

Date : 04/25/23

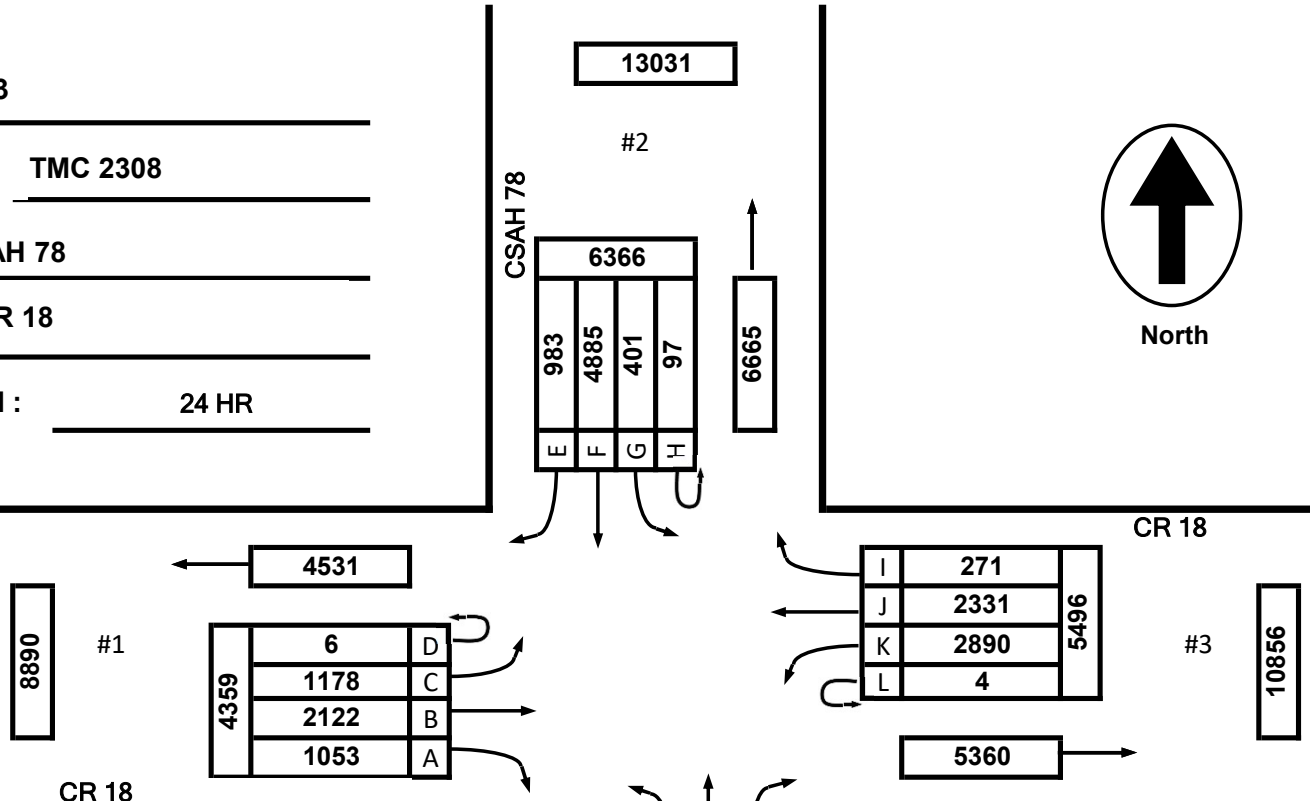
Count Number : TMC 2308

Location : CSAH 78
@ CR 18

Collection Period : 24 HR



North



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

Anoka County Highway Department

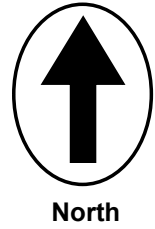
Traffic Volume and Turning Movement Study

Date : 04/25/23

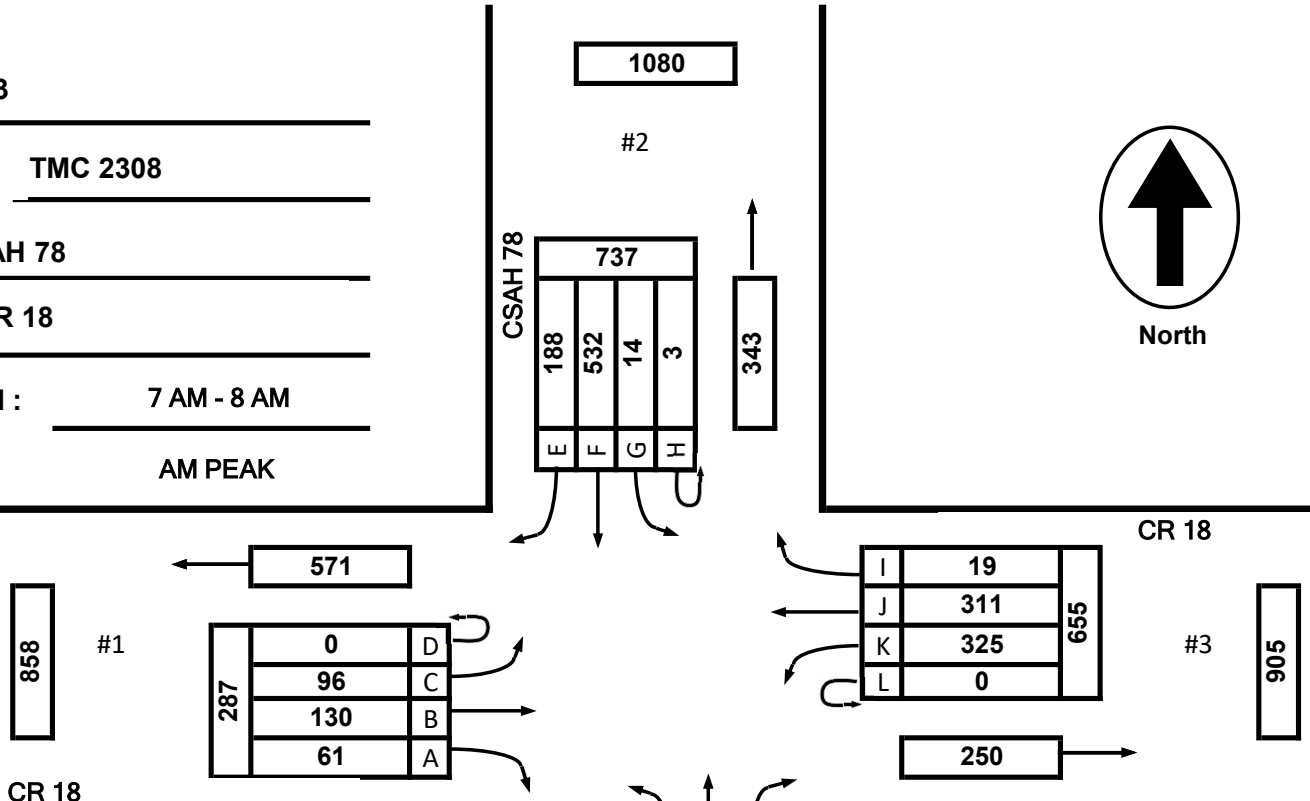
Count Number : TMC 2308

Location : CSAH 78
@ CR 18

Collection Period : 7 AM - 8 AM
AM PEAK



North



CR 18

CR 18

CSAH 78

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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

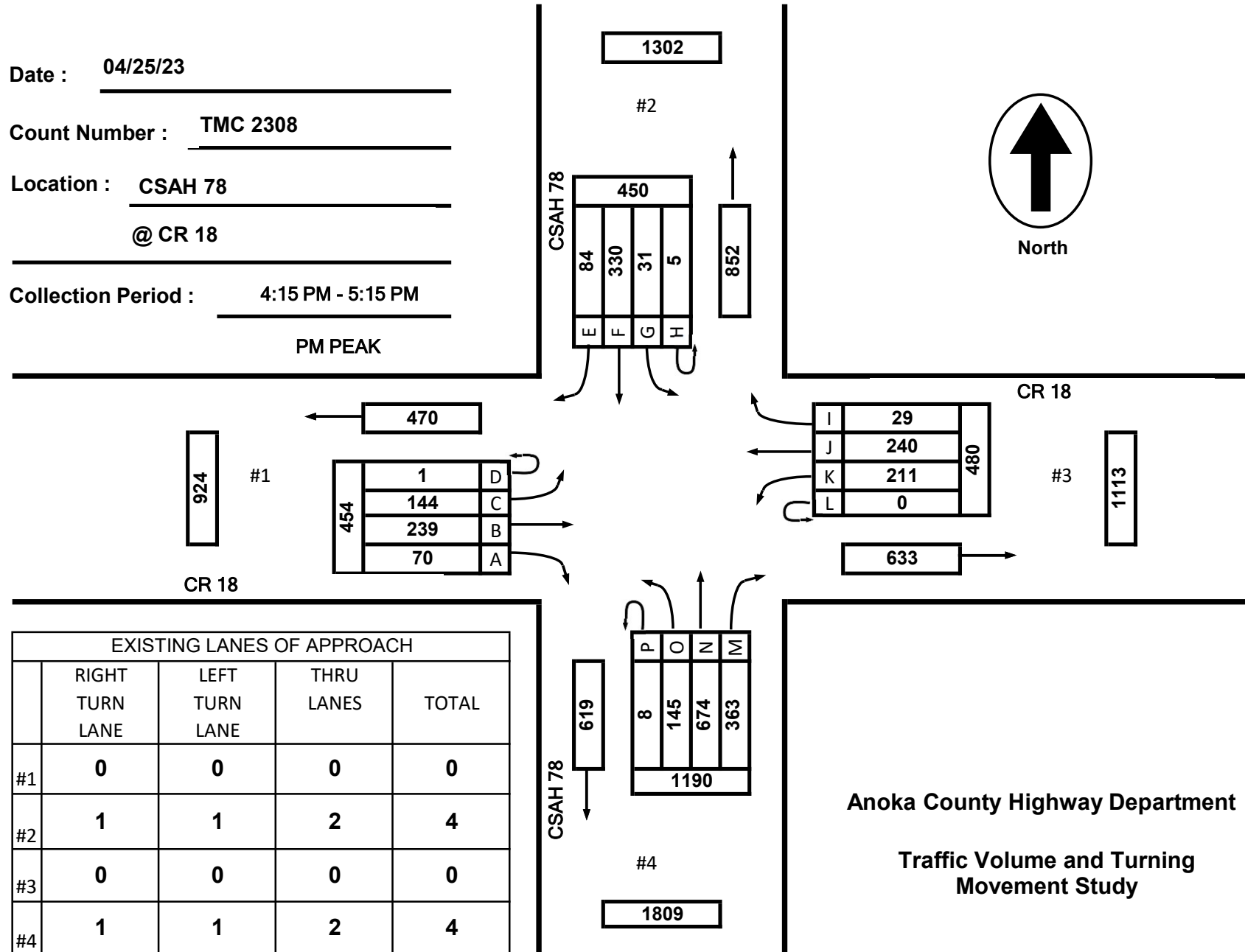
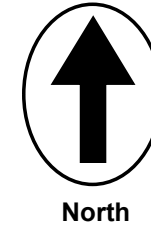
Date : 04/25/23

Count Number : TMC 2308

Location : CSAH 78
@ CR 18

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

PM PEAK



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

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

TMC 2308 - CSAH 78 @ CR 18

0 0

Tuesday, April 25, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL						
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total							
12:00 AM	0	0	3	1	0	4	0	2	2	0	0	4	1	1	7	3	0	12	0	0	1	0	0	1	0	0	2	0	0	2	21
12:15 AM	0	0	3	0	0	3	0	1	0	0	0	1	0	0	6	3	0	9	0	0	2	0	0	2	0	0	1	0	0	1	15
12:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	4	0	6	0	0	1	0	0	1	0	0	0	0	0	1	8
12:45 AM	0	0	0	1	0	1	0	2	0	0	0	2	0	0	2	2	0	4	0	1	0	0	0	1	0	0	0	0	0	1	8
Hourly Total	0	0	6	2	0	8	0	5	3	0	0	8	1	1	17	12	0	31	0	1	4	0	0	5	0	0	0	0	0	5	52
1:00 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	8
1:15 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	4	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	8
1:30 AM	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	6
1:45 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	3	2	0	5	0	0	1	0	0	1	0	0	0	0	0	1	8
Hourly Total	0	0	4	0	0	4	0	4	0	0	0	4	0	3	11	7	0	21	0	0	1	0	0	1	0	0	0	0	0	1	30
2:00 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5
2:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	1	3
2:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	3	0	5	0	0	0	1	0	1	0	0	0	0	0	1	7
2:45 AM	0	0	1	0	0	1	0	2	1	0	0	3	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	6
Hourly Total	0	0	2	0	0	2	0	5	1	0	0	6	0	1	4	6	0	11	0	1	0	1	0	2	0	0	0	0	0	2	21
3:00 AM	0	0	1	0	0	1	0	0	2	0	0	2	0	1	2	1	0	4	0	0	1	0	0	1	0	0	0	0	0	1	8
3:15 AM	0	0	5	1	0	6	0	2	0	0	0	2	1	0	3	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	14
3:30 AM	0	0	7	0	0	7	0	6	2	0	0	8	0	1	3	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	20
3:45 AM	0	0	5	0	0	5	0	5	1	0	0	6	0	0	1	2	0	3	0	0	1	2	0	3	0	0	1	2	0	3	17
Hourly Total	0	0	18	1	0	19	0	13	5	0	0	18	1	2	9	6	0	18	0	0	2	2	0	4	0	0	0	0	0	4	59
4:00 AM	0	0	13	0	0	13	0	4	0	0	0	4	1	0	1	2	0	4	0	0	0	1	0	1	0	0	0	0	0	1	22
4:15 AM	0	0	12	2	0	14	0	11	4	0	0	15	0	0	2	2	0	4	0	0	1	1	0	2	0	0	0	0	0	2	35
4:30 AM	0	0	19	1	0	20	0	13	5	0	0	18	2	0	3	4	0	9	0	0	1	4	0	5	0	0	0	0	0	5	52
4:45 AM	0	0	28	2	0	30	0	9	7	2	0	18	0	1	14	3	0	18	0	0	0	4	0	4	0	0	0	0	0	4	70
Hourly Total	0	0	72	5	0	77	0	37	16	2	0	55	3	1	20	11	0	35	0	0	2	10	0	12	0	0	0	0	0	12	179
5:00 AM	0	1	40	1	0	42	0	19	5	0	0	24	0	2	9	4	0	15	0	1	1	4	0	6	0	0	0	0	0	6	87
5:15 AM	0	0	46	1	0	47	0	22	7	3	0	32	1	2	10	3	0	16	0	1	2	5	0	8	0	0	0	0	0	8	103
5:30 AM	0	1	65	3	0	69	0	31	18	1	0	50	1	4	8	4	0	17	0	2	2	12	0	16	0	0	0	0	0	16	152
5:45 AM	1	0	51	5	0	57	0	50	13	0	0	63	2	7	21	10	0	40	0	4	7	8	0	19	0	0	0	0	0	19	179
Hourly Total	1	2	202	10	0	215	0	122	43	4	0	169	4	15	48	21	0	88	0	8	12	29	0	49	0	0	0	0	0	49	521
6:00 AM	1	4	85	4	2	94	0	45	6	3	0	54	0	2	9	10	0	21	0	1	7	17	1	25	0	0	0	0	0	25	194
6:15 AM	2	0	100	6	2	108	0	33	27	0	0	60	2	8	20	9	0	39	0	2	13	15	2	30	0	0	0	0	0	30	237
6:30 AM	2	4	115	16	0	137	0	74	31	0	0	105	5	10	24	16	0	55	0	2	12	17	0	31	0	0	0	0	0	31	328
6:45 AM	0	2	93	8	1	103	0	78	45	3	1	126	3	11	40	25	0	79	0	3	12	15	0	30	0	0	0	0	0	30	338
Hourly Total	5	10	393	34	5	442	0	230	109	6	1	345	10	31	93	60	0	194	0	8	44	64	3	116	0	0	0	0	0	116	1097
7:00 AM	1	1	127	52	0	181	0	73	91	0	0	164	3	14	37	22	0	76	0	2	24	19	0	45	0	0	0	0	0	45	466
7:15 AM	1	6	149	72	1	228	0	114	102	4	0	220	2	24	47	29	0	102	0	22	29	19	2	70	0	0	0	0	0	70	620
7:30 AM	0	1	121	37	0	159	0	87	77	4	2	168	4	15	56	28	0	103	0	36	46	8	1	90	0	0	0	0	0	90	520
7:45 AM	1	6	135	27	1	169	0	51	41	11	8	103	2	19	85	27	0	133	0	36	31	15	1	82	0	0	0	0	0	82	487
Hourly Total	3	14	532	188	2	737	0	325	311	19	10	655	11	72	225	106	0	414	0	96	130	61	4	287	0	0	0	0	0	287	2093

TMC 2308 - CSAH 78 @ CR 18

0 0

Tuesday, April 25, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
8:00 AM	1	15	103	26	1	145	0	63	37	8	0	108	3	25	70	20	0	118	0	19	25	18	3	62	433
8:15 AM	1	5	106	23	0	135	0	51	37	5	0	93	0	12	49	22	0	83	0	9	15	18	0	42	353
8:30 AM	0	4	74	12	0	90	0	44	33	2	0	79	3	15	45	32	0	95	0	5	17	14	1	36	300
8:45 AM	0	4	65	13	0	82	0	41	33	2	1	76	2	23	63	27	0	115	0	5	28	13	0	46	319
Hourly Total	2	28	348	74	1	452	0	199	140	17	1	356	8	75	227	101	0	411	0	38	85	63	4	186	1405
9:00 AM	0	4	87	13	1	104	0	59	46	5	0	110	3	29	50	22	1	104	0	7	25	15	1	47	365
9:15 AM	1	5	88	8	1	102	0	70	44	4	0	118	3	25	55	27	0	110	0	23	42	24	0	89	419
9:30 AM	3	7	47	6	1	63	0	54	28	8	0	90	2	8	42	36	0	88	0	8	12	7	1	27	268
9:45 AM	0	4	63	14	0	81	0	39	20	2	0	61	1	15	52	23	0	91	0	11	22	16	0	49	282
Hourly Total	4	20	285	41	3	350	0	222	138	19	0	379	9	77	199	108	1	393	0	49	101	62	2	212	1334
10:00 AM	1	3	66	6	0	76	0	40	16	3	0	59	0	12	50	30	0	92	1	11	25	6	0	43	270
10:15 AM	0	4	61	10	0	75	0	38	27	5	0	70	0	11	48	29	0	88	0	10	18	21	0	49	282
10:30 AM	5	4	72	4	0	85	0	33	26	2	0	61	2	8	48	23	0	81	0	11	24	12	0	47	274
10:45 AM	4	7	69	5	1	85	0	32	20	5	1	57	1	11	58	33	0	103	1	13	18	10	0	42	287
Hourly Total	10	18	268	25	1	321	0	143	89	15	1	247	3	42	204	115	0	364	2	45	85	49	0	181	1113
11:00 AM	3	4	48	7	0	62	0	36	27	5	0	68	0	17	54	39	0	110	0	7	17	16	0	40	280
11:15 AM	2	5	55	12	0	74	0	30	24	1	0	55	1	11	43	24	1	79	1	15	26	10	1	52	260
11:30 AM	1	5	49	18	0	73	0	52	29	3	3	84	0	16	66	36	1	118	0	18	38	15	0	71	346
11:45 AM	3	6	47	19	1	75	0	34	32	6	0	72	4	12	49	31	0	96	0	20	34	24	0	78	321
Hourly Total	9	20	199	56	1	284	0	152	112	15	3	279	5	56	212	130	2	403	1	60	115	65	1	241	1207
12:00 PM	1	8	79	8	0	96	0	47	29	6	0	82	1	9	46	35	1	91	0	15	33	25	2	73	342
12:15 PM	0	3	58	10	0	71	0	37	39	5	0	81	4	15	69	39	0	127	0	15	25	16	0	56	335
12:30 PM	1	3	44	10	0	58	0	36	29	1	0	66	2	11	66	42	0	121	0	12	22	16	0	50	295
12:45 PM	0	8	59	12	0	79	0	32	37	1	0	70	1	12	53	28	0	94	0	13	27	10	0	50	293
Hourly Total	2	22	240	40	0	304	0	152	134	13	0	299	8	47	234	144	1	433	0	55	107	67	2	229	1265
1:00 PM	1	8	61	4	0	74	0	41	33	4	0	78	1	11	64	35	0	111	0	14	34	11	0	59	322
1:15 PM	0	5	57	6	1	68	0	35	30	3	0	68	3	9	72	45	0	129	0	17	30	10	2	57	322
1:30 PM	0	3	71	6	0	80	0	39	26	3	0	68	0	13	61	41	0	115	0	11	25	8	0	44	307
1:45 PM	2	5	52	9	0	68	1	29	30	1	0	61	3	12	45	42	0	102	0	15	29	15	0	59	290
Hourly Total	3	21	241	25	1	290	1	144	119	11	0	275	7	45	242	163	0	457	0	57	118	44	2	219	1241
2:00 PM	1	2	63	9	2	75	0	32	40	4	2	76	0	17	84	45	0	146	0	21	29	8	0	58	355
2:15 PM	1	6	66	11	1	84	0	31	27	2	0	60	1	24	92	44	0	161	0	25	53	16	0	94	399
2:30 PM	5	10	56	11	1	82	0	44	43	4	0	91	1	22	104	62	0	189	0	54	59	23	0	136	498
2:45 PM	0	1	83	16	1	100	0	41	31	6	0	78	0	25	142	71	0	238	0	24	42	12	0	78	494
Hourly Total	7	19	268	47	5	341	0	148	141	16	2	305	2	88	422	222	0	734	0	124	183	59	0	366	1746
3:00 PM	0	12	68	27	1	107	0	27	36	5	4	68	1	23	121	68	0	213	0	22	35	11	4	68	456
3:15 PM	2	6	92	23	3	123	0	49	39	0	7	88	0	20	109	49	2	178	0	16	39	12	2	67	456
3:30 PM	1	6	64	24	2	95	0	56	32	4	1	92	1	37	151	83	0	272	1	18	35	11	3	65	524
3:45 PM	2	9	59	14	3	84	0	48	73	3	2	124	2	52	137	80	2	271	0	23	64	21	3	108	587
Hourly Total	5	33	283	88	9	409	0	180	180	12	14	372	4	132	518	280	4	934	1	79	173	55	12	308	2023

TMC 2308 - CSAH 78 @ CR 18

0 0

Tuesday, April 25, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	12	67	21	2	100	0	50	49	5	0	104	0	20	147	77	1	244	0	42	74	62	1	178	626
4:15 PM	0	4	75	30	2	109	0	50	64	6	0	120	3	36	154	90	0	283	0	37	64	14	1	115	627
4:30 PM	1	4	80	17	7	102	0	46	63	6	0	115	2	29	171	82	1	284	1	30	53	22	0	106	607
4:45 PM	3	11	87	12	0	113	0	57	52	8	1	117	1	47	195	90	0	333	0	31	51	16	0	98	661
Hourly Total	4	31	309	80	11	424	0	203	228	25	1	456	6	132	667	339	2	1144	1	140	242	114	2	497	2521
5:00 PM	1	12	88	25	0	126	0	58	61	9	2	128	2	33	154	101	0	290	0	46	71	18	0	135	679
5:15 PM	1	15	98	15	6	129	0	52	56	13	2	121	3	35	156	83	0	277	1	21	39	10	2	71	598
5:30 PM	1	6	76	14	0	97	0	62	42	8	2	112	3	20	158	62	0	243	0	22	59	18	1	99	551
5:45 PM	7	7	80	26	0	120	0	41	52	13	3	106	2	31	130	71	0	234	0	31	38	17	1	86	546
Hourly Total	10	40	342	80	6	472	0	213	211	43	9	467	10	119	598	317	0	1044	1	120	207	63	4	391	2374
6:00 PM	1	5	67	11	2	84	0	50	30	2	0	82	1	26	108	69	2	204	0	26	51	17	7	94	464
6:15 PM	7	16	88	11	0	122	0	40	34	6	0	80	2	33	98	68	0	201	0	21	46	28	0	95	498
6:30 PM	2	12	80	17	0	111	0	27	37	6	1	70	0	22	101	51	1	174	0	31	45	16	0	92	447
6:45 PM	1	7	73	15	0	96	0	16	23	5	4	44	0	21	87	38	0	146	0	25	36	11	2	72	358
Hourly Total	11	40	308	54	2	413	0	133	124	19	5	276	3	102	394	226	3	725	0	103	178	72	9	353	1767
7:00 PM	2	10	88	33	0	133	0	43	30	6	3	79	2	31	61	40	3	134	0	29	44	7	0	80	426
7:15 PM	1	15	52	11	1	79	0	22	30	6	1	58	0	19	72	37	0	128	0	28	49	18	1	95	360
7:30 PM	1	11	68	8	0	88	0	23	16	4	2	43	3	20	80	47	0	150	0	27	29	29	1	85	366
7:45 PM	7	6	53	15	2	81	0	16	20	2	2	38	2	13	63	42	1	120	0	15	10	27	0	52	291
Hourly Total	11	42	261	67	3	381	0	104	96	18	8	218	7	83	276	166	4	532	0	99	132	81	2	312	1443
8:00 PM	4	10	47	19	0	80	0	15	13	5	0	33	1	16	58	31	0	106	0	15	20	14	0	49	268
8:15 PM	0	9	51	14	0	74	0	23	28	4	0	55	0	12	78	36	0	126	0	16	30	5	0	51	306
8:30 PM	5	4	42	8	0	59	0	16	16	0	0	32	0	8	58	31	0	97	0	12	26	23	0	61	249
8:45 PM	1	2	37	7	0	47	0	13	11	2	0	26	1	5	53	27	0	86	0	15	17	20	0	52	211
Hourly Total	10	25	177	48	0	260	0	67	68	11	0	146	2	41	247	125	0	415	0	58	93	62	0	213	1034
9:00 PM	0	3	23	1	0	27	1	14	12	0	0	27	0	8	39	32	0	79	0	10	29	6	0	45	178
9:15 PM	0	0	19	2	0	21	0	13	9	1	0	23	0	7	46	16	0	69	0	4	18	5	0	27	140
9:30 PM	0	6	20	4	0	30	2	13	7	1	0	23	0	9	40	19	0	68	0	6	10	9	0	25	146
9:45 PM	0	2	12	1	0	15	0	9	7	1	0	17	0	3	31	21	0	55	0	7	14	3	0	24	111
Hourly Total	0	11	74	8	0	93	3	49	35	3	0	90	0	27	156	88	0	271	0	27	71	23	0	121	575
10:00 PM	0	3	11	2	0	16	0	11	7	0	0	18	0	3	21	16	0	40	0	0	12	2	0	14	88
10:15 PM	0	1	12	3	0	16	0	7	3	3	0	13	0	8	19	11	0	38	0	0	5	2	0	7	74
10:30 PM	0	1	8	1	0	10	0	2	2	0	0	4	0	4	8	14	0	26	0	1	3	0	0	4	44
10:45 PM	0	0	6	0	0	6	0	7	6	0	0	13	0	2	13	13	0	28	0	6	6	1	0	13	60
Hourly Total	0	5	37	6	0	48	0	27	18	3	0	48	0	17	61	54	0	132	0	7	26	5	0	38	266
11:00 PM	0	0	5	0	0	5	0	4	4	0	0	8	0	2	5	2	0	9	0	0	3	1	0	4	26
11:15 PM	0	0	3	0	0	3	0	2	1	0	0	3	0	0	9	7	0	16	0	0	6	0	0	6	28
11:30 PM	0	0	5	1	0	6	0	3	1	0	0	4	0	0	13	11	0	24	0	1	1	0	1	2	36
11:45 PM	0	0	3	3	0	6	0	4	4	0	0	8	0	0	8	6	0	14	0	2	1	1	0	4	32
Hourly Total	0	0	16	4	0	20	0	13	10	0	0	23	0	2	35	26	0	63	0	3	11	2	1	16	122
DAILY TOTAL	97	401	4885	983	50	6366	4	2890	2331	271	55	5496	104	1211	5119	2833	17	9267	6	1178	2122	1053	48	4359	25488
Cars	97	392	4789	955	34	6233	4	2844	2308	265	24	5421	104	1158	5031	2774	8	9067	5	1160	2097	1037	21	4299	25020
Heavy Vehicles	0	9	96	28	16	133	0	46	23	6	31	75	0	53	88	59	9	200	1	18	25	16	27	60	468
Heavy Vehicle %	0.00%	2.24%	1.97%	2.85%	32.00%	2.09%	0.00%	1.59%	0.99%	2.21%	56.36%	1.36%	0.00%	4.38%	1.72%	2.08%	52.94%	2.16%	16.67%	1.53%	1.18%	1.52%	56.25%	1.38%	1.84%

TMC 2308 - CSAH 78 @ CR 18

0 0

Tuesday, April 25, 2023

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:00 AM	1	1	127	52	0	181	0	73	91	0	0	164	3	14	37	22	0	76	0	2	24	19	0	45	466
7:15 AM	1	6	149	72	1	228	0	114	102	4	0	220	2	24	47	29	0	102	0	22	29	19	2	70	620
7:30 AM	0	1	121	37	0	159	0	87	77	4	2	168	4	15	56	28	0	103	0	36	46	8	1	90	520
7:45 AM	1	6	135	27	1	169	0	51	41	11	8	103	2	19	85	27	0	133	0	36	31	15	1	82	487
Peak Hour Total	3	14	532	188	2	737	0	325	311	19	10	655	11	72	225	106	0	414	0	96	130	61	4	287	2093
PHF	0.750	0.583	0.893	0.653	0.500	0.808	0.000	0.713	0.762	0.432	0.313	0.744	0.688	0.750	0.662	0.914	0.000	0.778	0.000	0.667	0.707	0.803	0.500	0.797	0.844

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:15 PM	0	4	75	30	2	109	0	50	64	6	0	120	3	36	154	90	0	283	0	37	64	14	1	115	627
4:30 PM	1	4	80	17	7	102	0	46	63	6	0	115	2	29	171	82	1	284	1	30	53	22	0	106	607
4:45 PM	3	11	87	12	0	113	0	57	52	8	1	117	1	47	195	90	0	333	0	31	51	16	0	98	661
5:00 PM	1	12	88	25	0	126	0	58	61	9	2	128	2	33	154	101	0	290	0	46	71	18	0	135	679
Peak Hour Total	5	31	330	84	9	450	0	211	240	29	3	480	8	145	674	363	1	1190	1	144	239	70	1	454	2574
PHF	0.417	0.646	0.938	0.700	0.321	0.893	0.000	0.909	0.938	0.806	0.375	0.938	0.667	0.771	0.864	0.899	0.250	0.893	0.250	0.783	0.842	0.795	0.250	0.841	0.948

Total Vehicles On Leg				13031			
Vehicles Entering Intersection				6366			
Vehicles Exiting Intersection				6665			
Southbound							
Cars	955	4789	392	97	34		
Heavy	28	96	9	0	16		
Total	983	4885	401	97	50		



Total Vehicles on Leg 8890	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total	
	4359		21	27	48	
			5	1	6	
	Vehicles Exiting Intersection		1160	18	1178	
	4531		2097	25	2122	
	1037	16	1053			

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection	Total Vehicles on Leg 10856
265	6	271		5496	
2308	23	2331			
2844	46	2890		Vehicles Exiting Intersection	
4	0	4		5360	
24	31	55			



Cars	8	104	1158	5031	2774
Heavy	9	0	53	88	59
Total	17	104	1211	5119	2833
Northbound					
Vehicles Entering Intersection			9267		
Vehicles Exiting Intersection			8932		
Total Vehicles On Leg			18199		

Heavy Vehicles

Date	Time	Southbound						Westbound						Northbound						Eastbound						
		U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk	
04/25/2023	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	1:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	2:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	
	2:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	4:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	4:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5:45	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	
	6:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	1	1	0	0
	6:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	3	2	0	0	0	0	0	1	0	0	0
	6:45	0	0	1	0	0	0	0	1	0	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0
	7:00	0	0	1	3	0	0	0	1	1	0	0	0	0	4	2	1	0	0	0	0	1	2	0	0	0
	7:15	0	0	3	1	1	0	0	3	1	0	0	0	0	4	2	6	0	0	0	0	3	2	0	0	1
	7:30	0	0	1	0	0	0	0	0	0	0	0	2	0	1	2	2	0	0	0	0	0	2	0	0	0
	7:45	0	0	5	0	0	1	0	1	0	0	0	8	0	2	1	1	0	0	0	0	1	0	0	0	1
	8:00	0	1	3	4	0	1	0	0	0	0	0	0	0	2	1	2	0	0	0	0	1	1	1	0	3
	8:15	0	0	5	2	0	0	0	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
	8:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	2	0	0	0	0	0	1	1	0	0
	8:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	3	0	0	0	0	1	1	0	0
	9:00	0	0	3	0	0	0	0	3	1	1	0	0	0	4	1	0	1	0	0	0	0	1	0	0	0
	9:15	0	0	9	0	0	0	0	3	0	0	0	0	0	1	2	0	0	0	0	0	0	2	2	0	0
	9:30	0	1	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	9:45	0	0	3	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	10:00	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
	10:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
	10:30	0	0	0	0	0	0	0	2	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
	10:45	0	0	1	0	0	0	0	2	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	0
	11:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	1	0	0	0	0
	11:15	0	0	0	2	0	0	0	0	0	0	0	0	0	1	3	1	0	1	0	0	2	0	0	1	0
	11:30	0	0	0	0	0	0	0	4	1	0	1	0	0	2	0	2	0	0	0	0	0	1	0	0	0
	11:45	0	0	4	2	0	0	0	1	0	0	0	0	0	2	3	1	0	0	0	0	1	1	0	0	0

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2308

Study Date : 05/26/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 78

Number of Lanes : 2+

Total Approach Volume: 9,267

Southbound: CSAH 78

Number of Lanes : 2+

Total Approach Volume: 6,366

Minor Street Approaches

Eastbound: CR 18 (Crosstown Blvd)

Number of Lanes : 1

Total Approach Volume: 4,359

Westbound: CR 18 (Crosstown Blvd)

Number of Lanes : 1

Total Approach Volume: 5,496

Warrant Summary (Rural Values Apply)

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

Warrant 1A - Minimum Vehicular Volume.....Satisfied

Required volumes reached for 16 hours, 8 are needed

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

Required volumes reached for 15 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 16 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

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

Number of hours (16) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (59) 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: TMC 2308

Study Date : 05/26/2023

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

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**

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **420**
 Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 78					CR 18 (Crosstown Blvd)		
16:30 - 17:30	1184	+	470	=	1654	410	481	Yes
15:30 - 16:30	1070	+	388	=	1458	466	440	Yes
17:30 - 18:30	882	+	423	=	1305	374	380	Yes
14:30 - 15:30	818	+	412	=	1230	349	325	Yes
07:30 - 08:30	437	+	608	=	1045	276	472	Yes
18:30 - 19:30	582	+	419	=	1001	339	251	Yes
06:30 - 07:30	312	+	649	=	961	176	615	Yes
13:30 - 14:30	524	+	307	=	831	255	265	Yes
19:30 - 20:30	502	+	323	=	825	237	169	Yes
08:30 - 09:30	424	+	378	=	802	218	383	Yes
11:30 - 12:30	432	+	315	=	747	278	319	Yes
12:30 - 13:30	455	+	279	=	734	216	282	Yes
10:30 - 11:30	373	+	306	=	679	181	241	Yes
09:30 - 10:30	359	+	295	=	654	168	280	Yes
20:30 - 21:30	331	+	154	=	485	185	108	Yes
05:30 - 06:30	117	+	328	=	445	90	227	Yes
05:15 - 06:15	94	+	267	=	361	68	199	No
05:00 - 06:00	88	+	215	=	303	49	169	No
21:30 - 22:30	201	+	77	=	278	70	71	No
04:45 - 05:45	66	+	188	=	254	34	124	No
21:45 - 22:45	159	+	57	=	216	49	52	No
04:30 - 05:30	58	+	139	=	197	23	92	No
22:00 - 23:00	132	+	48	=	180	38	48	No
04:15 - 05:15	46	+	106	=	152	17	75	No
22:15 - 23:15	101		37		138	28	38	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2308

Study Date : 05/26/2023

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

15 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 NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 78					CR 18 (Crosstown Blvd)		
16:00 - 17:00	1144	+	424	=	1568	497	456	Yes
17:00 - 18:00	1044	+	472	=	1516	391	467	Yes
15:00 - 16:00	934	+	409	=	1343	308	372	Yes
07:00 - 08:00	414	+	737	=	1151	287	655	Yes
18:00 - 19:00	725	+	413	=	1138	353	276	Yes
14:00 - 15:00	734	+	341	=	1075	366	305	Yes
19:00 - 20:00	532	+	381	=	913	312	218	Yes
08:00 - 09:00	411	+	452	=	863	186	356	Yes
13:00 - 14:00	457	+	290	=	747	219	275	Yes
09:00 - 10:00	393	+	350	=	743	212	379	Yes
12:00 - 13:00	433	+	304	=	737	229	299	Yes
11:00 - 12:00	403	+	284	=	687	241	279	Yes
10:00 - 11:00	364	+	321	=	685	181	247	Yes
20:00 - 21:00	415	+	260	=	675	213	146	Yes
06:00 - 07:00	194	+	442	=	636	116	345	Yes
05:45 - 06:45	155	+	396	=	551	105	282	No
05:30 - 06:30	117	+	328	=	445	90	227	No
21:00 - 22:00	271	+	93	=	364	121	90	No
05:15 - 06:15	94	+	267	=	361	68	199	No
21:15 - 22:15	232	+	82	=	314	90	81	No
05:00 - 06:00	88	+	215	=	303	49	169	No
21:30 - 22:30	201	+	77	=	278	70	71	No
04:45 - 05:45	66	+	188	=	254	34	124	No
21:45 - 22:45	159	+	57	=	216	49	52	No
04:30 - 05:30	58		139		197	23	92	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2308

Study Date : 05/26/2023

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

16 hours meet 1A minimums.
15 hours meet 1B 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
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **84 42**

Major Road CSAH 78

Minor Road CR 18 (Crosstown Blvd)

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	1190	+	450	=	1640	454	480	Yes
17:15 - 18:15	958	+	430	=	1388	350	421	Yes
15:15 - 16:15	965	+	402	=	1367	418	408	Yes
14:15 - 15:15	801	+	373	=	1174	376	297	Yes
07:15 - 08:15	456	+	701	=	1157	304	599	Yes
18:15 - 19:15	655	+	462	=	1117	339	273	Yes
19:15 - 20:15	504	+	328	=	832	281	172	Yes
08:15 - 09:15	397	+	411	=	808	171	358	Yes
13:15 - 14:15	492	+	291	=	783	218	273	Yes
06:15 - 07:15	249	+	529	=	778	136	455	Yes
12:15 - 13:15	453	+	282	=	735	215	295	Yes
09:15 - 10:15	381	+	322	=	703	208	328	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:45 - 17:45	1143	+	465	=	1608	403	478	Yes
15:45 - 16:45	1082	+	395	=	1477	507	463	Yes
14:45 - 15:45	901	+	425	=	1326	278	326	Yes
17:45 - 18:45	813	+	437	=	1250	367	338	Yes
06:45 - 07:45	360	+	671	=	1031	235	678	Yes
07:45 - 08:45	429	+	539	=	968	222	383	Yes
18:45 - 19:45	558	+	396	=	954	332	224	Yes
13:45 - 14:45	598	+	309	=	907	347	288	Yes
08:45 - 09:45	417	+	351	=	768	209	394	Yes
12:45 - 13:45	449	+	301	=	750	210	284	Yes
19:45 - 20:45	449	+	294	=	743	213	158	Yes
11:45 - 12:45	435	+	300	=	735	257	301	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2308

Study Date : 05/26/2023

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.

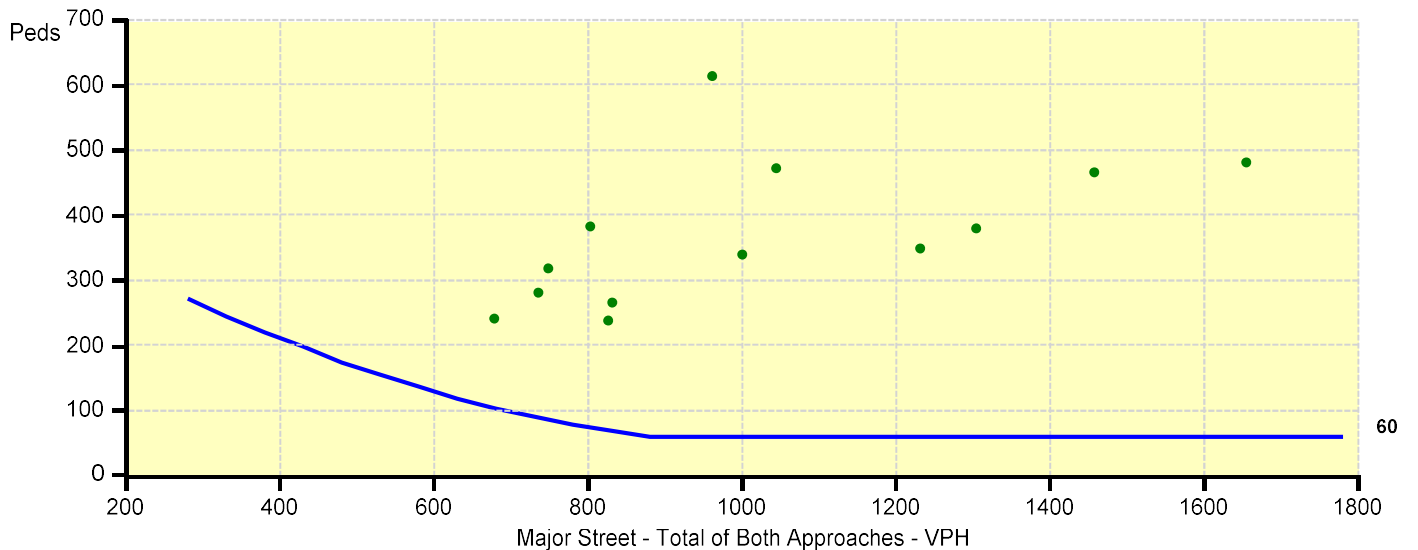
Summary

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				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	1184	+	470	=	1654	410	481	Yes
15:30 - 16:30	1070	+	388	=	1458	466	440	Yes
17:30 - 18:30	882	+	423	=	1305	374	380	Yes
14:30 - 15:30	818	+	412	=	1230	349	325	Yes
07:30 - 08:30	437	+	608	=	1045	276	472	Yes
18:30 - 19:30	582	+	419	=	1001	339	251	Yes
06:30 - 07:30	312	+	649	=	961	176	615	Yes
13:30 - 14:30	524	+	307	=	831	255	265	Yes
19:30 - 20:30	502	+	323	=	825	237	169	Yes
08:30 - 09:30	424	+	378	=	802	218	383	Yes
11:30 - 12:30	432	+	315	=	747	278	319	Yes
12:30 - 13:30	455		279		734	216	282	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2308

Study Date : 05/26/2023

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

58 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 78				Total	Minor Road CR 18 (Crosstown Blvd)		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	1184	+	470	=	1654	410	481	Yes
16:15 - 17:15	1190	+	450	=	1640	454	480	Yes
16:45 - 17:45	1143	+	465	=	1608	403	478	Yes
16:00 - 17:00	1144	+	424	=	1568	497	456	Yes
17:00 - 18:00	1044	+	472	=	1516	391	467	Yes
15:45 - 16:45	1082	+	395	=	1477	507	463	Yes
15:30 - 16:30	1070	+	388	=	1458	466	440	Yes
17:15 - 18:15	958	+	430	=	1388	350	421	Yes
15:15 - 16:15	965	+	402	=	1367	418	408	Yes
15:00 - 16:00	934	+	409	=	1343	308	372	Yes
14:45 - 15:45	901	+	425	=	1326	278	326	Yes
17:30 - 18:30	882		423		1305	374	380	Yes

