

Date : 10/05/21

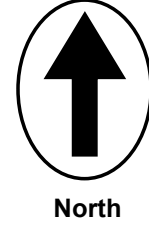
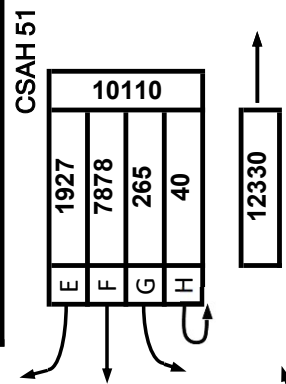
Count Number : TMC 2113

Location : CSAH 51 (University Ave.)  
@ Egret Blvd.

Collection Period : 24 Hours

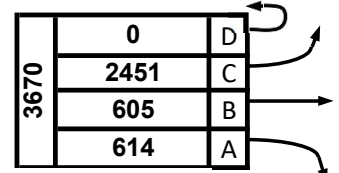
22440

#2

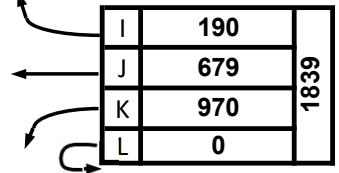


7271

#1



Egret Blvd.



#3

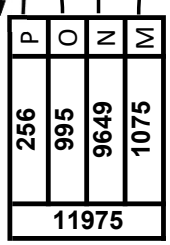
3784

Egret Blvd.

1945

CSAH 51

9718



#4

21693

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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

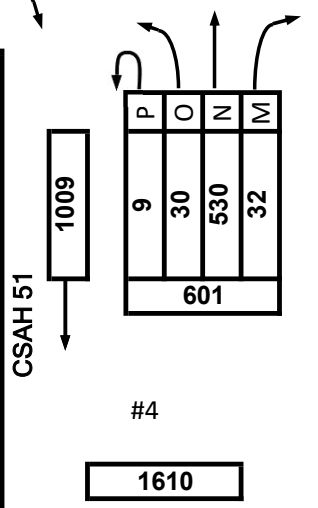
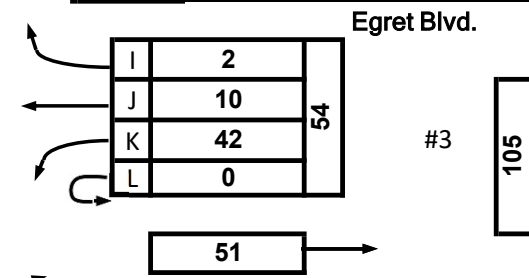
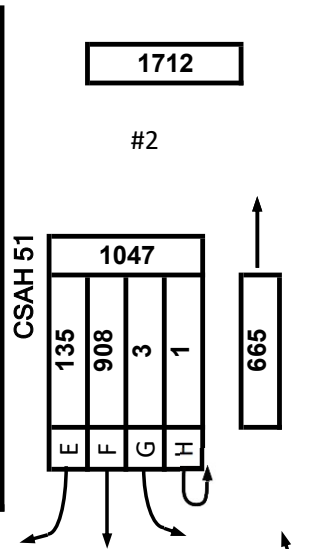
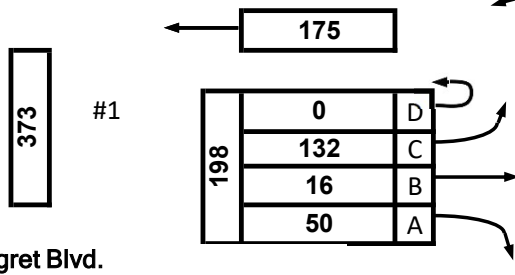
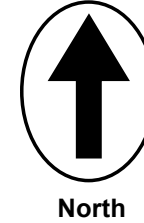
Date : 10/05/21

Count Number : TMC 2113

Location : CSAH 51 (University Ave.)  
@ Egret Blvd.

Collection Period : 7:30 - 8:30 AM

AM PEAK



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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

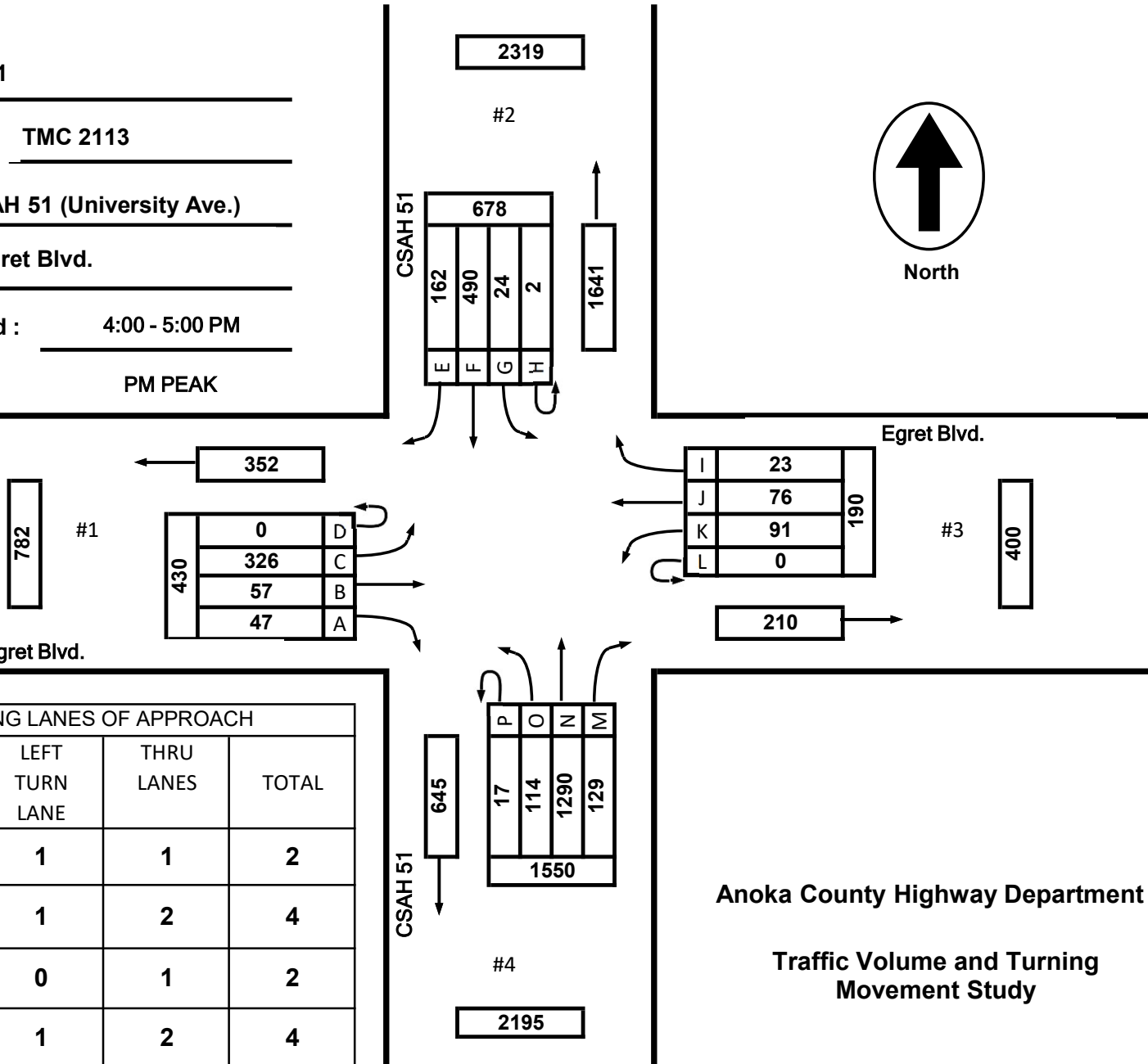
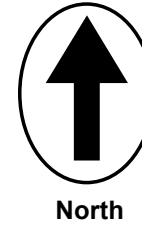
Date : 10/05/21

Count Number : TMC 2113

Location : CSAH 51 (University Ave.)  
@ Egret Blvd.

Collection Period : 4:00 - 5:00 PM

PM PEAK



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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

**CSAH 51 @ Egret Blvd.  
Blaine MN  
Tuesday, October 5, 2021**

Time	Southbound CSAH 51						Westbound Egret Blvd.						Northbound CSAH 51						Eastbound Egret Blvd.						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	2	0	0	2	0	0	3	0	0	3	0	3	17	1	0	21	0	3	1	1	0	5	31
12:15 AM	0	0	2	0	0	2	0	2	2	0	0	4	0	2	14	2	0	18	0	3	2	5	0	10	34
12:30 AM	0	0	4	2	0	6	0	0	4	0	0	4	0	2	11	1	0	14	0	1	2	0	0	3	27
12:45 AM	0	0	3	2	0	5	0	2	1	0	0	3	0	2	6	1	0	9	0	3	1	0	0	4	21
Hourly Total	0	0	11	4	0	15	0	4	10	0	0	14	0	9	48	5	0	62	0	10	6	6	0	22	113
1:00 AM	1	0	4	0	0	5	0	0	0	0	0	0	1	0	15	2	0	18	0	3	0	0	0	3	26
1:15 AM	0	0	5	0	0	5	0	0	1	0	0	1	0	5	10	1	0	16	0	1	1	1	0	3	25
1:30 AM	1	1	6	0	0	8	0	3	2	0	0	5	0	1	9	0	0	10	0	2	0	0	0	2	25
1:45 AM	0	0	2	0	0	2	0	0	1	0	0	1	0	0	4	1	0	5	0	0	0	0	0	0	8
Hourly Total	2	1	17	0	0	20	0	3	4	0	0	7	1	6	38	4	0	49	0	6	1	1	0	8	84
2:00 AM	0	0	4	1	0	5	0	1	0	0	0	1	0	1	9	1	0	11	0	2	0	2	0	4	21
2:15 AM	0	0	7	1	0	8	0	0	0	0	0	0	0	1	9	1	0	11	0	0	0	1	0	1	20
2:30 AM	0	0	6	0	0	6	0	1	0	0	0	1	0	1	7	0	0	8	0	1	0	0	0	1	16
2:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	1	0	1	11
Hourly Total	0	0	20	2	0	22	0	2	0	0	0	2	0	3	32	2	0	37	0	3	0	4	0	7	68
3:00 AM	0	0	7	2	0	9	0	1	0	0	0	1	1	1	6	0	0	8	0	0	0	0	0	0	18
3:15 AM	0	0	5	1	0	6	0	1	0	0	0	1	0	0	6	1	0	7	0	1	0	2	0	3	17
3:30 AM	0	0	25	1	0	26	0	1	0	0	0	1	0	0	5	0	0	5	0	0	0	0	0	0	32
3:45 AM	0	0	17	3	0	20	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	2	24
Hourly Total	0	0	54	7	0	61	0	3	1	0	0	4	1	1	18	1	0	21	0	2	0	3	0	5	91
4:00 AM	0	0	16	0	0	16	0	1	2	0	0	3	0	0	6	0	0	6	0	5	0	0	0	5	30
4:15 AM	0	0	36	0	0	36	0	1	0	0	0	1	0	0	5	1	0	6	0	3	2	2	0	7	50
4:30 AM	0	0	50	4	0	54	0	2	2	0	0	4	0	1	6	0	0	7	0	4	0	2	0	6	71
4:45 AM	0	1	45	3	0	49	0	0	1	0	0	1	0	1	6	1	0	8	0	7	1	1	0	9	67
Hourly Total	0	1	147	7	0	155	0	4	5	0	0	9	0	2	23	2	0	27	0	19	3	5	0	27	218
5:00 AM	0	0	52	3	0	55	0	5	1	0	0	6	0	0	10	2	0	12	0	9	0	1	0	10	83
5:15 AM	0	1	102	3	0	106	0	5	0	0	0	5	0	1	15	2	0	18	0	3	1	0	0	4	133
5:30 AM	0	0	107	12	0	119	0	5	1	0	0	6	0	0	20	0	0	20	0	12	1	3	0	16	161
5:45 AM	0	1	110	9	0	120	0	6	0	0	0	6	0	1	15	1	0	17	0	10	1	2	0	13	156
Hourly Total	0	2	371	27	0	400	0	21	2	0	0	23	0	2	60	5	0	67	0	34	3	6	0	43	533
6:00 AM	0	0	117	11	0	128	0	3	2	0	1	5	1	3	19	3	0	26	0	13	2	3	0	18	177
6:15 AM	1	0	162	14	0	177	0	6	0	0	0	6	0	3	52	3	0	58	0	11	2	4	0	17	258
6:30 AM	1	0	189	19	0	209	0	8	1	0	0	9	1	3	51	3	0	58	0	24	2	9	0	35	311
6:45 AM	0	1	174	33	0	208	0	8	3	1	0	12	3	5	84	4	0	96	0	23	2	6	0	31	347
Hourly Total	2	1	642	77	0	722	0	25	6	1	1	32	5	14	206	13	0	238	0	71	8	22	0	101	1093
7:00 AM	0	1	174	26	0	201	0	7	2	2	0	11	1	5	119	5	0	130	0	19	1	5	0	25	367
7:15 AM	0	4	257	22	0	283	0	4	2	0	0	6	0	10	115	6	1	131	0	22	0	10	0	32	452
7:30 AM	0	0	263	30	0	293	0	11	4	0	0	15	1	7	122	13	0	143	0	32	2	9	0	43	494
7:45 AM	0	1	223	36	0	260	0	9	1	1	0	11	4	10	139	5	2	158	0	34	7	17	0	58	487
Hourly Total	0	6	917	114	0	1037	0	31	9	3	0	43	6	32	495	29	3	562	0	107	10	41	0	158	1800

**CSAH 51 @ Egret Blvd.  
Blaine MN  
Tuesday, October 5, 2021**

Time	Southbound CSAH 51						Westbound Egret Blvd.						Northbound CSAH 51						Eastbound Egret Blvd.						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	2	210	42	0	254	0	9	3	1	0	13	4	7	115	8	1	134	0	30	4	15	0	49	450
8:15 AM	1	0	212	27	0	240	0	13	2	0	0	15	0	6	154	6	0	166	0	36	3	9	0	48	469
8:30 AM	0	1	166	30	0	197	0	5	2	0	0	7	3	11	122	5	0	141	0	43	4	11	0	58	403
8:45 AM	2	1	154	34	0	191	0	3	6	0	0	9	1	12	125	5	0	143	0	36	8	13	0	57	400
Hourly Total	3	4	742	133	0	882	0	30	13	1	0	44	8	36	516	24	1	584	0	145	19	48	0	212	1722
9:00 AM	2	4	125	28	0	159	0	9	2	1	1	12	2	6	77	6	0	91	0	35	4	13	0	52	314
9:15 AM	1	1	122	27	0	151	0	5	6	1	0	12	3	18	106	4	0	131	0	39	11	12	0	62	356
9:30 AM	0	1	92	26	0	119	0	10	6	0	0	16	2	10	77	10	0	99	0	28	6	5	0	39	273
9:45 AM	0	3	100	26	0	129	0	8	7	3	2	18	2	12	80	15	0	109	0	24	13	11	0	48	304
Hourly Total	3	9	439	107	0	558	0	32	21	5	3	58	9	46	340	35	0	430	0	126	34	41	0	201	1247
10:00 AM	0	5	95	17	0	117	0	14	6	2	2	22	2	11	70	9	0	92	0	39	7	11	0	57	288
10:15 AM	1	7	102	26	0	136	0	8	9	3	1	20	4	15	79	13	0	111	0	34	4	7	0	45	312
10:30 AM	1	2	81	23	0	107	0	14	2	2	0	18	7	13	84	13	0	117	0	26	6	7	0	39	281
10:45 AM	0	5	79	16	0	100	0	12	5	4	1	21	5	15	79	17	0	116	0	27	12	10	0	49	286
Hourly Total	2	19	357	82	0	460	0	48	22	11	4	81	18	54	312	52	0	436	0	126	29	35	0	190	1167
11:00 AM	1	2	75	26	0	104	0	12	10	2	0	24	2	18	81	12	0	113	0	30	9	3	0	42	283
11:15 AM	1	6	77	17	0	101	0	12	6	3	0	21	6	16	107	10	0	139	0	24	7	8	0	39	300
11:30 AM	0	1	80	39	0	120	0	18	9	2	0	29	3	13	84	12	3	112	0	37	9	12	0	58	319
11:45 AM	2	10	74	17	0	103	0	6	5	1	1	12	6	15	106	19	0	146	0	32	19	7	0	58	319
Hourly Total	4	19	306	99	0	428	0	48	30	8	1	86	17	62	378	53	3	510	0	123	44	30	0	197	1221
12:00 PM	2	6	69	30	0	107	0	19	11	6	2	36	3	17	87	16	0	123	0	39	12	8	0	59	325
12:15 PM	2	3	76	22	0	103	0	23	13	5	0	41	5	15	116	18	0	154	0	35	5	5	0	45	343
12:30 PM	0	7	82	22	0	111	0	16	10	5	0	31	9	15	86	22	0	132	0	37	12	8	0	57	331
12:45 PM	0	3	92	33	0	128	0	22	13	5	0	40	5	10	111	15	0	141	0	30	7	7	0	44	353
Hourly Total	4	19	319	107	0	449	0	80	47	21	2	148	22	57	400	71	0	550	0	141	36	28	0	205	1352
1:00 PM	0	3	73	34	0	110	0	20	7	2	0	29	3	17	88	14	0	122	0	38	15	7	0	60	321
1:15 PM	0	3	81	28	0	112	0	12	14	2	1	28	7	23	112	14	0	156	0	29	10	5	0	44	340
1:30 PM	0	2	97	27	0	126	0	10	4	5	0	19	8	18	110	19	1	155	0	34	10	14	0	58	358
1:45 PM	1	2	93	27	0	123	0	16	14	5	0	35	8	14	135	14	2	171	0	30	9	8	0	47	376
Hourly Total	1	10	344	116	0	471	0	58	39	14	1	111	26	72	445	61	3	604	0	131	44	34	0	209	1395
2:00 PM	1	6	77	38	0	122	0	20	11	2	0	33	2	19	140	19	1	180	0	44	8	8	0	60	395
2:15 PM	0	2	110	31	0	143	0	19	4	0	0	23	6	8	188	18	0	220	0	36	11	6	0	53	439
2:30 PM	1	5	130	30	0	166	0	14	9	3	0	26	5	21	185	20	0	231	0	32	8	7	0	47	470
2:45 PM	0	4	146	25	0	175	0	14	14	1	1	29	3	22	239	25	1	289	0	45	13	10	0	68	561
Hourly Total	2	17	463	124	0	606	0	67	38	6	1	111	16	70	752	82	2	920	0	157	40	31	0	228	1865
3:00 PM	0	9	118	38	0	165	0	24	14	3	0	41	5	15	179	26	0	225	0	53	8	13	0	74	505
3:15 PM	3	5	137	44	0	189	0	12	17	4	1	33	2	17	296	21	1	336	0	47	7	20	0	74	632
3:30 PM	0	7	131	29	2	167	0	17	15	4	0	36	7	19	256	26	1	308	0	52	20	16	1	88	599
3:45 PM	1	6	138	32	0	177	0	21	23	5	0	49	5	23	325	37	0	390	0	63	20	15	0	98	714
Hourly Total	4	27	524	143	2	698	0	74	69	16	1	159	19	74	1056	110	2	1259	0	215	55	64	1	334	2450

**CSAH 51 @ Egret Blvd.  
Blaine MN  
Tuesday, October 5, 2021**

Time	Southbound CSAH 51						Westbound Egret Blvd.						Northbound CSAH 51						Eastbound Egret Blvd.						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	129	44	1	178	0	22	15	5	2	42	8	26	308	38	3	380	0	65	16	10	0	91	691
4:15 PM	0	6	103	25	0	134	0	27	19	6	0	52	3	41	342	23	0	409	0	80	17	15	0	112	707
4:30 PM	0	4	108	53	0	165	0	21	20	5	0	46	2	27	280	27	0	336	0	87	14	10	0	111	658
4:45 PM	2	9	150	40	0	201	0	21	22	7	0	50	4	20	360	41	0	425	0	94	10	12	0	116	792
Hourly Total	2	24	490	162	1	678	0	91	76	23	2	190	17	114	1290	129	3	1550	0	326	57	47	0	430	2848
5:00 PM	3	8	118	39	0	168	0	20	12	2	0	34	3	18	317	34	0	372	0	60	12	16	0	88	662
5:15 PM	0	8	138	37	0	183	0	28	17	8	1	53	4	18	304	27	0	353	0	48	18	8	0	74	663
5:30 PM	1	7	122	46	0	176	0	21	21	5	0	47	5	22	235	29	0	291	0	62	16	15	0	93	607
5:45 PM	0	8	111	33	0	152	0	19	16	5	0	40	8	26	257	25	0	316	0	49	17	16	0	82	590
Hourly Total	4	31	489	155	0	679	0	88	66	20	1	174	20	84	1113	115	0	1332	0	219	63	55	0	337	2522
6:00 PM	1	4	124	26	0	155	0	16	20	7	2	43	6	23	172	21	0	222	0	47	16	11	0	74	494
6:15 PM	0	5	114	41	0	160	0	25	15	6	0	46	6	22	178	23	0	229	0	37	15	8	0	60	495
6:30 PM	0	3	94	31	0	128	0	24	18	0	0	42	4	20	157	16	1	197	0	35	14	9	0	58	425
6:45 PM	0	8	85	19	0	112	0	16	16	5	0	37	8	16	171	28	1	223	0	23	14	9	0	46	418
Hourly Total	1	20	417	117	0	555	0	81	69	18	2	168	24	81	678	88	2	871	0	142	59	37	0	238	1832
7:00 PM	0	3	66	34	0	103	0	22	13	6	0	41	5	12	142	27	0	186	0	36	9	8	0	53	383
7:15 PM	1	4	107	39	0	151	0	19	16	6	0	41	2	15	121	32	0	170	0	23	11	6	0	40	402
7:30 PM	0	5	75	43	0	123	0	14	12	4	0	30	0	18	115	18	0	151	0	27	13	4	0	44	348
7:45 PM	2	1	67	29	0	99	0	18	18	1	0	37	3	15	105	11	0	134	0	29	6	8	0	43	313
Hourly Total	3	13	315	145	0	476	0	73	59	17	0	149	10	60	483	88	0	641	0	115	39	26	0	180	1446
8:00 PM	0	6	70	26	0	102	0	13	13	4	0	30	2	15	98	11	0	126	0	29	3	7	0	39	297
8:15 PM	0	6	66	25	0	97	0	8	6	2	0	16	5	11	95	13	0	124	0	22	4	4	0	30	267
8:30 PM	1	3	41	21	0	66	0	11	12	4	0	27	5	8	104	8	0	125	0	23	5	3	0	31	249
8:45 PM	0	3	40	19	0	62	0	10	7	0	0	17	4	15	88	9	0	116	0	24	9	9	0	42	237
Hourly Total	1	18	217	91	0	327	0	42	38	10	0	90	16	49	385	41	0	491	0	98	21	23	0	142	1050
9:00 PM	0	4	41	20	0	65	0	4	7	1	0	12	5	9	94	11	0	119	0	22	3	4	0	29	225
9:15 PM	0	0	43	11	0	54	0	8	5	0	0	13	5	12	90	6	0	113	0	18	1	4	0	23	203
9:30 PM	2	5	47	16	0	70	0	8	6	1	0	15	5	7	60	7	0	79	0	13	6	3	0	22	186
9:45 PM	0	2	31	13	0	46	0	9	6	4	0	19	2	5	45	11	0	63	0	14	6	3	0	23	151
Hourly Total	2	11	162	60	0	235	0	29	24	6	0	59	17	33	289	35	0	374	0	67	16	14	0	97	765
10:00 PM	0	2	24	15	0	41	0	6	6	5	0	17	1	4	57	4	0	66	0	16	2	4	0	22	146
10:15 PM	0	5	23	5	0	33	0	6	5	1	0	12	3	6	52	5	0	66	0	6	1	4	0	11	122
10:30 PM	0	1	17	8	0	26	0	3	2	2	0	7	0	5	46	6	0	57	0	4	1	1	0	6	96
10:45 PM	0	1	10	5	0	16	0	3	5	1	1	9	0	7	36	5	0	48	0	7	5	1	0	13	86
Hourly Total	0	9	74	33	0	116	0	18	18	9	1	45	4	22	191	20	0	237	0	33	9	10	0	52	450
11:00 PM	0	2	12	3	0	17	0	5	6	0	0	11	0	4	24	1	0	29	0	14	1	0	0	15	72
11:15 PM	0	1	9	2	0	12	0	6	4	0	0	10	0	2	32	1	0	35	0	12	2	1	0	15	72
11:30 PM	0	1	11	6	0	18	0	2	3	0	0	5	0	4	27	4	0	35	0	7	3	1	0	11	69
11:45 PM	0	0	9	4	0	13	0	5	0	1	1	6	0	2	18	4	0	24	0	2	3	1	0	6	49
Hourly Total	0	4	41	15	0	60	0	18	13	1	1	32	0	12	101	10	0	123	0	35	9	3	0	47	262
<b>DAILY TOTAL Cars</b>	<b>40</b>	<b>265</b>	<b>7878</b>	<b>1927</b>	<b>3</b>	<b>10110</b>	<b>0</b>	<b>970</b>	<b>679</b>	<b>190</b>	<b>21</b>	<b>1839</b>	<b>256</b>	<b>995</b>	<b>9649</b>	<b>1075</b>	<b>19</b>	<b>11975</b>	<b>0</b>	<b>2451</b>	<b>605</b>	<b>614</b>	<b>1</b>	<b>3670</b>	<b>27594</b>
<b>Heavy Vehicles</b>	0	8	102	26	1	136	0	11	5	2	6	18	0	24	151	11	5	186	0	44	10	11	0	65	405
<b>Heavy Vehicle %</b>	0.00%	3.02%	1.29%	1.35%	33.33%	1.35%	0.00%	1.13%	0.74%	1.05%	28.57%	0.98%	0.00%	2.41%	1.56%	1.02%	26.32%	1.55%	0.00%	1.80%	1.65%	1.79%	0.00%	1.77%	1.47%

**CSAH 51 @ Egret Blvd.  
Blaine MN  
Tuesday, October 5, 2021**

**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	
7:30 AM	0	0	263	30	0	293	0	11	4	0	0	15	1	7	122	13	0	143	0	32	2	9	0	43	494
7:45 AM	0	1	223	36	0	260	0	9	1	1	0	11	4	10	139	5	2	158	0	34	7	17	0	58	487
8:00 AM	0	2	210	42	0	254	0	9	3	1	0	13	4	7	115	8	1	134	0	30	4	15	0	49	450
8:15 AM	1	0	212	27	0	240	0	13	2	0	0	15	0	6	154	6	0	166	0	36	3	9	0	48	469
Peak Hour Total	1	3	908	135	0	1047	0	42	10	2	0	54	9	30	530	32	3	601	0	132	16	50	0	198	1900
PHF	0.250	0.375	0.863	0.804	0.000	0.893	0.000	0.808	0.625	0.500	0.000	0.900	0.563	0.750	0.860	0.615	0.375	0.905	0.000	0.917	0.571	0.735	0.000	0.853	0.962

**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	129	44	1	178	0	22	15	5	2	42	8	26	308	38	3	380	0	65	16	10	0	91	691
4:15 PM	0	6	103	25	0	134	0	27	19	6	0	52	3	41	342	23	0	409	0	80	17	15	0	112	707
4:30 PM	0	4	108	53	0	165	0	21	20	5	0	46	2	27	280	27	0	336	0	87	14	10	0	111	658
4:45 PM	2	9	150	40	0	201	0	21	22	7	0	50	4	20	360	41	0	425	0	94	10	12	0	116	792
Peak Hour Total	2	24	490	162	1	678	0	91	76	23	2	190	17	114	1290	129	3	1550	0	326	57	47	0	430	2848
PHF	0.250	0.667	0.817	0.764	0.250	0.843	0.000	0.843	0.864	0.821	0.250	0.913	0.531	0.695	0.896	0.787	0.250	0.912	0.000	0.867	0.838	0.783	0.000	0.927	0.899

Total Vehicles On Leg		22440	
Vehicles Entering Intersection	10110	Vehicles Exiting Intersection	12330
<b>Southbound</b>			
Cars	1901	7776	257
Heavy	26	102	8
<b>Total</b>	<b>1927</b>	<b>7878</b>	<b>265</b>



Total Vehicles on Leg 7271	Vehicles Entering Intersection 3670	Eastbound	Cars	Heavy	Total	
			1	0	1	
	0		0	0		
	2407		44	2451		
	595		10	605		
Vehicles Exiting Intersection 3601	603	11	614			

**Daily Volumes**

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 1839	Total Vehicles on Leg 3784
188	2	190			
674	5	679			
959	11	970			
0	0	0			
15	6	21	Vehicles Exiting Intersection 1945		

Cars	14	256	971	9498	1064
Heavy	5	0	24	151	11
<b>Total</b>	<b>19</b>	<b>256</b>	<b>995</b>	<b>9649</b>	<b>1075</b>
<b>Northbound</b>					
Vehicles Entering Intersection	11975		Vehicles Exiting Intersection 9718		
Total Vehicles On Leg	21693				

# 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
10/5/2021	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	1	0	0	0	0	0	0	0	0
	2:15	0	0	0	0	0	0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0	0	0	0	0
	3:15	0	0	0	0	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	0	0	0	0	0	0
	3:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	4:00	0	0	1	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	1	0	0	0	0	0	0	0	0
	4:45	0	1	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	1	0	0	0	0	1	0	0	0	0	0	0	0
	5:15	0	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
	5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45	0	0	1	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	1	2	1	0	0	0	0	0	0
	6:15	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0
	6:30	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0
	6:45	0	0	3	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0
	7:00	0	0	0	1	0	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0
	7:15	0	3	8	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0
	7:30	0	0	1	2	0	0	1	0	0	0	0	0	4	2	0	0	0	1	0	0
	7:45	0	0	6	2	0	0	2	0	0	0	0	0	5	1	1	0	0	2	0	0
	8:00	0	1	3	1	0	0	0	0	0	0	0	0	4	0	0	0	0	6	0	0
	8:15	0	0	3	0	0	0	0	0	0	0	0	1	5	1	0	0	0	3	0	0
	8:30	0	0	3	1	0	0	0	1	0	0	0	0	6	0	0	0	0	4	0	0
	8:45	0	0	4	2	0	0	1	0	0	0	0	0	6	0	0	0	0	1	1	0
	9:00	0	0	3	0	0	0	0	0	0	0	0	1	4	0	0	0	0	3	0	0
	9:15	0	0	2	0	0	0	0	0	0	0	0	2	7	1	0	0	0	1	0	0
	9:30	0	0	1	1	0	0	0	0	0	0	0	0	4	1	0	0	0	1	0	0
	9:45	0	0	2	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	2	0
	10:00	0	0	1	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0
	10:15	0	0	0	0	0	0	0	0	1	1	0	1	3	0	0	0	0	1	0	0
	10:30	0	0	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0
	10:45	0	0	1	1	0	0	0	0	1	1	0	0	2	0	0	0	0	0	1	0
	11:00	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
	11:15	0	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	0
	11:30	0	0	0	2	0	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0
	11:45	0	0	1	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0





# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2113

Study Date : 11/03/2021

## Signal Warrants - Summary

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### Major Street Approaches

Northbound: CSAH 51 (University Ave.)

Number of Lanes : 2+

Total Approach Volume: 11,975

Southbound: CSAH 51 (University Ave.)

Number of Lanes :2+

Total Approach Volume: 10,110

### Minor Street Approaches

Eastbound: Egret Blvd.

Number of Lanes :1

Total Approach Volume: 3,670

Westbound: Egret Blvd.

Number of Lanes :1

Total Approach Volume: 1,839

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### Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 15 hours, 8 are needed

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

Required volumes reached for 16 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 17 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 (60) 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 2113

Study Date : 11/03/2021

## 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

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 = **420**  
 Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 51 (University Ave.)					Egret Blvd.		
16:15 - 17:15	1542	+	668	=	2210	427	182	Yes
15:15 - 16:15	1414	+	711	=	2125	351	160	Yes
17:15 - 18:15	1182	+	666	=	1848	323	183	Yes
07:15 - 08:15	566	+	1090	=	1656	182	45	Yes
14:15 - 15:15	965	+	649	=	1614	242	119	Yes
18:15 - 19:15	835	+	503	=	1338	217	166	Yes
08:15 - 09:15	541	+	787	=	1328	215	43	Yes
13:15 - 14:15	662	+	483	=	1145	209	115	Yes
06:15 - 07:15	342	+	795	=	1137	108	38	Yes
19:15 - 20:15	581	+	475	=	1056	166	138	Yes
12:15 - 13:15	549	+	452	=	1001	206	141	Yes
11:15 - 12:15	520	+	431	=	951	214	98	Yes
09:15 - 10:15	431	+	516	=	947	206	68	Yes
10:15 - 11:15	457	+	447	=	904	175	83	Yes
20:15 - 21:15	484	+	290	=	774	132	72	Yes
06:00 - 07:00	238	+	722	=	960	101	32	No
05:45 - 06:45	159	+	634	=	793	83	26	No
05:30 - 06:30	121	+	544	=	665	64	23	No
05:15 - 06:15	81	+	473	=	554	51	22	No
21:15 - 22:15	321	+	211	=	532	90	64	No
05:00 - 06:00	67	+	400	=	467	43	23	No
21:30 - 22:30	274	+	190	=	464	78	63	No
21:45 - 22:45	252	+	146	=	398	62	55	No
04:45 - 05:45	58	+	329	=	387	39	18	No
22:00 - 23:00	237		116		353	52	45	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2113

Study Date : 11/03/2021

## 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

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 = **630**  
 Veh/Hr Minor = **53**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	<b>CSAH 51 (University Ave.)</b>					<b>Egret Blvd.</b>		
16:30 - 17:30	1486	+	717	=	2203	389	183	Yes
15:30 - 16:30	1487	+	656	=	2143	389	179	Yes
14:30 - 15:30	1081	+	695	=	1776	263	129	Yes
17:30 - 18:30	1058	+	643	=	1701	309	176	Yes
07:30 - 08:30	601	+	1047	=	1648	198	54	Yes
06:30 - 07:30	415	+	901	=	1316	123	38	Yes
18:30 - 19:30	776	+	494	=	1270	197	161	Yes
13:30 - 14:30	726	+	514	=	1240	218	110	Yes
08:30 - 09:30	506	+	698	=	1204	229	40	Yes
12:30 - 13:30	551	+	461	=	1012	205	128	Yes
11:30 - 12:30	535	+	433	=	968	220	118	Yes
19:30 - 20:30	535	+	421	=	956	156	113	Yes
09:30 - 10:30	411	+	501	=	912	189	76	Yes
10:30 - 11:30	485	+	412	=	897	169	84	Yes
20:30 - 21:30	473	+	247	=	720	125	69	Yes
05:30 - 06:30	121	+	544	=	665	64	23	Yes
05:15 - 06:15	81	+	473	=	554	51	22	No
05:00 - 06:00	67	+	400	=	467	43	23	No
21:30 - 22:30	274	+	190	=	464	78	63	No
21:45 - 22:45	252	+	146	=	398	62	55	No
04:45 - 05:45	58	+	329	=	387	39	18	No
22:00 - 23:00	237	+	116	=	353	52	45	No
04:30 - 05:30	45	+	264	=	309	29	16	No
22:15 - 23:15	200	+	92	=	292	45	39	No
22:30 - 23:30	169		71		240	49	37	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2113

Study Date : 11/03/2021

## 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.  
17 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 51 (University Ave.)

#### Minor Road Egret Blvd.

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	1550	+	678	=	2228	430	190	Yes
17:00 - 18:00	1332	+	679	=	2011	337	174	Yes
15:00 - 16:00	1259	+	698	=	1957	334	159	Yes
07:00 - 08:00	562	+	1037	=	1599	158	43	Yes
14:00 - 15:00	920	+	606	=	1526	228	111	Yes
08:00 - 09:00	584	+	882	=	1466	212	44	Yes
18:00 - 19:00	871	+	555	=	1426	238	168	Yes
19:00 - 20:00	641	+	476	=	1117	180	149	Yes
13:00 - 14:00	604	+	471	=	1075	209	111	Yes
12:00 - 13:00	550	+	449	=	999	205	148	Yes
09:00 - 10:00	430	+	558	=	988	201	58	Yes
06:00 - 07:00	238	+	722	=	960	101	32	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	1542	+	668	=	2210	427	182	Yes
15:15 - 16:15	1414	+	711	=	2125	351	160	Yes
17:15 - 18:15	1182	+	666	=	1848	323	183	Yes
07:15 - 08:15	566	+	1090	=	1656	182	45	Yes
14:15 - 15:15	965	+	649	=	1614	242	119	Yes
18:15 - 19:15	835	+	503	=	1338	217	166	Yes
08:15 - 09:15	541	+	787	=	1328	215	43	Yes
13:15 - 14:15	662	+	483	=	1145	209	115	Yes
06:15 - 07:15	342	+	795	=	1137	108	38	Yes
19:15 - 20:15	581	+	475	=	1056	166	138	Yes
12:15 - 13:15	549	+	452	=	1001	206	141	Yes
11:15 - 12:15	520	+	431	=	951	214	98	Yes

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2113

Study Date : 11/03/2021

## 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.

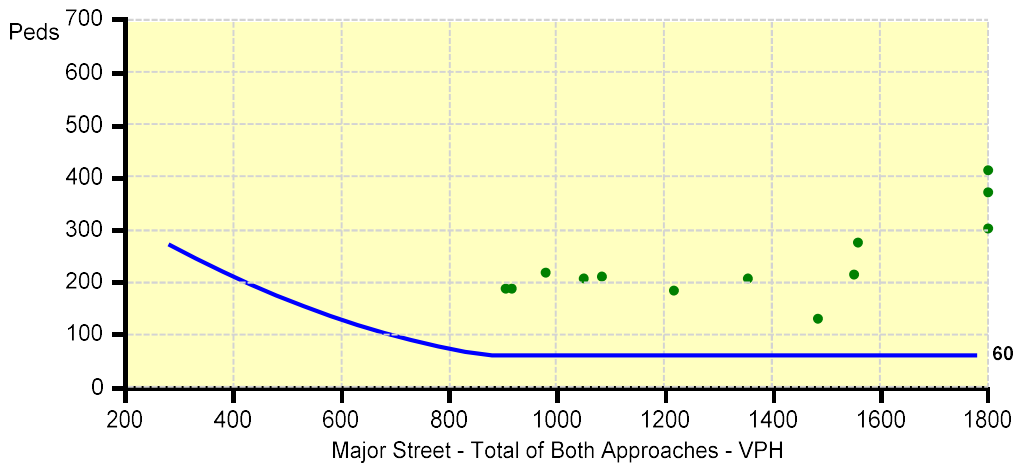
### Summary

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 CSAH 51 (University Ave.)				Total	Minor Road Egret Blvd.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	1515	+	654	=	2169	412	189	Yes
16:45 - 17:45	1441	+	728	=	2169	371	184	Yes
14:45 - 15:45	1158	+	696	=	1854	304	139	Yes
17:45 - 18:45	964	+	595	=	1559	274	171	Yes
07:45 - 08:45	599	+	951	=	1550	213	46	Yes
06:45 - 07:45	500	+	985	=	1485	131	44	Yes
13:45 - 14:45	802	+	554	=	1356	207	117	Yes
18:45 - 19:45	730	+	489	=	1219	183	149	Yes
08:45 - 09:45	464	+	620	=	1084	210	49	Yes
12:45 - 13:45	574	+	476	=	1050	206	116	Yes
11:45 - 12:45	555	+	424	=	979	219	120	Yes
							78	Yes



# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2113

Study Date : 11/03/2021

## 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

55 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 51 (University Ave.)				Total	Minor Road Egret Blvd.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	1550	+	678	=	2228	430	190	Yes
16:15 - 17:15	1542	+	668	=	2210	427	182	Yes
16:30 - 17:30	1486	+	717	=	2203	389	183	Yes
15:45 - 16:45	1515	+	654	=	2169	412	189	Yes
16:45 - 17:45	1441	+	728	=	2169	371	184	Yes
15:30 - 16:30	1487	+	656	=	2143	389	179	Yes
15:15 - 16:15	1414	+	711	=	2125	351	160	Yes
17:00 - 18:00	1332	+	679	=	2011	337	174	Yes
15:00 - 16:00	1259	+	698	=	1957	334	159	Yes
14:45 - 15:45	1158	+	696	=	1854	304	139	Yes
17:15 - 18:15	1182	+	666	=	1848	323	183	Yes
							129	Yes

