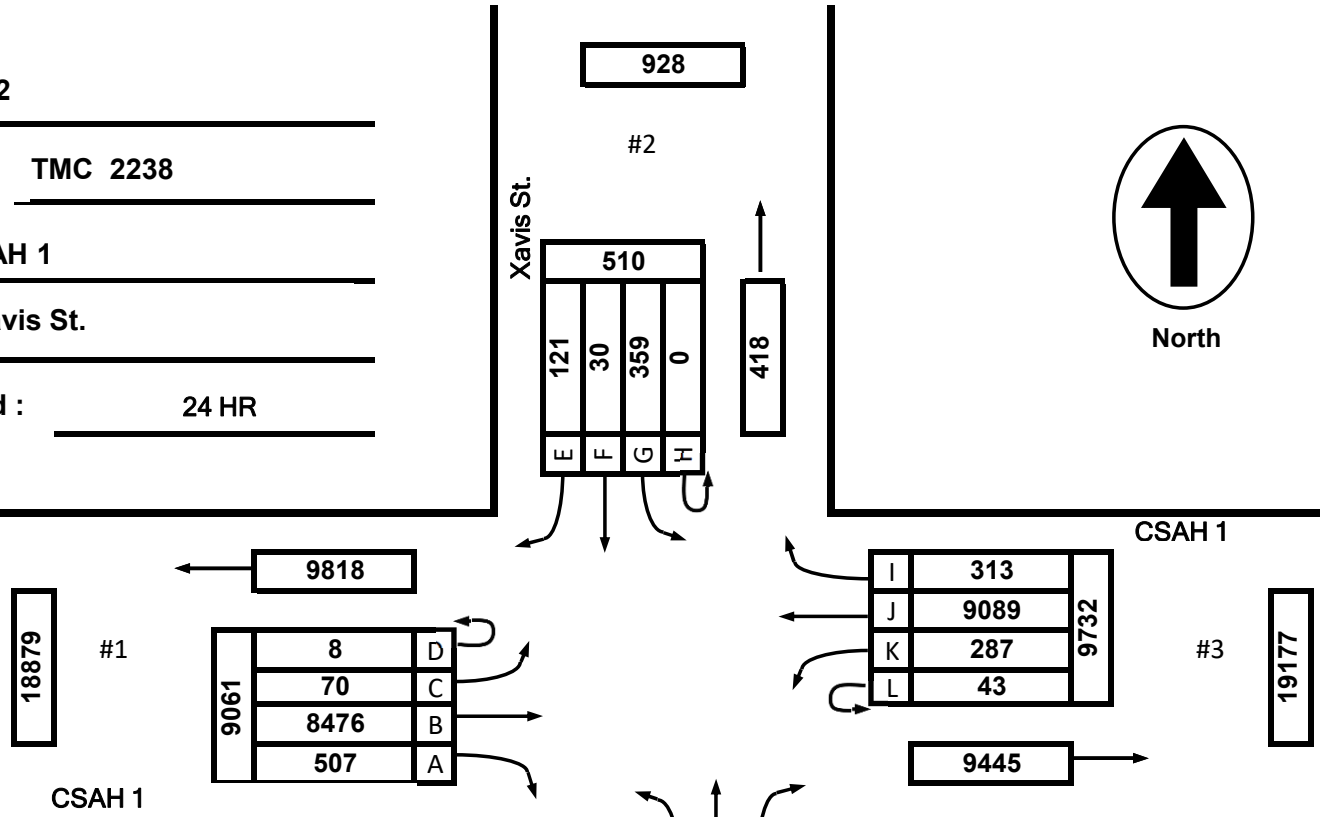
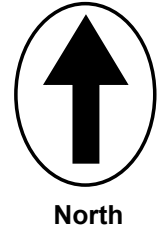


Date : 07/28/22

Count Number : TMC 2238

Location : CSAH 1
@ Xavis St.

Collection Period : 24 HR



CSAH 1

CSAH 1

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

Xavis St.

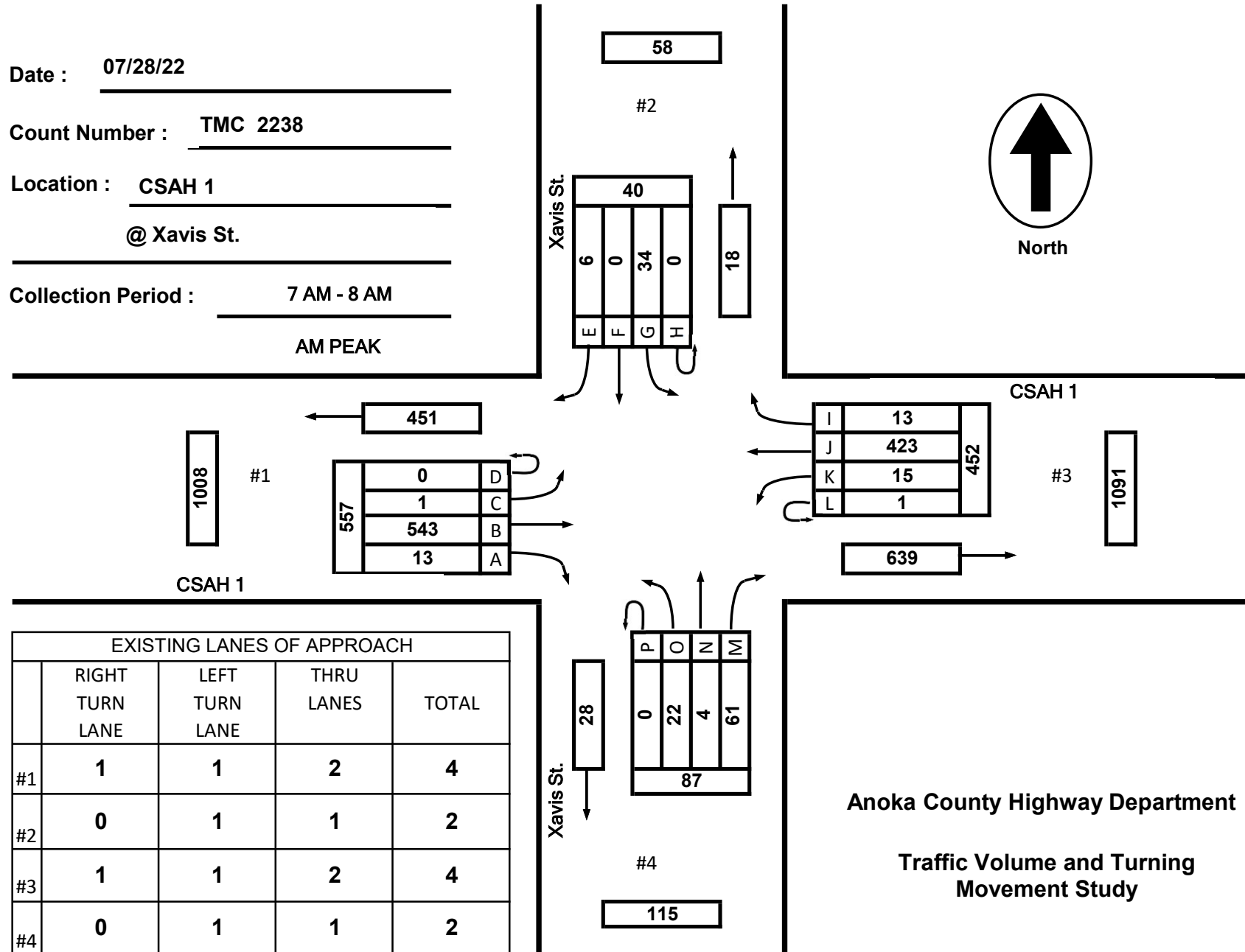
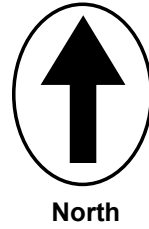
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 07/28/22

Count Number : TMC 2238

Location : CSAH 1
@ Xavis St.

Collection Period : 7 AM - 8 AM
AM PEAK



CSAH 1

CSAH 1

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

Anoka County Highway Department

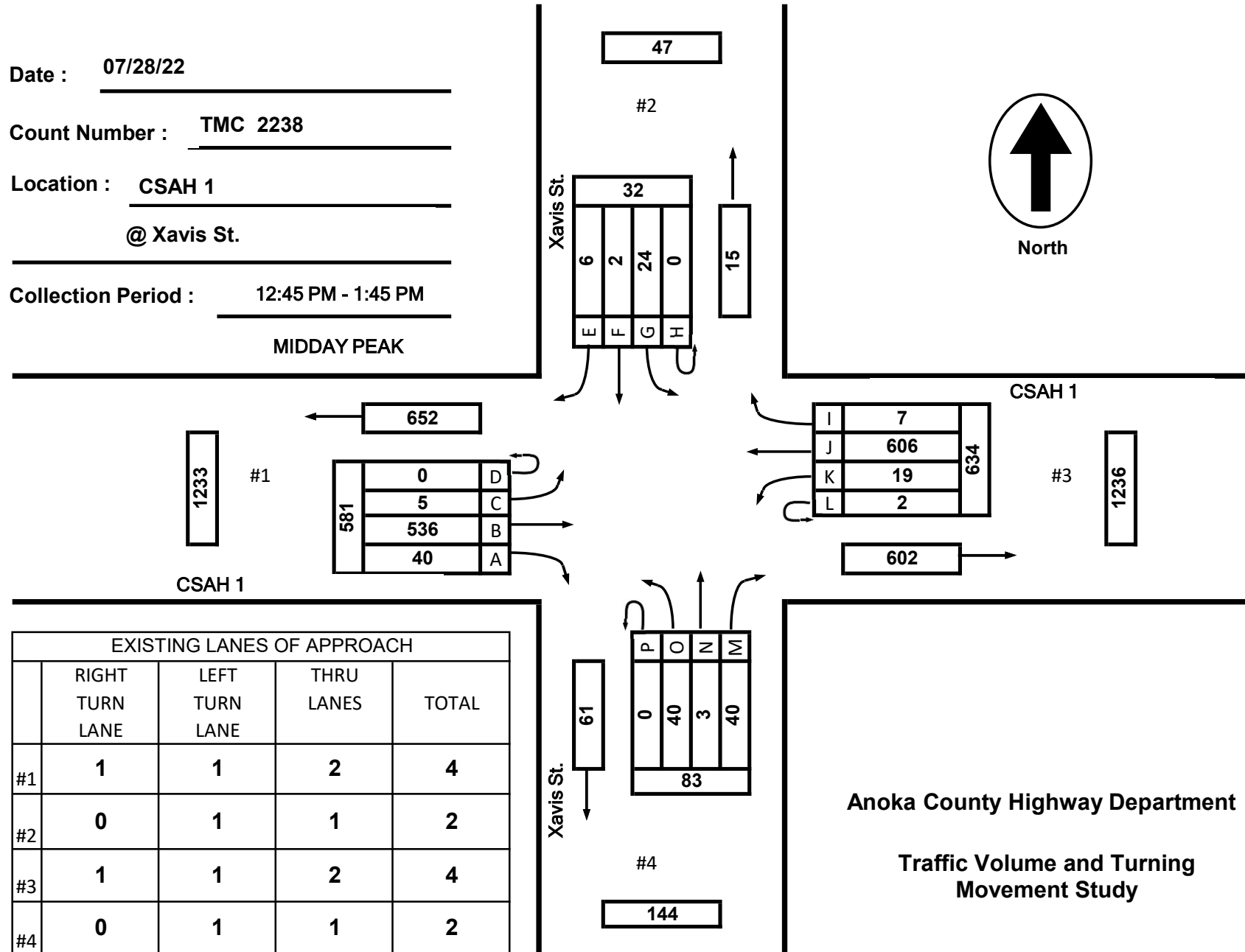
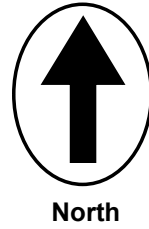
Traffic Volume and Turning Movement Study

Date : 07/28/22

Count Number : TMC 2238

Location : CSAH 1
@ Xavis St.

Collection Period : 12:45 PM - 1:45 PM
MIDDAY PEAK



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

Anoka County Highway Department

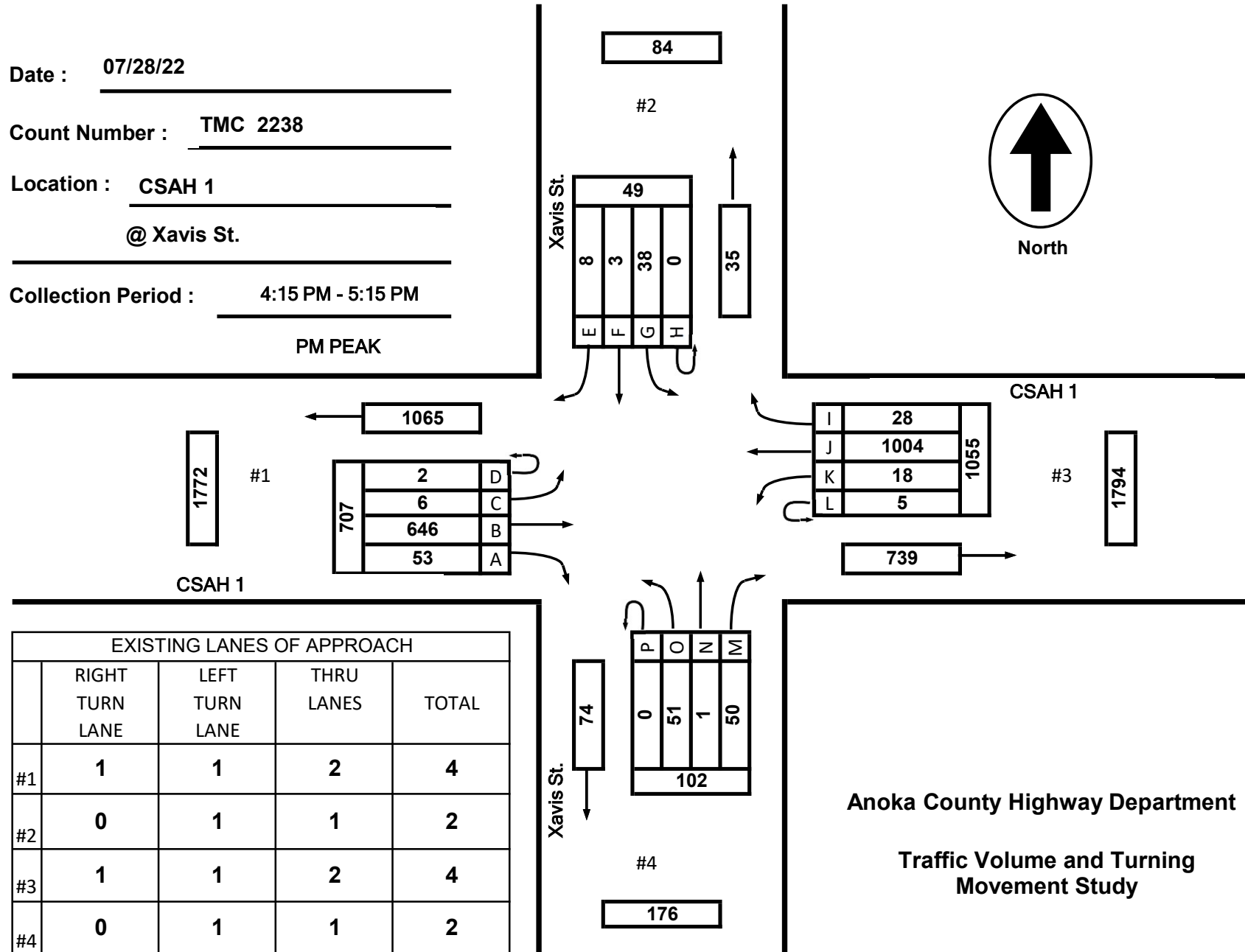
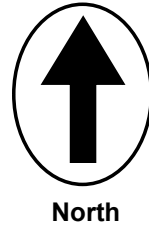
Traffic Volume and Turning Movement Study

Date : 07/28/22

Count Number : TMC 2238

Location : CSAH 1
@ Xavis St.

Collection Period : 4:15 PM - 5:15 PM
PM PEAK



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

Anoka County Highway Department
Traffic Volume and Turning Movement Study



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 1

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Cars + - Trucks

Start Time	Xavis St. Southbound						CSAH 1 Westbound						Xavis St. Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
00:00	0	1	0	0	0	1	0	19	1	0	0	20	0	0	0	0	0	0	0	8	0	0	0	8	0	29	29
00:15	0	0	0	0	0	0	0	12	1	1	1	14	0	1	1	0	0	2	2	10	0	0	0	12	1	28	29
00:30	0	0	0	0	0	0	1	7	1	1	0	10	0	0	0	0	0	0	6	0	0	0	6	0	16	16	
00:45	0	0	0	0	0	0	1	6	1	0	1	8	0	0	0	0	0	0	5	0	0	0	5	1	13	14	
Total	0	1	0	0	0	1	2	44	4	2	2	52	0	1	1	0	2	2	29	0	0	0	31	2	86	88	
01:00	0	1	0	0	0	1	0	11	1	0	0	12	1	0	0	0	1	1	9	0	0	0	10	0	24	24	
01:15	0	0	1	0	0	1	0	9	2	0	0	11	1	0	0	0	1	0	8	0	0	0	8	0	21	21	
01:30	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	8	0	0	0	8	0	12	12	
01:45	0	0	0	0	0	0	0	18	0	0	1	18	0	0	0	0	0	0	8	0	0	0	8	1	26	27	
Total	0	1	1	0	0	2	0	42	3	0	1	45	2	0	0	0	2	1	33	0	0	0	34	1	83	84	
02:00	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	8	0	0	0	8	0	13	13	
02:15	0	0	1	0	0	1	0	4	0	0	0	4	0	0	0	0	0	0	5	1	0	0	6	0	11	11	
02:30	0	0	2	0	0	2	0	6	2	0	0	8	0	0	0	0	0	0	4	0	0	0	4	0	14	14	
02:45	0	0	1	0	0	1	3	2	0	0	0	5	0	0	0	0	0	0	6	0	0	0	6	0	12	12	
Total	0	0	4	0	0	4	3	15	4	0	0	22	0	0	0	0	0	0	23	1	0	0	24	0	50	50	
03:00	0	0	1	0	0	1	0	6	1	0	0	7	1	0	0	0	1	0	5	0	0	0	5	0	14	14	
03:15	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	10	0	0	0	10	0	18	18	
03:30	0	0	0	0	0	0	1	9	0	0	0	10	0	0	0	0	0	0	10	1	0	0	11	0	21	21	
03:45	1	0	0	0	0	1	0	6	1	0	0	7	2	0	0	0	2	1	16	0	0	0	17	0	27	27	
Total	1	0	1	0	0	2	1	29	2	0	0	32	3	0	0	0	3	1	41	1	0	0	43	0	80	80	
04:00	0	0	0	0	0	0	0	8	0	0	0	8	2	0	1	0	3	0	9	0	0	0	9	0	20	20	
04:15	0	0	0	0	0	0	0	14	0	0	0	14	3	0	1	0	4	0	23	0	0	0	23	0	41	41	
04:30	0	0	1	0	0	1	1	16	1	0	0	18	2	0	1	0	3	0	28	0	0	0	28	0	50	50	
04:45	0	0	0	0	0	0	0	12	0	0	0	12	2	0	3	0	5	0	38	0	0	0	38	0	55	55	
Total	0	0	1	0	0	1	1	50	1	0	0	52	9	0	6	0	15	0	98	0	0	0	98	0	166	166	
05:00	0	0	1	0	0	1	0	15	0	0	0	15	4	0	0	0	4	2	37	0	0	0	39	0	59	59	
05:15	1	0	2	0	0	3	1	25	0	0	0	26	5	0	3	0	8	0	67	1	0	0	68	0	105	105	
05:30	0	0	2	0	0	2	1	23	2	0	0	26	10	0	3	0	13	0	91	0	0	0	91	0	132	132	
05:45	0	0	1	0	0	1	0	28	0	0	0	28	5	0	7	0	12	0	77	0	0	0	77	0	118	118	
Total	1	0	6	0	0	7	2	91	2	0	0	95	24	0	13	0	37	2	272	1	0	0	275	0	414	414	



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 2

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Cars + - Trucks

Start Time	Xavis St. Southbound						CSAH 1 Westbound						Xavis St. Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
06:00	0	0	6	0	0	6	2	42	0	0	0	44	8	0	1	0	0	9	2	73	0	0	0	75	0	134	134
06:15	0	0	4	0	0	4	3	40	1	0	0	44	7	0	2	0	0	9	0	87	0	0	0	87	0	144	144
06:30	1	0	3	0	0	4	3	89	0	0	0	92	11	0	12	0	0	23	2	126	1	0	0	129	0	248	248
06:45	1	0	5	0	0	6	2	78	3	0	0	83	8	0	3	0	0	11	2	114	1	0	0	117	0	217	217
Total	2	0	18	0	0	20	10	249	4	0	0	263	34	0	18	0	0	52	6	400	2	0	0	408	0	743	743
07:00	2	0	5	0	0	7	3	91	4	0	1	98	15	1	4	0	0	20	5	131	1	0	3	137	4	262	266
07:15	0	0	9	0	0	9	4	110	3	0	0	117	14	0	5	0	0	19	2	148	0	0	0	150	0	295	295
07:30	2	0	6	0	0	8	1	98	5	1	1	105	21	0	7	0	0	28	2	143	0	0	0	145	1	286	287
07:45	2	0	14	0	0	16	5	124	3	0	0	132	11	3	6	0	0	20	4	121	0	0	0	125	0	293	293
Total	6	0	34	0	0	40	13	423	15	1	2	452	61	4	22	0	0	87	13	543	1	0	3	557	5	1136	1141
08:00	0	0	4	0	0	4	3	107	1	0	1	111	9	0	6	0	0	15	2	124	0	0	0	126	1	256	257
08:15	0	1	6	0	1	7	8	104	3	0	0	115	10	2	8	0	0	20	3	108	4	0	0	115	1	257	258
08:30	0	0	9	0	0	9	7	127	4	0	0	138	9	1	8	0	0	18	2	120	1	0	0	123	0	288	288
08:45	5	0	10	0	0	15	5	110	3	0	1	118	11	1	6	0	0	18	5	105	1	0	0	111	1	262	263
Total	5	1	29	0	1	35	23	448	11	0	2	482	39	4	28	0	0	71	12	457	6	0	0	475	3	1063	1066
09:00	2	0	5	0	0	7	4	108	2	0	0	114	6	1	4	0	0	11	1	126	0	0	0	127	0	259	259
09:15	0	0	3	0	1	3	0	99	4	1	1	104	4	0	3	0	0	7	2	94	0	0	0	96	2	210	212
09:30	2	0	6	0	1	8	3	108	0	2	0	113	6	1	3	0	0	10	4	100	0	0	0	104	1	235	236
09:45	3	2	6	0	0	11	5	128	4	0	0	137	8	0	3	0	0	11	6	106	0	1	0	113	0	272	272
Total	7	2	20	0	2	29	12	443	10	3	1	468	24	2	13	0	0	39	13	426	0	1	0	440	3	976	979
10:00	1	0	3	0	0	4	3	107	7	1	0	118	4	1	5	0	0	10	3	94	0	0	0	97	0	229	229
10:15	0	0	5	0	0	5	2	95	3	0	0	100	14	0	8	0	0	22	6	100	1	0	0	107	0	234	234
10:30	0	0	7	0	0	7	0	115	5	1	0	121	4	1	6	0	0	11	7	128	1	0	0	136	0	275	275
10:45	1	1	1	0	0	3	2	108	4	0	0	114	8	0	5	0	0	13	8	103	1	0	0	112	0	242	242
Total	2	1	16	0	0	19	7	425	19	2	0	453	30	2	24	0	0	56	24	425	3	0	0	452	0	980	980
11:00	1	0	4	0	1	5	4	135	2	1	1	142	4	1	12	0	0	17	4	107	1	1	0	113	2	277	279
11:15	1	0	2	0	1	3	1	117	4	0	0	122	12	1	2	0	0	15	9	113	1	0	0	123	1	263	264
11:30	0	1	3	0	1	4	4	112	4	0	0	120	11	0	11	0	0	22	5	125	1	0	1	131	2	277	279
11:45	5	0	4	0	0	9	5	156	4	0	2	165	11	0	7	0	0	18	10	122	2	0	0	134	2	326	328
Total	7	1	13	0	3	21	14	520	14	1	3	549	38	2	32	0	0	72	28	467	5	1	1	501	7	1143	1150
12:00	2	0	13	0	0	15	2	165	3	2	0	172	5	0	3	0	0	8	4	126	0	0	0	130	0	325	325
12:15	1	1	5	0	1	7	4	129	6	0	0	139	5	1	7	0	0	13	12	134	0	0	1	146	2	305	307
12:30	4	1	6	0	0	11	4	149	1	1	0	155	8	0	9	0	1	17	4	132	1	1	0	138	1	321	322



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 3

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Cars + - Trucks

Start Time	Xavis St. Southbound						CSAH 1 Westbound						Xavis St. Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
12:45	3	0	8	0	0	11	3	146	5	0	0	154	14	3	9	0	0	26	6	130	2	0	0	138	0	329	329
Total	10	2	32	0	1	44	13	589	15	3	0	620	32	4	28	0	1	64	26	522	3	1	1	552	3	1280	1283
13:00	1	0	8	0	0	9	2	145	5	2	0	154	14	0	11	0	0	25	9	144	2	0	0	155	0	343	343
13:15	1	1	8	0	0	10	1	153	6	0	0	160	7	0	15	0	0	22	12	115	1	0	1	128	1	320	321
13:30	1	1	0	0	0	2	1	162	3	0	2	166	5	0	5	0	1	10	13	147	0	0	0	160	3	338	341
13:45	2	0	4	0	0	6	4	139	6	1	0	150	6	0	8	0	0	14	10	138	0	2	0	150	0	320	320
Total	5	2	20	0	0	27	8	599	20	3	2	630	32	0	39	0	1	71	44	544	3	2	1	593	4	1321	1325
14:00	5	1	6	0	0	12	15	154	10	0	0	179	7	0	9	0	0	16	5	137	1	0	0	143	0	350	350
14:15	3	0	6	0	0	9	4	78	0	1	0	83	1	0	12	0	0	13	12	144	1	0	2	157	2	262	264
14:30	3	1	2	0	0	6	0	0	0	0	0	0	2	1	93	0	0	96	6	128	0	0	0	134	0	236	236
14:45	4	2	3	0	0	9	15	181	0	0	0	196	8	4	37	0	0	49	11	135	1	0	0	147	0	401	401
Total	15	4	17	0	0	36	34	413	10	1	0	458	18	5	151	0	0	174	34	544	3	0	2	581	2	1249	1251
15:00	1	1	6	0	0	8	6	169	5	1	0	181	8	0	3	0	0	11	9	144	2	0	0	155	0	355	355
15:15	5	2	9	0	2	16	6	206	3	1	0	216	7	2	1	0	0	10	13	156	0	0	0	169	2	411	413
15:30	4	0	8	0	0	12	9	196	4	0	0	209	11	0	10	0	0	21	8	156	2	0	0	166	0	408	408
15:45	3	0	3	0	0	6	7	231	5	0	1	243	8	0	10	0	0	18	11	175	2	0	0	188	1	455	456
Total	13	3	26	0	2	42	28	802	17	2	1	849	34	2	24	0	0	60	41	631	6	0	0	678	3	1629	1632
16:00	2	1	6	0	0	9	10	179	5	3	1	197	14	0	10	0	0	24	18	167	1	0	1	186	2	416	418
16:15	4	1	10	0	0	15	9	264	5	3	0	281	14	0	13	0	0	27	13	166	2	0	0	181	0	504	504
16:30	1	1	7	0	0	9	6	230	6	0	1	242	11	0	12	0	0	23	20	175	1	1	1	197	2	471	473
16:45	2	0	10	0	0	12	9	264	6	2	0	281	8	0	8	0	0	16	12	142	2	0	2	156	2	465	467
Total	9	3	33	0	0	45	34	937	22	8	2	1001	47	0	43	0	0	90	63	650	6	1	4	720	6	1856	1862
17:00	1	1	11	0	0	13	4	246	1	0	0	251	17	1	18	0	0	36	8	163	1	1	1	173	1	473	474
17:15	2	1	8	0	0	11	3	221	6	0	0	230	9	1	15	0	1	25	10	158	2	0	0	170	1	436	437
17:30	1	0	7	0	0	8	5	236	6	1	0	248	2	0	12	0	0	14	21	124	1	0	1	146	1	416	417
17:45	2	0	8	0	0	10	8	194	4	1	1	207	6	1	12	0	0	19	18	129	1	1	0	149	1	385	386
Total	6	2	34	0	0	42	20	897	17	2	1	936	34	3	57	0	1	94	57	574	5	2	2	638	4	1710	1714
18:00	2	0	7	0	1	9	9	183	5	1	0	198	15	1	9	0	0	25	7	134	0	0	0	141	1	373	374
18:15	1	2	3	0	0	6	8	184	11	0	6	203	2	0	9	0	1	11	11	113	0	0	1	124	8	344	352
18:30	2	0	3	0	0	5	4	153	2	2	0	161	10	1	7	0	0	18	10	104	0	0	1	114	1	298	299
18:45	1	0	3	0	0	4	5	143	11	2	0	161	10	0	9	0	0	19	8	89	3	0	1	100	1	284	285
Total	6	2	16	0	1	24	26	663	29	5	6	723	37	2	34	0	1	73	36	440	3	0	3	479	11	1299	1310



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 4

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Cars + - Trucks

Start Time	Xavis St. Southbound						CSAH 1 Westbound						Xavis St. Northbound						CSAH 1 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
19:00	4	1	5	0	0	10	5	110	4	0	0	119	7	0	10	0	0	17	7	102	2	0	0	111	0	257	257
19:15	0	0	3	0	0	3	3	107	3	0	0	113	2	0	7	0	0	9	7	116	4	0	1	127	1	252	253
19:30	1	1	2	0	0	4	3	114	5	2	1	124	4	1	10	0	0	15	10	92	1	0	0	103	1	246	247
19:45	3	0	2	0	0	5	2	98	3	1	0	104	4	0	6	0	0	10	13	101	0	0	0	114	0	233	233
Total	8	2	12	0	0	22	13	429	15	3	1	460	17	1	33	0	0	51	37	411	7	0	1	455	2	988	990
20:00	1	0	0	0	0	1	1	90	3	0	0	94	5	0	3	0	0	8	8	98	1	0	0	107	0	210	210
20:15	1	0	3	0	0	4	7	97	7	0	0	111	5	0	3	0	1	8	3	76	3	0	0	82	1	205	206
20:30	3	0	1	0	1	4	1	98	1	0	7	100	6	0	4	0	1	10	6	78	1	0	0	85	9	199	208
20:45	1	2	2	0	0	5	4	85	7	0	0	96	6	0	4	0	0	10	12	78	1	0	0	91	0	202	202
Total	6	2	6	0	1	14	13	370	18	0	7	401	22	0	14	0	2	36	29	330	6	0	0	365	10	816	826
21:00	3	0	3	0	0	6	4	61	4	0	0	69	7	1	2	0	0	10	9	79	2	0	0	90	0	175	175
21:15	0	0	3	0	0	3	6	82	4	4	1	96	4	0	3	0	0	7	7	106	2	0	0	115	1	221	222
21:30	3	0	4	0	0	7	4	62	2	1	0	69	3	0	3	0	0	6	5	70	0	0	0	75	0	157	157
21:45	3	0	2	0	0	5	3	62	1	1	0	67	2	0	2	0	0	4	2	52	3	0	0	57	0	133	133
Total	9	0	12	0	0	21	17	267	11	6	1	301	16	1	10	0	0	27	23	307	7	0	0	337	1	686	687
22:00	1	0	0	0	0	1	4	54	3	0	0	61	2	0	1	0	0	3	6	45	0	0	0	51	0	116	116
22:15	0	1	3	0	0	4	4	72	4	0	0	80	0	0	0	0	0	0	1	55	0	0	0	56	0	140	140
22:30	0	0	0	0	0	0	2	47	7	0	0	56	7	0	2	0	0	9	1	26	0	0	0	27	0	92	92
22:45	0	0	0	0	0	0	3	49	4	0	0	56	2	0	3	0	0	5	4	39	0	0	0	43	0	104	104
Total	1	1	3	0	0	5	13	222	18	0	0	253	11	0	6	0	0	17	12	165	0	0	0	177	0	452	452
23:00	0	0	1	0	0	1	2	28	3	1	0	34	1	0	0	0	0	1	0	52	0	0	0	52	0	88	88
23:15	1	0	1	0	0	2	2	35	2	0	0	39	0	0	2	0	0	2	3	26	0	0	0	29	0	72	72
23:30	0	0	3	0	0	3	0	27	1	0	0	28	1	2	0	0	0	3	0	42	0	0	0	42	0	76	76
23:45	1	0	0	0	0	1	2	32	0	0	0	34	1	0	2	0	0	3	0	24	1	0	0	25	0	63	63
Total	2	0	5	0	0	7	6	122	6	1	0	135	3	2	4	0	0	9	3	144	1	0	0	148	0	299	299
Grand Total	121	30	359	0	11	510	313	9089	287	43	32	9732	567	35	600	0	6	1202	507	8476	70	8	18	9061	67	20505	20572
Apprch %	23.7	5.9	70.4	0			3.2	93.4	2.9	0.4			47.2	2.9	49.9	0			5.6	93.5	0.8	0.1					
Total %	0.6	0.1	1.8	0		2.5	1.5	44.3	1.4	0.2		47.5	2.8	0.2	2.9	0		5.9	2.5	41.3	0.3	0		44.2	0.3	99.7	
Cars +	115	29	353	0		508	307	8945	286	43		9613	561	35	593	0		1195	506	8346	70	8		8948	0	0	20264
% Cars +	95	96.7	98.3	0	100	97.5	98.1	98.4	99.7	100	100	98.5	98.9	100	98.8	0	100	98.9	99.8	98.5	100	100	100	98.6	0	0	98.5
Trucks	6	1	6	0		13	6	144	1	0		151	6	0	7	0		13	1	130	0	0		131	0	0	308
% Trucks	5	3.3	1.7	0	0	2.5	1.9	1.6	0.3	0	0	1.5	1.1	0	1.2	0	0	1.1	0.2	1.5	0	0	0	1.4	0	0	1.5



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 5

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Start Time	Xavis St. Southbound					CSAH 1 Westbound					Xavis St. Northbound					CSAH 1 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
Peak Hour Analysis From 00:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	2	0	5	0	7	3	91	4	0	98	15	1	4	0	20	5	131	1	0	137	262
07:15	0	0	9	0	9	4	110	3	0	117	14	0	5	0	19	2	148	0	0	150	295
07:30	2	0	6	0	8	1	98	5	1	105	21	0	7	0	28	2	143	0	0	145	286
07:45	2	0	14	0	16	5	124	3	0	132	11	3	6	0	20	4	121	0	0	125	293
Total Volume	6	0	34	0	40	13	423	15	1	452	61	4	22	0	87	13	543	1	0	557	1136
% App. Total	15	0	85	0		2.9	93.6	3.3	0.2		70.1	4.6	25.3	0		2.3	97.5	0.2	0		
PHF	.750	.000	.607	.000	.625	.650	.853	.750	.250	.856	.726	.333	.786	.000	.777	.650	.917	.250	.000	.928	.963

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:45																					
12:45	3	0	8	0	11	3	146	5	0	154	14	3	9	0	26	6	130	2	0	138	329
13:00	1	0	8	0	9	2	145	5	2	154	14	0	11	0	25	9	144	2	0	155	343
13:15	1	1	8	0	10	1	153	6	0	160	7	0	15	0	22	12	115	1	0	128	320
13:30	1	1	0	0	2	1	162	3	0	166	5	0	5	0	10	13	147	0	0	160	338
Total Volume	6	2	24	0	32	7	606	19	2	634	40	3	40	0	83	40	536	5	0	581	1330
% App. Total	18.8	6.2	75	0		1.1	95.6	3	0.3		48.2	3.6	48.2	0		6.9	92.3	0.9	0		
PHF	.500	.500	.750	.000	.727	.583	.935	.792	.250	.955	.714	.250	.667	.000	.798	.769	.912	.625	.000	.908	.969

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	4	1	10	0	15	9	264	5	3	281	14	0	13	0	27	13	166	2	0	181	504
16:30	1	1	7	0	9	6	230	6	0	242	11	0	12	0	23	20	175	1	1	197	471
16:45	2	0	10	0	12	9	264	6	2	281	8	0	8	0	16	12	142	2	0	156	465
17:00	1	1	11	0	13	4	246	1	0	251	17	1	18	0	36	8	163	1	1	173	473
Total Volume	8	3	38	0	49	28	1004	18	5	1055	50	1	51	0	102	53	646	6	2	707	1913
% App. Total	16.3	6.1	77.6	0		2.7	95.2	1.7	0.5		49	1	50	0		7.5	91.4	0.8	0.3		
PHF	.500	.750	.864	.000	.817	.778	.951	.750	.417	.939	.735	.250	.708	.000	.708	.663	.923	.750	.500	.897	.949



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 1

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Trucks

Start Time	Xavis St. Southbound					CSAH 1 Westbound					Xavis St. Northbound					CSAH 1 Eastbound					Int. Total	
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total		
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
00:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	2
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	2	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	2	3
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
06:00	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
06:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	2
06:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	1	3
06:45	1	0	0	0	1	1	4	0	0	5	1	0	0	0	1	0	3	0	0	0	3	10
Total	1	0	2	0	3	1	8	0	0	9	1	0	0	0	1	0	5	0	0	0	5	18
07:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	1	3
07:15	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	0	1	5
07:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	0	1	3
07:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	0	2	3
Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	5	0	0	0	5	14
08:00	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	0	1	4
08:15	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	0	1	4
08:30	0	0	0	0	0	2	7	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9
08:45	2	0	0	0	2	1	3	1	0	5	1	0	1	0	2	1	2	0	0	0	3	12
Total	2	0	0	0	2	3	15	1	0	19	1	0	2	0	3	1	4	0	0	0	5	29
09:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	10	0	0	0	10	11



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 2

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Trucks

Start Time	Xavis St. Southbound					CSAH 1 Westbound					Xavis St. Northbound					CSAH 1 Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
09:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
09:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
09:45	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	17	0	0	17	29
10:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
10:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
10:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	8
10:45	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	8
Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	16	0	0	16	24
11:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	6
11:15	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
11:30	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	8
11:45	2	0	0	0	2	2	6	0	0	8	0	0	0	0	0	0	2	0	0	2	12
Total	2	0	0	0	2	2	17	0	0	19	0	0	0	0	0	0	9	0	0	9	30
12:00	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	9
12:15	0	0	1	0	1	0	6	0	0	6	0	0	0	0	0	0	10	0	0	10	17
12:30	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	6
12:45	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	5	0	0	5	7
Total	0	0	4	0	4	0	12	0	0	12	0	0	2	0	2	0	21	0	0	21	39
13:00	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
13:15	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	8
13:30	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	9
13:45	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2	0	0	2	5
Total	1	0	0	0	1	0	16	0	0	16	0	0	0	0	0	0	9	0	0	9	26
14:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
14:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	4
14:30	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	2	0	0	2	5
14:45	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	5
Total	0	1	0	0	1	0	5	0	0	5	0	0	3	0	3	0	10	0	0	10	19
15:00	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	3
15:15	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	2	0	0	2	6
15:30	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	7
15:45	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	3
Total	0	0	0	0	0	0	12	0	0	12	2	0	0	0	2	0	5	0	0	5	19
16:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
16:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
16:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
16:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	11
17:00	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
17:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	6
17:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	3	0	0	3	12
18:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
18:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
18:30	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	3
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	5



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2238
 Site Code :
 Start Date : 07/28/2022
 Page No : 3

Weather: Hot & Cloudy
 CountCAM 3
 Study Conducted by: Adam

Groups Printed- Trucks

Start Time	Xavis St. Southbound					CSAH 1 Westbound					Xavis St. Northbound					CSAH 1 Eastbound					Int. Total	
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total		
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	1	3
19:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	2	3
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	4	7
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
20:30	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	4	7
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5	0	0	5	5	8
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	2
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
21:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	2	4
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2
22:45	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	0	3
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1
Grand Total	6	1	6	0	13	6	144	1	0	151	6	0	7	0	13	1	130	0	0	131	308	
Apprch %	46.2	7.7	46.2	0		4	95.4	0.7	0		46.2	0	53.8	0		0.8	99.2	0	0			
Total %	1.9	0.3	1.9	0	4.2	1.9	46.8	0.3	0	49	1.9	0	2.3	0	4.2	0.3	42.2	0	0	42.5		

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1

Number of Lanes : 2+

Total Approach Volume: 9,061

Westbound: CSAH 1

Number of Lanes :2+

Total Approach Volume: 9,732

Minor Street Approaches

Northbound: Xavis St.

Number of Lanes :1

Total Approach Volume: 1,202

Southbound: Xavis St.

Number of Lanes :1

Total Approach Volume: 510

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 1 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Satisfied

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 6 hours, 8 are needed

Required 1B volumes reached for 14 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Satisfied

Number of hours (11) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

Warrant 3A - Peak Hour Delay.....Satisfied

Number of one hour periods (6) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

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

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 1 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **420**

Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
13:45 - 14:45	584	+	412	=	996	139	33	Yes
16:15 - 17:15	707	+	1055	=	1762	102	49	No
16:00 - 17:00	720	+	1001	=	1721	90	45	No
15:45 - 16:45	752	+	963	=	1715	92	39	No
16:30 - 17:30	696	+	1004	=	1700	100	45	No
16:45 - 17:45	645	+	1010	=	1655	91	44	No
15:30 - 16:30	721	+	930	=	1651	90	42	No
15:15 - 16:15	709	+	865	=	1574	73	43	No
17:00 - 18:00	638	+	936	=	1574	94	42	No
15:00 - 16:00	678	+	849	=	1527	60	42	No
17:15 - 18:15	606	+	883	=	1489	83	38	No
14:45 - 15:45	637	+	802	=	1439	91	45	No
17:30 - 18:30	560	+	856	=	1416	69	33	No
17:45 - 18:45	528	+	769	=	1297	73	30	No
13:15 - 14:15	581	+	655	=	1236	62	30	No
13:00 - 14:00	593	+	630	=	1223	71	27	No
12:45 - 13:45	581	+	634	=	1215	83	32	No
18:00 - 19:00	479	+	723	=	1202	73	24	No
13:30 - 14:30	610	+	578	=	1188	53	29	No
12:30 - 13:30	559	+	623	=	1182	90	41	No
12:15 - 13:15	577	+	602	=	1179	81	38	No
11:45 - 12:45	548	+	631	=	1179	56	42	No
12:00 - 13:00	552	+	620	=	1172	64	44	No
11:30 - 12:30	541	+	596	=	1137	61	35	No
11:15 - 12:15	518		579		1097	63	31	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

13 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **630**

Veh/Hr Minor = **53**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	696	+	1004	=	1700	100	45	Yes
15:30 - 16:30	721	+	930	=	1651	90	42	Yes
17:30 - 18:30	560	+	856	=	1416	69	33	Yes
14:30 - 15:30	605	+	593	=	1198	166	39	Yes
13:30 - 14:30	610	+	578	=	1188	53	29	Yes
12:30 - 13:30	559	+	623	=	1182	90	41	Yes
11:30 - 12:30	541	+	596	=	1137	61	35	Yes
07:15 - 08:15	546	+	465	=	1011	82	37	Yes
18:30 - 19:30	452	+	554	=	1006	63	22	Yes
10:30 - 11:30	484	+	499	=	983	56	18	Yes
08:15 - 09:15	476	+	485	=	961	67	38	Yes
09:30 - 10:30	421	+	468	=	889	53	28	Yes
06:15 - 07:15	470	+	317	=	787	63	21	Yes
09:15 - 10:15	410	+	472	=	882	38	26	No
19:30 - 20:30	406	+	433	=	839	41	14	No
19:45 - 20:45	388	+	409	=	797	36	14	No
20:00 - 21:00	365	+	401	=	766	36	14	No
20:30 - 21:30	381	+	361	=	742	37	18	No
20:15 - 21:15	348	+	376	=	724	38	19	No
20:45 - 21:45	371	+	330	=	701	33	21	No
06:00 - 07:00	408	+	263	=	671	52	20	No
21:00 - 22:00	337	+	301	=	638	27	21	No
21:15 - 22:15	298	+	293	=	591	20	16	No
05:45 - 06:45	368	+	208	=	576	53	15	No
21:30 - 22:30	239		277		516	13	17	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 6 hours meet 1A minimums.
14 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **2 or more**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **84 42**

Major Road CSAH 1

Minor Road Xavis St.

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
15:45 - 16:45	752	+	963	=	1715	92	39	Yes
16:45 - 17:45	645	+	1010	=	1655	91	44	Yes
14:45 - 15:45	637	+	802	=	1439	91	45	Yes
12:30 - 13:30	559	+	623	=	1182	90	41	Yes
07:00 - 08:00	557	+	452	=	1009	87	40	Yes
13:45 - 14:45	584	+	412	=	996	139	33	Yes
17:45 - 18:45	528	+	769	=	1297	73	30	No
18:00 - 19:00	479	+	723	=	1202	73	24	No
13:30 - 14:30	610	+	578	=	1188	53	29	No
12:15 - 13:15	577	+	602	=	1179	81	38	No
11:45 - 12:45	548	+	631	=	1179	56	42	No
12:00 - 13:00	552	+	620	=	1172	64	44	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
15:45 - 16:45	752	+	963	=	1715	92	39	Yes
16:45 - 17:45	645	+	1010	=	1655	91	44	Yes
14:45 - 15:45	637	+	802	=	1439	91	45	Yes
17:45 - 18:45	528	+	769	=	1297	73	30	Yes
12:45 - 13:45	581	+	634	=	1215	83	32	Yes
11:45 - 12:45	548	+	631	=	1179	56	42	Yes
13:45 - 14:45	584	+	412	=	996	139	33	Yes
07:45 - 08:45	489	+	496	=	985	73	36	Yes
10:45 - 11:45	479	+	498	=	977	67	15	Yes
18:45 - 19:45	441	+	517	=	958	60	21	Yes
06:45 - 07:45	549	+	403	=	952	78	30	Yes
09:45 - 10:45	453	+	476	=	929	54	27	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

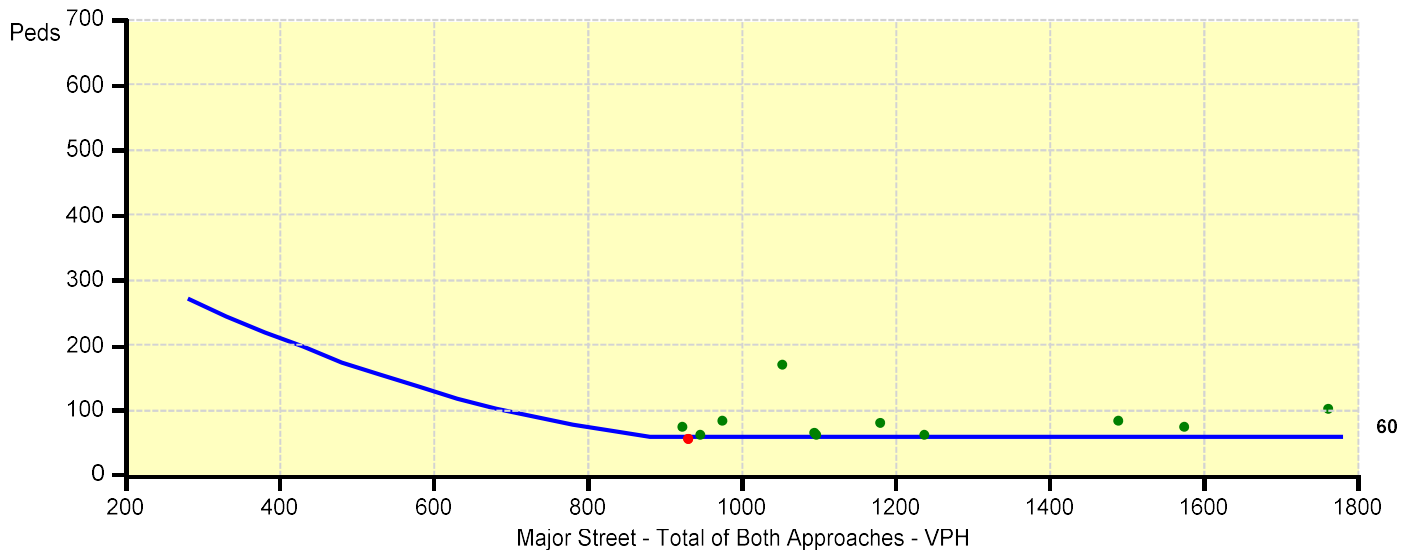
Summary

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **2 or more**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 1				Total	Minor Road Xavis St.		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	707	+	1055	=	1762	102	49	Yes
15:15 - 16:15	709	+	865	=	1574	73	43	Yes
17:15 - 18:15	606	+	883	=	1489	83	38	Yes
13:15 - 14:15	581	+	655	=	1236	62	30	Yes
12:15 - 13:15	577	+	602	=	1179	81	38	Yes
11:15 - 12:15	518	+	579	=	1097	63	31	Yes
18:15 - 19:15	449	+	644	=	1093	65	25	Yes
14:15 - 15:15	593	+	460	=	1053	169	32	Yes
07:30 - 08:30	511	+	463	=	974	83	35	Yes
10:15 - 11:15	468	+	477	=	945	63	20	Yes
06:30 - 07:30	533	+	390	=	923	73	26	Yes
08:30 - 09:30	457		474		931	54	34	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 07/28/2022

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

Summary

16 one hour periods meet minimums.
Warrant IS met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **2 or more**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 1				Total	Minor Road Xavis St.		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	707	+	1055	=	1762	102	49	Yes
16:00 - 17:00	720	+	1001	=	1721	90	45	Yes
15:45 - 16:45	752	+	963	=	1715	92	39	Yes
16:30 - 17:30	696	+	1004	=	1700	100	45	Yes
16:45 - 17:45	645	+	1010	=	1655	91	44	Yes
15:30 - 16:30	721	+	930	=	1651	90	42	Yes
17:00 - 18:00	638	+	936	=	1574	94	42	Yes
17:15 - 18:15	606	+	883	=	1489	83	38	Yes
14:45 - 15:45	637	+	802	=	1439	91	45	Yes
12:45 - 13:45	581	+	634	=	1215	83	32	Yes
14:30 - 15:30	605	+	593	=	1198	166	39	Yes
12:30 - 13:30	559	+	623	=	1182	90	41	Yes

