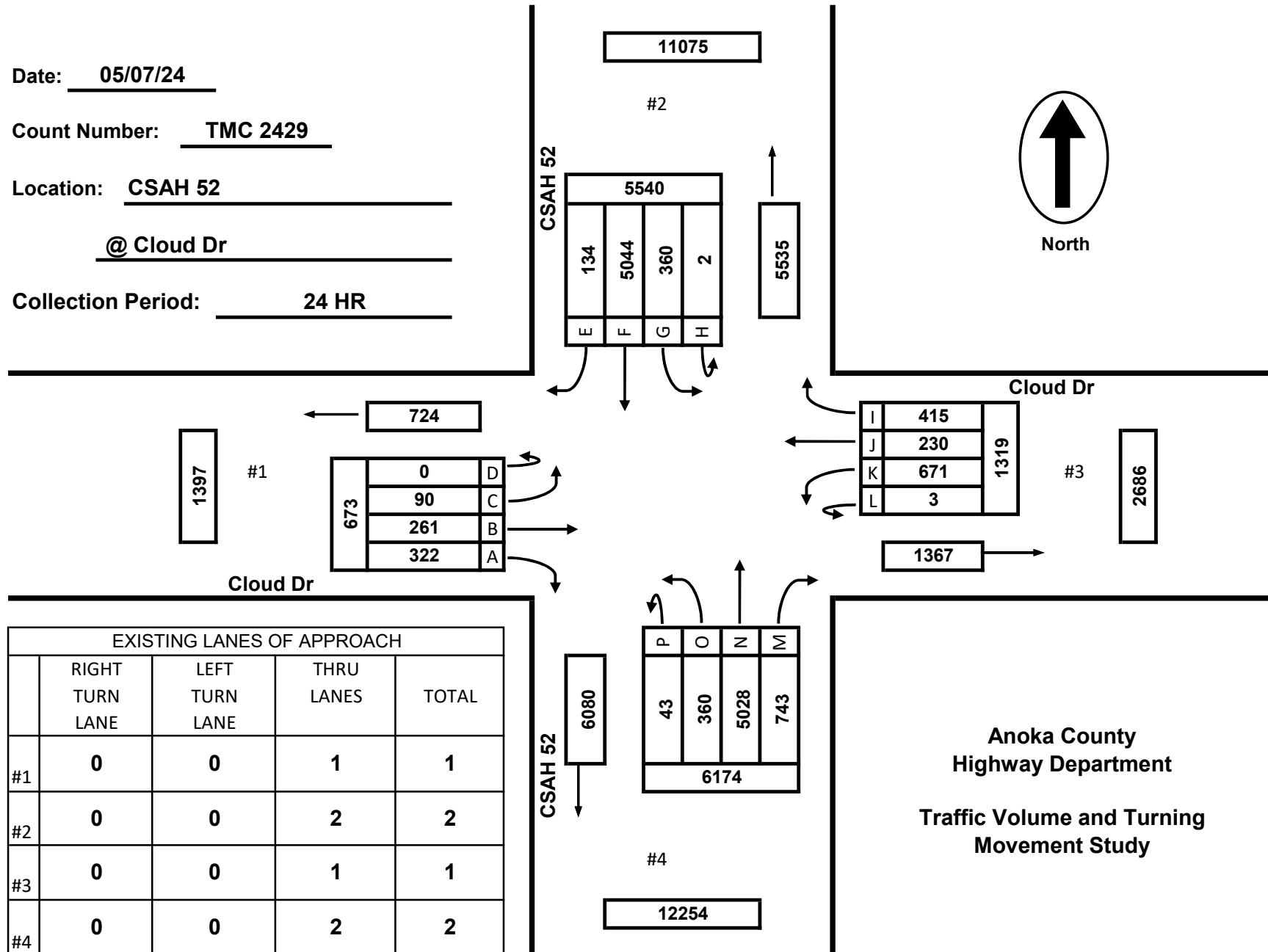
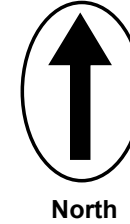


Date: 05/07/24

Count Number: TMC 2429

Location: CSAH 52
@ Cloud Dr

Collection Period: 24 HR



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

Anoka County
 Highway Department
 Traffic Volume and Turning
 Movement Study

Date: 05/07/24

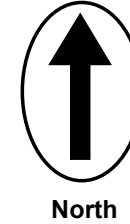
Count Number: TMC 2429

Location: CSAH 52

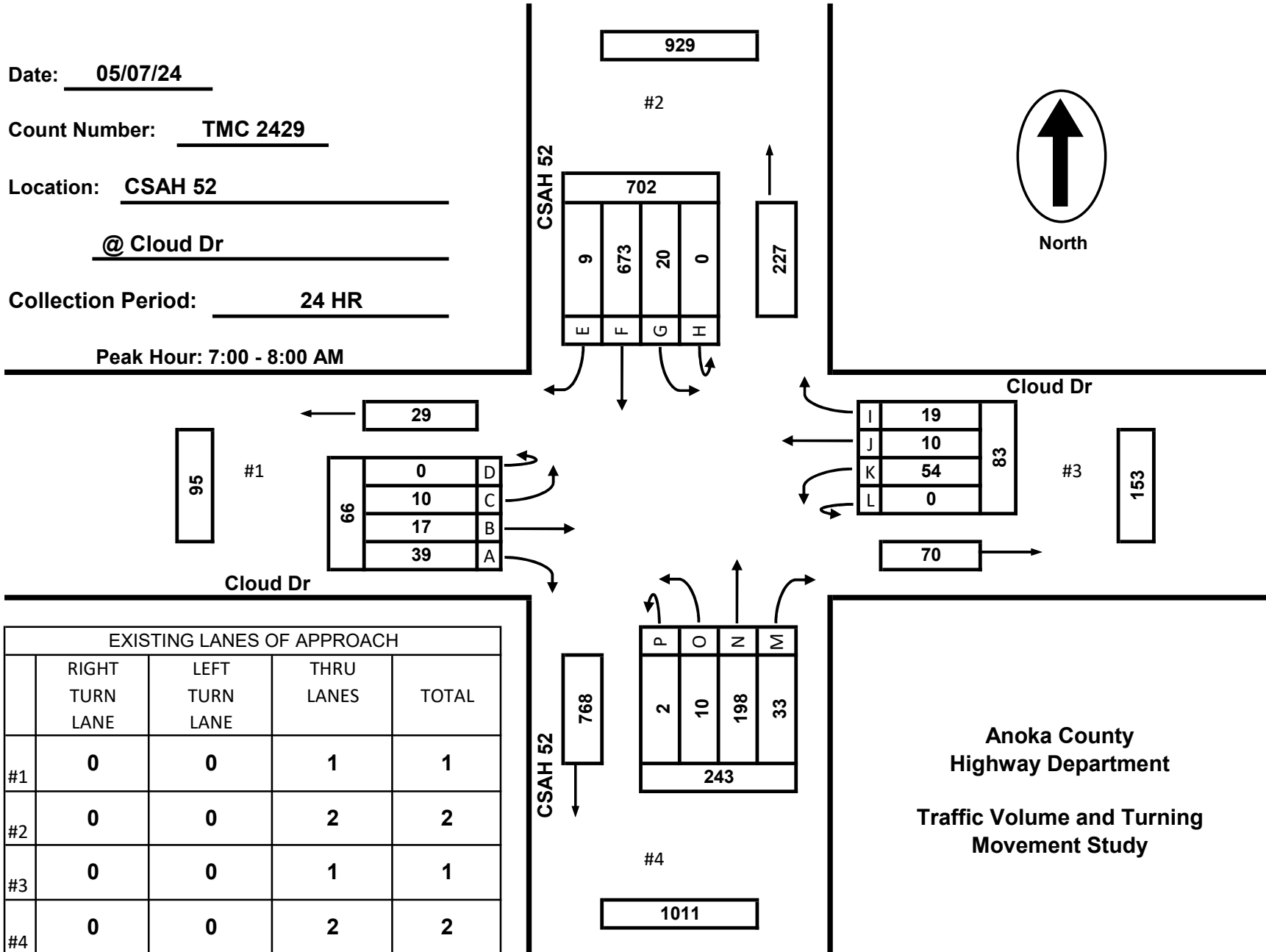
@ Cloud Dr

Collection Period: 24 HR

Peak Hour: 7:00 - 8:00 AM



North



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

Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

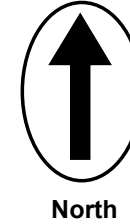
Date: 05/07/24

Count Number: TMC 2429

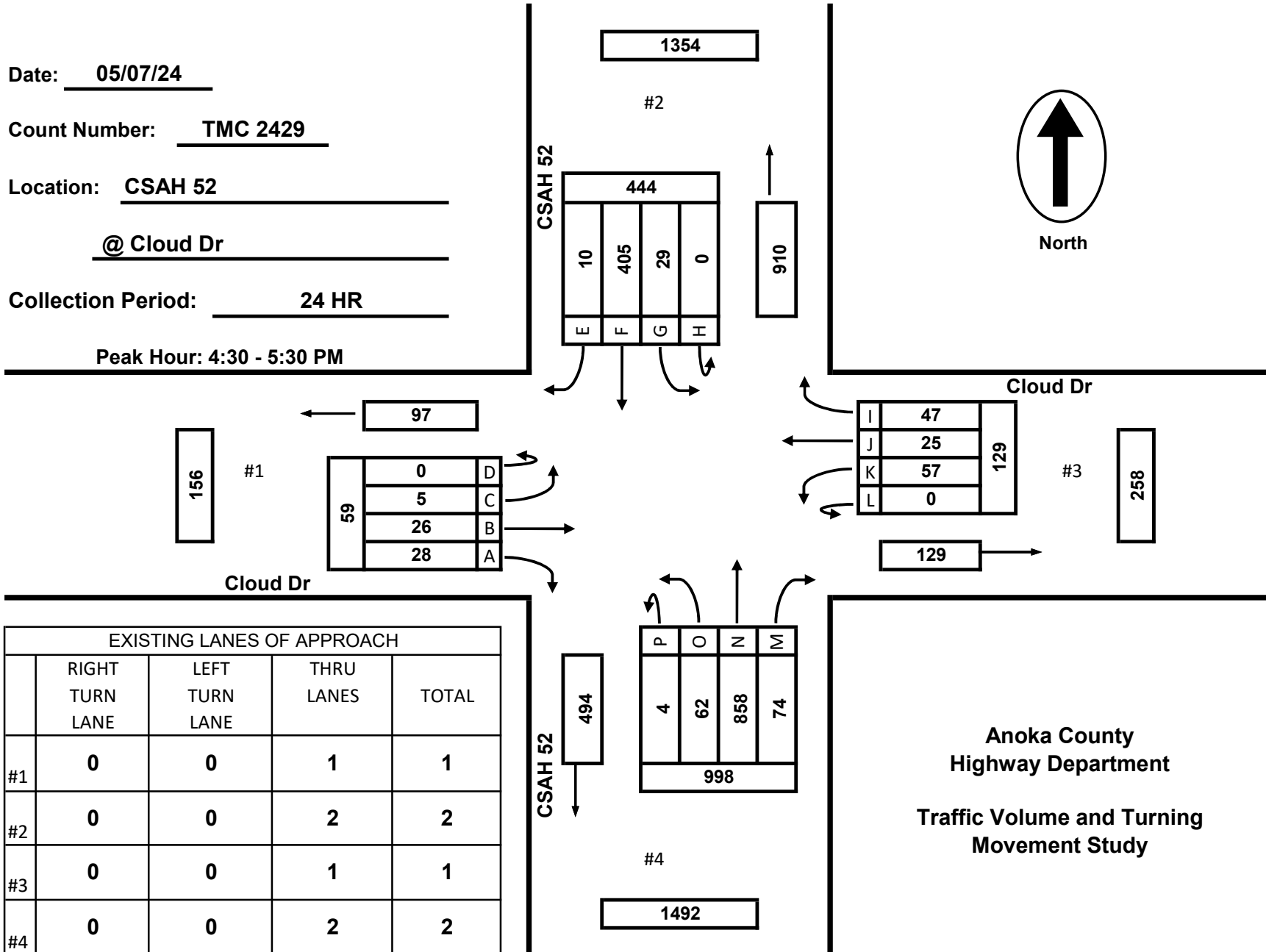
Location: CSAH 52
@ Cloud Dr

Collection Period: 24 HR

Peak Hour: 4:30 - 5:30 PM



North



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

Anoka County
 Highway Department
 Traffic Volume and Turning
 Movement Study

TMC 2429 - CSAH 52 @ Cloud Dr
Blaine MN
Tuesday, May 7, 2024

Time	Southbound CSAH 52						Westbound Cloud Dr						Northbound CSAH 52						Eastbound Cloud Dr						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	0	0	3	0	1	0	0	0	1	0	2	7	1	0	10	0	0	0	1	0	1	15
12:15 AM	0	0	1	1	0	2	0	2	0	0	0	2	0	1	4	0	0	5	0	0	0	0	0	0	9
12:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	8
12:45 AM	0	0	2	0	0	2	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	6
Hourly Total	0	0	10	1	0	11	0	5	0	0	0	5	0	3	16	2	0	21	0	0	0	1	0	1	38
1:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	3
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	0	0	0	0	4
1:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Hourly Total	0	0	1	0	0	1	0	1	0	0	0	1	0	0	6	2	0	8	0	0	0	0	0	0	10
2:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	2
2:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3
2:45 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
Hourly Total	0	0	4	0	0	4	0	0	0	0	0	0	0	1	4	1	0	6	0	0	0	0	0	0	10
3:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
3:15 AM	0	0	3	0	0	3	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	5
3:30 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	2	0	2	9
3:45 AM	0	0	7	0	0	7	0	1	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	10
Hourly Total	0	0	19	0	0	19	0	1	1	1	0	3	0	1	3	0	0	4	0	0	1	2	0	3	29
4:00 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	10
4:15 AM	0	0	13	0	0	13	0	1	1	0	0	2	0	0	3	0	0	3	0	0	0	2	0	2	20
4:30 AM	0	0	22	0	0	22	0	2	0	0	0	2	0	0	4	0	0	4	0	0	0	0	0	0	28
4:45 AM	0	0	28	0	0	28	0	0	0	0	0	0	0	3	7	0	0	10	0	0	0	0	0	0	38
Hourly Total	0	0	69	0	0	69	0	3	1	0	0	4	0	3	18	0	0	21	0	0	0	2	0	2	96
5:00 AM	0	0	41	0	0	41	0	2	0	0	0	2	0	0	6	0	0	6	0	0	0	1	0	1	50
5:15 AM	0	1	64	0	0	65	0	0	0	0	0	0	0	0	7	2	0	9	0	0	0	3	0	3	77
5:30 AM	0	0	63	0	0	63	0	3	0	1	0	4	1	0	8	0	0	9	0	0	0	7	0	7	83
5:45 AM	0	0	79	0	0	79	0	0	0	2	0	2	0	0	16	4	0	20	0	4	2	4	0	10	111
Hourly Total	0	1	247	0	0	248	0	5	0	3	0	8	1	0	37	6	0	44	0	4	2	15	0	21	321
6:00 AM	0	1	79	0	0	80	0	1	0	3	0	4	0	2	17	3	0	22	0	0	0	7	0	7	113
6:15 AM	0	1	83	0	0	84	1	4	1	1	0	7	0	0	12	2	0	14	0	1	0	9	0	10	115
6:30 AM	0	2	97	2	0	101	0	8	0	5	0	13	1	0	28	8	0	37	0	2	1	9	0	12	163
6:45 AM	0	2	119	2	0	123	0	12	3	3	0	18	0	1	26	7	0	34	0	1	1	10	0	12	187
Hourly Total	0	6	378	4	0	388	1	25	4	12	0	42	1	3	83	20	0	107	0	4	2	35	0	41	578
7:00 AM	0	5	133	0	0	138	0	14	3	4	0	21	0	0	48	6	0	54	0	4	5	9	0	18	231
7:15 AM	0	3	154	4	0	161	0	15	3	7	0	25	1	4	60	5	0	70	0	3	4	8	0	15	271
7:30 AM	0	7	215	3	0	225	0	10	2	5	0	17	0	4	47	6	0	57	0	1	4	10	0	15	314
7:45 AM	0	5	171	2	0	178	0	15	2	3	0	20	1	2	43	16	0	62	0	2	4	12	0	18	278
Hourly Total	0	20	673	9	0	702	0	54	10	19	0	83	2	10	198	33	0	243	0	10	17	39	0	66	1094

**TMC 2429 - CSAH 52 @ Cloud Dr
Blaine MN
Tuesday, May 7, 2024**

Time	Southbound CSAH 52						Westbound Cloud Dr						Northbound CSAH 52						Eastbound Cloud Dr						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	6	129	1	0	136	0	11	3	6	0	20	0	2	34	10	0	46	0	3	3	7	0	13	215
8:15 AM	0	4	103	1	0	108	0	14	3	7	0	24	0	1	39	11	0	51	0	1	6	6	0	13	196
8:30 AM	0	8	90	1	0	99	0	12	4	3	0	19	0	3	33	16	0	52	0	0	0	4	0	4	174
8:45 AM	0	3	70	5	0	78	0	15	1	3	0	19	1	1	55	8	0	65	0	4	6	8	0	18	180
Hourly Total	0	21	392	8	0	421	0	52	11	19	0	82	1	7	161	45	0	214	0	8	15	25	0	48	765
9:00 AM	0	2	64	1	0	67	0	25	7	6	0	38	0	3	37	18	0	58	0	3	10	7	0	20	183
9:15 AM	0	6	71	3	0	80	0	23	8	4	0	35	0	3	36	9	0	48	0	0	5	4	0	9	172
9:30 AM	0	4	66	1	0	71	0	15	2	7	0	24	0	5	42	4	0	51	0	0	5	4	0	9	155
9:45 AM	0	4	52	1	0	57	0	6	2	4	0	12	0	2	38	4	0	44	0	1	4	4	0	9	122
Hourly Total	0	16	253	6	0	275	0	69	19	21	0	109	0	13	153	35	0	201	0	4	24	19	0	47	632
10:00 AM	0	7	42	0	0	49	1	4	3	4	0	12	0	2	29	5	0	36	0	1	4	4	0	9	106
10:15 AM	0	4	41	0	0	45	0	10	2	3	0	15	1	9	47	5	1	62	0	3	1	4	0	8	130
10:30 AM	0	7	62	0	0	69	0	7	1	5	0	13	0	8	42	6	2	56	0	1	2	5	0	8	146
10:45 AM	0	8	50	1	0	59	0	11	1	5	0	17	0	0	42	9	0	51	0	1	2	5	0	8	135
Hourly Total	0	26	195	1	0	222	1	32	7	17	0	57	1	19	160	25	3	205	0	6	9	18	0	33	517
11:00 AM	0	0	49	0	0	49	0	8	2	4	0	14	1	3	58	9	0	71	0	1	4	4	0	9	143
11:15 AM	0	9	56	2	0	67	0	8	5	3	0	16	1	4	43	9	0	57	0	1	5	4	0	10	150
11:30 AM	0	5	64	1	0	70	0	10	1	4	0	15	2	2	51	8	0	63	0	0	5	3	0	8	156
11:45 AM	0	7	65	2	0	74	0	10	4	6	0	20	2	6	58	10	0	76	0	1	1	5	0	7	177
Hourly Total	0	21	234	5	0	260	0	36	12	17	0	65	6	15	210	36	0	267	0	3	15	16	0	34	626
12:00 PM	0	3	59	2	0	64	0	12	2	6	0	20	1	3	66	14	0	84	0	2	2	5	0	9	177
12:15 PM	0	5	70	2	0	77	0	11	6	6	0	23	2	5	45	10	0	62	0	3	5	4	0	12	174
12:30 PM	0	4	39	2	0	45	0	8	6	2	0	16	0	3	76	7	0	86	0	1	3	4	0	8	155
12:45 PM	0	8	51	3	0	62	1	8	5	6	0	20	2	5	66	15	0	88	0	0	2	1	0	3	173
Hourly Total	0	20	219	9	0	248	1	39	19	20	0	79	5	16	253	46	0	320	0	6	12	14	0	32	679
1:00 PM	0	4	37	1	0	42	0	12	1	6	0	19	1	5	67	10	2	83	0	0	2	2	0	4	148
1:15 PM	0	10	63	2	0	75	0	14	2	8	0	24	0	4	63	9	0	76	0	1	7	4	0	12	187
1:30 PM	0	8	61	2	0	71	0	7	3	6	0	16	0	1	56	2	0	59	0	1	5	4	0	10	156
1:45 PM	0	10	56	1	0	67	0	11	4	4	0	19	0	3	83	16	0	102	0	1	0	4	0	5	193
Hourly Total	0	32	217	6	0	255	0	44	10	24	0	78	1	13	269	37	2	320	0	3	14	14	0	31	684
2:00 PM	0	2	75	2	0	79	0	8	5	15	0	28	1	2	71	9	0	83	0	1	6	2	0	9	199
2:15 PM	0	15	60	4	0	79	0	13	5	9	0	27	2	3	83	13	0	101	0	2	7	8	0	17	224
2:30 PM	0	4	60	1	0	65	0	9	6	5	0	20	0	6	87	14	0	107	0	0	2	3	0	5	197
2:45 PM	0	4	76	5	0	85	0	6	2	18	0	26	2	6	105	22	0	135	0	0	6	3	0	9	255
Hourly Total	0	25	271	12	0	308	0	36	18	47	0	101	5	17	346	58	0	426	0	3	21	16	0	40	875
3:00 PM	0	13	64	3	0	80	0	5	4	9	0	18	1	13	123	20	0	157	0	1	4	1	0	6	261
3:15 PM	0	8	79	1	0	88	0	9	2	15	0	26	0	7	109	21	2	137	0	2	6	3	0	11	262
3:30 PM	0	6	81	5	0	92	0	17	5	10	0	32	0	11	126	26	0	163	0	2	4	8	0	14	301
3:45 PM	0	4	69	6	0	79	0	27	12	11	0	50	1	11	205	28	3	245	0	3	12	3	0	18	392
Hourly Total	0	31	293	15	0	339	0	58	23	45	0	126	2	42	563	95	5	702	0	8	26	15	0	49	1216

**TMC 2429 - CSAH 52 @ Cloud Dr
Blaine MN
Tuesday, May 7, 2024**

Time	Southbound CSAH 52						Westbound Cloud Dr						Northbound CSAH 52						Eastbound Cloud Dr						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	1	9	74	5	0	89	0	25	7	13	0	45	0	19	182	21	0	222	0	1	5	5	0	11	367
4:15 PM	0	8	80	3	0	91	0	22	3	9	0	34	2	15	194	27	1	238	0	2	7	7	0	16	379
4:30 PM	0	8	85	6	0	99	0	20	7	10	0	37	1	11	244	13	0	269	0	2	4	8	0	14	419
4:45 PM	0	5	110	1	0	116	0	15	8	11	0	34	0	17	201	17	0	235	0	2	7	11	0	20	405
Hourly Total	1	30	349	15	0	395	0	82	25	43	0	150	3	62	821	78	1	964	0	7	23	31	0	61	1570
5:00 PM	0	8	99	1	0	108	0	10	3	14	0	27	0	12	219	25	0	256	0	1	8	4	0	13	404
5:15 PM	0	8	111	2	0	121	0	12	7	12	0	31	3	22	194	19	0	238	0	0	7	5	0	12	402
5:30 PM	0	6	77	4	0	87	0	7	6	15	0	28	1	15	158	20	1	194	0	3	6	8	0	17	326
5:45 PM	1	13	78	3	0	95	0	13	3	8	0	24	0	8	129	26	2	163	0	4	3	6	0	13	295
Hourly Total	1	35	365	10	0	411	0	42	19	49	0	110	4	57	700	90	3	851	0	8	24	23	0	55	1427
6:00 PM	0	9	78	2	0	89	0	8	2	7	0	17	1	4	103	15	0	123	0	1	6	7	0	14	243
6:15 PM	0	9	68	1	0	78	0	7	1	5	0	13	0	10	75	16	5	101	0	0	4	3	0	7	199
6:30 PM	0	6	65	2	0	73	0	5	3	6	0	14	1	6	118	9	2	134	0	2	2	5	0	9	230
6:45 PM	0	4	70	2	0	76	0	9	4	6	0	19	1	7	81	14	2	103	0	1	4	4	0	9	207
Hourly Total	0	28	281	7	0	316	0	29	10	24	0	63	3	27	377	54	9	461	0	4	16	19	0	39	879
7:00 PM	0	7	53	2	0	62	0	4	5	2	0	11	4	6	71	7	0	88	0	2	5	1	0	8	169
7:15 PM	0	3	51	2	0	56	0	9	4	4	0	17	1	3	67	8	0	79	0	0	7	1	0	8	160
7:30 PM	0	3	56	2	0	61	0	6	7	3	0	16	1	4	53	10	2	68	0	2	5	4	0	11	156
7:45 PM	0	2	53	2	0	57	0	8	5	2	0	15	1	5	50	5	0	61	0	2	2	0	0	4	137
Hourly Total	0	15	213	8	0	236	0	27	21	11	0	59	7	18	241	30	2	296	0	6	19	6	0	31	622
8:00 PM	0	8	52	2	0	62	0	5	6	8	0	19	0	2	49	9	0	60	0	1	2	1	0	4	145
8:15 PM	0	2	52	1	0	55	0	3	1	14	0	18	0	6	49	4	0	59	0	1	1	0	0	2	134
8:30 PM	0	2	41	2	0	45	0	4	1	6	0	11	0	5	40	6	0	51	0	0	2	1	0	3	110
8:45 PM	0	8	47	6	0	61	0	2	4	2	0	8	0	5	47	4	0	56	0	0	3	3	0	6	131
Hourly Total	0	20	192	11	0	223	0	14	12	30	0	56	0	18	185	23	0	226	0	2	8	5	0	15	520
9:00 PM	0	4	35	3	0	42	0	3	1	5	0	9	0	1	45	6	0	52	0	0	2	1	0	3	106
9:15 PM	0	4	29	0	0	33	0	4	3	1	0	8	1	3	47	6	0	57	0	1	1	1	0	3	101
9:30 PM	0	2	20	0	0	22	0	2	2	3	0	7	0	1	28	4	0	33	0	1	4	0	0	5	67
9:45 PM	0	0	18	0	0	18	0	3	1	1	0	5	0	2	25	4	0	31	0	0	2	1	0	3	57
Hourly Total	0	10	102	3	0	115	0	12	7	10	0	29	1	7	145	20	0	173	0	2	9	3	0	14	331
10:00 PM	0	1	19	0	0	20	0	1	0	0	0	1	0	3	21	2	1	26	0	0	2	3	0	5	52
10:15 PM	0	0	17	0	0	17	0	0	0	1	0	1	0	0	19	3	0	22	0	1	1	1	0	3	43
10:30 PM	0	1	17	0	0	18	0	2	0	0	0	2	0	1	14	0	0	15	0	0	0	0	0	0	35
10:45 PM	0	1	2	1	0	4	0	1	1	0	0	2	0	2	4	0	0	6	0	0	0	0	0	0	12
Hourly Total	0	3	55	1	0	59	0	4	1	1	0	6	0	6	58	5	1	69	0	1	3	4	0	8	142
11:00 PM	0	0	5	3	0	8	0	1	0	1	0	2	0	1	6	2	0	9	0	1	1	0	0	2	21
11:15 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9
11:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	4
11:45 PM	0	0	2	0	0	2	0	0	0	1	0	1	0	0	8	0	0	8	0	0	0	0	0	0	11
Hourly Total	0	0	12	3	0	15	0	1	0	2	0	3	0	2	21	2	0	25	0	1	1	0	0	2	45
DAILY TOTAL	2	360	5044	134	0	5540	3	671	230	415	0	1319	43	360	5028	743	26	6174	0	90	261	322	0	673	13706
Cars	2	353	4971	132	0	5458	3	641	228	404	0	1276	43	357	4941	719	18	6060	0	90	260	318	0	668	13462
Heavy Vehicles	0	7	73	2	0	82	0	30	2	11	0	43	0	3	87	24	8	114	0	0	1	4	0	5	244
Heavy Vehicle %	0.00%	1.94%	1.45%	1.49%	0.00%	1.48%	0.00%	4.47%	0.87%	2.65%	0.00%	3.26%	0.00%	0.83%	1.73%	3.23%	30.77%	1.85%	0.00%	0.00%	0.38%	1.24%	0.00%	0.74%	1.78%

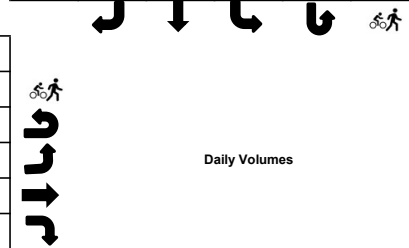
**TMC 2429 - CSAH 52 @ Cloud Dr
Blaine MN
Tuesday, May 7, 2024
AM Peak Hour**

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	
7:00 AM	0	5	133	0	0	138	0	14	3	4	0	21	0	0	48	6	0	54	0	4	5	9	0	18	231
7:15 AM	0	3	154	4	0	161	0	15	3	7	0	25	1	4	60	5	0	70	0	3	4	8	0	15	271
7:30 AM	0	7	215	3	0	225	0	10	2	5	0	17	0	4	47	6	0	57	0	1	4	10	0	15	314
7:45 AM	0	5	171	2	0	178	0	15	2	3	0	20	1	2	43	16	0	62	0	2	4	12	0	18	278
Peak Hour Total PHF	0	20	673	9	0	702	0	54	10	19	0	83	2	10	198	33	0	243	0	10	17	39	0	66	1094
	0.000	0.714	0.783	0.563	0.000	0.780	0.000	0.900	0.833	0.679	0.000	0.830	0.500	0.625	0.825	0.516	0.000	0.868	0.000	0.625	0.850	0.813	0.000	0.917	0.871

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	
4:30 PM	0	8	85	6	0	99	0	20	7	10	0	37	1	11	244	13	0	269	0	2	4	8	0	14	419
4:45 PM	0	5	110	1	0	116	0	15	8	11	0	34	0	17	201	17	0	235	0	2	7	11	0	20	405
5:00 PM	0	8	99	1	0	108	0	10	3	14	0	27	0	12	219	25	0	256	0	1	8	4	0	13	404
5:15 PM	0	8	111	2	0	121	0	12	7	12	0	31	3	22	194	19	0	238	0	0	7	5	0	12	402
Peak Hour Total PHF	0	29	405	10	0	444	0	57	25	47	0	129	4	62	858	74	0	998	0	5	26	28	0	59	1630
	0.000	0.906	0.912	0.417	0.000	0.917	0.000	0.713	0.781	0.839	0.000	0.872	0.333	0.705	0.879	0.740	0.000	0.928	0.000	0.625	0.813	0.636	0.000	0.738	0.973

Total Vehicles On Leg		11075	
Vehicles Entering Intersection	5540	Vehicles Exiting Intersection	5535
Southbound			
Cars	132	4971	353
Heavy	2	73	7
Total	134	5044	360



Total Vehicles on Leg 1397	Vehicles Entering Intersection 673	Eastbound	Cars	Heavy	Total	
			0	0	0	
	0		0	0		
	90		0	90		
	260		1	261		
Vehicles Exiting Intersection 724	318	4	322			

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 1319	Total Vehicles on Leg 2686
404	11	415			
228	2	230			
641	30	671			
3	0	3			
0	0	0	Vehicles Exiting Intersection 1367		

Cars	18	43	357	4941	719
Heavy	8	0	3	87	24
Total	26	43	360	5028	743
Northbound					
Vehicles Entering Intersection	6174		Vehicles Exiting Intersection 6080		
Total Vehicles On Leg	12254				

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2429

Study Date : 05/22/2024

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 52

Number of Lanes : 1

Total Approach Volume: 6,174

Southbound: CSAH 52

Number of Lanes : 1

Total Approach Volume: 5,540

Minor Street Approaches

Eastbound: Cloud Dr

Number of Lanes : 1

Total Approach Volume: 673

Westbound: Cloud Dr

Number of Lanes : 1

Total Approach Volume: 1,319

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 4 hours, 8 are needed

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

Required volumes reached for 12 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 15 hours, 8 are needed

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

Number of hours (8) volumes exceed minimum \geq minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (12) 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 2429

Study Date : 05/22/2024

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

Only 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **350**
 Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	964	+	395	=	1359	61	150	Yes
17:00 - 18:00	851	+	411	=	1262	55	110	Yes
15:00 - 16:00	702	+	339	=	1041	49	126	Yes
08:30 - 09:30	223	+	324	=	547	51	111	Yes
07:00 - 08:00	243	+	702	=	945	66	83	No
14:45 - 15:45	592	+	345	=	937	40	102	No
07:15 - 08:15	235	+	700	=	935	61	82	No
07:30 - 08:30	216	+	647	=	863	59	81	No
06:45 - 07:45	215	+	647	=	862	60	81	No
14:30 - 15:30	536	+	318	=	854	31	90	No
14:15 - 15:15	500	+	309	=	809	37	91	No
18:00 - 19:00	461	+	316	=	777	39	63	No
14:00 - 15:00	426	+	308	=	734	40	101	No
07:45 - 08:45	211	+	521	=	732	48	83	No
06:30 - 07:30	195	+	523	=	718	57	77	No
18:15 - 19:15	426	+	289	=	715	33	57	No
13:45 - 14:45	393	+	290	=	683	36	94	No
18:30 - 19:30	404	+	267	=	671	34	61	No
13:30 - 14:30	345	+	296	=	641	41	90	No
08:00 - 09:00	214	+	421	=	635	48	82	No
13:15 - 14:15	320	+	292	=	612	36	87	No
18:45 - 19:45	338	+	255	=	593	36	63	No
06:15 - 07:15	139	+	446	=	585	52	59	No
08:15 - 09:15	226	+	352	=	578	55	100	No
13:00 - 14:00	320		255		575	31	78	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2429

Study Date : 05/22/2024

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

12 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **525**
 Veh/Hr Minor = **52**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	964	+	395	=	1359	61	150	Yes
17:00 - 18:00	851	+	411	=	1262	55	110	Yes
15:00 - 16:00	702	+	339	=	1041	49	126	Yes
07:15 - 08:15	235	+	700	=	935	61	82	Yes
18:00 - 19:00	461	+	316	=	777	39	63	Yes
14:00 - 15:00	426	+	308	=	734	40	101	Yes
06:15 - 07:15	139	+	446	=	585	52	59	Yes
08:15 - 09:15	226	+	352	=	578	55	100	Yes
13:00 - 14:00	320	+	255	=	575	31	78	Yes
12:00 - 13:00	320	+	248	=	568	32	79	Yes
19:00 - 20:00	296	+	236	=	532	31	59	Yes
11:00 - 12:00	267	+	260	=	527	34	65	Yes
06:00 - 07:00	107	+	388	=	495	41	42	No
10:45 - 11:45	242	+	245	=	487	35	62	No
10:30 - 11:30	235	+	244	=	479	35	60	No
10:15 - 11:15	240	+	222	=	462	33	59	No
20:00 - 21:00	226	+	223	=	449	15	56	No
05:45 - 06:45	93	+	344	=	437	39	26	No
09:15 - 10:15	179	+	257	=	436	36	83	No
10:00 - 11:00	205	+	222	=	427	33	57	No
20:15 - 21:15	218	+	203	=	421	14	46	No
09:45 - 10:45	198	+	220	=	418	34	52	No
09:30 - 10:30	193	+	222	=	415	35	63	No
20:30 - 21:30	216	+	181	=	397	15	36	No
05:30 - 06:30	65		306		371	34	17	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2429

Study Date : 05/22/2024

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

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

Site Data Required

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

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**

Veh/Hr Minor = **84 42**

Major Road CSAH 52

Minor Road Cloud Dr

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	998	+	414	=	1412	63	132	Yes
15:15 - 16:15	767	+	348	=	1115	54	153	Yes
17:15 - 18:15	718	+	392	=	1110	56	100	Yes
14:15 - 15:15	500	+	309	=	809	37	91	Yes
13:15 - 14:15	320	+	292	=	612	36	87	Yes
08:15 - 09:15	226	+	352	=	578	55	100	Yes
07:00 - 08:00	243	+	702	=	945	66	83	No
07:15 - 08:15	235	+	700	=	935	61	82	No
07:30 - 08:30	216	+	647	=	863	59	81	No
06:45 - 07:45	215	+	647	=	862	60	81	No
07:45 - 08:45	211	+	521	=	732	48	83	No
06:30 - 07:30	195	+	523	=	718	57	77	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:00 - 17:00	964	+	395	=	1359	61	150	Yes
17:00 - 18:00	851	+	411	=	1262	55	110	Yes
15:00 - 16:00	702	+	339	=	1041	49	126	Yes
07:00 - 08:00	243	+	702	=	945	66	83	Yes
18:00 - 19:00	461	+	316	=	777	39	63	Yes
14:00 - 15:00	426	+	308	=	734	40	101	Yes
08:00 - 09:00	214	+	421	=	635	48	82	Yes
13:00 - 14:00	320	+	255	=	575	31	78	Yes
12:00 - 13:00	320	+	248	=	568	32	79	Yes
19:00 - 20:00	296	+	236	=	532	31	59	Yes
11:00 - 12:00	267	+	260	=	527	34	65	Yes
06:00 - 07:00	107	+	388	=	495	41	42	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2429

Study Date : 05/22/2024

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.

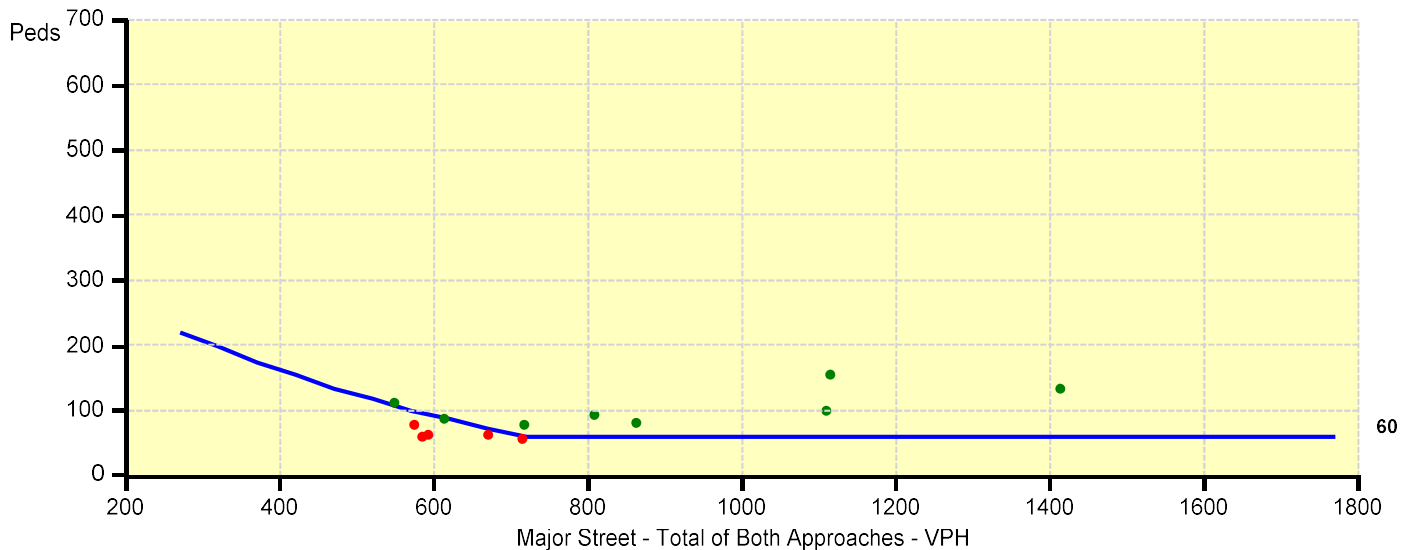
Summary

8 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:15 - 17:15	998	+	414	=	1412	63	132	Yes
15:15 - 16:15	767	+	348	=	1115	54	153	Yes
17:15 - 18:15	718	+	392	=	1110	56	100	Yes
07:30 - 08:30	216	+	647	=	863	59	81	Yes
14:15 - 15:15	500	+	309	=	809	37	91	Yes
06:30 - 07:30	195	+	523	=	718	57	77	Yes
13:15 - 14:15	320	+	292	=	612	36	87	Yes
08:30 - 09:30	223	+	324	=	547	51	111	Yes
18:15 - 19:15	426	+	289	=	715	33	57	No
18:30 - 19:30	404	+	267	=	671	34	61	No
18:45 - 19:45	338	+	255	=	593	36	63	No
06:15 - 07:15	139	+	446	=	585	52	59	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2429

Study Date : 05/22/2024

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

11 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road CSAH 52				Total	Minor Road Cloud Dr		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	998	+	444	=	1442	59	129	Yes
16:15 - 17:15	998	+	414	=	1412	63	132	Yes
16:00 - 17:00	964	+	395	=	1359	61	150	Yes
16:45 - 17:45	923	+	432	=	1355	62	120	Yes
15:45 - 16:45	974	+	358	=	1332	59	166	Yes
17:00 - 18:00	851	+	411	=	1262	55	110	Yes
15:30 - 16:30	868	+	351	=	1219	59	161	Yes
15:15 - 16:15	767	+	348	=	1115	54	153	Yes
17:15 - 18:15	718	+	392	=	1110	56	100	Yes
15:00 - 16:00	702	+	339	=	1041	49	126	Yes
14:45 - 15:45	592	+	345	=	937	40	102	Yes
07:00 - 08:00	243		702		945	66	83	No

