

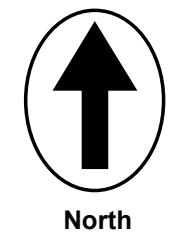
Date : 07/28/22

Count Number : TMC 2252

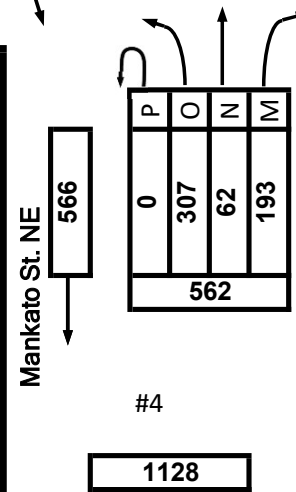
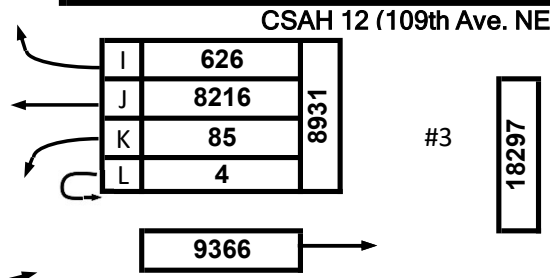
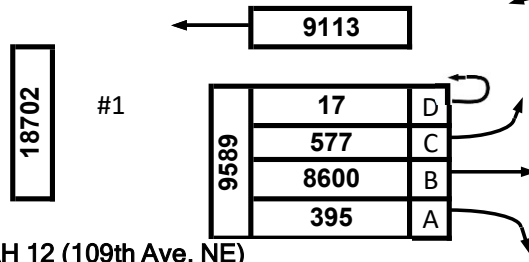
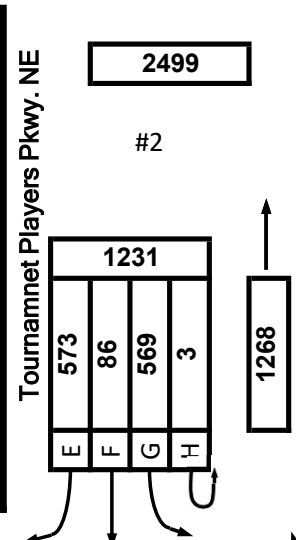
Location : CSAH 12 (109th Ave. NE)

@ Tournament Players Pkwy. NE

Collection Period : 24 HR



North



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

Anoka County Highway Department

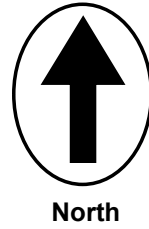
Traffic Volume and Turning Movement Study

Date : 07/28/22

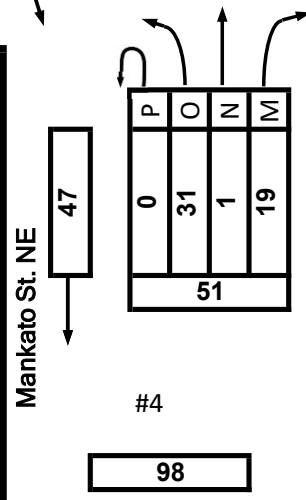
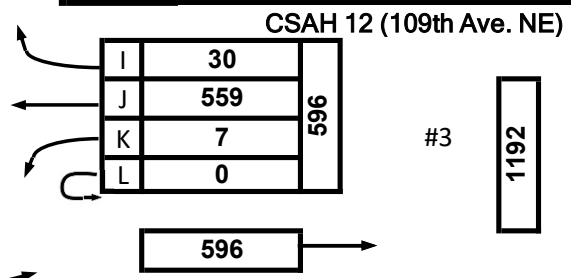
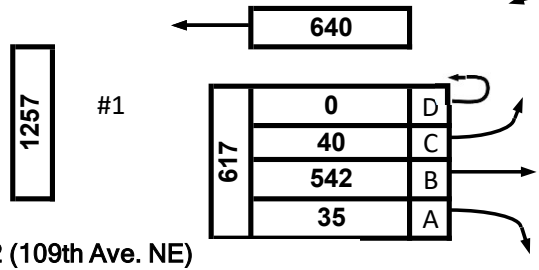
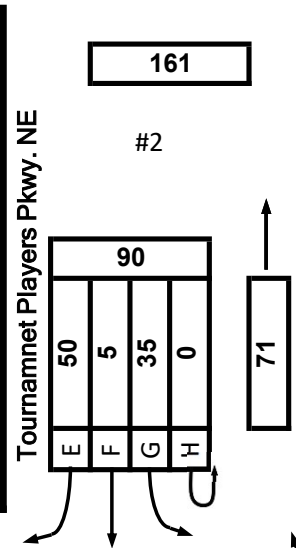
Count Number : TMC 2252

Location : CSAH 12 (109th Ave. NE)
@ Tournament Players Pkwy.

Collection Period : 11 AM - 12 PM
AM PEAK



North



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

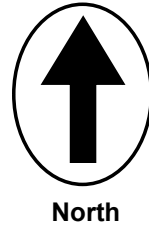
Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 07/28/22

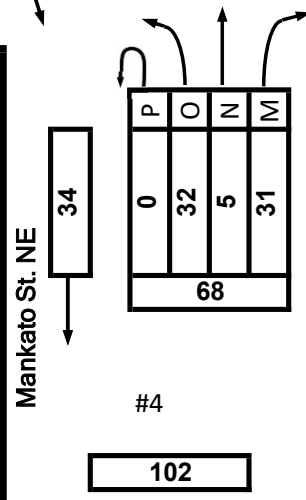
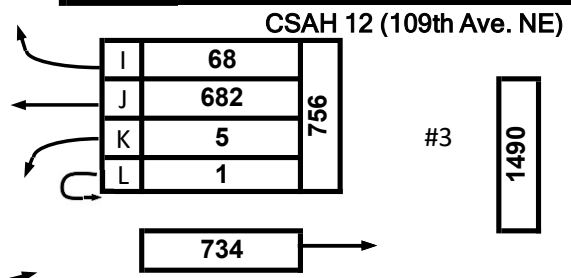
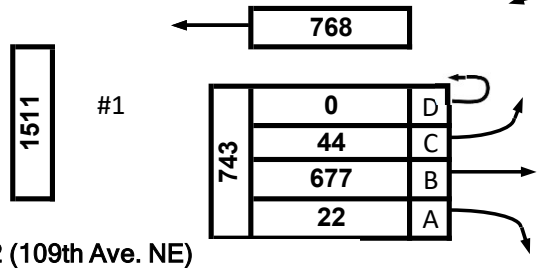
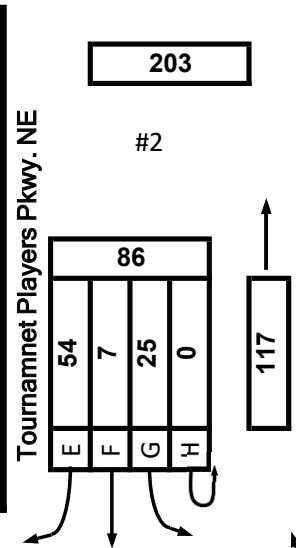
Count Number : TMC 2252

Location : CSAH 12 (109th Ave. NE)
@ Tournament Players Pkwy.

Collection Period : 4 PM - 5 PM
PM PEAK



North



CSAH 12 (109th Ave. NE)

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

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

**CSAH 12 @ Tournament Players Pkwy
Blaine MN
Thursday, July 28, 2022**

Time	Southbound Tournament Players Pkwy NE						Westbound CSAH 12						Northbound Mankato St NE						Eastbound CSAH 12						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	2	0	1	0	3	0	0	9	0	0	9	0	0	0	0	0	0	0	0	6	0	0	6	18	
12:15 AM	0	2	0	0	0	2	0	0	6	2	0	8	0	0	0	0	0	0	0	0	12	1	0	13	23	
12:30 AM	0	0	0	1	0	1	0	0	6	0	0	6	0	1	1	0	0	0	2	0	0	7	0	0	7	16
12:45 AM	0	0	0	1	0	1	0	0	4	0	0	4	0	1	0	0	0	1	0	0	9	0	0	9	15	
Hourly Total	0	4	0	3	0	7	0	0	25	2	0	27	0	2	1	0	0	3	0	0	34	1	0	35	72	
1:00 AM	0	0	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	0	0	0	6	0	0	6	12	
1:15 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	0	0	1	0	0	4	0	0	4	7	
1:30 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	0	0	7	14	
1:45 AM	0	1	0	0	0	1	0	0	6	4	0	10	0	0	0	0	0	0	0	0	4	0	0	4	15	
Hourly Total	0	1	0	0	0	1	0	0	18	7	0	25	0	1	0	0	0	1	0	0	21	0	0	21	48	
2:00 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	7	0	0	7	11	
2:15 AM	0	1	0	0	0	1	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	5	0	6	10	
2:30 AM	0	0	0	0	0	0	0	0	4	1	0	5	0	2	0	0	0	2	0	1	4	0	0	5	12	
2:45 AM	0	2	0	0	0	2	0	0	5	2	0	7	0	0	0	0	0	0	0	0	5	0	0	5	14	
Hourly Total	0	3	0	0	0	3	0	0	16	3	0	19	0	2	0	0	0	2	0	2	21	0	0	23	47	
3:00 AM	0	0	1	0	0	1	0	0	2	2	0	4	0	0	0	0	0	0	0	0	6	3	0	9	14	
3:15 AM	0	1	0	2	0	3	0	0	1	1	0	2	0	1	1	0	0	2	0	0	7	0	0	7	14	
3:30 AM	0	0	0	1	0	1	0	0	4	0	0	4	0	0	0	0	0	0	0	0	6	0	0	6	11	
3:45 AM	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	9	1	0	10	15	
Hourly Total	0	1	1	3	0	5	0	0	12	3	0	15	0	1	1	0	0	2	0	0	28	4	0	32	54	
4:00 AM	0	1	0	1	0	2	0	0	8	0	0	8	0	0	0	0	0	0	0	0	12	1	0	13	23	
4:15 AM	0	3	0	2	0	5	0	0	14	0	0	14	0	1	0	0	0	1	0	0	15	2	0	17	37	
4:30 AM	0	1	0	1	0	2	0	0	19	0	0	19	0	0	0	0	0	0	0	1	21	3	0	25	46	
4:45 AM	0	2	1	1	0	4	0	1	17	0	0	18	0	1	0	0	0	1	0	0	18	6	0	24	47	
Hourly Total	0	7	1	5	0	13	0	1	58	0	0	59	0	2	0	0	0	2	0	1	66	12	0	79	153	
5:00 AM	0	3	0	2	0	5	0	0	22	2	0	24	0	0	0	0	0	0	0	0	18	3	0	22	51	
5:15 AM	0	4	1	2	0	7	0	1	26	0	0	27	0	0	0	0	0	0	0	1	32	1	0	34	68	
5:30 AM	0	0	0	1	0	1	0	4	36	1	0	41	0	1	0	0	0	1	0	0	44	9	0	53	96	
5:45 AM	0	2	1	2	0	5	0	2	36	0	0	38	0	0	0	0	0	0	0	0	43	10	0	53	96	
Hourly Total	0	9	2	7	0	18	0	7	120	3	0	130	0	1	0	0	0	1	0	2	137	23	0	162	311	
6:00 AM	0	3	1	6	0	10	0	3	37	1	0	41	0	0	0	0	0	0	0	2	39	6	0	47	98	
6:15 AM	0	11	1	4	5	16	0	1	60	3	0	64	0	0	0	0	1	0	0	4	64	7	1	75	155	
6:30 AM	0	6	1	5	0	12	0	0	77	3	0	80	0	3	0	1	0	4	0	1	69	7	0	77	173	
6:45 AM	0	12	1	4	0	17	0	5	76	0	0	81	0	2	0	2	0	4	0	5	100	6	0	111	213	
Hourly Total	0	32	4	19	5	55	0	9	250	7	0	266	0	5	0	3	1	8	0	12	272	26	1	310	639	
7:00 AM	0	13	1	5	0	19	0	1	89	1	0	91	0	1	1	0	0	2	0	3	75	7	1	85	197	
7:15 AM	1	18	2	2	0	23	0	4	84	0	0	88	0	1	0	0	0	1	0	5	94	10	0	109	221	
7:30 AM	0	11	4	5	0	20	0	2	143	3	0	148	0	1	0	2	0	3	0	3	95	9	0	107	278	
7:45 AM	0	15	4	9	0	28	0	1	135	5	0	141	0	3	3	1	0	7	0	4	102	6	0	112	288	
Hourly Total	1	57	11	21	0	90	0	8	451	9	0	468	0	6	4	3	0	13	0	15	366	32	1	413	984	

**CSAH 12 @ Tournament Players Pkwy
Blaine MN
Thursday, July 28, 2022**

Time	Southbound Tournament Players Pkwy NE						Westbound CSAH 12						Northbound Mankato St NE						Eastbound CSAH 12						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	0	11	0	5	0	16	0	1	96	8	0	105	0	2	0	4	0	6	0	5	92	9	0	106	233
8:15 AM	0	11	1	12	0	24	0	3	101	7	0	111	0	3	1	3	0	7	0	8	95	6	0	109	251
8:30 AM	0	20	4	14	0	38	0	5	113	7	0	125	0	3	3	2	0	8	0	6	95	9	0	110	281
8:45 AM	0	14	4	11	0	29	0	2	122	5	0	129	0	4	4	1	0	9	0	6	106	7	1	119	286
Hourly Total	0	56	9	42	0	107	0	11	432	27	0	470	0	12	8	10	0	30	0	25	388	31	1	444	1051
9:00 AM	0	11	5	2	0	18	0	1	95	2	0	98	0	5	3	2	1	10	0	7	97	14	0	118	244
9:15 AM	0	17	0	9	0	26	0	2	169	9	0	180	0	4	1	2	0	7	0	5	92	8	0	105	318
9:30 AM	0	8	1	8	0	17	0	1	113	4	0	118	0	8	0	4	0	12	1	6	104	12	0	123	270
9:45 AM	0	15	1	16	0	32	0	2	142	12	0	156	0	7	1	3	0	11	0	9	96	8	0	113	312
Hourly Total	0	51	7	35	0	93	0	6	519	27	0	552	0	24	5	11	1	40	1	27	389	42	0	459	1144
10:00 AM	0	8	2	6	0	16	0	4	124	11	0	139	0	5	0	6	0	11	0	8	112	8	0	128	294
10:15 AM	0	8	0	9	0	17	0	1	109	6	0	116	0	4	1	1	0	6	0	13	87	10	0	110	249
10:30 AM	0	9	3	10	0	22	0	1	100	2	0	103	0	6	1	3	0	10	0	10	113	8	0	131	266
10:45 AM	0	7	1	13	0	21	0	4	120	8	0	132	0	12	2	1	0	15	1	10	128	9	1	148	316
Hourly Total	0	32	6	38	0	76	0	10	453	27	0	490	0	27	4	11	0	42	1	41	440	35	1	517	1125
11:00 AM	0	12	1	11	0	24	0	1	130	7	0	138	0	7	0	5	0	12	0	8	133	12	1	153	327
11:15 AM	0	10	1	15	0	26	0	2	148	6	0	156	0	5	0	4	0	9	0	13	136	10	1	159	350
11:30 AM	0	8	1	8	0	17	0	2	159	7	0	168	0	9	1	3	0	13	0	12	126	5	1	143	341
11:45 AM	0	5	2	16	0	23	0	2	122	10	0	134	0	10	0	7	0	17	0	7	147	8	3	162	336
Hourly Total	0	35	5	50	0	90	0	7	559	30	0	596	0	31	1	19	0	51	0	40	542	35	6	617	1354
12:00 PM	0	10	2	11	0	23	0	0	158	7	0	165	0	11	1	3	0	15	1	8	161	13	1	183	386
12:15 PM	0	10	2	13	0	25	0	0	131	19	0	150	0	13	0	6	0	19	0	11	145	6	0	162	356
12:30 PM	0	9	1	11	0	21	0	0	166	7	0	173	0	11	2	3	0	16	0	13	145	13	0	171	381
12:45 PM	1	9	2	8	0	20	0	1	145	15	0	161	0	3	0	1	0	4	0	13	164	5	0	182	367
Hourly Total	1	38	7	43	0	89	0	1	600	48	0	649	0	38	3	13	0	54	1	45	615	37	1	698	1490
1:00 PM	0	9	0	14	0	23	2	0	124	10	0	136	0	6	0	4	0	10	0	11	153	6	0	170	339
1:15 PM	0	6	0	9	0	15	0	1	148	8	0	157	0	7	0	3	0	10	0	7	134	8	0	149	331
1:30 PM	0	3	0	12	0	15	0	4	134	8	0	146	0	3	2	5	0	10	1	6	142	7	0	156	327
1:45 PM	0	10	3	8	0	21	0	1	131	9	0	141	0	8	0	2	0	10	0	10	131	6	0	147	319
Hourly Total	0	28	3	43	0	74	2	6	537	35	0	580	0	24	2	14	0	40	1	34	560	27	0	622	1316
2:00 PM	0	7	1	10	0	18	0	1	125	5	0	131	0	4	1	1	0	6	1	15	144	13	0	173	328
2:15 PM	0	3	3	9	1	15	0	2	149	8	0	159	0	1	3	6	0	10	1	12	146	2	0	161	345
2:30 PM	0	6	0	15	0	21	0	0	134	8	0	142	0	10	0	5	2	15	0	16	157	3	0	176	354
2:45 PM	1	12	0	11	0	24	0	1	124	14	0	139	0	6	2	4	0	12	0	11	158	7	0	176	351
Hourly Total	1	28	4	45	1	78	0	4	532	35	0	571	0	21	6	16	2	43	2	54	605	25	0	686	1378
3:00 PM	0	5	0	12	0	17	0	0	138	16	0	154	0	10	1	7	0	18	0	7	153	2	0	162	351
3:15 PM	0	10	2	5	1	17	0	1	172	7	0	180	0	5	2	5	0	12	0	10	177	4	0	191	400
3:30 PM	0	8	3	10	1	21	0	0	170	12	0	182	0	13	1	7	0	21	1	14	155	5	0	175	399
3:45 PM	0	8	0	10	1	18	0	5	166	17	0	188	0	8	1	5	0	14	1	14	168	4	1	187	407
Hourly Total	0	31	5	37	3	73	0	6	646	52	0	704	0	36	5	24	0	65	2	45	653	15	1	715	1557

**CSAH 12 @ Tournament Players Pkwy
Blaine MN
Thursday, July 28, 2022**

Time	Southbound Tournament Players Pkwy NE						Westbound CSAH 12						Northbound Mankato St NE						Eastbound CSAH 12						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	5	1	11	0	17	0	2	178	9	0	189	0	10	1	4	0	15	0	10	161	5	0	176	397
4:15 PM	0	9	2	12	0	23	0	1	159	22	0	182	0	5	1	8	0	14	0	11	164	7	0	182	401
4:30 PM	0	4	2	11	0	17	1	0	169	18	0	188	0	11	0	15	0	26	0	12	172	3	0	187	418
4:45 PM	0	7	2	20	0	29	0	2	176	19	0	197	0	6	3	4	0	13	0	11	180	7	0	198	437
Hourly Total	0	25	7	54	0	86	1	5	682	68	0	756	0	32	5	31	0	68	0	44	677	22	0	743	1653
5:00 PM	0	9	2	6	0	17	0	0	178	17	0	195	0	2	1	7	1	10	1	12	152	1	0	166	388
5:15 PM	0	11	1	7	0	19	0	0	194	19	0	213	0	8	2	5	0	15	1	12	141	2	0	156	403
5:30 PM	0	9	1	8	0	18	0	0	160	17	0	177	0	8	1	5	2	14	1	10	186	3	0	200	409
5:45 PM	0	6	2	14	0	22	0	0	148	14	0	162	0	7	1	5	0	13	0	4	175	3	0	182	379
Hourly Total	0	35	6	35	0	76	0	0	680	67	0	747	0	25	5	22	3	52	3	38	654	9	0	704	1579
6:00 PM	0	11	0	9	0	20	1	0	149	17	0	167	0	2	2	1	2	5	0	17	168	3	0	188	380
6:15 PM	0	6	1	8	2	15	0	1	127	12	0	140	0	2	2	2	0	6	0	10	138	2	0	150	311
6:30 PM	0	11	1	3	0	15	0	0	143	11	0	154	0	2	0	2	0	4	0	10	160	0	0	170	343
6:45 PM	0	9	1	3	1	13	0	0	126	14	0	140	0	1	1	1	0	3	0	9	114	0	0	123	279
Hourly Total	0	37	3	23	3	63	1	1	545	54	0	601	0	7	5	6	2	18	0	46	580	5	0	631	1313
7:00 PM	0	5	0	6	0	11	0	0	109	8	0	117	0	4	1	1	0	6	0	8	112	1	0	121	255
7:15 PM	0	10	0	11	0	21	0	0	104	12	0	116	0	1	0	1	2	2	2	6	153	1	0	162	301
7:30 PM	0	6	0	13	0	19	0	0	82	8	0	90	0	0	0	1	0	1	0	8	123	0	0	131	241
7:45 PM	0	9	1	2	0	12	0	0	84	12	0	96	0	1	0	1	0	2	0	9	133	1	0	143	253
Hourly Total	0	30	1	32	0	63	0	0	379	40	0	419	0	6	1	4	2	11	2	31	521	3	0	557	1050
8:00 PM	0	4	0	5	0	9	0	0	74	8	0	82	0	1	1	1	1	3	0	13	110	3	0	126	220
8:15 PM	0	3	0	4	0	7	0	1	88	10	0	99	0	0	0	1	0	1	4	9	129	2	0	144	251
8:30 PM	0	5	1	6	0	12	0	0	75	8	0	83	0	0	1	0	0	1	0	5	111	1	0	117	213
8:45 PM	0	0	0	1	5	1	0	0	74	10	0	84	0	1	0	0	0	1	0	8	92	0	0	100	186
Hourly Total	0	12	1	16	5	29	0	1	311	36	0	348	0	2	2	2	1	6	4	35	442	6	0	487	870
9:00 PM	0	0	1	3	0	4	0	0	60	3	0	63	0	1	0	0	0	1	0	7	93	0	1	100	168
9:15 PM	0	2	0	5	0	7	0	0	64	6	0	70	0	0	0	0	0	0	0	4	85	2	0	91	168
9:30 PM	0	1	1	3	0	5	0	0	38	4	0	42	0	0	1	0	0	1	0	4	75	1	0	80	128
9:45 PM	0	4	0	2	0	6	0	0	41	3	0	44	0	0	2	0	0	2	0	5	63	0	0	68	120
Hourly Total	0	7	2	13	0	22	0	0	203	16	0	219	0	1	3	0	0	4	0	20	316	3	1	339	584
10:00 PM	0	2	1	1	0	4	0	0	32	5	0	37	0	0	0	0	0	0	0	2	52	0	0	54	95
10:15 PM	0	2	0	4	0	6	0	0	21	6	0	27	0	0	0	0	0	0	0	3	37	0	0	40	73
10:30 PM	0	0	0	2	0	2	0	1	28	5	0	34	0	0	0	1	0	1	0	3	56	1	0	60	97
10:45 PM	0	1	0	1	0	2	0	1	20	4	0	25	0	1	0	0	0	1	0	5	31	0	0	36	64
Hourly Total	0	5	1	8	0	14	0	2	101	20	0	123	0	1	0	1	0	2	0	13	176	1	0	190	329
11:00 PM	0	0	0	0	0	0	0	0	29	0	0	29	0	0	0	1	0	1	0	2	32	0	0	34	64
11:15 PM	0	1	0	1	0	2	0	0	19	6	0	25	0	0	1	2	0	3	0	2	32	1	0	35	65
11:30 PM	0	1	0	0	0	1	0	0	29	3	0	32	0	0	0	0	0	0	0	2	22	0	0	24	57
11:45 PM	0	3	0	0	0	3	0	0	10	1	0	11	0	0	0	0	0	0	0	1	11	0	0	12	26
Hourly Total	0	5	0	1	0	6	0	0	87	10	0	97	0	0	1	3	0	4	0	7	97	1	0	105	212
DAILY TOTAL	3	569	86	573	17	1231	4	85	8216	626	0	8931	0	307	62	193	12	562	17	577	8600	395	13	9589	20313
Cars	3	561	86	561	10	1211	4	82	8094	618	0	8798	0	287	60	189	4	536	17	567	8446	380	8	9410	19955
Heavy Vehicles	0	8	0	12	7	20	0	3	122	8	0	133	0	10	2	4	8	16	0	10	154	15	5	179	348
Heavy Vehicle %	0.00%	1.41%	0.00%	2.09%	41.18%	1.62%	0.00%	3.53%	1.48%	1.28%	0.00%	1.49%	0.00%	3.26%	3.23%	2.07%	66.67%	2.85%	0.00%	1.73%	1.79%	3.80%	38.46%	1.87%	1.71%

**CSAH 12 @ Tournament Players Pkwy
Blaine MN
Thursday, July 28, 2022**

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	
11:00 AM	0	12	1	11	0	24	0	1	130	7	0	138	0	7	0	5	0	12	0	8	133	12	1	153	327
11:15 AM	0	10	1	15	0	26	0	2	148	6	0	156	0	5	0	4	0	9	0	13	136	10	1	159	350
11:30 AM	0	8	1	8	0	17	0	2	159	7	0	168	0	9	1	3	0	13	0	12	126	5	1	143	341
11:45 AM	0	5	2	16	0	23	0	2	122	10	0	134	0	10	0	7	0	17	0	7	147	8	3	162	336
Peak Hour Total	0	35	5	50	0	90	0	7	559	30	0	596	0	31	1	19	0	51	0	40	542	35	6	617	1354
PHF	0.000	0.729	0.625	0.781	0.000	0.865	0.000	0.875	0.879	0.750	0.000	0.887	0.000	0.775	0.250	0.679	0.000	0.750	0.000	0.769	0.922	0.729	0.500	0.952	0.967

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	
4:00 PM	0	5	1	11	0	17	0	2	178	9	0	189	0	10	1	4	0	15	0	10	161	5	0	176	397
4:15 PM	0	9	2	12	0	23	0	1	159	22	0	182	0	5	1	8	0	14	0	11	164	7	0	182	401
4:30 PM	0	4	2	11	0	17	1	0	169	18	0	188	0	11	0	15	0	26	0	12	172	3	0	187	418
4:45 PM	0	7	2	20	0	29	0	2	176	19	0	197	0	6	3	4	0	13	0	11	180	7	0	198	437
Peak Hour Total	0	25	7	54	0	86	1	5	682	68	0	756	0	32	5	31	0	68	0	44	677	22	0	743	1653
PHF	0.000	0.694	0.875	0.675	0.000	0.741	0.250	0.625	0.958	0.773	0.000	0.959	0.000	0.727	0.417	0.517	0.000	0.654	0.000	0.917	0.940	0.786	0.000	0.938	0.946

Total Vehicles On Leg				2499	
Vehicles Entering Intersection		1231	Vehicles Exiting Intersection		1268
Southbound					
Cars	561	86	561	3	10
Heavy	12	0	8	0	7
Total	573	86	569	3	17

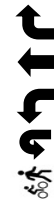


Total Vehicles on Leg 18692	Vehicles Entering Intersection 9589	Eastbound	Cars	8	5	13
			Heavy	17	0	17
			Total	567	10	577
	Vehicles Exiting Intersection 9103		Cars	8446	154	8600
			Heavy	380	15	395



Daily Volumes

Cars	618	8	626	Westbound	Vehicles Entering Intersection 8931	Total Vehicles on Leg 18297	
Heavy	8094	122	8216				
Total	82	3	85				
Cars	4	0	4				Vehicles Exiting Intersection 9366
Heavy	0	0	0				



Cars	4	0	287	60	189		
Heavy	8	0	10	2	4		
Total	12	0	297	62	193		
Northbound							
Vehicles Entering Intersection			552	Vehicles Exiting Intersection			566
Total Vehicles On Leg			1118				



Heavy Vehicles

Date	Time	Southbound					Westbound					Northbound					Eastbound					
		U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	Bicycles in Crosswalk	
07/28/2022	0:00	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	
	0:30	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	
	1:00	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	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	
	1:45	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	
	2:15	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	0	0	0	0	0	0	
	2:45	0	0	0	0	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	1	0	
	3:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	3:30	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	
	4:00	0	0	0	0	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	0	0	0	0	0	1	0	0	0	0	0	0	0	
	4:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	
	5:00	0	0	0	1	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	1	0	0	0	0	0	0	0	0	1	0	0	
	5:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
	5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	
	6:15	0	0	0	0	5	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	
	6:30	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	1	0	
	6:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	7:00	0	0	0	1	0	0	0	2	0	0	0	0	0	1	0	0	0	2	6	0	0
	7:15	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	1	0	0
	7:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0
	7:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	3	0	0	0
	8:00	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	1	1	0	0
	8:15	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	4	0	0	0
	8:30	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	2	0	0	0
	8:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	10	0	0	0
9:00	0	0	0	1	0	0	0	2	0	0	0	0	0	0	1	0	0	3	1	0	0	
9:15	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	7	0	0	0	
9:30	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0	0	0	
9:45	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	2	0	0	
10:00	0	0	0	1	0	0	0	3	0	0	0	0	0	1	0	0	0	2	0	0	0	
10:15	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	4	0	0	0	
10:30	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	4	1	0	0	
10:45	0	1	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6	0	0	0	
11:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	7	2	0	0	
11:15	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	1	0	0	0	
11:30	0	1	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	2	0	0	0	
11:45	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	0	2	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2252 SWS

Study Date : 07/28/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 12

Number of Lanes : 2+

Total Approach Volume: 9,589

Westbound: CSAH 12

Number of Lanes :2+

Total Approach Volume: 8,931

Minor Street Approaches

Northbound: Mankato St. NE

Number of Lanes :1

Total Approach Volume: 552

Southbound: Tournament Players Pkwy. NE

Number of Lanes :1

Total Approach Volume: 1,231

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 14 hours, 8 are needed

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

Required 1A volumes reached for 7 hours, 8 are needed

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

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

Number of hours (13) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (4) 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 2252 SWS

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 CSAH 12				Total	Minor Road Mankato St. NE		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
07:45 - 08:45	437	+	482	=	919	25	106	Yes
16:45 - 17:45	720	+	782	=	1502	52	83	No
16:30 - 17:30	707	+	793	=	1500	64	82	No
16:00 - 17:00	743	+	756	=	1499	68	86	No
16:15 - 17:15	733	+	762	=	1495	63	86	No
15:45 - 16:45	732	+	747	=	1479	69	75	No
15:15 - 16:15	729	+	739	=	1468	62	73	No
15:30 - 16:30	720	+	741	=	1461	64	79	No
17:00 - 18:00	704	+	747	=	1451	52	76	No
17:15 - 18:15	726	+	719	=	1445	47	79	No
15:00 - 16:00	715	+	704	=	1419	65	73	No
17:30 - 18:30	720	+	646	=	1366	38	75	No
14:45 - 15:45	704	+	655	=	1359	63	79	No
12:00 - 13:00	698	+	649	=	1347	54	89	No
14:30 - 15:30	705	+	615	=	1320	57	79	No
17:45 - 18:45	690	+	623	=	1313	28	72	No
12:15 - 13:15	685	+	620	=	1305	49	89	No
11:45 - 12:45	678	+	622	=	1300	65	92	No
12:30 - 13:30	672	+	627	=	1299	40	79	No
11:15 - 12:15	647	+	623	=	1270	51	89	No
14:15 - 15:15	675	+	594	=	1269	55	77	No
11:30 - 12:30	650	+	617	=	1267	59	88	No
14:00 - 15:00	686	+	571	=	1257	43	78	No
12:45 - 13:45	657	+	600	=	1257	34	73	No
18:00 - 19:00	631		601		1232	18	63	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2252 SWS

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

14 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 CSAH 12				=	Total	Minor Road Mankato St. NE		Met?
	Major EB	+	Major WB				Minor NB	Minor SB	
16:15 - 17:15	733	+	762	=	1495	63	86	Yes	
15:15 - 16:15	729	+	739	=	1468	62	73	Yes	
17:15 - 18:15	726	+	719	=	1445	47	79	Yes	
12:15 - 13:15	685	+	620	=	1305	49	89	Yes	
11:15 - 12:15	647	+	623	=	1270	51	89	Yes	
14:15 - 15:15	675	+	594	=	1269	55	77	Yes	
13:15 - 14:15	625	+	575	=	1200	36	69	Yes	
18:15 - 19:15	564	+	551	=	1115	19	54	Yes	
09:15 - 10:15	469	+	593	=	1062	41	91	Yes	
10:15 - 11:15	542	+	489	=	1031	41	84	Yes	
19:15 - 20:15	562	+	384	=	946	8	61	Yes	
08:15 - 09:15	456	+	463	=	919	31	109	Yes	
07:15 - 08:15	434	+	482	=	916	15	87	Yes	
06:15 - 07:15	348	+	316	=	664	10	64	Yes	
20:15 - 21:15	461	+	329	=	790	4	24	No	
20:30 - 21:30	408	+	300	=	708	3	24	No	
20:45 - 21:45	371	+	259	=	630	3	17	No	
06:00 - 07:00	310	+	266	=	576	8	55	No	
21:00 - 22:00	339	+	219	=	558	4	22	No	
21:15 - 22:15	293	+	193	=	486	3	22	No	
05:45 - 06:45	252	+	223	=	475	4	43	No	
05:30 - 06:30	228	+	184	=	412	1	32	No	
21:30 - 22:30	242	+	150	=	392	3	21	No	
21:45 - 22:45	222	+	142	=	364	3	18	No	
05:15 - 06:15	187		147		334	1	23	No	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2252 SWS

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 7 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 12

Minor Road

Mankato St. NE

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	743	+	756	=	1499	68	86	Yes
12:15 - 13:15	685	+	620	=	1305	49	89	Yes
11:15 - 12:15	647	+	623	=	1270	51	89	Yes
10:15 - 11:15	542	+	489	=	1031	41	84	Yes
09:00 - 10:00	459	+	552	=	1011	37	93	Yes
08:00 - 09:00	444	+	470	=	914	29	107	Yes
07:00 - 08:00	413	+	468	=	881	10	90	Yes
15:45 - 16:45	732	+	747	=	1479	69	75	No
15:15 - 16:15	729	+	739	=	1468	62	73	No
15:30 - 16:30	720	+	741	=	1461	64	79	No
17:00 - 18:00	704	+	747	=	1451	52	76	No
17:15 - 18:15	726	+	719	=	1445	47	79	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:00 - 17:00	743	+	756	=	1499	68	86	Yes
17:00 - 18:00	704	+	747	=	1451	52	76	Yes
15:00 - 16:00	715	+	704	=	1419	65	73	Yes
12:00 - 13:00	698	+	649	=	1347	54	89	Yes
14:00 - 15:00	686	+	571	=	1257	43	78	Yes
18:00 - 19:00	631	+	601	=	1232	18	63	Yes
11:00 - 12:00	617	+	596	=	1213	53	90	Yes
13:00 - 14:00	622	+	580	=	1202	40	74	Yes
09:00 - 10:00	459	+	552	=	1011	37	93	Yes
10:00 - 11:00	517	+	490	=	1007	37	76	Yes
19:00 - 20:00	557	+	419	=	976	11	63	Yes
08:00 - 09:00	444	+	470	=	914	29	107	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2252 SWS

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.

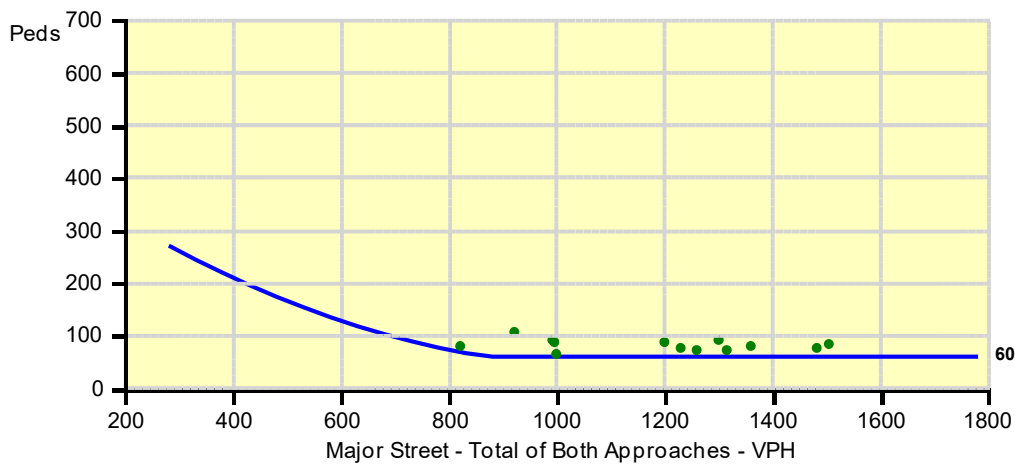
Summary

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**

Time	Major Road CSAH 12				Total	Minor Road Mankato St. NE		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	720	+	782	=	1502	52	83	Yes
15:45 - 16:45	732	+	747	=	1479	69	75	Yes
14:45 - 15:45	704	+	655	=	1359	63	79	Yes
17:45 - 18:45	690	+	623	=	1313	28	72	Yes
11:45 - 12:45	678	+	622	=	1300	65	92	Yes
12:45 - 13:45	657	+	600	=	1257	34	73	Yes
13:45 - 14:45	657	+	573	=	1230	41	75	Yes
10:45 - 11:45	603	+	594	=	1197	47	88	Yes
18:45 - 19:45	537	+	463	=	1000	12	64	Yes
09:45 - 10:45	482	+	514	=	996	40	87	Yes
08:45 - 09:45	465	+	525	=	990	33	90	Yes
							106	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2252 SWS

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

23 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 12				Total	Minor Road Mankato St. NE		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	720	+	782	=	1502	52	83	Yes
16:30 - 17:30	707	+	793	=	1500	64	82	Yes
16:00 - 17:00	743	+	756	=	1499	68	86	Yes
16:15 - 17:15	733	+	762	=	1495	63	86	Yes
15:45 - 16:45	732	+	747	=	1479	69	75	Yes
15:30 - 16:30	720	+	741	=	1461	64	79	Yes
17:00 - 18:00	704	+	747	=	1451	52	76	Yes
17:15 - 18:15	726	+	719	=	1445	47	79	Yes
17:30 - 18:30	720	+	646	=	1366	38	75	Yes
14:45 - 15:45	704	+	655	=	1359	63	79	Yes
12:00 - 13:00	698	+	649	=	1347	54	89	Yes
							79	Yes

