

Date 6/16/93 AM 6/15/93 PM
 C.S. Location CE 132 (85th AVE)
SPRING BROOK

SB SPRING BROOK

6078

#2



North

D	380
E	249
F	2216

3233

5041

A	568
B	4843
C	209
5620	

#1

10661

G	2689
H	4220
J	1445
8354	

#3

17042

8688

M	441
L	335
K	1629
2405	

#4

4667

NB SPRING BROOK

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

Anoka County Highway Dept.
 Traffic Volume and Turning
 Movement Study

WB CR 132 (85th AVE)

EB CR 132 (85th AVE)

LANES OF APPROACH

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

Site Code : 93
 Start Date: 06
 File I.D. : TM
 Page : 1

WEATHER:
 Counter : TDC EIGHT
 Counted by Naomi & Eileen

Vehicle group 1

Date	SB SPRINGBROOK Southbound				WB CR 132 (85TH AVE) Westbound				NB SPRINGBROOK Northbound				EB CR 132 (85TH AVE) Eastbound				Vehicle Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	
06/15/93																	
06:00	0	1	2	1	0	3	40	0	0	8	0	4	0	2	14	1	76
06:15	0	1	0	2	0	4	51	1	2	4	0	3	1	4	23	0	93
06:30	0	0	0	3	0	7	54	2	0	3	0	4	2	5	18	0	96
06:45	0	1	1	2	0	5	71	10	0	6	0	5	0	8	30	0	139
Hr Total	0	3	3	8	0	19	216	13	2	21	0	16	3	19	85	1	404
07:00	0	0	0	1	1	10	72	4	0	6	0	5	2	5	39	2	144
07:15	0	1	0	3	0	4	62	6	0	2	0	2	1	1	36	1	118
07:30	0	1	0	2	1	4	64	5	0	4	1	2	0	3	35	2	123
07:45	0	0	1	2	1	8	68	6	2	5	1	3	0	4	39	0	137
Hr Total	0	2	1	8	3	26	266	21	2	17	2	12	3	13	149	5	522
08:00	0	4	1	3	4	10	66	0	2	5	0	2	2	0	35	1	127
08:15	1	1	0	4	4	8	39	6	1	5	1	4	2	4	35	0	107
08:30	0	1	0	4	3	11	32	5	0	3	2	1	4	3	28	2	92
08:45	0	1	0	4	6	16	36	7	0	2	1	5	2	6	44	2	124
Hr Total	1	7	1	15	17	45	173	18	3	15	4	12	10	13	142	5	450
09:00	1	1	0	5	2	18	27	6	0	7	3	3	1	4	37	0	111
09:15	0	1	0	3	3	11	31	18	0	8	2	1	3	6	38	2	121
09:30	0	2	0	12	7	30	34	16	0	14	5	5	0	10	35	5	168
09:45	2	1	2	17	6	46	39	21	0	16	2	7	3	7	51	0	209
Hr Total	3	5	2	37	18	105	131	61	0	45	12	16	7	27	161	7	609
10:00	0	1	5	17	3	31	45	20	1	22	1	2	4	6	53	1	204
10:15	0	4	3	19	6	29	39	19	2	22	2	12	1	9	51	2	211
10:30	1	3	4	19	3	46	53	28	0	18	5	4	4	8	48	8	244
10:45	0	3	3	28	4	41	52	29	1	23	2	7	3	9	53	2	252
Hr Total	1	11	15	83	16	147	189	96	4	85	10	25	12	32	205	13	911
11:00	3	8	8	30	3	50	66	34	0	17	6	5	2	9	67	2	302
11:15	0	3	3	40	2	37	65	19	0	25	10	9	1	6	71	7	295
11:30	0	5	3	41	5	58	56	27	0	25	12	2	3	15	103	12	359
11:45	0	8	9	42	2	72	67	23	0	38	7	9	5	11	87	11	384
Hr Total	3	24	23	153	12	217	254	103	0	105	35	25	11	41	328	32	1340
12:00	1	16	7	41	2	68	71	32	0	44	8	12	1	16	99	13	427
12:15	0	14	10	44	2	71	75	51	0	27	10	17	3	10	83	12	424
12:30	0	23	10	53	6	64	93	35	0	40	13	13	3	6	68	12	430
12:45	2	11	4	55	5	71	101	31	2	35	13	2	1	14	65	4	406
Hr Total	3	64	31	193	15	274	340	149	2	146	44	44	8	46	315	41	1687

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

Site Code : 93
Start Date: 06
File I.D. : TM
Page : 2

WEATHER:
Counter :TDC EIGHT
Counted by Naomi & Eileen

Vehicle group 1

Date	SB SPRINGBROOK Southbound				WB CR 132 (85TH AVE) Westbound				NB SPRINGBROOK Northbound				EB CR 132 (85TH AVE) Eastbound				Vehicle Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	
06/15/93																	
13:00	0	18	6	58	4	67	94	29	2	39	5	12	4	12	76	5	421
13:15	0	7	6	62	1	69	75	24	0	33	8	6	2	9	69	11	379
13:30	1	10	7	60	2	67	61	30	1	23	4	9	2	13	64	3	351
13:45	0	12	6	51	2	78	76	36	0	33	8	10	3	12	62	2	386
Hr Total	1	47	25	231	9	281	306	119	3	128	25	37	11	46	271	21	1537
14:00	1	10	5	46	7	51	54	26	0	31	4	6	3	13	88	1	335
14:15	1	6	5	52	3	59	73	37	1	39	10	7	2	19	99	1	407
14:30	0	1	5	51	3	62	76	25	1	30	11	9	6	8	112	0	390
14:45	0	7	4	57	3	56	53	28	0	32	7	8	3	15	113	3	383
Hr Total	2	24	19	206	16	228	256	116	2	132	32	30	14	55	412	5	1515
15:00	0	10	7	54	5	43	95	35	1	30	4	11	6	9	128	4	430
15:15	0	7	4	58	3	47	85	25	0	35	9	14	5	17	139	6	446
15:30	0	13	2	46	5	57	71	24	0	33	4	13	4	16	133	0	412
15:45	0	4	5	44	3	65	81	30	0	42	5	13	1	17	150	1	457
Hr Total	0	34	18	202	16	212	332	114	1	140	22	51	16	59	550	11	1745
16:00	0	7	2	29	5	42	75	29	0	34	7	11	4	9	117	5	367
16:15	0	3	8	38	3	32	80	26	0	40	8	12	4	13	168	4	432
16:30	0	5	9	38	6	45	60	29	1	35	6	6	3	12	168	4	417
16:45	0	4	4	27	2	53	76	34	0	44	6	8	7	6	177	7	446
Hr Total	0	19	23	132	16	172	291	118	1	153	27	37	18	40	630	20	1662
17:00	0	11	6	44	4	33	89	30	0	35	4	4	2	18	150	3	427
17:15	0	5	1	27	5	49	70	29	0	40	8	9	3	7	183	2	430
17:30	0	4	2	41	3	50	76	29	0	41	7	11	1	12	131	3	407
17:45	0	6	6	37	2	66	84	23	1	32	9	8	3	12	98	6	387
Hr Total	0	26	15	149	14	198	319	111	1	148	28	32	9	49	562	14	1651
18:00	0	8	4	46	5	53	83	32	0	22	5	3	2	8	78	5	347
18:15	0	5	6	52	2	59	57	22	0	37	4	6	5	12	97	2	359
18:30	1	2	4	56	1	54	64	35	0	42	6	11	1	9	82	2	367
18:45	0	5	5	38	3	55	93	26	0	37	9	11	3	10	67	4	360
Hr Total	1	20	19	192	11	221	297	115	0	138	24	31	11	39	324	13	1433
19:00	0	8	8	47	2	59	112	30	0	46	10	18	2	20	55	1	414
19:15	0	8	6	48	4	74	96	22	0	24	16	10	1	10	64	4	382
19:30	0	8	7	61	0	49	73	40	0	30	10	7	0	7	78	3	373
19:45	0	10	2	55	2	62	69	27	0	32	7	3	3	12	81	1	361
Hr Total	0	34	23	211	8	244	350	119	0	132	43	38	6	49	278	9	1530

ANOKA COUNTY HIGHWAY DEPARTMENT
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 TRAFFIC VOLUME AND
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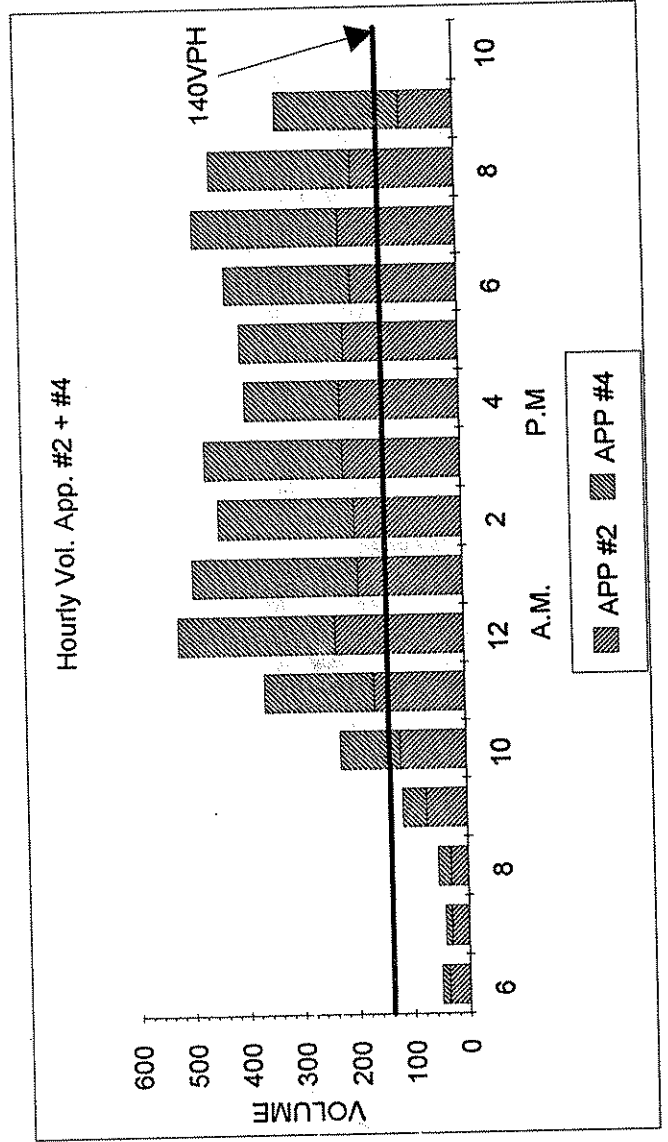
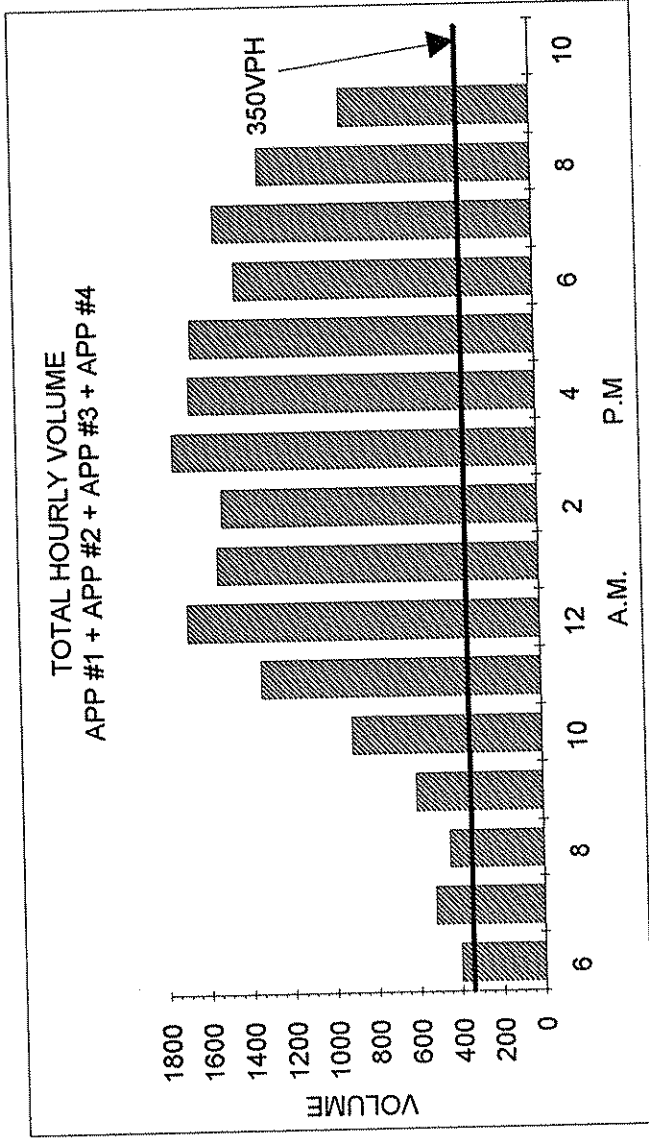
Site Code : 93
 Start Date: 06
 File I.D. : TM
 Page : 3

WEATHER:
 Counter :TDC EIGHT
 Counted by Naomi & Eileen

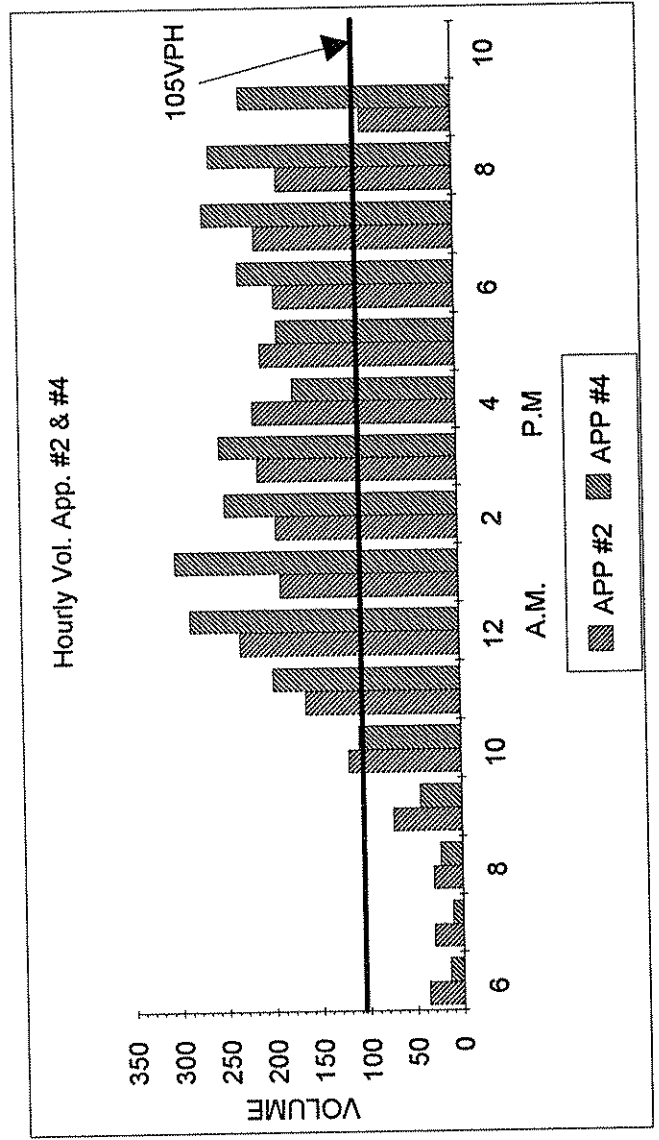
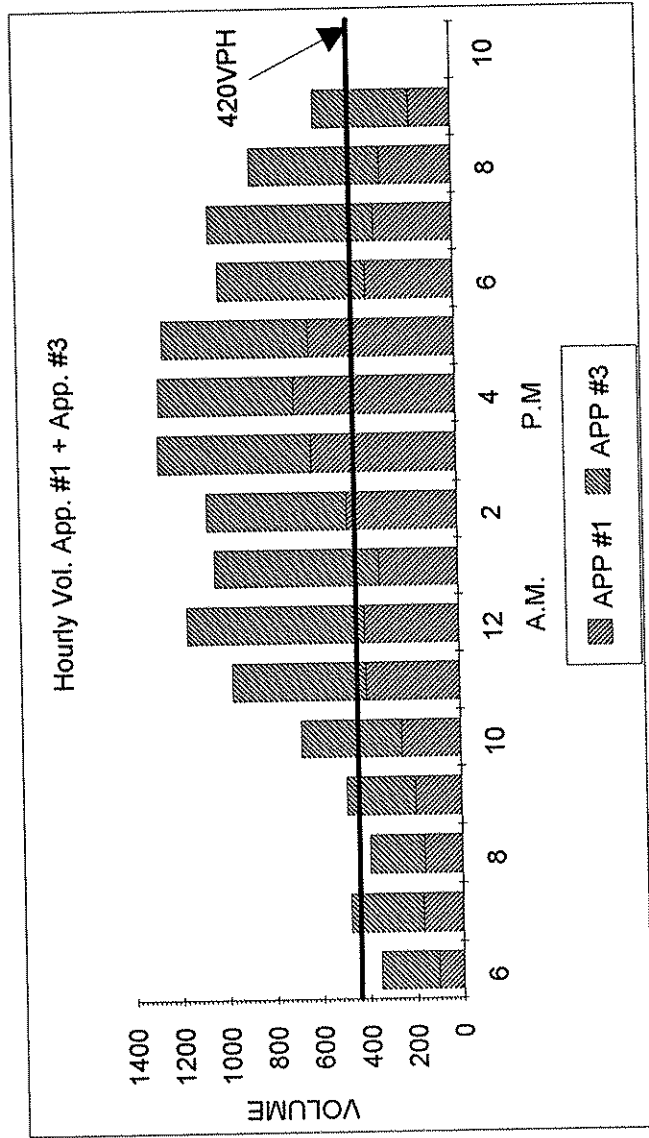
Vehicle group 1

Date	SB SPRINGBROOK Southbound				WB CR 132 (85TH AVE) Westbound				NB SPRINGBROOK Northbound				EB CR 132 (85TH AVE) Eastbound				Vehicle Total
	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	Other	Right	Thru	Left	
20:00	0	5	5	50	0	43	64	31	0	31	5	1	1	5	60	1	301
20:15	0	8	5	56	1	51	61	29	0	42	6	6	0	8	49	2	323
20:30	0	9	5	45	0	58	48	29	0	42	8	10	0	7	63	1	325
20:45	0	3	5	64	1	48	68	29	0	28	5	4	0	8	103	0	365
Hr Total	0	25	20	215	2	200	241	118	0	143	24	21	1	28	275	4	1314
21:00	0	7	4	59	0	29	82	22	0	25	2	4	1	4	70	2	310
21:15	0	12	2	46	1	31	67	16	0	31	1	7	0	5	55	2	275
21:30	0	10	3	55	1	27	63	10	0	13	0	2	0	2	16	3	204
21:45	0	6	2	21	1	13	47	6	1	12	0	1	2	1	15	1	125
Hr Total	0	35	11	181	3	100	259	54	1	81	3	14	3	12	156	8	914
TOTAL	15	380	249	2216	176	2689	4220	1445	22	1629	335	441	143	568	4843	209	19224

TMC9322 STOP WARRANT STUDY



TMC9322 SIGNAL WARRANT 1 STUDY



TMC9322 SIGNAL WARRANT 2 STUDY

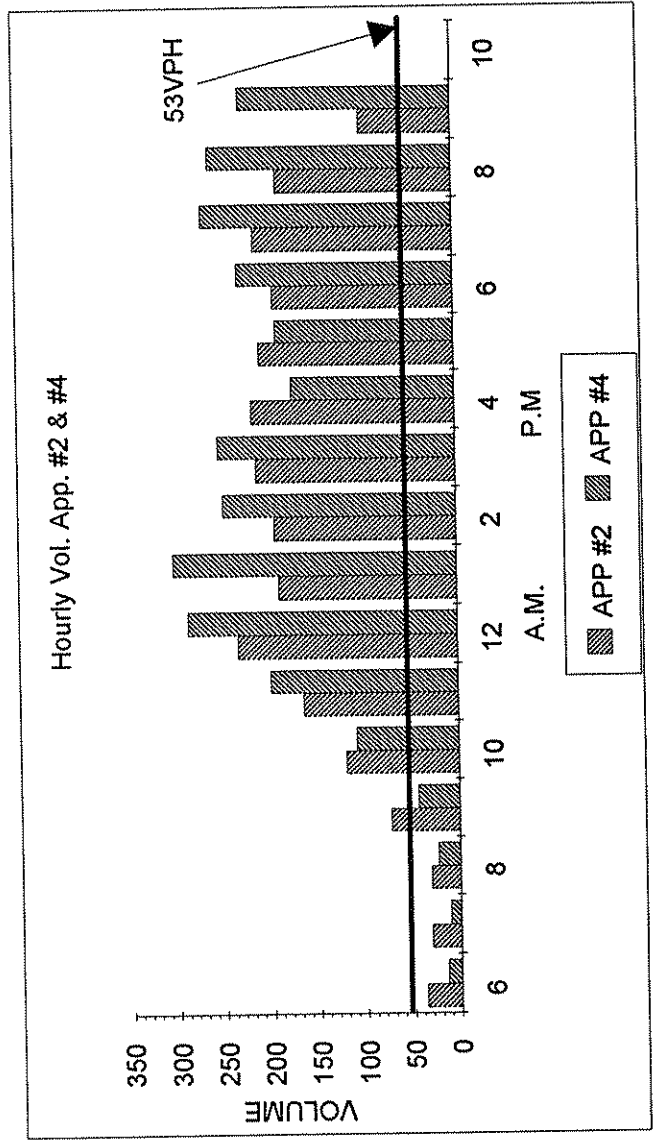
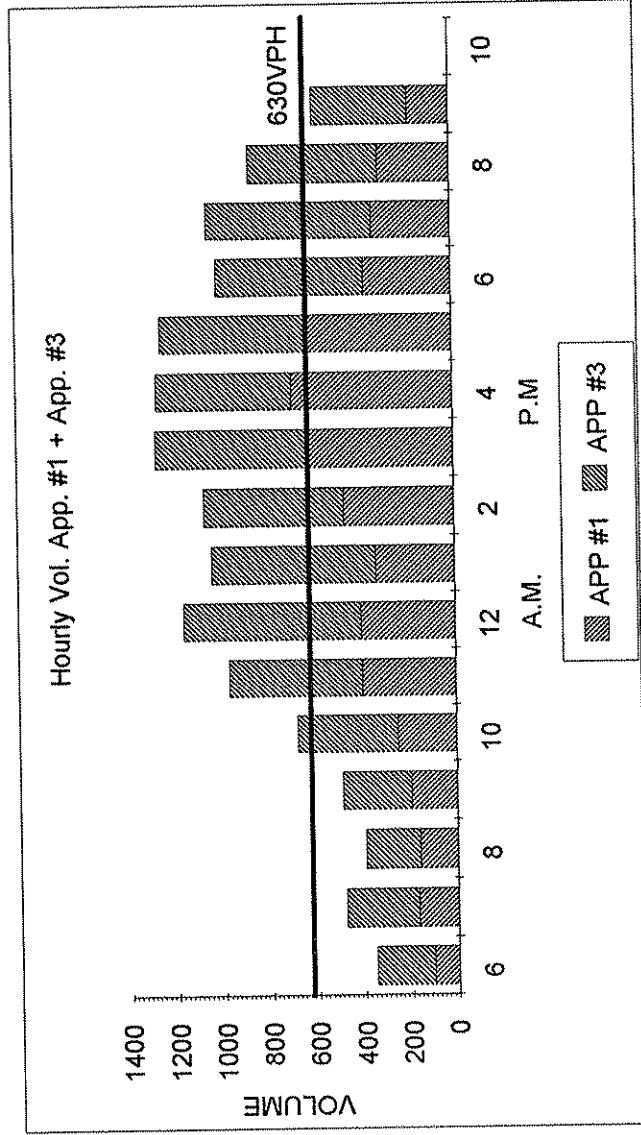
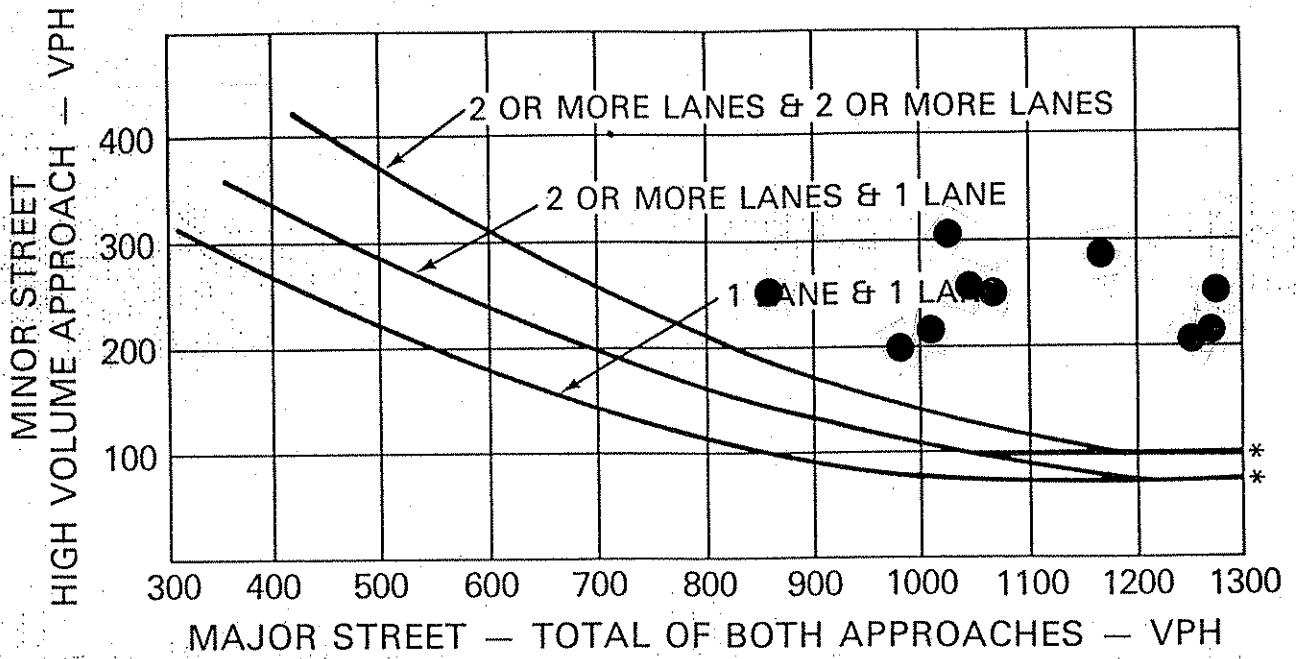


FIGURE 4-6. PEAK HOUR VOLUME WARRANT

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*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.

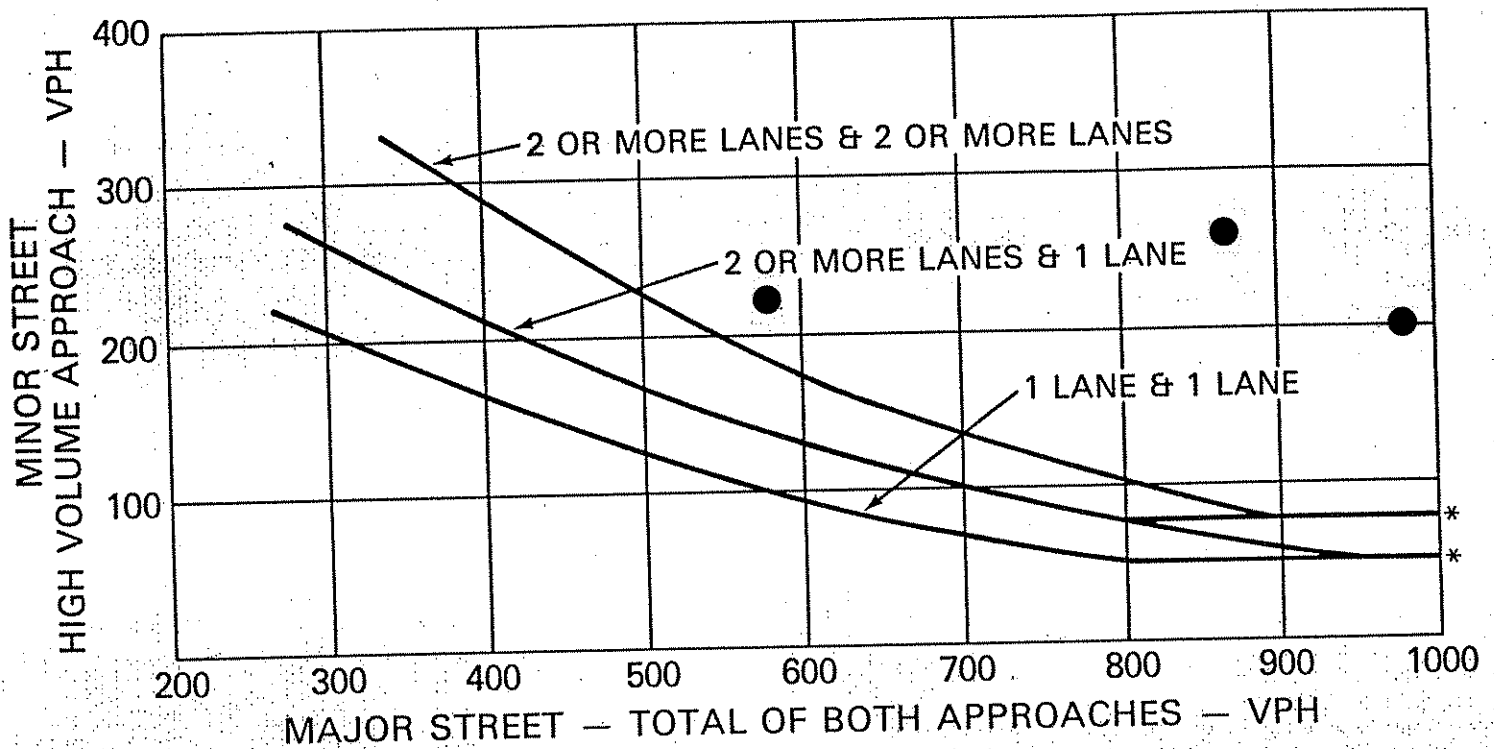
● = VOLUMES WHICH EXCEEDED THE THRESHOLD AND ARE REPRESENTED ON THE GRAPH.

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

TIME	MAJOR STREETS (VPH)	MINOR STREET (VPH)
6-7 am	353	37
7-8 am	480	31
8-9 am	396	31
9-10 am	492	73
10-11 am	682	120
● 11-12 pm	975	200
● 12-1 pm	1165	288
● 1-2 pm	1044	303
● 2-3 pm	1072	249
● 3-4 pm	1278	254
● 4-5 pm	1271	217
● 5-6 pm	1253	208
● 6-7 pm	1009	231
● 7-8 pm	1049	268
● 8-9 pm	866	260
● 9-10 pm	589	227

TMC9322 CR132 (85TH AVE) @ SPRINGBROOK DRIVE

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



*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.

● = 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	353	37
7-8 am	480	31
8-9 am	396	31
9-10 am	492	73
10-11 am	682	120
● 11-12 pm	975	200
★ 12-1 pm	1165	288
★ 1-2 pm	1044	303
★ 2-3 pm	1072	249
★ 3-4 pm	1278	254
★ 4-5 pm	1271	217
★ 5-6 pm	1253	208
★ 6-7 pm	1009	231
★ 7-8 pm	1049	268
● 8-9 pm	866	260
● 9-10 pm	589	227



NORTH

APP. #1=
WB CR 132 (85TH AVE)

APP. #2=
NB SPRINGBROOK DR

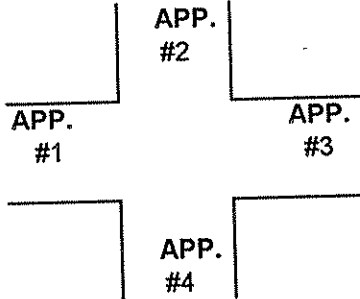
APP. #3=
EB CR 132 (85TH AVE)

APP. #4=
SB SPRINGBROOK DR

COUNT LOCATION:

SPRINGBROOK DR. @
CR 132 (85TH AVE)

D 6/16/93



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		1
6:30-6:45						1		
6:45-7:00								
HOURLY TOTAL								5
7:00-7:15						2		1
7:15-7:30								
7:30-7:45						1		
7:45-8:00						3		
HOURLY TOTAL								8
8:00-8:15						8		
8:15-8:30						6		1
8:30-8:45		1			1	8		
8:45-9:00						9		
HOURLY TOTAL					1			32
9:00-9:15						4		
9:15-9:30		1			1	6		1
9:30-9:45						7		
9:45-10:00						8		2
HOURLY TOTAL					1			28
10:00-10:15	1			1	2	8		
10:15-10:30						9		
10:30-10:45						8		
10:45-11:00						6		1
HOURLY TOTAL					2			32
11:00-11:15	2	1			3	9		
11:15-11:30				1	1	4		
11:30-11:45						6		
11:45-12:00			1		1	8		
HOURLY TOTAL					5			27
12:00-12:15						5		
12:15-12:30						5	1	2
12:30-12:45			1		1	6		
12:45-1:00		2			2	11	1	
HOURLY TOTAL					3			31
1:00-1:15						9		
1:15-1:30						3		
1:30-1:45	3				3	6		
1:45-2:00						3		
HOURLY TOTAL					3			21



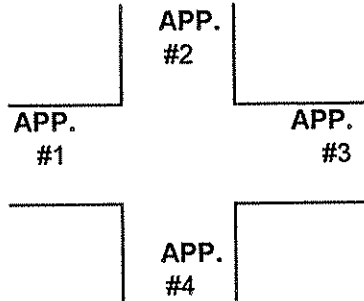
NORTH

COUNT LOCATION:

SPRINGBROOK DR. @
CR. 132 (85TH AVE)

DA 6/15/93

APP. #1=
WB CR. 132 (85TH AVE)
APP. #2=
NB SPRINGBROOK DR.
APP. #3=
EB CR. 132 (85TH AVE)
APP. #4=
SB SPRINGBROOK DR.



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				1	1	11		1
2:15-2:30						5		
2:30-2:45						6		
2:45-3:00	2				2	8		2
HOURLY TOTAL					3	HOURLY TOTAL		33
3:00-3:15	2				2	5		1
3:15-3:30						5		
3:30-3:45				1	1	12		
3:45-4:00						7		1
HOURLY TOTAL					3	HOURLY TOTAL		31
4:00-4:15		1			1	9		
4:15-4:30	1				1	7		
4:30-4:45						11		
4:45-5:00						3		
HOURLY TOTAL					2	HOURLY TOTAL		30
5:00-5:15	1				1	12		1
5:15-5:30						6		1
5:30-5:45						5		
5:45-6:00			1		1	3		
HOURLY TOTAL					2	HOURLY TOTAL		28
6:00-6:15						7		2
6:15-6:30			2	1	3	4		
6:30-6:45						9		
6:45-7:00		4			4	4		1
HOURLY TOTAL					7	HOURLY TOTAL		27
7:00-7:15		1			1	2		
7:15-7:30						6		
7:30-7:45						2		
7:45-8:00						1		
HOURLY TOTAL					1	HOURLY TOTAL		11
8:00-8:15			2		2	3		
8:15-8:30						1		1
8:30-8:45								
8:45-9:00								1
HOURLY TOTAL					2	HOURLY TOTAL		6
9:00-9:15			1		1			
9:15-9:30		1			1	2		
9:30-9:45							1	
9:45-10:00								1
HOURLY TOTAL					2	HOURLY TOTAL		4