

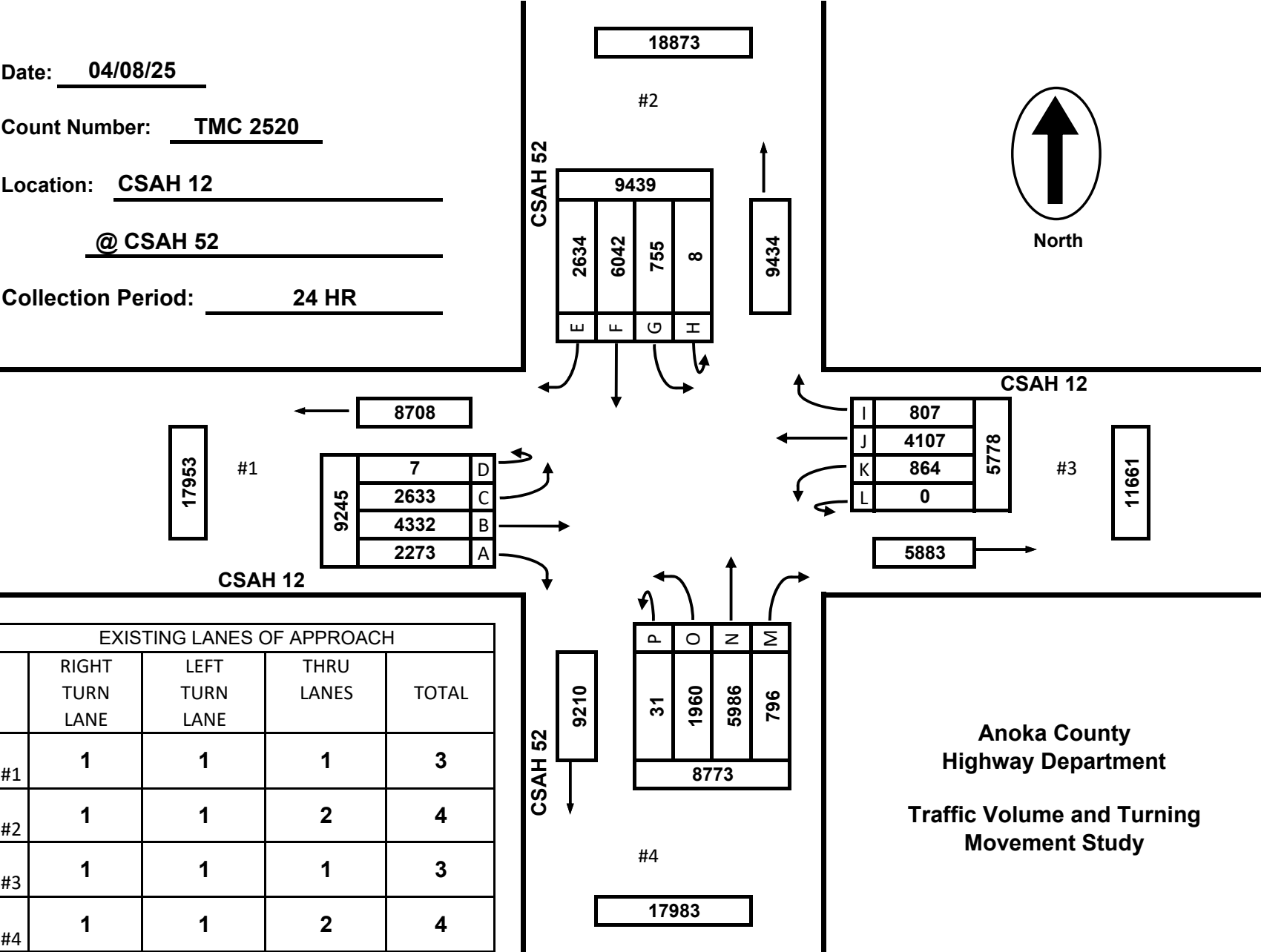
Date: 04/08/25

Count Number: TMC 2520

Location: CSAH 12

@ CSAH 52

Collection Period: 24 HR



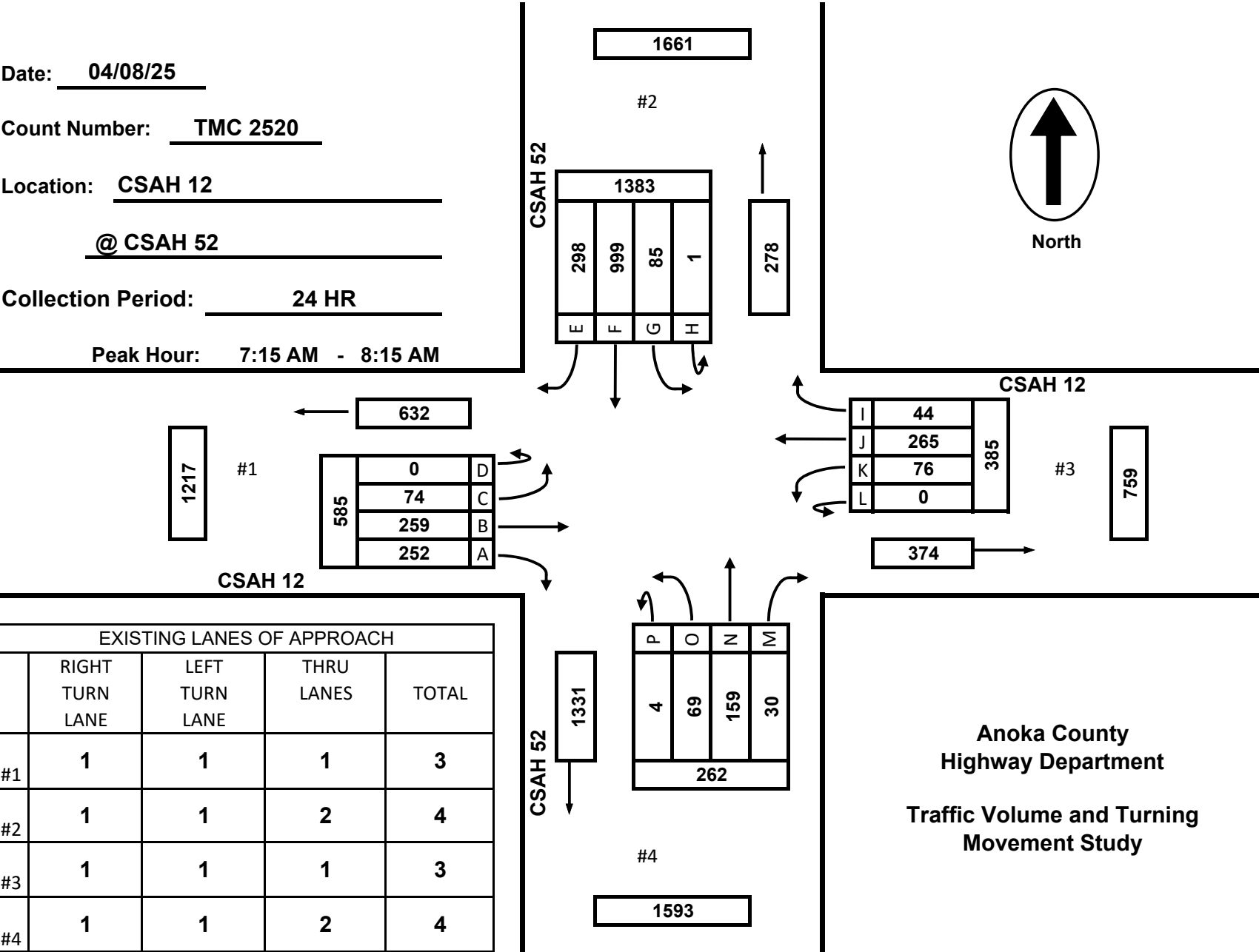
Date: 04/08/25

Count Number: TMC 2520

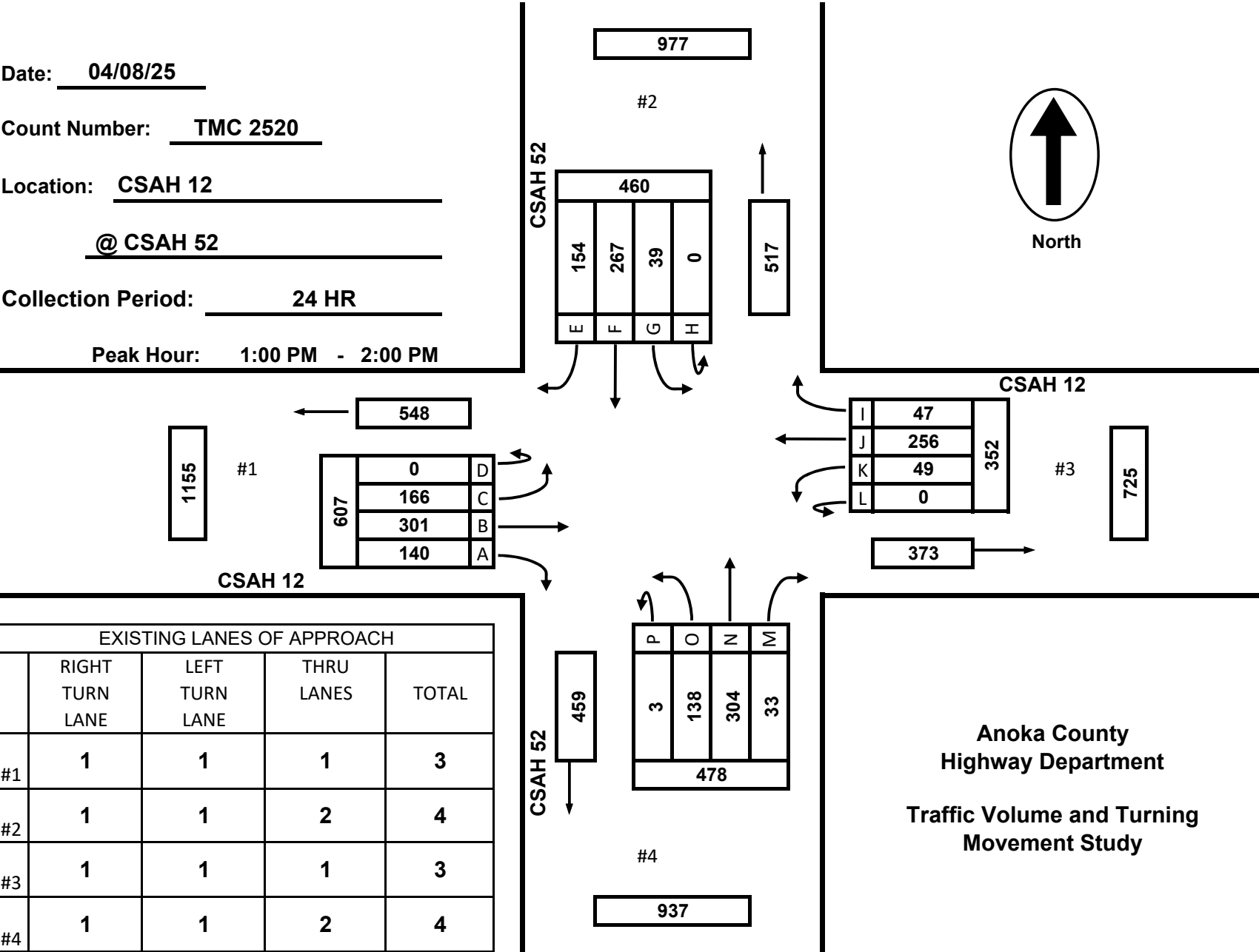
Location: CSAH 12
@ CSAH 52

Collection Period: 24 HR

Peak Hour: 7:15 AM - 8:15 AM



Date: 04/08/25
 Count Number: TMC 2520
 Location: CSAH 12
@ CSAH 52
 Collection Period: 24 HR
 Peak Hour: 1:00 PM - 2:00 PM



Anoka County
 Highway Department
 Traffic Volume and Turning
 Movement Study

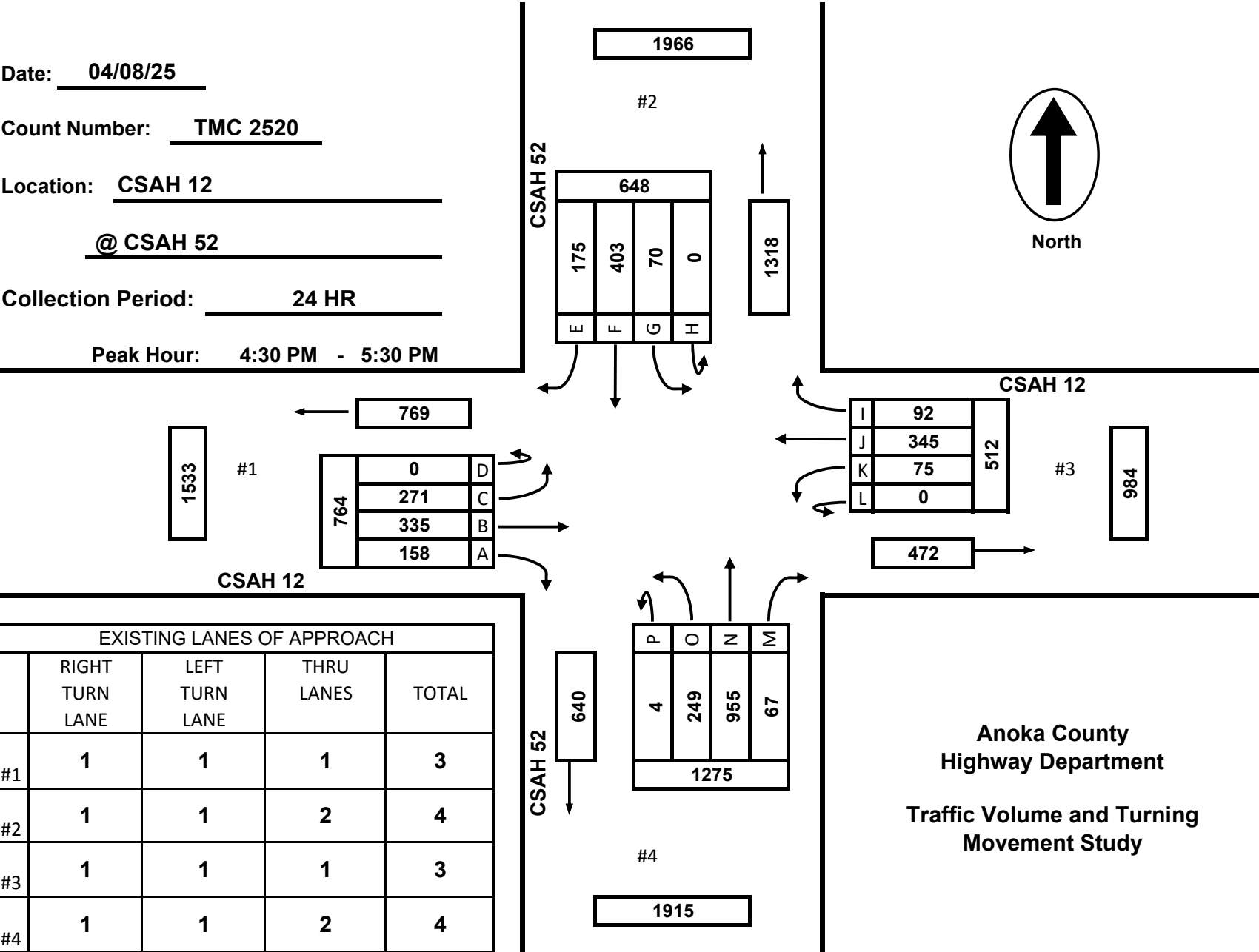
Date: 04/08/25

Count Number: TMC 2520

Location: CSAH 12
@ CSAH 52

Collection Period: 24 HR

Peak Hour: 4:30 PM - 5:30 PM



TMC 2520 - CSAH 12 @ CSAH 52
Blaine MN
Tuesday, April 8, 2025

Time	Southbound CSAH 52						Westbound CSAH 12						Northbound CSAH 52						Eastbound CSAH 12						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	1	2	2	0	5	0	1	7	0	0	8	0	5	11	0	0	16	0	3	6	2	0	11	40
12:15 AM	0	0	4	1	0	5	0	0	1	1	0	2	0	1	6	0	0	7	0	2	4	0	0	6	20
12:30 AM	0	0	2	0	0	2	0	1	7	1	0	9	0	3	7	2	0	12	0	3	3	1	0	7	30
12:45 AM	0	0	1	2	0	3	0	0	1	0	0	1	0	2	2	1	0	5	0	1	5	2	0	8	17
Hourly Total	0	1	9	5	0	15	0	2	16	2	0	20	0	11	26	3	0	40	0	9	18	5	0	32	107
1:00 AM	0	1	2	0	0	3	0	0	3	0	0	3	0	3	7	0	0	10	0	3	5	1	0	9	25
1:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	0	5	2	2	0	9	16
1:30 AM	0	0	1	0	0	1	0	0	4	0	0	4	0	0	3	0	0	3	0	0	7	1	0	8	16
1:45 AM	0	0	1	0	0	1	0	0	3	0	0	3	0	1	2	0	0	3	0	1	3	0	0	4	11
Hourly Total	0	1	7	0	0	8	0	0	10	0	0	10	0	4	16	0	0	20	0	9	17	4	0	30	68
2:00 AM	0	0	2	0	0	2	0	0	4	1	0	5	0	3	2	0	0	5	0	1	0	1	0	2	14
2:15 AM	0	0	1	0	0	1	0	0	3	0	0	3	0	3	2	1	0	6	0	2	1	2	0	5	15
2:30 AM	0	0	3	0	0	3	0	0	3	0	0	3	0	4	1	1	0	6	0	0	0	2	0	2	14
2:45 AM	0	0	2	0	0	2	0	1	1	0	0	2	0	1	0	0	0	1	0	1	1	0	0	2	7
Hourly Total	0	0	8	0	0	8	0	1	11	1	0	13	0	11	5	2	0	18	0	4	2	5	0	11	50
3:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	7	11
3:15 AM	0	0	4	0	0	4	0	0	2	0	0	2	0	1	0	1	0	2	0	0	0	6	0	6	14
3:30 AM	0	1	9	2	0	12	0	2	1	0	0	3	0	3	3	0	0	6	0	0	2	2	0	4	25
3:45 AM	0	0	12	3	0	15	0	0	2	0	0	2	0	1	1	0	0	2	0	0	2	4	0	6	25
Hourly Total	0	1	29	5	0	35	0	2	5	0	0	7	0	5	4	1	0	10	0	1	9	13	0	23	75
4:00 AM	0	0	10	5	0	15	0	0	0	0	0	0	0	0	3	0	0	3	0	1	3	11	0	15	33
4:15 AM	0	1	20	10	0	31	0	1	5	0	0	6	0	0	2	0	0	2	0	1	7	10	0	18	57
4:30 AM	0	1	26	8	0	35	0	1	1	0	0	2	0	1	3	0	0	4	0	1	13	7	0	21	62
4:45 AM	0	2	33	16	0	51	0	1	6	2	0	9	0	2	2	4	0	8	0	2	12	7	0	21	89
Hourly Total	0	4	89	39	0	132	0	3	12	2	0	17	0	3	10	4	0	17	0	5	35	35	0	75	241
5:00 AM	0	1	45	11	0	57	0	4	5	1	0	10	0	3	1	1	0	5	0	2	10	14	0	26	98
5:15 AM	0	3	63	19	0	85	0	4	19	0	0	23	0	5	3	3	0	11	0	10	10	20	0	40	159
5:30 AM	1	4	93	20	0	118	0	10	15	1	0	26	2	7	11	2	0	22	0	6	21	14	0	41	207
5:45 AM	0	8	97	16	0	121	0	6	24	2	0	32	0	5	12	2	0	19	0	5	24	17	0	46	218
Hourly Total	1	16	298	66	0	381	0	24	63	4	0	91	2	20	27	8	0	57	0	23	65	65	0	153	682
6:00 AM	0	5	119	21	0	145	0	7	17	1	0	25	0	6	10	2	0	18	0	1	19	29	0	49	237
6:15 AM	0	12	139	31	0	182	0	9	35	4	0	48	0	9	14	1	0	24	0	7	43	37	0	87	341
6:30 AM	0	10	192	35	0	237	0	10	32	3	0	45	0	5	18	4	0	27	0	3	52	43	0	98	407
6:45 AM	0	15	184	38	0	237	0	24	39	4	0	67	1	7	23	5	0	36	0	8	58	45	0	111	451
Hourly Total	0	42	634	125	0	801	0	50	123	12	0	185	1	27	65	12	0	105	0	19	172	154	0	345	1436
7:00 AM	2	16	218	52	0	288	0	14	49	13	0	76	0	13	28	8	0	49	0	7	42	50	0	99	512
7:15 AM	0	21	272	82	0	375	0	25	69	11	0	105	0	10	29	2	0	41	0	15	67	53	0	135	656
7:30 AM	1	29	290	102	0	422	0	16	56	13	0	85	2	22	49	9	0	82	0	20	59	82	0	161	750
7:45 AM	0	16	269	60	0	345	0	18	69	12	0	99	1	23	42	4	0	70	0	21	67	69	0	157	671
Hourly Total	3	82	1049	296	0	1430	0	73	243	49	0	365	3	68	148	23	0	242	0	63	235	254	0	552	2589

TMC 2520 - CSAH 12 @ CSAH 52

Blaine MN

Tuesday, April 8, 2025

Time	Southbound CSAH 52						Westbound CSAH 12						Northbound CSAH 52						Eastbound CSAH 12						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	19	168	54	0	241	0	17	71	8	0	96	1	14	39	15	0	69	0	18	66	48	0	132	538
8:15 AM	1	13	139	60	0	213	0	12	57	4	0	73	0	18	30	11	0	59	0	20	63	54	0	137	482
8:30 AM	0	12	141	37	0	190	0	10	49	13	0	72	2	19	41	5	0	67	0	19	65	42	0	126	455
8:45 AM	0	5	121	46	0	172	0	12	56	5	0	73	0	20	49	8	0	77	0	17	53	43	0	113	435
Hourly Total	1	49	569	197	0	816	0	51	233	30	0	314	3	71	159	39	0	272	0	74	247	187	0	508	1910
9:00 AM	1	13	99	51	0	164	0	9	49	9	0	67	0	16	37	20	0	73	0	27	58	33	0	118	422
9:15 AM	0	9	99	41	0	149	0	6	83	10	0	99	1	12	40	12	0	65	0	19	63	30	0	112	425
9:30 AM	0	8	82	54	0	144	0	9	52	12	0	73	0	22	35	8	0	65	0	21	54	33	0	108	390
9:45 AM	0	11	73	48	0	132	0	13	67	7	0	87	0	22	47	7	0	76	0	30	56	23	0	109	404
Hourly Total	1	41	353	194	0	589	0	37	251	38	0	326	1	72	159	47	0	279	0	97	231	119	0	447	1641
10:00 AM	0	9	57	29	0	95	0	8	55	11	0	74	1	15	31	5	0	52	0	28	56	37	0	121	342
10:15 AM	0	7	61	36	0	104	0	8	68	4	0	80	0	24	27	9	0	60	0	19	58	17	0	94	338
10:30 AM	0	8	71	35	0	114	0	7	59	13	0	79	1	28	44	5	0	78	0	24	60	28	0	112	383
10:45 AM	0	10	51	36	0	97	0	9	56	5	0	70	0	24	46	7	0	77	1	23	59	18	0	101	345
Hourly Total	0	34	240	136	0	410	0	32	238	33	0	303	2	91	148	26	0	267	1	94	233	100	0	428	1408
11:00 AM	0	9	65	35	0	109	0	14	61	15	0	90	1	27	43	8	0	79	0	28	51	32	0	111	389
11:15 AM	0	17	66	39	0	122	0	13	74	18	0	105	1	18	47	17	0	83	0	36	59	26	0	121	431
11:30 AM	0	7	66	46	0	119	0	9	71	13	0	93	0	22	53	13	0	88	0	29	67	37	0	133	433
11:45 AM	0	18	53	40	0	111	0	14	73	16	0	103	1	37	49	13	0	100	0	44	68	29	0	141	455
Hourly Total	0	51	250	160	0	461	0	50	279	62	0	391	3	104	192	51	0	350	0	137	245	124	0	506	1708
12:00 PM	0	12	51	35	0	98	0	10	70	7	0	87	0	38	62	11	0	111	0	41	63	22	0	126	422
12:15 PM	0	10	64	41	0	115	0	13	76	12	0	101	1	22	60	16	0	99	0	50	42	35	1	127	442
12:30 PM	0	12	59	51	0	122	0	12	78	9	0	99	0	27	56	15	0	98	0	44	65	20	3	129	448
12:45 PM	0	17	61	35	0	113	0	9	68	17	0	94	0	17	55	8	0	80	0	50	85	39	1	174	461
Hourly Total	0	51	235	162	0	448	0	44	292	45	0	381	1	104	233	50	0	388	0	185	255	116	5	556	1773
1:00 PM	0	10	72	35	0	117	0	9	54	13	0	76	1	29	72	11	0	113	0	41	74	22	0	137	443
1:15 PM	0	11	66	36	0	113	0	13	71	17	0	101	1	30	62	10	0	103	0	45	80	41	0	166	483
1:30 PM	0	8	62	37	0	107	0	14	65	5	0	84	1	47	88	7	0	143	0	37	84	45	0	166	500
1:45 PM	0	10	67	46	0	123	0	13	66	12	0	91	0	32	82	5	0	119	0	43	63	32	0	138	471
Hourly Total	0	39	267	154	0	460	0	49	256	47	0	352	3	138	304	33	0	478	0	166	301	140	0	607	1897
2:00 PM	0	5	63	39	0	107	0	8	62	11	0	81	1	46	99	7	0	153	0	35	85	33	1	153	494
2:15 PM	0	14	53	37	0	104	0	12	56	13	0	81	2	34	93	16	0	145	0	40	75	50	0	165	495
2:30 PM	0	15	62	41	0	118	0	11	81	15	0	107	0	37	109	14	0	160	0	47	93	35	0	175	560
2:45 PM	0	9	61	52	0	122	0	7	65	20	0	92	1	40	151	14	0	206	0	49	71	30	2	150	570
Hourly Total	0	43	239	169	0	451	0	38	264	59	0	361	4	157	452	51	0	664	0	171	324	148	3	643	2119
3:00 PM	0	11	69	51	0	131	0	18	111	15	0	144	0	49	155	10	0	214	0	54	91	40	0	185	674
3:15 PM	0	10	79	31	0	120	0	13	72	14	0	99	1	49	158	9	0	217	0	57	87	32	1	176	612
3:30 PM	0	17	76	40	0	133	0	16	92	10	0	118	0	54	203	18	0	275	0	67	84	36	0	187	713
3:45 PM	0	14	68	49	0	131	0	24	79	23	1	126	0	62	181	9	0	252	0	83	83	32	0	198	707
Hourly Total	0	52	292	171	0	515	0	71	354	62	1	487	1	214	697	46	0	958	0	261	345	140	1	746	2706

TMC 2520 - CSAH 12 @ CSAH 52

Blaine MN

Tuesday, April 8, 2025

Time	Southbound CSAH 52						Westbound CSAH 12						Northbound CSAH 52						Eastbound CSAH 12						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	17	73	47	0	137	0	6	95	20	0	121	0	78	250	10	0	338	1	51	85	34	0	171	767
4:15 PM	0	15	60	54	0	129	0	10	100	20	0	130	0	50	242	12	0	304	0	71	82	40	0	193	756
4:30 PM	0	21	100	42	0	163	0	17	85	31	0	133	1	73	255	23	0	352	0	53	75	29	0	157	805
4:45 PM	0	12	87	37	0	136	0	25	93	21	0	139	1	55	201	20	0	277	0	75	102	38	0	215	767
Hourly Total	0	65	320	180	0	565	0	58	373	92	0	523	2	256	948	65	0	1271	1	250	344	141	0	736	3095
5:00 PM	0	22	98	42	0	162	0	13	77	21	0	111	0	64	241	18	0	323	0	77	86	47	0	210	806
5:15 PM	0	15	118	54	0	187	0	20	90	19	0	129	2	57	258	6	0	323	0	66	72	44	0	182	821
5:30 PM	0	13	88	44	0	145	0	27	53	24	0	104	0	62	203	19	0	284	0	68	94	40	0	202	735
5:45 PM	0	11	78	42	0	131	0	34	81	12	0	127	0	53	192	9	0	254	0	71	76	21	0	168	680
Hourly Total	0	61	382	182	0	625	0	94	301	76	0	471	2	236	894	52	0	1184	0	282	328	152	0	762	3042
6:00 PM	0	9	80	38	0	127	0	19	81	28	0	128	0	35	139	19	0	193	1	70	95	34	0	200	648
6:15 PM	0	8	90	48	0	146	0	18	78	14	0	110	0	33	120	19	0	172	0	58	75	19	0	152	580
6:30 PM	0	15	77	32	0	124	0	23	58	15	0	96	0	31	163	27	0	221	0	55	65	25	0	145	586
6:45 PM	1	18	58	31	0	108	0	22	60	5	0	87	1	26	94	10	0	131	2	62	74	32	0	170	496
Hourly Total	1	50	305	149	0	505	0	82	277	62	0	421	1	125	516	75	0	717	3	245	309	110	0	667	2310
7:00 PM	0	9	43	28	0	80	0	11	59	11	0	81	0	21	84	23	0	128	0	50	70	46	0	166	455
7:15 PM	0	4	49	33	0	86	0	21	44	10	0	75	0	21	92	20	0	133	0	68	54	30	0	152	446
7:30 PM	0	7	33	38	0	78	0	8	61	15	0	84	0	17	93	17	0	127	0	66	61	14	0	141	430
7:45 PM	0	3	54	22	0	79	0	12	50	9	0	71	0	17	99	22	0	138	0	54	42	16	0	112	400
Hourly Total	0	23	179	121	0	323	0	52	214	45	0	311	0	76	368	82	0	526	0	238	227	106	0	571	1731
8:00 PM	0	2	53	22	0	77	0	11	50	18	0	79	0	22	83	30	0	135	0	44	60	11	0	115	406
8:15 PM	1	7	36	19	0	63	0	11	46	11	0	68	0	11	64	10	0	85	0	39	52	22	0	113	329
8:30 PM	0	7	29	11	0	47	0	7	24	9	0	40	0	19	80	9	0	108	0	33	32	25	0	90	285
8:45 PM	0	2	21	10	0	33	0	6	20	7	0	33	0	13	64	11	0	88	0	25	42	24	0	91	245
Hourly Total	1	18	139	62	0	220	0	35	140	45	0	220	0	65	291	60	0	416	0	141	186	82	0	409	1265
9:00 PM	0	5	32	12	0	49	0	4	21	10	0	35	0	17	61	7	0	85	0	32	27	15	0	74	243
9:15 PM	0	8	25	8	0	41	0	5	22	3	0	30	1	12	43	10	0	66	0	26	33	12	0	71	208
9:30 PM	0	6	19	9	0	34	0	5	17	5	0	27	0	17	57	19	0	93	0	14	32	5	0	51	205
9:45 PM	0	6	17	4	0	27	0	1	9	5	0	15	1	12	28	7	0	48	0	18	22	8	0	48	138
Hourly Total	0	25	93	33	0	151	0	15	69	23	0	107	2	58	189	43	0	292	0	90	114	40	0	244	794
10:00 PM	0	2	14	6	0	22	0	0	15	3	0	18	0	9	30	4	0	43	0	12	18	9	0	39	122
10:15 PM	0	0	13	4	0	17	0	0	9	6	0	15	0	5	21	5	0	31	0	18	16	3	0	37	100
10:30 PM	0	3	1	5	0	9	0	0	5	1	0	6	0	10	21	3	0	34	0	7	15	5	0	27	76
10:45 PM	0	1	2	1	0	4	0	0	11	3	0	14	0	6	13	0	0	19	0	14	14	2	0	30	67
Hourly Total	0	6	30	16	0	52	0	0	40	13	0	53	0	30	85	12	0	127	0	51	63	19	0	133	365
11:00 PM	0	0	7	3	0	10	0	0	14	2	0	16	0	3	16	7	0	26	0	3	10	1	0	14	66
11:15 PM	0	0	4	6	0	10	0	0	9	1	0	10	0	3	13	3	0	19	1	10	10	5	0	26	65
11:30 PM	0	0	5	1	0	6	0	1	14	0	0	15	0	3	12	0	0	15	1	3	4	6	0	14	50
11:45 PM	0	0	10	2	0	12	0	0	6	2	0	8	0	5	9	1	0	15	0	2	3	2	0	7	42
Hourly Total	0	0	26	12	0	38	0	1	43	5	0	49	0	14	50	11	0	75	2	18	27	14	0	61	223
DAILY TOTAL	8	755	6042	2634	0	9439	0	864	4107	807	1	5778	31	1960	5986	796	0	8773	7	2633	4332	2273	9	9245	33235
Cars	8	743	5914	2603	0	9268	0	850	4052	796	1	5698	31	1931	5873	781	0	8616	6	2598	4250	2221	7	9075	32657
Heavy Vehicles	0	12	128	31	0	171	0	14	55	11	0	80	0	29	113	15	0	157	1	35	82	52	2	170	578
Heavy Vehicle %	0.00%	1.59%	2.12%	1.18%	0.00%	1.81%	0.00%	1.62%	1.34%	1.36%	0.00%	1.38%	0.00%	1.48%	1.89%	1.88%	0.00%	1.79%	14.29%	1.33%	1.89%	2.29%	22.22%	1.84%	1.74%

TMC 2520 - CSAH 12 @ CSAH 52
Blaine MN
Tuesday, April 8, 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	
7:15 AM	0	21	272	82	0	375	0	25	69	11	0	105	0	10	29	2	0	41	0	15	67	53	0	135	656
7:30 AM	1	29	290	102	0	422	0	16	56	13	0	85	2	22	49	9	0	82	0	20	59	82	0	161	750
7:45 AM	0	16	269	60	0	345	0	18	69	12	0	99	1	23	42	4	0	70	0	21	67	69	0	157	671
8:00 AM	0	19	168	54	0	241	0	17	71	8	0	96	1	14	39	15	0	69	0	18	66	48	0	132	538
Peak Hour Total	1	85	999	298	0	1383	0	76	265	44	0	385	4	69	159	30	0	262	0	74	259	252	0	585	2615
Peak Hour Heavy Vehicle	0	2	14	4	0	20	0	0	5	0	0	5	0	1	11	1	0	13	0	6	9	5	0	20	58
Peak Hour Heavy Vehicles PHF	0.00%	2.35%	1.40%	1.34%	0.00%	1.45%	0.00%	0.00%	1.89%	0.00%	0.00%	1.30%	0.00%	1.45%	6.92%	3.33%	0.00%	4.96%	0.00%	8.11%	3.47%	1.98%	0.00%	3.42%	2.22%
	0.250	0.733	0.861	0.730	0.000	0.819	0.000	0.760	0.933	0.846	0.000	0.917	0.500	0.750	0.811	0.500	0.000	0.799	0.000	0.881	0.966	0.768	0.000	0.908	0.872

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	
1:00 PM	0	10	72	35	0	117	0	9	54	13	0	76	1	29	72	11	0	113	0	41	74	22	0	137	443
1:15 PM	0	11	66	36	0	113	0	13	71	17	0	101	1	30	62	10	0	103	0	45	80	41	0	166	483
1:30 PM	0	8	62	37	0	107	0	14	65	5	0	84	1	47	88	7	0	143	0	37	84	45	0	166	500
1:45 PM	0	10	67	46	0	123	0	13	66	12	0	91	0	32	82	5	0	119	0	43	63	32	0	138	471
Peak Hour Total	0	39	267	154	0	460	0	49	256	47	0	352	3	138	304	33	0	478	0	166	301	140	0	607	1897
Peak Hour Heavy Vehicle	0	0	12	5	0	17	0	0	5	2	0	7	0	2	11	0	0	13	0	0	7	4	0	11	48
Peak Hour Heavy Vehicles PHF	0.00%	0.00%	4.49%	3.25%	0.00%	3.70%	0.00%	0.00%	1.95%	4.26%	0.00%	1.99%	0.00%	1.45%	3.62%	0.00%	0.00%	2.72%	0.00%	0.00%	2.33%	2.86%	0.00%	1.81%	2.53%
	0.000	0.886	0.927	0.837	0.000	0.935	0.000	0.875	0.901	0.691	0.000	0.871	0.750	0.734	0.864	0.750	0.000	0.836	0.000	0.922	0.896	0.778	0.000	0.914	0.949

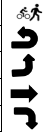
PM Peak Hour (14:00 - 24:00)

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	
4:30 PM	0	21	100	42	0	163	0	17	85	31	0	133	1	73	255	23	0	352	0	53	75	29	0	157	805
4:45 PM	0	12	87	37	0	136	0	25	93	21	0	139	1	55	201	20	0	277	0	75	102	38	0	215	767
5:00 PM	0	22	98	42	0	162	0	13	77	21	0	111	0	64	241	18	0	323	0	77	86	47	0	210	806
5:15 PM	0	15	118	54	0	187	0	20	90	19	0	129	2	57	258	6	0	323	0	66	72	44	0	182	821
Peak Hour Total	0	70	403	175	0	648	0	75	345	92	0	512	4	249	955	67	0	1275	0	271	335	158	0	764	3199
Peak Hour Heavy Vehicle	0	1	9	0	0	10	0	0	3	1	0	4	0	3	10	1	0	14	0	0	4	2	0	6	34
Peak Hour Heavy Vehicles PHF	0.00%	1.43%	2.23%	0.00%	0.00%	1.54%	0.00%	0.00%	0.87%	1.09%	0.00%	0.78%	0.00%	1.20%	1.05%	1.49%	0.00%	1.10%	0.00%	0.00%	1.19%	1.27%	0.00%	0.79%	1.06%
	0.000	0.795	0.854	0.810	0.000	0.866	0.000	0.750	0.927	0.742	0.000	0.921	0.500	0.853	0.925	0.728	0.000	0.906	0.000	0.880	0.821	0.840	0.000	0.888	0.974

Total Vehicles On Leg		18873			
Vehicles Entering 9439 Intersection		Southbound		Vehicles Exiting 9434 Intersection	
Cars	2603	5914	743	8	0
Heavy	31	128	12	0	0
Total	2634	6042	755	8	0

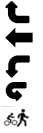


Total Vehicles on Leg 17953	Entering Intersection 9245	Eastbound	Cars	Heavy	Total
			7	2	9
			6	1	7
	Exiting Intersection 8708		2598	35	2633
			4250	82	4332
			2221	52	2273



Daily Volumes

Cars	Heavy	Total	Westbound	Entering Intersection 5778	Total Vehicles on Leg 11661
796	11	807			
4052	55	4107			
850	14	864		Exiting Intersection 5883	
0	0	0			
1	0	1			



					
Cars	0	31	1931	5873	781
Heavy	0	0	29	113	15
Total	0	31	1960	5986	796
Northbound					
Vehicles Entering 8773 Intersection			Vehicles Exiting 9210 Intersection		
Total Vehicles On Leg			17983		



TMC 2520 - CSAH 12 @ CSAH 52

Blaine MN

Tuesday, April 8, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 12						Northbound Heavy CSAH 52						Eastbound Heavy CSAH 12						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	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	0	0	0	0	0	0	1	0	0	1	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	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
2:00 AM	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
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	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
3:45 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	1	0	0	1	1
4:00 AM	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
4:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	2	3
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	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	3
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	0	0	2	0	1	2	0	0	3	7
5:00 AM	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	2
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
5:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	2
Hourly 'Heavy Vehicles'	0	0	0	0	0	0	0	1	2	0	0	3	0	1	1	0	0	2	0	0	3	0	0	3	8
6:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	5	1	0	7	0	0	0	0	0	0	8
6:15 AM	0	0	3	0	0	3	0	0	1	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	6
6:30 AM	0	0	6	0	0	6	0	0	0	1	0	1	0	1	4	0	0	5	0	1	0	0	0	1	13
6:45 AM	0	0	2	1	0	3	0	0	1	0	0	1	0	0	2	1	0	3	0	3	1	1	0	5	12
Hourly 'Heavy Vehicles'	0	0	11	1	0	12	0	0	3	1	0	4	0	2	13	2	0	17	0	4	1	1	0	6	39
7:00 AM	0	1	4	3	0	8	0	0	0	0	0	0	0	0	3	1	0	4	0	0	3	2	0	5	17
7:15 AM	0	0	2	3	0	5	0	0	2	0	0	2	0	1	3	0	0	4	0	2	2	1	0	5	16
7:30 AM	0	1	6	1	0	8	0	0	1	0	0	1	0	0	3	0	0	3	0	3	3	1	0	7	19
7:45 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	2	8
Hourly 'Heavy Vehicles'	0	2	17	7	0	26	0	0	3	0	0	3	0	1	10	1	0	12	0	6	8	5	0	19	60

TMC 2520 - CSAH 12 @ CSAH 52

Blaine MN

Tuesday, April 8, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 12						Northbound Heavy CSAH 52						Eastbound Heavy CSAH 12						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'	
8:00 AM	0	1	1	0	0	2	0	0	2	0	0	2	0	0	4	1	0	5	0	0	4	2	0	6	15
8:15 AM	0	0	4	2	0	6	0	0	0	0	0	0	0	1	2	1	0	4	0	0	1	1	0	2	12
8:30 AM	0	0	0	1	0	1	0	0	1	1	0	2	0	0	3	0	0	3	0	0	2	1	0	3	9
8:45 AM	0	0	1	0	0	1	0	0	1	2	0	3	0	0	3	0	0	3	0	1	1	0	0	2	9
Hourly 'Heavy Vehicles'	0	1	6	3	0	10	0	0	4	3	0	7	0	1	12	2	0	15	0	1	8	4	0	13	45
9:00 AM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	1	0	0	1	0	0	2	2	0	4	7
9:15 AM	0	0	9	0	0	9	0	0	1	0	0	1	0	1	2	1	0	4	0	0	0	2	0	2	16
9:30 AM	0	0	4	0	0	4	0	0	2	0	0	2	0	0	1	0	0	1	0	0	1	1	0	2	9
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	1	2	2	0	5	11
Hourly 'Heavy Vehicles'	0	0	14	0	0	14	0	1	3	0	0	4	0	2	9	1	0	12	0	1	5	7	0	13	43
10:00 AM	0	0	2	0	0	2	0	1	2	0	0	3	0	0	3	0	0	3	0	1	0	4	0	5	13
10:15 AM	0	0	1	0	0	1	0	0	1	1	0	2	0	0	0	1	0	1	0	1	2	0	0	3	7
10:30 AM	0	0	4	1	0	5	0	0	2	0	0	2	0	2	1	0	0	3	0	0	2	1	0	3	13
10:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	1	0	3	0	0	1	0	0	1	7
Hourly 'Heavy Vehicles'	0	0	10	1	0	11	0	1	5	1	0	7	0	2	6	2	0	10	0	2	5	5	0	12	40
11:00 AM	0	0	3	0	0	3	0	1	2	0	0	3	0	0	2	0	0	2	0	1	2	2	0	5	13
11:15 AM	0	1	1	2	0	4	0	1	0	0	0	1	0	1	1	1	0	3	0	0	0	1	0	1	9
11:30 AM	0	1	2	0	0	3	0	1	1	0	0	2	0	0	2	2	0	4	0	0	1	4	0	5	14
11:45 AM	0	1	3	0	0	4	0	1	2	0	0	3	0	0	3	0	0	3	0	1	1	2	0	4	14
Hourly 'Heavy Vehicles'	0	3	9	2	0	14	0	4	5	0	0	9	0	1	8	3	0	12	0	2	4	9	0	15	50
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	4	0	1	3	1	0	5	9
12:15 PM	0	1	3	1	0	5	0	0	1	0	0	1	0	1	2	0	0	3	0	0	2	2	0	4	13
12:30 PM	0	0	4	0	0	4	0	1	3	1	0	5	0	2	0	1	0	3	0	1	2	1	1	4	16
12:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	0	1	0	2	2	1	0	5	8
Hourly 'Heavy Vehicles'	0	1	7	1	0	9	0	1	6	1	0	8	0	4	5	2	0	11	0	4	9	5	1	18	46
1:00 PM	0	0	3	4	0	7	0	0	2	0	0	2	0	0	3	0	0	3	0	0	0	1	0	1	13
1:15 PM	0	0	2	1	0	3	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	1	0	5	9
1:30 PM	0	0	5	0	0	5	0	0	1	0	0	1	0	1	5	0	0	6	0	0	0	1	0	1	13
1:45 PM	0	0	2	0	0	2	0	0	1	2	0	3	0	1	3	0	0	4	0	0	3	1	0	4	13
Hourly 'Heavy Vehicles'	0	0	12	5	0	17	0	0	5	2	0	7	0	2	11	0	0	13	0	0	7	4	0	11	48
2:00 PM	0	0	3	0	0	3	0	1	0	0	0	1	0	1	3	0	0	4	0	0	0	0	0	0	8
2:15 PM	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	1	0	2	0	1	3	1	0	5	9
2:30 PM	0	0	5	2	0	7	0	0	3	0	0	3	0	1	0	0	0	1	0	0	2	4	0	6	17
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	8	0	1	8	10
Hourly 'Heavy Vehicles'	0	0	9	2	0	11	0	1	3	1	0	5	0	3	5	1	0	9	0	1	13	5	1	19	44
3:00 PM	0	0	3	2	0	5	0	0	2	0	0	2	0	1	0	0	0	1	0	1	2	0	0	3	11
3:15 PM	0	0	5	1	0	6	0	3	1	0	0	4	0	0	2	0	0	2	0	1	1	0	0	2	14
3:30 PM	0	0	1	0	0	1	0	0	1	0	0	1	0	1	4	0	0	5	0	5	2	1	0	8	15
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	0	0	3	0	1	2	1	0	4	8
Hourly 'Heavy Vehicles'	0	0	9	3	0	12	0	3	5	0	0	8	0	2	9	0	0	11	0	8	7	2	0	17	48

TMC 2520 - CSAH 12 @ CSAH 52

Blaine MN

Tuesday, April 8, 2025

Time	Southbound Heavy CSAH 52						Westbound Heavy CSAH 12						Northbound Heavy CSAH 52						Eastbound Heavy CSAH 12						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	2	3	3	0	8	0	0	1	0	0	1	0	0	4	0	0	4	1	0	2	1	0	4	17
4:15 PM	0	2	4	1	0	7	0	0	3	1	0	4	0	1	4	0	0	5	0	0	0	0	0	0	16
4:30 PM	0	0	6	0	0	6	0	0	2	0	0	2	0	1	3	1	0	5	0	0	0	1	0	1	14
4:45 PM	0	0	3	0	0	3	0	0	1	0	0	1	0	1	1	0	0	2	0	0	2	1	0	3	9
Hourly 'Heavy Vehicles'	0	4	16	4	0	24	0	0	7	1	0	8	0	3	12	1	0	16	1	0	4	3	0	8	56
5:00 PM	0	1	0	0	0	1	0	0	0	1	0	1	0	1	2	0	0	3	0	0	1	0	0	1	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	1	0	0	1	5
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2	0	0	3	0	1	2	0	0	3	7
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1
Hourly 'Heavy Vehicles'	0	1	0	0	0	1	0	1	0	1	0	2	0	3	8	0	0	11	0	1	4	0	0	5	19
6:00 PM	0	0	0	1	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	2
6:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	4
6:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	3
Hourly 'Heavy Vehicles'	0	0	1	2	0	3	0	0	1	0	0	1	0	0	1	0	0	1	0	4	1	1	0	6	11
7:00 PM	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
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	0	0	0	0	0	0	0	0	0	0	0
7:45 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 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
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	1	0	1	1
8:45 PM	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
Hourly 'Heavy Vehicles'	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
9:00 PM	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
9:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
9:30 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
9:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Hourly 'Heavy Vehicles'	0	0	2	0	0	2	0	1	0	0	0	1	0	0	2	0	0	2	0	0	0	0	0	0	5
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	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
10:30 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
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	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
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	12	128	31	0	171	0	14	55	11	0	80	0	29	113	15	0	157	1	35	82	52	2	170	578

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2520

Study Date : 04/23/2025

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 52

Number of Lanes : 2+

Total Approach Volume: 8,773

Southbound: CSAH 52

Number of Lanes :2+

Total Approach Volume: 9,439

Minor Street Approaches

Eastbound: CSAH 12

Number of Lanes :2+

Total Approach Volume: 6,972

Westbound: CSAH 12

Number of Lanes :2+

Total Approach Volume: 4,971

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 15 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 16 hours, 8 are needed

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

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

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (61) 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 2520

Study Date : 04/23/2025

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

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**

Major Road						Minor Road		
CSAH 52						CSAH 12		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1207	+	630	=	1837	640	398	Yes
15:45 - 16:45	1246	+	560	=	1806	584	416	Yes
06:45 - 07:45	208	+	1322	=	1530	276	292	Yes
14:45 - 15:45	912	+	506	=	1418	560	394	Yes
17:45 - 18:45	840	+	528	=	1368	566	392	Yes
07:45 - 08:45	265	+	989	=	1254	339	303	Yes
13:45 - 14:45	577	+	452	=	1029	481	309	Yes
08:45 - 09:45	280	+	629	=	909	312	276	Yes
12:45 - 13:45	439	+	450	=	889	496	303	Yes
18:45 - 19:45	519	+	352	=	871	507	286	Yes
11:45 - 12:45	408	+	446	=	854	417	346	Yes
10:45 - 11:45	327	+	447	=	774	353	307	Yes
05:45 - 06:45	88	+	685	=	773	154	140	Yes
19:45 - 20:45	466	+	266	=	732	356	211	Yes
09:45 - 10:45	266	+	445	=	711	331	285	Yes
20:45 - 21:45	332	+	157	=	489	231	100	Yes
05:30 - 06:30	83	+	566	=	649	126	123	No
05:15 - 06:15	70	+	469	=	539	96	102	No
05:00 - 06:00	57	+	381	=	438	88	87	No
04:45 - 05:45	46	+	311	=	357	73	64	No
04:30 - 05:30	28	+	228	=	256	60	41	No
21:45 - 22:45	156	+	75	=	231	126	39	No
04:15 - 05:15	19	+	174	=	193	48	24	No
22:00 - 23:00	127	+	52	=	179	114	40	No
22:15 - 23:15	110		40		150	97	39	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2520

Study Date : 04/23/2025

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

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 = **630**

Veh/Hr Minor = **70**

Major Road						Minor Road			
CSAH 52						CSAH 12			
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?	
16:30 - 17:30	1275	+	648	=	1923	606	420	Yes	
15:30 - 16:30	1169	+	530	=	1699	607	422	Yes	
07:30 - 08:30	280	+	1221	=	1501	334	316	Yes	
17:30 - 18:30	903	+	549	=	1452	608	391	Yes	
06:30 - 07:30	153	+	1137	=	1290	252	262	Yes	
14:30 - 15:30	797	+	491	=	1288	549	378	Yes	
18:30 - 19:30	613	+	398	=	1011	500	298	Yes	
13:30 - 14:30	560	+	441	=	1001	462	296	Yes	
08:30 - 09:30	282	+	675	=	957	321	274	Yes	
12:30 - 13:30	394	+	465	=	859	484	314	Yes	
11:30 - 12:30	398	+	443	=	841	404	336	Yes	
19:30 - 20:30	485	+	297	=	782	418	249	Yes	
10:30 - 11:30	317	+	442	=	759	341	293	Yes	
09:30 - 10:30	253	+	475	=	728	322	280	Yes	
05:30 - 06:30	83	+	566	=	649	126	123	Yes	
05:15 - 06:15	70	+	469	=	539	96	102	No	
20:30 - 21:30	347	+	170	=	517	250	109	No	
20:45 - 21:45	332	+	157	=	489	231	100	No	
21:00 - 22:00	292	+	151	=	443	204	84	No	
05:00 - 06:00	57	+	381	=	438	88	87	No	
21:15 - 22:15	250	+	124	=	374	175	74	No	
04:45 - 05:45	46	+	311	=	357	73	64	No	
21:30 - 22:30	215	+	100	=	315	150	56	No	
04:30 - 05:30	28	+	228	=	256	60	41	No	
21:45 - 22:45	156		75		231	126	39	No	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2520

Study Date : 04/23/2025

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

16 hours meet 1A minimums.
16 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						Minor Road					
CSAH 52						CSAH 12					
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB		Met1A?
16:30 - 17:30	1275	+	648	=	1923		606		420		Yes
15:30 - 16:30	1169	+	530	=	1699		607		422		Yes
07:30 - 08:30	280	+	1221	=	1501		334		316		Yes
17:30 - 18:30	903	+	549	=	1452		608		391		Yes
06:30 - 07:30	153	+	1137	=	1290		252		262		Yes
14:30 - 15:30	797	+	491	=	1288		549		378		Yes
18:30 - 19:30	613	+	398	=	1011		500		298		Yes
13:30 - 14:30	560	+	441	=	1001		462		296		Yes
08:30 - 09:30	282	+	675	=	957		321		274		Yes
12:30 - 13:30	394	+	465	=	859		484		314		Yes
11:30 - 12:30	398	+	443	=	841		404		336		Yes
19:30 - 20:30	485		297		782		418		249		Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	1256	+	590	=	1846	621	420	Yes
07:15 - 08:15	262	+	1383	=	1645	333	341	Yes
17:15 - 18:15	1054	+	590	=	1644	613	405	Yes
15:15 - 16:15	1082	+	521	=	1603	598	397	Yes
14:15 - 15:15	725	+	475	=	1200	520	361	Yes
18:15 - 19:15	652	+	458	=	1110	511	329	Yes
06:15 - 07:15	136	+	944	=	1080	220	212	Yes
08:15 - 09:15	276	+	739	=	1015	322	254	Yes
13:15 - 14:15	518	+	450	=	968	472	312	Yes
12:15 - 13:15	390	+	467	=	857	451	319	Yes
19:15 - 20:15	533	+	320	=	853	449	257	Yes
11:15 - 12:15	382		450		832	407	334	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2520

Study Date : 04/23/2025

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.

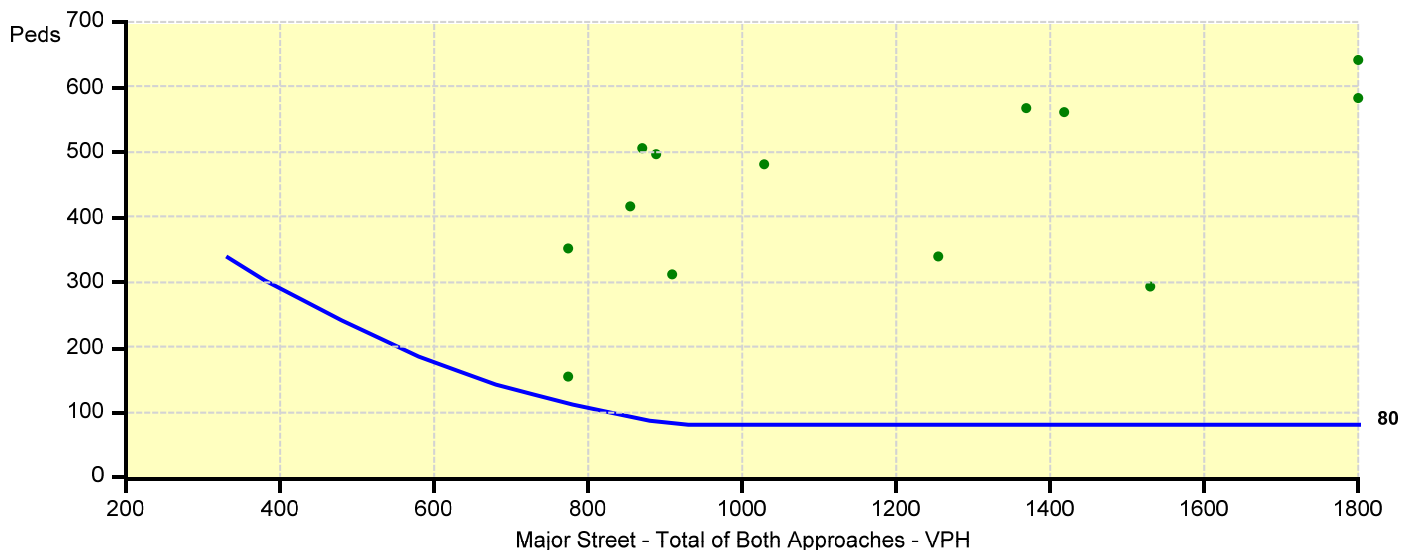
Summary

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**

Major Road CSAH 52						Minor Road CSAH 12		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:45 - 17:45	1207	+	630	=	1837	640	398	Yes
15:45 - 16:45	1246	+	560	=	1806	584	416	Yes
06:45 - 07:45	208	+	1322	=	1530	276	292	Yes
14:45 - 15:45	912	+	506	=	1418	560	394	Yes
17:45 - 18:45	840	+	528	=	1368	566	392	Yes
07:45 - 08:45	265	+	989	=	1254	339	303	Yes
13:45 - 14:45	577	+	452	=	1029	481	309	Yes
08:45 - 09:45	280	+	629	=	909	312	276	Yes
12:45 - 13:45	439	+	450	=	889	496	303	Yes
18:45 - 19:45	519	+	352	=	871	507	286	Yes
11:45 - 12:45	408	+	446	=	854	417	346	Yes
10:45 - 11:45	327	+	447	=	774	353	307	Yes



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2520

Study Date : 04/23/2025

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

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**

Major Road						Minor Road		
CSAH 52						CSAH 12		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	1275	+	648	=	1923	606	420	Yes
16:15 - 17:15	1256	+	590	=	1846	621	420	Yes
16:45 - 17:45	1207	+	630	=	1837	640	398	Yes
16:00 - 17:00	1271	+	565	=	1836	595	431	Yes
17:00 - 18:00	1184	+	625	=	1809	610	395	Yes
15:45 - 16:45	1246	+	560	=	1806	584	416	Yes
15:30 - 16:30	1169	+	530	=	1699	607	422	Yes
07:00 - 08:00	242	+	1430	=	1672	298	316	Yes
07:15 - 08:15	262	+	1383	=	1645	333	341	Yes
17:15 - 18:15	1054	+	590	=	1644	613	405	Yes
15:15 - 16:15	1082	+	521	=	1603	598	397	Yes
06:45 - 07:45	208		1322		1530	276	292	Yes

