

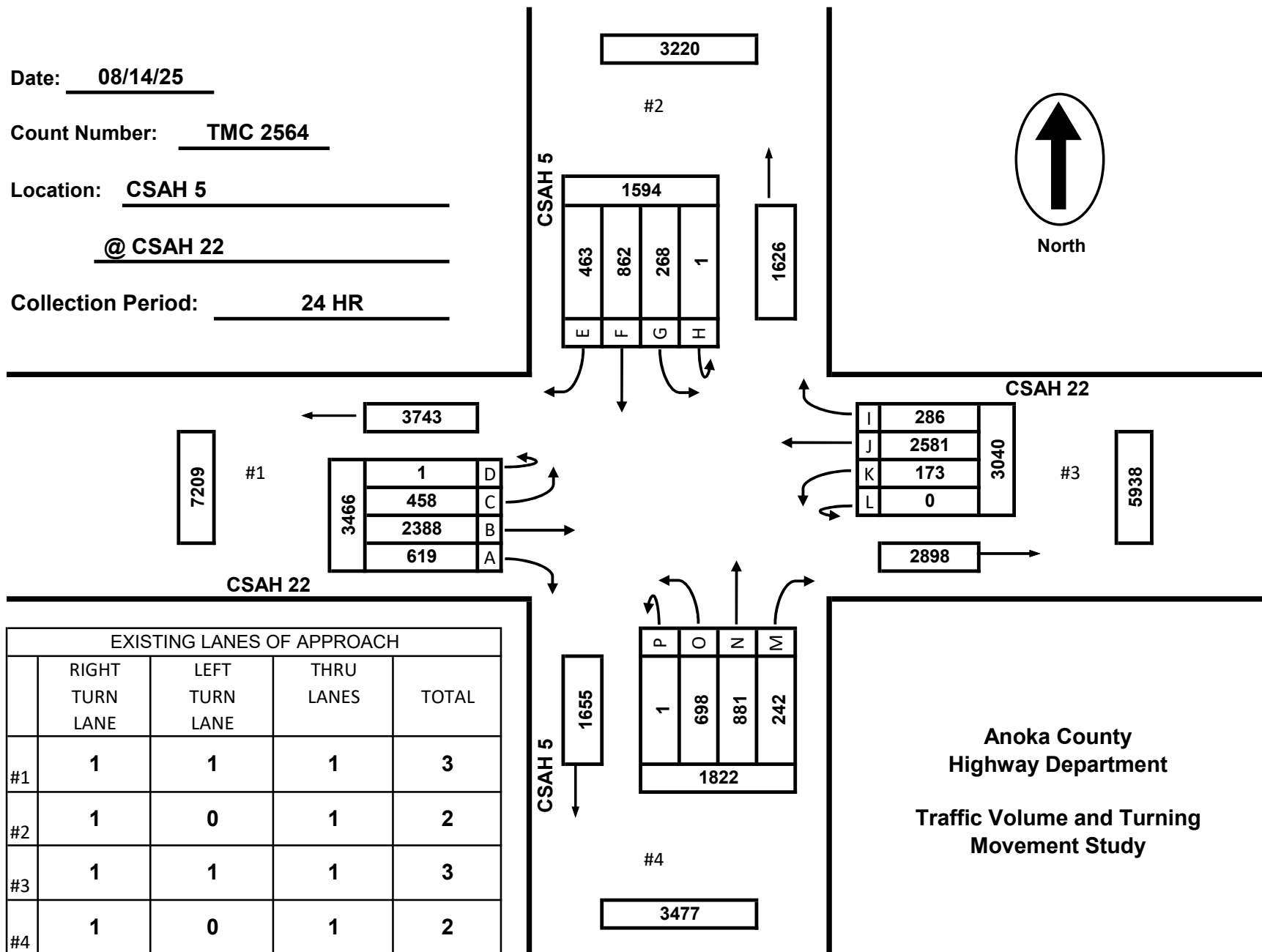
Date: 08/14/25

Count Number: TMC 2564

Location: CSAH 5

@ CSAH 22

Collection Period: 24 HR



Date: 08/14/25

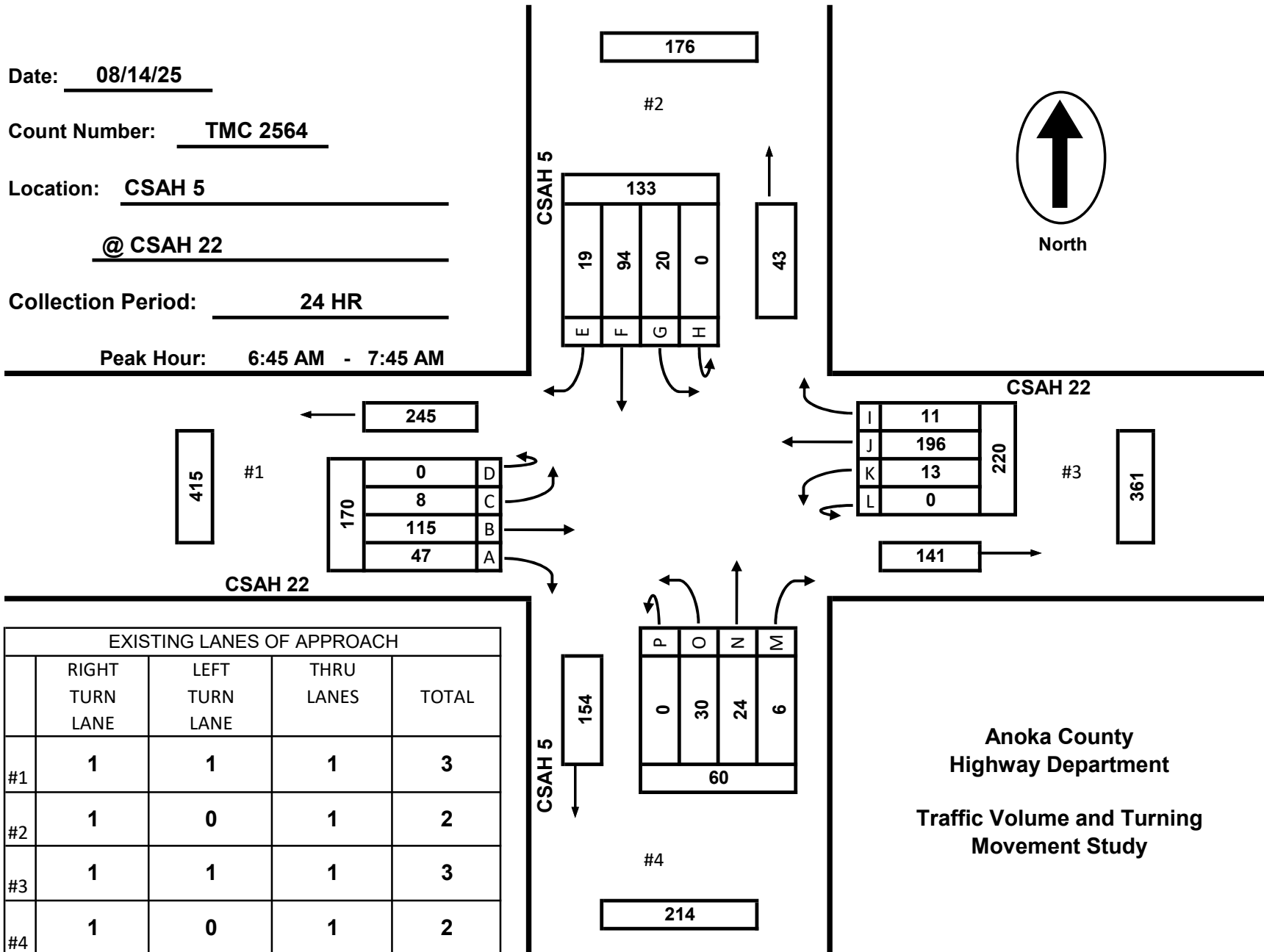
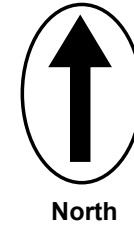
Count Number: TMC 2564

Location: CSAH 5

@ CSAH 22

Collection Period: 24 HR

Peak Hour: 6:45 AM - 7:45 AM



Date: 08/14/25

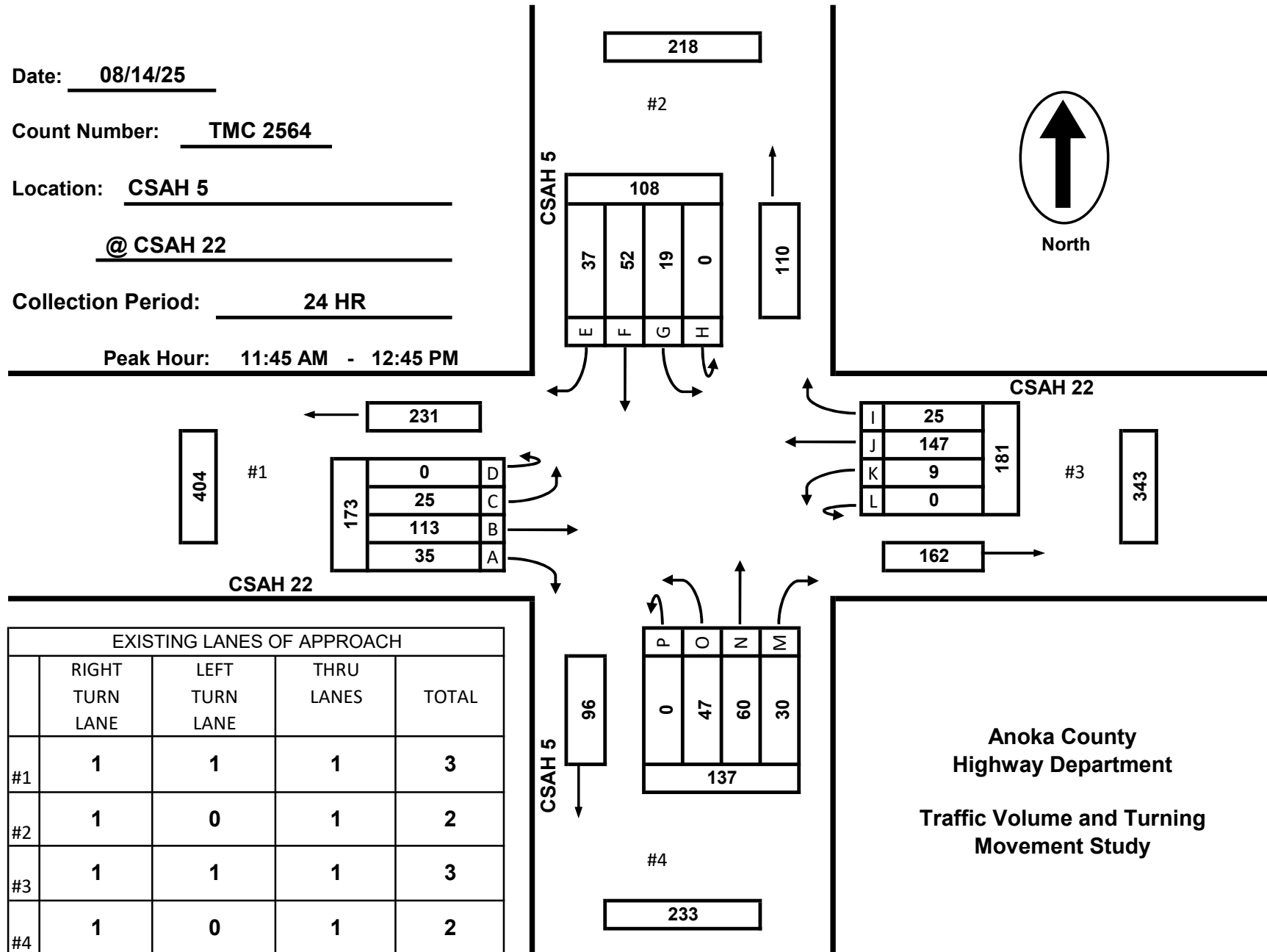
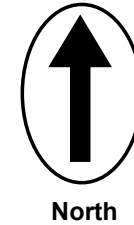
Count Number: TMC 2564

Location: CSAH 5

@ CSAH 22

Collection Period: 24 HR

Peak Hour: 11:45 AM - 12:45 PM



**Anoka County
Highway Department**

**Traffic Volume and Turning
Movement Study**

Date: 08/14/25

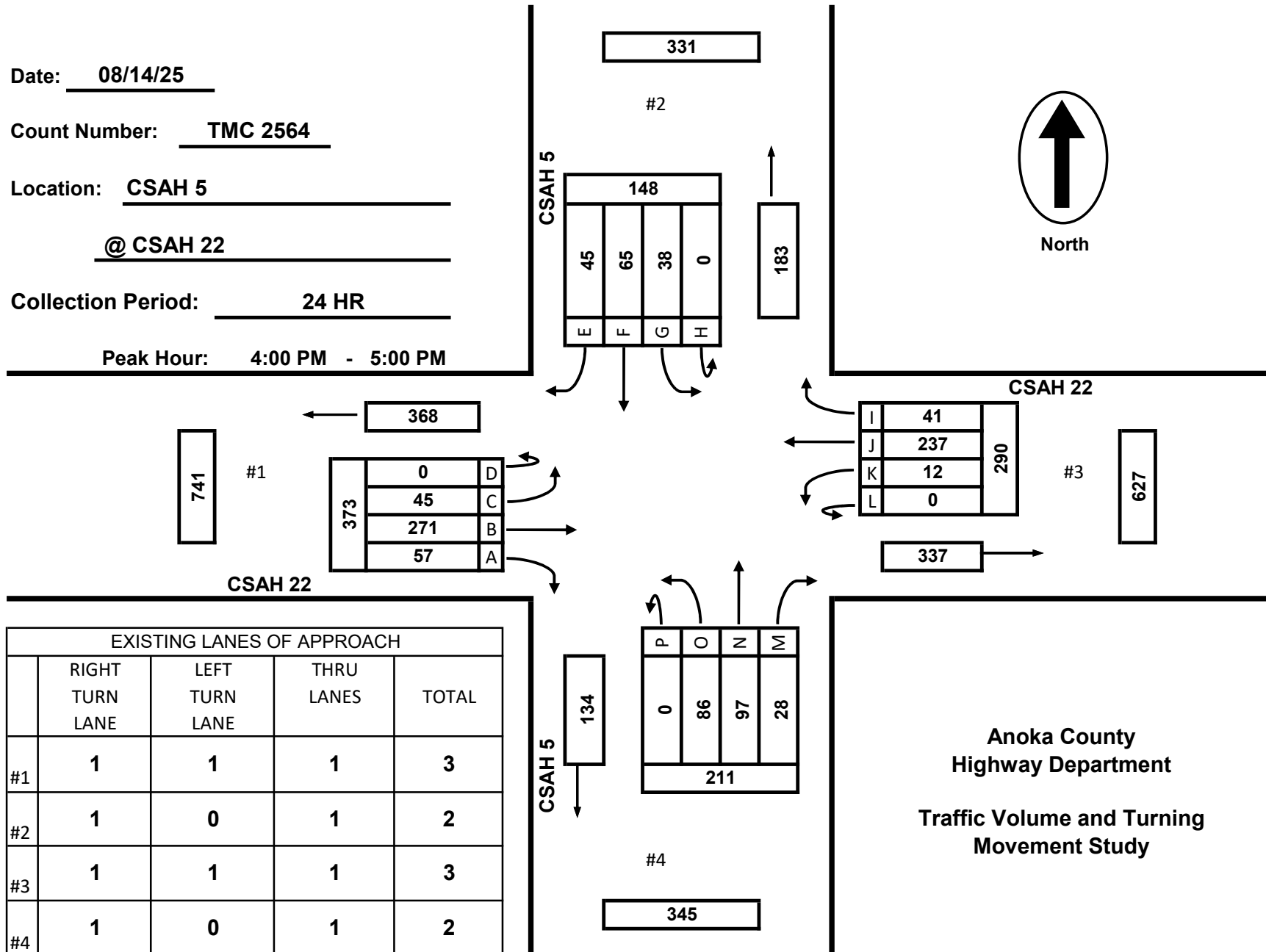
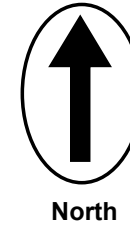
Count Number: TMC 2564

Location: CSAH 5

@ CSAH 22

Collection Period: 24 HR

Peak Hour: 4:00 PM - 5:00 PM



TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025

Time	Southbound CSAH 5						Westbound CSAH 22						Northbound CSAH 5						Eastbound CSAH 22						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	1	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	2	2	1	0	5	8
12:15 AM	0	0	1	0	0	1	0	1	2	0	0	3	0	0	0	1	0	1	0	1	0	2	0	3	8
12:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	2	1	0	3	5
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	2	1	0	3	0	1	4	0	0	5	0	0	0	2	0	2	0	3	4	4	0	11	21
1:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0	1	0	0	2	0	0	2	5
1:15 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	1	0	1	0	0	3	1	0	4	9
1:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	3
1:45 AM	0	0	0	0	0	0	0	1	1	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	3
Hourly Total	0	0	1	0	0	1	0	1	7	0	0	8	0	2	2	1	0	5	0	0	5	1	0	6	20
2:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	0	0	1	1	0	2	5
2:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	2	0	0	2	4
2:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	1	0	0	1	0	0	1	0	0	1	5
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	0	1	3
Hourly Total	0	0	0	0	0	0	0	0	5	0	0	5	0	1	4	1	0	6	0	0	5	1	0	6	17
3:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	1	0	0	2	0	0	2	5
3:15 AM	0	0	2	0	0	2	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	2	0	3	9
3:30 AM	0	0	0	2	0	2	0	0	2	0	0	2	0	0	0	1	0	1	0	0	1	0	0	1	6
3:45 AM	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	1	2	1	0	4	8
Hourly Total	0	0	2	2	0	4	0	0	12	0	0	12	0	0	1	1	0	2	0	1	6	3	0	10	28
4:00 AM	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	3	0	0	3	6
4:15 AM	0	0	1	1	0	2	0	0	10	0	0	10	0	0	0	0	0	0	0	1	1	2	0	4	16
4:30 AM	0	2	7	1	0	10	0	0	15	1	0	16	0	1	0	0	0	1	0	1	8	1	0	10	37
4:45 AM	0	0	9	1	0	10	0	1	14	0	0	15	0	1	1	0	0	2	0	0	11	0	0	11	38
Hourly Total	0	2	17	3	0	22	0	1	41	2	0	44	0	2	1	0	0	3	0	2	23	3	0	28	97
5:00 AM	0	0	12	0	0	12	0	3	19	1	0	23	0	4	3	0	0	7	0	1	9	6	0	16	58
5:15 AM	0	0	8	2	0	10	0	0	30	0	0	30	0	2	4	0	0	6	0	2	8	9	0	19	65
5:30 AM	0	0	16	2	0	18	0	1	40	10	0	51	0	7	6	2	0	15	0	0	10	5	0	15	99
5:45 AM	0	3	18	1	0	22	0	1	20	7	0	28	0	3	11	0	0	14	0	0	15	3	0	18	82
Hourly Total	0	3	54	5	0	62	0	5	109	18	0	132	0	16	24	2	0	42	0	3	42	23	0	68	304
6:00 AM	0	6	21	3	0	30	0	2	35	2	0	39	0	5	5	0	0	10	0	2	19	9	0	30	109
6:15 AM	0	1	25	6	0	32	0	1	48	2	0	51	0	5	17	0	0	22	1	0	17	7	0	25	130
6:30 AM	0	4	15	5	0	24	0	8	54	4	0	66	0	7	6	1	0	14	0	2	32	5	0	39	143
6:45 AM	0	4	27	11	0	42	0	6	39	2	0	47	0	7	6	1	0	14	0	2	36	13	1	51	154
Hourly Total	0	15	88	25	0	128	0	17	176	10	0	203	0	24	34	2	0	60	1	6	104	34	1	145	536
7:00 AM	0	6	27	0	0	33	0	3	44	4	0	51	0	8	6	1	0	15	0	1	19	8	0	28	127
7:15 AM	0	6	19	5	0	30	0	2	48	1	0	51	0	11	5	4	0	20	0	0	30	14	0	44	145
7:30 AM	0	4	21	3	0	28	0	2	65	4	0	71	0	4	7	0	0	11	0	5	30	12	0	47	157
7:45 AM	0	3	20	6	0	29	0	4	48	4	0	56	0	8	4	2	0	14	0	3	32	4	0	39	138
Hourly Total	0	19	87	14	0	120	0	11	205	13	0	229	0	31	22	7	0	60	0	9	111	38	0	158	567

TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025

Time	Southbound CSAH 5						Westbound CSAH 22						Northbound CSAH 5						Eastbound CSAH 22						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	2	6	5	0	13	0	1	38	4	0	43	0	3	4	2	0	9	0	2	26	12	0	40	105
8:15 AM	0	2	11	8	0	21	0	0	45	2	0	47	0	6	7	1	0	14	0	0	31	16	0	47	129
8:30 AM	1	3	14	7	0	25	0	4	37	6	0	47	0	11	6	2	0	19	0	4	28	11	0	43	134
8:45 AM	0	2	15	1	0	18	0	5	40	5	0	50	0	7	11	2	0	20	0	3	37	2	0	42	130
Hourly Total	1	9	46	21	0	77	0	10	160	17	0	187	0	27	28	7	0	62	0	9	122	41	0	172	498
9:00 AM	0	4	9	8	0	21	0	0	28	3	0	31	0	13	13	2	0	28	0	7	14	6	1	27	107
9:15 AM	0	3	10	6	0	19	0	1	33	1	0	35	0	10	8	2	0	20	0	11	25	9	0	45	119
9:30 AM	0	4	15	7	0	26	0	5	30	5	0	40	0	12	12	3	0	27	0	6	26	7	0	39	132
9:45 AM	0	5	11	11	0	27	0	2	34	3	0	39	0	11	10	3	0	24	0	2	26	4	1	32	122
Hourly Total	0	16	45	32	0	93	0	8	125	12	0	145	0	46	43	10	0	99	0	26	91	26	2	143	480
10:00 AM	0	4	14	8	0	26	0	2	38	1	4	41	0	8	16	4	0	28	0	6	25	7	2	38	133
10:15 AM	0	4	14	4	0	22	0	5	17	3	3	25	0	5	5	5	0	15	0	5	26	8	0	39	101
10:30 AM	0	1	5	4	0	10	0	6	34	7	0	47	0	8	11	4	0	23	0	6	23	9	0	38	118
10:45 AM	0	3	7	11	0	21	0	4	33	8	0	45	0	12	12	1	0	25	0	8	19	9	0	36	127
Hourly Total	0	12	40	27	0	79	0	17	122	19	7	158	0	33	44	14	0	91	0	25	93	33	2	151	479
11:00 AM	0	8	7	6	0	21	0	2	26	5	0	33	0	7	11	2	0	20	0	8	38	8	0	54	128
11:15 AM	0	3	17	6	0	26	0	5	29	2	0	36	0	12	10	1	0	23	0	9	39	3	0	51	136
11:30 AM	0	5	9	5	0	19	0	1	36	4	0	41	0	10	21	5	0	36	0	6	29	5	0	40	136
11:45 AM	0	2	17	12	0	31	0	1	38	8	0	47	0	9	14	14	0	37	0	5	34	11	0	50	165
Hourly Total	0	18	50	29	0	97	0	9	129	19	0	157	0	38	56	22	0	116	0	28	140	27	0	195	565
12:00 PM	0	5	12	8	0	25	0	2	27	8	0	37	0	10	17	6	0	33	0	4	20	3	0	27	122
12:15 PM	0	6	13	8	0	27	0	4	49	5	0	58	0	10	17	5	0	32	0	9	23	6	0	38	155
12:30 PM	0	6	10	9	0	25	0	2	33	4	0	39	0	18	12	5	0	35	0	7	36	15	0	58	157
12:45 PM	0	6	10	13	0	29	0	4	35	2	0	41	1	6	11	3	0	21	0	6	31	9	0	46	137
Hourly Total	0	23	45	38	0	106	0	12	144	19	0	175	1	44	57	19	0	121	0	26	110	33	0	169	571
1:00 PM	0	1	10	9	0	20	0	1	25	6	0	32	0	9	13	4	0	26	0	8	23	10	0	41	119
1:15 PM	0	3	12	4	0	19	0	1	37	2	0	40	0	10	11	4	0	25	0	11	38	9	0	58	142
1:30 PM	0	1	10	11	0	22	0	3	40	3	0	46	0	15	17	3	0	35	0	7	34	11	0	52	155
1:45 PM	0	3	8	4	0	15	0	1	35	6	0	42	0	10	16	3	0	29	0	14	41	14	0	69	155
Hourly Total	0	8	40	28	0	76	0	6	137	17	0	160	0	44	57	14	0	115	0	40	136	44	0	220	571
2:00 PM	0	6	11	9	0	26	0	2	40	5	0	47	0	8	21	4	0	33	0	9	26	6	0	41	147
2:15 PM	0	4	17	9	0	30	0	3	29	3	0	35	0	10	26	2	0	38	0	10	41	14	0	65	168
2:30 PM	0	4	14	5	0	23	0	4	31	1	0	36	0	9	19	7	0	35	0	8	49	11	0	68	162
2:45 PM	0	10	12	8	0	30	0	2	45	6	0	53	0	17	22	4	0	43	0	12	46	7	0	65	191
Hourly Total	0	24	54	31	0	109	0	11	145	15	0	171	0	44	88	17	0	149	0	39	162	38	0	239	668
3:00 PM	0	11	8	7	0	26	0	2	59	6	0	67	0	11	23	7	0	41	0	13	54	8	0	75	209
3:15 PM	0	4	16	11	0	31	0	3	47	7	0	57	0	24	22	5	0	51	0	11	40	14	0	65	204
3:30 PM	0	7	13	5	0	25	0	7	34	3	0	44	0	15	19	9	0	43	0	7	76	6	0	89	201
3:45 PM	0	8	16	6	0	30	0	4	68	5	0	77	0	21	26	6	0	53	0	16	77	10	0	103	263
Hourly Total	0	30	53	29	0	112	0	16	208	21	0	245	0	71	90	27	0	188	0	47	247	38	0	332	877

TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025

Time	Southbound CSAH 5						Westbound CSAH 22						Northbound CSAH 5						Eastbound CSAH 22						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehcle Approach Total</i>	
4:00 PM	0	4	15	4	0	23	0	4	55	10	0	69	0	20	23	10	0	53	0	9	67	19	0	95	240
4:15 PM	0	8	19	14	0	41	0	0	61	11	0	72	0	16	21	6	0	43	0	16	61	9	0	86	242
4:30 PM	0	15	18	13	0	46	0	4	54	14	0	72	0	27	29	7	0	63	0	8	63	18	0	89	270
4:45 PM	0	11	13	14	0	38	0	4	67	6	0	77	0	23	24	5	0	52	0	12	80	11	0	103	270
Hourly Total	0	38	65	45	0	148	0	12	237	41	0	290	0	86	97	28	0	211	0	45	271	57	0	373	1022
5:00 PM	0	5	15	7	0	27	0	1	62	7	0	70	0	12	16	8	0	36	0	9	75	11	0	95	228
5:15 PM	0	8	14	8	0	30	0	4	53	7	0	64	0	17	26	2	0	45	0	6	58	7	0	71	210
5:30 PM	0	4	7	7	0	18	0	2	49	3	0	54	0	14	17	7	0	38	0	9	59	9	0	77	187
5:45 PM	0	3	9	12	0	24	0	0	53	3	0	56	0	15	12	6	0	33	0	10	47	11	0	68	181
Hourly Total	0	20	45	34	0	99	0	7	217	20	0	244	0	58	71	23	0	152	0	34	239	38	0	311	806
6:00 PM	0	5	6	14	0	25	0	1	48	4	0	53	0	11	10	6	0	27	0	11	37	11	0	59	164
6:15 PM	0	2	11	11	0	24	0	4	41	3	0	48	0	17	21	5	0	43	0	7	36	10	1	53	168
6:30 PM	0	2	6	13	0	21	0	1	27	3	0	31	0	9	14	3	0	26	0	8	32	12	1	52	130
6:45 PM	0	3	12	6	0	21	0	2	24	3	0	29	0	6	15	2	0	23	0	8	35	7	0	50	123
Hourly Total	0	12	35	44	0	91	0	8	140	13	0	161	0	43	60	16	0	119	0	34	140	40	2	214	585
7:00 PM	0	2	10	6	0	18	0	1	22	2	0	25	0	17	10	2	0	29	0	10	30	7	0	47	119
7:15 PM	0	3	6	4	0	13	0	3	30	1	0	34	0	13	10	4	0	27	0	18	21	12	0	51	125
7:30 PM	0	1	15	4	0	20	0	2	31	7	2	40	0	3	15	1	0	19	0	8	26	7	0	41	120
7:45 PM	0	2	5	7	0	14	0	0	24	5	0	29	0	5	6	1	0	12	0	8	30	6	0	44	99
Hourly Total	0	8	36	21	0	65	0	6	107	15	2	128	0	38	41	8	0	87	0	44	107	32	0	183	463
8:00 PM	0	2	14	2	0	18	0	0	18	2	0	20	0	10	7	0	0	17	0	7	25	9	0	41	96
8:15 PM	0	0	8	6	0	14	0	2	19	1	0	22	0	7	5	3	0	15	0	5	25	5	0	35	86
8:30 PM	0	0	4	6	0	10	0	3	14	1	0	18	0	2	6	5	0	13	0	5	26	4	0	35	76
8:45 PM	0	3	5	5	0	13	0	3	10	0	0	13	0	5	2	0	0	7	0	3	25	7	0	35	68
Hourly Total	0	5	31	19	0	55	0	8	61	4	0	73	0	24	20	8	0	52	0	20	101	25	0	146	326
9:00 PM	0	3	5	3	0	11	0	1	21	2	0	24	0	7	8	3	0	18	0	2	24	5	0	31	84
9:15 PM	0	0	4	1	0	5	0	1	17	0	0	18	0	5	5	2	0	12	0	1	15	9	0	25	60
9:30 PM	0	1	1	1	0	3	0	2	10	2	0	14	0	1	2	1	0	4	0	4	19	7	0	30	51
9:45 PM	0	1	3	2	0	6	0	0	13	2	0	15	0	5	6	2	0	13	0	1	9	5	0	15	49
Hourly Total	0	5	13	7	0	25	0	4	61	6	0	71	0	18	21	8	0	47	0	8	67	26	0	101	244
10:00 PM	0	0	2	2	0	4	0	1	8	2	0	11	0	2	5	1	0	8	0	2	9	1	0	12	35
10:15 PM	0	0	5	2	0	7	0	0	4	0	0	4	0	0	4	0	0	4	0	2	14	3	0	19	34
10:30 PM	0	0	2	0	0	2	0	1	3	1	0	5	0	2	3	1	0	6	0	1	14	1	0	16	29
10:45 PM	0	0	0	1	0	1	0	0	3	2	0	5	0	1	3	2	0	6	0	2	8	3	0	13	25
Hourly Total	0	0	9	5	0	14	0	2	18	5	0	25	0	5	15	4	0	24	0	7	45	8	0	60	123
11:00 PM	0	0	2	0	0	2	0	0	1	0	0	1	0	1	3	0	0	4	0	0	9	3	0	12	19
11:15 PM	0	0	0	1	0	1	0	1	3	0	0	4	0	0	1	1	0	2	0	1	4	0	0	5	12
11:30 PM	0	1	2	1	0	4	0	0	5	0	0	5	0	1	0	0	0	1	0	0	3	2	0	5	15
11:45 PM	0	0	0	1	0	1	0	0	2	0	0	2	0	1	1	0	0	2	0	1	1	1	0	3	8
Hourly Total	0	1	4	3	0	8	0	1	11	0	0	12	0	3	5	1	0	9	0	2	17	6	0	25	54
DAILY TOTAL	1	268	862	463	0	1594	0	173	2581	286	9	3040	1	698	881	242	0	1822	1	458	2388	619	7	3466	9922
Cars	1	238	812	451	0	1502	0	161	2485	260	9	2906	1	656	827	232	0	1716	1	445	2274	593	7	3313	9437
Heavy Vehicles	0	30	50	12	0	92	0	12	96	26	0	134	0	42	54	10	0	106	0	13	114	26	0	153	485
Heavy Vehicle %	0.00%	11.19%	5.80%	2.59%	0.00%	5.77%	0.00%	6.94%	3.72%	9.09%	0.00%	4.41%	0.00%	6.02%	6.13%	4.13%	0.00%	5.82%	0.00%	2.84%	4.77%	4.20%	0.00%	4.41%	4.89%

TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025
AM Peak Hour (00:00 to 10:00)

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	4	27	11	0	42	0	6	39	2	0	47	0	7	6	1	0	14	0	2	36	13	1	51	154
7:00 AM	0	6	27	0	0	33	0	3	44	4	0	51	0	8	6	1	0	15	0	1	19	8	0	28	127
7:15 AM	0	6	19	5	0	30	0	2	48	1	0	51	0	11	5	4	0	20	0	0	30	14	0	44	145
7:30 AM	0	4	21	3	0	28	0	2	65	4	0	71	0	4	7	0	0	11	0	5	30	12	0	47	157
Peak Hour Total	0	20	94	19	0	133	0	13	196	11	0	220	0	30	24	6	0	60	0	8	115	47	1	170	583
Peak Hour Heavy Vehicle	0	0	8	0	0	8	0	1	6	2	0	9	0	1	2	0	0	3	0	0	12	2	0	14	34
Peak Hour Heavy Vehicle PHF	0.00%	0.00%	8.51%	0.00%	0.00%	6.02%	0.00%	7.69%	3.06%	18.18%	0.00%	4.09%	0.00%	3.33%	8.33%	0.00%	0.00%	5.00%	0.00%	0.00%	10.43%	4.26%	0.00%	8.24%	5.83%
	0.000	0.833	0.870	0.432	0.000	0.792	0.000	0.542	0.754	0.688	0.000	0.775	0.000	0.682	0.857	0.375	0.000	0.750	0.000	0.400	0.799	0.839	0.250	0.833	0.928

Mid Peak Hour (10:00 - 14:00)

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
11:45 AM	0	2	17	12	0	31	0	1	38	8	0	47	0	9	14	14	0	37	0	5	34	11	0	50	165
12:00 PM	0	5	12	8	0	25	0	2	27	8	0	37	0	10	17	6	0	33	0	4	20	3	0	27	122
12:15 PM	0	6	13	8	0	27	0	4	49	5	0	58	0	10	17	5	0	32	0	9	23	6	0	38	155
12:30 PM	0	6	10	9	0	25	0	2	33	4	0	39	0	18	12	5	0	35	0	7	36	15	0	58	157
Peak Hour Total	0	19	52	37	0	108	0	9	147	25	0	181	0	47	60	30	0	137	0	25	113	35	0	173	599
Peak Hour Heavy Vehicle	0	3	2	2	0	7	0	0	8	4	0	12	0	2	4	0	0	6	0	1	7	1	0	9	34
Peak Hour Heavy Vehicle PHF	0.00%	15.79%	3.85%	5.41%	0.00%	6.48%	0.00%	0.00%	5.44%	16.00%	0.00%	6.63%	0.00%	4.26%	6.67%	0.00%	0.00%	4.38%	0.00%	4.00%	6.19%	2.86%	0.00%	5.20%	5.68%
	0.000	0.792	0.765	0.771	0.000	0.871	0.000	0.563	0.750	0.781	0.000	0.780	0.000	0.653	0.882	0.536	0.000	0.926	0.000	0.694	0.785	0.583	0.000	0.746	0.908

PM Peak Hour (14:00 - 24:00)

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	4	15	4	0	23	0	4	55	10	0	69	0	20	23	10	0	53	0	9	67	19	0	95	240
4:15 PM	0	8	19	14	0	41	0	0	61	11	0	72	0	16	21	6	0	43	0	16	61	9	0	86	242
4:30 PM	0	15	18	13	0	46	0	4	54	14	0	72	0	27	29	7	0	63	0	8	63	18	0	89	270
4:45 PM	0	11	13	14	0	38	0	4	67	6	0	77	0	23	24	5	0	52	0	12	80	11	0	103	270
Peak Hour Total	0	38	65	45	0	148	0	12	237	41	0	290	0	86	97	28	0	211	0	45	271	57	0	373	1022
Peak Hour Heavy Vehicle	0	2	1	1	0	4	0	1	8	2	0	11	0	4	3	1	0	8	0	2	8	1	0	11	34
Peak Hour Heavy Vehicle PHF	0.00%	5.26%	1.54%	2.22%	0.00%	2.70%	0.00%	8.33%	3.38%	4.88%	0.00%	3.79%	0.00%	4.65%	3.09%	3.57%	0.00%	3.79%	0.00%	4.44%	2.95%	1.75%	0.00%	2.95%	3.33%
	0.000	0.633	0.855	0.804	0.000	0.804	0.000	0.750	0.884	0.732	0.000	0.942	0.000	0.796	0.836	0.700	0.000	0.837	0.000	0.703	0.847	0.750	0.000	0.905	0.946

Total Vehicles On Leg			3220		
Vehicles Entering 1594			Vehicles Exiting 1626		
Southbound					
Cars	451	812	238	1	0
Heavy	12	50	30	0	0
Total	463	862	268	1	0

Total Vehicles on Leg 7209	Vehicles Entering Intersection 3466	Eastbound	Cars	Heavy	Total
	Vehicles Exiting Intersection 3743		7	0	7
			1	0	1
			445	13	458
			2274	114	2388
			593	26	619

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 3040	Total Vehicles on Leg 5938
260	26	286		Vehicles Exiting Intersection 2898	
2485	96	2581			
161	12	173			
0	0	0			
9	0	9			

					
Cars	0	1	656	827	232
Heavy	0	0	42	54	10
Total	0	1	698	881	242
Northbound					
Vehicles Entering 1822			Vehicles Exiting 1655		
Total Vehicles On Leg			3477		

TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025

Time	Southbound Heavy CSAH 5						Westbound Heavy CSAH 22						Northbound Heavy CSAH 5						Eastbound Heavy CSAH 22						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach Total</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach Total</i>	
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	3
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	0	1	0	0	1	0	0	1	5
5:45 AM	0	0	3	0	0	3	0	0	2	0	0	2	0	1	0	0	0	1	0	0	1	0	0	1	7
Hourly 'Heavy Vehicles'	0	0	4	0	0	4	0	1	7	0	0	8	0	2	0	0	0	2	0	0	2	0	0	2	16
6:00 AM	0	4	2	0	0	6	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	8
6:15 AM	0	0	1	1	0	2	0	0	7	0	0	7	0	1	0	0	0	1	0	0	1	0	0	1	11
6:30 AM	0	1	3	1	0	5	0	1	5	1	0	7	0	1	0	0	0	1	0	0	3	0	0	3	16
6:45 AM	0	0	4	0	0	4	0	1	2	0	0	3	0	0	0	0	0	0	0	0	3	0	0	3	10
Hourly 'Heavy Vehicles'	0	5	10	2	0	17	0	2	16	1	0	19	0	2	0	0	0	2	0	0	7	0	0	7	45
7:00 AM	0	0	3	0	0	3	0	0	2	1	0	3	0	1	1	0	0	2	0	0	2	1	0	3	11
7:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	6
7:30 AM	0	0	0	0	0	0	0	0	2	1	0	3	0	0	1	0	0	1	0	0	2	1	0	3	7
7:45 AM	0	1	2	0	0	3	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	1	6
Hourly 'Heavy Vehicles'	0	1	6	0	0	7	0	0	5	2	0	7	0	2	2	0	0	4	0	0	9	3	0	12	30

TMC 2564 - CSAH 5 @ CSAH 22

Nowthen MN

Thursday, August 14, 2025

Time	Southbound Heavy CSAH 5						Westbound Heavy CSAH 22						Northbound Heavy CSAH 5						Eastbound Heavy CSAH 22						VEHICLE 'Heavy Vehicles'
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	<i>Vehicle Approach 'Heavy Vehicles'</i>	
8:00 AM	0	0	1	2	0	3	0	0	3	1	0	4	0	2	0	0	0	2	0	0	1	1	0	2	11
8:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	4	1	0	5	7
8:30 AM	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	0	1	0	0	3	1	0	4	7
8:45 AM	0	0	1	0	0	1	0	0	1	2	0	3	0	0	0	0	0	0	0	0	2	1	0	3	7
Hourly 'Heavy Vehicles'	0	0	2	3	0	5	0	1	5	3	0	9	0	4	0	0	0	4	0	0	10	4	0	14	32
9:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	3	1	0	0	4	0	1	0	1	0	2	8
9:15 AM	0	1	1	0	0	2	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4
9:30 AM	0	0	1	1	0	2	0	1	2	0	0	3	0	4	3	0	0	7	0	0	0	2	0	2	14
9:45 AM	0	0	1	0	0	1	0	0	3	0	0	3	0	3	0	0	0	3	0	0	0	0	0	0	7
Hourly 'Heavy Vehicles'	0	1	3	1	0	5	0	1	8	1	0	10	0	10	4	0	0	14	0	1	0	3	0	4	33
10:00 AM	0	0	1	2	0	3	0	1	5	0	0	6	0	0	1	0	0	1	0	0	2	0	0	2	12
10:15 AM	0	2	0	0	0	2	0	0	1	1	0	2	0	0	0	2	0	2	0	0	4	2	0	6	12
10:30 AM	0	0	0	0	0	0	0	0	1	1	0	2	0	1	1	0	0	2	0	0	2	2	0	4	8
10:45 AM	0	0	1	0	0	1	0	0	2	0	0	2	0	2	1	1	0	4	0	0	2	0	0	2	9
Hourly 'Heavy Vehicles'	0	2	2	2	0	6	0	1	9	2	0	12	0	3	3	3	0	9	0	0	10	4	0	14	41
11:00 AM	0	2	0	0	0	2	0	0	1	1	0	2	0	2	1	0	0	3	0	0	5	1	0	6	13
11:15 AM	0	1	0	0	0	1	0	0	3	0	0	3	0	1	0	0	0	1	0	1	5	0	0	6	11
11:30 AM	0	2	0	0	0	2	0	0	3	0	0	3	0	1	1	0	0	2	0	0	3	1	0	4	11
11:45 AM	0	0	1	0	0	1	0	0	4	2	0	6	0	1	0	0	0	1	0	0	2	1	0	3	11
Hourly 'Heavy Vehicles'	0	5	1	0	0	6	0	0	11	3	0	14	0	5	2	0	0	7	0	1	15	3	0	19	46
12:00 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
12:15 PM	0	1	0	0	0	1	0	0	2	0	0	2	0	0	2	0	0	2	0	1	0	0	0	1	6
12:30 PM	0	1	1	2	0	4	0	0	1	2	0	3	0	1	2	0	0	3	0	0	5	0	0	5	15
12:45 PM	0	1	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0	2	4
Hourly 'Heavy Vehicles'	0	4	1	2	0	7	0	0	5	2	0	7	0	1	4	0	0	5	0	1	6	1	0	8	27
1:00 PM	0	0	0	0	0	0	0	0	1	1	0	2	0	0	1	0	0	1	0	2	3	2	0	7	10
1:15 PM	0	1	1	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	0	0	3	6
1:30 PM	0	0	1	0	0	1	0	0	1	1	0	2	0	0	2	0	0	2	0	1	4	0	0	5	10
1:45 PM	0	1	1	0	0	2	0	0	1	0	0	1	0	0	4	1	0	5	0	0	4	1	0	5	13
Hourly 'Heavy Vehicles'	0	2	3	0	0	5	0	0	4	2	0	6	0	0	7	1	0	8	0	4	13	3	0	20	39
2:00 PM	0	0	2	1	0	3	0	1	4	0	0	5	0	0	3	0	0	3	0	0	1	0	0	1	12
2:15 PM	0	0	2	0	0	2	0	0	2	1	0	3	0	0	1	0	0	1	0	0	2	0	0	2	8
2:30 PM	0	1	2	0	0	3	0	1	1	0	0	2	0	1	1	1	0	3	0	0	3	0	0	3	11
2:45 PM	0	0	0	0	0	0	0	0	1	2	0	3	0	1	4	1	0	6	0	0	3	0	0	3	12
Hourly 'Heavy Vehicles'	0	1	6	1	0	8	0	2	8	3	0	13	0	2	9	2	0	13	0	0	9	0	0	9	43
3:00 PM	0	3	1	0	0	4	0	0	0	0	0	0	0	1	2	0	0	3	0	1	3	1	0	5	12
3:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	0	0	0	1	0	1	4
3:30 PM	0	0	1	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	5	1	0	6	9
3:45 PM	0	2	2	0	0	4	0	1	1	1	0	3	0	1	0	0	0	1	0	0	4	0	0	4	12
Hourly 'Heavy Vehicles'	0	5	4	0	0	9	0	3	2	1	0	6	0	2	4	0	0	6	0	1	12	3	0	16	37

TMC 2564 - CSAH 5 @ CSAH 22
Nowthen MN
Thursday, August 14, 2025

Time	Southbound Heavy CSAH 5						Westbound Heavy CSAH 22						Northbound Heavy CSAH 5						Eastbound Heavy CSAH 22						VEHICLE 'Heavy Vehicles'
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach 'Heavy Vehicles'	
4:00 PM	0	0	0	0	0	0	0	1	3	1	0	5	0	1	0	0	0	1	0	1	3	1	0	5	11
4:15 PM	0	2	0	0	0	2	0	0	3	0	0	3	0	2	1	0	0	3	0	0	2	0	0	2	10
4:30 PM	0	0	1	1	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	8
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	2	0	1	1	0	0	2	5
Hourly 'Heavy Vehicles'	0	2	1	1	0	4	0	1	8	2	0	11	0	4	3	1	0	8	0	2	8	1	0	11	34
5:00 PM	0	0	1	0	0	1	0	0	0	3	0	3	0	2	1	1	0	4	0	0	2	0	0	2	10
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	3
5:30 PM	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	7
5:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0	2	0	1	0	0	0	1	5
Hourly 'Heavy Vehicles'	0	2	2	0	0	4	0	0	2	3	0	5	0	2	4	1	0	7	0	1	8	0	0	9	25
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	1	3
6:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	2	0	0	2	0	0	2	5
6:30 PM	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
6:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	1	0	0	0	1	6
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	1	0	0	1	0	1	9	0	0	10	0	1	3	0	0	4	16
7:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0	3	0	0	0	0	0	0	4
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	0	0	4	0	0	1	0	0	1	6
8:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	3
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	2
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	0	0	1	3
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
10:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	3
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAILY 'Heavy Vehicles'	0	30	50	12	0	92	0	12	96	26	0	134	0	42	54	10	0	106	0	13	114	26	0	153	485

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 22

Number of Lanes : 2+

Total Approach Volume: 3,466

Westbound: CSAH 22

Number of Lanes :2+

Total Approach Volume: 3,040

Minor Street Approaches

Northbound: CSAH 5

Number of Lanes :1

Total Approach Volume: 1,580

Southbound: CSAH 5

Number of Lanes :1

Total Approach Volume: 1,131

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 4 hours, 8 are needed

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

Required volumes reached for 2 hours, 8 are needed

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

Required 1A volumes reached for 10 hours, 8 are needed

Required 1B volumes reached for 3 hours, 8 are needed

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

Number of hours (2) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (8) volumes exceed minimum >= required (1). Delay data not evaluated.

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

Volumes do not exceed minimums for any one hour period.

Warrant 4 - Pedestrian Volumes.....Not Evaluated

Warrant 5 - School Crossing.....Not Evaluated

Warrant 6 - Coordinated Signal System.....Not Evaluated

Warrant 7 - Crash Experience.....Not Evaluated

Warrant 8 - Roadway Network.....Not Evaluated

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

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 4 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

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

Veh/Hr Minor = **105**

Major Road						Minor Road		
CSAH 22						CSAH 5		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	373	+	291	=	664	168	104	Yes
15:15 - 16:15	352	+	247	=	599	170	83	Yes
17:15 - 18:15	275	+	227	=	502	122	56	Yes
14:15 - 15:15	273	+	191	=	464	137	80	Yes
14:00 - 15:00	239	+	171	=	410	132	78	No
13:45 - 14:45	243	+	160	=	403	119	67	No
13:30 - 14:30	227	+	170	=	397	123	60	No
13:15 - 14:15	220	+	175	=	395	108	54	No
07:15 - 08:15	170	+	221	=	391	46	81	No
07:30 - 08:30	173	+	217	=	390	43	69	No
06:45 - 07:45	170	+	220	=	390	54	114	No
07:00 - 08:00	158	+	229	=	387	53	106	No
13:00 - 14:00	220	+	160	=	380	101	48	No
06:30 - 07:30	162	+	215	=	377	56	108	No
07:45 - 08:45	169	+	193	=	362	49	62	No
08:00 - 09:00	172	+	187	=	359	55	56	No
06:15 - 07:15	143	+	215	=	358	62	109	No
12:45 - 13:45	197	+	159	=	356	93	53	No
12:30 - 13:30	203	+	152	=	355	91	58	No
11:45 - 12:45	173	+	181	=	354	107	71	No
12:15 - 13:15	183	+	170	=	353	97	62	No
11:00 - 12:00	195	+	157	=	352	94	68	No
06:00 - 07:00	145	+	203	=	348	58	103	No
12:00 - 13:00	169	+	175	=	344	102	68	No
10:30 - 11:30	179		161		340	83	51	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

Warrant 1B - Interruption of Continuous Traffic

Description

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

Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

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

Veh/Hr Minor = **53**

Major Road						Minor Road		
CSAH 22						CSAH 5		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:30 - 17:30	358	+	283	=	641	174	99	Yes
15:30 - 16:30	373	+	262	=	635	161	90	Yes
15:15 - 16:15	352	+	247	=	599	170	83	No
15:00 - 16:00	332	+	245	=	577	161	83	No
14:45 - 15:45	294	+	221	=	515	153	81	No
14:30 - 15:30	273	+	213	=	486	147	79	No
17:30 - 18:30	257	+	211	=	468	117	47	No
14:15 - 15:15	273	+	191	=	464	137	80	No
17:45 - 18:45	232	+	188	=	420	109	44	No
14:00 - 15:00	239	+	171	=	410	132	78	No
13:45 - 14:45	243	+	160	=	403	119	67	No
13:30 - 14:30	227	+	170	=	397	123	60	No
13:15 - 14:15	220	+	175	=	395	108	54	No
07:15 - 08:15	170	+	221	=	391	46	81	No
07:30 - 08:30	173	+	217	=	390	43	69	No
06:45 - 07:45	170	+	220	=	390	54	114	No
07:00 - 08:00	158	+	229	=	387	53	106	No
13:00 - 14:00	220	+	160	=	380	101	48	No
06:30 - 07:30	162	+	215	=	377	56	108	No
18:00 - 19:00	214	+	161	=	375	103	47	No
07:45 - 08:45	169	+	193	=	362	49	62	No
08:00 - 09:00	172	+	187	=	359	55	56	No
06:15 - 07:15	143	+	215	=	358	62	109	No
12:45 - 13:45	197	+	159	=	356	93	53	No
12:30 - 13:30	203		152		355	91	58	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

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

10 hours meet 1A minimums.
Only 3 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

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

Volume Requirements

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

Veh/Hr Minor = **84 42**

Major Road CSAH 22						Minor Road CSAH 5				
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?		
15:45 - 16:45	373	+	290	=	663	183	103	Yes		
16:45 - 17:45	346	+	265	=	611	149	77	Yes		
14:45 - 15:45	294	+	221	=	515	153	81	Yes		
17:45 - 18:45	232	+	188	=	420	109	44	Yes		
13:45 - 14:45	243	+	160	=	403	119	67	Yes		
07:00 - 08:00	158	+	229	=	387	53	106	Yes		
12:45 - 13:45	197	+	159	=	356	93	53	Yes		
11:45 - 12:45	173	+	181	=	354	107	71	Yes		
06:00 - 07:00	145	+	203	=	348	58	103	Yes		
10:45 - 11:45	181	+	155	=	336	95	59	Yes		
08:00 - 09:00	172	+	187	=	359	55	56	No		
10:30 - 11:30	179		161		340	83	51	No		

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?		
15:45 - 16:45	373	+	290	=	663	183	103	Yes		
16:45 - 17:45	346	+	265	=	611	149	77	Yes		
14:45 - 15:45	294	+	221	=	515	153	81	Yes		
14:30 - 15:30	273	+	213	=	486	147	79	No		
14:15 - 15:15	273	+	191	=	464	137	80	No		
17:45 - 18:45	232	+	188	=	420	109	44	No		
14:00 - 15:00	239	+	171	=	410	132	78	No		
13:45 - 14:45	243	+	160	=	403	119	67	No		
13:30 - 14:30	227	+	170	=	397	123	60	No		
13:15 - 14:15	220	+	175	=	395	108	54	No		
07:15 - 08:15	170	+	221	=	391	46	81	No		
06:45 - 07:45	170		220		390	54	114	No		

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

Warrant 2 - Four Hour Volumes

Description

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

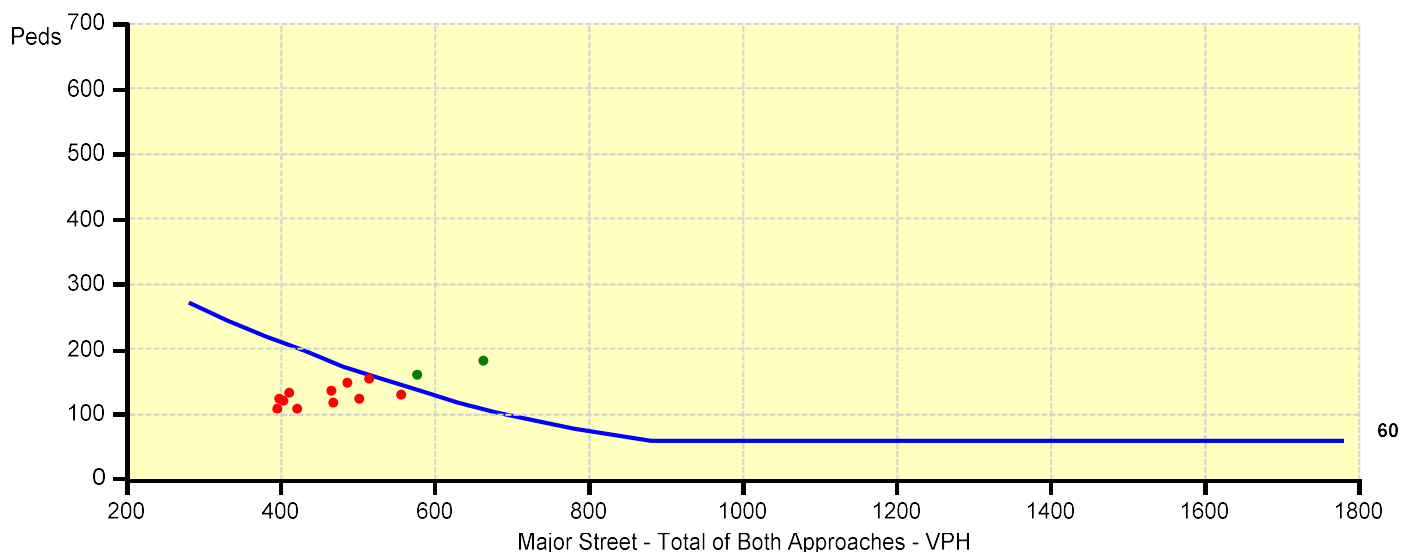
Summary

Only 2 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

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

Major Road						Minor Road		
CSAH 22						CSAH 5		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:00 - 17:00	373	+	290	=	663	183	103	Yes
15:00 - 16:00	332	+	245	=	577	161	83	Yes
17:00 - 18:00	311	+	244	=	555	129	65	No
14:45 - 15:45	294	+	221	=	515	153	81	No
17:15 - 18:15	275	+	227	=	502	122	56	No
14:30 - 15:30	273	+	213	=	486	147	79	No
17:30 - 18:30	257	+	211	=	468	117	47	No
14:15 - 15:15	273	+	191	=	464	137	80	No
17:45 - 18:45	232	+	188	=	420	109	44	No
14:00 - 15:00	239	+	171	=	410	132	78	No
13:45 - 14:45	243	+	160	=	403	119	67	No
13:30 - 14:30	227	+	170	=	397	123	60	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

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.

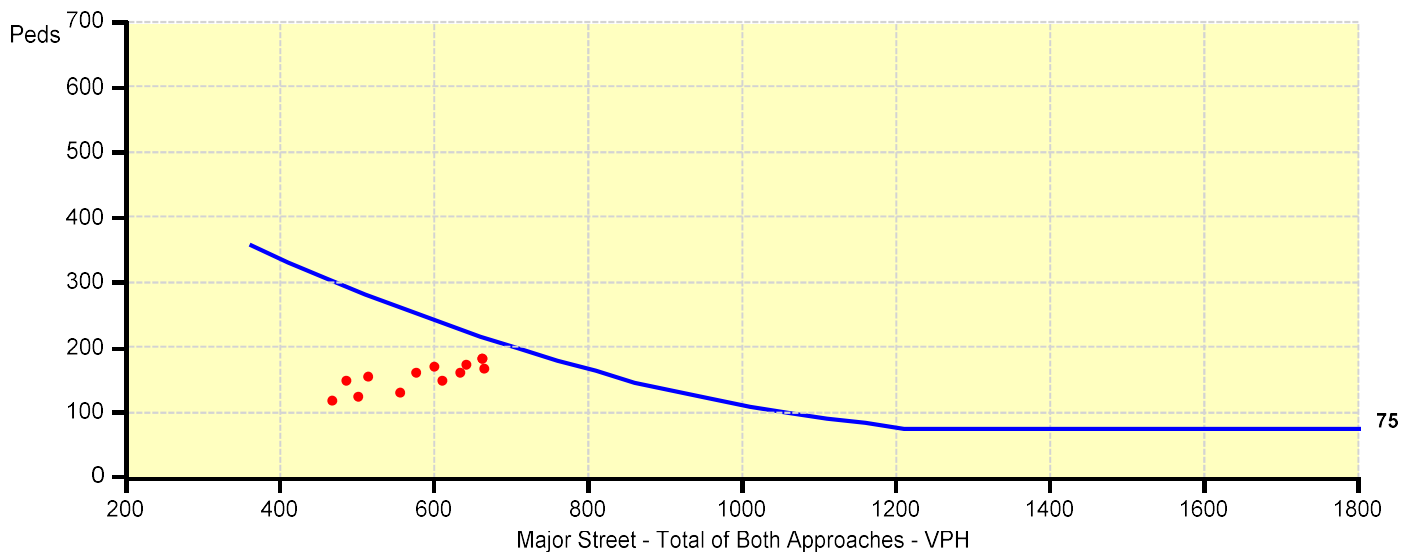
Summary

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

Site Data Required

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

Major Road CSAH 22						Minor Road CSAH 5		
Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met?
16:15 - 17:15	373	+	291	=	664	168	104	No
16:00 - 17:00	373	+	290	=	663	183	103	No
15:45 - 16:45	373	+	290	=	663	183	103	No
16:30 - 17:30	358	+	283	=	641	174	99	No
15:30 - 16:30	373	+	262	=	635	161	90	No
16:45 - 17:45	346	+	265	=	611	149	77	No
15:15 - 16:15	352	+	247	=	599	170	83	No
15:00 - 16:00	332	+	245	=	577	161	83	No
17:00 - 18:00	311	+	244	=	555	129	65	No
14:45 - 15:45	294	+	221	=	515	153	81	No
17:15 - 18:15	275	+	227	=	502	122	56	No
14:30 - 15:30	273		213		486	147	79	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2564

Study Date : 08/29/2025

Multiway Stop Warrants - Summary

Major Street Approaches

Eastbound: CSAH 22

Number of Lanes : 2+

Total Approach Volume: 3,466

Westbound: CSAH 22

Number of Lanes : 2+

Total Approach Volume: 3,040

Minor Street Approaches

Northbound: CSAH 5

Number of Lanes : 1

Total Approach Volume: 1,580

Southbound: CSAH 5

Number of Lanes : 1

Total Approach Volume: 1,131

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?
15:45 - 16:45	663	464.0	286	198.3	210	140	Yes
16:45 - 17:45	611		227				
14:45 - 15:45	515		234				
13:45 - 14:45	403		186				
17:45 - 18:45	420		160				
06:45 - 07:45	390		169				
11:45 - 12:45	354		178				
12:45 - 13:45	356		146				
10:45 - 11:45	336		154				
07:45 - 08:45	362		113				
09:15 - 10:15	309		164				
18:45 - 19:45	317		141				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
15:45 - 16:45	663	464.0	286	198.3	240	160	Yes
16:45 - 17:45	611		227				
14:45 - 15:45	515		234				
13:45 - 14:45	403		186				
17:45 - 18:45	420		160				
06:45 - 07:45	390		169				
11:45 - 12:45	354		178				
12:45 - 13:45	356		146				
10:45 - 11:45	336		154				
07:45 - 08:45	362		113				
09:15 - 10:15	309		164				
18:45 - 19:45	317		141				