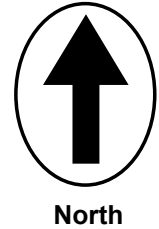


Date : 10/26/23

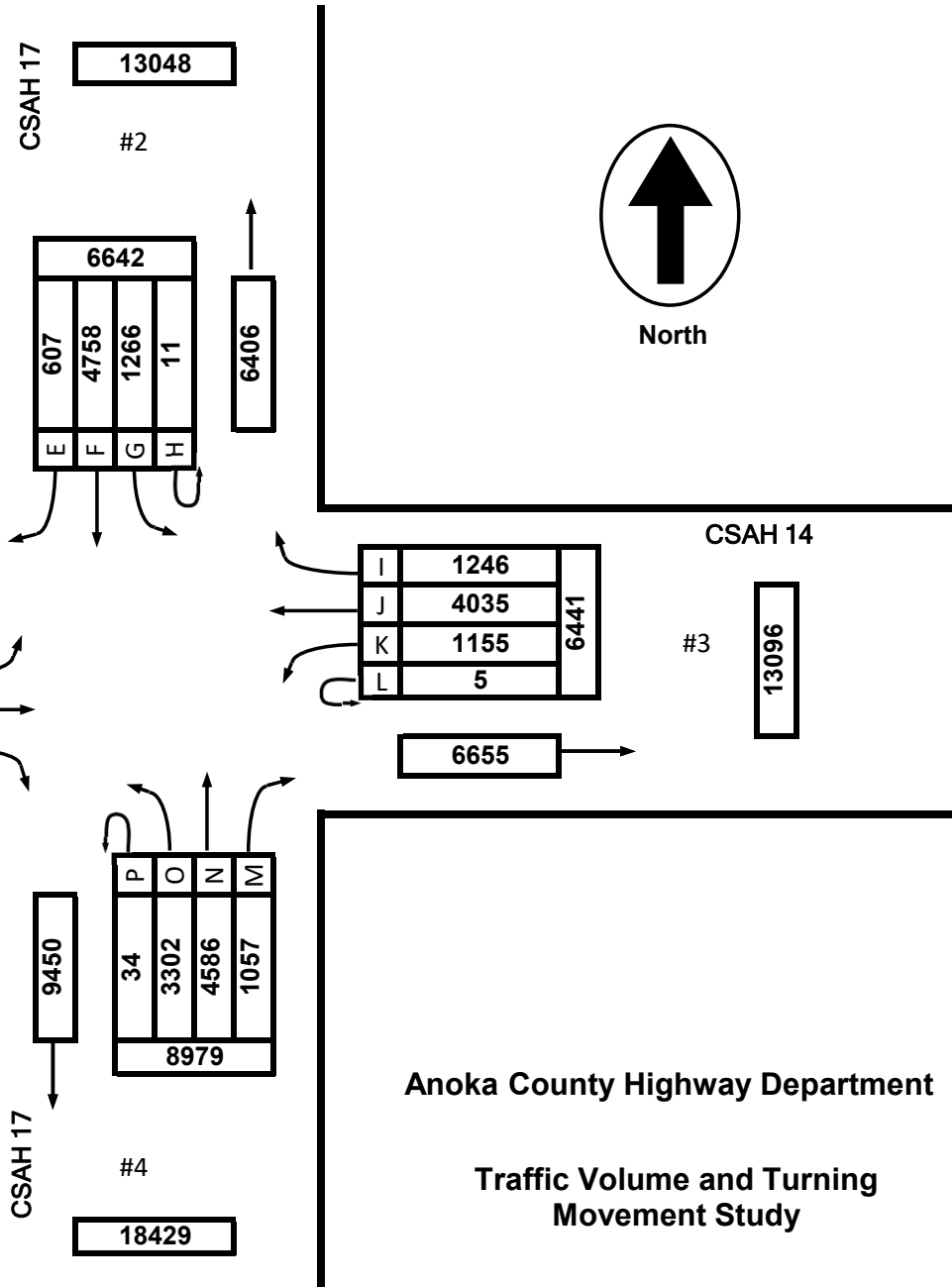
Count Number : TMC 2399

Location : CSAH 14 (125th Ave)
@ CSAH 17 (Lexington Ave)

Collection Period : 24 HR



North



CSAH 14

CSAH 14

CSAH 17

EXISTING LANES OF APPROACH

	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	2	4
#2	1	1	3	5
#3	1	1	2	4
#4	1	2	3	6

Anoka County Highway Department

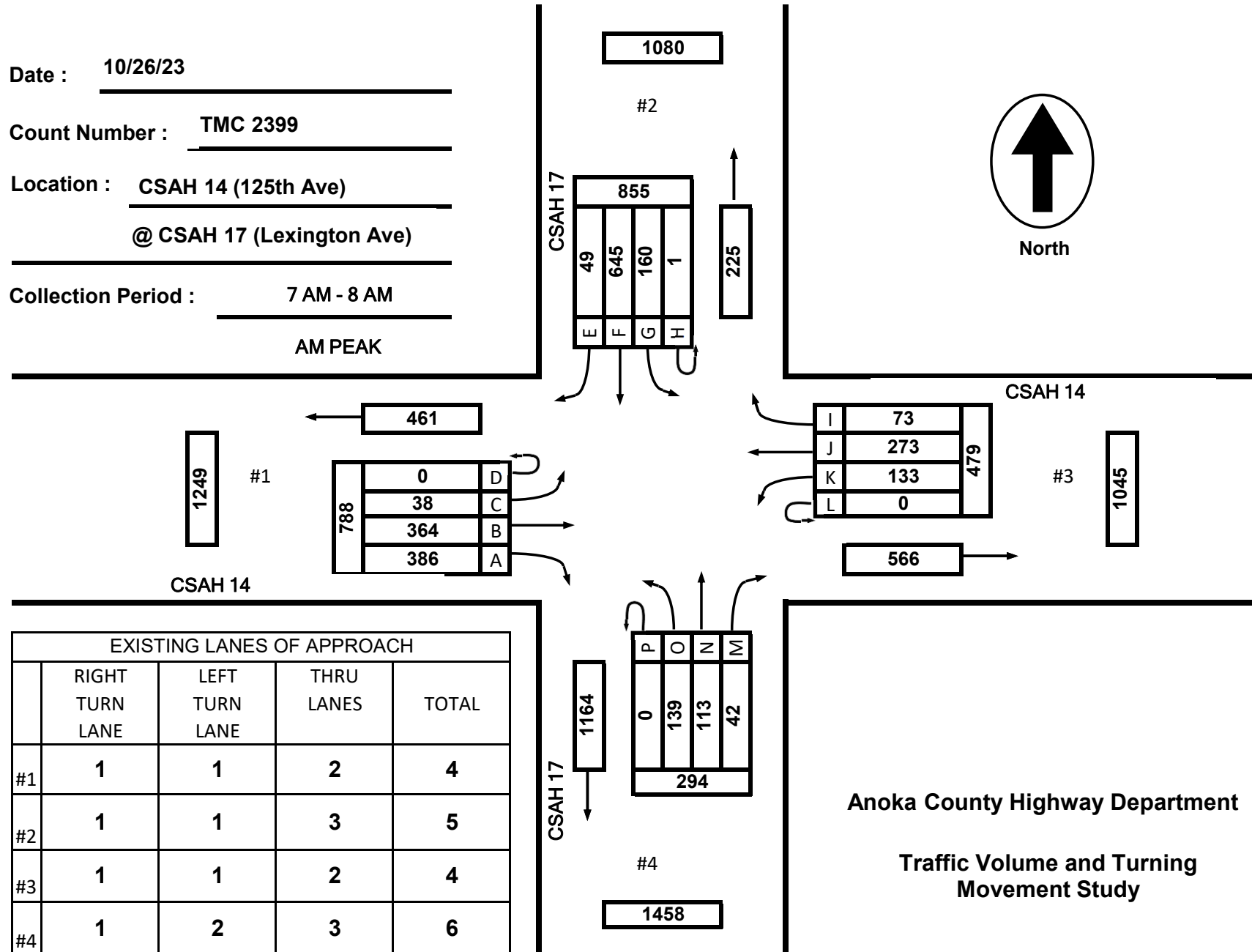
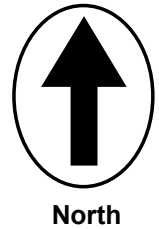
Traffic Volume and Turning Movement Study

Date : 10/26/23

Count Number : TMC 2399

Location : CSAH 14 (125th Ave)
@ CSAH 17 (Lexington Ave)

Collection Period : 7 AM - 8 AM
AM PEAK



1249 #1
CSAH 14

788	0	D
	38	C
	364	B
	386	A

1080 #2

855	49	E
	645	F
	160	G
	1	H

225

479	73	I
	273	J
	133	K
	0	L

1045 #3

566

1164 #4
CSAH 17

294	0	P
	139	O
	113	N
	42	M

1458

EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	2	4
#2	1	1	3	5
#3	1	1	2	4
#4	1	2	3	6

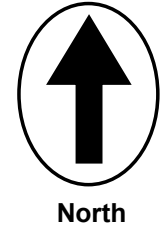
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 10/26/23

Count Number : TMC 2399

Location : CSAH 14 (125th Ave)
@ CSAH 17 (Lexington Ave)

Collection Period : 4 PM - 5 PM
 PM PEAK



1389

#2

423			
74	251	97	1
E	F	G	H

966

1781

#1

670	0	D
	55	C
	371	B
	244	A

1111

CSAH 14

I	206	832
J	535	
K	91	
L	0	

#3

1407

575

CSAH 14

CSAH 17

590

P	O	N	M
4	502	704	107
1317			

#4

1907

EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	2	4
#2	1	1	3	5
#3	1	1	2	4
#4	1	2	3	6

Anoka County Highway Department

Traffic Volume and Turning Movement Study

**TMC 2399 - CSAH 14 @ CSAH 17
Thursday, October 26, 2023**

Time	Southbound CSAH 17						Westbound CSAH 14						Northbound CSAH 17						Eastbound CSAH 14						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	1	0	0	1	0	1	8	0	0	9	0	13	10	3	0	26	0	0	5	3	0	8	
12:15 AM	0	0	1	0	0	1	0	2	4	0	6	0	2	2	1	0	5	0	0	2	6	0	8		
12:30 AM	0	0	0	0	0	0	0	0	2	1	3	0	1	6	1	0	8	0	0	4	2	0	6		
12:45 AM	0	0	1	0	0	1	0	0	5	1	6	0	2	7	1	0	10	0	1	0	1	0	2		
Hourly Total	0	0	3	0	0	3	0	3	19	2	24	0	18	25	6	0	49	0	1	11	12	0	24		
1:00 AM	0	0	1	0	0	1	0	0	1	0	1	1	4	1	1	0	7	0	0	1	6	0	7		
1:15 AM	0	0	2	0	0	2	0	0	3	1	4	0	3	5	1	0	9	0	0	0	0	0	15		
1:30 AM	0	0	1	0	0	1	0	2	4	0	6	0	1	4	2	0	7	0	0	1	0	0	15		
1:45 AM	0	1	1	0	0	2	0	0	2	0	2	0	4	2	3	0	9	0	0	1	1	0	15		
Hourly Total	0	1	5	0	0	6	0	2	10	1	13	1	12	12	7	0	32	0	0	3	7	0	61		
2:00 AM	0	0	1	0	0	1	0	0	2	1	3	0	2	3	2	0	7	0	1	1	1	0	14		
2:15 AM	0	0	2	0	0	2	0	3	2	0	5	0	2	4	0	0	6	0	0	3	0	0	16		
2:30 AM	0	1	3	0	0	4	0	0	2	1	3	0	3	3	4	0	10	0	0	1	2	0	20		
2:45 AM	0	1	4	0	0	5	0	0	0	1	1	0	0	4	0	0	4	0	0	0	1	0	11		
Hourly Total	0	2	10	0	0	12	0	3	6	3	12	0	7	14	6	0	27	0	1	5	4	0	61		
3:00 AM	0	0	4	0	0	4	0	1	3	0	4	0	0	0	0	0	0	0	0	1	2	0	11		
3:15 AM	0	4	5	1	0	10	0	0	2	0	2	0	2	2	0	0	4	0	0	0	3	0	19		
3:30 AM	0	1	6	0	0	7	0	0	4	0	4	0	1	0	0	0	1	0	0	0	2	0	14		
3:45 AM	0	1	7	0	0	8	0	1	1	1	3	1	2	1	0	0	4	0	1	9	5	0	30		
Hourly Total	0	6	22	1	0	29	0	2	10	1	13	1	5	3	0	0	9	0	1	10	12	0	74		
4:00 AM	0	2	13	0	0	15	0	2	0	1	3	0	2	1	2	0	5	0	0	5	5	0	33		
4:15 AM	0	3	25	1	0	29	0	0	2	0	2	0	2	2	0	0	4	0	0	8	7	0	50		
4:30 AM	0	5	38	1	0	44	0	2	8	0	10	0	2	2	1	0	5	0	0	7	9	0	75		
4:45 AM	0	7	29	2	0	38	0	3	13	0	16	0	1	3	1	0	5	0	0	11	15	0	85		
Hourly Total	0	17	105	4	0	126	0	7	23	1	31	0	7	8	4	0	19	0	0	31	36	0	243		
5:00 AM	0	3	53	2	0	58	0	1	12	1	14	0	1	1	1	0	3	0	0	11	14	0	100		
5:15 AM	0	8	61	2	0	71	0	9	13	1	23	0	1	2	0	0	3	0	0	21	18	0	136		
5:30 AM	0	12	69	3	0	84	0	8	13	3	24	0	6	5	6	0	17	0	0	28	38	0	191		
5:45 AM	0	17	99	2	0	118	0	9	21	0	30	0	10	8	2	0	20	0	0	32	47	0	247		
Hourly Total	0	40	282	9	0	331	0	27	59	5	97	0	18	16	9	0	43	0	0	92	117	0	674		
6:00 AM	0	20	95	4	0	119	0	6	18	5	29	0	3	8	3	0	14	0	4	38	59	0	263		
6:15 AM	0	21	110	5	0	136	0	12	31	8	51	0	12	14	6	0	32	0	3	47	43	0	312		
6:30 AM	0	24	148	4	0	176	0	22	36	11	69	0	16	17	5	0	38	0	4	60	68	0	415		
6:45 AM	0	28	148	3	0	179	0	17	57	7	81	1	22	25	10	0	58	0	2	78	69	0	467		
Hourly Total	0	93	501	16	0	610	0	57	142	31	230	1	53	64	24	0	142	0	13	223	239	0	1457		
7:00 AM	0	30	166	10	0	206	0	30	66	12	108	0	28	26	6	0	60	0	7	83	76	0	540		
7:15 AM	1	27	163	13	0	204	0	38	66	17	121	0	36	24	8	0	68	0	7	81	98	0	579		
7:30 AM	0	54	158	12	0	224	0	25	68	23	116	0	35	44	12	0	91	0	12	104	107	0	654		
7:45 AM	0	49	158	14	0	221	0	40	73	21	134	0	40	19	16	0	75	0	12	96	105	0	643		
Hourly Total	1	160	645	49	0	855	0	133	273	73	479	0	139	113	42	0	294	0	38	364	386	0	2416		

**TMC 2399 - CSAH 14 @ CSAH 17
Thursday, October 26, 2023**

Time	Southbound CSAH 17						Westbound CSAH 14						Northbound CSAH 17						Eastbound CSAH 14						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	31	109	14	0	154	0	30	69	21	0	120	0	31	31	19	0	81	0	9	70	79	0	
8:15 AM	0	30	123	13	0	166	0	29	72	22	0	123	0	26	34	18	0	78	0	11	74	71	0	156	523
8:30 AM	0	30	120	9	0	159	0	21	42	17	0	80	0	30	34	19	0	83	0	9	61	75	0	145	467
8:45 AM	0	33	79	13	0	125	0	15	51	9	0	75	1	21	38	15	0	75	0	5	53	64	0	122	397
Hourly Total	0	124	431	49	0	604	0	95	234	69	0	398	1	108	137	71	0	317	0	34	258	289	0	581	1900
9:00 AM	0	35	90	7	0	132	0	29	66	22	0	117	0	21	36	17	0	74	0	11	102	66	0	179	502
9:15 AM	0	22	85	8	0	115	0	42	108	25	0	175	0	42	36	12	0	90	0	9	71	53	0	133	513
9:30 AM	0	29	81	9	0	119	0	21	44	7	0	72	0	41	32	9	0	82	0	11	62	59	0	132	405
9:45 AM	2	9	57	5	0	73	0	24	47	15	0	86	1	26	33	13	0	73	0	5	60	41	0	106	338
Hourly Total	2	95	313	29	0	439	0	116	265	69	0	450	1	130	137	51	0	319	0	36	295	219	0	550	1758
10:00 AM	0	8	59	7	0	74	0	15	45	9	0	69	1	25	27	10	0	63	0	3	39	38	0	80	286
10:15 AM	0	11	71	14	0	96	0	3	20	2	0	25	0	1	39	9	0	49	0	9	68	46	0	123	293
10:30 AM	0	11	85	22	0	118	0	10	38	20	0	68	0	13	44	16	0	73	0	4	53	33	0	90	349
10:45 AM	0	12	63	21	0	96	0	14	32	6	0	52	0	28	41	10	0	79	0	6	57	28	0	91	318
Hourly Total	0	42	278	64	0	384	0	42	135	37	0	214	1	67	151	45	0	264	0	22	217	145	0	384	1246
11:00 AM	0	14	54	12	0	80	0	12	38	5	0	55	0	27	40	16	0	83	0	5	47	32	0	84	302
11:15 AM	0	12	65	10	0	87	0	14	52	10	0	76	0	34	35	11	0	80	0	13	58	45	0	116	359
11:30 AM	0	17	69	9	0	95	0	16	47	10	0	73	1	32	57	14	0	104	0	6	47	47	0	100	372
11:45 AM	0	9	64	12	0	85	0	19	49	15	0	83	1	39	37	21	0	98	0	8	58	31	0	97	363
Hourly Total	0	52	252	43	0	347	0	61	186	40	0	287	2	132	169	62	0	365	0	32	210	155	0	397	1396
12:00 PM	0	13	51	3	0	67	0	15	62	15	0	92	0	41	62	15	0	118	0	8	39	40	0	87	364
12:15 PM	0	20	51	5	0	76	0	16	70	23	0	109	0	50	67	20	0	137	0	4	55	43	0	102	424
12:30 PM	1	12	53	11	0	77	0	10	46	13	0	69	0	41	78	10	0	129	0	1	49	48	0	98	373
12:45 PM	0	12	55	11	0	78	1	17	59	15	0	92	1	44	87	17	0	149	0	8	51	53	0	112	431
Hourly Total	1	57	210	30	0	298	1	58	237	66	0	362	1	176	294	62	0	533	0	21	194	184	0	399	1592
1:00 PM	0	16	54	7	0	77	0	12	35	14	0	61	1	42	60	18	0	121	0	14	46	35	0	95	354
1:15 PM	0	6	61	9	0	76	1	26	54	12	0	93	0	52	51	20	0	123	0	8	62	47	0	117	409
1:30 PM	0	16	52	8	0	76	0	12	46	26	0	84	1	46	60	20	0	127	0	9	50	45	0	104	391
1:45 PM	0	16	50	5	0	71	0	14	52	22	0	88	1	46	76	19	0	142	0	8	44	54	0	106	407
Hourly Total	0	54	217	29	0	300	1	64	187	74	0	326	3	186	247	77	0	513	0	39	202	181	0	422	1561
2:00 PM	1	19	51	7	0	78	0	12	60	24	0	96	0	54	87	15	0	156	0	3	52	52	0	107	437
2:15 PM	0	22	53	3	0	78	0	30	61	17	0	108	1	55	83	17	0	156	0	6	71	58	0	135	477
2:30 PM	0	15	51	5	0	71	1	15	61	23	0	100	0	61	85	11	0	157	0	13	63	63	0	139	467
2:45 PM	1	20	65	7	0	93	0	16	82	29	0	127	0	52	91	11	0	154	0	14	61	39	0	114	488
Hourly Total	2	76	220	22	0	320	1	73	264	93	0	431	1	222	346	54	0	623	0	36	247	212	0	495	1869
3:00 PM	1	20	62	12	0	95	0	13	70	41	0	124	0	70	113	16	0	199	0	11	54	31	0	96	514
3:15 PM	1	20	57	8	0	86	1	13	66	48	0	128	0	61	166	26	0	253	0	13	70	57	0	140	607
3:30 PM	0	27	56	6	0	89	0	18	106	34	1	158	0	102	172	21	0	295	0	19	126	56	0	201	743
3:45 PM	0	22	61	10	0	93	0	15	103	50	0	168	0	93	180	33	0	306	0	10	107	47	0	164	731
Hourly Total	2	89	236	36	0	363	1	59	345	173	1	578	0	326	631	96	0	1053	0	53	357	191	0	601	2595

TMC 2399 - CSAH 14 @ CSAH 17
Thursday, October 26, 2023

Time	Southbound CSAH 17						Westbound CSAH 14						Northbound CSAH 17						Eastbound CSAH 14						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	20	50	22	0	92	0	24	150	54	0	228	2	128	175	20	0	325	0	11	79	66	0	156	801
4:15 PM	0	17	66	18	0	101	0	32	144	46	0	222	1	132	189	33	1	355	0	12	93	50	0	155	833
4:30 PM	1	33	56	16	0	106	0	17	113	54	0	184	1	110	158	34	0	303	0	16	107	69	0	192	785
4:45 PM	0	27	79	18	0	124	0	18	128	52	0	198	0	132	182	20	0	334	0	16	92	59	0	167	823
Hourly Total	1	97	251	74	0	423	0	91	535	206	0	832	4	502	704	107	1	1317	0	55	371	244	0	670	3242
5:00 PM	0	28	75	27	0	130	0	21	73	35	0	129	1	106	140	13	0	260	0	15	97	67	0	179	698
5:15 PM	1	28	85	11	0	125	1	20	78	24	0	123	2	86	132	18	0	238	0	18	101	73	0	192	678
5:30 PM	0	20	64	7	0	91	0	25	106	20	0	151	1	86	125	16	0	228	0	13	91	73	0	177	647
5:45 PM	1	20	57	20	0	98	0	15	74	28	0	117	0	89	123	23	0	235	0	6	86	66	0	158	608
Hourly Total	2	96	281	65	0	444	1	81	331	107	0	520	4	367	520	70	0	961	0	52	375	279	0	706	2631
6:00 PM	0	11	56	8	0	75	0	16	61	23	0	100	0	54	103	17	0	174	0	12	62	75	0	149	498
6:15 PM	0	15	46	8	0	69	0	30	62	15	0	107	0	76	93	22	0	191	0	13	81	47	0	141	508
6:30 PM	0	12	49	5	0	66	0	15	71	22	0	108	1	61	62	20	0	144	0	11	60	46	0	117	435
6:45 PM	0	13	44	7	0	64	0	17	55	19	0	91	0	51	73	17	0	141	0	11	58	49	0	118	414
Hourly Total	0	51	195	28	0	274	0	78	249	79	0	406	1	242	331	76	0	650	0	47	261	217	0	525	1855
7:00 PM	0	22	38	12	0	72	0	9	49	6	0	64	2	42	46	5	0	95	0	6	57	50	0	113	344
7:15 PM	0	14	20	3	0	37	0	9	41	11	0	61	0	40	53	10	0	103	0	3	66	49	0	118	319
7:30 PM	0	10	18	2	0	30	0	8	38	10	0	56	1	33	44	17	0	95	0	7	45	33	0	85	266
7:45 PM	0	6	16	1	0	23	0	4	30	13	0	47	0	41	45	6	0	92	0	9	43	21	0	73	235
Hourly Total	0	52	92	18	0	162	0	30	158	40	0	228	3	156	188	38	0	385	0	25	211	153	0	389	1164
8:00 PM	0	10	23	4	0	37	0	7	42	7	0	56	2	54	49	16	0	121	0	5	58	22	0	85	299
8:15 PM	0	10	30	5	0	45	0	6	58	8	0	72	0	42	43	10	0	95	0	6	62	33	0	101	313
8:30 PM	0	0	26	5	0	31	0	5	30	2	0	37	1	21	49	26	0	97	0	6	31	27	0	64	229
8:45 PM	0	4	10	2	0	16	0	9	18	3	0	30	1	33	29	19	0	82	0	8	42	24	0	74	202
Hourly Total	0	24	89	16	0	129	0	27	148	20	0	195	4	150	170	71	0	395	0	25	193	106	0	324	1043
9:00 PM	0	7	16	3	0	26	0	7	26	7	0	40	1	37	41	11	0	90	0	8	28	16	0	52	208
9:15 PM	0	2	9	6	0	17	0	7	22	5	0	34	0	34	34	6	0	74	0	6	36	25	0	67	192
9:30 PM	0	8	17	3	0	28	0	6	24	10	0	40	1	35	37	14	0	87	0	4	22	9	0	35	190
9:45 PM	0	7	22	3	0	32	0	2	43	12	0	57	1	44	36	7	0	88	0	3	30	13	0	46	223
Hourly Total	0	24	64	15	0	103	0	22	115	34	0	171	3	150	148	38	0	339	0	21	116	63	0	200	813
10:00 PM	0	4	8	1	0	13	0	2	17	3	0	22	0	19	14	8	0	41	0	3	21	6	0	30	106
10:15 PM	0	2	10	3	0	15	0	2	16	3	0	21	1	16	27	6	0	50	0	1	14	9	0	24	110
10:30 PM	0	3	14	2	0	19	0	3	16	6	0	25	1	22	25	3	0	51	0	3	15	7	0	25	120
10:45 PM	0	1	7	1	0	9	0	3	14	3	0	20	0	14	20	1	0	35	0	0	11	8	0	19	83
Hourly Total	0	10	39	7	0	56	0	10	63	15	0	88	2	71	86	18	0	177	0	7	61	30	0	98	419
11:00 PM	0	0	8	1	0	9	0	6	15	4	0	25	0	17	23	4	0	44	0	0	3	5	0	8	86
11:15 PM	0	2	4	1	0	7	0	2	12	2	0	16	0	9	16	12	0	37	0	1	8	9	0	18	78
11:30 PM	0	2	4	1	0	7	0	1	8	1	0	10	0	17	19	6	0	42	0	1	5	6	0	12	71
11:45 PM	0	0	1	0	0	1	0	5	5	0	0	10	0	15	14	1	0	30	0	2	4	2	0	8	49
Hourly Total	0	4	17	3	0	24	0	14	40	7	0	61	0	58	72	23	0	153	0	4	20	22	0	46	284
DAILY TOTAL	11	1266	4758	607	0	6642	5	1155	4034	1246	1	6440	34	3302	4586	1057	1	8979	0	563	4327	3503	0	8393	30454
Cars	11	1224	4688	585	0	6508	5	1126	3937	1209	1	6277	34	3258	4516	1037	0	8845	0	540	4208	3453	0	8201	29831
Heavy Vehicles	0	42	70	22	0	134	0	29	97	37	0	163	0	44	70	20	1	134	0	23	119	60	0	192	623
Heavy Vehicle %	0.00%	3.32%	1.47%	3.62%	0.00%	2.02%	0.00%	2.51%	2.40%	2.97%	0.00%	2.53%	0.00%	1.33%	1.53%	1.89%	100.00%	1.49%	0.00%	4.09%	2.75%	1.43%	0.00%	2.29%	2.05%

**TMC 2399 - CSAH 14 @ CSAH 17
Thursday, October 26, 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	
7:00 AM	0	30	166	10	0	206	0	30	66	12	0	108	0	28	26	6	0	60	0	7	83	76	0	166	540
7:15 AM	1	27	163	13	0	204	0	38	66	17	0	121	0	36	24	8	0	68	0	7	81	98	0	186	579
7:30 AM	0	54	158	12	0	224	0	25	68	23	0	116	0	35	44	12	0	91	0	12	104	107	0	223	654
7:45 AM	0	49	158	14	0	221	0	40	73	21	0	134	0	40	19	16	0	75	0	12	96	105	0	213	643
Peak Hour Total	1	160	645	49	0	855	0	133	273	73	0	479	0	139	113	42	0	294	0	38	364	386	0	788	2416
PHF	0.250	0.741	0.971	0.875	0.000	0.954	0.000	0.831	0.935	0.793	0.000	0.894	0.000	0.869	0.642	0.656	0.000	0.808	0.000	0.792	0.875	0.902	0.000	0.883	0.924

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	20	50	22	0	92	0	24	150	54	0	228	2	128	175	20	0	325	0	11	79	66	0	156	801
4:15 PM	0	17	66	18	0	101	0	32	144	46	0	222	1	132	189	33	1	355	0	12	93	50	0	155	833
4:30 PM	1	33	56	16	0	106	0	17	113	54	0	184	1	110	158	34	0	303	0	16	107	69	0	192	785
4:45 PM	0	27	79	18	0	124	0	18	128	52	0	198	0	132	182	20	0	334	0	16	92	59	0	167	823
Peak Hour Total	1	97	251	74	0	423	0	91	535	206	0	832	4	502	704	107	1	1317	0	55	371	244	0	670	3242
PHF	0.250	0.735	0.794	0.841	0.000	0.853	0.000	0.711	0.892	0.954	0.000	0.912	0.500	0.951	0.931	0.787	0.250	0.927	0.000	0.859	0.867	0.884	0.000	0.872	0.973

Total Vehicles On Leg		13048	
Vehicles Entering Intersection	6642	Vehicles Exiting Intersection	6406
Southbound			
Cars	585	4688	1224
Heavy	22	70	42
Total	607	4758	1266

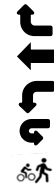


Total Vehicles on Leg 16336	Vehicles Entering Intersection 8393	Eastbound	Cars	Heavy	Total
			0	0	0
	0		0	0	
	540		23	563	
	4208		119	4327	
Vehicles Exiting Intersection 7943			3453	50	3503



Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 6440	Total Vehicles on Leg 13095
1209	37	1246			
3937	97	4034			
1126	29	1155			
5	0	5			
1	0	1		Vehicles Exiting Intersection 6655	



Cars	0	34	3258	4516	1037
Heavy	1	0	44	70	20
Total	1	34	3302	4586	1057
Northbound					
Vehicles Entering Intersection	8979		Vehicles Exiting Intersection	9450	
Total Vehicles On Leg			18429		



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2399

Study Date : 10/31/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 17

Number of Lanes : 2+

Total Approach Volume: 8,979

Southbound: CSAH 17

Number of Lanes :2+

Total Approach Volume: 6,642

Minor Street Approaches

Eastbound: CSAH 14

Number of Lanes :2+

Total Approach Volume: 8,393

Westbound: CSAH 14

Number of Lanes :2+

Total Approach Volume: 6,441

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 16 hours, 8 are needed

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

Required volumes reached for 13 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Satisfied

Required 1A volumes reached for 17 hours, 8 are needed

Required 1B volumes reached for 15 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 (63) 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 2399

Study Date : 10/31/2023

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

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 = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **420**
 Veh/Hr Minor = **140**

Time	Major Road CSAH 17				Total	Minor Road CSAH 14		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:15 - 17:15	1252	+	461	=	1713	693	733	Yes
15:15 - 16:15	1179	+	360	=	1539	661	682	Yes
17:15 - 18:15	875	+	389	=	1264	676	491	Yes
07:15 - 08:15	315	+	803	=	1118	780	491	Yes
14:15 - 15:15	666	+	337	=	1003	484	459	Yes
08:15 - 09:15	310	+	582	=	892	602	395	Yes
06:15 - 07:15	188	+	697	=	885	540	309	Yes
13:15 - 14:15	548	+	301	=	849	434	361	Yes
12:15 - 13:15	536	+	308	=	844	407	331	Yes
18:15 - 19:15	571	+	271	=	842	489	370	Yes
11:15 - 12:15	400	+	334	=	734	400	324	Yes
09:15 - 10:15	308	+	381	=	689	451	402	Yes
10:15 - 11:15	284	+	390	=	674	388	200	Yes
19:15 - 20:15	411	+	127	=	538	361	220	Yes
20:15 - 21:15	364	+	118	=	482	291	179	Yes
05:15 - 06:15	54	+	392	=	446	285	106	Yes
21:15 - 22:15	290	+	90	=	380	178	153	No
05:00 - 06:00	43	+	331	=	374	209	91	No
21:30 - 22:30	266	+	88	=	354	135	140	No
21:45 - 22:45	230	+	79	=	309	125	125	No
04:45 - 05:45	28	+	251	=	279	156	78	No
22:00 - 23:00	177	+	56	=	233	98	88	No
22:15 - 23:15	180	+	52	=	232	76	91	No
04:30 - 05:30	16	+	211	=	227	106	64	No
22:30 - 23:30	167		44		211	70	86	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2399

Study Date : 10/31/2023

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

13 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 = **2 or more**

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **630**
 Veh/Hr Minor = **70**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	1317	+	423	=	1740	670	832	Yes
15:00 - 16:00	1053	+	363	=	1416	601	578	Yes
17:00 - 18:00	961	+	444	=	1405	706	520	Yes
06:45 - 07:45	277	+	813	=	1090	724	426	Yes
07:45 - 08:45	317	+	700	=	1017	672	457	Yes
14:00 - 15:00	623	+	320	=	943	495	431	Yes
18:00 - 19:00	650	+	274	=	924	525	406	Yes
12:00 - 13:00	533	+	298	=	831	399	362	Yes
13:00 - 14:00	513	+	300	=	813	422	326	Yes
08:45 - 09:45	321	+	491	=	812	566	439	Yes
11:00 - 12:00	365	+	347	=	712	397	287	Yes
05:45 - 06:45	104	+	549	=	653	405	179	Yes
10:00 - 11:00	264	+	384	=	648	384	214	Yes
09:45 - 10:45	258	+	361	=	619	399	248	No
19:00 - 20:00	385	+	162	=	547	389	228	No
19:45 - 20:45	405	+	136	=	541	323	212	No
05:30 - 06:30	83	+	457	=	540	339	134	No
19:15 - 20:15	411	+	127	=	538	361	220	No
19:30 - 20:30	403	+	135	=	538	344	231	No
20:00 - 21:00	395	+	129	=	524	324	195	No
20:15 - 21:15	364	+	118	=	482	291	179	No
05:15 - 06:15	54	+	392	=	446	285	106	No
21:00 - 22:00	339	+	103	=	442	200	171	No
20:30 - 21:30	343	+	90	=	433	257	141	No
20:45 - 21:45	333		87		420	228	144	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2399

Study Date : 10/31/2023

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

17 hours meet 1A minimums.
15 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 = **2 or more**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **336 504**

Veh/Hr Minor = **112 56**

Major Road CSAH 17

Minor Road CSAH 14

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	1317	+	423	=	1740	670	832	Yes
15:00 - 16:00	1053	+	363	=	1416	601	578	Yes
17:00 - 18:00	961	+	444	=	1405	706	520	Yes
07:00 - 08:00	294	+	855	=	1149	788	479	Yes
14:00 - 15:00	623	+	320	=	943	495	431	Yes
18:00 - 19:00	650	+	274	=	924	525	406	Yes
08:00 - 09:00	317	+	604	=	921	581	398	Yes
12:00 - 13:00	533	+	298	=	831	399	362	Yes
13:00 - 14:00	513	+	300	=	813	422	326	Yes
09:00 - 10:00	319	+	439	=	758	550	450	Yes
06:00 - 07:00	142	+	610	=	752	475	230	Yes
11:00 - 12:00	365	+	347	=	712	397	287	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
15:30 - 16:30	1281	+	375	=	1656	676	776	Yes
16:30 - 17:30	1135	+	485	=	1620	730	634	Yes
17:30 - 18:30	828	+	333	=	1161	625	475	Yes
14:30 - 15:30	763	+	345	=	1108	489	479	Yes
07:30 - 08:30	325	+	765	=	1090	750	493	Yes
06:30 - 07:30	224	+	765	=	989	633	379	Yes
13:30 - 14:30	581	+	303	=	884	452	376	Yes
08:30 - 09:30	322	+	531	=	853	579	447	Yes
12:30 - 13:30	522	+	308	=	830	422	315	Yes
11:30 - 12:30	457	+	323	=	780	386	357	Yes
18:30 - 19:30	483	+	239	=	722	466	324	Yes
10:30 - 11:30	315	+	381	=	696	381	251	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2399

Study Date : 10/31/2023

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.

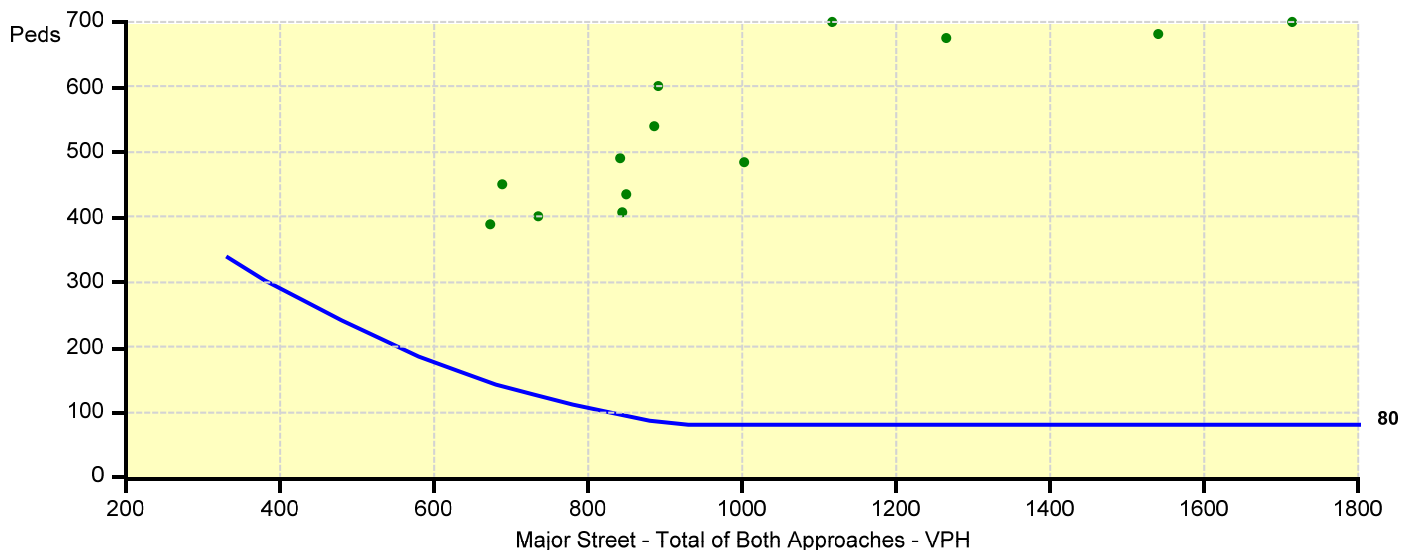
Summary

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 = **2 or more**

Time	Major Road CSAH 17					Minor Road CSAH 14		Met?
	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	
16:15 - 17:15	1252	+	461	=	1713	693	733	Yes
15:15 - 16:15	1179	+	360	=	1539	661	682	Yes
17:15 - 18:15	875	+	389	=	1264	676	491	Yes
07:15 - 08:15	315	+	803	=	1118	780	491	Yes
14:15 - 15:15	666	+	337	=	1003	484	459	Yes
08:15 - 09:15	310	+	582	=	892	602	395	Yes
06:15 - 07:15	188	+	697	=	885	540	309	Yes
13:15 - 14:15	548	+	301	=	849	434	361	Yes
12:15 - 13:15	536	+	308	=	844	407	331	Yes
18:15 - 19:15	571	+	271	=	842	489	370	Yes
11:15 - 12:15	400	+	334	=	734	400	324	Yes
09:15 - 10:15	308	+	381	=	689	451	402	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2399

Study Date : 10/31/2023

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

56 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 = **2 or more**

Time	Major Road CSAH 17				Total	Minor Road CSAH 14		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	1317	+	423	=	1740	670	832	Yes
16:15 - 17:15	1252	+	461	=	1713	693	733	Yes
15:45 - 16:45	1289	+	392	=	1681	667	802	Yes
15:30 - 16:30	1281	+	375	=	1656	676	776	Yes
16:30 - 17:30	1135	+	485	=	1620	730	634	Yes
15:15 - 16:15	1179	+	360	=	1539	661	682	Yes
16:45 - 17:45	1060	+	470	=	1530	715	601	Yes
15:00 - 16:00	1053	+	363	=	1416	601	578	Yes
17:00 - 18:00	961	+	444	=	1405	706	520	Yes
14:45 - 15:45	901	+	363	=	1264	551	537	Yes
17:15 - 18:15	875	+	389	=	1264	676	491	Yes
17:30 - 18:30	828	+	333	=	1161	625	475	Yes

