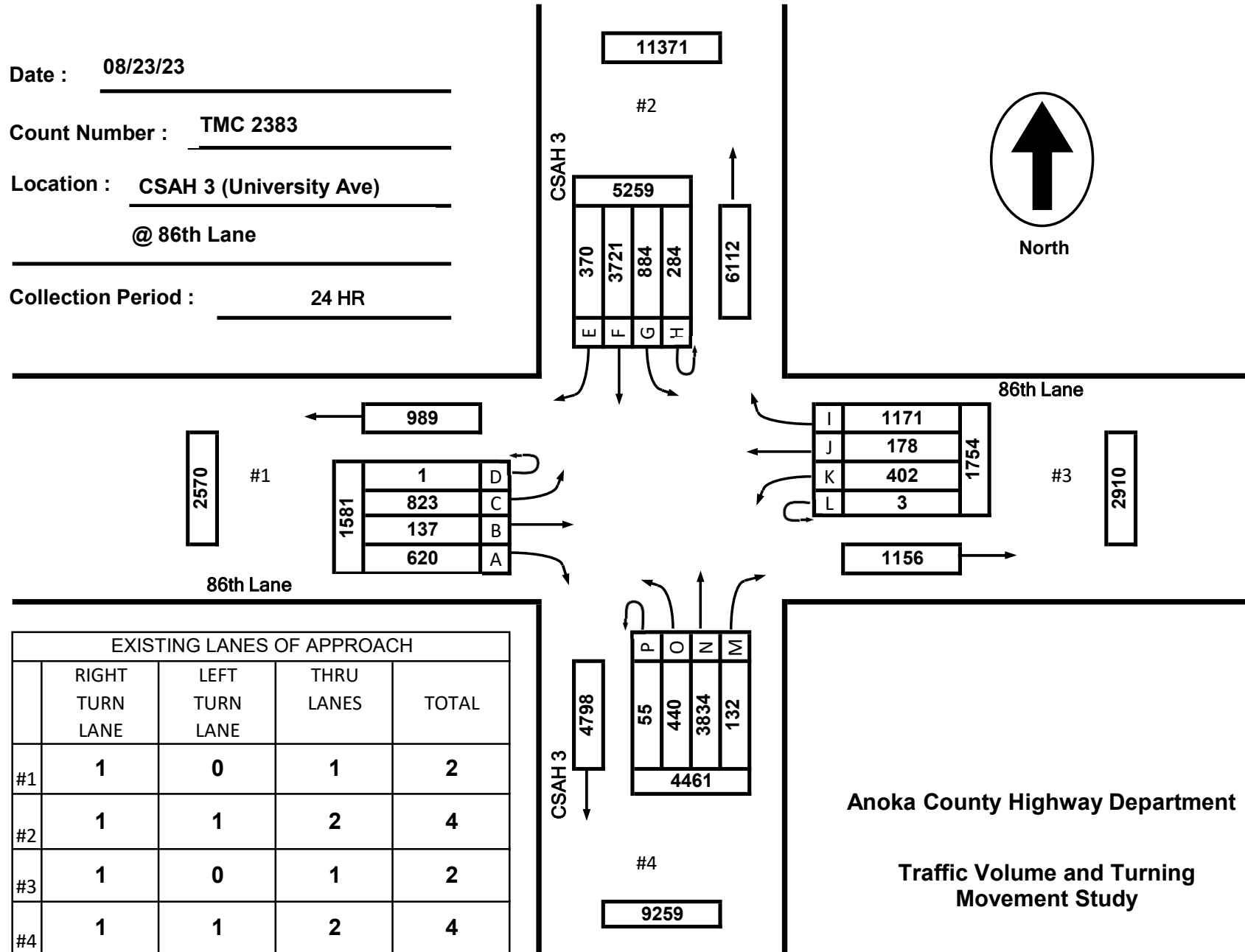


Date : 08/23/23

Count Number : TMC 2383

Location : CSAH 3 (University Ave)  
@ 86th Lane

Collection Period : 24 HR



Anoka County Highway Department

Traffic Volume and Turning Movement Study

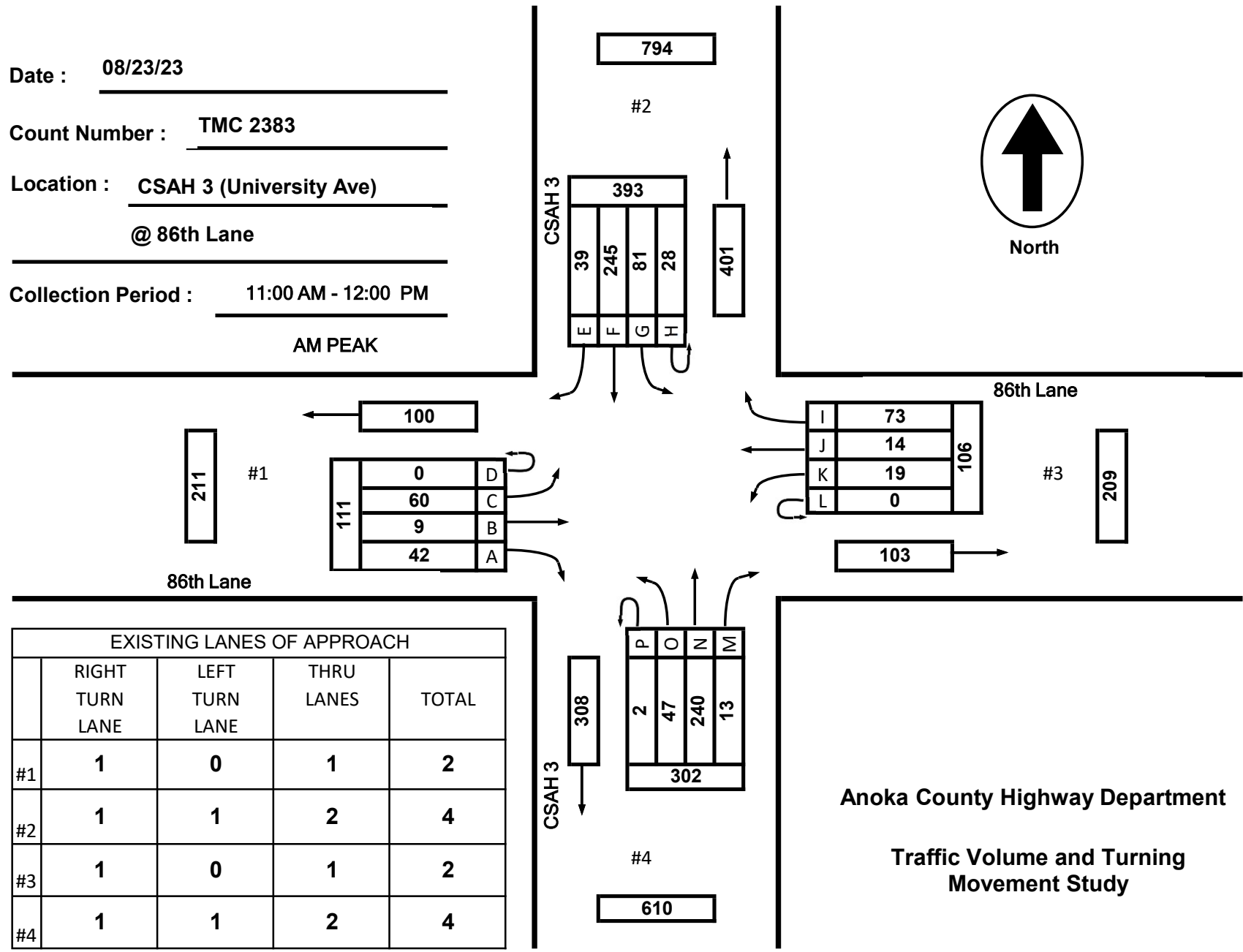
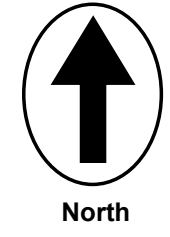
Date : 08/23/23

Count Number : TMC 2383

Location : CSAH 3 (University Ave)  
@ 86th Lane

Collection Period : 11:00 AM - 12:00 PM

AM PEAK



Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

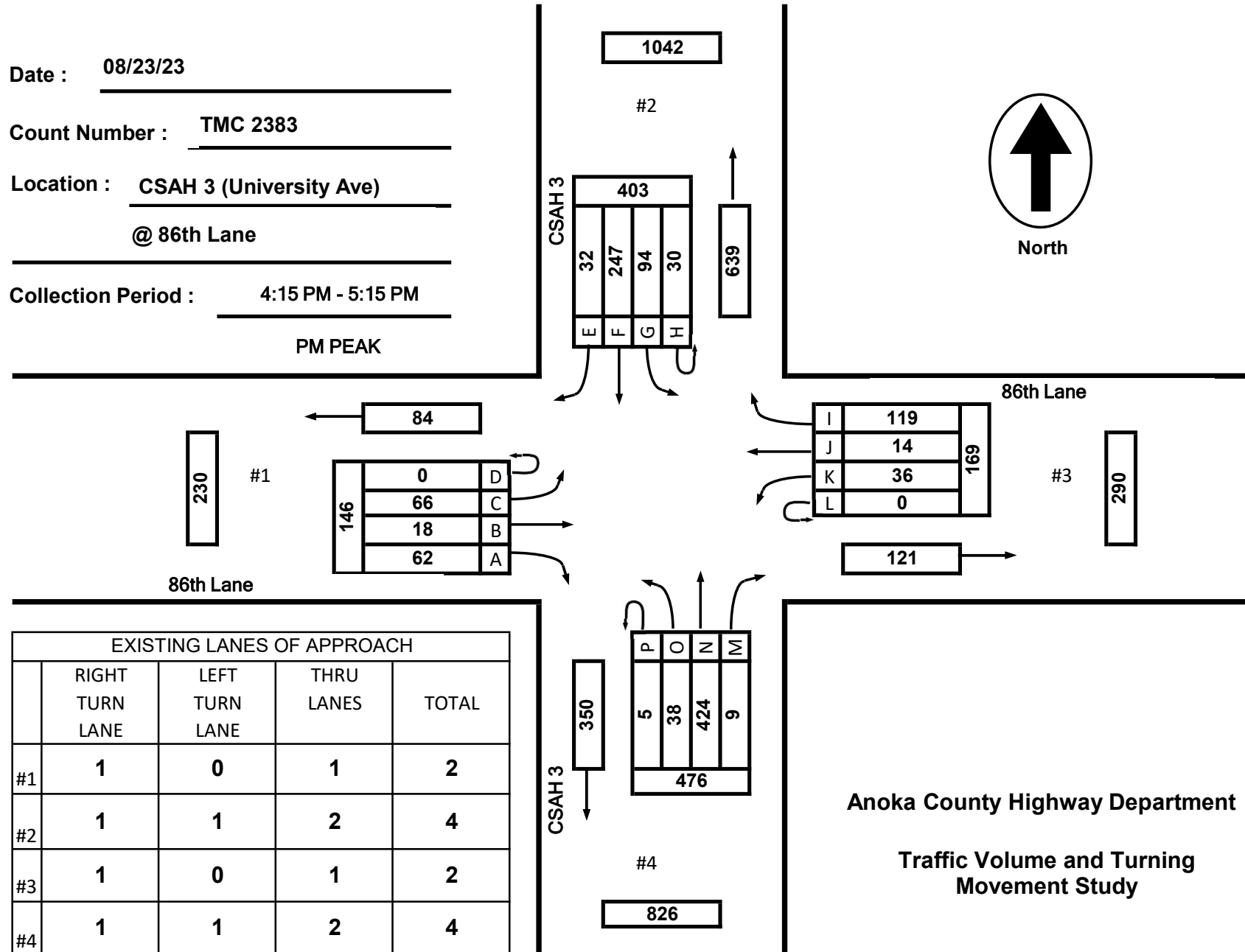
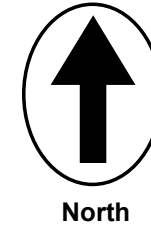
Date : 08/23/23

Count Number : TMC 2383

Location : CSAH 3 (University Ave)  
@ 86th Lane

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

PM PEAK



Anoka County Highway Department

Traffic Volume and Turning Movement Study

**TMC 2383 - CSAH 3 (University Ave) @ 86th Lane**  
**0 0**

**Wednesday, August 23, 2023**

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:00 AM	0	0	5	0	0	5	0	0	0	1	0	1	0	0	9	0	0	9	0	2	0	1	0	3	18
12:15 AM	1	0	4	0	0	5	0	1	0	1	0	2	0	2	0	0	0	2	0	2	0	2	0	4	13
12:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	2	0	2	10
12:45 AM	0	0	4	0	0	4	0	1	1	1	0	3	0	0	2	0	0	2	0	0	0	2	0	2	11
Hourly Total	1	0	15	0	0	16	0	2	1	3	0	6	0	2	17	0	0	19	0	4	0	7	0	11	52
1:00 AM	0	0	5	0	0	5	0	0	0	2	0	2	0	0	8	0	0	8	0	1	0	0	0	1	16
1:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5
1:30 AM	1	0	2	0	0	3	0	1	0	0	0	1	0	0	7	0	0	7	0	0	0	0	0	0	11
1:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	9
Hourly Total	2	0	8	0	0	10	0	1	0	2	0	3	0	0	27	0	0	27	0	1	0	0	0	1	41
2:00 AM	1	0	1	0	0	2	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	19
2:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7
2:30 AM	1	0	2	0	0	3	0	0	1	0	0	1	0	0	3	0	0	3	0	0	0	1	0	1	8
2:45 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
Hourly Total	2	0	8	0	0	10	0	0	1	0	0	1	0	0	26	0	0	26	0	0	0	1	0	1	38
3:00 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	1	6	0	0	7	0	0	0	1	0	1	11
3:15 AM	1	0	6	0	0	7	0	0	0	0	0	0	1	1	2	0	0	4	0	0	0	1	0	1	12
3:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	0	25
3:45 AM	0	1	6	0	0	7	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	1	0	1	10
Hourly Total	1	1	19	0	0	21	0	0	0	0	0	0	1	2	31	0	0	34	0	0	0	3	0	3	58
4:00 AM	0	0	11	0	0	11	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	13
4:15 AM	0	0	10	0	0	10	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	12
4:30 AM	0	1	24	0	0	25	0	0	0	1	0	1	0	1	2	0	0	3	0	0	0	0	0	0	29
4:45 AM	0	3	38	2	0	43	0	1	0	0	0	1	0	2	6	0	0	8	0	0	0	1	0	1	53
Hourly Total	0	4	83	2	0	89	0	1	0	1	0	2	0	3	10	0	0	13	0	1	0	2	0	3	107
5:00 AM	0	0	24	0	0	24	0	0	0	1	0	1	0	0	5	0	0	5	0	1	0	0	0	1	31
5:15 AM	1	1	27	0	0	29	0	0	0	1	0	1	0	2	3	0	0	5	0	3	0	0	0	3	38
5:30 AM	0	3	28	0	0	31	0	0	0	3	0	3	0	0	5	0	0	5	0	0	0	0	0	0	39
5:45 AM	0	8	31	1	0	40	0	0	1	0	0	1	0	1	9	0	0	10	0	0	0	3	0	3	54
Hourly Total	1	12	110	1	0	124	0	0	1	5	0	6	0	3	22	0	0	25	0	4	0	3	0	7	162
6:00 AM	1	3	26	1	0	31	0	1	1	1	0	3	0	4	11	0	0	15	0	5	0	5	0	10	59
6:15 AM	0	3	34	0	0	37	0	0	1	1	0	2	0	3	15	0	0	18	0	2	0	3	0	5	62
6:30 AM	1	0	38	1	0	40	0	0	0	0	0	0	0	2	13	1	1	16	0	3	0	3	0	6	62
6:45 AM	0	3	48	1	0	52	0	0	1	0	0	1	0	2	7	1	0	10	0	2	0	1	0	3	66
Hourly Total	2	9	146	3	0	160	0	1	3	2	0	6	0	11	46	2	1	59	0	12	0	12	0	24	249
7:00 AM	2	11	49	0	1	62	0	2	2	4	1	8	1	4	27	0	0	32	0	4	0	7	0	11	113
7:15 AM	0	4	44	1	0	49	0	0	0	4	0	4	1	3	19	1	0	24	0	2	0	8	0	10	87
7:30 AM	5	2	50	2	0	59	0	2	0	7	0	9	0	2	16	1	0	19	0	1	0	5	0	6	93
7:45 AM	1	9	51	1	0	62	0	0	1	2	0	3	0	5	28	0	0	33	0	7	1	3	0	11	109
Hourly Total	8	26	194	4	1	232	0	4	3	17	1	24	2	14	90	2	0	108	0	14	1	23	0	38	402

TMC 2383 - CSAH 3 (University Ave) @ 86th Lane

0 0

Wednesday, August 23, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
8:00 AM	0	9	52	2	1	63	0	3	2	3	1	8	0	2	35	0	1	37	0	2	0	5	0	7	
8:15 AM	1	11	54	2	0	68	0	0	2	6	0	8	1	3	27	1	0	32	0	4	0	3	0	7	
8:30 AM	3	11	37	1	0	52	0	1	0	6	0	7	0	4	36	0	1	40	0	4	0	1	1	5	
8:45 AM	1	12	49	1	0	63	0	4	1	6	0	11	1	3	37	4	0	45	0	2	0	6	0	8	
Hourly Total	5	43	192	6	1	246	0	8	5	21	1	34	2	12	135	5	2	154	0	12	0	15	1	27	461
9:00 AM	3	13	44	4	0	64	0	4	1	11	0	16	0	4	45	3	0	52	0	6	0	6	0	12	144
9:15 AM	4	17	50	2	0	73	0	2	2	15	0	19	0	4	45	1	0	50	0	3	2	3	0	8	150
9:30 AM	5	19	53	2	0	79	0	8	3	16	0	27	0	3	35	1	0	39	0	8	2	8	0	18	163
9:45 AM	5	26	45	8	0	84	0	3	4	10	0	17	0	9	32	3	0	44	0	9	1	3	0	13	158
Hourly Total	17	75	192	16	0	300	0	17	10	52	0	79	0	20	157	8	0	185	0	26	5	20	0	51	615
10:00 AM	12	18	58	4	1	92	0	5	3	17	0	25	0	4	38	2	0	44	0	5	1	6	1	12	173
10:15 AM	6	14	51	3	0	74	0	6	3	17	1	26	1	2	44	2	0	49	0	7	3	5	0	15	164
10:30 AM	2	16	65	5	0	88	0	4	2	21	0	27	1	6	39	1	1	47	0	14	0	9	0	23	185
10:45 AM	2	18	59	16	0	95	0	4	1	22	0	27	1	8	42	6	0	57	0	7	0	8	0	15	194
Hourly Total	22	66	233	28	1	349	0	19	9	77	1	105	3	20	163	11	1	197	0	33	4	28	1	65	716
11:00 AM	7	18	63	12	0	100	0	1	2	15	0	18	0	12	56	3	0	71	0	18	2	9	0	29	218
11:15 AM	7	21	55	10	1	93	0	5	5	23	0	33	0	12	53	2	1	67	0	11	3	11	0	25	218
11:30 AM	7	18	62	7	0	94	0	7	3	18	0	28	2	10	60	3	0	75	0	11	4	8	0	23	220
11:45 AM	7	24	65	10	1	106	0	6	4	17	1	27	0	13	71	5	0	89	0	20	0	14	0	34	256
Hourly Total	28	81	245	39	2	393	0	19	14	73	1	106	2	47	240	13	1	302	0	60	9	42	0	111	912
12:00 PM	6	18	64	15	0	103	0	10	1	21	1	32	2	9	82	6	1	99	0	18	5	8	1	31	265
12:15 PM	8	14	61	9	0	92	0	5	6	25	0	36	2	9	64	5	1	80	0	25	7	19	0	51	259
12:30 PM	4	23	83	12	1	122	0	14	2	28	0	44	1	9	60	3	1	73	0	16	2	10	0	28	267
12:45 PM	6	23	61	12	1	102	0	7	4	33	0	44	0	10	52	3	0	65	0	20	7	10	0	37	248
Hourly Total	24	78	269	48	2	419	0	36	13	107	1	156	5	37	258	17	3	317	0	79	21	47	1	147	1039
1:00 PM	9	18	68	6	0	101	0	11	9	27	0	47	0	11	78	2	2	91	0	16	5	10	0	31	270
1:15 PM	9	18	69	8	0	104	0	9	7	23	0	39	3	7	69	2	0	81	0	15	3	15	0	33	257
1:30 PM	5	19	59	4	0	87	0	12	2	24	0	38	1	7	52	5	0	65	0	15	1	6	0	22	212
1:45 PM	10	19	67	8	0	104	1	13	1	21	0	36	2	3	64	1	0	70	0	29	2	15	0	46	256
Hourly Total	33	74	263	26	0	396	1	45	19	95	0	160	6	28	263	10	2	307	0	75	11	46	0	132	995
2:00 PM	11	13	48	9	1	81	0	8	7	26	1	41	0	8	62	5	1	75	0	10	8	8	0	26	223
2:15 PM	9	14	61	4	0	88	0	10	3	20	0	33	1	9	69	2	0	81	0	18	3	11	0	32	234
2:30 PM	4	20	72	2	0	98	0	11	2	32	0	45	1	9	86	4	0	100	0	18	3	8	0	29	272
2:45 PM	3	15	61	6	0	85	0	6	1	25	0	32	3	6	93	3	0	105	0	14	8	15	0	37	259
Hourly Total	27	62	242	21	1	352	0	35	13	103	1	151	5	32	310	14	1	361	0	60	22	42	0	124	988
3:00 PM	6	11	52	5	1	74	0	6	2	27	0	35	1	12	107	3	0	123	0	9	0	10	0	19	251
3:15 PM	3	20	72	6	0	101	0	10	4	28	0	42	0	8	88	1	1	97	0	14	3	9	0	26	266
3:30 PM	3	13	63	7	0	86	0	5	4	20	0	29	1	6	99	4	0	110	0	17	2	17	0	36	261
3:45 PM	6	31	59	11	1	107	0	12	7	18	0	37	1	11	110	2	1	124	0	19	2	18	0	39	307
Hourly Total	18	75	246	29	2	368	0	33	17	93	0	143	3	37	404	10	2	454	0	59	7	54	0	120	1085

### TMC 2383 - CSAH 3 (University Ave) @ 86th Lane

0 0

Wednesday, August 23, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	6	17	70	9	0	102	0	7	4	25	0	36	0	11	94	4	3	109	0	27	3	18	0	48	295
4:15 PM	11	19	51	11	0	92	0	9	2	21	0	32	0	14	116	2	1	132	0	16	3	14	0	33	289
4:30 PM	8	24	63	8	0	103	0	8	3	27	0	38	3	8	102	3	0	116	0	17	6	21	0	44	301
4:45 PM	7	25	63	8	0	103	0	11	6	31	0	48	1	7	103	3	0	114	0	12	4	18	0	34	299
Hourly Total	32	85	247	36	0	400	0	35	15	104	0	154	4	40	415	12	4	471	0	72	16	71	0	159	1184
5:00 PM	4	26	70	5	0	105	0	8	3	40	0	51	1	9	103	1	1	114	0	21	5	9	1	35	305
5:15 PM	5	15	65	11	0	96	0	9	4	32	0	45	0	12	93	2	0	107	0	25	4	10	0	39	287
5:30 PM	6	23	84	5	0	118	0	13	1	24	0	38	1	3	68	3	0	75	0	15	4	8	0	27	258
5:45 PM	6	11	67	5	2	89	0	10	4	20	0	34	2	9	73	5	0	89	1	16	1	5	0	23	235
Hourly Total	21	75	286	26	2	408	0	40	12	116	0	168	4	33	337	11	1	385	1	77	14	32	1	124	1085
6:00 PM	10	12	84	3	0	109	0	9	2	23	0	34	2	8	61	2	0	73	0	17	7	17	0	41	257
6:15 PM	1	10	61	3	0	75	0	9	6	23	0	38	1	5	57	2	1	65	0	19	0	17	0	36	214
6:30 PM	3	14	59	1	0	77	0	7	0	27	0	34	4	10	74	2	2	90	0	8	3	8	0	19	220
6:45 PM	1	14	67	9	0	91	0	5	2	25	0	32	0	8	59	0	0	67	0	14	1	15	0	30	220
Hourly Total	15	50	271	16	0	352	0	30	10	98	0	138	7	31	251	6	3	295	0	58	11	57	0	126	911
7:00 PM	4	13	43	4	0	64	0	10	1	22	0	33	1	8	55	0	0	64	0	17	3	10	0	30	191
7:15 PM	0	9	36	3	0	48	2	3	6	20	0	31	1	8	59	1	0	69	0	15	0	8	0	23	171
7:30 PM	1	8	35	4	0	48	0	8	5	28	0	41	1	8	52	1	1	62	0	10	1	12	0	23	174
7:45 PM	1	6	36	5	0	48	0	8	3	15	0	26	2	7	38	2	0	49	0	13	1	16	0	30	153
Hourly Total	6	36	150	16	0	208	2	29	15	85	0	131	5	31	204	4	1	244	0	55	5	46	0	106	689
8:00 PM	3	4	38	7	0	52	0	8	0	22	0	30	0	8	60	3	0	71	0	13	3	18	0	34	187
8:15 PM	0	6	26	10	0	42	0	3	7	15	0	25	0	5	38	0	0	43	0	12	1	10	0	23	133
8:30 PM	3	7	36	4	0	50	0	4	2	9	0	15	2	3	42	1	0	48	0	16	2	11	0	29	142
8:45 PM	1	0	28	2	0	31	0	5	0	12	0	17	0	1	42	1	0	44	0	17	2	1	0	20	112
Hourly Total	7	17	128	23	0	175	0	20	9	58	0	87	2	17	182	5	0	206	0	58	8	40	0	106	574
9:00 PM	0	0	25	1	0	26	0	5	1	19	0	25	0	6	48	0	0	54	0	7	1	2	0	10	115
9:15 PM	0	1	34	2	0	37	0	3	2	9	0	14	0	2	21	1	0	24	0	7	0	7	0	14	89
9:30 PM	3	2	14	4	0	23	0	4	1	5	0	10	0	4	26	0	0	30	0	8	1	2	0	11	74
9:45 PM	0	0	19	1	0	20	0	1	0	6	1	7	2	1	17	0	1	20	0	3	0	1	0	4	51
Hourly Total	3	3	92	8	0	106	0	13	4	39	1	56	2	13	112	1	1	128	0	25	2	12	0	39	329
10:00 PM	1	5	10	7	0	23	0	1	1	4	0	6	1	1	25	1	0	28	0	7	0	2	0	9	66
10:15 PM	2	1	9	7	0	19	0	2	0	1	0	3	0	0	26	0	0	26	0	4	0	0	0	4	52
10:30 PM	2	0	12	2	0	16	0	2	0	2	0	4	1	3	19	0	0	23	0	10	0	4	0	14	57
10:45 PM	2	3	14	0	0	19	0	1	1	2	2	4	0	2	12	0	1	14	0	6	1	2	0	9	46
Hourly Total	7	9	45	16	0	77	0	6	2	9	2	17	2	6	82	1	1	91	0	27	1	8	0	36	221
11:00 PM	2	0	16	4	0	22	0	4	0	2	0	6	0	0	19	0	0	19	0	6	0	3	0	9	56
11:15 PM	0	2	11	1	0	14	0	2	0	4	0	6	0	0	12	0	0	12	0	1	0	2	0	3	35
11:30 PM	0	0	6	1	0	7	0	1	2	3	0	6	0	1	19	0	0	20	0	1	0	2	0	3	36
11:45 PM	0	1	4	0	0	5	0	1	0	2	0	3	0	0	2	0	0	2	0	3	0	2	0	5	15
Hourly Total	2	3	37	6	0	48	0	8	2	11	0	21	0	1	52	0	0	53	0	11	0	9	0	20	142
<b>DAILY TOTAL</b>	<b>284</b>	<b>884</b>	<b>3721</b>	<b>370</b>	<b>12</b>	<b>5259</b>	<b>3</b>	<b>402</b>	<b>178</b>	<b>1171</b>	<b>9</b>	<b>1754</b>	<b>55</b>	<b>440</b>	<b>3834</b>	<b>132</b>	<b>24</b>	<b>4461</b>	<b>1</b>	<b>823</b>	<b>137</b>	<b>620</b>	<b>4</b>	<b>1581</b>	<b>13055</b>
<b>Cars</b>	283	873	3590	368	12	5114	3	399	176	1159	5	1737	55	439	3701	132	17	4327	1	812	137	616	3	1566	12744
<b>Heavy Vehicles</b>	1	11	131	2	0	145	0	3	2	12	4	17	0	1	133	0	7	134	0	11	0	4	1	15	311
<b>Heavy Vehicle %</b>	0.35%	1.24%	3.52%	0.54%	0.00%	2.76%	0.00%	0.75%	1.12%	1.02%	44.44%	0.97%	0.00%	0.23%	3.47%	0.00%	29.17%	3.00%	0.00%	1.34%	0.00%	0.65%	25.00%	0.95%	2.38%

### TMC 2383 - CSAH 3 (University Ave) @ 86th Lane

0 0

**Wednesday, August 23, 2023**

**AM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:00 AM	7	18	63	12	0	100	0	1	2	15	0	18	0	12	56	3	0	71	0	18	2	9	0	29	218
11:15 AM	7	21	55	10	1	93	0	5	5	23	0	33	0	12	53	2	1	67	0	11	3	11	0	25	218
11:30 AM	7	18	62	7	0	94	0	7	3	18	0	28	2	10	60	3	0	75	0	11	4	8	0	23	220
11:45 AM	7	24	65	10	1	106	0	6	4	17	1	27	0	13	71	5	0	89	0	20	0	14	0	34	256
Peak Hour Total PHF	28	81	245	39	2	393	0	19	14	73	1	106	2	47	240	13	1	302	0	60	9	42	0	111	912
	1.000	0.844	0.942	0.813	0.500	0.927	0.000	0.679	0.700	0.793	0.250	0.803	0.250	0.904	0.845	0.650	0.250	0.848	0.000	0.750	0.563	0.750	0.000	0.816	0.891

**PM Peak Hour**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:15 PM	11	19	51	11	0	92	0	9	2	21	0	32	0	14	116	2	1	132	0	16	3	14	0	33	289
4:30 PM	8	24	63	8	0	103	0	8	3	27	0	38	3	8	102	3	0	116	0	17	6	21	0	44	301
4:45 PM	7	25	63	8	0	103	0	11	6	31	0	48	1	7	103	3	0	114	0	12	4	18	0	34	299
5:00 PM	4	26	70	5	0	105	0	8	3	40	0	51	1	9	103	1	1	114	0	21	5	9	1	35	305
Peak Hour Total PHF	30	94	247	32	0	403	0	36	14	119	0	169	5	38	424	9	2	476	0	66	18	62	1	146	1194
	0.682	0.904	0.882	0.727	0.000	0.960	0.000	0.818	0.583	0.744	0.000	0.828	0.417	0.679	0.914	0.750	0.500	0.902	0.000	0.786	0.750	0.738	0.250	0.830	0.979

Total Vehicles On Leg				11371			
Vehicles Entering Intersection		5259		Vehicles Exiting Intersection		6112	
<b>Southbound</b>							
Cars	368	3590	873	283	12		
Heavy	2	131	11	1	0		
<b>Total</b>	<b>370</b>	<b>3721</b>	<b>884</b>	<b>284</b>	<b>12</b>		



Total Vehicles on Leg 2570	Vehicles Entering Intersection 1581	Eastbound	Cars	Heavy	Total	
			3	1	4	
	1		0	1		
	812		11	823		
	Vehicles Exiting Intersection 989		137	0	137	
	616	4	620			

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 1754	Total Vehicles on Leg 2910
1159	12	1171			
176	2	178			
399	3	402			
Vehicles Exiting Intersection 1156	3	0			
	5	4	9		



Cars	17	55	439	3701	132
Heavy	7	0	1	133	0
<b>Total</b>	<b>24</b>	<b>55</b>	<b>440</b>	<b>3834</b>	<b>132</b>
<b>Northbound</b>					
Vehicles Entering Intersection			4461		
Vehicles Exiting Intersection			4798		
Total Vehicles On Leg			9259		







# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2382

Study Date : 08/25/2023

## Signal Warrants - Summary

### Major Street Approaches

Northbound: CSAH 3

Number of Lanes : 2+

Total Approach Volume: 4,461

Southbound: CSAH 3

Number of Lanes :2+

Total Approach Volume: 5,259

### Minor Street Approaches

Eastbound: 86th Lane

Number of Lanes :1

Total Approach Volume: 1,581

Westbound: 86th Lane

Number of Lanes :1

Total Approach Volume: 1,754

### Warrant Summary (Urban Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

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

Required volumes reached for 5 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

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

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

Required 1B volumes reached for 6 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (33) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any 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 2382

Study Date : 08/25/2023

## Warrant 1A - Minimum Volumes

### Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

### Summary

Only 5 one hour periods meet minimums.  
Warrant is NOT met.

### Site Data Required

Rural Settings Apply = **False**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

### Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:30 - 16:30	475	+	387	=	862	156	134	Yes
16:30 - 17:30	451	+	407	=	858	152	182	Yes
12:00 - 13:00	317	+	419	=	736	147	156	Yes
14:00 - 15:00	361	+	352	=	713	124	151	Yes
13:00 - 14:00	307	+	396	=	703	132	160	Yes
15:15 - 16:15	440	+	396	=	836	149	144	No
15:00 - 16:00	454	+	368	=	822	120	143	No
11:45 - 12:45	341	+	423	=	764	144	139	No
11:30 - 12:30	343	+	395	=	738	139	123	No
11:15 - 12:15	330	+	396	=	726	113	120	No
11:00 - 12:00	302	+	393	=	695	111	106	No
17:30 - 18:30	302	+	391	=	693	127	144	No
17:45 - 18:45	317	+	350	=	667	119	140	No
10:45 - 11:45	270	+	382	=	652	92	106	No
18:00 - 19:00	295	+	352	=	647	126	138	No
10:30 - 11:30	242	+	376	=	618	92	105	No
18:15 - 19:15	286	+	307	=	593	115	137	No
10:15 - 11:15	224	+	357	=	581	82	98	No
18:30 - 19:30	290	+	280	=	570	102	130	No
10:00 - 11:00	197	+	349	=	546	65	105	No
09:45 - 10:45	184	+	338	=	522	63	95	No
18:45 - 19:45	262	+	251	=	513	106	137	No
09:15 - 10:15	177	+	328	=	505	51	88	No
09:30 - 10:30	176	+	329	=	505	58	95	No
09:00 - 10:00	185		300		485	51	79	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2382

Study Date : 08/25/2023

## Warrant 1B - Interruption of Continuous Traffic

#### Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

#### Summary

Only 0 one hour periods meet minimums.  
Warrant is NOT met.

#### Site Data Required

Rural Settings Apply = **False**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

#### Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	481	+	404	=	885	164	143	No
16:15 - 17:15	476	+	403	=	879	146	169	No
16:00 - 17:00	471	+	400	=	871	159	154	No
15:30 - 16:30	475	+	387	=	862	156	134	No
16:30 - 17:30	451	+	407	=	858	152	182	No
15:15 - 16:15	440	+	396	=	836	149	144	No
16:45 - 17:45	410	+	422	=	832	135	182	No
15:00 - 16:00	454	+	368	=	822	120	143	No
17:00 - 18:00	385	+	408	=	793	124	168	No
14:30 - 15:30	425	+	358	=	783	111	154	No
14:45 - 15:45	435	+	346	=	781	118	138	No
11:45 - 12:45	341	+	423	=	764	144	139	No
17:15 - 18:15	344	+	412	=	756	130	151	No
14:15 - 15:15	409	+	345	=	754	117	145	No
12:30 - 13:30	310	+	429	=	739	129	174	No
11:30 - 12:30	343	+	395	=	738	139	123	No
12:00 - 13:00	317	+	419	=	736	147	156	No
11:15 - 12:15	330	+	396	=	726	113	120	No
12:15 - 13:15	309	+	417	=	726	147	171	No
14:00 - 15:00	361	+	352	=	713	124	151	No
13:00 - 14:00	307	+	396	=	703	132	160	No
13:45 - 14:45	326	+	371	=	697	133	155	No
12:45 - 13:45	302	+	394	=	696	123	168	No
11:00 - 12:00	302	+	393	=	695	111	106	No
17:30 - 18:30	302		391		693	127	144	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2382

Study Date : 08/25/2023

## Warrant 1C Combination of Warrants

#### Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

#### Summary

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

#### Site Data Required

Rural Settings Apply = **False**  
Number of Major Lanes = **2 or more**  
Number of Minor Lanes = **1**

#### Volume Requirements

Warrant 1A 1B  
Veh/Hr Major = **480 720**  
  
Veh/Hr Minor = **120 60**

#### Major Road CSAH 3

#### Minor Road 86th Lane

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	476	+	403	=	879	146	169	Yes
15:15 - 16:15	440	+	396	=	836	149	144	Yes
17:15 - 18:15	344	+	412	=	756	130	151	Yes
14:15 - 15:15	409	+	345	=	754	117	145	Yes
12:15 - 13:15	309	+	417	=	726	147	171	Yes
11:15 - 12:15	330	+	396	=	726	113	120	Yes
13:15 - 14:15	291	+	376	=	667	127	154	Yes
18:15 - 19:15	286	+	307	=	593	115	137	Yes
11:00 - 12:00	302	+	393	=	695	111	106	No
10:45 - 11:45	270	+	382	=	652	92	106	No
10:30 - 11:30	242	+	376	=	618	92	105	No
10:15 - 11:15	224	+	357	=	581	82	98	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	476	+	403	=	879	146	169	Yes
15:15 - 16:15	440	+	396	=	836	149	144	Yes
17:15 - 18:15	344	+	412	=	756	130	151	Yes
14:15 - 15:15	409	+	345	=	754	117	145	Yes
12:15 - 13:15	309	+	417	=	726	147	171	Yes
11:15 - 12:15	330	+	396	=	726	113	120	Yes
14:00 - 15:00	361	+	352	=	713	124	151	No
13:45 - 14:45	326	+	371	=	697	133	155	No
11:00 - 12:00	302	+	393	=	695	111	106	No
13:15 - 14:15	291	+	376	=	667	127	154	No
10:45 - 11:45	270	+	382	=	652	92	106	No
13:30 - 14:30	291	+	360	=	651	126	148	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2382

Study Date : 08/25/2023

## Warrant 2 - Four Hour Volumes

### Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

### Summary

Only 0 one hour periods meet minimums.  
Warrant is NOT met.

### Site Data Required

Rural Settings Apply = **False**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

Time	Major Road CSAH 3					Minor Road 86th Lane		Met?
	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
15:45 - 16:45	481	+	404	=	885	164	143	No
16:15 - 17:15	476	+	403	=	879	146	169	No
16:00 - 17:00	471	+	400	=	871	159	154	No
15:30 - 16:30	475	+	387	=	862	156	134	No
16:30 - 17:30	451	+	407	=	858	152	182	No
15:15 - 16:15	440	+	396	=	836	149	144	No
16:45 - 17:45	410	+	422	=	832	135	182	No
15:00 - 16:00	454	+	368	=	822	120	143	No
17:00 - 18:00	385	+	408	=	793	124	168	No
14:30 - 15:30	425	+	358	=	783	111	154	No
14:45 - 15:45	435	+	346	=	781	118	138	No
11:45 - 12:45	341		423		764	144	139	No



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2382

Study Date : 08/25/2023

## Warrant 3B - Peak Hour Volumes

### Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

### Summary

Only 0 one hour periods meet minimums.  
Warrant is NOT met.

### Site Data Required

Rural Settings Apply = **False**  
 Number of Major Lanes = **2 or more**  
 Number of Minor Lanes = **1**

Time	Major Road CSAH 3				Total	Minor Road 86th Lane		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	481	+	404	=	885	164	143	No
16:15 - 17:15	476	+	403	=	879	146	169	No
16:00 - 17:00	471	+	400	=	871	159	154	No
15:30 - 16:30	475	+	387	=	862	156	134	No
16:30 - 17:30	451	+	407	=	858	152	182	No
15:15 - 16:15	440	+	396	=	836	149	144	No
16:45 - 17:45	410	+	422	=	832	135	182	No
15:00 - 16:00	454	+	368	=	822	120	143	No
17:00 - 18:00	385	+	408	=	793	124	168	No
14:30 - 15:30	425	+	358	=	783	111	154	No
14:45 - 15:45	435	+	346	=	781	118	138	No
11:45 - 12:45	341		423		764	144	139	No

