

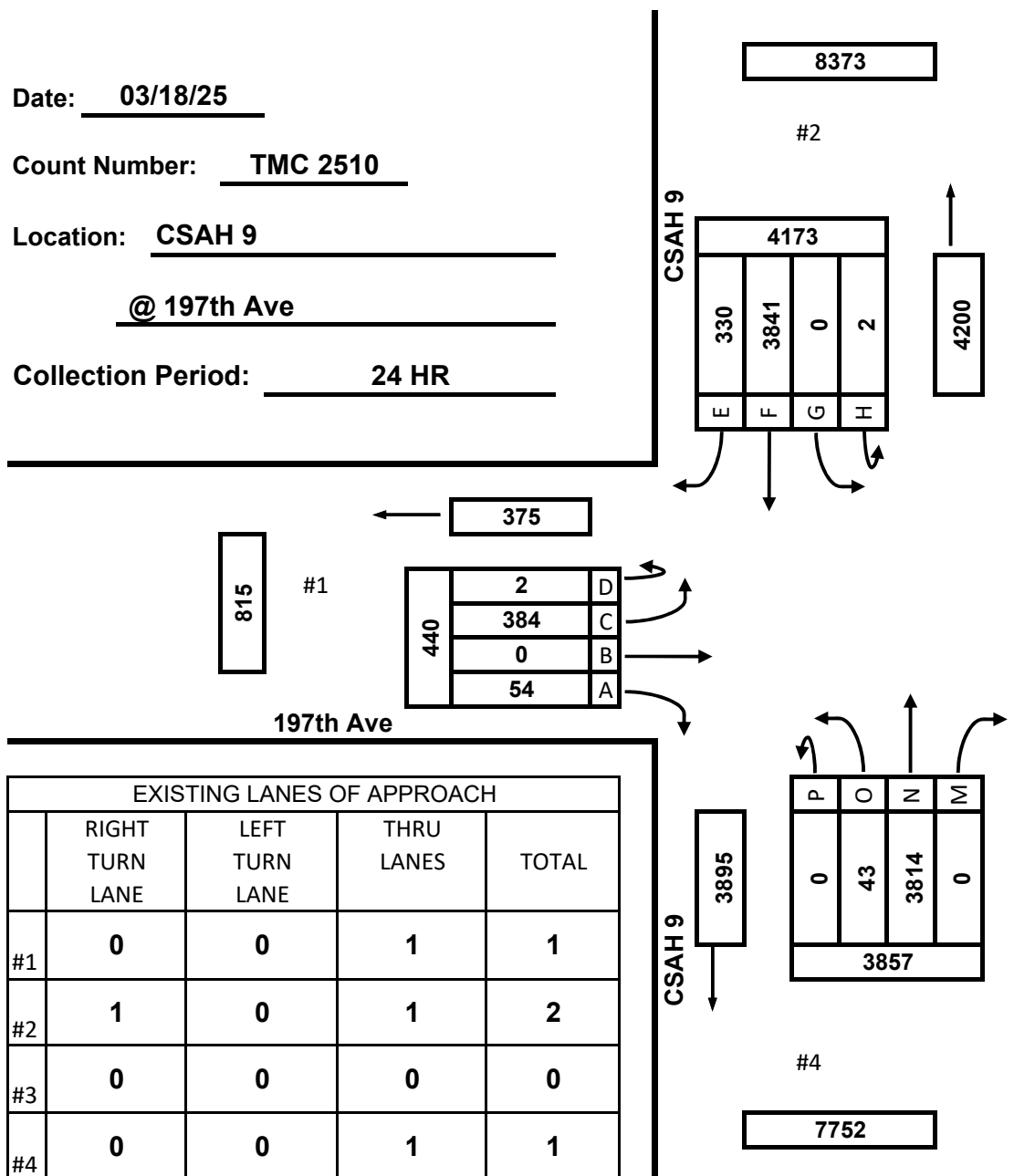
Date: 03/18/25

Count Number: TMC 2510

Location: CSAH 9

@ 197th Ave

Collection Period: 24 HR



Date: 03/18/25

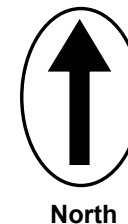
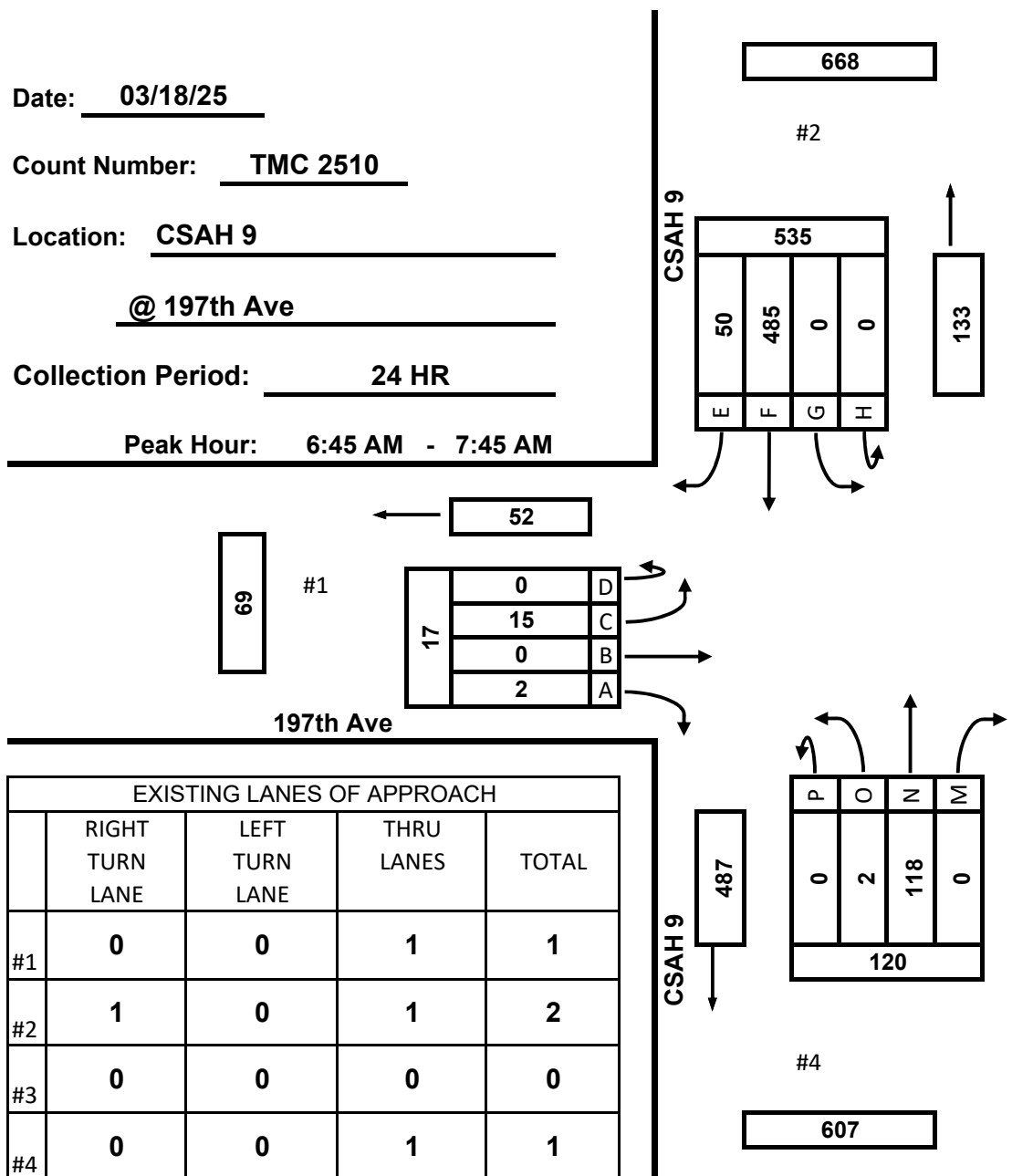
Count Number: TMC 2510

Location: CSAH 9

@ 197th Ave

Collection Period: 24 HR

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



Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 03/18/25

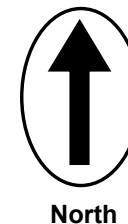
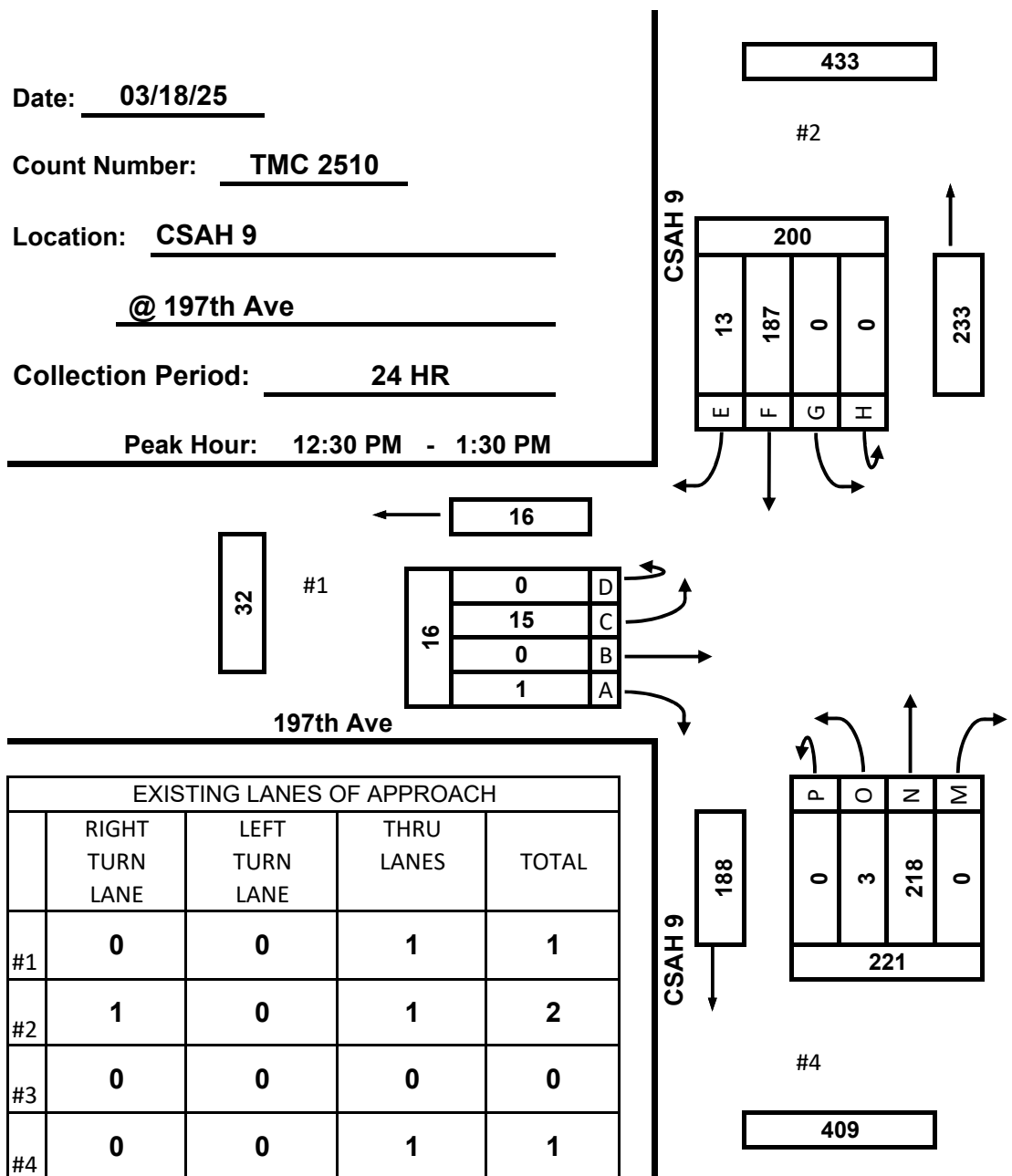
Count Number: TMC 2510

Location: CSAH 9

@ 197th Ave

Collection Period: 24 HR

Peak Hour: 12:30 PM - 1:30 PM



Anoka County
Highway Department
Traffic Volume and Turning
Movement Study

Date: 03/18/25

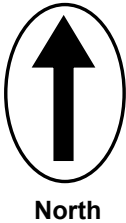
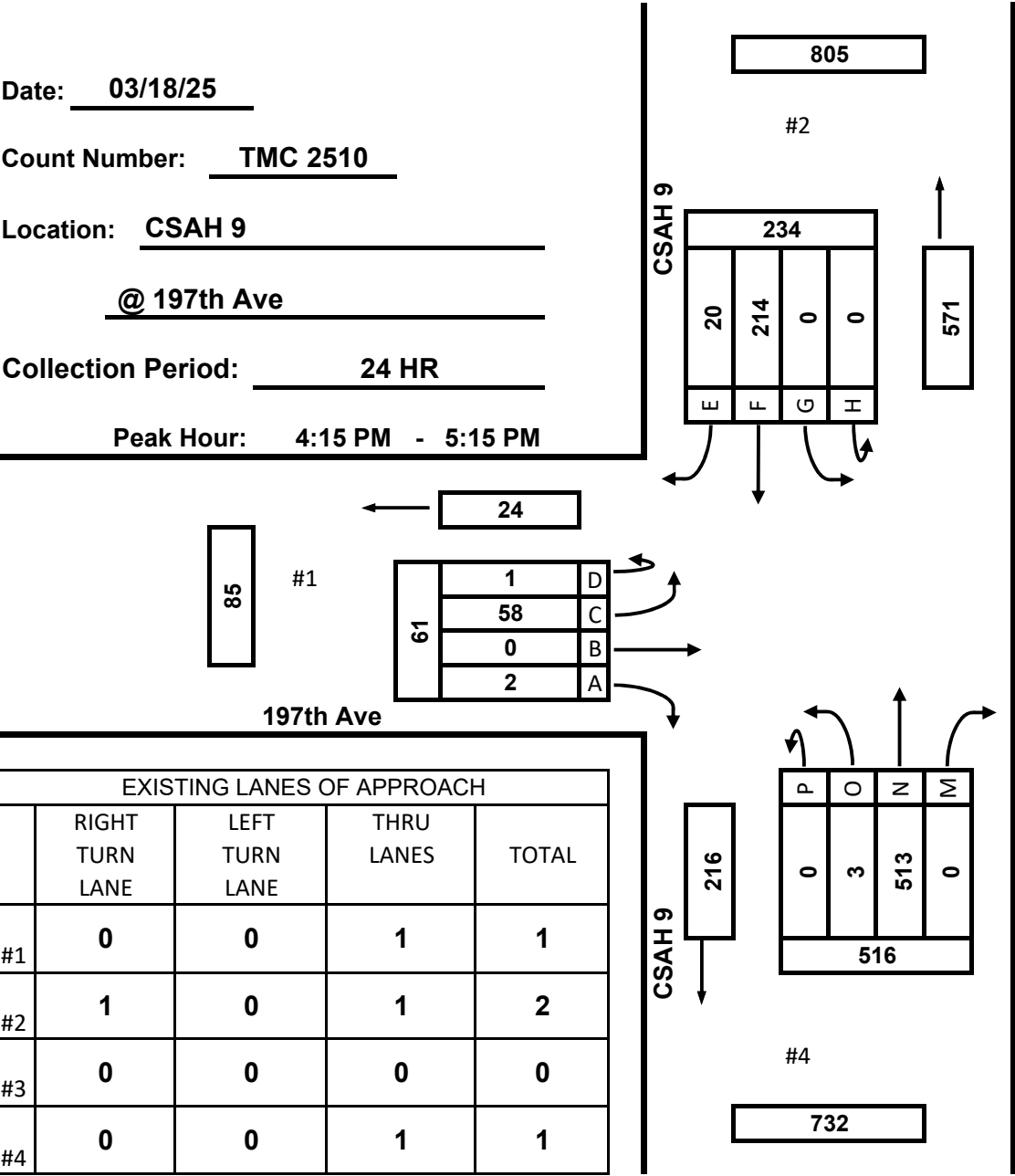
Count Number: TMC 2510

Location: CSAH 9

@ 197th Ave

Collection Period: 24 HR

Peak Hour: 4:15 PM - 5:15 PM



Anoka County
Highway Department

Traffic Volume and Turning
Movement Study

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound CSAH 9						Westbound None						Northbound CSAH 9						Eastbound 197th Ave						VEHICLE TOTAL	
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total		
12:00 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	12
12:15 AM	0	0	2	2	0	4	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	6
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	3
12:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2
Hourly Total	0	0	7	3	0	10	0	0	0	0	0	0	0	0	13	0	0	0	13	0	0	0	0	0	0	23
1:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	4	0	0	0	5	0	0	0	0	0	0	6
1:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	6
1:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	4
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2
Hourly Total	0	0	5	0	0	5	0	0	0	0	0	0	0	1	12	0	0	0	13	0	0	0	0	0	0	18
2:00 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	6
2:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	5
2:30 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	7
2:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	1	2	0	0	0	3	0	2	0	0	0	2	8
Hourly Total	0	0	12	0	0	12	0	0	0	0	0	0	0	1	11	0	0	0	12	0	2	0	0	0	2	26
3:00 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	0	12
3:30 AM	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
3:45 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	10
Hourly Total	0	0	26	1	0	27	0	0	0	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	0	34
4:00 AM	0	0	15	0	0	15	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	16
4:15 AM	0	0	30	2	0	32	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	35
4:30 AM	0	0	29	0	0	29	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	1	0	1	33
4:45 AM	0	0	37	1	0	38	0	0	0	0	0	0	0	0	4	0	0	0	4	0	1	0	0	0	1	43
Hourly Total	0	0	111	3	0	114	0	0	0	0	0	0	0	0	11	0	0	0	11	0	1	0	1	0	2	127
5:00 AM	0	0	63	1	0	64	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	66
5:15 AM	0	0	76	7	0	83	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	1	0	1	90
5:30 AM	0	0	71	10	0	81	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	1	0	1	90
5:45 AM	0	0	70	2	0	72	0	0	0	0	0	0	0	0	4	0	0	0	4	0	2	0	0	0	2	78
Hourly Total	0	0	280	20	0	300	0	0	0	0	0	0	0	0	20	0	0	0	20	0	2	0	2	0	4	324
6:00 AM	0	0	91	12	0	103	0	0	0	0	0	0	0	0	8	0	0	0	8	0	2	0	0	0	2	113
6:15 AM	0	0	115	9	0	124	0	0	0	0	0	0	0	0	18	0	0	0	18	0	2	0	1	0	3	145
6:30 AM	0	0	116	9	0	125	0	0	0	0	0	0	0	2	21	0	0	0	23	0	3	0	1	0	4	152
6:45 AM	0	0	109	7	0	116	0	0	0	0	0	0	0	1	25	0	0	0	26	0	2	0	0	0	2	144
Hourly Total	0	0	431	37	0	468	0	0	0	0	0	0	0	3	72	0	0	0	75	0	9	0	2	0	11	554
7:00 AM	0	0	131	10	0	141	0	0	0	0	0	0	0	1	29	0	0	0	30	0	6	0	1	0	7	178
7:15 AM	0	0	135	11	0	146	0	0	0	0	0	0	0	0	26	0	0	0	26	0	6	0	0	0	6	178
7:30 AM	0	0	110	22	0	132	0	0	0	0	0	0	0	0	38	0	0	0	38	0	1	0	1	0	2	172
7:45 AM	0	0	79	4	0	83	0	0	0	0	0	0	0	0	23	0	0	0	23	0	7	0	1	0	8	114
Hourly Total	0	0	455	47	0	502	0	0	0	0	0	0	0	1	116	0	0	0	117	0	20	0	3	0	23	642

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound CSAH 9						Westbound None						Northbound CSAH 9						Eastbound 197th Ave						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
8:00 AM	0	0	82	4	0	86	0	0	0	0	0	0	0	0	23	0	0	23	0	5	0	2	0	7	116
8:15 AM	0	0	87	2	0	89	0	0	0	0	0	0	0	0	29	0	0	29	0	7	0	3	0	10	128
8:30 AM	0	0	85	7	0	92	0	0	0	0	0	0	0	0	16	0	0	16	0	2	0	0	0	2	110
8:45 AM	0	0	55	5	0	60	0	0	0	0	0	0	0	0	23	0	0	23	0	7	0	0	0	7	90
Hourly Total	0	0	309	18	0	327	0	0	0	0	0	0	0	0	91	0	0	91	0	21	0	5	0	26	444
9:00 AM	0	0	61	3	0	64	0	0	0	0	0	0	0	0	38	0	0	38	0	3	0	1	0	4	106
9:15 AM	0	0	60	4	0	64	0	0	0	0	0	0	0	0	32	0	0	32	0	7	0	1	0	8	104
9:30 AM	0	0	48	4	0	52	0	0	0	0	0	0	0	0	44	0	0	44	0	4	0	1	0	5	101
9:45 AM	1	0	40	2	0	43	0	0	0	0	0	0	0	0	37	0	0	37	0	4	0	0	0	4	84
Hourly Total	1	0	209	13	0	223	0	0	0	0	0	0	0	0	151	0	0	151	0	18	0	3	0	21	395
10:00 AM	0	0	46	3	0	49	0	0	0	0	0	0	0	0	35	0	0	35	0	4	0	1	0	5	89
10:15 AM	0	0	53	2	0	55	0	0	0	0	0	0	0	0	31	0	0	31	0	3	0	0	0	3	89
10:30 AM	0	0	56	3	0	59	0	0	0	0	0	0	0	3	28	0	0	31	0	2	0	0	0	2	92
10:45 AM	0	0	50	3	0	53	0	0	0	0	0	0	0	1	32	0	0	33	0	6	0	1	0	7	93
Hourly Total	0	0	205	11	0	216	0	0	0	0	0	0	0	4	126	0	0	130	0	15	0	2	0	17	363
11:00 AM	0	0	41	3	0	44	0	0	0	0	0	0	0	1	32	0	0	33	0	5	0	0	0	5	82
11:15 AM	0	0	48	4	0	52	0	0	0	0	0	0	0	0	35	0	0	35	0	1	0	2	0	3	90
11:30 AM	0	0	57	4	0	61	0	0	0	0	0	0	0	0	50	0	0	50	0	5	0	1	0	6	117
11:45 AM	0	0	36	3	0	39	0	0	0	0	0	0	0	0	53	0	0	53	0	5	0	1	0	6	98
Hourly Total	0	0	182	14	0	196	0	0	0	0	0	0	0	1	170	0	0	171	0	16	0	4	0	20	387
12:00 PM	0	0	36	5	0	41	0	0	0	0	0	0	0	0	47	0	0	47	0	3	0	1	0	4	92
12:15 PM	0	0	47	5	0	52	0	0	0	0	0	0	0	0	45	0	0	45	1	2	0	1	0	4	101
12:30 PM	0	0	58	3	0	61	0	0	0	0	0	0	0	1	47	0	0	48	0	3	0	1	0	4	113
12:45 PM	0	0	38	3	0	41	0	0	0	0	0	0	0	0	58	0	0	58	0	3	0	0	0	3	102
Hourly Total	0	0	179	16	0	195	0	0	0	0	0	0	0	1	197	0	0	198	1	11	0	3	0	15	408
1:00 PM	0	0	48	4	0	52	0	0	0	0	0	0	0	2	56	0	0	58	0	5	0	0	0	5	115
1:15 PM	0	0	43	3	0	46	0	0	0	0	0	0	0	0	57	0	0	57	0	4	0	0	0	4	107
1:30 PM	0	0	34	5	0	39	0	0	0	0	0	0	0	0	52	0	0	52	0	3	0	1	0	4	95
1:45 PM	0	0	47	2	0	49	0	0	0	0	0	0	0	6	57	0	0	63	0	3	0	0	0	3	115
Hourly Total	0	0	172	14	0	186	0	0	0	0	0	0	0	8	222	0	0	230	0	15	0	1	0	16	432
2:00 PM	0	0	47	4	0	51	0	0	0	0	0	0	0	0	59	0	0	59	0	5	0	2	0	7	117
2:15 PM	0	0	52	5	0	57	0	0	0	0	0	0	0	1	66	0	0	67	0	7	0	1	0	8	132
2:30 PM	0	0	65	3	0	68	0	0	0	0	0	0	0	0	74	0	0	74	0	5	0	0	0	5	147
2:45 PM	0	0	56	4	0	60	0	0	0	0	0	0	0	1	94	0	0	95	0	9	0	3	0	12	167
Hourly Total	0	0	220	16	0	236	0	0	0	0	0	0	0	2	293	0	0	295	0	26	0	6	0	32	563
3:00 PM	0	0	47	10	0	57	0	0	0	0	0	0	0	0	105	0	0	105	0	7	0	2	0	9	171
3:15 PM	0	0	44	7	0	51	0	0	0	0	0	0	0	1	101	0	0	102	0	4	0	0	0	4	157
3:30 PM	0	0	53	3	0	56	0	0	0	0	0	0	0	1	133	0	0	134	0	15	0	2	0	17	207
3:45 PM	0	0	48	1	0	49	0	0	0	0	0	0	0	3	116	0	0	119	0	11	0	4	0	15	183
Hourly Total	0	0	192	21	0	213	0	0	0	0	0	0	0	5	455	0	0	460	0	37	0	8	0	45	718

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound CSAH 9						Westbound None						Northbound CSAH 9						Eastbound 197th Ave						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
4:00 PM	0	0	65	9	0	74	0	0	0	0	0	0	0	2	93	0	0	95	0	14	0	1	0	15	184
4:15 PM	0	0	51	7	0	58	0	0	0	0	0	0	0	1	136	0	0	137	0	15	0	1	0	16	211
4:30 PM	0	0	52	2	0	54	0	0	0	0	0	0	0	1	143	0	0	144	0	13	0	0	0	13	211
4:45 PM	0	0	53	3	0	56	0	0	0	0	0	0	0	1	124	0	0	125	0	15	0	0	0	15	196
Hourly Total	0	0	221	21	0	242	0	0	0	0	0	0	0	5	496	0	0	501	0	57	0	2	0	59	802
5:00 PM	0	0	58	8	0	66	0	0	0	0	0	0	0	0	110	0	0	110	1	15	0	1	0	17	193
5:15 PM	0	0	53	5	0	58	0	0	0	0	0	0	0	0	127	0	0	127	0	18	0	1	0	19	204
5:30 PM	0	0	47	12	0	59	0	0	0	0	0	0	0	0	125	0	0	125	0	11	0	0	0	11	195
5:45 PM	0	0	61	3	0	64	0	0	0	0	0	0	0	1	102	0	0	103	0	10	0	0	0	10	177
Hourly Total	0	0	219	28	0	247	0	0	0	0	0	0	0	1	464	0	0	465	1	54	0	2	0	57	769
6:00 PM	0	0	54	1	0	55	0	0	0	0	0	0	0	0	83	0	0	83	0	7	0	2	0	9	147
6:15 PM	0	0	44	5	0	49	0	0	0	0	0	0	0	1	74	0	0	75	0	10	0	2	0	12	136
6:30 PM	0	0	49	9	0	58	0	0	0	0	0	0	0	0	61	0	0	61	0	8	0	0	0	8	127
6:45 PM	0	0	32	3	0	35	0	0	0	0	0	0	0	0	73	0	0	73	0	7	0	1	0	8	116
Hourly Total	0	0	179	18	0	197	0	0	0	0	0	0	0	1	291	0	0	292	0	32	0	5	0	37	526
7:00 PM	0	0	34	3	0	37	0	0	0	0	0	0	0	0	39	0	0	39	0	6	0	1	0	7	83
7:15 PM	0	0	34	0	0	34	0	0	0	0	0	0	0	0	47	0	0	47	0	4	0	0	0	4	85
7:30 PM	0	0	18	1	0	19	0	0	0	0	0	0	0	1	65	0	0	66	0	4	0	0	0	4	89
7:45 PM	0	0	13	2	0	15	0	0	0	0	0	0	0	1	48	0	0	49	0	3	0	0	0	3	67
Hourly Total	0	0	99	6	0	105	0	0	0	0	0	0	0	2	199	0	0	201	0	17	0	1	0	18	324
8:00 PM	0	0	15	2	0	17	0	0	0	0	0	0	0	1	50	0	0	51	0	4	0	0	0	4	72
8:15 PM	0	0	17	3	0	20	0	0	0	0	0	0	0	0	46	0	0	46	0	9	0	0	0	9	75
8:30 PM	0	0	17	4	0	21	0	0	0	0	0	0	0	0	51	0	0	51	0	3	0	1	0	4	76
8:45 PM	1	0	16	1	0	18	0	0	0	0	0	0	0	0	37	0	0	37	0	4	0	0	0	4	59
Hourly Total	1	0	65	10	0	76	0	0	0	0	0	0	0	1	184	0	0	185	0	20	0	1	0	21	282
9:00 PM	0	0	13	5	0	18	0	0	0	0	0	0	0	3	38	0	0	41	0	1	0	0	0	1	60
9:15 PM	0	0	10	3	0	13	0	0	0	0	0	0	0	0	35	0	0	35	0	0	0	0	0	0	48
9:30 PM	0	0	7	0	0	7	0	0	0	0	0	0	0	1	18	0	0	19	0	2	0	0	0	2	28
9:45 PM	0	0	5	2	0	7	0	0	0	0	0	0	0	0	24	0	0	24	0	0	0	1	0	1	32
Hourly Total	0	0	35	10	0	45	0	0	0	0	0	0	0	4	115	0	0	119	0	3	0	1	0	4	168
10:00 PM	0	0	8	0	0	8	0	0	0	0	0	0	0	0	12	0	0	12	0	3	0	0	0	3	23
10:15 PM	0	0	4	2	0	6	0	0	0	0	0	0	0	0	22	0	0	22	0	2	0	1	0	3	31
10:30 PM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	14	0	0	14	0	0	0	1	0	1	20
10:45 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	15	0	0	15	0	2	0	0	0	2	20
Hourly Total	0	0	20	2	0	22	0	0	0	0	0	0	0	0	63	0	0	63	0	7	0	2	0	9	94
11:00 PM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	9	0	0	9	0	1	0	0	0	1	15
11:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	14
11:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	11
11:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	7
Hourly Total	0	0	8	1	0	9	0	0	0	0	0	0	0	2	35	0	0	37	0	1	0	0	0	1	47
DAILY TOTAL	2	0	3841	330	0	4173	0	0	0	0	0	0	0	43	3814	0	0	3857	2	384	0	54	0	440	8470
Cars	2	0	3772	324	0	4098	0	0	0	0	0	0	0	42	3746	0	0	3788	2	380	0	53	0	435	8321
Heavy Vehicles	0	0	69	6	0	75	0	0	0	0	0	0	0	1	68	0	0	69	0	4	0	1	0	5	149
Heavy Vehicle %	0.00%	0.00%	1.80%	1.82%	0.00%	1.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.33%	1.78%	0.00%	0.00%	1.79%	0.00%	1.04%	0.00%	1.85%	0.00%	1.14%	1.76%

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 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	0	109	7	0	116	0	0	0	0	0	0	0	1	25	0	0	26	0	2	0	0	0	2	144
7:00 AM	0	0	131	10	0	141	0	0	0	0	0	0	0	1	29	0	0	30	0	6	0	1	0	7	178
7:15 AM	0	0	135	11	0	146	0	0	0	0	0	0	0	0	26	0	0	26	0	6	0	0	0	6	178
7:30 AM	0	0	110	22	0	132	0	0	0	0	0	0	0	0	38	0	0	38	0	1	0	1	0	2	172
Peak Hour Total	0	0	485	50	0	535	0	0	0	0	0	0	0	2	118	0	0	120	0	15	0	2	0	17	672
Peak Hour Heavy Vehicles	0	0	9	0	0	9	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	11
Peak Hour Heavy Vehicles PHF	0.00%	0.00%	1.86%	0.00%	0.00%	1.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.69%	0.00%	0.00%	1.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.64%
	0.000	0.000	0.898	0.568	0.000	0.916	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.776	0.000	0.000	0.789	0.000	0.625	0.000	0.500	0.000	0.607	0.944

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	
12:30 PM	0	0	58	3	0	61	0	0	0	0	0	0	0	1	47	0	0	48	0	3	0	1	0	4	113
12:45 PM	0	0	38	3	0	41	0	0	0	0	0	0	0	0	58	0	0	58	0	3	0	0	0	3	102
1:00 PM	0	0	48	4	0	52	0	0	0	0	0	0	0	2	56	0	0	58	0	5	0	0	0	5	115
1:15 PM	0	0	43	3	0	46	0	0	0	0	0	0	0	0	57	0	0	57	0	4	0	0	0	4	107
Peak Hour Total	0	0	187	13	0	200	0	0	0	0	0	0	0	3	218	0	0	221	0	15	0	1	0	16	437
Peak Hour Heavy Vehicles	0	0	3	0	0	3	0	0	0	0	0	0	0	0	9	0	0	9	0	1	0	0	0	1	13
Peak Hour Heavy Vehicles PHF	0.00%	0.00%	1.60%	0.00%	0.00%	1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.13%	0.00%	0.00%	4.07%	0.00%	6.67%	0.00%	0.00%	0.00%	6.25%	2.97%
	0.000	0.000	0.806	0.813	0.000	0.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.940	0.000	0.000	0.953	0.000	0.750	0.000	0.250	0.000	0.800	0.950

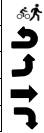
PM Peak Hour (14:00 - 24:00)

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	
4:15 PM	0	0	51	7	0	58	0	0	0	0	0	0	0	1	136	0	0	137	0	15	0	1	0	16	211
4:30 PM	0	0	52	2	0	54	0	0	0	0	0	0	0	1	143	0	0	144	0	13	0	0	0	13	211
4:45 PM	0	0	53	3	0	56	0	0	0	0	0	0	0	1	124	0	0	125	0	15	0	0	0	15	196
5:00 PM	0	0	58	8	0	66	0	0	0	0	0	0	0	0	110	0	0	110	1	15	0	1	0	17	193
Peak Hour Total	0	0	214	20	0	234	0	0	0	0	0	0	0	3	513	0	0	516	1	58	0	2	0	61	811
Peak Hour Heavy Vehicles	0	0	1	1	0	2	0	0	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	11
Peak Hour Heavy Vehicles PHF	0.00%	0.00%	0.47%	5.00%	0.00%	0.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.75%	0.00%	0.00%	1.74%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.36%
	0.000	0.000	0.922	0.625	0.000	0.886	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.897	0.000	0.000	0.896	0.250	0.967	0.000	0.500	0.000	0.897	0.961

Total Vehicles On Leg		8373			
Vehicles Entering Intersection		4173		Vehicles Exiting Intersection	
		Southbound		Northbound	
Cars	324	3772	0	2	0
Heavy	6	69	0	0	0
Total	330	3841	0	2	0



Total Vehicles on Leg 815	Entering Intersection 440	Eastbound	Cars	Heavy	Total
	Exiting Intersection 375		Cars	Heavy	Total
			0	0	0
			2	0	2
			380	4	384
			0	0	0
			53	1	54



Daily Volumes

Cars	Heavy	Total	Westbound	Entering Intersection 0	Total Vehicles on Leg 0
0	0	0		Exiting Intersection 0	
0	0	0			
0	0	0			
0	0	0			
0	0	0			

Cars	0	0	42	3746	0
Heavy	0	0	1	68	0
Total	0	0	43	3814	0
Northbound					
Vehicles Entering Intersection			Vehicles Exiting Intersection		
Total Vehicles On Leg			7752		

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound Heavy CSAH 9						Westbound Heavy None						Northbound Heavy CSAH 9						Eastbound Heavy 197th Ave						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 AM	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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	0	0	1	0	0	0	0	0	0	2
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	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	0	0	0	0	0
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	0	0	0	0	0
4:00 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
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	1	0	0	1	0	0	0	0	0	0	1
4:45 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	1	0	0	1	0	0	0	0	0	0	2
5:00 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
5:15 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
5:30 AM	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
5:45 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
Hourly 'Heavy Vehicles'	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5
6:00 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4
6:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
6:45 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
Hourly 'Heavy Vehicles'	0	0	10	0	0	10	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	12
7:00 AM	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
7:15 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
7:45 AM	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
Hourly 'Heavy Vehicles'	0	0	10	1	0	11	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	14

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound Heavy CSAH 9						Westbound Heavy None						Northbound Heavy CSAH 9						Eastbound Heavy 197th Ave						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	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	0	1	1	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	4
8:30 AM	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
8:45 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
Hourly 'Heavy Vehicles'	0	0	6	1	0	7	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	1	0	1	11
9:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	5
9:15 AM	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
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
9:45 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	2	0	0	2	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	10
10:00 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
10:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	1	0	0	0	1	3
10:45 AM	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	3	0	0	3	0	0	0	0	0	0	0	0	5	0	0	5	0	1	0	0	0	1	9
11:00 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
11:15 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	5
11:45 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7
Hourly 'Heavy Vehicles'	0	0	8	0	0	8	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	15
12:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
12:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4
12:45 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	5	1	0	6	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	12
1:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	4
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
1:30 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
Hourly 'Heavy Vehicles'	0	0	2	2	0	4	0	0	0	0	0	0	0	0	7	0	0	7	0	1	0	0	0	1	12
2:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
2:15 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
2:30 PM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
2:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	3
Hourly 'Heavy Vehicles'	0	0	8	0	0	8	0	0	0	0	0	0	0	0	3	0	0	3	0	1	0	0	0	1	12
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
3:15 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4
3:30 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
3:45 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	3	0	0	3	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9

TMC 2510 - CSAH 9 @ 197th Ave
Oak Grove MN
Tuesday, March 18, 2025

Time	Southbound Heavy CSAH 9						Westbound Heavy None						Northbound Heavy CSAH 9						Eastbound Heavy 197th Ave						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	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2
4:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	7
4:30 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
4:45 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	1	0	2	0	0	0	0	0	0	0	1	8	0	0	9	0	0	0	0	0	0	11
5:00 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
5:15 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
5:30 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
5:45 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	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	6
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
6:15 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
6:30 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
6:45 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	1	0	0	1	0	1	0	0	0	1	2
7:00 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
7:15 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
7:30 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
7:45 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	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	3
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	0	0	0	0
8:45 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
9:00 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
9:15 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
9:30 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	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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	69	6	0	75	0	0	0	0	0	0	0	1	68	0	0	69	0	4	0	1	0	5	149

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 3,857

Southbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 4,173

Minor Street Approaches

Eastbound: 197th Ave

Number of Lanes : 1

Total Approach Volume: 440

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 0 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 0 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.....Not Satisfied

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

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

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

Volumes do not exceed minimums for any one hour period.

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

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

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

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

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

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

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

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

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105**

Major Road						Minor Road		
CSAH 9						197th Ave		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	516	+	234	=	750	61	0	No
16:00 - 17:00	501	+	242	=	743	59	0	No
16:30 - 17:30	506	+	234	=	740	64	0	No
15:45 - 16:45	495	+	235	=	730	59	0	No
16:45 - 17:45	487	+	239	=	726	62	0	No
15:30 - 16:30	485	+	237	=	722	63	0	No
17:00 - 18:00	465	+	247	=	712	57	0	No
15:15 - 16:15	450	+	230	=	680	51	0	No
17:15 - 18:15	438	+	236	=	674	49	0	No
15:00 - 16:00	460	+	213	=	673	45	0	No
14:45 - 15:45	436	+	224	=	660	42	0	No
06:45 - 07:45	120	+	535	=	655	17	0	No
06:30 - 07:30	105	+	528	=	633	19	0	No
07:00 - 08:00	117	+	502	=	619	23	0	No
17:30 - 18:30	386	+	227	=	613	42	0	No
14:30 - 15:30	376	+	236	=	612	30	0	No
06:15 - 07:15	97	+	506	=	603	16	0	No
14:15 - 15:15	341	+	242	=	583	34	0	No
07:15 - 08:15	110	+	447	=	557	23	0	No
17:45 - 18:45	322	+	226	=	548	39	0	No
06:00 - 07:00	75	+	468	=	543	11	0	No
14:00 - 15:00	295	+	236	=	531	32	0	No
07:30 - 08:30	113	+	390	=	503	27	0	No
18:00 - 19:00	292	+	197	=	489	37	0	No
13:45 - 14:45	263		225		488	23	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

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 = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52**

Major Road						Minor Road		
CSAH 9						197th Ave		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	506	+	234	=	740	64	0	Yes
15:30 - 16:30	485	+	237	=	722	63	0	Yes
15:15 - 16:15	450	+	230	=	680	51	0	No
15:00 - 16:00	460	+	213	=	673	45	0	No
14:45 - 15:45	436	+	224	=	660	42	0	No
06:45 - 07:45	120	+	535	=	655	17	0	No
06:30 - 07:30	105	+	528	=	633	19	0	No
07:00 - 08:00	117	+	502	=	619	23	0	No
17:30 - 18:30	386	+	227	=	613	42	0	No
14:30 - 15:30	376	+	236	=	612	30	0	No
06:15 - 07:15	97	+	506	=	603	16	0	No
14:15 - 15:15	341	+	242	=	583	34	0	No
07:15 - 08:15	110	+	447	=	557	23	0	No
17:45 - 18:45	322	+	226	=	548	39	0	No
06:00 - 07:00	75	+	468	=	543	11	0	No
14:00 - 15:00	295	+	236	=	531	32	0	No
07:30 - 08:30	113	+	390	=	503	27	0	No
18:00 - 19:00	292	+	197	=	489	37	0	No
13:45 - 14:45	263	+	225	=	488	23	0	No
05:45 - 06:45	53	+	424	=	477	11	0	No
07:45 - 08:45	91	+	350	=	441	27	0	No
13:30 - 14:30	241	+	196	=	437	22	0	No
18:15 - 19:15	248	+	179	=	427	35	0	No
12:30 - 13:30	221	+	200	=	421	16	0	No
08:00 - 09:00	91		327		418	26	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

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

Only 0 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 = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**

Veh/Hr Minor = **84 42**

Major Road						Minor Road					
CSAH 9						197th Ave					
Time	Major NB	+	Major SB	=	Total		Minor EB		Minor WB		Met1A?
16:15 - 17:15	516	+	234	=	750		61		0		No
16:00 - 17:00	501	+	242	=	743		59		0		No
16:30 - 17:30	506	+	234	=	740		64		0		No
15:45 - 16:45	495	+	235	=	730		59		0		No
16:45 - 17:45	487	+	239	=	726		62		0		No
15:30 - 16:30	485	+	237	=	722		63		0		No
17:00 - 18:00	465	+	247	=	712		57		0		No
15:15 - 16:15	450	+	230	=	680		51		0		No
17:15 - 18:15	438	+	236	=	674		49		0		No
15:00 - 16:00	460	+	213	=	673		45		0		No
14:45 - 15:45	436	+	224	=	660		42		0		No
06:45 - 07:45	120		535		655		17		0		No

Time	Major NB	+	Major SB	=	Total	Minor EB		Minor WB		Met1B?
15:45 - 16:45	495	+	235	=	730	59		0		Yes
16:45 - 17:45	487	+	239	=	726	62		0		Yes
14:45 - 15:45	436	+	224	=	660	42		0		Yes
06:45 - 07:45	120	+	535	=	655	17		0		No
06:30 - 07:30	105	+	528	=	633	19		0		No
07:00 - 08:00	117	+	502	=	619	23		0		No
14:30 - 15:30	376	+	236	=	612	30		0		No
06:15 - 07:15	97	+	506	=	603	16		0		No
14:15 - 15:15	341	+	242	=	583	34		0		No
07:15 - 08:15	110	+	447	=	557	23		0		No
17:45 - 18:45	322	+	226	=	548	39		0		No
06:00 - 07:00	75		468		543	11		0		No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

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.

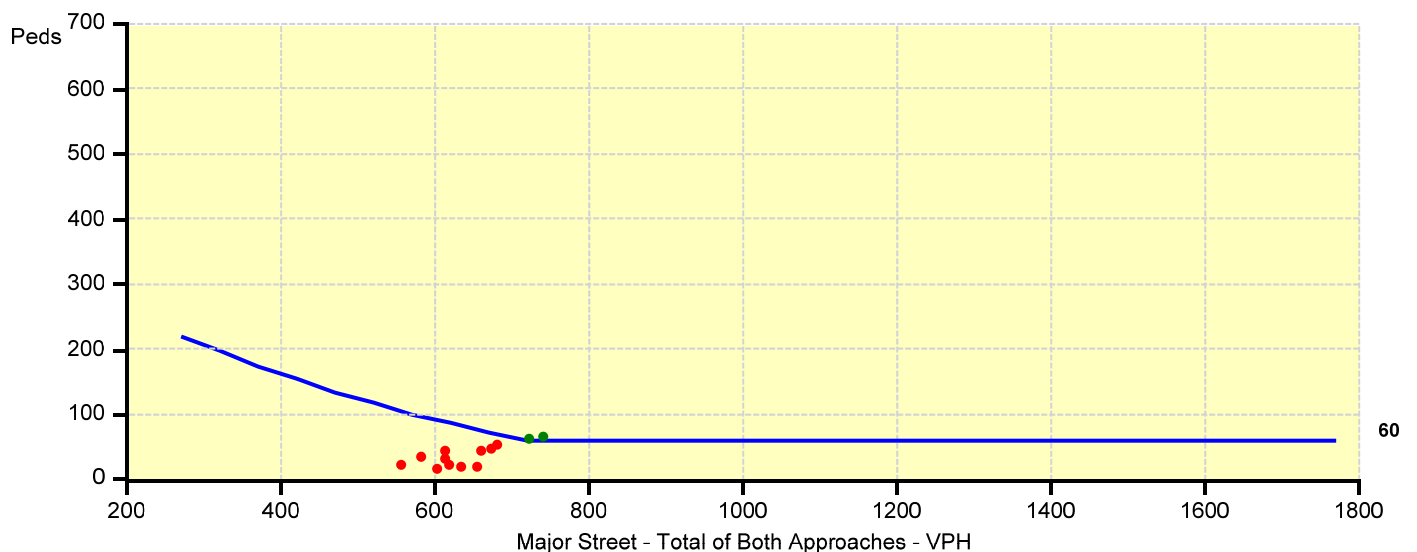
Summary

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

Site Data Required

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

Major Road CSAH 9						Minor Road 197th Ave		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:30 - 17:30	506	+	234	=	740	64	0	Yes
15:30 - 16:30	485	+	237	=	722	63	0	Yes
15:15 - 16:15	450	+	230	=	680	51	0	No
15:00 - 16:00	460	+	213	=	673	45	0	No
14:45 - 15:45	436	+	224	=	660	42	0	No
06:45 - 07:45	120	+	535	=	655	17	0	No
06:30 - 07:30	105	+	528	=	633	19	0	No
07:00 - 08:00	117	+	502	=	619	23	0	No
17:30 - 18:30	386	+	227	=	613	42	0	No
14:30 - 15:30	376	+	236	=	612	30	0	No
06:15 - 07:15	97	+	506	=	603	16	0	No
14:15 - 15:15	341	+	242	=	583	34	0	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

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.

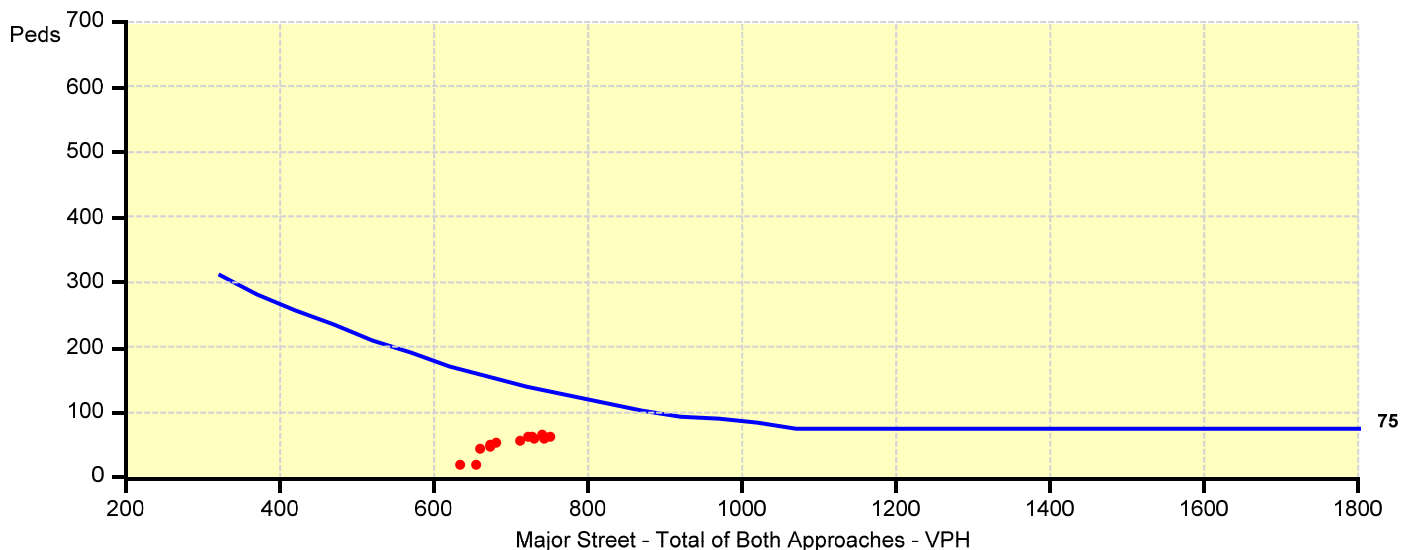
Summary

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

Site Data Required

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

Major Road CSAH 9						Minor Road 197th Ave		
Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met?
16:15 - 17:15	516	+	234	=	750	61	0	No
16:00 - 17:00	501	+	242	=	743	59	0	No
16:30 - 17:30	506	+	234	=	740	64	0	No
15:45 - 16:45	495	+	235	=	730	59	0	No
16:45 - 17:45	487	+	239	=	726	62	0	No
15:30 - 16:30	485	+	237	=	722	63	0	No
17:00 - 18:00	465	+	247	=	712	57	0	No
15:15 - 16:15	450	+	230	=	680	51	0	No
17:15 - 18:15	438	+	236	=	674	49	0	No
15:00 - 16:00	460	+	213	=	673	45	0	No
14:45 - 15:45	436	+	224	=	660	42	0	No
06:45 - 07:45	120		535		655	17	0	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2510

Study Date : 03/21/2025

Multiway Stop Warrants - Summary

Major Street Approaches

Northbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 3,857

Southbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 4,173

Minor Street Approaches

Eastbound: 197th Ave

Number of Lanes : 1

Total Approach Volume: 440

Westbound:

Number of Lanes : 2+

Total Approach Volume: 0

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..... **Not Satisfied**
Average of 8 highest hours is less than 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 is less than volume criteria.

Criteria C Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:15 - 17:15	750	585.9	61	35.6	210	140	No
15:15 - 16:15	680		51				
17:15 - 18:15	674		49				
06:45 - 07:45	655		17				
14:15 - 15:15	583		34				
05:45 - 06:45	477		11				
07:45 - 08:45	441		27				
18:15 - 19:15	427		35				
12:30 - 13:30	421		16				
11:30 - 12:30	388		20				
08:45 - 09:45	377		24				
10:00 - 11:00	346		17				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
16:15 - 17:15	750	585.9	61	35.6	240	160	No
15:15 - 16:15	680		51				
17:15 - 18:15	674		49				
06:45 - 07:45	655		17				
14:15 - 15:15	583		34				
05:45 - 06:45	477		11				
07:45 - 08:45	441		27				
18:15 - 19:15	427		35				
12:30 - 13:30	421		16				
11:30 - 12:30	388		20				
08:45 - 09:45	377		24				
10:00 - 11:00	346		17				