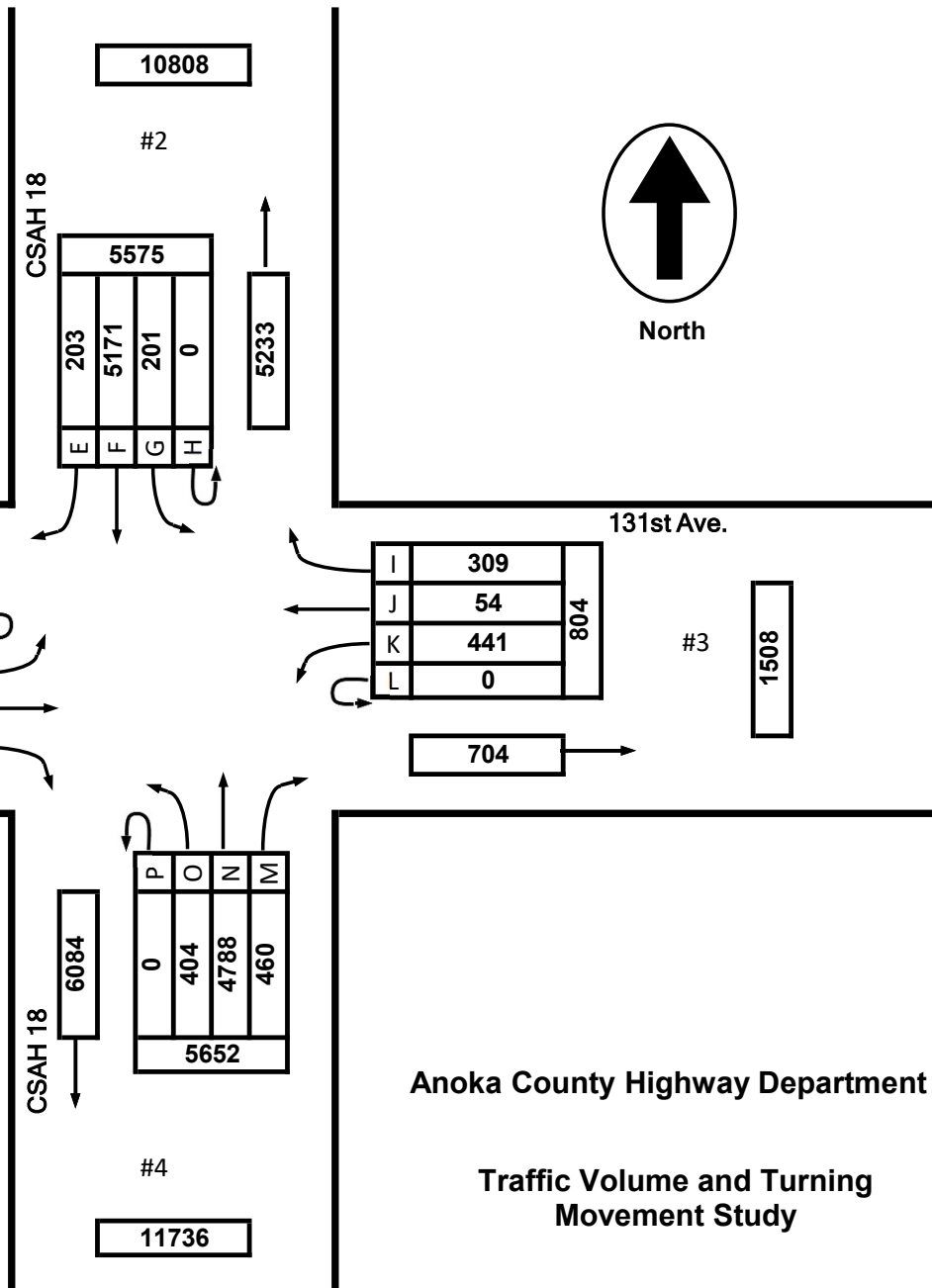


Date : 11/10/21

Count Number : TMC 2150

Location : CSAH 18 (Coon Creek Blvd.)  
@ 131st Ave.

Collection Period : 24 Hours



EXISTING LANES OF APPROACH

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

Anoka County Highway Department

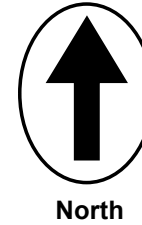
Traffic Volume and Turning Movement Study

Date : 11/10/21

Count Number : TMC 2150

Location : CSAH 18 (Coon Creek Blvd.)  
@ 131st Ave.

Collection Period : 7 AM - 8 AM  
**AM PEAK**



88

#1

66	0	D
	13	C
	9	B
	44	A

131st Ave.

747

#2

CSAH 18	7	542	8	0	
	E		F	G	H

205

131st Ave.

I	16	71
J	2	
K	53	
L	0	

#3

107

36

624

CSAH 18

P	O	N	M
0	13	176	19
208			

#4

832

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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

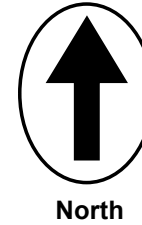
Date : 11/10/21

Count Number : TMC 2150

Location : CSAH 18 (Coon Creek Blvd.)  
@ 131st Ave.

Collection Period : 3:30 - 4:30 PM

PM PEAK



133

#1

61	0	D
	19	C
	4	B
	38	A

131st Ave.

72

1017

#2

CSAH 18

428			
28	372	28	0
E	F	G	H

589

131st Ave.

I	41	66
J	6	
K	19	
L	0	

#3

161

95

CSAH 18

429

P	O	N	M
0	38	529	63
630			

#4

1059

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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

**CSAH 18 @ 131st Ave**  
**Coon Rapids MN**  
**Wednesday, November 10, 2021**

Time	Southbound CSAH 18						Westbound 131st Ave						Northbound CSAH 18						Eastbound 131st 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	3	1	0	4	0	1	1	0	0	2	0	1	5	2	0	8	0	0	0	0	0	0	14
12:15 AM	0	0	3	0	0	3	0	1	0	0	0	1	0	0	4	0	0	4	0	0	0	0	0	0	8
12:30 AM	0	0	1	0	0	1	0	0	1	1	0	2	0	0	3	0	0	3	0	0	0	0	0	0	6
12:45 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	3	1	0	4	0	0	0	0	0	0	6
Hourly Total	0	0	8	1	0	9	0	3	2	1	0	6	0	1	15	3	0	19	0	0	0	0	0	0	34
1:00 AM	0	0	2	0	0	2	0	1	0	0	0	1	0	0	3	1	0	4	0	0	0	1	0	1	8
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
1:30 AM	0	1	3	0	0	4	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	8
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	4	0	0	0	0	0	0	4
Hourly Total	0	1	5	0	0	6	0	1	0	0	0	1	0	3	9	2	0	14	0	0	0	1	0	1	22
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	4
2:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	8
2:30 AM	0	0	1	0	0	1	0	2	0	0	0	2	0	0	5	2	0	7	0	0	0	0	0	0	10
2:45 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	3	1	0	4	0	0	0	0	0	0	6
Hourly Total	0	0	4	0	0	4	0	3	0	0	0	3	0	1	16	4	0	21	0	0	0	0	0	0	28
3:00 AM	0	0	7	0	0	7	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	8
3:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
3:30 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	2	12
3:45 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	2	5	0	0	7	0	0	1	1	0	2	14
Hourly Total	0	0	24	0	0	24	0	0	0	0	0	0	0	2	8	0	0	10	0	0	1	3	0	4	38
4:00 AM	0	0	7	0	0	7	0	2	0	0	0	2	0	1	1	0	0	2	0	0	0	0	0	0	11
4:15 AM	0	0	10	0	0	10	0	2	0	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	14
4:30 AM	0	0	24	0	0	24	0	3	0	0	0	3	0	0	5	0	0	5	0	1	0	3	0	4	36
4:45 AM	0	2	28	1	0	31	0	1	0	2	0	3	0	0	5	0	0	5	0	1	0	1	0	2	41
Hourly Total	0	2	69	1	0	72	0	8	0	2	0	10	0	1	13	0	0	14	0	2	0	4	0	6	102
5:00 AM	0	0	37	0	0	37	0	6	0	0	0	6	0	0	1	0	0	1	0	0	0	4	0	4	48
5:15 AM	0	0	45	0	0	45	0	2	0	0	0	2	0	0	6	1	0	7	0	1	1	4	0	6	60
5:30 AM	0	0	56	0	0	56	0	6	0	2	0	8	0	0	5	0	0	5	0	0	0	7	0	7	76
5:45 AM	0	1	60	0	0	61	0	10	0	1	0	11	0	0	10	0	0	10	0	1	0	3	0	4	86
Hourly Total	0	1	198	0	0	199	0	24	0	3	0	27	0	0	22	1	0	23	0	2	1	18	0	21	270
6:00 AM	0	0	65	0	0	65	0	14	0	1	0	15	0	0	14	0	0	14	0	1	0	9	0	10	104
6:15 AM	0	0	79	1	0	80	0	15	0	2	0	17	0	1	12	1	0	14	0	2	0	7	0	9	120
6:30 AM	0	2	103	1	0	106	0	9	1	1	0	11	0	1	27	2	0	30	0	1	0	19	0	20	167
6:45 AM	0	2	101	2	0	105	0	11	0	1	0	12	0	3	45	0	0	48	0	2	0	5	0	7	172
Hourly Total	0	4	348	4	0	356	0	49	1	5	0	55	0	5	98	3	0	106	0	6	0	40	0	46	563
7:00 AM	0	2	107	2	0	111	0	16	0	1	0	17	0	2	43	2	0	47	0	4	4	12	0	20	195
7:15 AM	0	2	156	2	0	160	0	12	1	6	0	19	0	4	47	3	0	54	0	2	3	7	0	12	245
7:30 AM	0	3	150	2	0	155	0	16	0	4	0	20	0	3	47	5	0	55	0	4	2	10	0	16	246
7:45 AM	0	1	114	1	0	116	0	9	1	5	0	15	0	4	39	9	0	52	0	3	0	15	0	18	201
Hourly Total	0	8	527	7	0	542	0	53	2	16	0	71	0	13	176	19	0	208	0	13	9	44	0	66	887

**CSAH 18 @ 131st Ave**  
**Coon Rapids MN**  
**Wednesday, November 10, 2021**

Time	Southbound CSAH 18						Westbound 131st Ave						Northbound CSAH 18						Eastbound 131st 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	1	94	0	0	95	0	10	1	5	0	16	0	5	39	2	0	46	0	0	1	12	0	13	170
8:15 AM	0	3	77	4	0	84	0	8	2	4	0	14	0	2	49	7	0	58	0	1	1	7	0	9	165
8:30 AM	0	3	86	2	0	91	0	8	1	4	0	13	0	0	52	1	0	53	0	1	1	11	0	13	170
8:45 AM	0	0	90	2	0	92	0	8	1	6	0	15	0	7	55	5	0	67	0	2	1	7	0	10	184
Hourly Total	0	7	347	8	0	362	0	34	5	19	0	58	0	14	195	15	0	224	0	4	4	37	0	45	689
9:00 AM	0	1	73	1	0	75	0	12	2	4	0	18	0	3	36	1	0	40	0	0	1	12	0	13	146
9:15 AM	0	3	84	2	0	89	0	4	0	5	0	9	0	6	61	3	0	70	0	3	0	10	0	13	181
9:30 AM	0	3	94	2	0	99	0	9	1	1	0	11	0	5	51	3	0	59	0	2	1	8	0	11	180
9:45 AM	0	1	101	1	0	103	0	6	1	0	0	7	0	5	51	5	0	61	0	3	0	8	0	11	182
Hourly Total	0	8	352	6	0	366	0	31	4	10	0	45	0	19	199	12	0	230	0	8	2	38	0	48	689
10:00 AM	0	1	62	2	0	65	0	2	2	3	0	7	0	3	50	6	0	59	0	3	1	15	0	19	150
10:15 AM	0	2	99	5	0	106	0	7	0	3	0	10	0	6	40	5	0	51	0	2	1	8	0	11	178
10:30 AM	0	1	58	2	0	61	0	12	0	4	0	16	0	3	59	3	0	65	0	1	0	6	0	7	149
10:45 AM	0	2	70	3	0	75	0	5	0	3	0	8	0	6	64	4	0	74	0	1	0	5	0	6	163
Hourly Total	0	6	289	12	0	307	0	26	2	13	0	41	0	18	213	18	0	249	0	7	2	34	0	43	640
11:00 AM	0	4	77	1	0	82	0	7	0	4	0	11	0	4	65	7	0	76	0	1	1	10	0	12	181
11:15 AM	0	6	64	3	0	73	0	3	0	4	0	7	0	5	51	3	0	59	0	1	1	9	0	11	150
11:30 AM	0	4	79	2	0	85	0	7	1	3	0	11	0	3	66	7	0	76	0	5	0	5	0	10	182
11:45 AM	0	2	92	3	0	97	0	4	1	2	0	7	0	9	81	6	0	96	0	4	1	6	0	11	211
Hourly Total	0	16	312	9	0	337	0	21	2	13	0	36	0	21	263	23	0	307	0	11	3	30	0	44	724
12:00 PM	0	4	77	4	0	85	0	6	2	3	0	11	0	8	82	5	0	95	0	4	0	8	0	12	203
12:15 PM	0	0	75	4	0	79	0	6	1	1	0	8	0	2	75	5	0	82	0	0	0	4	0	4	173
12:30 PM	0	1	92	4	0	97	0	6	1	6	0	13	0	4	68	6	0	78	0	2	2	4	0	8	196
12:45 PM	0	9	100	6	0	115	0	9	0	6	0	15	0	6	80	6	0	92	0	2	1	5	0	8	230
Hourly Total	0	14	344	18	0	376	0	27	4	16	0	47	0	20	305	22	0	347	0	8	3	21	0	32	802
1:00 PM	0	5	75	0	0	80	0	11	0	2	0	13	0	5	83	5	0	93	0	1	0	6	0	7	193
1:15 PM	0	1	73	4	0	78	0	9	1	2	0	12	0	6	75	6	0	87	0	1	0	5	0	6	183
1:30 PM	0	6	76	4	0	86	0	6	0	1	0	7	0	6	76	6	0	88	0	1	0	5	0	6	187
1:45 PM	0	2	81	3	0	86	0	11	0	6	0	17	0	3	82	11	0	96	0	1	1	2	0	4	203
Hourly Total	0	14	305	11	0	330	0	37	1	11	0	49	0	20	316	28	0	364	0	4	1	18	0	23	766
2:00 PM	0	2	76	0	0	78	0	10	1	0	0	11	0	6	75	6	0	87	0	3	0	4	0	7	183
2:15 PM	0	5	75	2	0	82	0	4	3	5	0	12	0	6	91	9	0	106	0	4	0	8	0	12	212
2:30 PM	0	4	97	4	0	105	0	6	1	3	0	10	0	10	93	14	0	117	0	4	0	4	0	8	240
2:45 PM	0	3	59	4	0	66	0	10	2	3	0	15	0	8	131	9	0	148	0	2	1	6	0	9	238
Hourly Total	0	14	307	10	0	331	0	30	7	11	0	48	0	30	390	38	0	458	0	13	1	22	0	36	873
3:00 PM	0	3	80	3	0	86	0	7	1	3	0	11	0	6	113	5	0	124	0	3	2	6	0	11	232
3:15 PM	0	4	76	7	0	87	0	12	1	8	0	21	0	12	99	6	0	117	0	5	1	8	0	14	239
3:30 PM	0	11	97	7	0	115	0	4	1	11	0	16	0	8	132	18	0	158	0	6	0	10	0	16	305
3:45 PM	0	3	93	10	0	106	0	2	2	8	0	12	0	8	128	11	0	147	0	2	1	7	0	10	275
Hourly Total	0	21	346	27	0	394	0	25	5	30	0	60	0	34	472	40	0	546	0	16	4	31	0	51	1051

**CSAH 18 @ 131st Ave  
Coon Rapids MN  
Wednesday, November 10, 2021**

Time	Southbound CSAH 18						Westbound 131st Ave						Northbound CSAH 18						Eastbound 131st 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	
4:00 PM	0	13	94	8	0	115	0	7	1	12	0	20	0	12	133	15	0	160	0	4	2	12	0	18	313
4:15 PM	0	1	88	3	0	92	0	6	2	10	0	18	0	10	136	19	0	165	0	7	1	9	0	17	292
4:30 PM	0	3	105	9	0	117	0	1	1	7	0	9	0	8	130	13	0	151	0	3	0	13	0	16	293
4:45 PM	0	6	85	3	0	94	0	8	3	10	0	21	0	7	134	11	0	152	0	0	1	1	0	2	269
Hourly Total	0	23	372	23	0	418	0	22	7	39	0	68	0	37	533	58	0	628	0	14	4	35	0	53	1167
5:00 PM	0	6	74	2	0	82	0	6	2	8	0	16	0	17	132	18	0	167	0	2	1	9	0	12	277
5:15 PM	0	2	103	14	0	119	0	3	2	11	0	16	0	12	130	12	0	154	0	5	2	7	0	14	303
5:30 PM	0	2	82	5	0	89	0	4	0	4	0	8	0	13	98	7	0	118	0	1	0	11	0	12	227
5:45 PM	0	3	78	4	0	85	0	3	1	18	0	22	0	4	96	7	0	107	0	1	1	8	0	10	224
Hourly Total	0	13	337	25	0	375	0	16	5	41	0	62	0	46	456	44	0	546	0	9	4	35	0	48	1031
6:00 PM	0	5	84	4	0	93	0	1	2	5	0	8	0	7	107	12	0	126	0	1	1	8	0	10	237
6:15 PM	0	4	78	4	0	86	0	3	2	8	0	13	0	10	94	8	0	112	0	2	1	8	0	11	222
6:30 PM	0	3	73	5	0	81	0	3	2	8	0	13	0	9	81	12	0	102	0	2	0	4	0	6	202
6:45 PM	0	1	58	1	0	60	0	4	0	7	0	11	0	5	75	5	0	85	0	1	0	4	0	5	161
Hourly Total	0	13	293	14	0	320	0	11	6	28	0	45	0	31	357	37	0	425	0	6	2	24	0	32	822
7:00 PM	0	4	55	1	0	60	0	1	0	6	0	7	0	9	80	7	0	96	0	0	0	4	0	4	167
7:15 PM	0	4	39	3	0	46	0	3	1	2	0	6	0	7	61	10	0	78	0	0	0	2	0	2	132
7:30 PM	0	5	48	4	0	57	0	4	0	6	0	10	0	3	71	7	0	81	0	0	0	2	0	2	150
7:45 PM	0	4	42	2	0	48	0	2	0	3	0	5	0	3	51	6	0	60	0	1	0	1	0	2	115
Hourly Total	0	17	184	10	0	211	0	10	1	17	0	28	0	22	263	30	0	315	0	1	0	9	0	10	564
8:00 PM	0	2	31	4	0	37	0	0	0	4	0	4	0	4	51	6	0	61	0	4	0	2	0	6	108
8:15 PM	0	1	15	0	0	16	0	4	0	2	0	6	0	5	57	8	0	70	0	0	1	4	0	5	97
8:30 PM	0	3	19	2	0	24	0	1	0	4	0	5	0	7	54	5	0	66	0	0	0	4	0	4	99
8:45 PM	0	4	18	1	0	23	0	1	0	4	0	5	0	8	37	8	0	53	0	1	0	3	0	4	85
Hourly Total	0	10	83	7	0	100	0	6	0	14	0	20	0	24	199	27	0	250	0	5	1	13	0	19	389
9:00 PM	0	0	16	3	0	19	0	0	0	3	0	3	0	12	51	3	0	66	0	3	0	2	0	5	93
9:15 PM	0	1	18	0	0	19	0	0	0	1	0	1	0	7	43	7	0	57	0	0	0	2	0	2	79
9:30 PM	0	1	19	1	0	21	0	0	0	1	0	1	0	5	31	2	0	38	0	1	0	3	0	4	64
9:45 PM	0	0	14	1	0	15	0	0	0	3	0	3	0	5	21	1	0	27	0	1	0	2	0	3	48
Hourly Total	0	2	67	5	0	74	0	0	0	8	0	8	0	29	146	13	0	188	0	5	0	9	0	14	284
10:00 PM	0	0	13	2	0	15	0	1	0	3	0	4	0	3	27	4	0	34	0	0	1	4	0	5	58
10:15 PM	0	3	9	0	0	12	0	1	0	3	0	4	0	5	25	4	0	34	0	0	0	0	0	0	50
10:30 PM	0	1	8	1	0	10	0	0	0	1	0	1	0	1	10	3	0	14	0	0	0	0	0	0	25
10:45 PM	0	0	9	1	0	10	0	0	0	0	0	0	0	2	14	3	0	19	0	1	0	0	0	1	30
Hourly Total	0	4	39	4	0	47	0	2	0	7	0	9	0	11	76	14	0	101	0	1	1	4	0	6	163
11:00 PM	0	1	2	1	0	4	0	0	0	2	0	2	0	0	16	2	0	18	0	1	0	0	0	1	25
11:15 PM	0	1	6	0	0	7	0	1	0	1	0	2	0	1	11	6	0	18	0	0	0	0	0	0	27
11:30 PM	0	1	0	0	0	1	0	1	0	1	0	2	0	0	10	1	0	11	0	0	0	1	0	1	15
11:45 PM	0	0	3	0	0	3	0	0	0	1	0	1	0	1	11	0	0	12	0	0	0	1	0	1	17
Hourly Total	0	3	11	1	0	15	0	2	0	5	0	7	0	2	48	9	0	59	0	1	0	2	0	3	84
<b>DAILY TOTAL</b>	<b>0</b>	<b>201</b>	<b>5171</b>	<b>203</b>	<b>0</b>	<b>5575</b>	<b>0</b>	<b>441</b>	<b>54</b>	<b>309</b>	<b>0</b>	<b>804</b>	<b>0</b>	<b>404</b>	<b>4788</b>	<b>460</b>	<b>0</b>	<b>5652</b>	<b>0</b>	<b>136</b>	<b>43</b>	<b>472</b>	<b>0</b>	<b>651</b>	<b>12682</b>
<b>Cars</b>	0	194	5094	200	0	5488	0	437	51	304	0	792	0	398	4710	454	0	5562	0	128	41	465	0	634	12476
<b>Heavy Vehicles</b>	0	7	77	3	0	87	0	4	3	5	0	12	0	6	78	6	0	90	0	8	2	7	0	17	206
<b>Heavy Vehicle %</b>	0.00%	3.48%	1.49%	1.48%	0.00%	1.56%	0.00%	0.91%	5.56%	1.62%	0.00%	1.49%	0.00%	1.49%	1.63%	1.30%	0.00%	1.59%	0.00%	5.88%	4.65%	1.48%	0.00%	2.61%	1.62%

**CSAH 18 @ 131st Ave  
Coon Rapids MN  
Wednesday, November 10, 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																									
7:00 AM	0	2	107	2	0	111	0	16	0	1	0	17	0	2	43	2	0	47	0	4	4	12	0	20	0	2	156	2	0	160	0	12	1	6	0	19	0	4	47	3	0	54	0	2	3	7	0	12	195
7:15 AM	0	2	156	2	0	160	0	16	0	4	0	20	0	3	47	5	0	55	0	4	2	10	0	16	0	1	114	1	0	116	0	9	1	5	0	15	0	4	39	9	0	52	0	3	0	15	0	18	245
7:30 AM	0	3	150	2	0	155	0	16	0	4	0	20	0	3	47	5	0	55	0	4	2	10	0	16	0	1	114	1	0	116	0	9	1	5	0	15	0	4	39	9	0	52	0	3	0	15	0	18	246
7:45 AM	0	1	114	1	0	116	0	9	1	5	0	15	0	4	39	9	0	52	0	3	0	15	0	18	0	1	114	1	0	116	0	9	1	5	0	15	0	4	39	9	0	52	0	3	0	15	0	18	201
Peak Hour Total	0	8	527	7	0	542	0	53	2	16	0	71	0	13	176	19	0	208	0	13	9	44	0	66	0	8	527	7	0	542	0	53	2	16	0	71	0	13	176	19	0	208	0	13	9	44	0	66	887
PHF	0.000	0.667	0.845	0.875	0.000	0.847	0.000	0.828	0.500	0.667	0.000	0.888	0.000	0.813	0.936	0.528	0.000	0.945	0.000	0.813	0.563	0.733	0.000	0.825	0.000	0.667	0.845	0.875	0.000	0.847	0.000	0.828	0.500	0.667	0.000	0.888	0.000	0.813	0.936	0.528	0.000	0.945	0.000	0.813	0.563	0.733	0.000	0.825	0.901

**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																									
3:30 PM	0	11	97	7	0	115	0	4	1	11	0	16	0	8	132	18	0	158	0	6	0	10	0	16	0	3	93	10	0	106	0	2	2	8	0	12	0	8	128	11	0	147	0	2	1	7	0	10	305
3:45 PM	0	3	94	8	0	115	0	7	1	12	0	20	0	12	133	15	0	160	0	4	2	12	0	18	0	13	94	8	0	115	0	7	1	12	0	20	0	12	133	15	0	160	0	4	2	12	0	18	275
4:00 PM	0	1	88	3	0	92	0	6	2	10	0	18	0	10	136	19	0	165	0	7	1	9	0	17	0	1	88	3	0	92	0	6	2	10	0	18	0	10	136	19	0	165	0	7	1	9	0	17	313
4:15 PM	0	28	372	28	0	428	0	19	6	41	0	66	0	38	529	63	0	630	0	19	4	38	0	61	0	28	372	28	0	428	0	19	6	41	0	66	0	38	529	63	0	630	0	19	4	38	0	61	292
Peak Hour Total	0	28	372	28	0	428	0	19	6	41	0	66	0	38	529	63	0	630	0	19	4	38	0	61	0	28	372	28	0	428	0	19	6	41	0	66	0	38	529	63	0	630	0	19	4	38	0	61	1185
PHF	0.000	0.538	0.959	0.700	0.000	0.930	0.000	0.679	0.750	0.854	0.000	0.825	0.000	0.792	0.972	0.829	0.000	0.955	0.000	0.679	0.500	0.792	0.000	0.847	0.000	0.538	0.959	0.700	0.000	0.930	0.000	0.679	0.750	0.854	0.000	0.825	0.000	0.792	0.972	0.829	0.000	0.955	0.000	0.679	0.500	0.792	0.000	0.847	0.946

Total Vehicles On Leg		10808	
Vehicles Entering Intersection	5575	Vehicles Exiting Intersection	5233
<b>Southbound</b>			
Cars	200	5094	194
Heavy	3	77	7
<b>Total</b>	<b>203</b>	<b>5171</b>	<b>201</b>



Total Vehicles on Leg 1312	Vehicles Entering Intersection 651	Eastbound	Cars	Heavy	Total	
			0	0	0	
	0		0	0		
	128		8	136		
	41		2	43		
Vehicles Exiting Intersection 661	465	7	472			

Daily Volumes

Total Vehicles on Leg 1508	Vehicles Entering Intersection 804	Westbound	Cars	Heavy	Total	
			304	5	309	
	51		3	54		
	437		4	441		
	0		0	0		
Vehicles Exiting Intersection 704	0	0	0			

Cars	0	0	398	4710	454
Heavy	0	0	6	78	6
<b>Total</b>	<b>0</b>	<b>0</b>	<b>404</b>	<b>4788</b>	<b>460</b>
<b>Northbound</b>					
Vehicles Entering Intersection	5652		Vehicles Exiting Intersection	6084	
Total Vehicles On Leg	11736				

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





# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2150

Study Date : 12/07/2021

## Signal Warrants - Summary

---

### Major Street Approaches

#### Northbound: CSAH 18

Number of Lanes : 1

Total Approach Volume: 5,652

#### Southbound: CSAH 18

Number of Lanes : 1

Total Approach Volume: 5,575

### Minor Street Approaches

#### Eastbound: 131st Ave.

Number of Lanes : 1

Total Approach Volume: 651

#### Westbound: 131st Ave.

Number of Lanes : 1

Total Approach Volume: 804

---

### Warrant Summary (Rural 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 9 hours, 8 are needed

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

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 13 hours, 8 are needed

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

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

**Warrant 3 - Peak Hour.....Not Satisfied**

**Warrant 3A - Peak Hour Delay.....Not Satisfied**

Approach volumes on minor street don't exceed minimums for any one hour period. 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 2150

Study Date : 12/07/2021

## 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

Only 0 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 CSAH 18				Total	Minor Road 131st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:30 - 16:30	630	+	428	=	1058	61	66	No
15:45 - 16:45	623	+	430	=	1053	61	59	No
16:00 - 17:00	628	+	418	=	1046	53	68	No
16:30 - 17:30	624	+	412	=	1036	44	62	No
16:15 - 17:15	635	+	385	=	1020	47	64	No
15:15 - 16:15	582	+	423	=	1005	58	69	No
16:45 - 17:45	591	+	384	=	975	40	61	No
15:00 - 16:00	546	+	394	=	940	51	60	No
17:00 - 18:00	546	+	375	=	921	48	62	No
14:45 - 15:45	547	+	354	=	901	50	63	No
17:15 - 18:15	505	+	386	=	891	46	54	No
14:30 - 15:30	506	+	344	=	850	42	57	No
14:15 - 15:15	495	+	339	=	834	40	48	No
17:30 - 18:30	463	+	353	=	816	43	51	No
17:45 - 18:45	447	+	345	=	792	37	56	No
14:00 - 15:00	458	+	331	=	789	36	48	No
13:45 - 14:45	406	+	351	=	757	31	50	No
07:00 - 08:00	208	+	542	=	750	66	71	No
18:00 - 19:00	425	+	320	=	745	32	45	No
06:45 - 07:45	204	+	531	=	735	55	68	No
07:15 - 08:15	207	+	526	=	733	59	70	No
12:00 - 13:00	347	+	376	=	723	32	47	No
12:30 - 13:30	350	+	370	=	720	29	53	No
12:45 - 13:45	360	+	359	=	719	27	47	No
12:15 - 13:15	345		371		716	27	49	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2150

Study Date : 12/07/2021

## 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

9 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				Minor Road		Met?	
	Major NB	+	Major SB	=	Total	Minor EB		Minor WB
15:30 - 16:30	630	+	428	=	1058	61	66	Yes
16:30 - 17:30	624	+	412	=	1036	44	62	Yes
14:30 - 15:30	506	+	344	=	850	42	57	Yes
17:45 - 18:45	447	+	345	=	792	37	56	Yes
07:15 - 08:15	207	+	526	=	733	59	70	Yes
12:30 - 13:30	350	+	370	=	720	29	53	Yes
09:15 - 10:15	249	+	356	=	605	54	34	Yes
08:15 - 09:15	218	+	342	=	560	45	60	Yes
06:15 - 07:15	139	+	402	=	541	56	57	Yes
14:15 - 15:15	495	+	339	=	834	40	48	No
17:30 - 18:30	463	+	353	=	816	43	51	No
14:00 - 15:00	458	+	331	=	789	36	48	No
13:45 - 14:45	406	+	351	=	757	31	50	No
12:00 - 13:00	347	+	376	=	723	32	47	No
12:15 - 13:15	345	+	371	=	716	27	49	No
13:30 - 14:30	377	+	332	=	709	29	47	No
11:45 - 12:45	351	+	358	=	709	35	39	No
11:30 - 12:30	349	+	346	=	695	37	37	No
11:15 - 12:15	326	+	340	=	666	44	36	No
11:00 - 12:00	307	+	337	=	644	44	36	No
10:45 - 11:45	285	+	315	=	600	39	37	No
10:15 - 11:15	266	+	324	=	590	36	45	No
10:30 - 11:30	274	+	291	=	565	36	42	No
18:45 - 19:45	340	+	223	=	563	13	34	No
19:00 - 20:00	315		211		526	10	28	No

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2150

Study Date : 12/07/2021

## 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

Only 0 hours meet 1A minimums.  
13 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 18

#### Minor Road 131st Ave.

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
15:30 - 16:30	630	+	428	=	1058	61	66	No
15:45 - 16:45	623	+	430	=	1053	61	59	No
16:00 - 17:00	628	+	418	=	1046	53	68	No
16:30 - 17:30	624	+	412	=	1036	44	62	No
16:15 - 17:15	635	+	385	=	1020	47	64	No
15:15 - 16:15	582	+	423	=	1005	58	69	No
16:45 - 17:45	591	+	384	=	975	40	61	No
15:00 - 16:00	546	+	394	=	940	51	60	No
17:00 - 18:00	546	+	375	=	921	48	62	No
14:45 - 15:45	547	+	354	=	901	50	63	No
17:15 - 18:15	505	+	386	=	891	46	54	No
14:30 - 15:30	506	+	344	=	850	42	57	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:00 - 17:00	628	+	418	=	1046	53	68	Yes
15:00 - 16:00	546	+	394	=	940	51	60	Yes
17:00 - 18:00	546	+	375	=	921	48	62	Yes
14:00 - 15:00	458	+	331	=	789	36	48	Yes
07:00 - 08:00	208	+	542	=	750	66	71	Yes
18:00 - 19:00	425	+	320	=	745	32	45	Yes
12:00 - 13:00	347	+	376	=	723	32	47	Yes
13:00 - 14:00	364	+	330	=	694	23	49	Yes
11:00 - 12:00	307	+	337	=	644	44	36	Yes
09:00 - 10:00	230	+	366	=	596	48	45	Yes
08:00 - 09:00	224	+	362	=	586	45	58	Yes
10:00 - 11:00	249	+	307	=	556	43	41	Yes

# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2150

Study Date : 12/07/2021

## 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.

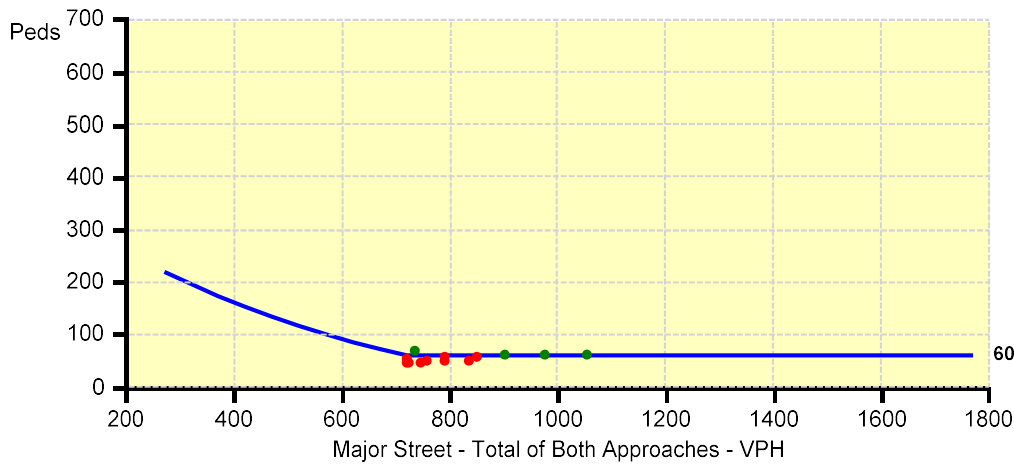
#### Summary

4 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 18				Total	Minor Road 131st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	623	+	430	=	1053	61	59	Yes
16:45 - 17:45	591	+	384	=	975	40	61	Yes
14:45 - 15:45	547	+	354	=	901	50	63	Yes
06:45 - 07:45	204	+	531	=	735	55	68	Yes
14:30 - 15:30	506	+	344	=	850	42	57	No
14:15 - 15:15	495	+	339	=	834	40	48	No
17:45 - 18:45	447	+	345	=	792	37	56	No
14:00 - 15:00	458	+	331	=	789	36	48	No
13:45 - 14:45	406	+	351	=	757	31	50	No
18:00 - 19:00	425	+	320	=	745	32	45	No
12:00 - 13:00	347	+	376	=	723	32	47	No
							53	No



# ANOKA COUNTY HIGHWAY

## PC-WARRANTS

### TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2150

Study Date : 12/07/2021

## 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

Only 0 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**

Time	Major Road CSAH 18				Total	Minor Road 131st Ave.		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:30 - 16:30	630	+	428	=	1058	61	66	No
15:45 - 16:45	623	+	430	=	1053	61	59	No
16:00 - 17:00	628	+	418	=	1046	53	68	No
16:30 - 17:30	624	+	412	=	1036	44	62	No
16:15 - 17:15	635	+	385	=	1020	47	64	No
15:15 - 16:15	582	+	423	=	1005	58	69	No
16:45 - 17:45	591	+	384	=	975	40	61	No
15:00 - 16:00	546	+	394	=	940	51	60	No
17:00 - 18:00	546	+	375	=	921	48	62	No
14:45 - 15:45	547	+	354	=	901	50	63	No
17:15 - 18:15	505	+	386	=	891	46	54	No
							57	No

