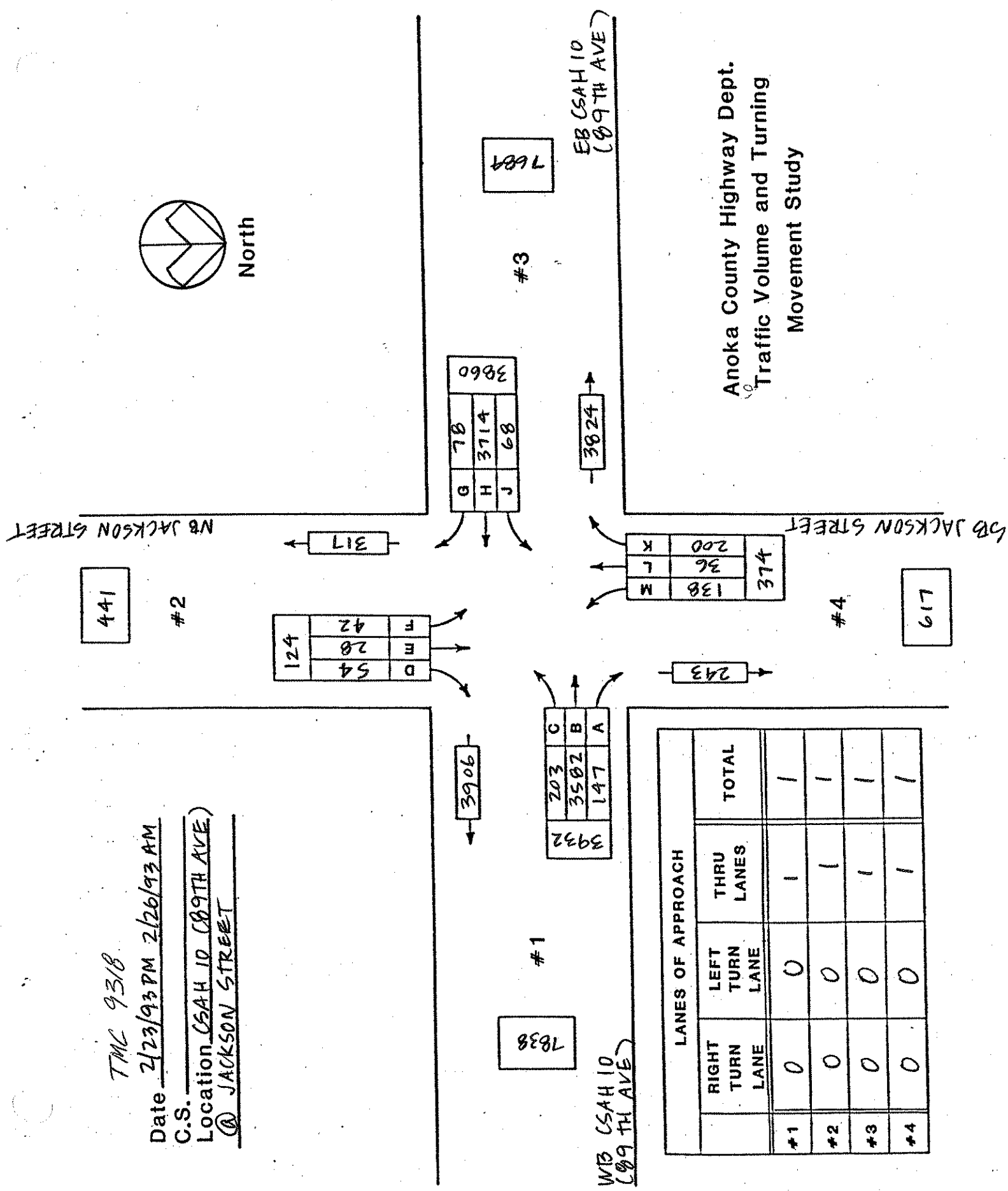
TMC 9318

Date 2/23/93 PM 2:26/93 AM

C.S. Location CSAH 10 (89TH AVE.)  
(A) JACKSON STREET



Anoka County Highway Dept.  
 Traffic Volume and Turning  
 Movement Study



	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

3932	203	C
	3582	B
	147	A

124	D	54
	E	28
	F	42

3906

243

3860	G	78
	H	3714
	J	68

3824

374	M	138
	L	36
	K	200

617

441

7838

7684

WB CSAH 10 (89TH AVE)

EB CSAH 10 (89TH AVE)

NB JACKSON STREET

SB JACKSON STREET

#2

#3

#4

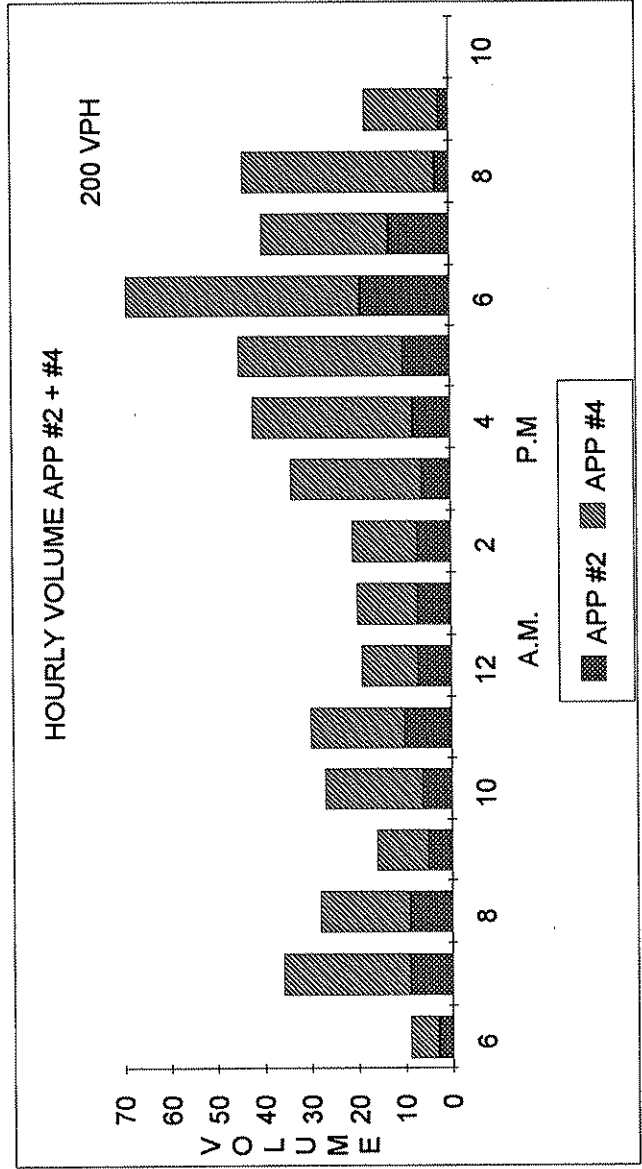
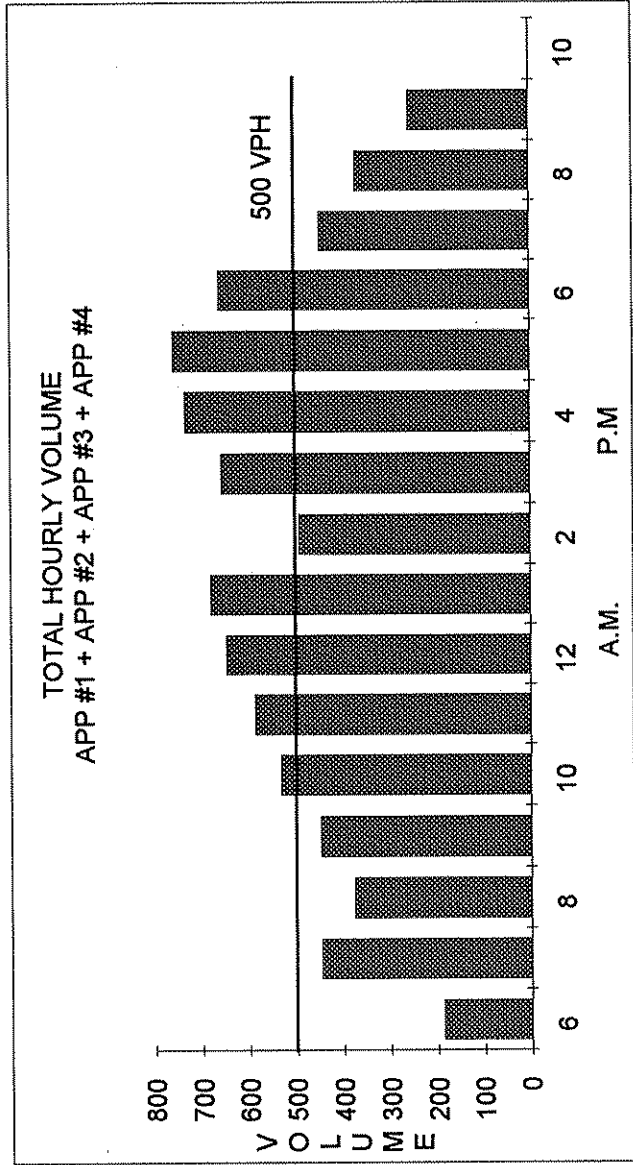


**WESTBOUND**      **EASTBOUND**      **NORTHBOUND**      **SOUTHBOUND**  
**APPROACH # 1**      **APPROACH # 3**      **APPROACH # 2**      **APPROACH # 4**

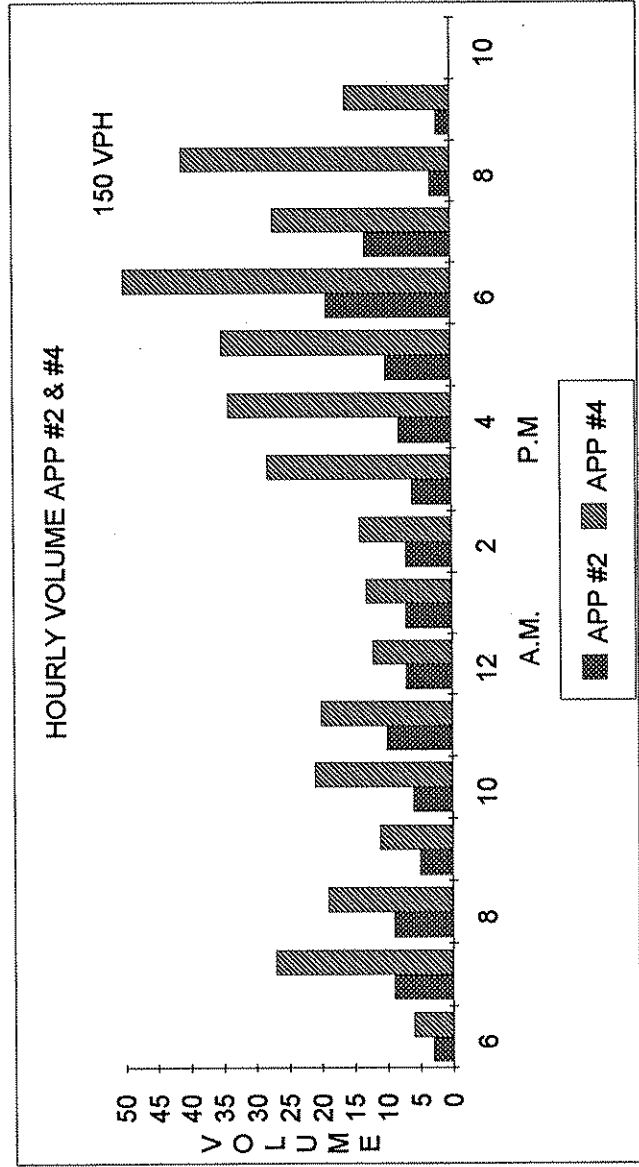
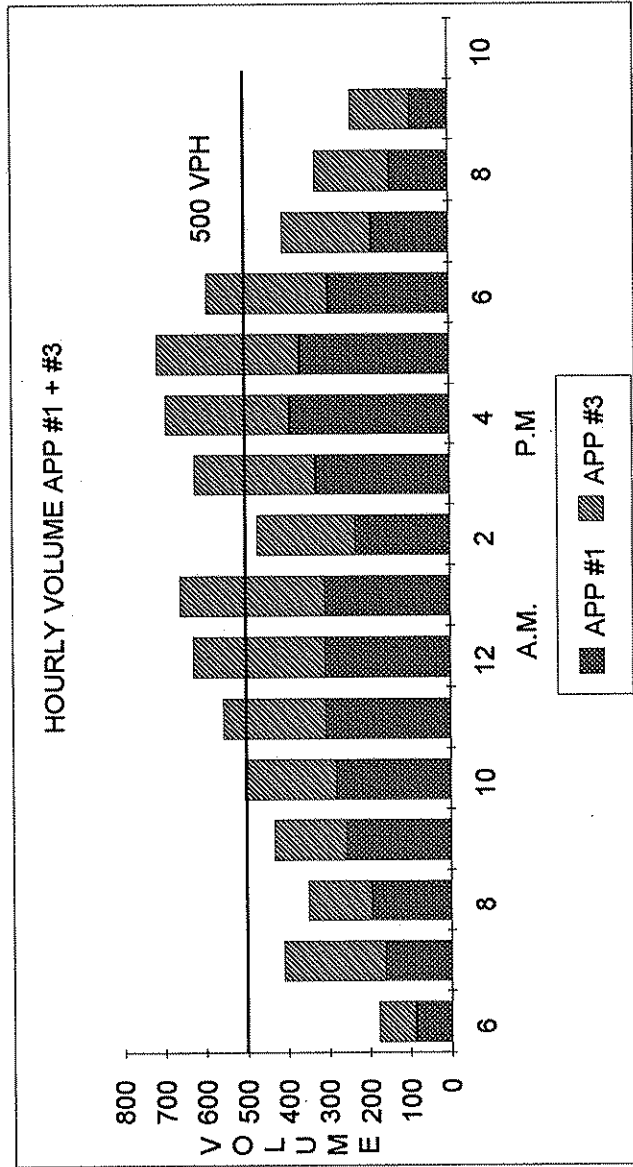
H.V. TO  
 15 MIN HOURLY H.V. TO  
 TOTAL LT TH RT TOTAL LT TH RT TOTAL LT TH RT TOTAL LT TH RT TOTAL LT TH RT TOTAL LT TH RT TOTAL

TIME INTERVALS	WESTBOUND APPROACH # 1				EASTBOUND APPROACH # 3				NORTHBOUND APPROACH # 2				SOUTHBOUND APPROACH # 4																					
2:15 - 2:30	3	1	54	1	56	2:00	to	0	2	46	1	49	2:00	to	0	0	0	1	1	2:00	to	0	3	0	0	3	2:00	to	0	3	0	0		
2:30 - 2:45	1	1	48	1	50	3:00	to	2	3	62	3	68	3:00	to	1	2	0	0	2	3:00	to	0	1	0	1	2	3:00	to	0	1	0	1		
2:45 - 3:00	3	7	58	1	66	230		1	0	65	1	66	242		1	1	1	1	3	7		3	1	1	4	6	14		6	14		6	14	
3:00 - 3:15	3	6	66	2	74	1	0	74	1	0	74	1	75	0	0	0	1	1	1	0	0	1	1	0	0	4	4			4				
3:15 - 3:30	1	4	67	3	74	3:00	to	1	2	72	0	74	3:00	to	0	0	1	0	1	1	3:00	to	1	1	0	3	4	3:00	to	1	1	0	3	
3:30 - 3:45	0	3	72	0	75	4:00	to	2	1	70	4	75	4:00	to	0	0	1	0	1	1	4:00	to	3	3	1	9	13	4:00	to	3	3	1	9	
3:45 - 4:00	4	7	97	1	105	328		3	1	69	2	72	286		0	0	1	2	3	6		6	0	0	1	6	7		7	28				
4:00 - 4:15	2	5	81	0	86	2	0	62	2	84		84	2	0	0	0	1	1	1		1	0	4	0	3	7		7						
4:15 - 4:30	0	4	69	1	74	4:00	to	2	0	75	2	77	4:00	to	0	0	1	1	1	2	4:00	to	0	2	0	3	5	4:00	to	0	2	0	3	
4:30 - 4:45	2	10	102	1	113	5:00	to	1	4	73	4	81	5:00	to	0	0	0	1	1	1	5:00	to	0	2	1	4	7	5:00	to	0	2	1	4	
4:45 - 5:00	2	16	103	0	119	392		0	3	74	2	79	301		0	3	1	0	4	8		8	0	6	0	9	15		15	34				
5:00 - 5:15	0	6	100	0	104	0	4	69	3	76		76	0	0	1	2	3		3			3	0	6	1	9	16		16					
5:15 - 5:30	0	4	90	2	96	5:00	to	0	0	96	2	98	5:00	to	0	1	0	1	1	2	5:00	to	0	0	0	3	3	5:00	to	0	0	0	3	
5:30 - 5:45	1	2	97	1	100	6:00	to	1	2	80	1	83	6:00	to	0	1	0	1	1	2	6:00	to	0	3	0	8	11	6:00	to	0	3	0	8	
5:45 - 6:00	0	2	62	2	66	366		0	2	85	4	91	348		0	2	0	1	3	10		10	0	1	1	3	5		5	35				
6:00 - 6:15	1	5	61	3	69	0	3	70	1	74		74	0	1	2	4	7		7			7	0	3	1	1	5		5					
6:15 - 6:30	1	8	64	0	72	6:00	to	1	0	73	1	74	6:00	to	0	1	1	3	3	5	6:00	to	0	2	1	2	2	5	6:00	to	0	2	1	2
6:30 - 6:45	1	13	61	3	77	7:00	to	0	4	85	0	89	7:00	to	0	0	0	2	2	2	7:00	to	0	4	2	13	19	7:00	to	0	4	2	13	
6:45 - 7:00	0	21	57	1	79	297		0	3	54	2	59	286		0	2	2	1	5	19		19	0	7	5	9	21		21	50				
7:00 - 7:15	1	8	53	0	61	1	1	71	1	73		73	1	1	1	1	3		3			3	0	1	0	10	11		11					
7:15 - 7:30	0	6	47	2	55	7:00	to	0	1	42	0	43	7:00	to	0	1	1	1	1	3	7:00	to	0	0	1	4	5	7:00	to	0	0	1	4	
7:30 - 7:45	0	5	39	0	44	8:00	to	0	0	57	2	59	8:00	to	0	0	2	2	2	4	8:00	to	0	1	1	3	5	8:00	to	0	1	1	3	
7:45 - 8:00	0	1	28	0	29	189		0	1	41	1	43	218		0	0	0	3	3	13		13	0	1	1	4	6		6	27				
8:00 - 8:15	0	6	38	0	44	0	0	42	1	43		43	0	0	0	0	0		0			0	4	2	9	15		15						
8:15 - 8:30	0	8	32	0	40	8:00	to	0	1	56	0	57	8:00	to	0	0	0	0	0	0	8:00	to	0	0	0	1	1	8:00	to	0	0	0	1	
8:30 - 8:45	0	7	33	1	41	9:00	to	0	1	44	3	48	9:00	to	0	1	0	0	1	3		3	0	1	1	4	6		6	41				
8:45 - 9:00	0	2	15	2	19	144		2	2	33	0	35	183		0	2	0	0	2	3		3	0	1	1	4	6		6					
9:00 - 9:15	0	2	28	0	30	0	1	45	0	46		46	0	0	1	1	2		2			2	0	0	0	3	3		3					
9:15 - 9:30	0	3	28	2	33	9:00	to	0	0	43	3	46	9:00	to	0	0	0	0	0	0	9:00	to	0	0	0	6	6	9:00	to	0	0	0	6	
9:30 - 9:45	1	0	10	0	10	10:00	to	1	0	26	1	27	10:00	to	0	0	0	0	0	0	10:00	to	0	3	1	2	6	10:00	to	0	3	1	2	
9:45 - 10:00	0	1	17	0	18	91		1	1	27	0	28	147		0	0	0	0	0	2		2	0	0	0	1	1		1	16				

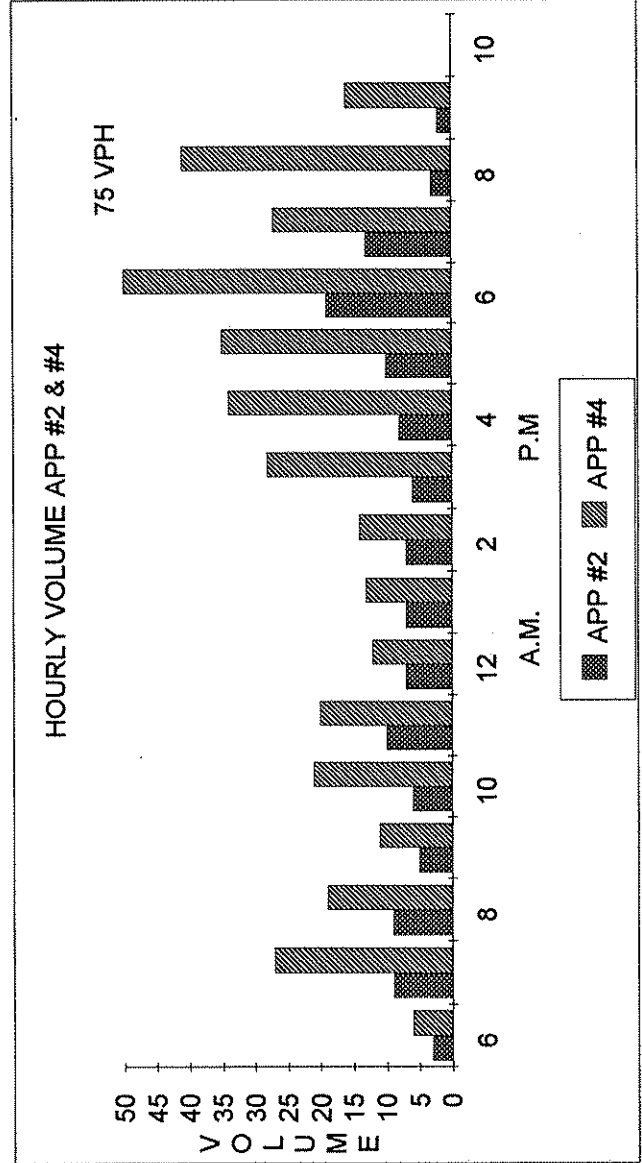
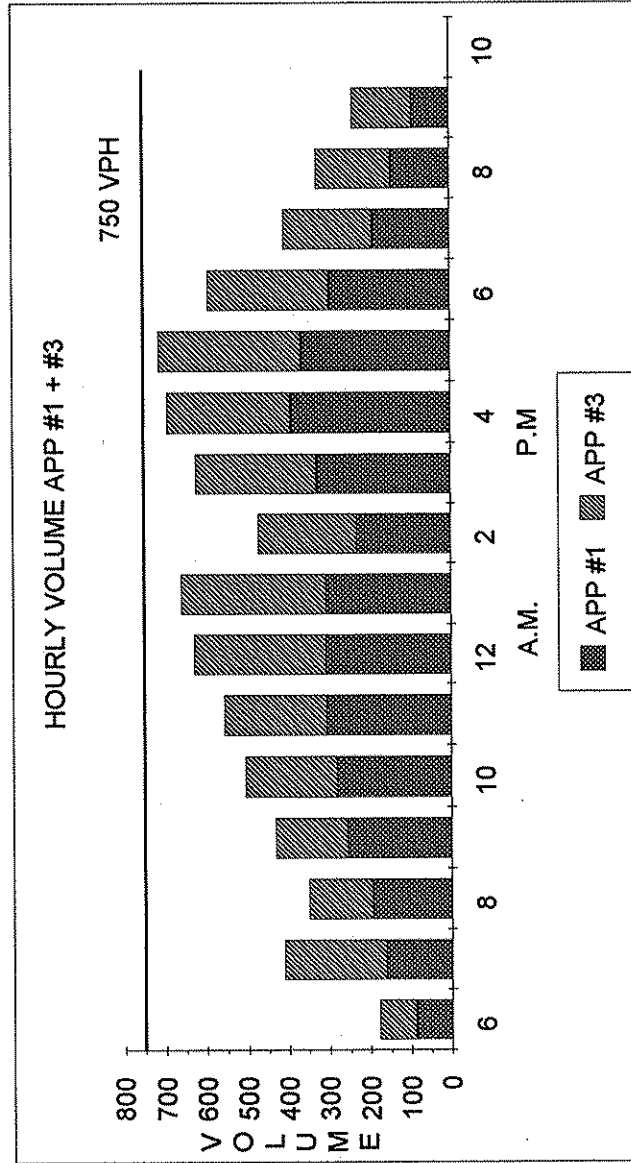
TMC9318 STOP WARRANT STUDY



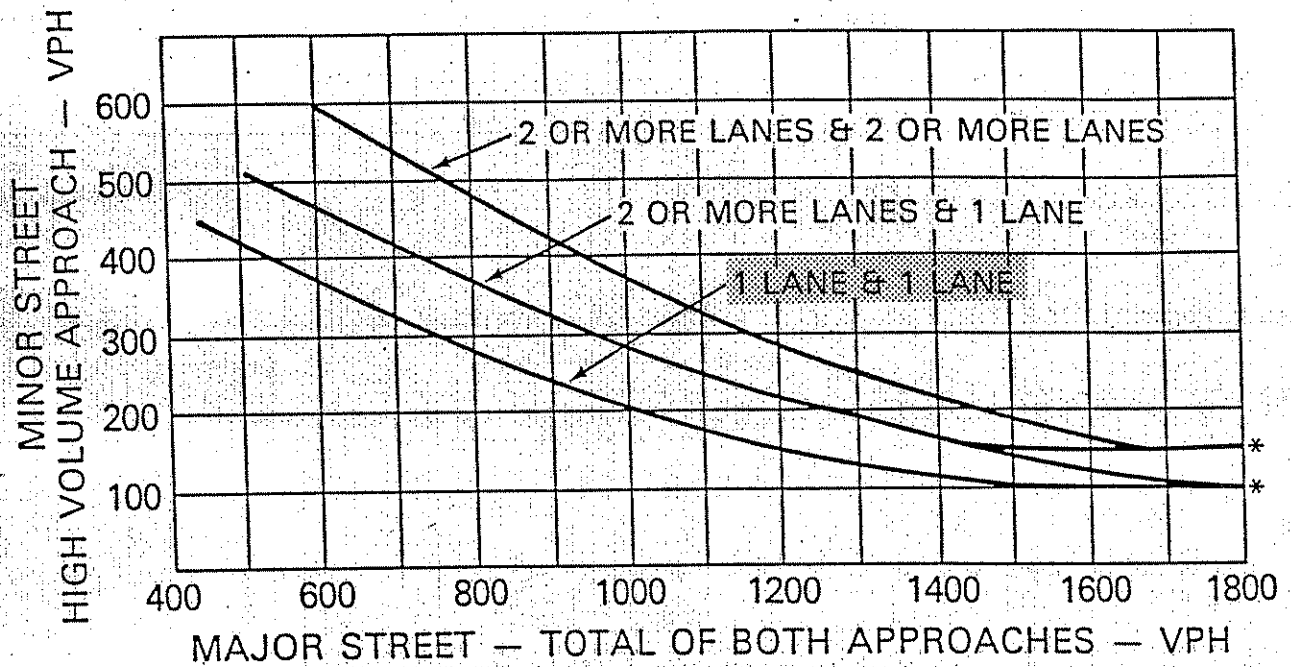
TMC9318 SIGNAL WARRANT 1 STUDY



TMC9318 SIGNAL WARRANT 2 STUDY



# FIGURE 4-5. PEAK HOUR VOLUME WARRANT



\*NOTE: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

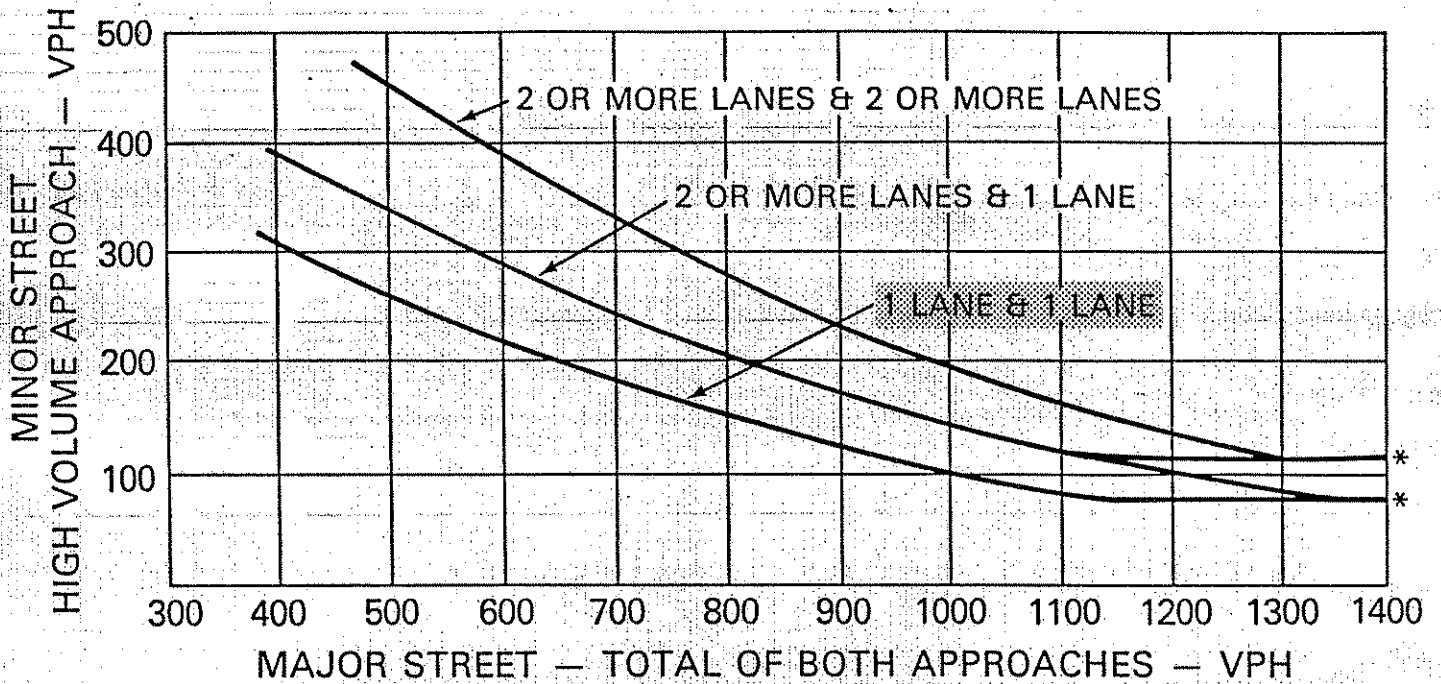
● = VOLUMES WHICH EXCEED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.

★ = VOLUMES WHICH EXCEED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	178	6
7-8 am	411	27
8-9 am	350	19
9-10 am	432	11
10-11 am	506	21
11-12 pm	557	20
12-1 pm	629	12
1-2 pm	661	13
2-3 pm	472	14
3-4 pm	624	28
4-5 pm	693	34
5-6 pm	714	35
6-7 pm	593	50
7-8 pm	407	27
8-9 pm	327	41
9-10 pm	238	16

**CSAH 10 (89TH AVE) @ JACKSON STREET**

# FIGURE 4-7. FOUR HOUR VOLUME WARRANT



\*NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

● = VOLUMES WHICH EXCEED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.

★ = VOLUMES WHICH EXCEED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	178	6
7-8 am	411	27
8-9 am	350	19
9-10 am	432	11
10-11 am	506	21
11-12 pm	557	20
12-1 pm	629	12
1-2 pm	661	13
2-3 pm	472	14
3-4 pm	624	28
4-5 pm	693	34
5-6 pm	714	35
6-7 pm	593	50
7-8 pm	407	27
8-9 pm	327	41
9-10 pm	238	16

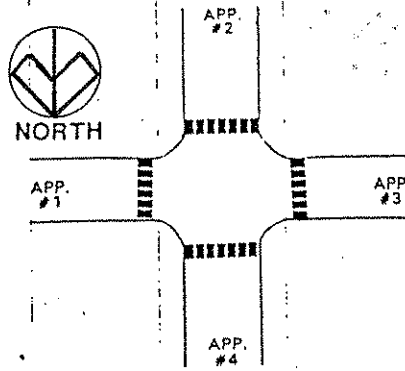
**CSAH 10 (89TH AVE) @ JACKSON STREET**



COUNT LOCATION: CSAH 10 (89TH AVE) @ JACKSON STREET

DATE: 2/26/93

- APP. #1 = WB CSAH 10 (89TH AVE)
- APP. #2 = NB JACKSON STREET
- APP. #3 = EB CSAH 10 (89TH AVE)
- APP. #4 = SB JACKSON STREET



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. TOTAL	TRUCK	RV	BUS
6:00 - 6:15 AM				1	1			
6:15 - 6:30					-			1
6:30 - 6:45					-	1		1
6:45 - 7:00		1			1	2		2
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>7</b>
7:00 - 7:15					-	1		3
7:15 - 7:30			1		1	1		1
7:30 - 7:45			2		2			
7:45 - 8:00					-	2		7
<b>HOURLY TOTAL</b>					<b>3</b>	<b>HOURLY TOTAL</b>		<b>15</b>
8:00 - 8:15					-	3		1
8:15 - 8:30					-	1		4
8:30 - 8:45					-	2		
8:45 - 9:00					-	2		3
<b>HOURLY TOTAL</b>					<b>0</b>	<b>HOURLY TOTAL</b>		<b>16</b>
9:00 - 9:15					-	5		3
9:15 - 9:30					-			5
9:30 - 9:45					-			1
9:45 - 10:00					-			
<b>HOURLY TOTAL</b>					<b>0</b>	<b>HOURLY TOTAL</b>		<b>14</b>
10:00 - 10:15					-	2		
10:15 - 10:30				1	1	3		1
10:30 - 10:45					-	8		
10:45 - 11:00				1	1	3		
<b>HOURLY TOTAL</b>					<b>2</b>	<b>HOURLY TOTAL</b>		<b>17</b>
11:00 - 11:15					-	4		1
11:15 - 11:30					-	3		1
11:30 - 11:45					-	3		2
11:45 - 12:00 PM					-	1		1
<b>HOURLY TOTAL</b>					<b>0</b>	<b>HOURLY TOTAL</b>		<b>16</b>
12:00 - 12:15 PM				2	2	2		
12:15 - 12:30					-	2		1
12:30 - 12:45					-	2		2
12:45 - 1:00				2	2	2		
<b>HOURLY TOTAL</b>					<b>4</b>	<b>HOURLY TOTAL</b>		<b>11</b>
1:00 - 1:15					-	4		1
1:15 - 1:30				1	1			
1:30 - 1:45					-	1		
1:45 - 2:00		2			2	2		1
					<b>3</b>			<b>9</b>