

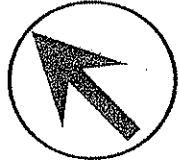
Date : 03/30/10

Count Number : TMC1003

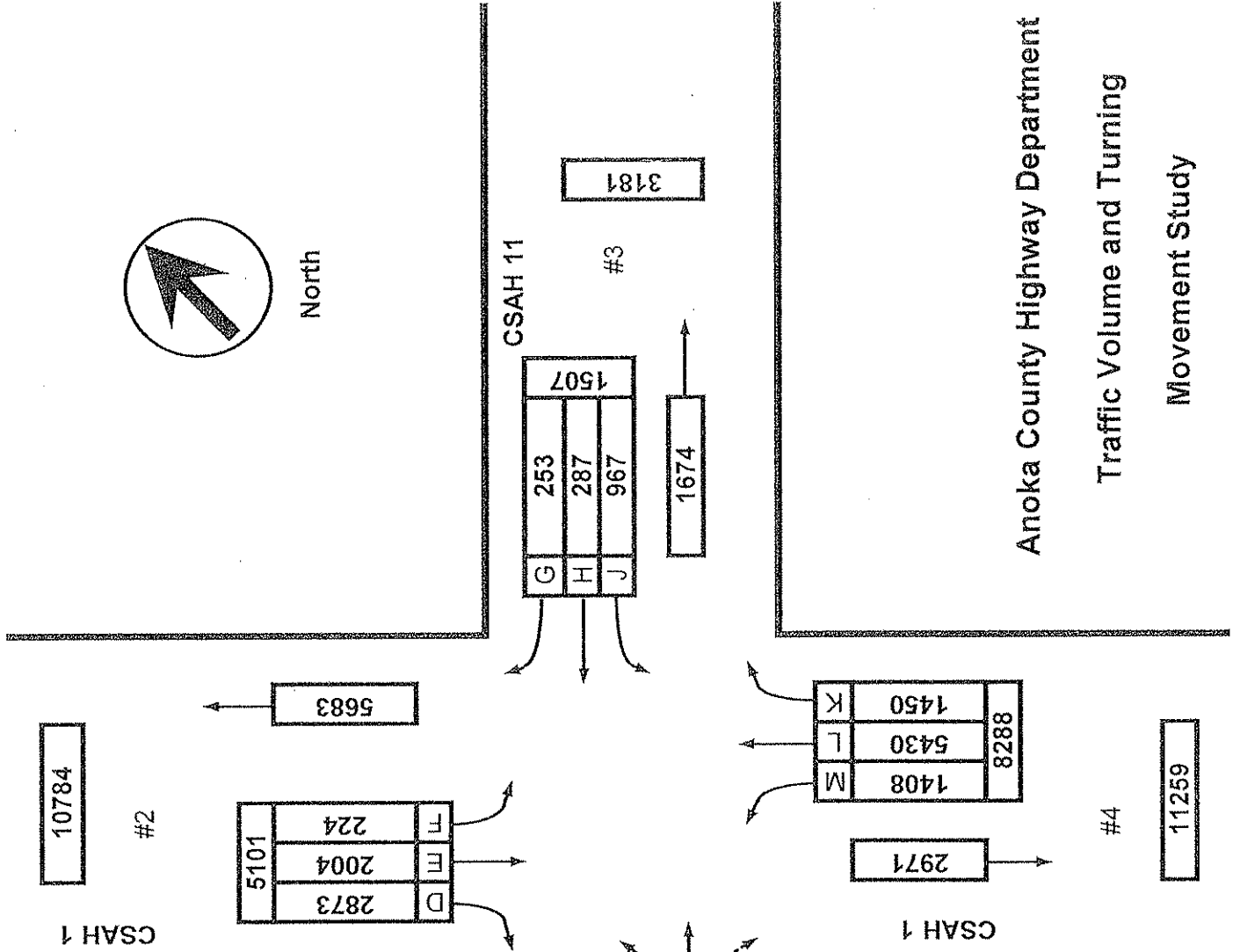
Location : CSAH 1 (East River Rd.)

@ CSAH 11 (Foley Blvd.)

Collection Period : 6-9 AM, 2-7 PM



North



4568

#1

0	C	B	A
0	0	0	0

TH 610 on Ramp

4568

10784

#2

5101	D	T	L
2873	2004	224	

5683

CSAH 11

#3

253	G
287	H
967	J

1507

1674

3181

CSAH 1

#4

1450	K
5430	L
1408	M

8288

2971

11259

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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 03/30/10

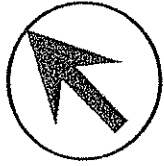
Count Number : TMC1003

Location : CSAH 1 (East River Rd.)

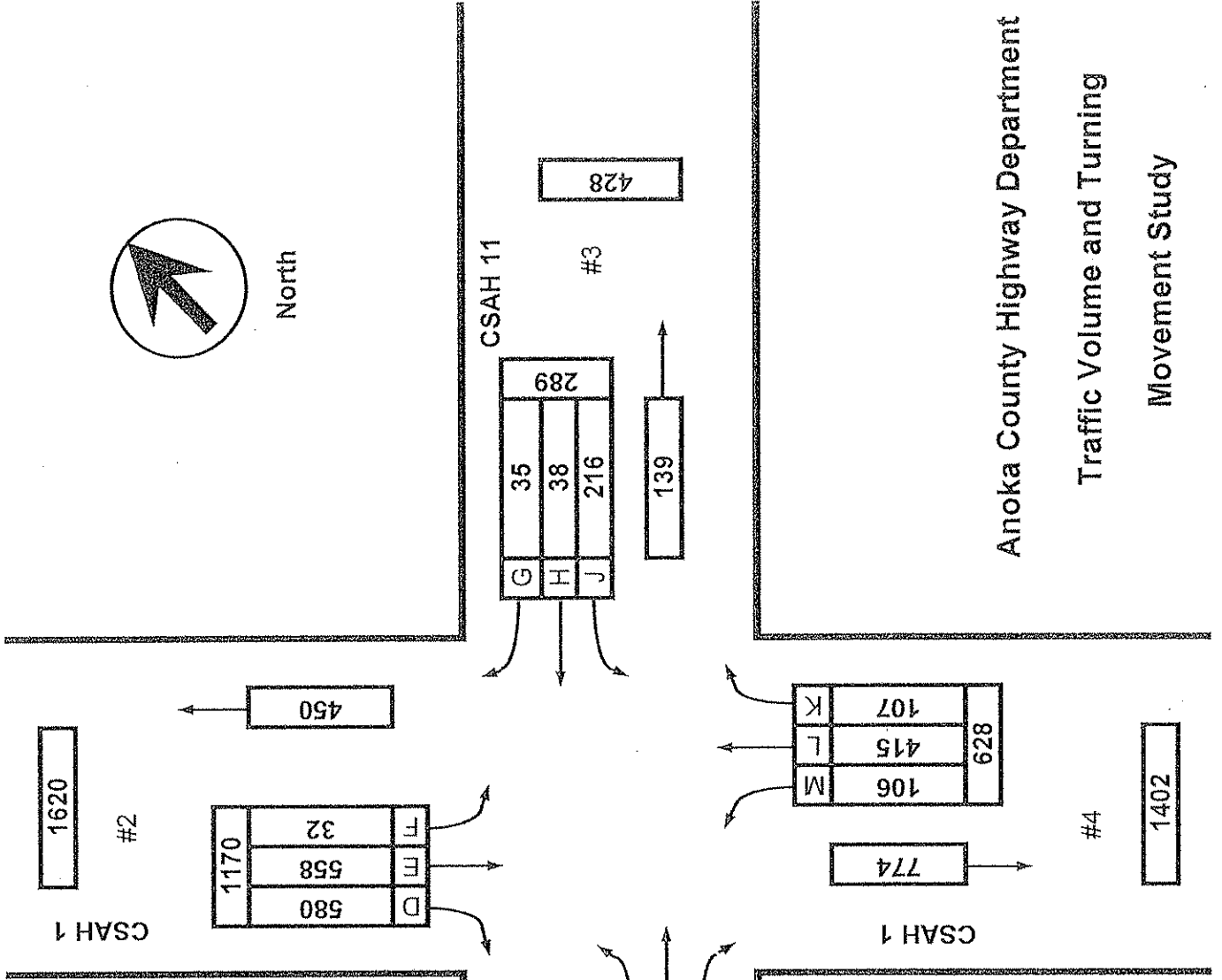
@ CSAH 11 (Foley Blvd.)

Collection Period : AM PEAK

Hour : 7:00 AM-8:00 AM



North



Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

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

Date : 03/30/10

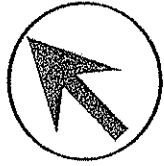
Count Number : TMC1003

Location : CSAH 1 (East River Rd.)

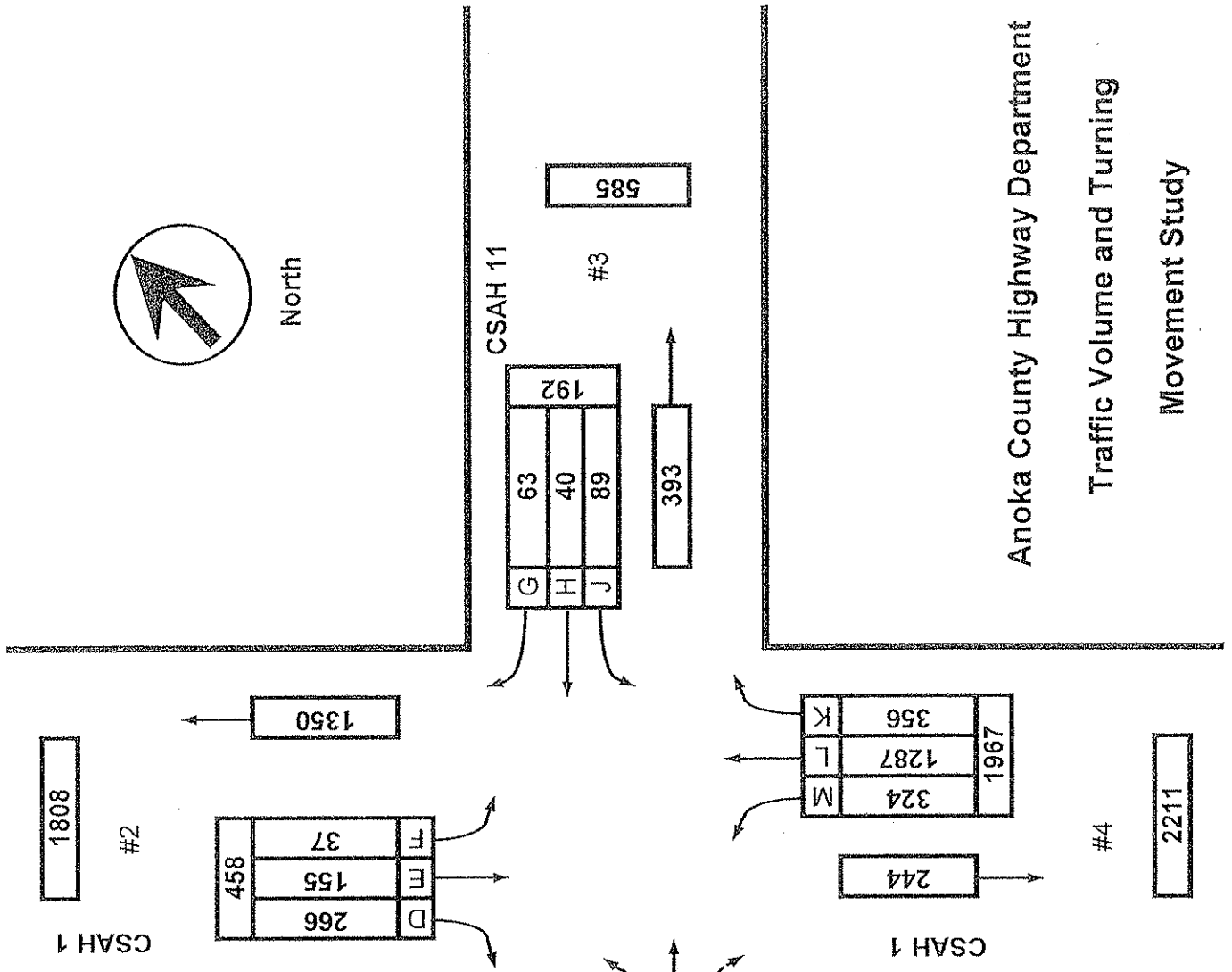
@ CSAH 11 (Foley Blvd.)

Collection Period : PM PEAK

Hour : 4:30 PM-5:30 PM



North



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

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

2211



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC1003
 Site Code : 10030202
 Start Date : 3/30/2010
 Page No : 1

Weather: Cloudy and Warm
 Counter: TDC-12
 Counted by: Randy/Shelley

Groups Printed- Unshifted

Start Time	CSAH 1 Southbound					CSAH 11 Westbound					CSAH 1 Northbound					TH 610 on Ramp Eastbound					Encl. Total	Incl. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
06:00	12	56	109	1	177	14	12	1	0	27	9	32	11	1	52	0	0	0	0	0	2	256	258
06:15	3	101	149	3	253	25	11	3	1	39	16	52	12	2	80	0	0	0	0	0	6	372	378
06:30	1	93	141	4	235	43	15	2	1	60	19	37	15	4	71	0	0	0	0	0	9	366	375
06:45	6	129	125	7	260	42	16	10	0	68	12	75	23	7	110	0	0	0	0	0	14	436	452
Total	22	379	524	15	925	124	54	16	2	194	56	196	61	14	313	0	0	0	0	0	31	1432	1463
07:00	10	147	146	4	303	63	7	10	1	80	23	78	21	6	122	0	0	0	0	0	11	505	516
07:15	10	129	159	9	298	52	11	4	1	67	25	79	29	3	133	0	0	0	0	0	13	498	511
07:30	7	157	137	5	301	50	11	7	4	68	26	129	29	2	184	0	0	0	0	0	11	553	564
07:45	5	125	138	4	268	51	9	14	2	74	32	129	28	5	189	0	0	0	0	0	11	531	542
Total	32	558	580	22	1170	216	38	35	8	289	106	415	107	16	628	0	0	0	0	0	46	2087	2133
08:00	5	104	108	5	217	39	12	11	0	62	24	87	17	3	128	0	0	0	0	0	8	407	415
08:15	6	74	86	5	166	34	12	3	1	49	17	75	28	7	120	0	0	0	0	0	13	335	348
08:30	4	58	101	1	163	23	5	4	0	32	16	86	18	5	120	0	0	0	0	0	6	315	321
08:45	3	49	82	11	134	26	6	2	3	34	24	82	24	4	130	0	0	0	0	0	18	298	316
Total	18	285	377	22	680	122	35	20	4	177	81	330	87	19	498	0	0	0	0	0	45	1355	1400
*** BREAK ***																							
14:00	13	39	115	4	167	18	7	5	0	30	39	114	25	5	178	0	0	0	0	0	9	375	384
14:15	2	33	63	8	98	14	6	6	1	26	38	152	32	4	222	0	0	0	0	0	13	346	359
14:30	7	46	72	6	125	17	11	6	2	34	50	153	34	4	237	0	0	0	0	0	12	396	408
14:45	6	36	64	3	106	19	5	5	4	29	46	188	44	10	278	0	0	0	0	0	17	413	430
Total	28	154	314	21	496	68	29	22	7	119	173	607	135	23	915	0	0	0	0	0	51	1530	1581
15:00	6	41	68	5	115	20	10	8	2	38	27	184	55	4	266	0	0	0	0	0	11	419	430
15:15	13	53	78	6	144	31	7	9	2	47	44	222	42	7	308	0	0	0	0	0	15	499	514
15:30	11	48	85	7	144	24	10	8	2	42	68	200	44	5	312	0	0	0	0	0	14	498	512
15:45	6	45	65	4	116	24	11	6	4	41	73	249	82	5	404	0	0	0	0	0	13	561	574
Total	36	187	296	22	519	99	38	31	10	168	212	855	223	21	1290	0	0	0	0	0	53	1977	2030
16:00	7	33	71	5	111	37	11	12	2	60	95	259	91	10	445	0	0	0	0	0	17	616	633
16:15	7	37	76	5	120	28	7	10	2	45	75	314	84	6	473	0	0	0	0	0	13	638	651
16:30	11	39	63	2	113	27	10	16	2	53	90	264	90	7	444	0	0	0	0	0	11	610	621
16:45	5	42	71	2	118	16	10	13	0	39	80	382	82	5	544	0	0	0	0	0	7	701	708
Total	30	151	281	14	462	108	38	51	6	197	340	1219	347	28	1906	0	0	0	0	0	48	2565	2613
17:00	12	30	69	1	111	23	7	12	5	42	72	315	94	4	481	0	0	0	0	0	10	634	644
17:15	9	44	63	5	116	23	13	22	0	58	82	326	90	0	498	0	0	0	0	0	5	672	677
17:30	7	30	69	4	106	36	12	8	2	56	71	295	67	7	433	0	0	0	0	0	13	595	608
17:45	6	47	59	1	112	54	9	12	0	75	61	232	62	4	355	0	0	0	0	0	5	542	547
Total	34	151	260	11	445	136	41	54	7	231	286	1168	313	15	1767	0	0	0	0	0	33	2443	2476
18:00	9	34	69	2	112	26	7	9	3	42	51	214	83	3	348	0	0	0	0	0	8	502	510
18:15	3	38	71	4	112	17	3	3	0	23	47	169	34	0	250	0	0	0	0	0	4	385	389
18:30	5	41	58	3	104	21	2	7	0	30	35	145	34	5	214	0	0	0	0	0	8	348	356
18:45	7	26	43	2	76	30	2	5	1	37	21	112	26	3	159	0	0	0	0	0	6	272	278
Total	24	139	241	11	404	94	14	24	4	132	154	640	177	11	971	0	0	0	0	0	26	1507	1533
Grand Total	224	2004	2873	138	5101	967	287	253	48	1507	1408	5430	1450	147	8288	0	0	0	0	0	333	14896	15229
Apprch %	4.4	39.3	56.3			64.2	19	16.8			17	65.5	17.5			0	0	0					
Total %	1.5	13.5	19.3		34.2	6.5	1.9	1.7		10.1	9.5	36.5	9.7		55.6	0	0	0			2.2	97.8	

Start Time	CSAH 1 Southbound				CSAH 11 Westbound				CSAH 1 Northbound				TH 610 on Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	10	147	146	303	63	7	10	80	23	78	21	122	0	0	0	0	505
07:15	10	129	159	298	52	11	4	67	25	79	29	133	0	0	0	0	498
07:30	7	157	137	301	50	11	7	68	26	129	29	184	0	0	0	0	553
07:45	5	125	138	268	51	9	14	74	32	129	28	189	0	0	0	0	531
Total Volume	32	558	580	1170	216	38	35	289	106	415	107	628	0	0	0	0	2087
App. Total	2.7	47.7	49.6		74.7	13.1	12.1		16.9	66.1	17		0	0	0		
PHF	.800	.889	.912	.965	.857	.864	.625	.903	.828	.804	.922	.831	.000	.000	.000	.000	.943



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Cloudy and Warm
 Counter: TDC-12
 Counted by: Randy/Shelley

File Name : TMC1003
 Site Code : 10030202
 Start Date : 3/30/2010
 Page No : 2

Start Time	CSAH 1 Southbound				CSAH 11 Westbound				CSAH 1 Northbound				TH 610 on Ramp Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 to 18:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	11	39	63	113	27	10	16	53	90	264	90	444	0	0	0	0	610
16:45	5	42	71	118	16	10	13	39	80	382	82	544	0	0	0	0	701
17:00	12	30	69	111	23	7	12	42	72	315	94	481	0	0	0	0	634
17:15	9	44	63	116	23	13	22	58	82	326	90	498	0	0	0	0	672
Total Volume	37	155	266	458	89	40	63	192	324	1287	356	1967	0	0	0	0	2617
% App. Total	8.1	33.8	58.1		46.4	20.8	32.8		16.5	65.4	18.1		0	0	0		
PHF	.771	.881	.937	.970	.824	.769	.716	.828	.900	.842	.947	.904	.000	.000	.000	.000	.933

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 1
 Number of Lanes: 2
 Approach Speed: 45
 Total Approach Volume: 8,288

Southbound: CSAH 1
 Number of Lanes: 2
 Approach Speed: 45
 Total Approach Volume: 5,101

Minor Street Approaches

Eastbound: TH 610 on Ramp
 Number of Lanes: 2
 Total Approach Volume: 0

Westbound: CSAH 11
 Number of Lanes: 2
 Total Approach Volume: 1,507

Warrant Summary (Rural values apply.)

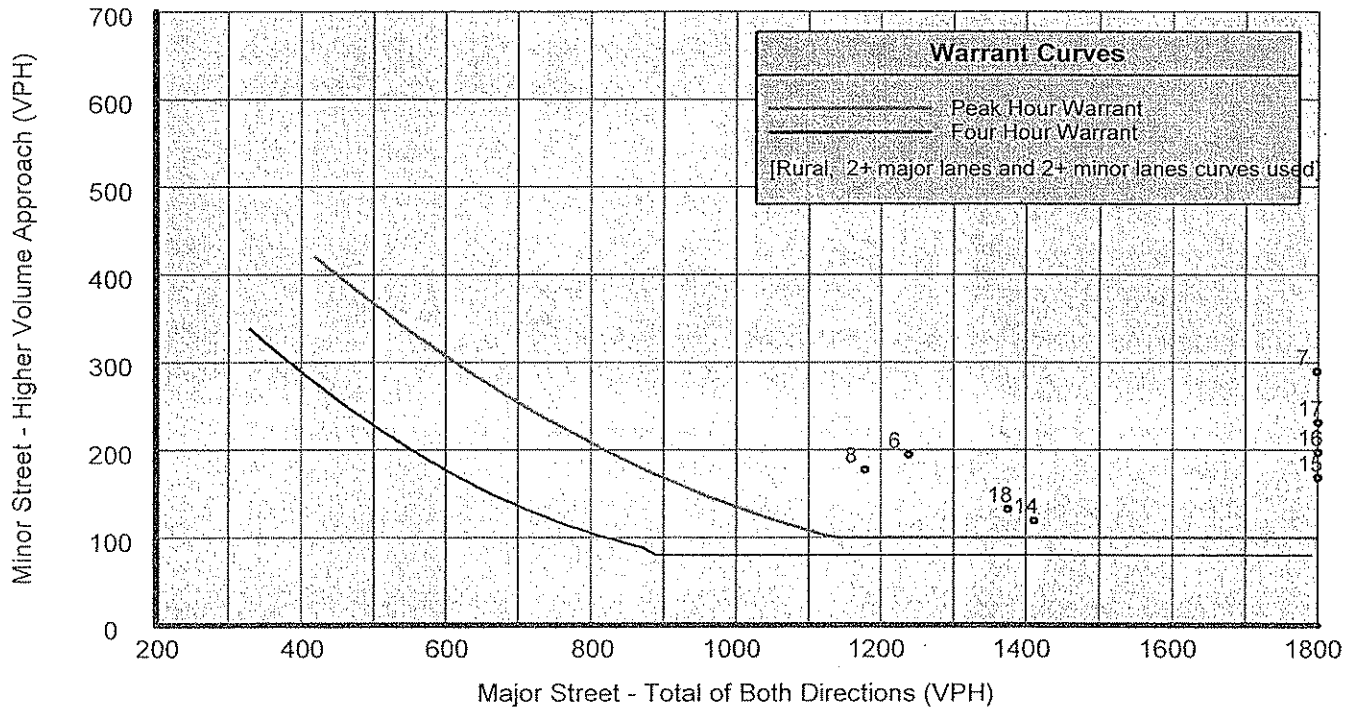
Warrant 1 - Eight Hour Vehicular Volumes	Satisfied
Warrant 1A - Minimum Vehicular Volume	Not Satisfied
Required volumes reached for 6 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic	Satisfied
Required volumes reached for 8 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants	Satisfied
Required volumes reached for 8 hours, 8 are needed	
Warrant 2 - Four Hour Volumes	Satisfied
Number of hours (8) volumes exceed minimum >= minimum required (4).	
Warrant 3 - Peak Hour	Satisfied
Warrant 3A - Peak Hour Delay	Satisfied
Number of hours (22) volumes exceed minimum >= required (1): Delay data not evaluated.	
Warrant 3B - Peak Hour Volumes	Satisfied
Volumes exceed minimums for at least one hour.	
Warrant 4 - Pedestrian Volumes	Not Evaluated
Warrant 5 - School Crossing	Not Evaluated
Warrant 6 - Coordinated Signal System	Not Evaluated
Warrant 7 - Crash Experience	Not Evaluated
Warrant 8 - Roadway Network	Not Evaluated

ANOKA COUNTY HIGHWAY

PC-WARRANTS

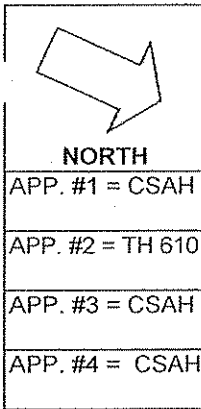
TRAFFIC SIGNAL WARRANT ANALYSIS

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	1,238	194	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
07:00	1,798	289	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
08:00	1,178	177	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
09:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
10:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
11:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
12:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
13:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
14:00	1,411	119	WB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
15:00	1,809	168	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
16:00	2,368	197	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
17:00	2,212	231	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
18:00	1,375	132	WB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
19:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
20:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
21:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
22:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---



COUNT LOCATION:

CSAH 1 (East River Rd.)

DATE:

3/30/2010

@ CSAH 11 (Foley Blvd.)

APP. #1 = CSAH 1
APP. #2 = TH 610 on Ramp
APP. #3 = CSAH 1
APP. #4 = CSAH 11

APP. #2	APP. #3
APP. #1	APP. #3
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						4		2
6:30-6:45						5		4
6:45-7:00						7		6
HOURLY TOTAL						HOURLY TOTAL		30
7:00-7:15						6		5
7:15-7:30						6		5
7:30-7:45						7		5
7:45-8:00						8		5
HOURLY TOTAL						HOURLY TOTAL		47
8:00-8:15						8		
8:15-8:30	1				1	10		2
8:30-8:45						3		3
8:45-9:00	1				1	10		9
HOURLY TOTAL					2	HOURLY TOTAL		45
					TOTAL		TOTAL	122
					2			

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						8		1
2:15-2:30						9		4
2:30-2:45						7		4
2:45-3:00						10		7
HOURLY TOTAL						HOURLY TOTAL		50
3:00-3:15						10		1
3:15-3:30						11		4
3:30-3:45		1			1	8		6
3:45-4:00		4			4	11		1
HOURLY TOTAL					5	HOURLY TOTAL		52
4:00-4:15		1		1	2	11		6
4:15-4:30		1	2		3	6		7
4:30-4:45		1		1	2	7		4
4:45-5:00						6		1
HOURLY TOTAL					7	HOURLY TOTAL		48
5:00-5:15				1	1	9		1
5:15-5:30				1	1	5		
5:30-5:45				1	1	11		2
5:45-6:00						5		
HOURLY TOTAL					3	HOURLY TOTAL		33
6:00-6:15		2	1		3	8		
6:15-6:30			2		2	4		
6:30-6:45						8		
6:45-7:00		2	4	1	7	6		
HOURLY TOTAL					12	HOURLY TOTAL		26
					TOTAL		TOTAL	209
					27			