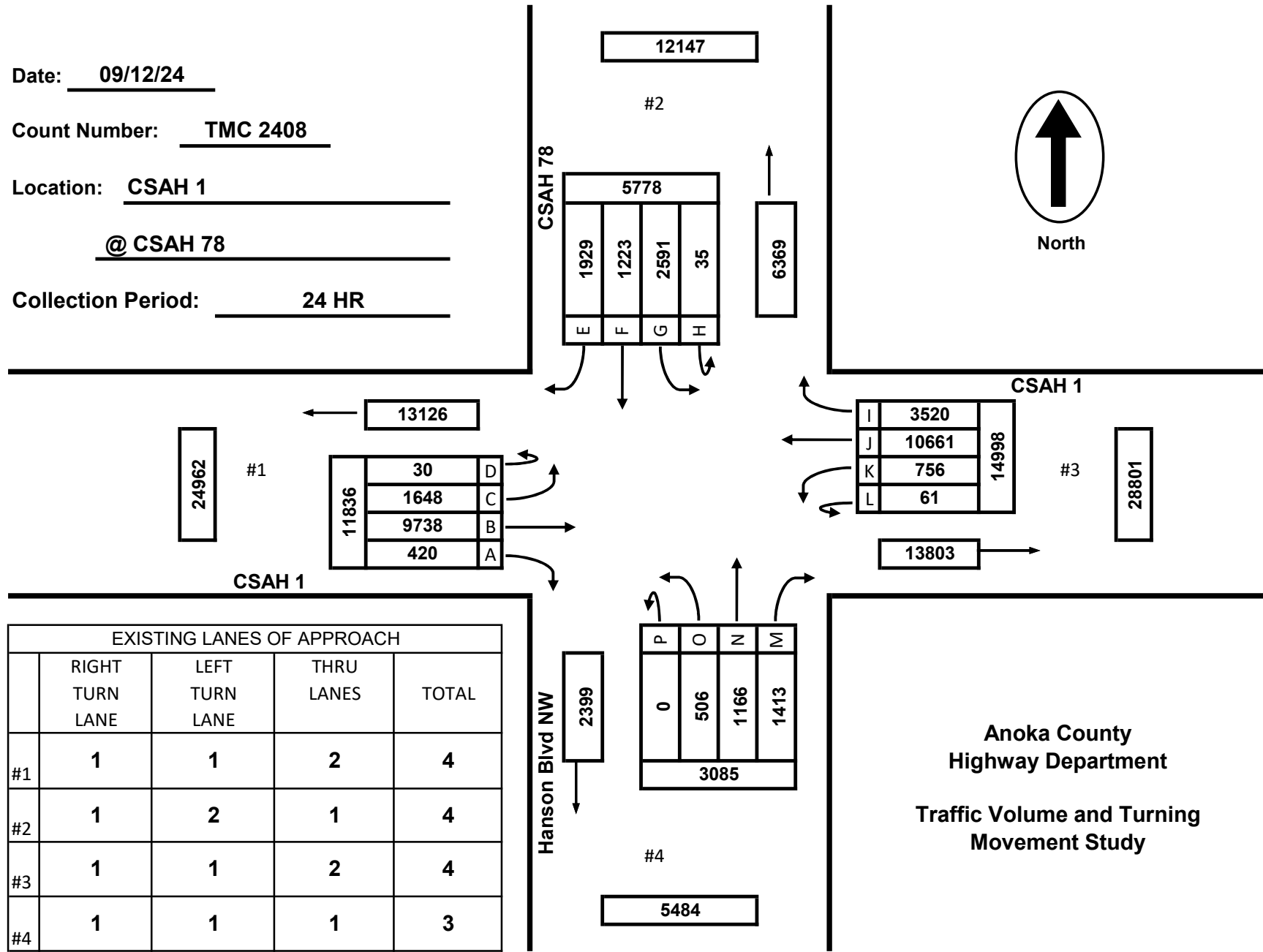
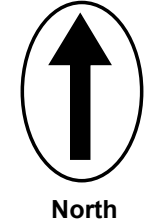


Date: 09/12/24

Count Number: TMC 2408

Location: CSAH 1
@ CSAH 78

Collection Period: 24 HR



11836	30	D
	1648	C
	9738	B
	420	A

5778			
1929	1223	2591	35
E	F	G	H

I	3520	14998
J	10661	
K	756	
L	61	

P	O	N	M
0	506	1166	1413
3085			

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

Anoka County
 Highway Department
 Traffic Volume and Turning
 Movement Study

Date: 09/12/24

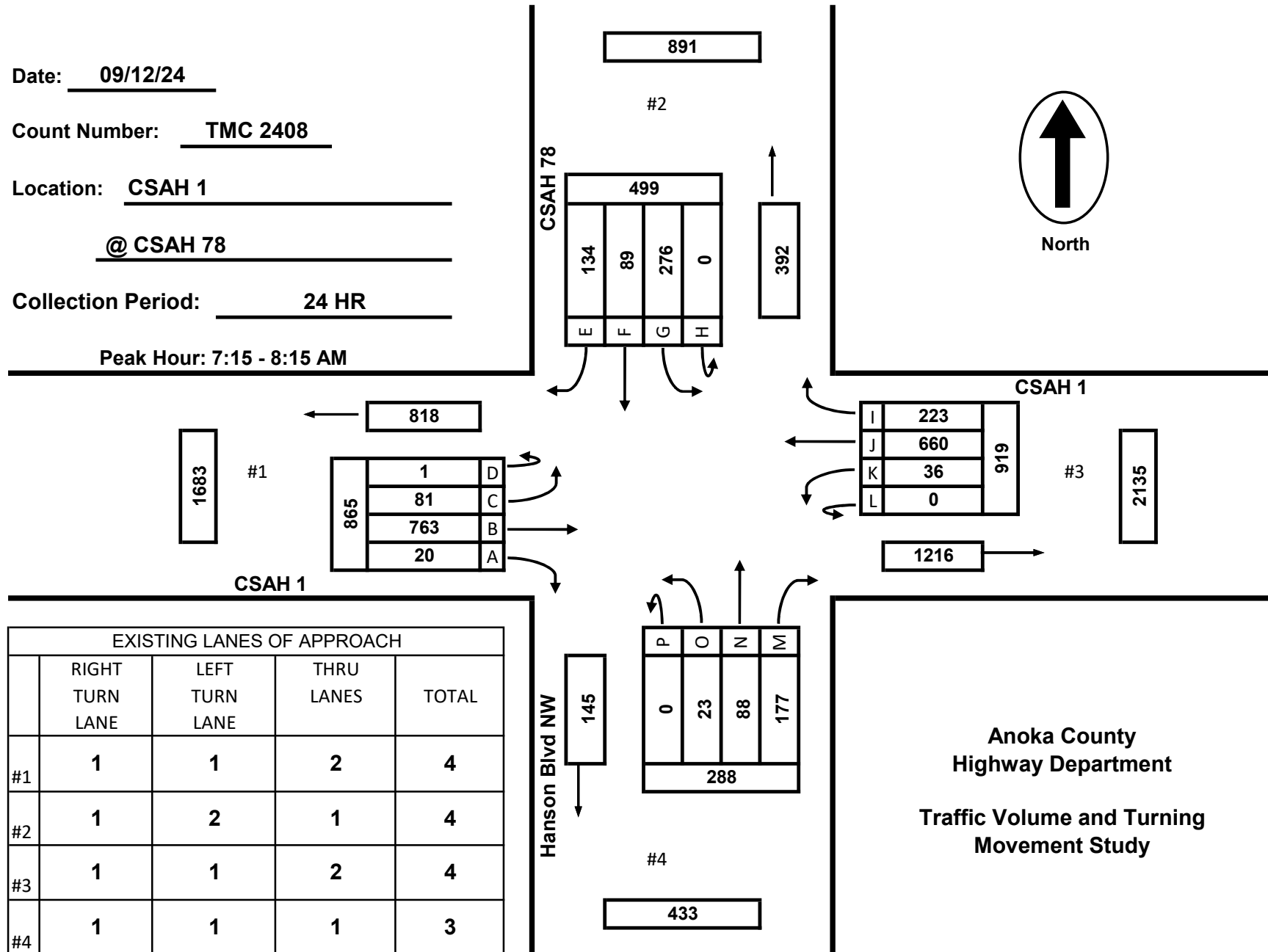
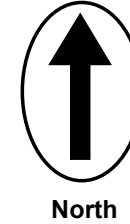
Count Number: TMC 2408

Location: CSAH 1

@ CSAH 78

Collection Period: 24 HR

Peak Hour: 7:15 - 8:15 AM



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

Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 09/12/24

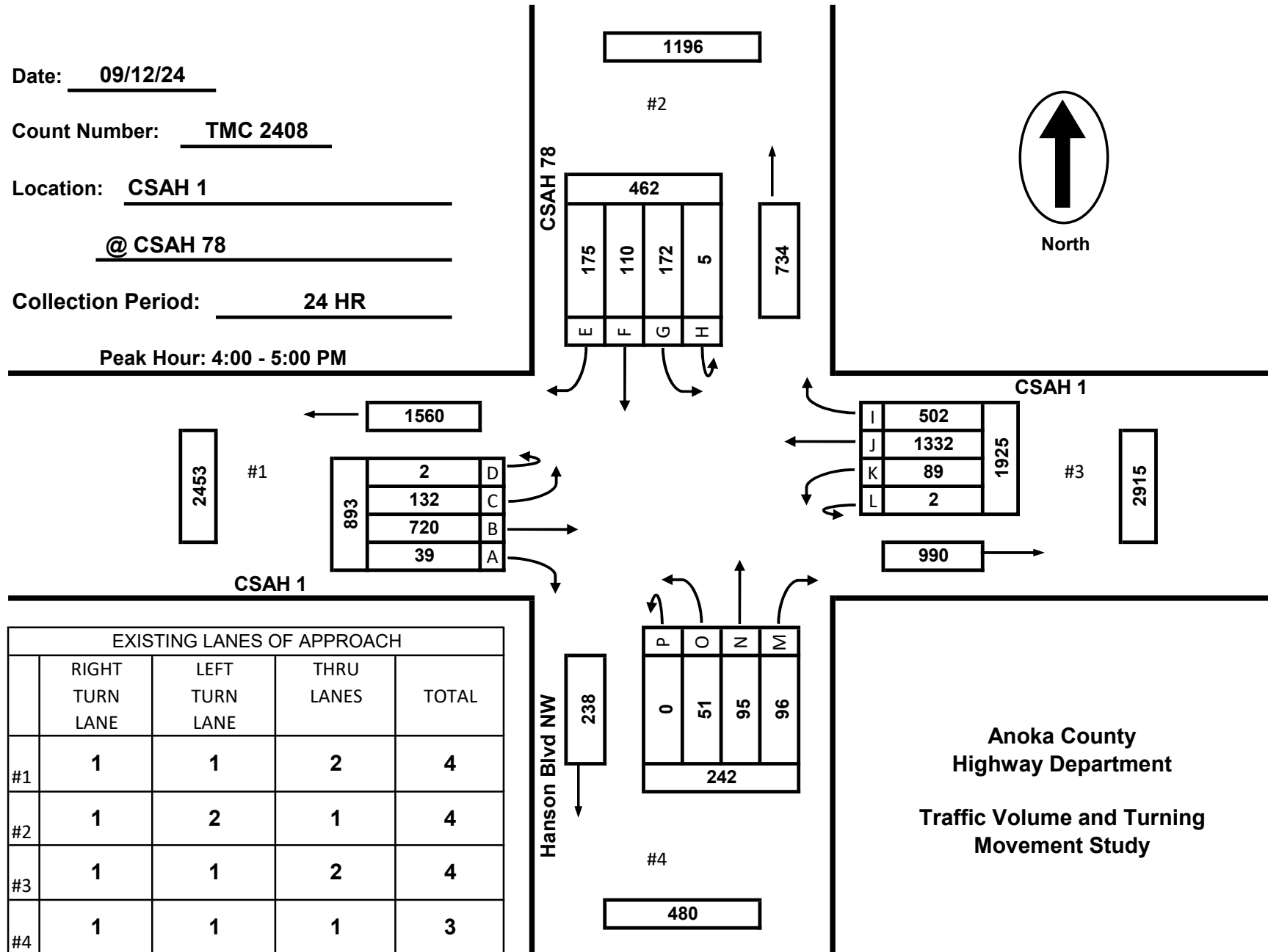
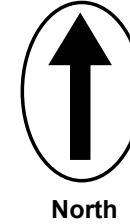
Count Number: TMC 2408

Location: CSAH 1

@ CSAH 78

Collection Period: 24 HR

Peak Hour: 4:00 - 5:00 PM



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

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

TMC 2408 - CSAH 1 @ CSAH 78
Coon Rapids MN
Thursday, September 12, 2024

Time	Southbound Hanson Blvd NW						Westbound CSAH 1						Northbound CSAH 78						Eastbound CSAH 1						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	6	0	0	0	6	0	3	13	7	0	23	0	0	0	0	0	0	0	4	29	1	0	34	63
12:15 AM	0	3	1	3	0	7	0	1	24	8	0	33	0	0	0	0	0	0	0	1	9	0	0	10	50
12:30 AM	0	0	0	3	0	3	0	2	18	10	0	30	0	0	0	1	0	1	0	4	11	0	0	15	49
12:45 AM	0	0	2	0	0	2	0	2	12	4	0	18	0	0	0	3	0	0	0	4	9	0	0	13	36
Hourly Total	0	9	3	6	0	18	0	8	67	29	0	104	0	0	0	4	0	4	0	13	58	1	0	72	198
1:00 AM	0	1	2	0	0	3	0	1	8	0	0	9	0	0	0	1	0	1	0	1	9	0	0	10	23
1:15 AM	0	3	1	3	0	7	0	3	13	12	0	28	0	0	2	2	0	4	0	1	9	0	0	10	49
1:30 AM	0	3	2	1	0	6	0	3	8	3	0	14	0	0	0	0	0	0	0	0	8	0	0	8	28
1:45 AM	0	1	0	2	0	3	0	2	12	1	0	15	0	0	2	2	0	4	0	4	7	0	0	11	33
Hourly Total	0	8	5	6	0	19	0	9	41	16	0	66	0	0	4	5	0	9	0	6	33	0	0	39	133
2:00 AM	0	1	1	0	0	2	0	3	8	1	0	12	0	0	0	1	0	1	0	2	3	0	0	5	20
2:15 AM	0	0	1	1	0	2	0	0	8	6	0	14	0	0	0	0	0	0	0	1	8	0	0	9	25
2:30 AM	0	1	1	0	0	2	0	2	3	2	0	7	0	0	0	1	0	1	0	0	8	1	0	9	19
2:45 AM	0	1	0	2	0	3	0	2	1	1	0	4	0	0	0	1	0	1	0	0	3	0	0	3	11
Hourly Total	0	3	3	3	0	9	0	7	20	10	0	37	0	0	0	3	0	3	0	3	22	1	0	26	75
3:00 AM	0	2	0	2	0	4	0	0	5	3	0	8	0	1	0	3	0	4	0	2	7	0	0	9	25
3:15 AM	0	6	1	1	0	8	0	2	5	0	0	7	0	0	4	4	0	8	0	2	9	0	0	11	34
3:30 AM	0	7	0	0	0	7	0	1	10	1	0	12	0	0	0	2	0	2	0	0	14	0	0	14	35
3:45 AM	0	4	0	0	0	4	0	1	5	2	0	8	0	0	1	4	0	5	0	0	17	0	0	17	34
Hourly Total	0	19	1	3	0	23	0	4	25	6	0	35	0	1	5	13	0	19	0	4	47	0	0	51	128
4:00 AM	0	3	0	0	0	3	0	1	8	2	0	11	0	1	1	5	0	7	0	1	18	0	0	19	40
4:15 AM	0	9	0	4	0	13	1	2	9	2	0	14	0	1	2	9	0	12	0	1	29	0	0	30	69
4:30 AM	0	13	2	3	0	18	0	1	12	3	0	16	0	0	1	15	0	16	0	1	45	0	0	46	96
4:45 AM	0	6	1	4	0	11	0	0	18	4	0	22	0	2	3	12	0	17	0	0	33	0	0	33	83
Hourly Total	0	31	3	11	0	45	1	4	47	11	0	63	0	4	7	41	0	52	0	3	125	0	0	128	288
5:00 AM	0	9	0	2	0	11	0	1	13	6	0	20	0	1	2	9	0	12	0	4	53	0	0	57	100
5:15 AM	0	17	2	5	0	24	0	1	18	7	0	26	0	0	4	20	0	24	0	2	71	0	0	73	147
5:30 AM	0	28	2	5	0	35	0	2	24	14	0	40	0	4	6	29	0	39	0	8	99	2	0	109	223
5:45 AM	0	24	5	5	0	34	0	2	42	6	0	50	0	1	7	22	0	30	0	4	105	0	0	109	223
Hourly Total	0	78	9	17	0	104	0	6	97	33	0	136	0	6	19	80	0	105	0	18	328	2	0	348	693
6:00 AM	0	32	5	6	0	43	0	3	43	17	0	63	0	1	11	26	0	38	0	8	92	1	0	101	245
6:15 AM	0	37	10	6	0	53	0	3	76	21	0	100	0	1	13	24	0	38	0	8	118	3	0	129	320
6:30 AM	0	44	5	11	0	60	0	5	68	20	0	93	0	5	14	36	0	55	0	15	162	2	0	179	387
6:45 AM	0	46	11	18	0	75	0	3	97	44	0	144	0	7	15	46	0	68	0	16	149	2	0	167	454
Hourly Total	0	159	31	41	0	231	0	14	284	102	0	400	0	14	53	132	0	199	0	47	521	8	0	576	1406
7:00 AM	0	61	25	18	0	104	0	2	84	55	0	141	0	5	29	38	1	72	0	23	171	7	1	201	518
7:15 AM	0	61	29	28	0	118	0	10	136	67	0	213	0	3	22	47	0	72	1	26	208	3	0	238	641
7:30 AM	0	92	22	40	0	154	0	8	163	48	0	219	0	4	24	44	0	72	0	21	193	6	0	220	665
7:45 AM	0	62	18	37	0	117	0	13	233	64	0	310	0	9	23	42	0	74	0	14	203	8	0	225	726
Hourly Total	0	276	94	123	0	493	0	33	616	234	0	883	0	21	98	171	1	290	1	84	775	24	1	884	2550

TMC 2408 - CSAH 1 @ CSAH 78
Coon Rapids MN
Thursday, September 12, 2024

Time	Southbound Hanson Blvd NW						Westbound CSAH 1						Northbound CSAH 78						Eastbound CSAH 1						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	61	20	29	0	110	0	5	128	44	0	177	0	7	19	44	0	70	0	20	159	3	0	182	539
8:15 AM	0	39	14	26	0	79	0	9	139	23	0	171	0	7	16	28	0	51	1	20	161	3	0	185	486
8:30 AM	0	35	10	23	0	68	0	5	104	28	0	137	0	13	17	17	1	47	0	22	149	3	0	174	426
8:45 AM	0	50	17	23	1	90	0	7	131	30	3	168	0	7	15	15	1	37	1	17	142	4	1	164	459
Hourly Total	0	185	61	101	1	347	0	26	502	125	3	653	0	34	67	104	2	205	2	79	611	13	1	705	1910
9:00 AM	0	37	6	33	0	76	0	8	154	47	0	209	0	4	18	20	2	42	0	22	125	1	2	148	475
9:15 AM	0	43	8	35	1	86	0	5	155	35	0	195	0	6	18	17	0	41	0	30	134	2	1	166	488
9:30 AM	0	43	12	24	0	79	1	6	160	48	0	215	0	6	12	27	0	45	1	20	133	5	0	159	498
9:45 AM	0	28	5	32	0	65	1	5	137	29	0	172	0	8	18	16	1	42	2	31	121	2	0	156	435
Hourly Total	0	151	31	124	1	306	2	24	606	159	0	791	0	24	66	80	3	170	3	103	513	10	3	629	1896
10:00 AM	0	33	19	31	0	83	0	6	147	49	0	202	0	9	14	18	1	41	2	15	122	8	0	147	473
10:15 AM	0	43	20	31	0	94	1	4	113	40	0	158	0	4	11	15	0	30	0	26	122	8	0	156	438
10:30 AM	0	56	14	26	0	96	1	3	141	52	1	197	0	4	14	10	1	28	1	19	122	7	0	149	470
10:45 AM	0	28	18	31	0	77	1	10	178	28	0	217	0	10	18	14	0	42	0	29	159	6	0	194	530
Hourly Total	0	160	71	119	0	350	3	23	579	169	1	774	0	27	57	57	2	141	3	89	525	29	0	646	1911
11:00 AM	1	34	12	23	0	70	1	4	127	37	1	169	0	11	16	7	0	34	1	27	143	5	1	176	449
11:15 AM	0	35	19	31	0	85	0	4	115	46	0	165	0	9	19	15	0	43	1	18	132	8	0	159	452
11:30 AM	0	40	12	37	0	89	1	3	139	33	0	176	0	12	14	14	1	40	0	19	142	2	0	163	468
11:45 AM	0	27	14	38	0	79	2	4	159	29	0	194	0	10	6	12	0	28	1	25	133	3	0	162	463
Hourly Total	1	136	57	129	0	323	4	15	540	145	1	704	0	42	55	48	1	145	3	89	550	18	1	660	1832
12:00 PM	2	29	16	32	1	79	1	4	145	48	0	198	0	5	16	11	0	32	0	31	144	6	0	181	490
12:15 PM	1	37	12	32	0	82	3	8	147	56	2	214	0	9	13	18	0	40	0	39	160	6	0	205	541
12:30 PM	2	27	23	31	0	83	1	10	121	34	0	166	0	10	13	18	0	41	1	21	156	7	0	185	475
12:45 PM	3	35	18	31	0	87	2	7	151	39	0	199	0	4	22	10	1	36	0	29	129	4	0	162	484
Hourly Total	8	128	69	126	1	331	7	29	564	177	2	777	0	28	64	57	1	149	1	120	589	23	0	733	1990
1:00 PM	2	32	20	29	0	83	1	11	114	40	0	166	0	3	15	20	0	38	0	24	148	12	0	184	471
1:15 PM	0	33	19	35	0	87	1	6	154	32	1	193	0	5	21	20	1	46	0	23	131	12	1	166	492
1:30 PM	0	26	21	25	0	72	4	13	190	43	0	250	0	9	15	13	2	37	2	21	147	8	1	178	537
1:45 PM	1	36	37	33	0	107	3	13	178	42	2	236	0	7	11	17	0	35	1	32	190	5	0	228	606
Hourly Total	3	127	97	122	0	349	9	43	636	157	3	845	0	24	62	70	3	156	3	100	616	37	2	756	2106
2:00 PM	0	38	14	31	0	83	1	16	157	62	0	236	0	11	23	19	0	53	0	41	184	8	0	233	605
2:15 PM	1	45	25	30	0	101	2	11	210	63	1	286	0	10	13	18	0	41	0	22	180	4	0	206	634
2:30 PM	3	47	26	40	0	116	1	11	186	59	0	257	0	13	29	22	0	64	2	26	155	6	0	189	626
2:45 PM	1	39	28	48	0	116	0	19	213	62	1	294	0	13	25	17	0	55	1	30	175	10	0	216	681
Hourly Total	5	169	93	149	0	416	4	57	766	246	2	1073	0	47	90	76	0	213	3	119	694	28	0	844	2546
3:00 PM	1	44	24	35	1	104	0	12	247	73	1	332	0	8	17	17	0	42	0	32	150	6	0	188	666
3:15 PM	0	42	25	47	2	114	2	19	213	69	0	303	0	19	32	18	0	69	0	35	167	9	0	211	697
3:30 PM	1	38	10	54	1	103	2	16	318	101	0	437	0	17	27	15	1	59	1	42	216	6	0	265	864
3:45 PM	0	39	26	49	0	114	0	19	249	99	0	367	0	16	25	13	0	54	2	44	190	9	0	245	780
Hourly Total	2	163	85	185	4	435	4	66	1027	342	1	1439	0	60	101	63	1	224	3	153	723	30	0	909	3007

TMC 2408 - CSAH 1 @ CSAH 78
Coon Rapids MN
Thursday, September 12, 2024

Time	Southbound Hanson Blvd NW						Westbound CSAH 1						Northbound CSAH 78						Eastbound CSAH 1						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	2	57	29	35	0	123	1	31	311	116	0	459	0	16	19	29	0	64	0	43	194	9	0	246	892
4:15 PM	1	34	25	41	0	101	0	20	331	127	1	478	0	8	25	15	0	48	1	29	210	11	0	251	878
4:30 PM	0	36	21	52	2	109	1	19	316	134	0	470	0	12	25	32	0	69	0	30	167	8	0	205	853
4:45 PM	2	45	35	47	1	129	0	19	374	125	1	518	0	15	26	20	0	61	1	30	149	11	0	191	899
Hourly Total	5	172	110	175	3	462	2	89	1332	502	2	1925	0	51	95	96	0	242	2	132	720	39	0	893	3522
5:00 PM	1	54	33	46	0	134	0	16	289	126	1	431	0	17	29	23	0	69	2	47	171	9	0	229	863
5:15 PM	2	46	33	29	0	110	2	15	320	103	1	440	0	7	23	23	0	53	0	25	137	10	0	172	775
5:30 PM	1	37	19	37	0	94	1	13	232	79	1	325	0	5	22	16	0	43	1	31	142	4	0	178	640
5:45 PM	0	27	26	45	2	98	2	22	245	84	0	353	0	11	21	13	0	45	0	36	129	8	0	173	669
Hourly Total	4	164	111	157	2	436	5	66	1086	392	3	1549	0	40	95	75	0	210	3	139	579	31	0	752	2947
6:00 PM	3	36	34	36	0	109	1	19	182	59	0	261	0	12	28	29	0	69	1	29	127	14	0	171	610
6:15 PM	1	24	20	17	2	62	0	19	167	66	2	252	0	8	17	21	0	46	0	20	150	8	2	178	538
6:30 PM	0	32	26	35	0	93	0	15	125	47	0	187	0	8	17	11	0	36	0	26	104	7	1	137	453
6:45 PM	0	23	15	22	0	60	3	13	123	48	0	187	0	5	25	13	0	43	0	24	95	7	2	126	416
Hourly Total	4	115	95	110	2	324	4	66	597	220	2	887	0	33	87	74	0	194	1	99	476	36	5	612	2017
7:00 PM	0	31	19	24	1	74	2	10	121	49	0	182	0	6	14	14	0	34	0	20	105	11	2	136	426
7:15 PM	1	39	18	25	1	83	6	15	93	41	1	155	0	12	18	20	0	50	0	18	113	3	0	134	422
7:30 PM	0	20	16	26	0	62	0	9	97	30	1	136	0	4	14	16	0	34	0	19	97	8	1	124	356
7:45 PM	0	23	19	12	0	54	0	14	85	38	0	137	0	8	17	7	0	32	1	28	83	8	1	120	343
Hourly Total	1	113	72	87	2	273	8	48	396	158	2	610	0	30	63	57	0	150	1	85	398	30	4	514	1547
8:00 PM	1	21	20	24	0	66	2	11	108	29	0	150	0	3	16	10	0	29	0	25	92	11	0	128	373
8:15 PM	0	30	16	15	0	61	0	9	92	33	0	134	0	3	10	13	0	26	0	17	103	5	0	125	346
8:30 PM	0	33	11	13	0	57	1	5	76	24	0	106	0	3	8	19	0	30	0	18	92	8	0	118	311
8:45 PM	1	17	13	13	0	44	2	15	76	24	0	117	0	2	10	9	0	21	0	19	70	3	0	92	274
Hourly Total	2	101	60	65	0	228	5	40	352	110	0	507	0	11	44	51	0	106	0	79	357	27	0	463	1304
9:00 PM	0	24	7	11	0	42	1	6	67	32	0	106	0	0	1	5	0	6	0	12	70	5	0	87	241
9:15 PM	0	9	11	8	0	28	0	15	54	21	0	90	0	3	5	11	0	19	1	10	57	8	0	76	213
9:30 PM	0	14	13	7	0	34	1	5	53	13	0	72	0	0	6	8	0	14	0	9	56	6	0	71	191
9:45 PM	0	18	6	10	0	34	1	12	40	16	0	69	0	2	5	6	0	13	0	11	58	1	0	70	186
Hourly Total	0	65	37	36	0	138	3	38	214	82	0	337	0	5	17	30	0	52	1	42	241	20	0	304	831
10:00 PM	0	11	5	8	0	24	0	5	42	14	0	61	0	2	3	2	0	7	0	11	55	1	0	67	159
10:15 PM	0	10	5	4	0	19	0	8	56	17	0	81	0	0	1	4	0	5	0	6	47	3	0	56	161
10:30 PM	0	13	5	5	0	23	0	2	38	15	0	55	0	1	4	7	0	12	0	4	26	6	0	36	126
10:45 PM	0	10	2	4	0	16	0	4	35	12	0	51	0	0	4	5	0	9	0	4	25	0	0	29	105
Hourly Total	0	44	17	21	0	82	0	19	171	58	0	248	0	3	12	18	0	33	0	25	153	10	0	188	551
11:00 PM	0	4	5	8	0	17	0	4	33	13	0	50	0	1	3	2	0	6	0	5	34	1	0	40	113
11:15 PM	0	5	0	3	0	8	0	8	24	14	0	46	0	0	0	2	0	2	0	3	17	0	0	20	76
11:30 PM	0	3	1	1	0	5	0	4	19	4	0	27	0	0	1	4	0	5	0	6	20	1	0	27	64
11:45 PM	0	3	2	1	0	6	0	6	20	6	0	32	0	0	1	0	0	1	0	3	13	1	0	17	56
Hourly Total	0	15	8	13	0	36	0	22	96	37	0	155	0	1	5	8	0	14	0	17	84	3	0	104	309
DAILY TOTAL	35	2591	1223	1929	16	5778	61	756	10661	3520	22	14998	0	506	1166	1413	14	3085	30	1648	9738	420	17	11836	35697
Cars	35	2483	1201	1869	11	5588	61	731	10500	3408	13	14700	0	492	1142	1386	12	3020	30	1610	9569	409	11	11618	34926
Heavy Vehicles	0	108	22	60	5	190	0	25	161	112	9	298	0	14	24	27	2	65	0	38	169	11	6	218	771
Heavy Vehicle %	0.00%	4.17%	1.80%	3.11%	31.25%	3.29%	0.00%	3.31%	1.51%	3.18%	40.91%	1.99%	0.00%	2.77%	2.06%	1.91%	14.29%	2.11%	0.00%	2.31%	1.74%	2.62%	35.29%	1.84%	2.16%

TMC 2408 - CSAH 1 @ CSAH 78
Coon Rapids MN
Thursday, September 12, 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	
7:15 AM	0	61	29	28	0	118	0	10	136	67	0	213	0	3	22	47	0	72	1	26	208	3	0	238	641
7:30 AM	0	92	22	40	0	154	0	8	163	48	0	219	0	4	24	44	0	72	0	21	193	6	0	220	665
7:45 AM	0	62	18	37	0	117	0	13	233	64	0	310	0	9	23	42	0	74	0	14	203	8	0	225	726
8:00 AM	0	61	20	29	0	110	0	5	128	44	0	177	0	7	19	44	0	70	0	20	159	3	0	182	539
Peak Hour Total	0	276	89	134	0	499	0	36	660	223	0	919	0	23	88	177	0	288	1	81	763	20	0	865	2571
PHF	0.000	0.750	0.767	0.838	0.000	0.810	0.000	0.692	0.708	0.832	0.000	0.741	0.000	0.639	0.917	0.941	0.000	0.973	0.250	0.779	0.917	0.625	0.000	0.909	0.885

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	2	57	29	35	0	123	1	31	311	116	0	459	0	16	19	29	0	64	0	43	194	9	0	246	892
4:15 PM	1	34	25	41	0	101	0	20	331	127	1	478	0	8	25	15	0	48	1	29	210	11	0	251	878
4:30 PM	0	36	21	52	2	109	1	19	316	134	0	470	0	12	25	32	0	69	0	30	167	8	0	205	853
4:45 PM	2	45	35	47	1	129	0	19	374	125	1	518	0	15	26	20	0	61	1	30	149	11	0	191	899
Peak Hour Total	5	172	110	175	3	462	2	89	1332	502	2	1925	0	51	95	96	0	242	2	132	720	39	0	893	3522
PHF	0.625	0.754	0.786	0.841	0.375	0.895	0.500	0.718	0.890	0.937	0.500	0.929	0.000	0.797	0.913	0.750	0.000	0.877	0.500	0.767	0.857	0.886	0.000	0.889	0.979

Total Vehicles On Leg				12147			
Vehicles Entering Intersection		5778		Vehicles Exiting Intersection		6369	
Southbound							
Cars	1869	1201	2483	35	11		
Heavy	60	22	108	0	5		
Total	1929	1223	2591	35	16		

Total Vehicles on Leg 24962	Vehicles Entering Intersection 11836	Eastbound	Cars	Heavy	Total
			11	6	17
			30	0	30
			1610	38	1648
			9569	169	9738
409	11	420			

Total Vehicles on Leg 28801	Vehicles Entering Intersection 14998	Westbound	Cars	Heavy	Total
			3408	112	3520
			10500	161	10661
			731	25	756
			61	0	61
13	9	22			

Total Vehicles On Leg				5484			
Vehicles Entering Intersection		3085		Vehicles Exiting Intersection		2399	
Cars	12	0	492	1142	1386		
Heavy	2	0	14	24	27		
Total	14	0	506	1166	1413		
Northbound							

Daily Volumes

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1

Number of Lanes : 2+

Total Approach Volume: 11,836

Westbound: CSAH 1

Number of Lanes :2+

Total Approach Volume: 14,998

Minor Street Approaches

Northbound: Hanson Blvd NW

Number of Lanes :2+

Total Approach Volume: 1,672

Southbound: CSAH 78

Number of Lanes :2+

Total Approach Volume: 3,909

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 15 hours, 8 are needed

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

Required volumes reached for 16 hours, 8 are needed

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

Required 1A volumes reached for 16 hours, 8 are needed

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

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

Number of hours (16) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (59) 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 2408

Study Date : 09/19/2024

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

15 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

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

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
	CSAH 1					Hanson Blvd NW		
15:30 - 16:30	1007	+	1741	=	2748	153	269	Yes
16:30 - 17:30	797	+	1859	=	2656	154	310	Yes
14:30 - 15:30	804	+	1186	=	1990	156	289	Yes
17:30 - 18:30	700	+	1191	=	1891	124	228	Yes
13:30 - 14:30	845	+	1008	=	1853	99	249	Yes
07:30 - 08:30	812	+	877	=	1689	109	334	Yes
11:30 - 12:30	711	+	782	=	1493	85	196	Yes
10:30 - 11:30	678	+	748	=	1426	101	217	Yes
12:30 - 13:30	697	+	724	=	1421	93	216	Yes
06:30 - 07:30	785	+	591	=	1376	100	288	Yes
09:30 - 10:30	618	+	747	=	1365	82	205	Yes
08:30 - 09:30	652	+	709	=	1361	98	217	Yes
18:30 - 19:30	533	+	711	=	1244	105	204	Yes
19:30 - 20:30	497	+	557	=	1054	75	166	Yes
05:30 - 06:30	448	+	253	=	701	44	145	Yes
20:30 - 21:30	373	+	419	=	792	32	126	No
20:45 - 21:45	326	+	385	=	711	27	109	No
21:00 - 22:00	304	+	337	=	641	22	102	No
21:15 - 22:15	284	+	292	=	576	26	87	No
05:15 - 06:15	392	+	179	=	571	34	117	No
21:30 - 22:30	264	+	283	=	547	19	82	No
21:45 - 22:45	229	+	266	=	495	18	74	No
05:00 - 06:00	348	+	136	=	484	25	88	No
22:00 - 23:00	188	+	248	=	436	15	62	No
22:15 - 23:15	161		237		398	14	55	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

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

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 = **630**
 Veh/Hr Minor = **70**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:30 - 16:30	1007	+	1741	=	2748	153	269	Yes
16:30 - 17:30	797	+	1859	=	2656	154	310	Yes
14:30 - 15:30	804	+	1186	=	1990	156	289	Yes
17:30 - 18:30	700	+	1191	=	1891	124	228	Yes
13:30 - 14:30	845	+	1008	=	1853	99	249	Yes
07:30 - 08:30	812	+	877	=	1689	109	334	Yes
11:30 - 12:30	711	+	782	=	1493	85	196	Yes
10:30 - 11:30	678	+	748	=	1426	101	217	Yes
12:30 - 13:30	697	+	724	=	1421	93	216	Yes
06:30 - 07:30	785	+	591	=	1376	100	288	Yes
09:30 - 10:30	618	+	747	=	1365	82	205	Yes
08:30 - 09:30	652	+	709	=	1361	98	217	Yes
18:30 - 19:30	533	+	711	=	1244	105	204	Yes
19:30 - 20:30	497	+	557	=	1054	75	166	Yes
20:30 - 21:30	373	+	419	=	792	32	126	Yes
05:30 - 06:30	448	+	253	=	701	44	145	Yes
05:15 - 06:15	392	+	179	=	571	34	117	No
21:30 - 22:30	264	+	283	=	547	19	82	No
21:45 - 22:45	229	+	266	=	495	18	74	No
05:00 - 06:00	348	+	136	=	484	25	88	No
22:00 - 23:00	188	+	248	=	436	15	62	No
22:15 - 23:15	161	+	237	=	398	14	55	No
04:45 - 05:45	272	+	108	=	380	22	65	No
22:30 - 23:30	125	+	202	=	327	13	45	No
04:30 - 05:30	209		84		293	13	50	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

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

16 hours meet 1A minimums.
17 hours meet 1B minimums.
Warrant IS met.

Site Data Required

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

Minor Road Hanson Blvd NW

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:15 - 17:15	876	+	1897	=	2773	157	289	Yes
15:15 - 16:15	967	+	1566	=	2533	171	278	Yes
17:15 - 18:15	694	+	1379	=	2073	129	265	Yes
14:15 - 15:15	799	+	1169	=	1968	128	290	Yes
07:15 - 08:15	865	+	919	=	1784	111	371	Yes
13:15 - 14:15	805	+	915	=	1720	102	231	Yes
12:15 - 13:15	736	+	745	=	1481	89	216	Yes
10:15 - 11:15	675	+	741	=	1416	88	226	Yes
09:15 - 10:15	628	+	784	=	1412	91	198	Yes
11:15 - 12:15	665	+	733	=	1398	91	197	Yes
18:15 - 19:15	577	+	808	=	1385	100	191	Yes
08:15 - 09:15	671		685		1356	97	216	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	876	+	1897	=	2773	157	289	Yes
15:15 - 16:15	967	+	1566	=	2533	171	278	Yes
17:15 - 18:15	694	+	1379	=	2073	129	265	Yes
14:15 - 15:15	799	+	1169	=	1968	128	290	Yes
07:15 - 08:15	865	+	919	=	1784	111	371	Yes
13:15 - 14:15	805	+	915	=	1720	102	231	Yes
12:15 - 13:15	736	+	745	=	1481	89	216	Yes
10:15 - 11:15	675	+	741	=	1416	88	226	Yes
09:15 - 10:15	628	+	784	=	1412	91	198	Yes
11:15 - 12:15	665	+	733	=	1398	91	197	Yes
18:15 - 19:15	577	+	808	=	1385	100	191	Yes
08:15 - 09:15	671		685		1356	97	216	Yes

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

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.

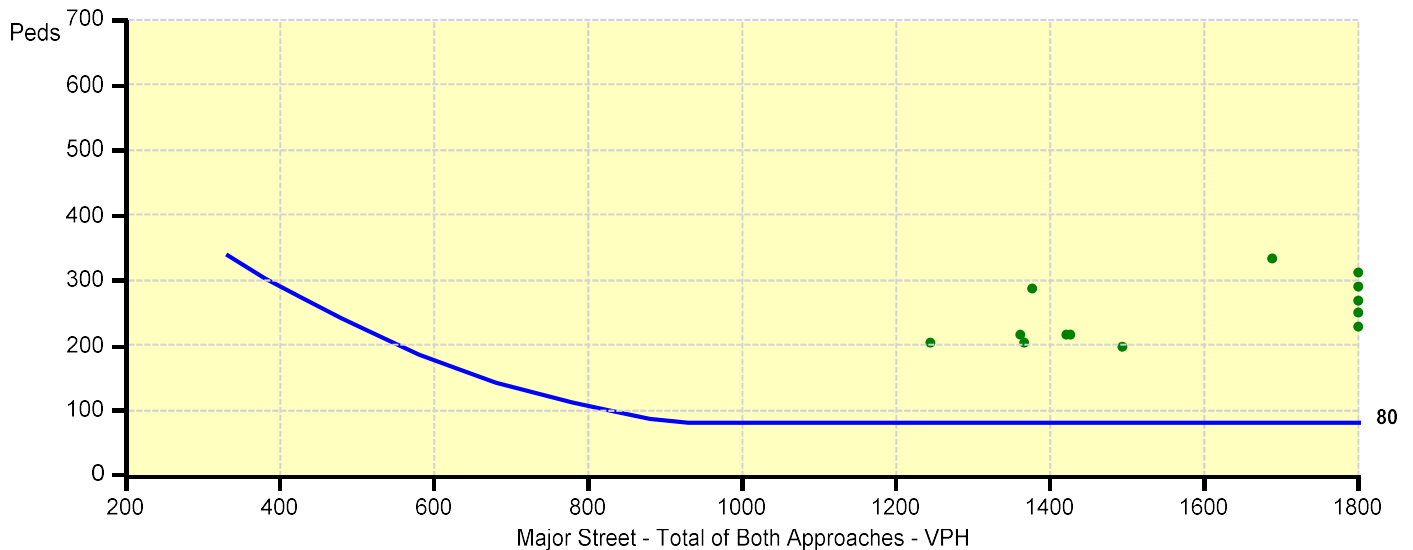
Summary

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 1					Minor Road Hanson Blvd NW			Met?
	Major EB	+	Major WB	=	Total	Minor NB	Minor SB		
15:30 - 16:30	1007	+	1741	=	2748	153	269	Yes	
16:30 - 17:30	797	+	1859	=	2656	154	310	Yes	
14:30 - 15:30	804	+	1186	=	1990	156	289	Yes	
17:30 - 18:30	700	+	1191	=	1891	124	228	Yes	
13:30 - 14:30	845	+	1008	=	1853	99	249	Yes	
07:30 - 08:30	812	+	877	=	1689	109	334	Yes	
11:30 - 12:30	711	+	782	=	1493	85	196	Yes	
10:30 - 11:30	678	+	748	=	1426	101	217	Yes	
12:30 - 13:30	697	+	724	=	1421	93	216	Yes	
06:30 - 07:30	785	+	591	=	1376	100	288	Yes	
09:30 - 10:30	618	+	747	=	1365	82	205	Yes	
08:30 - 09:30	652	+	709	=	1361	98	217	Yes	



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

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.

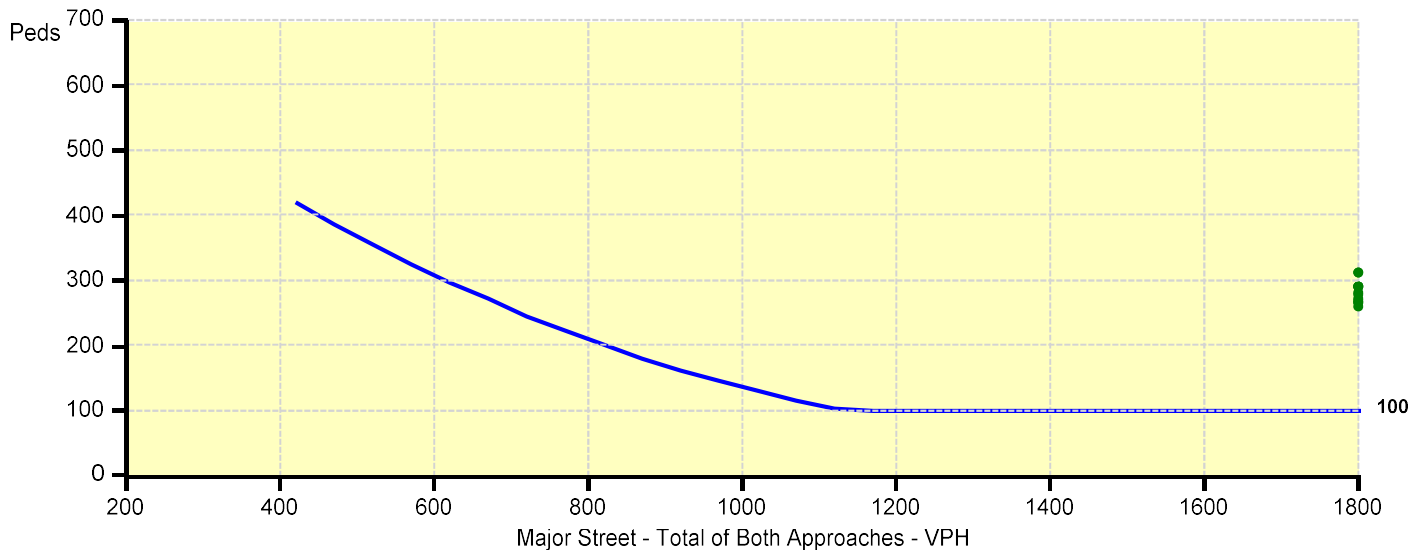
Summary

57 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 1				Total	Minor Road Hanson Blvd NW		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	893	+	1925	=	2818	146	289	Yes
16:15 - 17:15	876	+	1897	=	2773	157	289	Yes
15:30 - 16:30	1007	+	1741	=	2748	153	269	Yes
15:45 - 16:45	947	+	1774	=	2721	146	271	Yes
16:30 - 17:30	797	+	1859	=	2656	154	310	Yes
15:15 - 16:15	967	+	1566	=	2533	171	278	Yes
16:45 - 17:45	770	+	1714	=	2484	144	310	Yes
15:00 - 16:00	909	+	1439	=	2348	161	259	Yes
17:00 - 18:00	752	+	1549	=	2301	135	280	Yes
14:45 - 15:45	880	+	1366	=	2246	158	265	Yes
17:15 - 18:15	694	+	1379	=	2073	129	265	Yes
14:30 - 15:30	804	+	1186	=	1990	156	289	Yes



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2408

Study Date : 09/19/2024

Multiway Stop Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1
 Number of Lanes : 2+
 Total Approach Volume: 11,836

Westbound: CSAH 1
 Number of Lanes :2+
 Total Approach Volume: 14,998

Minor Street Approaches

Northbound: Hanson Blvd NW
 Number of Lanes :2+
 Total Approach Volume: 1,672

Southbound: CSAH 78
 Number of Lanes :2+
 Total Approach Volume: 3,909

Warrant Summary (Rural Values Apply)

Criteria A - Interim Measure	Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.	
Criteria B - Crash Experience	Not Satisfied
Number of crashes (-1) is less than minimum required (5).	
Criteria C - Minimum Volumes and Delays	Satisfied
Average of 8 highest hours meets or exceeds volume criteria.	
Criteria D - 80% of Volumes, Delays, and Crashes	Not Satisfied
Number of crashes (-1) is less than minimum required (4). Average of 8 highest hours meets or exceeds volume criteria.	

Criteria C Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:00 - 17:00	2818	1972.3	435	394.5	210	140	Yes
15:00 - 16:00	2348		423				
17:00 - 18:00	2301		416				
14:00 - 15:00	1917		412				
07:15 - 08:15	1784		486				
13:00 - 14:00	1601		328				
18:00 - 19:00	1499		345				
12:00 - 13:00	1510		311				
10:30 - 11:30	1426		325				
08:45 - 09:45	1424		324				
06:15 - 07:15	1154		340				
19:00 - 20:00	1124		283				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:00 - 17:00	2818	1972.3	435	394.5	240	160	Yes
15:00 - 16:00	2348		423				
17:00 - 18:00	2301		416				
14:00 - 15:00	1917		412				
07:15 - 08:15	1784		486				
13:00 - 14:00	1601		328				
18:00 - 19:00	1499		345				
12:00 - 13:00	1510		311				
10:30 - 11:30	1426		325				
08:45 - 09:45	1424		324				
06:15 - 07:15	1154		340				
19:00 - 20:00	1124		283				