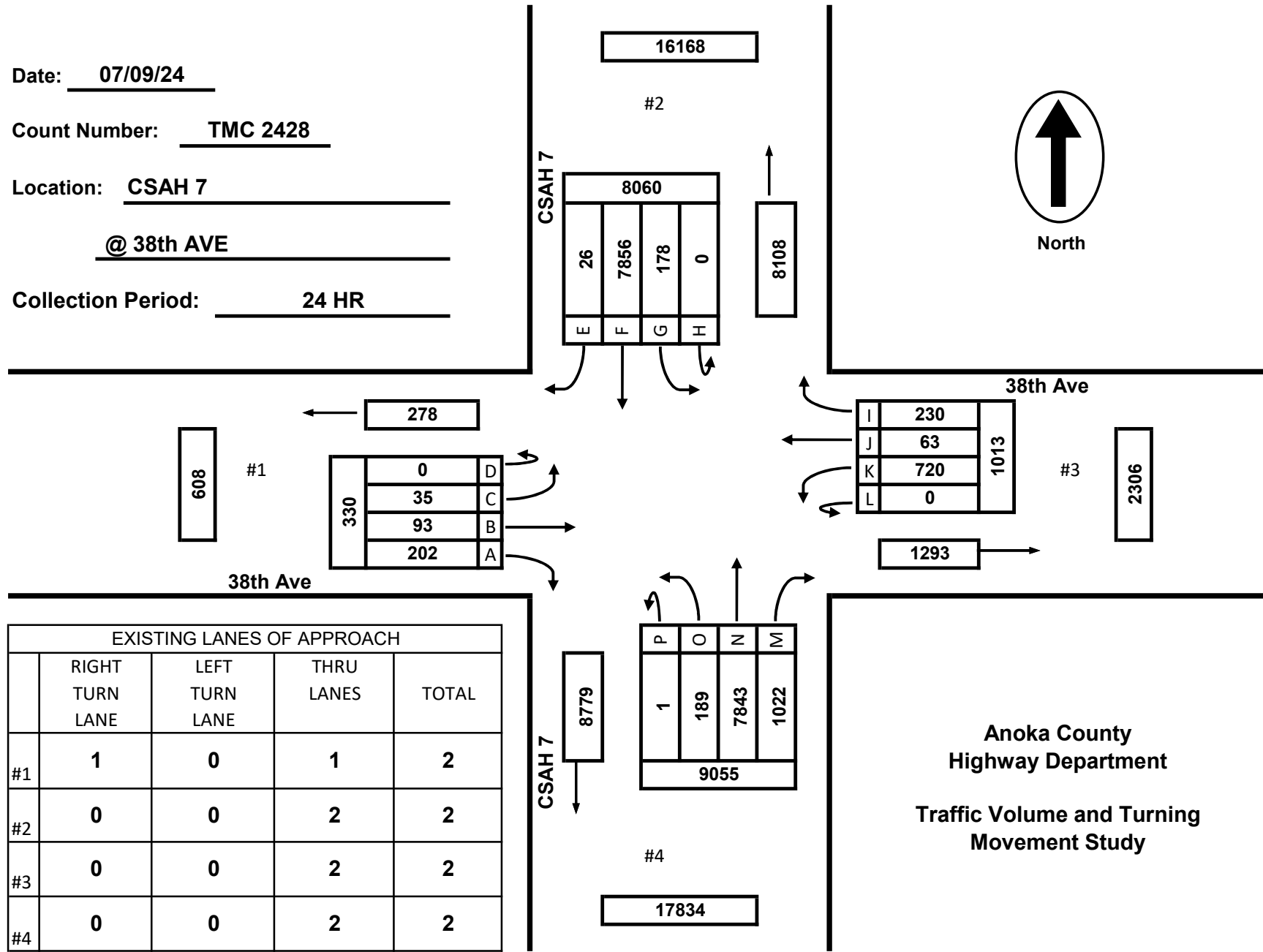
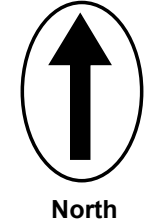


Date: 07/09/24

Count Number: TMC 2428

Location: CSAH 7  
@ 38th AVE

Collection Period: 24 HR



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

Anoka County  
 Highway Department  
 Traffic Volume and Turning  
 Movement Study

Date: 07/09/24

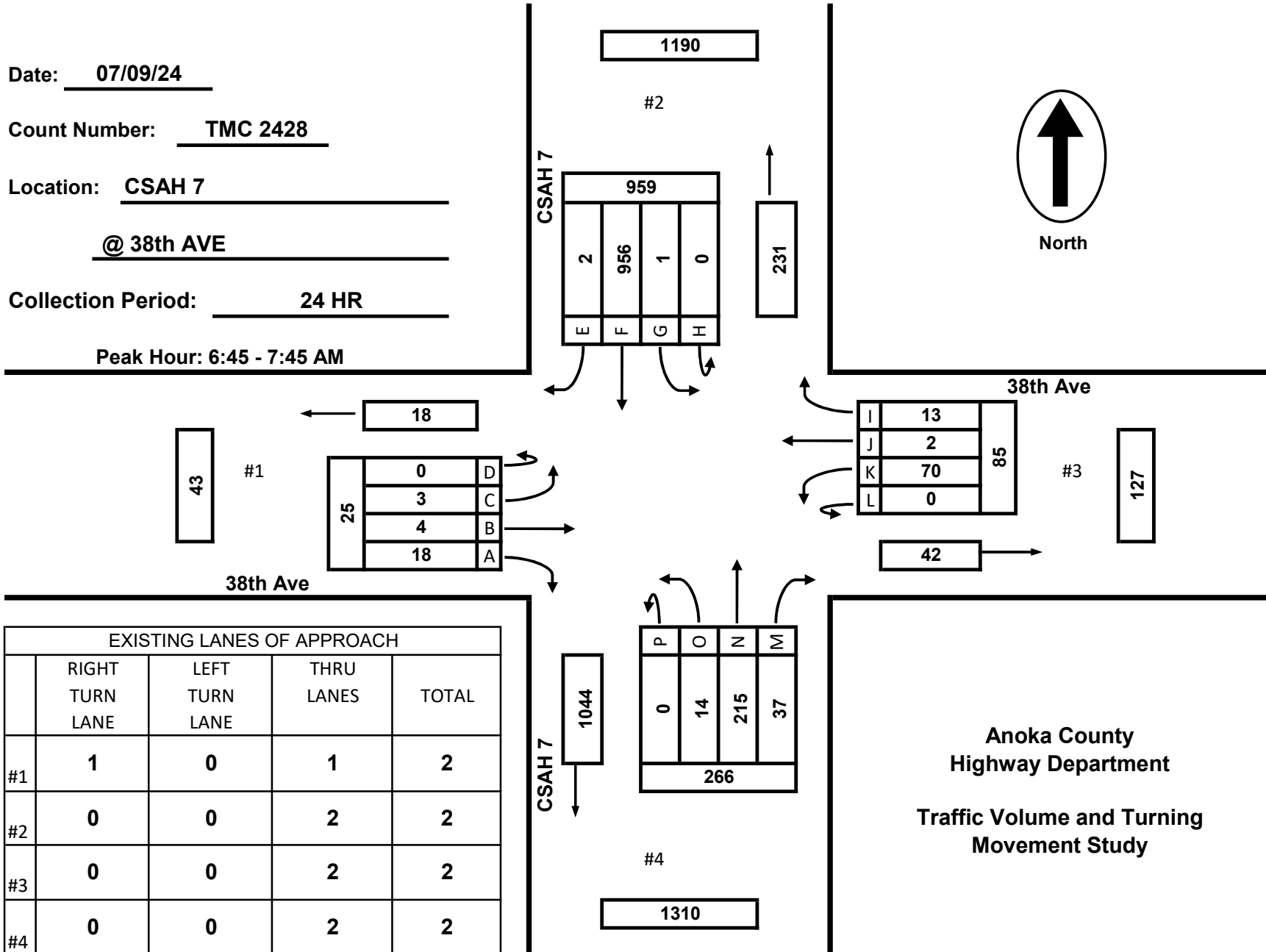
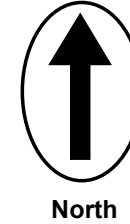
Count Number: TMC 2428

Location: CSAH 7

@ 38th AVE

Collection Period: 24 HR

Peak Hour: 6:45 - 7:45 AM



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

**Anoka County  
Highway Department  
Traffic Volume and Turning  
Movement Study**

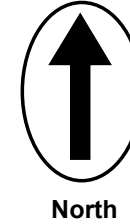
Date: 07/09/24

Count Number: TMC 2428

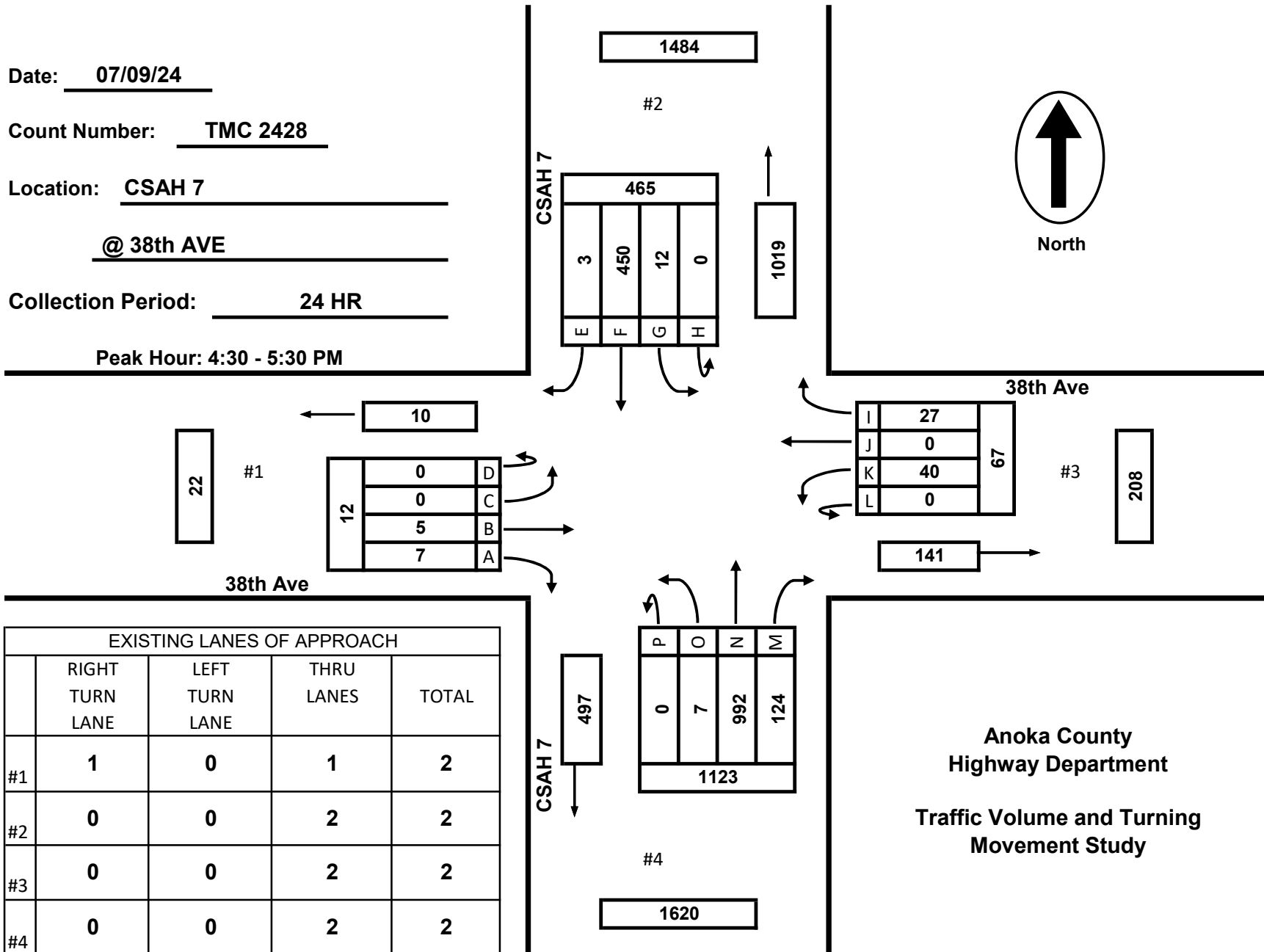
Location: CSAH 7  
@ 38th AVE

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	1	0	1	2
#2	0	0	2	2
#3	0	0	2	2
#4	0	0	2	2

Anoka County  
 Highway Department  
 Traffic Volume and Turning  
 Movement Study

**TMC 2428 - CSAH 7 @ 38th AVE**  
**Anoka MN**  
**Tuesday, July 9, 2024**

Time	Southbound CSAH 7						Westbound 38th Ave						Northbound CSAH 7						Eastbound 38th Ave						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	9	0	0	9	0	0	0	0	0	0	0	1	15	0	0	16	0	0	0	1	0	1	26
12:15 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	1	12	1	0	14	0	0	0	0	0	0	20
12:30 AM	0	1	5	0	0	6	0	0	0	0	0	0	0	1	12	0	3	13	0	0	0	1	0	1	20
12:45 AM	0	0	2	0	0	2	0	0	0	1	0	1	0	0	7	1	0	8	0	0	0	0	0	0	11
Hourly Total	0	1	22	0	0	23	0	0	0	1	0	1	0	3	46	2	3	51	0	0	0	2	0	2	77
1:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8	2	0	10	0	0	0	0	0	0	14
1:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	2	0	4	0	0	0	0	0	0	5
1:30 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	9
1:45 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	12
Hourly Total	0	1	11	0	0	12	0	1	0	0	0	1	0	0	23	4	0	27	0	0	0	0	0	0	40
2:00 AM	0	1	10	0	0	11	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	13
2:15 AM	0	0	7	0	0	7	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	14
2:30 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	11
2:45 AM	0	0	10	0	0	10	0	1	0	0	0	1	0	1	4	0	0	5	0	0	0	0	0	0	16
Hourly Total	0	1	33	0	0	34	0	1	0	0	0	1	0	1	18	0	0	19	0	0	0	0	0	0	54
3:00 AM	0	0	14	0	0	14	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	16
3:15 AM	0	0	10	0	0	10	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	16
3:30 AM	0	0	19	0	0	19	0	0	0	0	0	0	0	0	5	1	0	6	0	0	0	0	0	0	25
3:45 AM	0	0	18	0	0	18	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	22
Hourly Total	0	0	61	0	0	61	0	2	0	0	0	2	0	0	14	2	0	16	0	0	0	0	0	0	79
4:00 AM	0	0	28	0	0	28	0	1	0	0	0	1	0	0	6	1	0	7	0	0	0	0	0	0	36
4:15 AM	0	0	48	0	0	48	0	1	1	0	0	2	0	1	3	0	0	4	0	0	0	0	0	0	54
4:30 AM	0	0	55	0	0	55	0	1	0	1	0	2	0	0	3	0	0	3	0	0	0	0	0	0	60
4:45 AM	0	0	52	0	0	52	0	3	0	0	0	3	0	0	4	0	0	4	0	0	0	0	0	0	59
Hourly Total	0	0	183	0	0	183	0	6	1	1	0	8	0	1	16	1	0	18	0	0	0	0	0	0	209
5:00 AM	0	0	78	0	1	78	0	4	0	0	0	4	0	0	10	3	0	13	0	0	0	0	0	0	95
5:15 AM	0	0	147	0	2	147	0	13	0	0	0	13	0	1	5	1	0	7	0	0	0	0	0	0	167
5:30 AM	0	0	173	0	1	173	0	10	3	0	1	13	0	2	16	3	0	21	0	0	0	0	0	0	207
5:45 AM	0	1	151	2	1	154	0	6	3	0	1	9	0	13	23	5	0	41	0	1	1	10	0	12	216
Hourly Total	0	1	549	2	5	552	0	33	6	0	2	39	0	16	54	12	0	82	0	1	1	10	0	12	685
6:00 AM	0	1	186	1	0	188	0	5	1	1	0	7	0	1	38	5	0	44	0	1	1	3	0	5	244
6:15 AM	0	1	226	1	0	228	0	15	3	0	0	18	0	3	32	6	0	41	0	0	0	0	0	0	287
6:30 AM	0	0	278	0	1	278	0	23	0	0	0	23	0	2	35	3	0	40	0	0	0	1	0	1	342
6:45 AM	0	0	288	0	1	288	0	20	0	2	0	22	0	2	46	12	0	60	0	0	0	0	0	0	370
Hourly Total	0	2	978	2	2	982	0	63	4	3	0	70	0	8	151	26	0	185	0	1	1	4	0	6	1243
7:00 AM	0	0	194	0	0	194	0	15	0	4	0	19	0	1	60	9	0	70	0	1	0	2	0	3	286
7:15 AM	0	0	217	1	2	218	0	16	2	5	1	23	0	6	55	9	0	70	0	1	4	10	0	15	326
7:30 AM	0	1	257	1	1	259	0	19	0	2	0	21	0	5	54	7	0	66	0	1	0	6	0	7	353
7:45 AM	0	0	227	1	0	228	0	22	1	1	0	24	0	10	43	6	0	59	0	0	5	13	0	18	329
Hourly Total	0	1	895	3	3	899	0	72	3	12	1	87	0	22	212	31	0	265	0	3	9	31	0	43	1294

**TMC 2428 - CSAH 7 @ 38th AVE  
Anoka MN  
Tuesday, July 9, 2024**

Time	Southbound CSAH 7						Westbound 38th Ave						Northbound CSAH 7						Eastbound 38th Ave						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	4	191	0	1	195	0	15	3	3	1	21	1	1	46	8	1	56	0	1	3	5	0	9	281
8:15 AM	0	1	149	0	0	150	0	13	0	6	0	19	0	3	55	8	0	66	0	0	1	1	0	2	237
8:30 AM	0	1	144	0	5	145	0	9	1	3	0	13	0	4	56	6	0	66	0	0	1	6	0	7	231
8:45 AM	0	4	132	0	1	136	0	15	1	2	0	18	0	7	47	10	0	64	0	0	3	7	0	10	228
Hourly Total	0	10	616	0	7	626	0	52	5	14	1	71	1	15	204	32	1	252	0	1	8	19	0	28	977
9:00 AM	0	5	110	0	0	115	0	15	3	7	0	25	0	2	77	9	0	88	0	0	0	1	0	1	229
9:15 AM	0	0	95	0	1	95	0	11	1	0	0	12	0	5	72	9	1	86	0	1	9	8	0	18	211
9:30 AM	0	2	117	0	3	119	0	9	2	3	4	14	0	2	63	8	0	73	0	1	2	0	0	3	209
9:45 AM	0	2	80	0	0	82	0	17	3	0	1	20	0	2	53	6	2	61	0	1	2	4	0	7	170
Hourly Total	0	9	402	0	4	411	0	52	9	10	5	71	0	11	265	32	3	308	0	3	13	13	0	29	819
10:00 AM	0	4	91	0	1	95	0	9	0	4	1	13	0	1	61	15	0	77	0	0	2	2	0	4	189
10:15 AM	0	4	88	0	0	92	0	6	1	2	0	9	0	2	71	9	1	82	0	0	2	4	0	6	189
10:30 AM	0	3	110	1	0	114	0	15	2	2	2	19	0	8	96	16	0	120	0	0	2	2	0	4	257
10:45 AM	0	1	97	1	2	99	0	5	2	6	2	13	0	2	71	10	1	83	0	2	5	1	0	8	203
Hourly Total	0	12	386	2	3	400	0	35	5	14	5	54	0	13	299	50	2	362	0	2	11	9	0	22	838
11:00 AM	0	2	89	0	0	91	0	10	1	3	3	14	0	3	63	14	0	80	0	1	0	4	0	5	190
11:15 AM	0	1	115	1	0	117	0	5	0	2	0	7	0	2	86	13	0	101	0	0	1	2	0	3	228
11:30 AM	0	0	90	0	0	90	0	20	1	2	2	23	0	4	86	8	0	98	0	0	0	4	0	4	215
11:45 AM	0	2	115	1	0	118	0	11	1	3	0	15	0	3	94	17	0	114	0	1	3	5	0	9	256
Hourly Total	0	5	409	2	0	416	0	46	3	10	5	59	0	12	329	52	0	393	0	2	4	15	0	21	889
12:00 PM	0	1	96	3	0	100	0	15	1	3	0	19	0	3	95	16	0	114	0	3	4	8	0	15	248
12:15 PM	0	3	81	0	1	84	0	9	1	4	0	14	0	3	93	15	0	111	0	2	2	4	0	8	217
12:30 PM	0	2	70	0	0	72	0	6	1	5	0	12	0	4	96	14	0	114	0	1	1	3	0	5	203
12:45 PM	0	2	89	1	2	92	0	12	0	6	0	18	0	3	101	15	1	119	0	2	1	2	0	5	234
Hourly Total	0	8	336	4	3	348	0	42	3	18	0	63	0	13	385	60	1	458	0	8	8	17	0	33	902
1:00 PM	0	1	90	0	0	91	0	2	2	4	0	8	0	1	119	24	0	144	0	0	1	4	0	5	248
1:15 PM	0	4	90	0	2	94	0	12	0	2	0	14	0	0	108	16	0	124	0	0	0	1	0	1	233
1:30 PM	0	3	111	0	0	114	0	13	0	5	0	18	0	0	111	16	0	127	0	2	0	0	0	2	261
1:45 PM	0	5	79	0	1	84	0	11	0	3	1	14	0	2	106	21	0	129	0	0	1	1	0	2	229
Hourly Total	0	13	370	0	3	383	0	38	2	14	1	54	0	3	444	77	0	524	0	2	2	6	0	10	971
2:00 PM	0	1	96	0	1	97	0	10	0	4	0	14	0	3	153	26	0	182	0	1	1	4	0	6	299
2:15 PM	0	3	93	0	0	96	0	7	0	5	0	12	0	4	151	14	0	169	0	1	1	3	0	5	282
2:30 PM	0	3	92	0	0	95	0	13	0	4	0	17	0	1	163	24	1	188	0	1	1	1	0	3	303
2:45 PM	0	3	82	0	2	85	0	8	1	6	0	15	0	3	193	23	0	219	0	0	3	6	0	9	328
Hourly Total	0	10	363	0	3	373	0	38	1	19	0	58	0	11	660	87	1	758	0	3	6	14	0	23	1212
3:00 PM	0	6	89	1	1	96	0	16	1	1	0	18	0	1	255	26	0	282	0	1	6	7	0	14	410
3:15 PM	0	5	92	0	0	97	0	9	0	3	1	12	0	0	226	26	0	252	0	0	1	1	0	2	363
3:30 PM	0	3	86	0	0	89	0	12	1	6	0	19	0	0	252	32	0	284	0	0	0	1	0	1	393
3:45 PM	0	4	117	1	0	122	0	13	0	3	4	16	0	2	228	36	3	266	0	0	0	1	0	1	405
Hourly Total	0	18	384	2	1	404	0	50	2	13	5	65	0	3	961	120	3	1084	0	1	7	10	0	18	1571



**TMC 2428 - CSAH 7 @ 38th AVE**  
**Anoka MN**  
**Tuesday, July 9, 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						
6:45 AM	0	0	288	0	1	288	0	20	0	2	0	22	0	2	46	12	0	60	0	0	0	0	0	0	0	0	0	0	0	0	370
7:00 AM	0	0	194	0	0	194	0	15	0	4	0	19	0	1	60	9	0	70	0	1	0	2	0	3	0	1	0	2	0	3	286
7:15 AM	0	0	217	1	2	218	0	16	2	5	1	23	0	6	55	9	0	70	0	1	4	10	0	15	0	1	4	10	0	15	326
7:30 AM	0	1	257	1	1	259	0	19	0	2	0	21	0	5	54	7	0	66	0	1	0	6	0	7	0	1	0	6	0	7	353
Peak Hour Total	0	1	956	2	4	959	0	70	2	13	1	85	0	14	215	37	0	266	0	3	4	18	0	25	0	3	4	18	0	25	1335
PHF	0.000	0.250	0.830	0.500	0.500	0.832	0.000	0.875	0.250	0.650	0.250	0.924	0.000	0.583	0.896	0.771	0.000	0.950	0.000	0.750	0.250	0.450	0.000	0.417	0.000	0.750	0.250	0.450	0.000	0.417	0.902

**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	2	112	1	1	115	0	10	0	8	0	18	0	0	269	43	0	312	0	0	0	3	0	3	0	0	0	3	0	3	448
4:45 PM	0	2	110	1	0	113	0	6	0	7	1	13	0	0	254	29	1	283	0	0	1	3	0	4	0	0	1	3	0	4	413
5:00 PM	0	4	125	0	0	129	0	13	0	6	0	19	0	5	240	26	0	271	0	0	4	1	0	5	0	0	4	1	0	5	424
5:15 PM	0	4	103	1	0	108	0	11	0	6	0	17	0	2	229	26	0	257	0	0	0	0	0	0	0	0	0	0	0	0	382
Peak Hour Total	0	12	450	3	1	465	0	40	0	27	1	67	0	7	992	124	1	1123	0	0	5	7	0	12	0	0	5	7	0	12	1667
PHF	0.000	0.750	0.900	0.750	0.250	0.901	0.000	0.769	0.000	0.844	0.250	0.882	0.000	0.350	0.922	0.721	0.250	0.900	0.000	0.000	0.313	0.583	0.000	0.600	0.000	0.000	0.313	0.583	0.000	0.600	0.930

Total Vehicles On Leg		16168	
Vehicles Entering Intersection	8060	Vehicles Exiting Intersection	8108
<b>Southbound</b>			
Cars	26	7696	178
Heavy	0	160	0
<b>Total</b>	<b>26</b>	<b>7856</b>	<b>178</b>

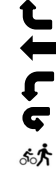


Total Vehicles on Leg 608	Eastbound	Vehicles Entering Intersection	330
		Vehicles Exiting Intersection	278
		Cars	2
		Heavy	0
		<b>Total</b>	<b>2</b>
		Cars	35
		Heavy	0
		<b>Total</b>	<b>35</b>
		Cars	93
		Heavy	0
		<b>Total</b>	<b>93</b>
		Cars	202
		Heavy	0
		<b>Total</b>	<b>202</b>



Daily Volumes

Cars	226	4	<b>230</b>
Heavy	63	0	<b>63</b>
<b>Total</b>	<b>716</b>	<b>4</b>	<b>720</b>
Cars	0	0	<b>0</b>
Heavy	16	18	<b>34</b>



Cars	7	1	188	7689	1014
Heavy	12	0	1	154	8
<b>Total</b>	<b>19</b>	<b>1</b>	<b>189</b>	<b>7843</b>	<b>1022</b>
<b>Northbound</b>					
Vehicles Entering Intersection	9055		Vehicles Exiting Intersection	8779	
Total Vehicles On Leg			17834		







# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2428

Study Date : 07/17/2024

## Signal Warrants - Summary

### Major Street Approaches

Northbound: CSAH 7

Number of Lanes : 2+

Total Approach Volume: 18,110

Southbound: CSAH 7

Number of Lanes :2+

Total Approach Volume: 16,120

### Minor Street Approaches

Eastbound: 38th Ave

Number of Lanes :1

Total Approach Volume: 256

Westbound: 38th Ave

Number of Lanes :2+

Total Approach Volume: 2,026

### Warrant Summary (Urban Values Apply)

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

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

Required volumes reached for 0 hours, 8 are needed

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

Required volumes reached for 14 hours, 8 are needed

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

Required 1A volumes reached for 2 hours, 8 are needed

Required 1B volumes reached for 15 hours, 8 are needed

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

Number of hours (15) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (54) 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 2428

Study Date : 07/17/2024

## 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 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 = **Mixed**

#### Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150 200**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	2246	+	930	=	3176	10	134	No
16:15 - 17:15	2270	+	878	=	3148	10	138	No
16:00 - 17:00	2320	+	808	=	3128	4	136	No
15:45 - 16:45	2286	+	826	=	3112	2	142	No
16:45 - 17:45	2098	+	942	=	3040	10	122	No
15:30 - 16:30	2230	+	774	=	3004	2	144	No
15:15 - 16:15	2196	+	804	=	3000	4	130	No
15:00 - 16:00	2168	+	808	=	2976	16	130	No
17:00 - 18:00	1982	+	892	=	2874	10	124	No
14:45 - 15:45	2074	+	734	=	2808	22	128	No
14:30 - 15:30	1882	+	746	=	2628	26	124	No
17:15 - 18:15	1834	+	784	=	2618	4	130	No
17:30 - 18:30	1718	+	796	=	2514	6	122	No
14:15 - 15:15	1716	+	744	=	2460	28	124	No
06:45 - 07:45	532	+	1918	=	2450	14	170	No
06:30 - 07:30	480	+	1956	=	2436	12	174	No
06:15 - 07:15	422	+	1976	=	2398	2	164	No
06:00 - 07:00	370	+	1964	=	2334	4	140	No
07:00 - 08:00	530	+	1798	=	2328	24	174	No
07:15 - 08:15	502	+	1800	=	2302	30	178	No
14:00 - 15:00	1516	+	746	=	2262	18	116	No
17:45 - 18:45	1542	+	716	=	2258	6	116	No
07:30 - 08:30	494	+	1664	=	2158	22	170	No
13:45 - 14:45	1336	+	744	=	2080	14	114	No
05:45 - 06:45	332		1696		2028	8	114	No

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2428

Study Date : 07/17/2024

## 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

14 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

#### Volume Requirements

Veh/Hr Major = **900**  
 Veh/Hr Minor = **75 100**

Time	Major Road					Minor Road			Met?
	Major NB	+	Major SB	=	Total	Minor EB	Minor WB		
15:45 - 16:45	2286	+	826	=	3112	2	142	Yes	
16:45 - 17:45	2098	+	942	=	3040	10	122	Yes	
14:45 - 15:45	2074	+	734	=	2808	22	128	Yes	
06:45 - 07:45	532	+	1918	=	2450	14	170	Yes	
17:45 - 18:45	1542	+	716	=	2258	6	116	Yes	
13:45 - 14:45	1336	+	744	=	2080	14	114	Yes	
05:45 - 06:45	332	+	1696	=	2028	8	114	Yes	
07:45 - 08:45	494	+	1436	=	1930	22	154	Yes	
12:45 - 13:45	1028	+	782	=	1810	12	116	Yes	
11:45 - 12:45	906	+	748	=	1654	34	120	Yes	
08:45 - 09:45	622	+	930	=	1552	32	138	Yes	
10:45 - 11:45	724	+	794	=	1518	18	114	Yes	
18:45 - 19:45	1012	+	484	=	1496	10	100	Yes	
09:45 - 10:45	680	+	766	=	1446	18	122	Yes	
05:30 - 06:30	294	+	1486	=	1780	8	94	No	
05:15 - 06:15	226	+	1324	=	1550	8	84	No	
05:00 - 06:00	164	+	1104	=	1268	4	78	No	
19:45 - 20:45	782	+	456	=	1238	12	82	No	
20:00 - 21:00	748	+	394	=	1142	10	66	No	
20:15 - 21:15	684	+	352	=	1036	10	66	No	
20:30 - 21:30	672	+	318	=	990	6	66	No	
04:45 - 05:45	90	+	900	=	990	0	66	No	
20:45 - 21:45	618	+	306	=	924	4	56	No	
21:00 - 22:00	544	+	334	=	878	6	50	No	
21:15 - 22:15	490		338		828	6	32	No	

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2428

Study Date : 07/17/2024

## 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 2 hours meet 1A minimums.  
15 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 = **Mixed**

#### Volume Requirements

Warrant                    1A    1B  
Veh/Hr Major =        **480** **720**  
Veh/Hr Minor EB =    **120** **60**  
Veh/Hr Minor WB =    **160** **80**

Time	Major Road				Total	Minor EB	Minor Road		Met1A?
	Major NB	+	Major SB	=			38th Ave	WB	
06:15 - 07:15	422	+	1976	=	2398	2	164	Yes	
07:15 - 08:15	502	+	1800	=	2302	30	178	Yes	
16:30 - 17:30	2246	+	930	=	3176	10	134	No	
16:15 - 17:15	2270	+	878	=	3148	10	138	No	
16:00 - 17:00	2320	+	808	=	3128	4	136	No	
15:45 - 16:45	2286	+	826	=	3112	2	142	No	
16:45 - 17:45	2098	+	942	=	3040	10	122	No	
15:30 - 16:30	2230	+	774	=	3004	2	144	No	
15:15 - 16:15	2196	+	804	=	3000	4	130	No	
15:00 - 16:00	2168	+	808	=	2976	16	130	No	
17:00 - 18:00	1982	+	892	=	2874	10	124	No	
14:45 - 15:45	2074		734		2808	22	128	No	

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	2270	+	878	=	3148	10	138	Yes
15:15 - 16:15	2196	+	804	=	3000	4	130	Yes
17:15 - 18:15	1834	+	784	=	2618	4	130	Yes
14:15 - 15:15	1716	+	744	=	2460	28	124	Yes
06:15 - 07:15	422	+	1976	=	2398	2	164	Yes
07:15 - 08:15	502	+	1800	=	2302	30	178	Yes
13:15 - 14:15	1124	+	778	=	1902	10	120	Yes
18:15 - 19:15	1256	+	614	=	1870	4	102	Yes
11:15 - 12:15	854	+	850	=	1704	24	128	Yes
08:15 - 09:15	568	+	1092	=	1660	10	150	Yes
12:15 - 13:15	976	+	678	=	1654	20	104	Yes
05:15 - 06:15	226		1324		1550	8	84	Yes

# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2428

Study Date : 07/17/2024

## 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.

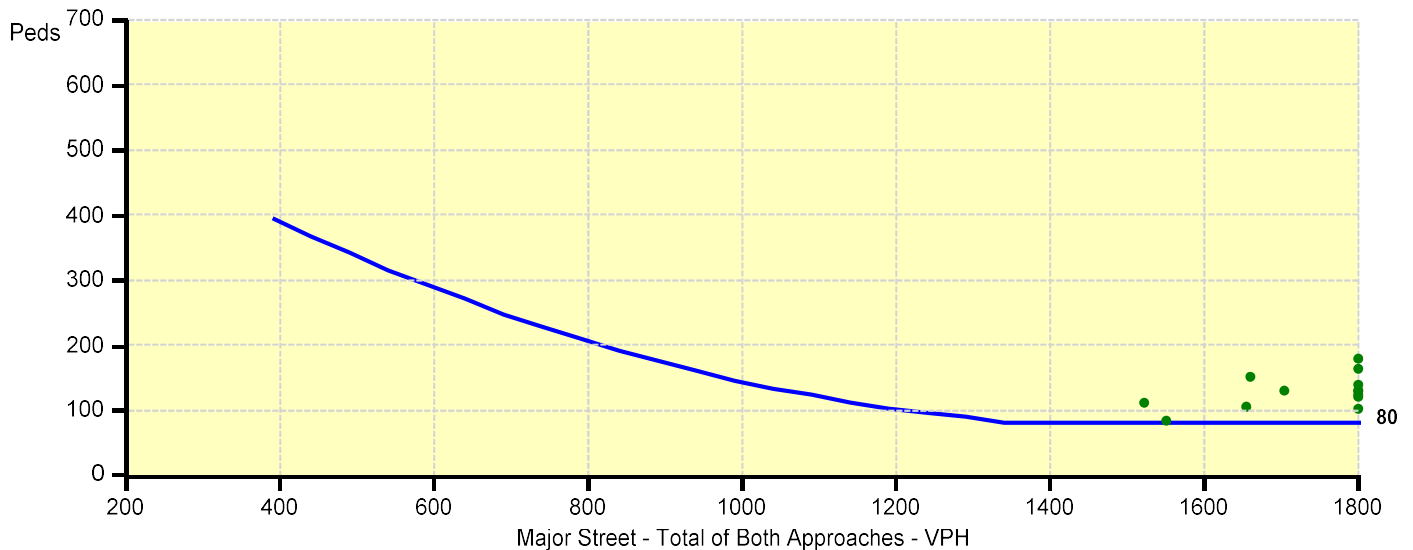
#### Summary

15 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

Time	Major Road CSAH 7					Minor Road 38th Ave		Met?
	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:15 - 17:15	2270	+	878	=	3148	10	138	Yes
15:15 - 16:15	2196	+	804	=	3000	4	130	Yes
17:15 - 18:15	1834	+	784	=	2618	4	130	Yes
14:15 - 15:15	1716	+	744	=	2460	28	124	Yes
06:15 - 07:15	422	+	1976	=	2398	2	164	Yes
07:15 - 08:15	502	+	1800	=	2302	30	178	Yes
13:15 - 14:15	1124	+	778	=	1902	10	120	Yes
18:15 - 19:15	1256	+	614	=	1870	4	102	Yes
11:15 - 12:15	854	+	850	=	1704	24	128	Yes
08:15 - 09:15	568	+	1092	=	1660	10	150	Yes
12:15 - 13:15	976	+	678	=	1654	20	104	Yes
05:15 - 06:15	226		1324		1550	8	84	Yes



# ANOKA COUNTY HIGHWAY

## PC - WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2428

Study Date : 07/17/2024

## 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

41 one hour periods meet minimums.  
Warrant IS met.

#### Site Data Required

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

Time	Major Road CSAH 7				Total	Minor Road 38th Ave		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:30 - 17:30	2246	+	930	=	3176	10	134	Yes
16:15 - 17:15	2270	+	878	=	3148	10	138	Yes
16:00 - 17:00	2320	+	808	=	3128	4	136	Yes
15:45 - 16:45	2286	+	826	=	3112	2	142	Yes
16:45 - 17:45	2098	+	942	=	3040	10	122	Yes
15:30 - 16:30	2230	+	774	=	3004	2	144	Yes
15:15 - 16:15	2196	+	804	=	3000	4	130	Yes
15:00 - 16:00	2168	+	808	=	2976	16	130	Yes
17:00 - 18:00	1982	+	892	=	2874	10	124	Yes
14:45 - 15:45	2074	+	734	=	2808	22	128	Yes
14:30 - 15:30	1882	+	746	=	2628	26	124	Yes
17:15 - 18:15	1834		784		2618	4	130	Yes

