

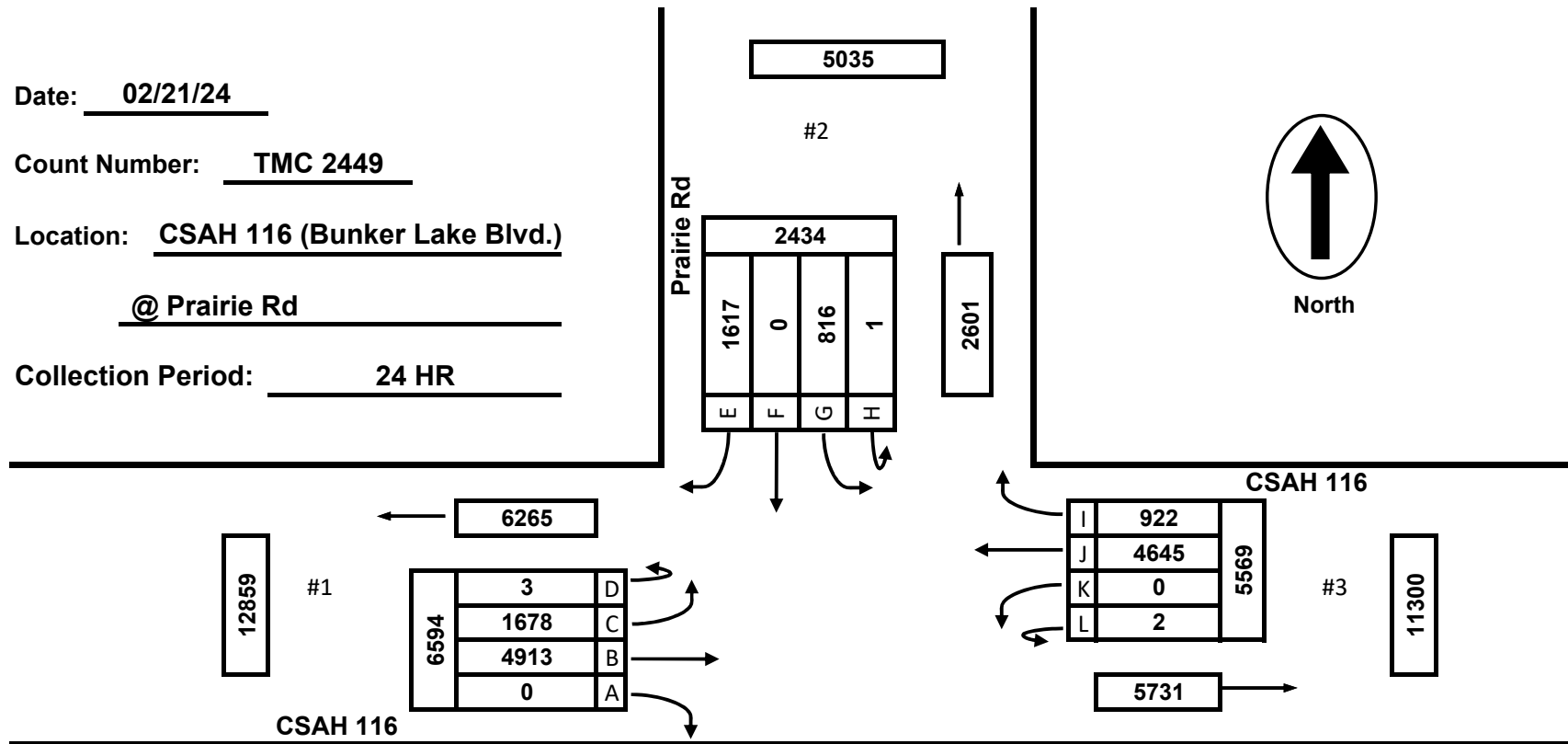
Date: 02/21/24

Count Number: TMC 2449

Location: CSAH 116 (Bunker Lake Blvd.)

@ Prairie Rd

Collection Period: 24 HR



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

Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 02/21/24

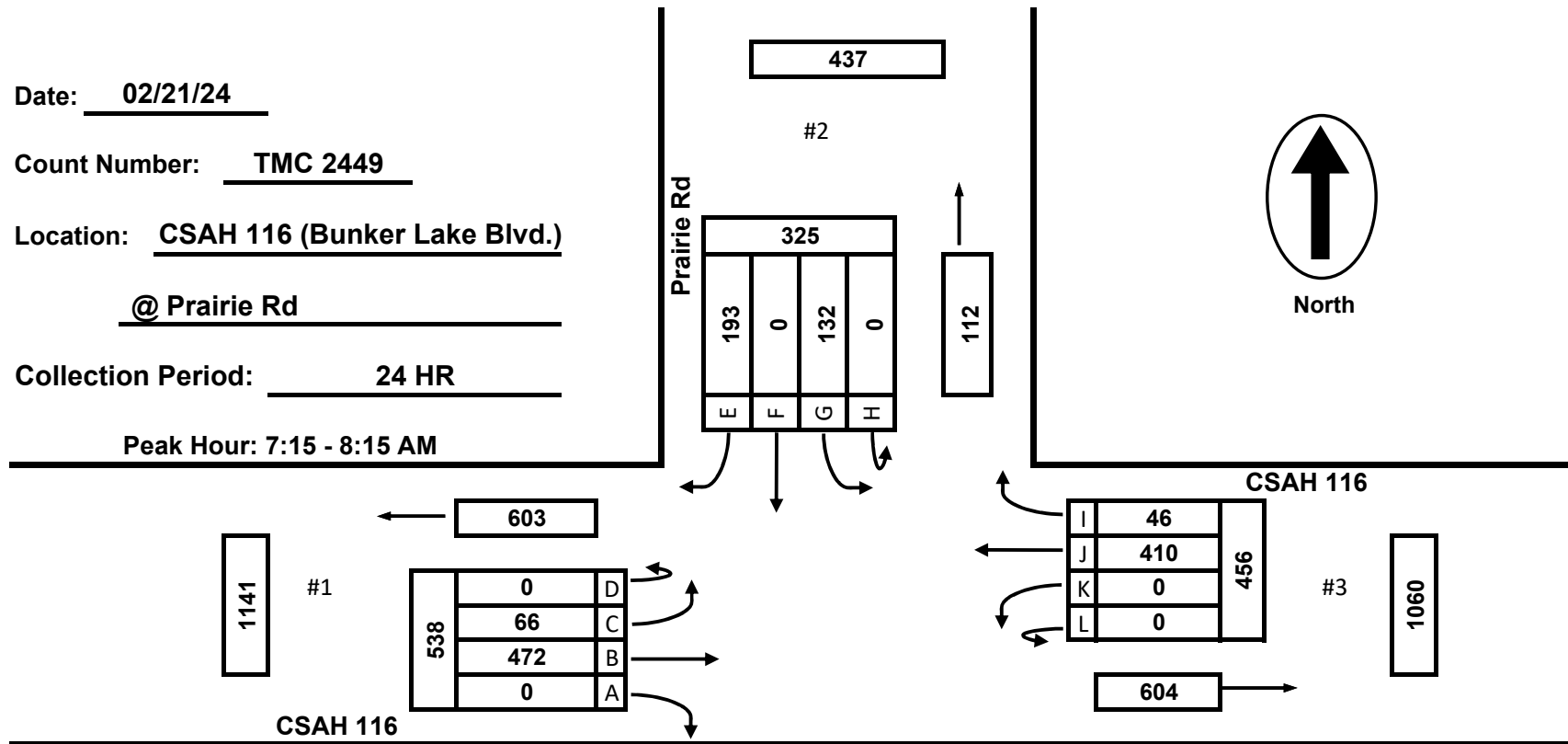
Count Number: TMC 2449

Location: CSAH 116 (Bunker Lake Blvd.)

@ Prairie Rd

Collection Period: 24 HR

Peak Hour: 7:15 - 8:15 AM



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

Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 02/21/24

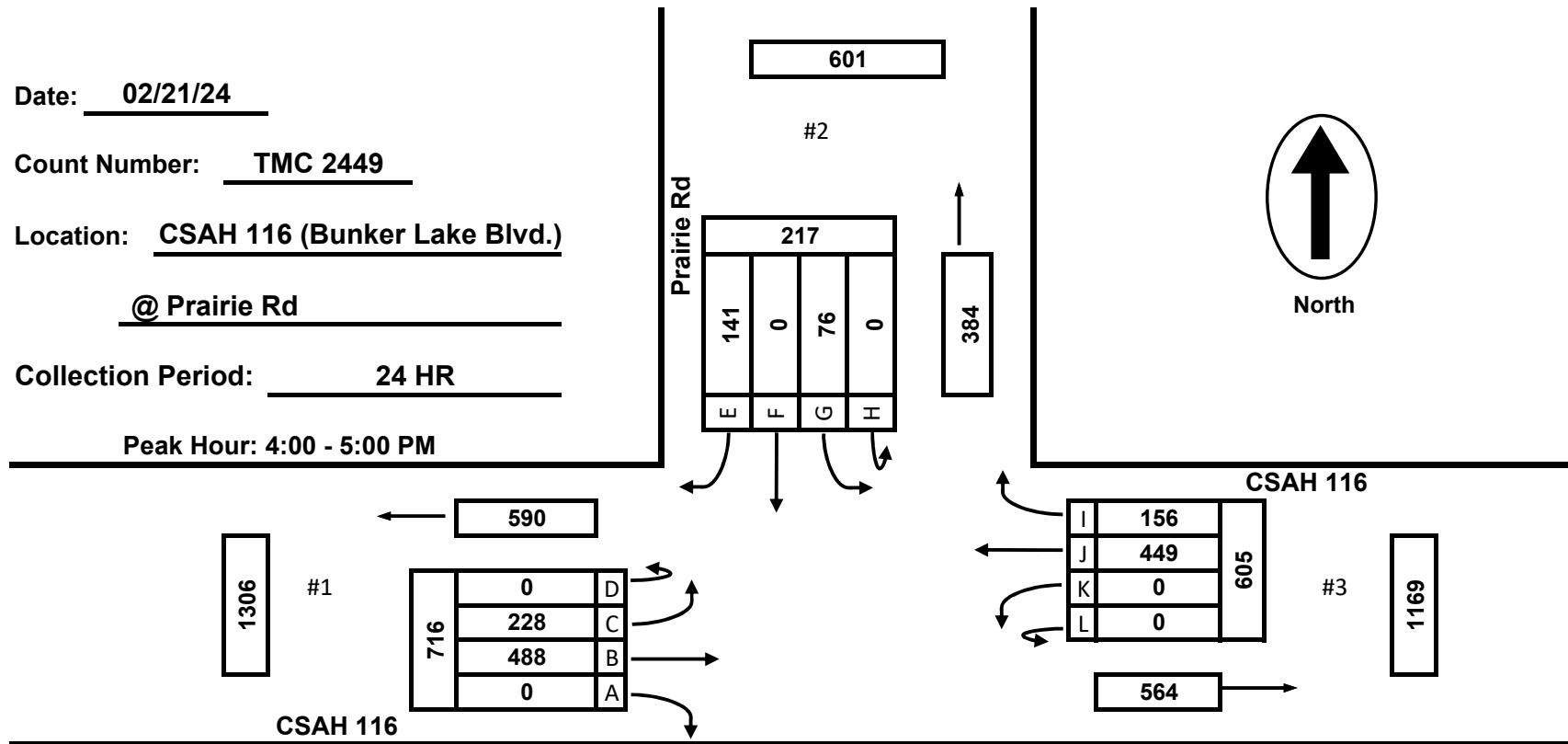
Count Number: TMC 2449

Location: CSAH 116 (Bunker Lake Blvd.)

@ Prairie Rd

Collection Period: 24 HR

Peak Hour: 4:00 - 5:00 PM



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

Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

**TMC 2449 - CSAH 116 (Bunker Lake Blvd.) @ Prairie Rd
Andover MN**

Wednesday, February 21, 2024

Time	Southbound Prairie Rd						Westbound CSAH 116						Northbound 0						Eastbound CSAH 116						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	1	0	2	0	3	0	0	7	1	0	8	0	0	0	0	0	0	0	6	4	0	0	0	10	21
12:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
12:45 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Hourly Total	0	1	0	2	0	3	0	0	11	1	0	12	0	0	0	0	0	0	0	8	6	0	0	0	14	29
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	4	4
1:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	2	3
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
1:45 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hourly Total	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	0	4	4	0	0	0	8	12
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	3
2:15 AM	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	4
2:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	1	1	0	0	0	2	5
2:45 AM	0	0	0	1	0	1	0	0	2	1	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	5
Hourly Total	0	0	0	1	0	1	0	0	7	2	0	9	0	0	0	0	0	0	0	2	5	0	0	0	7	17
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	6
3:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
3:30 AM	0	0	0	3	0	3	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	0	0	1	8
3:45 AM	0	1	0	3	0	4	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	1	8
Hourly Total	0	1	0	8	0	9	0	0	7	0	0	7	0	0	0	0	0	0	0	3	5	0	0	0	8	24
4:00 AM	0	3	0	2	0	5	0	0	2	0	0	2	0	0	0	0	0	0	0	0	5	0	0	0	5	12
4:15 AM	0	2	0	5	0	7	0	0	2	3	0	5	0	0	0	0	0	0	0	0	4	0	0	0	4	16
4:30 AM	0	5	0	6	0	11	0	0	10	0	0	10	0	0	0	0	0	0	0	1	10	0	0	0	11	32
4:45 AM	0	2	0	7	0	9	0	0	11	0	0	11	0	0	0	0	0	0	1	2	5	0	0	0	8	28
Hourly Total	0	12	0	20	0	32	0	0	25	3	0	28	0	0	0	0	0	0	1	3	24	0	0	0	28	88
5:00 AM	0	5	0	11	0	16	0	0	8	0	0	8	0	0	0	0	0	0	0	1	1	0	0	0	2	26
5:15 AM	0	6	0	20	0	26	0	0	12	1	0	13	0	0	0	0	0	0	0	0	13	0	0	0	13	52
5:30 AM	0	9	0	15	0	24	0	0	17	0	0	17	0	0	0	0	0	0	0	1	22	0	0	0	23	64
5:45 AM	0	9	0	22	0	31	0	0	27	1	0	28	0	0	0	0	0	0	0	2	25	0	0	0	27	86
Hourly Total	0	29	0	68	0	97	0	0	64	2	0	66	0	0	0	0	0	0	0	4	61	0	0	0	65	228
6:00 AM	0	12	0	18	0	30	0	0	32	2	0	34	0	0	0	0	0	0	0	1	25	0	0	0	26	90
6:15 AM	0	16	0	35	0	51	0	0	31	3	0	34	0	0	0	0	0	0	0	9	41	0	0	0	50	135
6:30 AM	0	19	0	42	0	61	0	0	47	4	0	51	0	0	0	0	0	0	0	6	48	0	1	0	54	166
6:45 AM	0	32	0	48	0	80	0	0	55	5	0	60	0	0	0	0	0	0	0	15	74	0	0	0	89	229
Hourly Total	0	79	0	143	0	222	0	0	165	14	0	179	0	0	0	0	0	0	0	31	188	0	1	0	219	620
7:00 AM	0	27	0	50	0	77	0	0	71	0	0	71	0	0	0	0	0	0	0	17	77	0	1	0	94	242
7:15 AM	0	36	0	55	0	91	0	0	117	3	0	120	0	0	0	0	0	0	0	8	119	0	0	0	127	338
7:30 AM	0	42	0	49	0	91	0	0	115	12	0	127	0	0	0	0	0	0	0	18	135	0	0	0	153	371
7:45 AM	0	33	0	51	0	84	0	0	108	21	0	129	0	0	0	0	0	0	0	21	130	0	0	0	151	364
Hourly Total	0	138	0	205	0	343	0	0	411	36	0	447	0	0	0	0	0	0	0	64	461	0	1	0	525	1315

**TMC 2449 - CSAH 116 (Bunker Lake Blvd.) @ Prairie Rd
Andover MN**

Wednesday, February 21, 2024

Time	Southbound Prairie Rd						Westbound CSAH 116						Northbound 0						Eastbound CSAH 116						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	21	0	38	1	59	0	0	70	10	0	80	0	0	0	0	0	0	0	19	88	0	1	107	246
8:15 AM	0	15	0	25	0	40	0	0	79	6	0	85	0	0	0	0	0	0	0	20	71	0	1	91	216
8:30 AM	0	14	0	25	0	39	0	0	62	7	0	69	0	0	0	0	0	0	0	16	77	0	0	93	201
8:45 AM	0	18	0	45	0	63	0	0	61	6	0	67	0	0	0	0	0	0	0	8	69	0	0	77	207
Hourly Total	0	68	0	133	1	201	0	0	272	29	0	301	0	0	0	0	0	0	0	63	305	0	2	368	870
9:00 AM	0	11	0	28	0	39	0	0	62	4	0	66	0	0	0	0	0	0	0	14	66	0	1	80	185
9:15 AM	0	8	0	27	1	35	0	0	60	9	0	69	0	0	0	0	0	0	0	12	65	0	0	77	181
9:30 AM	0	6	0	32	0	38	0	0	65	9	0	74	0	0	0	0	0	0	1	13	70	0	0	84	196
9:45 AM	0	12	0	30	0	42	0	0	75	6	0	81	0	0	0	0	0	0	0	13	77	0	0	90	213
Hourly Total	0	37	0	117	1	154	0	0	262	28	0	290	0	0	0	0	0	0	1	52	278	0	1	331	775
10:00 AM	0	7	0	22	0	29	0	0	60	2	0	62	0	0	0	0	0	0	0	15	49	0	0	64	155
10:15 AM	0	5	0	12	0	17	0	0	49	9	0	58	0	0	0	0	0	0	1	9	55	0	2	65	140
10:30 AM	0	8	0	13	0	21	0	0	49	5	0	54	0	0	0	0	0	0	0	15	67	0	0	82	157
10:45 AM	0	8	0	10	1	18	0	0	53	11	0	64	0	0	0	0	0	0	0	13	53	0	1	66	148
Hourly Total	0	28	0	57	1	85	0	0	211	27	0	238	0	0	0	0	0	0	1	52	224	0	3	277	600
11:00 AM	0	8	0	23	0	31	0	0	59	8	0	67	0	0	0	0	0	0	0	19	65	0	0	84	182
11:15 AM	0	8	0	17	0	25	1	0	68	6	0	75	0	0	0	0	0	0	0	16	68	0	0	84	184
11:30 AM	0	2	0	22	0	24	0	0	63	1	0	64	0	0	0	0	0	0	0	19	65	0	0	84	172
11:45 AM	0	9	0	23	0	32	0	0	75	8	0	83	0	0	0	0	0	0	0	20	49	0	0	69	184
Hourly Total	0	27	0	85	0	112	1	0	265	23	0	289	0	0	0	0	0	0	0	74	247	0	0	321	722
12:00 PM	0	10	0	15	2	25	0	0	58	11	0	69	0	0	0	0	0	0	0	18	60	0	0	78	172
12:15 PM	1	7	0	20	0	28	0	0	80	8	0	88	0	0	0	0	0	0	0	23	71	0	1	94	210
12:30 PM	0	11	0	21	0	32	0	0	76	14	0	90	0	0	0	0	0	0	0	19	75	0	0	94	216
12:45 PM	0	8	0	16	0	24	0	0	75	5	0	80	0	0	0	0	0	0	0	16	65	0	0	81	185
Hourly Total	1	36	0	72	2	109	0	0	289	38	0	327	0	0	0	0	0	0	0	76	271	0	1	347	783
1:00 PM	0	7	0	19	0	26	0	0	54	7	0	61	0	0	0	0	0	0	0	16	82	0	0	98	185
1:15 PM	0	7	0	11	0	18	1	0	58	13	0	72	0	0	0	0	0	0	0	22	82	0	0	104	194
1:30 PM	0	9	0	23	0	32	0	0	72	7	0	79	0	0	0	0	0	0	0	20	68	0	0	88	199
1:45 PM	0	13	0	15	0	28	0	0	72	11	0	83	0	0	0	0	0	0	0	21	76	0	0	97	208
Hourly Total	0	36	0	68	0	104	1	0	256	38	0	295	0	0	0	0	0	0	0	79	308	0	0	387	786
2:00 PM	0	8	0	17	0	25	0	0	80	16	0	96	0	0	0	0	0	0	0	18	83	0	0	101	222
2:15 PM	0	10	0	18	0	28	0	0	77	10	0	87	0	0	0	0	0	0	0	45	120	0	0	165	280
2:30 PM	0	11	0	22	1	33	0	0	77	29	0	106	0	0	0	0	0	0	0	43	91	0	1	134	273
2:45 PM	0	12	0	22	2	34	0	0	78	21	0	99	0	0	0	0	0	0	0	25	95	0	1	120	253
Hourly Total	0	41	0	79	3	120	0	0	312	76	0	388	0	0	0	0	0	0	0	131	389	0	2	520	1028
3:00 PM	0	13	0	23	0	36	0	0	103	23	0	126	0	0	0	0	0	0	0	38	99	0	0	137	299
3:15 PM	0	16	0	22	1	38	0	0	121	29	0	150	0	0	0	0	0	0	0	46	119	0	1	165	353
3:30 PM	0	7	0	23	2	30	0	0	110	22	0	132	0	0	0	0	0	0	0	58	109	0	0	167	329
3:45 PM	0	12	0	28	0	40	0	0	125	34	0	159	0	0	0	0	0	0	0	47	84	0	2	131	330
Hourly Total	0	48	0	96	3	144	0	0	459	108	0	567	0	0	0	0	0	0	0	189	411	0	3	600	1311

**TMC 2449 - CSAH 116 (Bunker Lake Blvd.) @ Prairie Rd
Andover MN**

Wednesday, February 21, 2024

Time	Southbound Prairie Rd						Westbound CSAH 116						Northbound 0						Eastbound CSAH 116						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	21	0	17	1	38	0	0	121	35	0	156	0	0	0	0	0	0	0	52	117	0	1	169	363
4:15 PM	0	20	0	37	2	57	0	0	109	30	0	139	0	0	0	0	0	0	0	53	123	0	0	176	372
4:30 PM	0	13	0	53	0	66	0	0	126	45	0	171	0	0	0	0	0	0	0	53	130	0	0	183	420
4:45 PM	0	22	0	34	8	56	0	0	93	46	0	139	0	0	0	0	0	0	0	70	118	0	9	188	383
Hourly Total	0	76	0	141	11	217	0	0	449	156	0	605	0	0	0	0	0	0	0	228	488	0	10	716	1538
5:00 PM	0	11	0	29	0	40	0	0	89	36	0	125	0	0	0	0	0	0	0	48	115	0	0	163	328
5:15 PM	0	13	0	27	2	40	0	0	102	40	0	142	0	0	0	0	0	0	0	47	92	0	3	139	321
5:30 PM	0	15	0	33	2	48	0	0	90	23	0	113	0	0	0	0	0	0	0	41	94	0	5	135	296
5:45 PM	0	8	0	27	2	35	0	0	85	27	0	112	0	0	0	0	0	0	0	34	97	0	6	131	278
Hourly Total	0	47	0	116	6	163	0	0	366	126	0	492	0	0	0	0	0	0	0	170	398	0	14	568	1223
6:00 PM	0	15	0	21	0	36	0	0	82	19	0	101	0	0	0	0	0	0	0	43	93	0	1	136	273
6:15 PM	0	6	0	24	0	30	0	0	78	13	0	91	0	0	0	0	0	0	0	39	86	0	0	125	246
6:30 PM	0	7	0	23	0	30	0	0	63	17	0	80	0	0	0	0	0	0	0	32	70	0	1	102	212
6:45 PM	0	12	0	22	0	34	0	0	54	9	0	63	0	0	0	0	0	0	0	37	53	0	0	90	187
Hourly Total	0	40	0	90	0	130	0	0	277	58	0	335	0	0	0	0	0	0	0	151	302	0	2	453	918
7:00 PM	0	8	0	11	0	19	0	0	44	11	0	55	0	0	0	0	0	0	0	19	49	0	0	68	142
7:15 PM	0	8	0	11	0	19	0	0	40	10	0	50	0	0	0	0	0	0	0	36	57	0	0	93	162
7:30 PM	0	5	0	7	0	12	0	0	57	9	0	66	0	0	0	0	0	0	0	23	67	0	0	90	168
7:45 PM	0	1	0	14	0	15	0	0	45	16	0	61	0	0	0	0	0	0	0	25	38	0	0	63	139
Hourly Total	0	22	0	43	0	65	0	0	186	46	0	232	0	0	0	0	0	0	0	103	211	0	0	314	611
8:00 PM	0	4	0	16	0	20	0	0	39	12	0	51	0	0	0	0	0	0	0	21	40	0	0	61	132
8:15 PM	0	7	0	9	0	16	0	0	40	13	0	53	0	0	0	0	0	0	0	31	45	0	0	76	145
8:30 PM	0	12	0	7	0	19	0	0	46	10	0	56	0	0	0	0	0	0	0	21	39	0	1	60	135
8:45 PM	0	4	0	7	0	11	0	0	35	15	0	50	0	0	0	0	0	0	0	23	34	0	0	57	118
Hourly Total	0	27	0	39	0	66	0	0	160	50	0	210	0	0	0	0	0	0	0	96	158	0	1	254	530
9:00 PM	0	4	0	9	0	13	0	0	33	5	0	38	0	0	0	0	0	0	0	22	34	0	0	56	107
9:15 PM	0	4	0	8	0	12	0	0	30	12	0	42	0	0	0	0	0	0	0	16	25	0	0	41	95
9:30 PM	0	2	0	3	0	5	0	0	18	5	0	23	0	0	0	0	0	0	0	10	20	0	0	30	58
9:45 PM	0	3	0	5	0	8	0	0	31	10	0	41	0	0	0	0	0	0	0	9	11	0	0	20	69
Hourly Total	0	13	0	25	0	38	0	0	112	32	0	144	0	0	0	0	0	0	0	57	90	0	0	147	329
10:00 PM	0	6	0	2	0	8	0	0	14	5	0	19	0	0	0	0	0	0	0	7	23	0	0	30	57
10:15 PM	0	2	0	4	0	6	0	0	21	10	0	31	0	0	0	0	0	0	0	7	14	0	0	21	58
10:30 PM	0	0	0	0	0	0	0	0	12	2	0	14	0	0	0	0	0	0	0	4	12	0	0	16	30
10:45 PM	0	1	0	1	0	2	0	0	10	1	0	11	0	0	0	0	0	0	0	4	9	0	0	13	26
Hourly Total	0	9	0	7	0	16	0	0	57	18	0	75	0	0	0	0	0	0	0	22	58	0	0	80	171
11:00 PM	0	0	0	1	0	1	0	0	7	3	0	10	0	0	0	0	0	0	0	5	7	0	0	12	23
11:15 PM	0	0	0	0	0	0	0	0	5	4	0	9	0	0	0	0	0	0	0	3	9	0	0	12	21
11:30 PM	0	1	0	0	0	1	0	0	4	1	0	5	0	0	0	0	0	0	0	6	3	0	0	9	15
11:45 PM	0	0	0	1	0	1	0	0	4	1	0	5	0	0	0	0	0	0	0	2	2	0	0	4	10
Hourly Total	0	1	0	2	0	3	0	0	20	9	0	29	0	0	0	0	0	0	0	16	21	0	0	37	69
DAILY TOTAL	1	816	0	1617	28	2434	2	0	4645	922	0	5569	0	0	0	0	0	0	3	1678	4913	0	41	6594	14597
Cars	1	808	0	1588	19	2397	2	0	4529	910	0	5441	0	0	0	0	0	0	3	1653	4776	0	35	6432	14270
Heavy Vehicles	0	8	0	29	9	37	0	0	116	12	0	128	0	0	0	0	0	0	0	25	137	0	6	162	327
Heavy Vehicle %	0.00%	0.98%	0.00%	1.79%	32.14%	1.52%	0.00%	0.00%	2.50%	1.30%	0.00%	2.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.49%	2.79%	0.00%	14.63%	2.46%	2.24%

**TMC 2449 - CSAH 116 (Bunker Lake Blvd.) @ Prairie Rd
Andover MN
Wednesday, February 21, 2024**

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	
7:15 AM	0	36	0	55	0	91	0	0	117	3	0	120	0	0	0	0	0	0	0	8	119	0	0	127	338
7:30 AM	0	42	0	49	0	91	0	0	115	12	0	127	0	0	0	0	0	0	0	18	135	0	0	153	371
7:45 AM	0	33	0	51	0	84	0	0	108	21	0	129	0	0	0	0	0	0	0	21	130	0	0	151	364
8:00 AM	0	21	0	38	1	59	0	0	70	10	0	80	0	0	0	0	0	0	0	19	88	0	1	107	246
Peak Hour Total	0	132	0	193	1	325	0	0	410	46	0	456	0	0	0	0	0	0	0	66	472	0	1	538	1319
PHF	0.000	0.786	0.000	0.877	0.250	0.893	0.000	0.000	0.876	0.548	0.000	0.884	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.786	0.874	0.000	0.250	0.879	0.889

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	21	0	17	1	38	0	0	121	35	0	156	0	0	0	0	0	0	0	52	117	0	1	169	363
4:15 PM	0	20	0	37	2	57	0	0	109	30	0	139	0	0	0	0	0	0	0	53	123	0	0	176	372
4:30 PM	0	13	0	53	0	66	0	0	126	45	0	171	0	0	0	0	0	0	0	53	130	0	0	183	420
4:45 PM	0	22	0	34	8	56	0	0	93	46	0	139	0	0	0	0	0	0	0	70	118	0	9	188	383
Peak Hour Total	0	76	0	141	11	217	0	0	449	156	0	605	0	0	0	0	0	0	0	228	488	0	10	716	1538
PHF	0.000	0.864	0.000	0.665	0.344	0.822	0.000	0.000	0.891	0.848	0.000	0.885	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.814	0.938	0.000	0.278	0.952	0.915

Total Vehicles On Leg		5035	
Vehicles Entering Intersection		2434	
Vehicles Exiting Intersection		2601	
Southbound			
Cars	1588	0	808
Heavy	29	0	8
Total	1617	0	816



Total Vehicles on Leg 12859	Vehicles Entering Intersection 6594	Eastbound	Cars	Heavy	Total	
			35	6	41	
			3	0	3	
	1653		25	1678		
	4776		137	4913		
Vehicles Exiting Intersection 6265			0	0	0	

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 5569	Total Vehicles on Leg 11300
910	12	922			
4529	116	4645			
0	0	0			
2	0	2			
Vehicles Exiting Intersection 5731					



Cars	0	0	0	0	0
Heavy	0	0	0	0	0
Total	0	0	0	0	0

Northbound	
Vehicles Entering Intersection	0
Vehicles Exiting Intersection	0
Total Vehicles On Leg	0

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2449

Study Date : 02/23/2024

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 116

Number of Lanes : 2+

Total Approach Volume: 6,594

Westbound: CSAH 116

Number of Lanes : 2+

Total Approach Volume: 5,569

Minor Street Approaches

Southbound: Prairie Rd

Number of Lanes : 1

Total Approach Volume: 2,434

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 11 hours, 8 are needed

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

Required volumes reached for 9 hours, 8 are needed

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

Required 1A volumes reached for 13 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 \geq minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (46) volumes exceed minimum \geq 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 2449

Study Date : 02/23/2024

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

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**

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	
16:30 - 17:30	673	+	577	=	1250	0	202	Yes
15:30 - 16:30	643	+	586	=	1229	0	165	Yes
14:30 - 15:30	556	+	481	=	1037	0	141	Yes
07:15 - 08:15	538	+	456	=	994	0	325	Yes
17:30 - 18:30	527	+	417	=	944	0	149	Yes
13:30 - 14:30	451	+	345	=	796	0	113	Yes
12:00 - 13:00	347	+	327	=	674	0	109	Yes
08:15 - 09:15	341	+	287	=	628	0	181	Yes
11:00 - 12:00	321	+	289	=	610	0	112	Yes
09:15 - 10:15	315	+	286	=	601	0	144	Yes
06:15 - 07:15	287	+	216	=	503	0	269	Yes
13:15 - 14:15	390	+	330	=	720	0	103	No
13:00 - 14:00	387	+	295	=	682	0	104	No
18:30 - 19:30	353	+	248	=	601	0	102	No
10:45 - 11:45	318	+	270	=	588	0	98	No
10:30 - 11:30	316	+	260	=	576	0	95	No
18:45 - 19:45	341	+	234	=	575	0	84	No
19:00 - 20:00	314	+	232	=	546	0	65	No
10:15 - 11:15	297	+	243	=	540	0	87	No
19:15 - 20:15	307	+	228	=	535	0	66	No
19:30 - 20:30	290	+	231	=	521	0	63	No
19:45 - 20:45	260	+	221	=	481	0	70	No
20:00 - 21:00	254	+	210	=	464	0	66	No
20:15 - 21:15	249	+	197	=	446	0	59	No
20:30 - 21:30	214		186		400	0	55	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2449

Study Date : 02/23/2024

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

9 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	
	CSAH 116					Prairie Rd		
15:45 - 16:45	659	+	625	=	1284	0	201	Yes
16:45 - 17:45	625	+	519	=	1144	0	184	Yes
14:45 - 15:45	589	+	507	=	1096	0	138	Yes
07:30 - 08:30	502	+	421	=	923	0	274	Yes
17:45 - 18:45	494	+	384	=	878	0	131	Yes
13:45 - 14:45	497	+	372	=	869	0	114	Yes
06:30 - 07:30	364	+	302	=	666	0	309	Yes
11:45 - 12:45	335	+	330	=	665	0	117	Yes
12:45 - 13:45	371	+	292	=	663	0	100	Yes
11:30 - 12:30	325	+	304	=	629	0	109	No
09:00 - 10:00	331	+	290	=	621	0	154	No
11:00 - 12:00	321	+	289	=	610	0	112	No
11:15 - 12:15	315	+	291	=	606	0	106	No
09:15 - 10:15	315	+	286	=	601	0	144	No
08:30 - 09:30	327	+	271	=	598	0	176	No
08:45 - 09:45	318	+	276	=	594	0	175	No
10:45 - 11:45	318	+	270	=	588	0	98	No
09:30 - 10:30	303	+	275	=	578	0	126	No
10:30 - 11:30	316	+	260	=	576	0	95	No
18:45 - 19:45	341	+	234	=	575	0	84	No
09:45 - 10:45	301	+	255	=	556	0	109	No
19:00 - 20:00	314	+	232	=	546	0	65	No
10:15 - 11:15	297	+	243	=	540	0	87	No
19:15 - 20:15	307	+	228	=	535	0	66	No
19:30 - 20:30	290		231		521	0	63	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2449

Study Date : 02/23/2024

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

13 hours meet 1A minimums.
14 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**

Time	Major Road				Total	Minor Road		Met1A?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	716	+	605	=	1321	0	217	Yes
15:00 - 16:00	600	+	567	=	1167	0	144	Yes
17:00 - 18:00	568	+	492	=	1060	0	163	Yes
07:00 - 08:00	525	+	447	=	972	0	343	Yes
14:00 - 15:00	520	+	388	=	908	0	120	Yes
18:00 - 19:00	453	+	335	=	788	0	130	Yes
13:00 - 14:00	387	+	295	=	682	0	104	Yes
12:00 - 13:00	347	+	327	=	674	0	109	Yes
08:00 - 09:00	368	+	301	=	669	0	201	Yes
09:00 - 10:00	331	+	290	=	621	0	154	Yes
11:00 - 12:00	321	+	289	=	610	0	112	Yes
10:00 - 11:00	277		238		515	0	85	Yes

Time	Major Road				Total	Minor Road		Met1B?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	673	+	577	=	1250	0	202	Yes
15:30 - 16:30	643	+	586	=	1229	0	165	Yes
14:30 - 15:30	556	+	481	=	1037	0	141	Yes
17:30 - 18:30	527	+	417	=	944	0	149	Yes
07:30 - 08:30	502	+	421	=	923	0	274	Yes
13:30 - 14:30	451	+	345	=	796	0	113	Yes
12:30 - 13:30	377	+	303	=	680	0	100	Yes
06:30 - 07:30	364	+	302	=	666	0	309	Yes
11:30 - 12:30	325	+	304	=	629	0	109	Yes
18:30 - 19:30	353	+	248	=	601	0	102	Yes
08:30 - 09:30	327	+	271	=	598	0	176	Yes
09:30 - 10:30	303		275		578	0	126	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2449

Study Date : 02/23/2024

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.

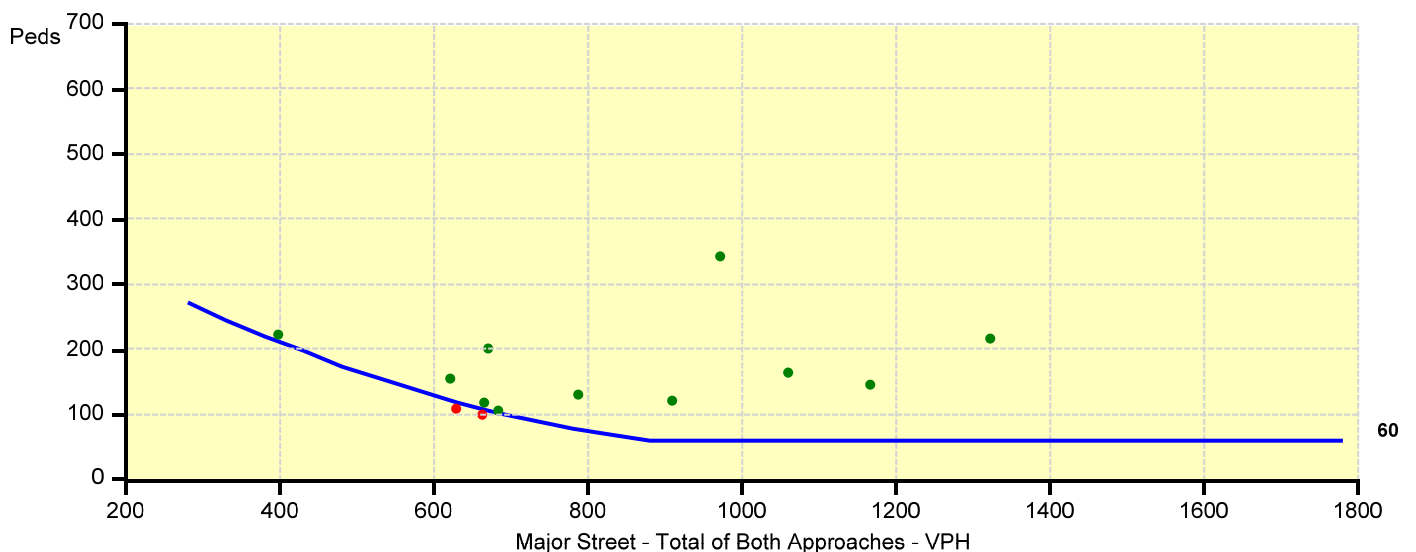
Summary

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 116				Total	Minor Road Prairie Rd		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	716	+	605	=	1321	0	217	Yes
15:00 - 16:00	600	+	567	=	1167	0	144	Yes
17:00 - 18:00	568	+	492	=	1060	0	163	Yes
07:00 - 08:00	525	+	447	=	972	0	343	Yes
14:00 - 15:00	520	+	388	=	908	0	120	Yes
18:00 - 19:00	453	+	335	=	788	0	130	Yes
13:00 - 14:00	387	+	295	=	682	0	104	Yes
08:00 - 09:00	368	+	301	=	669	0	201	Yes
11:45 - 12:45	335	+	330	=	665	0	117	Yes
09:00 - 10:00	331	+	290	=	621	0	154	Yes
06:00 - 07:00	219	+	179	=	398	0	222	Yes
12:45 - 13:45	371		292		663	0	100	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2449

Study Date : 02/23/2024

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

20 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 116				Total	Minor Road Prairie Rd		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	716	+	605	=	1321	0	217	Yes
16:15 - 17:15	710	+	574	=	1284	0	219	Yes
15:45 - 16:45	659	+	625	=	1284	0	201	Yes
16:30 - 17:30	673	+	577	=	1250	0	202	Yes
15:30 - 16:30	643	+	586	=	1229	0	165	Yes
15:15 - 16:15	632	+	597	=	1229	0	146	Yes
15:00 - 16:00	600	+	567	=	1167	0	144	Yes
16:45 - 17:45	625	+	519	=	1144	0	184	Yes
14:45 - 15:45	589	+	507	=	1096	0	138	Yes
17:00 - 18:00	568	+	492	=	1060	0	163	Yes
14:30 - 15:30	556	+	481	=	1037	0	141	Yes
17:15 - 18:15	541	+	468	=	1009	0	159	Yes

