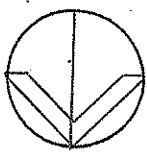


TMC9337

Date 10/12/93 AM 10/18/93 PM

C.S. Location CSAH1 (EAST RIVER RD.)
CR 132 (85TH AVE)



North

7450

#2

WB CR 132 (85TH AVE)

3682	F	1660
0		
2022	D	

8302

#3

16072

1707	C
6063	B
0	
7770	

NB CSAH1 (EAST RIVER RD.)

#1

16064

2061	G	8341
6280	H	0

7723

SB CSAH1 (EAST RIVER RD.)

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

Anoka County Highway Dept.
Traffic Volume and Turning
Movement Study

ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINEERING SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

Site Code : 93370202
 Start Date: 10/20/93
 File I.D. : TMC237
 Page : 1

WEATHER: CLEAR/70 CLEAR/75
 Counter : TDC EIGHT
 Counted by Naomi/Eileen

Vehicle group 1

Date	CSAH 1 (EAST RIVER RD) Southbound				CR 132 (85TH AVE) Westbound				CSAH 1 (EAST RIVER RD) Northbound				Eastbound				Vehicle Total	Other Total	
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left			
10/20/93																			
06:00	1	0	120	7	1	4	0	13	0	7	17	0	0	0	0	0	168	2	
06:15	3	0	232	10	0	6	0	30	2	10	19	0	0	0	0	0	307	5	
06:30	5	0	335	9	0	9	0	28	3	29	32	0	0	0	0	0	442	8	
06:45	5	0	402	29	0	7	0	38	0	24	39	0	0	0	0	0	539	5	
Hr Total	14	0	1089	55	1	26	0	109	5	70	107	0	0	0	0	0	1456	20	
07:00	6	0	390	27	1	10	0	57	4	27	50	0	0	0	0	0	561	11	
07:15	3	0	457	26	2	18	0	54	1	18	75	0	0	0	0	0	648	6	
07:30	5	0	395	19	8	16	0	61	4	34	70	0	0	0	0	0	595	17	
07:45	3	0	324	31	4	16	0	27	5	35	67	0	0	0	0	0	500	12	
Hr Total	17	0	1566	103	15	60	0	199	14	114	262	0	0	0	0	0	2304	46	
08:00	9	0	184	19	1	13	0	26	6	31	40	0	0	0	0	0	313	16	
08:15	3	0	140	19	1	13	0	22	5	16	42	0	0	0	0	0	252	9	
08:30	7	0	80	19	1	9	0	18	7	25	60	0	0	0	0	0	211	15	
08:45	3	0	80	26	4	9	0	18	10	18	71	0	0	0	0	0	222	17	
Hr Total	22	0	484	83	7	44	0	84	28	90	213	0	0	0	0	0	998	57	
09:00	3	0	112	26	3	12	0	13	2	17	39	0	0	0	0	0	219	8	
09:15	1	0	60	22	1	15	0	17	3	16	43	0	0	0	0	0	173	9	
09:30	5	0	56	22	2	10	0	9	1	19	61	0	0	0	0	0	177	8	
09:45	4	0	41	34	2	21	0	8	5	23	54	0	0	0	0	0	181	11	
Hr Total	13	0	269	104	8	58	0	47	11	75	197	0	0	0	0	0	750	32	
10:00	2	0	54	34	1	14	0	9	6	15	42	0	0	0	0	0	168	9	
10:15	3	0	39	28	3	20	0	17	4	22	37	0	0	0	0	0	163	10	
10:30	3	0	56	34	1	22	0	13	1	16	69	0	0	0	0	0	210	5	
10:45	2	0	54	30	1	27	0	21	4	26	42	0	0	0	0	0	200	7	
Hr Total	10	0	203	126	6	83	0	60	15	79	190	0	0	0	0	0	741	31	
11:00	1	0	50	26	2	22	0	23	4	31	34	0	0	0	0	0	186	7	
11:15	0	0	46	31	1	27	0	16	7	14	33	0	0	0	0	0	167	8	
11:30	1	0	47	19	2	34	0	33	3	21	66	0	0	0	0	0	220	9	
11:45	2	0	42	33	4	31	0	22	5	35	75	0	0	0	0	0	238	11	
Hr Total	4	0	185	109	9	114	0	94	19	101	208	0	0	0	0	0	811	32	
12:00	2	0	61	37	2	29	0	26	0	16	56	0	0	0	0	0	225	7	
12:15	3	0	56	22	3	33	0	20	2	30	50	0	0	0	0	0	211	8	
12:30	3	0	61	35	2	31	0	23	3	24	69	0	0	0	0	0	243	9	
12:45	0	0	72	34	5	23	0	24	5	39	45	0	0	0	0	0	237	11	
Hr Total	8	0	250	128	12	116	0	93	10	109	220	0	0	0	0	0	916	30	

ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINEERING SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

Site Code : 93370202
 Start Date: 10/20/93
 File I.D. : TMC0373
 Page : 2

WEATHER: CLEAR/70 CLEAR/75
 Counter : TDC EIGHT
 Counted by Naomi/Eileen

Vehicle group 1

Date	CSAH 1 (EAST RIVER RD) Southbound			CR 132 (85TH AVE) Westbound			CSAH 1 (EAST RIVER RD) Northbound			Eastbound			Vehicle Total	Other Total			
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left					
10/20/93																	
13:00	7	0	64	34	2	27	0	27	5	35	62	0	0	0	0	249	14
13:15	2	0	73	22	1	27	0	27	1	19	49	0	0	0	0	217	4
13:30	3	0	67	26	2	36	0	20	9	17	65	0	0	0	0	231	14
13:45	8	0	57	30	5	34	0	32	9	44	63	0	0	0	0	260	22
Hr Total	20	0	261	112	10	124	0	106	24	115	239	0	0	0	0	957	54
14:00	4	0	55	27	3	41	0	28	3	23	62	0	0	0	0	236	10
14:15	4	0	60	33	0	37	0	23	7	37	85	0	0	0	0	275	11
14:30	3	0	75	29	1	36	0	24	2	23	71	0	0	0	0	258	6
14:45	4	0	80	40	1	29	0	28	7	43	104	0	0	0	0	324	12
Hr Total	15	0	270	129	5	143	0	103	19	126	322	0	0	0	0	1093	39
15:00	4	0	73	25	1	36	0	26	5	32	132	0	0	0	0	324	10
15:15	8	0	71	28	1	43	0	24	3	43	147	0	0	0	0	356	12
15:30	5	0	57	37	1	58	0	28	6	39	147	0	0	0	0	366	12
15:45	9	0	69	46	1	59	0	29	3	36	181	0	0	0	0	420	13
Hr Total	26	0	270	136	4	196	0	107	17	150	607	0	0	0	0	1466	47
16:00	5	0	54	35	4	63	0	33	8	57	226	0	0	0	0	468	17
16:15	3	0	80	26	1	45	0	24	7	92	277	0	0	0	0	544	11
16:30	2	0	65	28	1	49	0	50	4	69	269	0	0	0	0	530	7
16:45	3	0	83	28	0	49	0	40	3	75	372	0	0	0	0	647	6
Hr Total	13	0	282	117	6	206	0	147	22	293	1144	0	0	0	0	2189	41
17:00	2	0	66	25	1	50	0	33	4	73	402	0	0	0	0	649	7
17:15	3	0	72	38	1	66	0	38	4	88	380	0	0	0	0	682	8
17:30	0	0	69	26	2	71	0	31	3	84	436	0	0	0	0	717	5
17:45	2	0	64	29	0	70	0	37	6	84	352	0	0	0	0	636	8
Hr Total	7	0	271	118	4	257	0	139	17	329	1570	0	0	0	0	2684	28
18:00	0	0	58	39	2	41	0	35	4	50	143	0	0	0	0	366	6
18:15	1	0	57	38	0	39	0	30	2	42	111	0	0	0	0	317	3
18:30	3	0	71	40	0	45	0	21	1	32	74	0	0	0	0	283	4
18:45	0	0	50	35	1	37	0	23	2	36	76	0	0	0	0	257	3
Hr Total	4	0	236	152	3	162	0	109	9	160	404	0	0	0	0	1223	16
19:00	0	0	47	34	1	28	0	24	1	39	82	0	0	0	0	254	3
19:15	0	0	48	36	1	26	0	25	0	38	55	0	0	0	0	228	3
19:30	0	0	45	34	0	38	0	25	0	25	48	0	0	0	0	215	3
19:45	0	0	32	21	1	51	0	28	0	25	49	0	0	0	0	206	3
Hr Total	0	0	172	125	3	143	0	102	1	127	234	0	0	0	0	903	4

WEATHER: CLEAR/70 CLEAR/75
 Counter : TDC EIGHT
 Counted by Naomi/Eileen

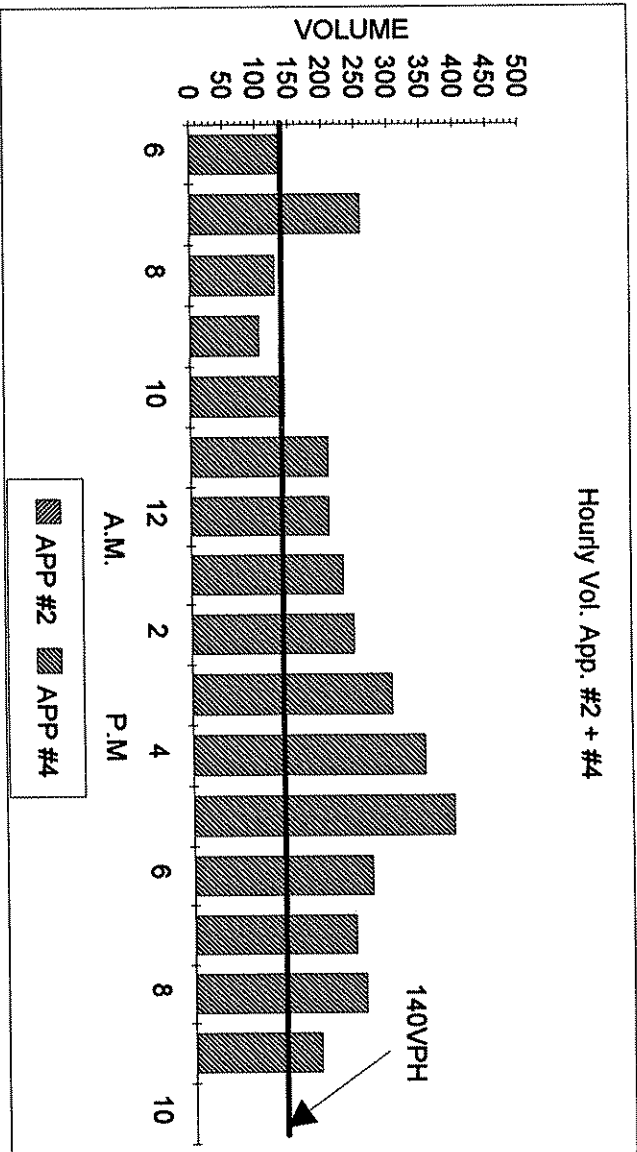
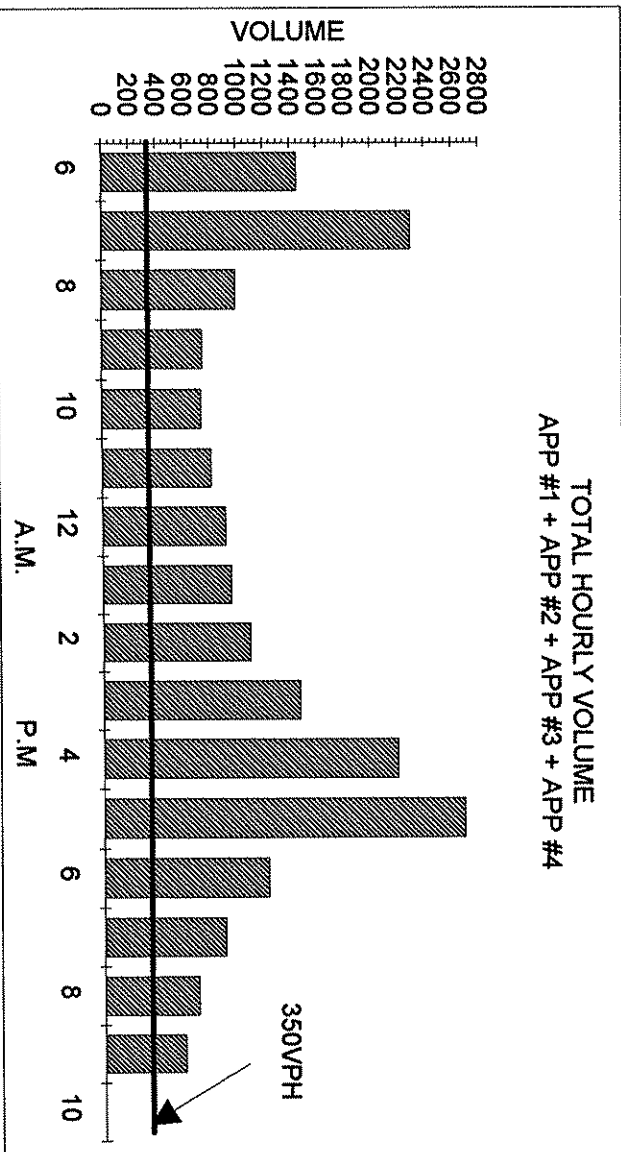
ANOKA COUNTY HIGHWAY DEPARTMENT
 TRAFFIC ENGINEERING SECTION
 TRAFFIC VOLUME AND
 TURNING MOVEMENT STUDY

Site Code : 93370202
 Start Date: 10/20/93
 File I.D. : TMC0337
 Page : 3

Vehicle group 1

Date	CSAH 1 (EAST RIVER RD) Southbound				ICR 132 (85TH AVE) Westbound				CSAH 1 (EAST RIVER RD) Northbound				Eastbound				Vehicle Total	Other Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left		
10/20/93																		
20:00	0	0	26	17	0	46	0	22	2	20	42	0	0	0	0	0	173	2
20:15	1	0	37	20	0	48	0	16	2	26	50	0	0	0	0	0	197	3
20:30	1	0	22	13	0	46	0	20	0	22	45	0	0	0	0	0	168	1
20:45	1	0	29	18	0	39	0	23	0	10	45	0	0	0	0	0	164	1
Hr Total	3	0	114	68	0	179	0	81	4	78	182	0	0	0	0	0	702	7
21:00	1	0	26	12	1	46	0	28	1	14	38	0	0	0	0	0	164	3
21:15	0	0	40	10	0	17	0	24	0	11	49	0	0	0	0	0	151	0
21:30	0	0	39	12	2	25	0	12	1	13	39	0	0	0	0	0	140	3
21:45	0	0	36	8	1	23	0	16	1	7	55	0	0	0	0	0	145	2
Hr Total	1	0	141	42	4	111	0	80	3	45	181	0	0	0	0	0	600	8
TOTAL	177	0	6063	1707	97	2022	0	1660	218	2061	6280	0	0	0	0	0	19793	492

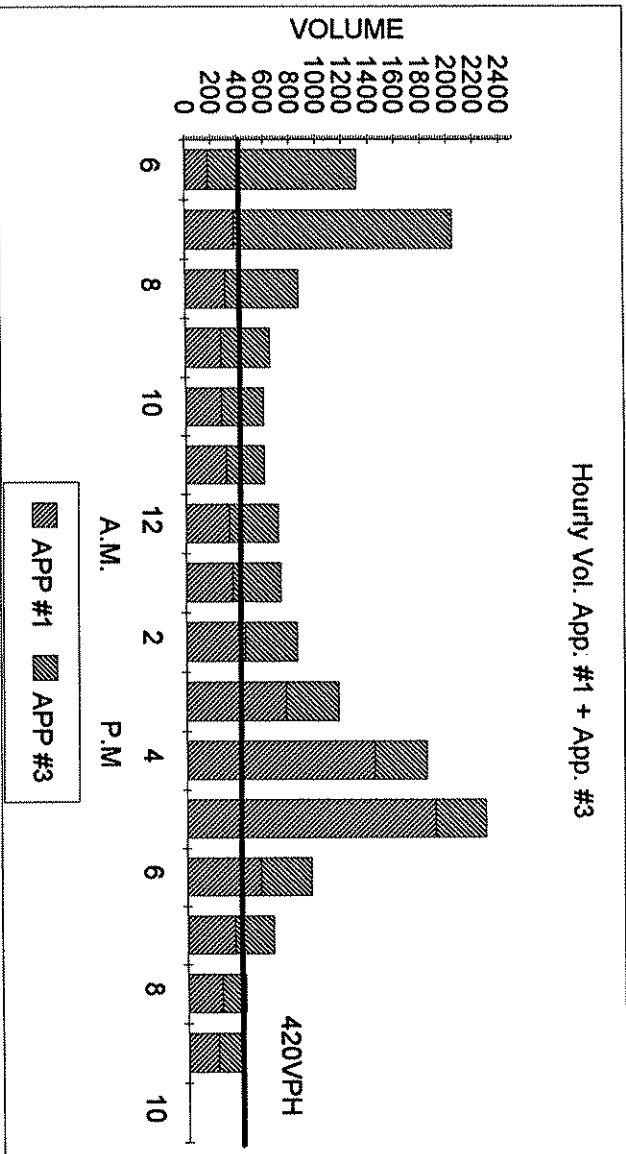
TMC9337 STOP WARRANT STUDY



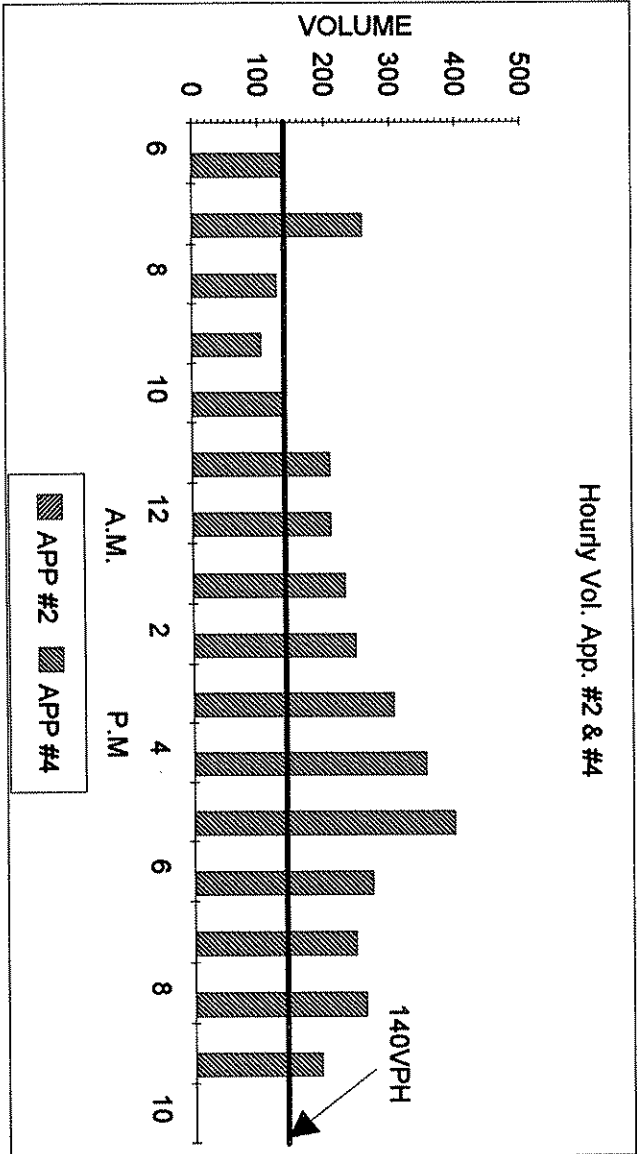
CSAH 1 (EAST RIVER RD) @ CR 132 (85TH AVE)

TMC9337 SIGNAL WARRANT 1 STUDY

Hourly Vol. App. #1 + App. #3

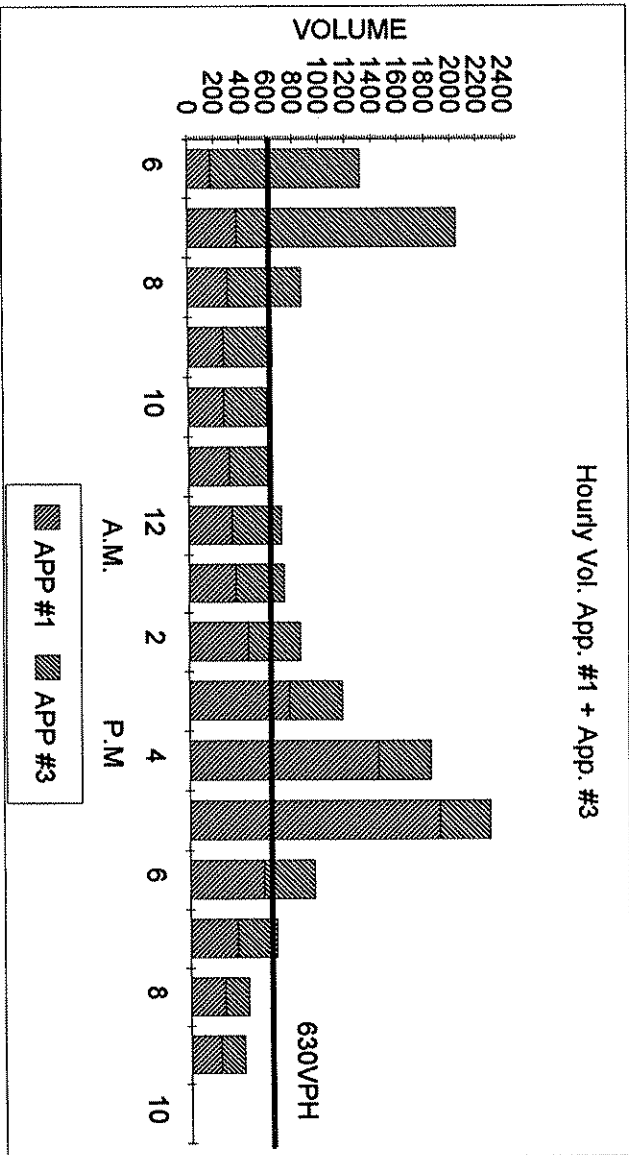


Hourly Vol. App. #2 & #4

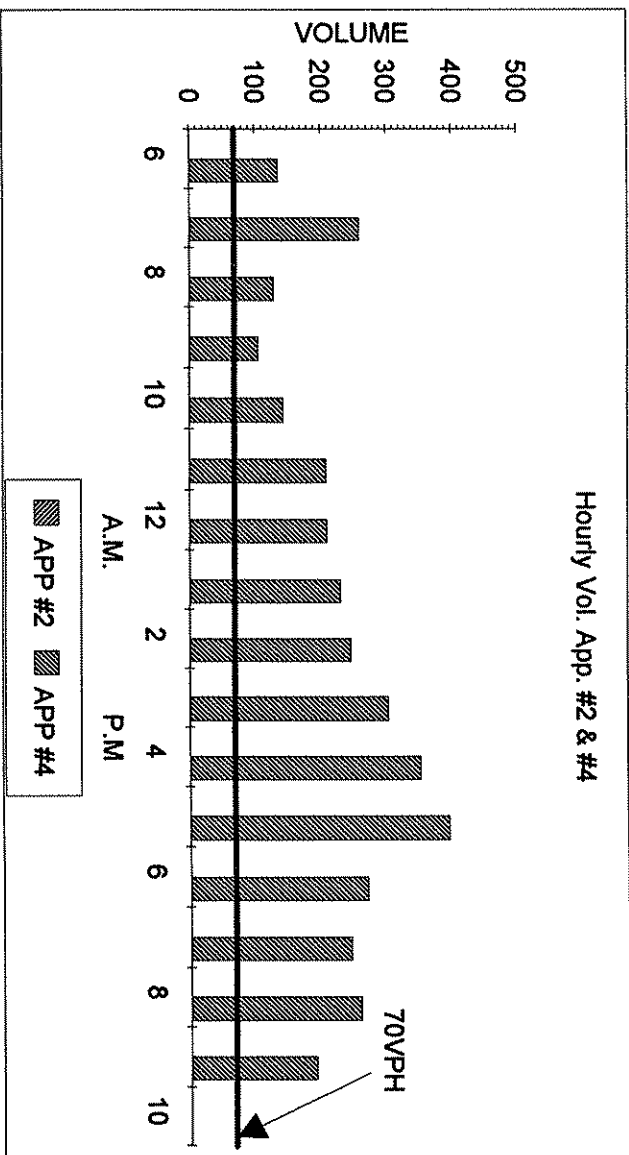


TMC9337 SIGNAL WARRANT 2 STUDY

Hourly Vol. App. #1 + App. #3



Hourly Vol. App. #2 & #4



TMC9337 CSAH 1 (EAST RIVER RD) @ CR 132 (85TH AVE)

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	1321	135
7-8 am	2045	259
8-9 am	870	128
9-10 am	645	105
10-11 am	598	143
11-12 pm	603	208
12-1 pm	707	209
1-2 pm	727	230
2-3 pm	847	246
3-4 pm	1163	303
4-5 pm	1836	353
5-6 pm	2288	396
6-7 pm	952	271
7-8 pm	658	245
8-9 pm	442	260
9-10 pm	409	191

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

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

NOTE: 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

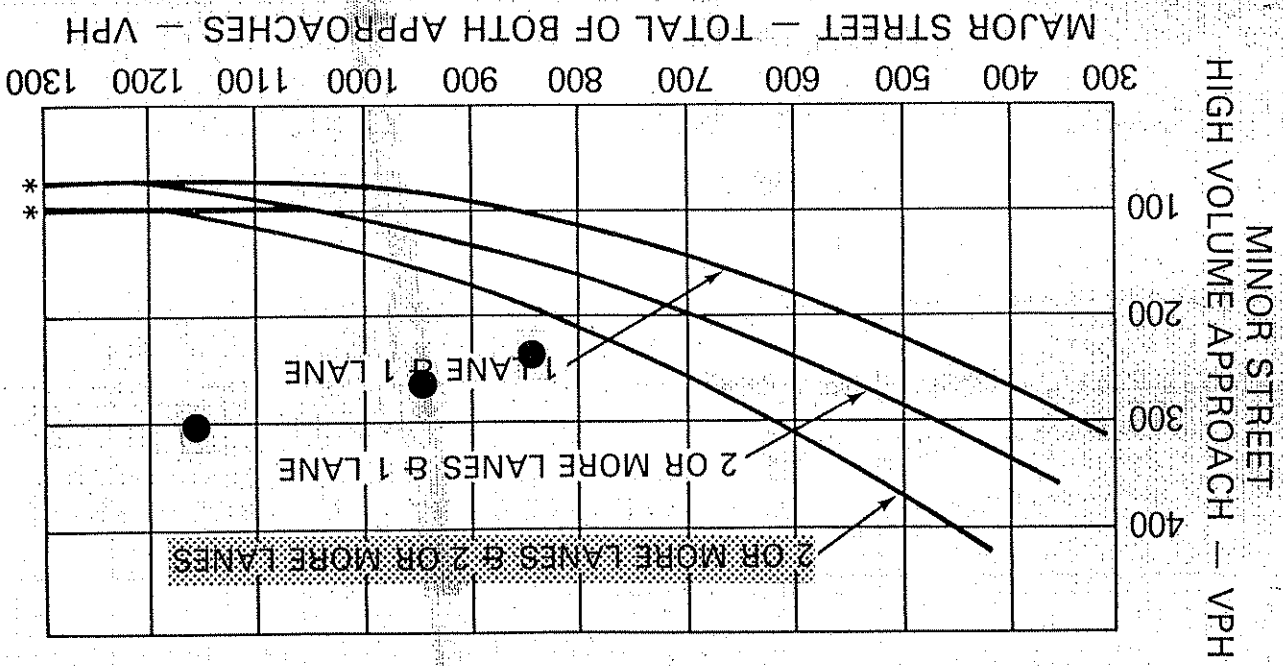


FIGURE 4-6. PEAK HOUR VOLUME WARRANT (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

TMC9337 CSAH 1 (EAST RIVER RD) @ CR 132 (85TH AVE)

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	1321	135
7-8 am	2045	259
8-9 am	870	128
9-10 am	645	105
10-11 am	598	143
11-12 pm	603	208
12-1 pm	707	209
1-2 pm	727	230
2-3 pm	847	246
3-4 pm	1163	303
4-5 pm	1836	353
5-6 pm	2288	396
6-7 pm	952	271
7-8 pm	658	245
8-9 pm	442	260
9-10 pm	409	191

● = VOLUMES WHICH EXCEEDED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.
 ★ = VOLUMES WHICH EXCEEDED THE THRESHOLD BUT CANNOT BE REPRESENTED ON THE GRAPH.

NOTE: 80 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 60 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

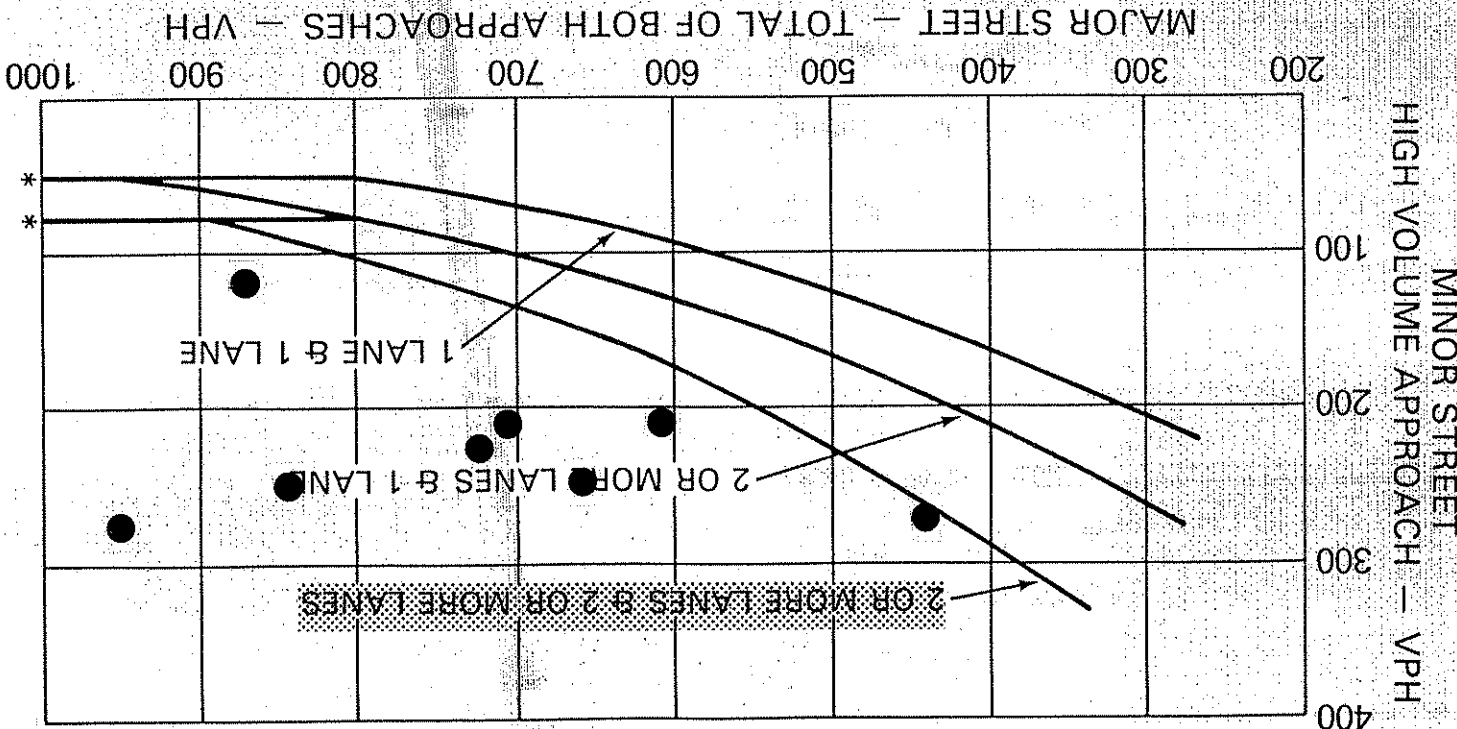


FIGURE 4-8. FOUR HOUR VOLUME WARRANT (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)

DATE: 10/13/93

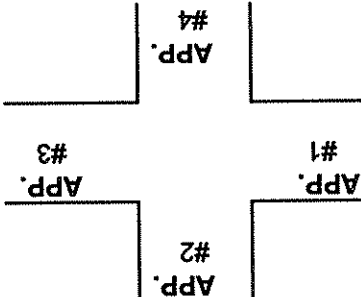
DATE: 10/12/93

CSAH 1 (EAST RIVER RD) @ CR 132 (85TH AVE)

COUNT LOCATION:

NORTH

APP. #1=NB CSAH 1 (EAST RIVER RD)
 APP. #2=
 APP. #3=SB CSAH 1 (EAST RIVER RD)
 APP. #4=WB CR 132 (85TH AVE)



- 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.

HEAVY VEHICLES

PEDESTRIANS

TIME	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM	1				1	1		
6:15-6:30						2		3
6:30-6:45						7		2
6:45-7:00						3		2
HOURLY TOTAL					1	12		21
7:00-7:15						5		6
7:15-7:30						2		4
7:30-7:45						15		2
7:45-8:00						8		4
HOURLY TOTAL						28		46
8:00-8:15	1	1			2	11		5
8:15-8:30						7		1
8:30-8:45						12		3
8:45-9:00						8		9
HOURLY TOTAL					2	28		50
9:00-9:15						7		
9:15-9:30			1		1	4		1
9:30-9:45						8		
9:45-10:00						10		1
HOURLY TOTAL					1	19		32
10:00-10:15						8		1
10:15-10:30						9		1
10:30-10:45						5		
10:45-11:00						6		1
HOURLY TOTAL						28		31
11:00-11:15						6		1
11:15-11:30						8		
11:30-11:45	1					4	1	
11:45-12:00						11		
HOURLY TOTAL						19	1	31
12:00-12:15						4		
12:15-12:30						6		2
12:30-12:45						6		2
12:45-1:00						9		1
HOURLY TOTAL						25		30
1:00-1:15						13		1
1:15-1:30						3		1
1:30-1:45						13	1	
1:45-2:00						21		5
HOURLY TOTAL						50	2	5

