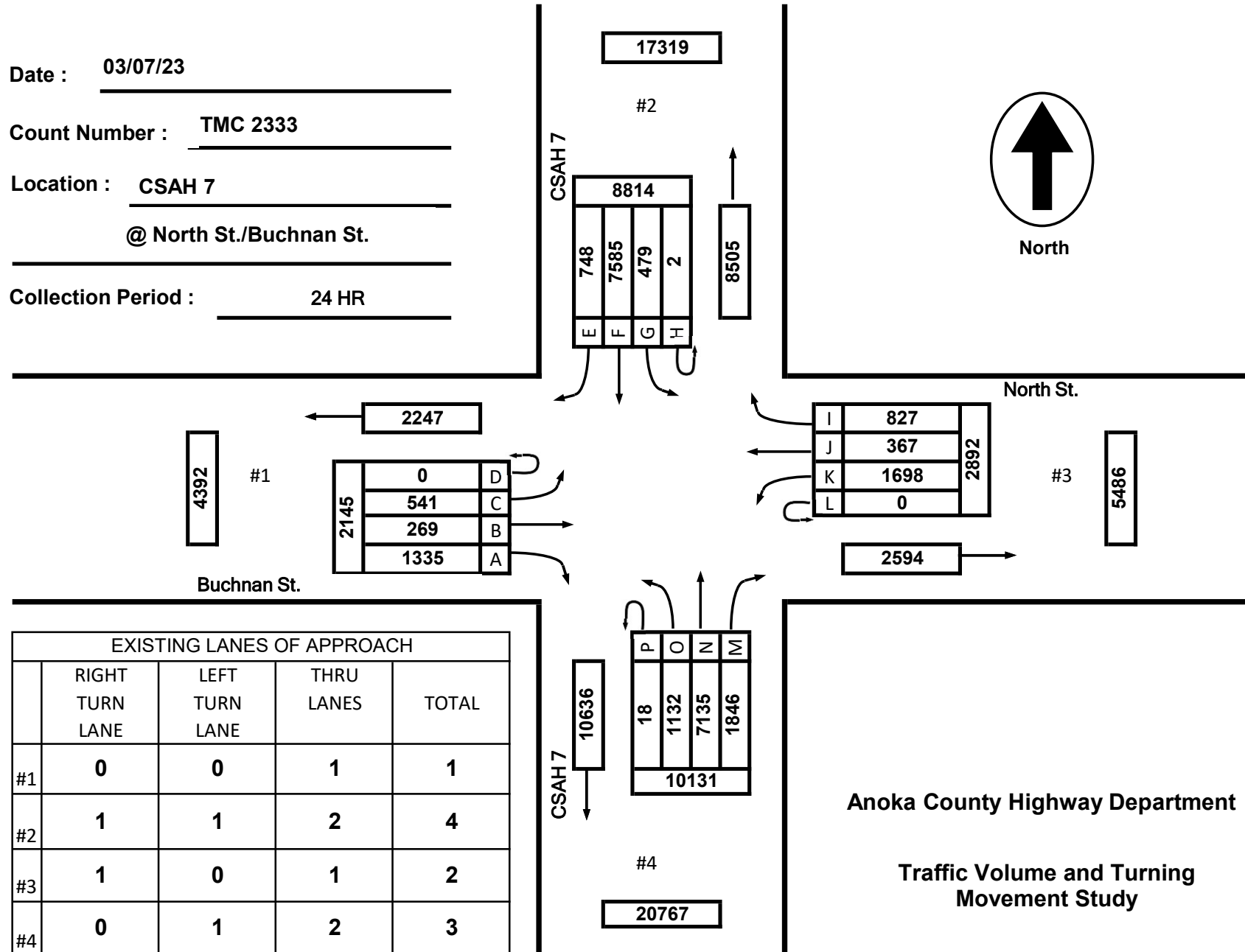


Date : 03/07/23

Count Number : TMC 2333

Location : CSAH 7
@ North St./Buchnan St.

Collection Period : 24 HR



EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	0	1	1
#2	1	1	2	4
#3	1	0	1	2
#4	0	1	2	3

Anoka County Highway Department

Traffic Volume and Turning Movement Study

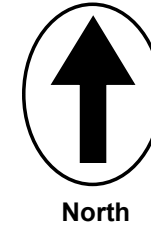
Date : 03/07/23

Count Number : TMC 2333

Location : CSAH 7
@ North St./Buchnan St.

Collection Period : 6:45 AM - 7:45 AM

AM PEAK

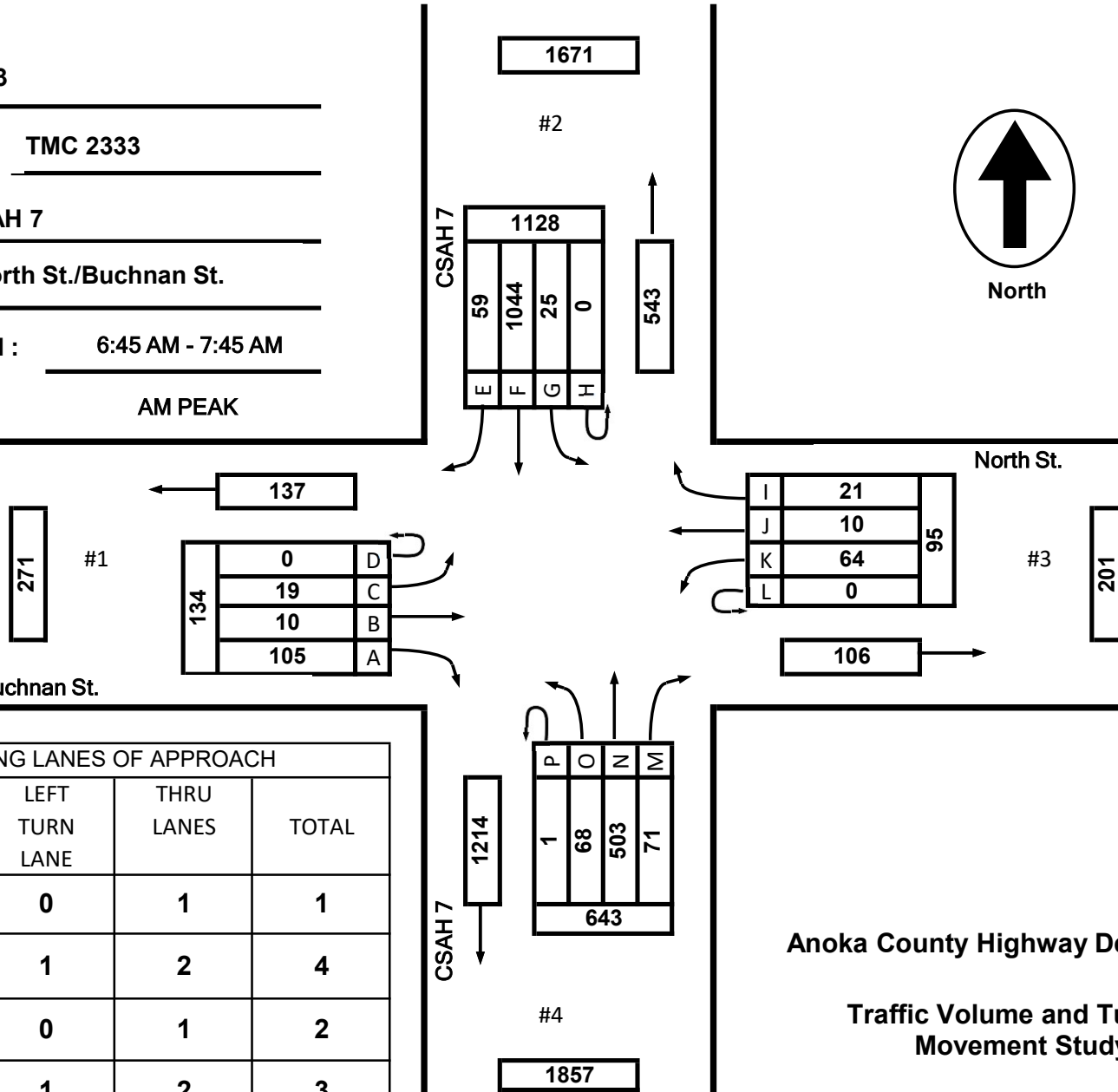


North St.

Buchnan St.

CSAH 7

EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	0	1	1
#2	1	1	2	4
#3	1	0	1	2
#4	0	1	2	3



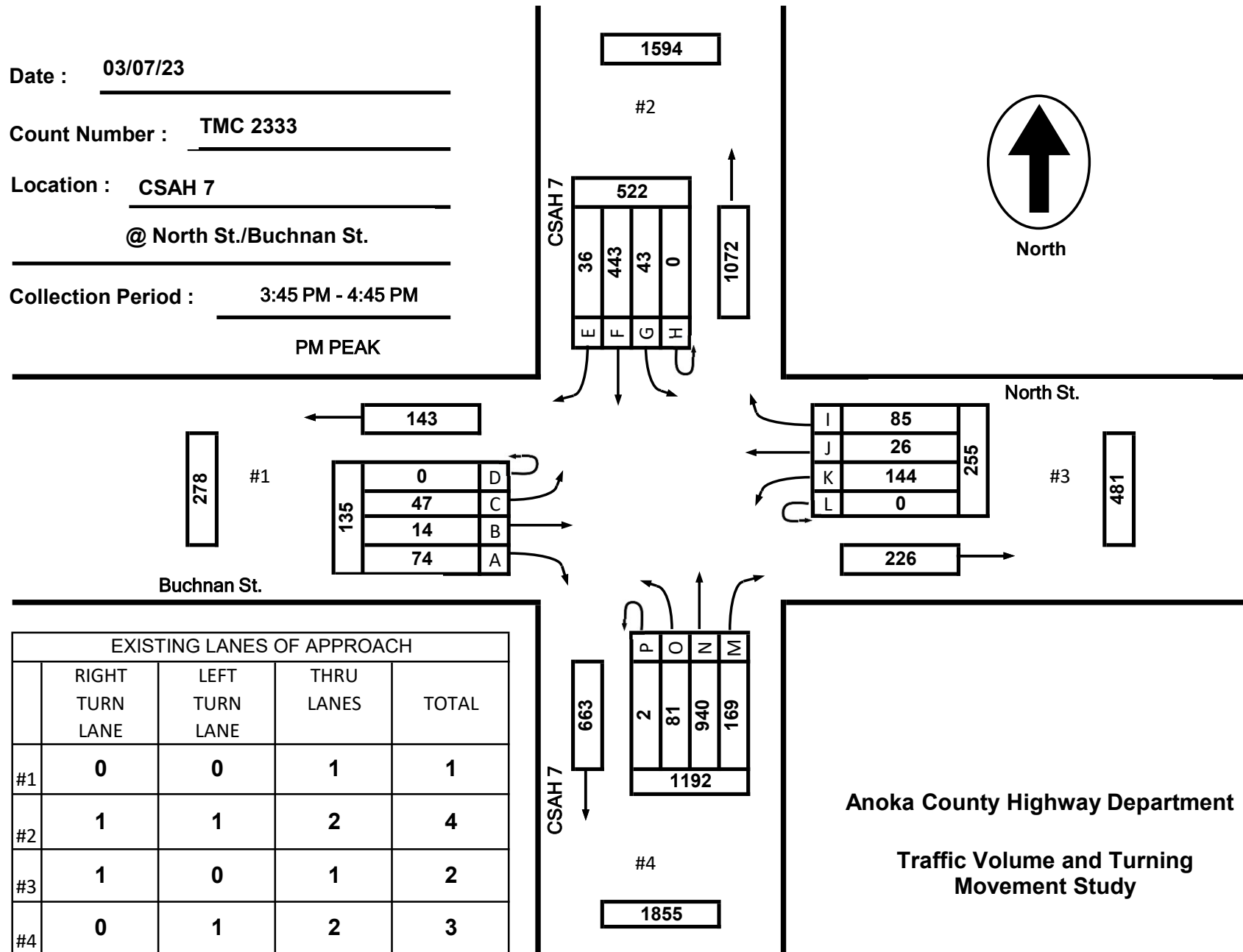
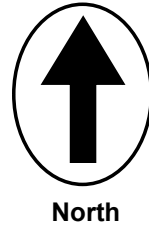
Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 03/07/23

Count Number : TMC 2333

Location : CSAH 7
@ North St./Buchnan St.

Collection Period : 3:45 PM - 4:45 PM
PM PEAK



EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	0	1	1
#2	1	1	2	4
#3	1	0	1	2
#4	0	1	2	3

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

TMC 2333 - CSAH 7 @ North St.Buchanan

0 0

Tuesday, March 7, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						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	3	4	0	7	0	7	6	2	0	15	0	6	8	1	0	15	0	3	4	9	0	16	0	3	4	9	0	16	53
12:15 AM	0	0	5	0	0	5	0	2	1	0	0	3	0	3	5	3	0	11	0	2	0	4	0	6	0	2	0	4	0	6	25
12:30 AM	0	1	2	2	0	5	0	0	0	0	0	0	0	2	5	1	0	8	0	2	1	3	0	6	0	2	1	3	0	6	19
12:45 AM	0	0	4	1	0	5	0	3	0	0	0	3	0	9	6	3	0	18	0	1	1	3	0	5	0	1	1	3	0	5	31
Hourly Total	0	1	14	7	0	22	0	12	7	2	0	21	0	20	24	8	0	52	0	8	6	19	0	33	0	8	6	19	0	33	128
1:00 AM	0	0	4	0	0	4	0	1	0	0	0	1	0	7	5	2	0	14	0	1	0	5	0	6	0	1	0	5	0	6	25
1:15 AM	0	0	2	1	0	3	0	0	0	0	0	0	0	8	6	3	0	17	0	2	1	6	0	9	0	2	1	6	0	9	29
1:30 AM	0	0	3	4	0	7	0	0	0	1	0	1	0	1	9	1	0	11	0	1	1	4	0	6	0	1	1	4	0	6	25
1:45 AM	0	0	3	1	0	4	0	0	0	0	0	0	0	1	1	0	0	2	0	2	0	4	0	6	0	2	0	4	0	6	12
Hourly Total	0	0	12	6	0	18	0	1	0	1	0	2	0	17	21	6	0	44	0	6	2	19	0	27	0	6	2	19	0	27	91
2:00 AM	0	0	2	2	0	4	0	2	1	0	0	3	0	3	4	0	0	7	0	0	1	3	0	4	0	0	1	3	0	4	18
2:15 AM	0	1	1	1	0	3	0	0	1	0	0	1	0	1	4	2	0	7	0	0	1	1	0	2	0	0	1	1	0	2	13
2:30 AM	0	0	3	1	0	4	0	1	0	0	0	1	0	1	5	1	0	7	0	1	2	0	0	3	0	1	2	0	0	3	15
2:45 AM	0	0	2	2	0	4	0	0	0	0	0	0	0	6	8	0	0	14	0	2	1	5	0	8	0	2	1	5	0	8	26
Hourly Total	0	1	8	6	0	15	0	3	2	0	0	5	0	11	21	3	0	35	0	3	5	9	0	17	0	3	5	9	0	17	72
3:00 AM	0	0	7	3	0	10	0	1	0	0	0	1	0	4	4	2	0	10	0	0	0	5	2	5	0	0	0	5	2	5	26
3:15 AM	0	1	10	3	0	14	0	0	0	0	0	0	0	5	4	3	0	12	0	1	0	5	0	6	0	1	0	5	0	6	32
3:30 AM	0	5	9	3	0	17	0	0	1	1	0	2	0	9	3	6	0	18	0	3	3	7	0	13	0	3	3	7	0	13	50
3:45 AM	0	8	22	3	0	33	0	0	0	0	0	0	0	0	7	8	0	15	0	2	0	4	0	6	0	2	0	4	0	6	54
Hourly Total	0	14	48	12	0	74	0	1	1	1	0	3	0	18	18	19	0	55	0	6	3	21	2	30	0	6	3	21	2	30	162
4:00 AM	0	2	24	5	0	31	0	2	0	0	0	2	0	3	4	2	0	9	0	1	0	6	0	7	0	1	0	6	0	7	49
4:15 AM	0	0	42	3	0	45	0	2	1	0	0	3	0	9	2	2	0	13	0	2	0	9	0	11	0	2	0	9	0	11	72
4:30 AM	0	0	54	14	0	68	0	1	0	0	0	1	0	7	1	2	0	10	0	1	0	17	0	18	0	1	0	17	0	18	97
4:45 AM	0	3	57	7	0	67	0	3	1	0	0	4	0	9	8	2	0	19	0	2	1	13	0	16	0	2	1	13	0	16	106
Hourly Total	0	5	177	29	0	211	0	8	2	0	0	10	0	28	15	8	0	51	0	6	1	45	0	52	0	6	1	45	0	52	324
5:00 AM	0	0	80	20	0	100	0	3	3	0	0	6	0	3	6	4	0	13	0	1	2	20	0	23	0	1	2	20	0	23	142
5:15 AM	0	1	102	13	0	116	0	15	0	1	0	16	0	5	13	2	0	20	0	3	1	16	0	20	0	3	1	16	0	20	172
5:30 AM	0	2	127	12	0	141	0	5	2	0	0	7	0	12	14	7	0	33	0	2	1	19	0	22	0	2	1	19	0	22	203
5:45 AM	0	6	125	22	0	153	0	6	1	0	0	7	0	10	30	22	0	62	0	4	1	26	0	31	0	4	1	26	0	31	253
Hourly Total	0	9	434	67	0	510	0	29	6	1	0	36	0	30	63	35	0	128	0	10	5	81	0	96	0	10	5	81	0	96	770
6:00 AM	0	1	156	14	0	171	0	17	3	3	0	23	0	3	29	3	0	35	0	3	1	19	0	23	0	3	1	19	0	23	252
6:15 AM	0	2	187	12	0	201	0	15	3	2	0	20	0	12	50	6	1	68	0	1	3	19	1	23	0	1	3	19	1	23	312
6:30 AM	0	5	253	19	0	277	0	15	3	2	0	20	0	7	57	18	0	82	0	5	3	16	0	24	0	5	3	16	0	24	403
6:45 AM	0	3	264	18	0	285	0	18	2	6	0	26	0	15	104	16	0	135	0	4	2	26	1	32	0	4	2	26	1	32	478
Hourly Total	0	11	860	63	0	934	0	65	11	13	0	89	0	37	240	43	1	320	0	13	9	80	2	102	0	13	9	80	2	102	1445
7:00 AM	0	11	210	14	0	235	0	12	0	5	0	17	1	15	157	15	0	188	0	3	4	25	0	32	0	3	4	25	0	32	472
7:15 AM	0	3	266	20	0	289	0	18	5	5	0	28	0	17	140	13	0	170	0	7	3	26	0	36	0	7	3	26	0	36	523
7:30 AM	0	8	304	7	0	319	0	16	3	5	0	24	0	19	102	27	0	148	0	5	1	28	0	34	0	5	1	28	0	34	525
7:45 AM	0	4	229	17	0	250	0	20	6	8	0	34	0	17	93	16	0	126	0	10	4	29	0	43	0	10	4	29	0	43	453
Hourly Total	0	26	1009	58	0	1093	0	66	14	23	0	103	1	68	492	71	0	632	0	25	12	108	0	145	0	25	12	108	0	145	1973

TMC 2333 - CSAH 7 @ North St.Buchanan

0 0

Tuesday, March 7, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						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	4	153	19	0	176	0	20	5	5	0	30	0	17	72	16	0	105	0	5	0	18	0	23	334
8:15 AM	0	10	137	13	0	160	0	18	4	12	0	34	0	17	78	21	0	116	0	7	3	22	0	32	342
8:30 AM	0	9	142	10	1	161	0	15	1	3	0	19	0	20	71	35	0	126	0	11	3	17	1	31	337
8:45 AM	0	4	129	9	0	142	0	17	2	8	1	27	0	8	81	22	0	111	0	8	2	19	0	29	309
Hourly Total	0	27	561	51	1	639	0	70	12	28	1	110	0	62	302	94	0	458	0	31	8	76	1	115	1322
9:00 AM	0	9	107	4	1	120	0	22	1	5	0	28	0	10	66	23	0	99	0	6	0	9	0	15	262
9:15 AM	0	6	105	12	1	123	0	27	2	7	0	36	0	20	75	22	0	117	0	4	2	16	1	22	298
9:30 AM	0	7	116	16	0	139	0	19	3	10	0	32	1	8	61	22	0	92	0	2	2	27	0	31	294
9:45 AM	0	5	103	10	1	118	0	24	7	6	1	37	0	12	65	29	0	106	0	8	6	21	0	35	296
Hourly Total	0	27	431	42	3	500	0	92	13	28	1	133	1	50	267	96	0	414	0	20	10	73	1	103	1150
10:00 AM	0	5	74	14	0	93	0	20	8	7	0	35	0	10	69	27	0	106	0	4	5	15	0	24	258
10:15 AM	0	7	92	10	0	109	0	20	2	6	0	28	0	15	48	23	0	86	0	7	4	16	0	27	250
10:30 AM	0	11	84	8	0	103	0	29	5	11	0	45	0	10	54	31	0	95	0	3	3	17	0	23	266
10:45 AM	0	7	84	9	0	100	0	26	4	14	1	44	0	11	73	33	1	117	0	7	1	18	1	26	287
Hourly Total	0	30	334	41	0	405	0	95	19	38	1	152	0	46	244	114	1	404	0	21	13	66	1	100	1061
11:00 AM	0	5	88	3	0	96	0	25	5	14	0	44	0	18	67	36	0	121	0	4	6	17	3	27	288
11:15 AM	0	11	83	10	0	104	0	24	4	7	0	35	0	15	58	30	0	103	0	7	4	9	0	20	262
11:30 AM	0	7	80	13	0	100	0	25	6	15	0	46	0	15	58	31	0	104	0	9	5	12	0	26	276
11:45 AM	0	14	70	7	0	91	0	26	6	12	0	44	0	18	62	42	0	122	0	11	7	21	0	39	296
Hourly Total	0	37	321	33	0	391	0	100	21	48	0	169	0	66	245	139	0	450	0	31	22	59	3	112	1122
12:00 PM	0	11	77	10	1	98	0	32	2	23	0	57	0	17	73	30	0	120	0	7	7	14	0	28	303
12:15 PM	0	9	76	12	0	97	0	43	6	18	0	67	0	17	74	33	0	124	0	5	6	21	0	32	320
12:30 PM	0	11	86	12	1	109	0	39	5	13	0	57	0	15	75	33	0	123	0	5	5	19	0	29	318
12:45 PM	0	7	87	11	1	105	0	29	6	18	0	53	0	17	68	47	0	132	0	6	3	27	0	36	326
Hourly Total	0	38	326	45	3	409	0	143	19	72	0	234	0	66	290	143	0	499	0	23	21	81	0	125	1267
1:00 PM	0	9	81	10	0	100	0	28	12	23	0	63	0	17	69	36	0	122	0	2	8	20	0	30	315
1:15 PM	0	4	89	12	0	105	0	30	7	9	0	46	0	16	105	48	0	169	0	10	3	20	0	33	353
1:30 PM	0	12	97	6	3	115	0	37	14	15	0	66	0	14	95	53	0	162	0	11	14	22	0	47	390
1:45 PM	0	13	73	8	0	94	0	33	12	12	0	57	0	15	112	67	0	194	0	3	6	14	0	23	368
Hourly Total	0	38	340	36	3	414	0	128	45	59	0	232	0	62	381	204	0	647	0	26	31	76	0	133	1426
2:00 PM	0	7	100	9	4	116	0	64	8	29	0	101	2	19	146	36	0	203	0	10	6	15	0	31	451
2:15 PM	0	17	146	14	0	177	0	51	7	21	0	79	1	15	138	33	0	187	0	11	7	20	2	38	481
2:30 PM	0	14	176	18	0	208	0	34	14	14	0	62	0	23	147	36	0	206	0	13	5	25	0	43	519
2:45 PM	0	14	113	8	0	135	0	32	9	24	0	65	1	21	155	25	0	202	0	13	10	22	0	45	447
Hourly Total	0	52	535	49	4	636	0	181	38	88	0	307	4	78	586	130	0	798	0	47	28	82	2	157	1898
3:00 PM	0	12	92	6	0	110	0	39	7	24	1	70	0	19	239	44	0	302	0	7	2	19	2	28	510
3:15 PM	0	9	120	6	1	135	0	27	7	19	0	53	1	24	224	45	0	294	0	13	4	16	1	33	515
3:30 PM	1	6	117	15	0	139	0	35	3	31	1	69	0	19	195	42	0	256	0	12	6	20	0	38	502
3:45 PM	0	17	113	7	0	137	0	33	5	11	0	49	1	21	232	49	0	303	0	8	3	17	0	28	517
Hourly Total	1	44	442	34	1	521	0	134	22	85	2	241	2	83	890	180	0	1155	0	40	15	72	3	127	2044

TMC 2333 - CSAH 7 @ North St.Buchanan

0 0

Tuesday, March 7, 2023

Time	Southbound 0						Westbound 0						Northbound 0						Eastbound 0						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	5	120	8	0	133	0	34	12	27	0	73	0	13	204	37	0	254	0	7	3	20	1	30	490
4:15 PM	0	11	104	12	0	127	0	35	5	25	0	65	0	22	250	48	0	320	0	13	1	17	0	31	543
4:30 PM	0	10	106	9	0	125	0	42	4	22	0	68	1	25	254	35	0	315	0	19	7	20	0	46	554
4:45 PM	0	3	116	9	0	128	0	30	8	21	0	59	1	17	204	46	0	268	0	13	8	16	1	37	492
Hourly Total	0	29	446	38	0	513	0	141	29	95	0	265	2	77	912	166	0	1157	0	52	19	73	2	144	2079
5:00 PM	0	8	109	3	0	120	0	35	9	24	0	68	0	15	244	32	0	291	0	10	1	12	0	23	502
5:15 PM	0	7	109	7	0	123	0	25	7	24	0	56	1	20	202	35	0	258	0	9	5	15	0	29	466
5:30 PM	0	7	89	7	0	103	0	29	11	22	0	62	0	20	156	32	0	208	0	11	5	18	0	34	407
5:45 PM	1	8	103	8	0	120	0	28	8	16	2	52	1	21	173	30	0	225	0	4	3	20	0	27	424
Hourly Total	1	30	410	25	0	466	0	117	35	86	2	238	2	76	775	129	0	982	0	34	14	65	0	113	1799
6:00 PM	0	3	95	6	0	104	0	28	5	13	0	46	0	15	109	22	0	146	0	12	2	23	0	37	333
6:15 PM	0	8	119	10	1	137	0	31	4	23	0	58	1	14	99	18	0	132	0	4	1	15	1	20	347
6:30 PM	0	5	89	11	0	105	0	27	2	9	0	38	0	12	72	17	0	101	0	4	1	20	0	25	269
6:45 PM	0	3	75	5	0	83	0	19	3	11	0	33	0	2	68	14	0	84	0	4	1	6	0	11	211
Hourly Total	0	19	378	32	1	429	0	105	14	56	0	175	1	43	348	71	0	463	0	24	5	64	1	93	1160
7:00 PM	0	6	39	4	0	49	0	13	3	7	0	23	0	13	113	19	0	145	0	7	2	8	0	17	234
7:15 PM	0	1	42	7	0	50	0	33	6	19	0	58	0	9	82	18	0	109	0	10	2	10	0	22	239
7:30 PM	0	1	40	5	5	46	0	17	2	10	1	29	1	11	61	16	0	89	0	8	1	8	1	17	181
7:45 PM	0	10	39	5	1	54	0	15	3	10	0	28	0	8	63	14	0	85	0	4	1	9	1	14	181
Hourly Total	0	18	160	21	6	199	0	78	14	46	1	138	1	41	319	67	0	428	0	29	6	35	2	70	835
8:00 PM	0	5	37	5	0	47	0	17	5	5	0	27	0	9	98	18	0	125	0	4	4	9	0	17	216
8:15 PM	0	2	33	5	0	40	0	16	4	13	0	33	1	6	53	13	0	73	0	8	3	10	0	21	167
8:30 PM	0	3	31	4	1	38	0	9	4	6	0	19	0	9	56	8	0	73	0	10	0	2	0	12	142
8:45 PM	0	3	22	4	0	29	0	10	2	4	0	16	0	6	53	6	0	65	0	7	3	14	2	24	134
Hourly Total	0	13	123	18	1	154	0	52	15	28	0	95	1	30	260	45	0	336	0	29	10	35	2	74	659
9:00 PM	0	1	17	3	1	21	0	6	2	0	0	8	0	16	43	9	1	68	0	5	1	9	0	15	112
9:15 PM	0	1	28	3	0	32	0	9	6	6	0	21	0	9	42	4	0	55	0	6	1	9	0	16	124
9:30 PM	0	1	11	0	0	12	0	4	1	7	0	12	0	10	32	11	0	53	0	6	1	6	0	13	90
9:45 PM	0	2	13	2	0	17	0	7	1	1	0	9	0	14	38	17	0	69	0	5	2	6	0	13	108
Hourly Total	0	5	69	8	1	82	0	26	10	14	0	50	0	49	155	41	1	245	0	22	5	30	0	57	434
10:00 PM	0	0	24	5	0	29	0	27	6	3	0	36	1	10	36	9	0	56	0	5	1	12	0	18	139
10:15 PM	0	2	11	4	0	17	0	6	1	4	0	11	1	8	39	5	0	53	0	5	6	11	0	22	103
10:30 PM	0	1	27	2	0	30	0	3	2	3	0	8	1	13	40	5	0	59	0	4	1	6	0	11	108
10:45 PM	0	0	20	3	0	23	0	3	3	2	0	8	0	8	49	2	0	59	0	7	1	8	0	16	106
Hourly Total	0	3	82	14	0	99	0	39	12	12	0	63	3	39	164	21	0	227	0	21	9	37	0	67	456
11:00 PM	0	0	11	4	0	15	0	7	2	3	0	12	0	10	41	3	0	54	0	2	5	3	0	10	91
11:15 PM	0	0	18	3	0	21	0	4	0	0	0	4	0	8	26	3	0	37	0	3	2	7	0	12	74
11:30 PM	0	0	29	3	0	32	0	0	1	0	0	1	0	12	22	5	0	39	0	5	3	7	0	15	87
11:45 PM	0	2	7	3	0	12	0	1	3	0	1	4	0	5	14	2	1	21	0	4	0	12	0	16	53
Hourly Total	0	2	65	13	0	80	0	12	6	3	1	21	0	35	103	13	1	151	0	14	10	29	0	53	305
DAILY TOTAL	2	479	7585	748	24	8814	0	1698	367	827	9	2892	18	1132	7135	1846	4	10131	0	541	269	1335	22	2145	23982
Cars	2	474	7415	721	22	8612	0	1659	361	820	8	2840	18	1056	6949	1803	4	9826	0	526	262	1250	18	2038	23316
Heavy Vehicles	0	5	170	27	2	202	0	39	6	7	1	52	0	76	186	43	0	305	0	15	7	85	4	107	666
Heavy Vehicle %	0.00%	1.04%	2.24%	3.61%	8.33%	2.29%	0.00%	2.30%	1.63%	0.85%	11.11%	1.80%	0.00%	6.71%	2.61%	2.33%	0.00%	3.01%	0.00%	2.77%	2.60%	6.37%	18.18%	4.99%	2.78%

TMC 2333 - CSAH 7 @ North St. Buchanan

0 0

Tuesday, March 7, 2023

AM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
6:45 AM	0	3	264	18	0	285	0	18	2	6	0	26	0	15	104	16	0	135	0	4	2	26	1	32	478
7:00 AM	0	11	210	14	0	235	0	12	0	5	0	17	1	15	157	15	0	188	0	3	4	25	0	32	472
7:15 AM	0	3	266	20	0	289	0	18	5	5	0	28	0	17	140	13	0	170	0	7	3	26	0	36	523
7:30 AM	0	8	304	7	0	319	0	16	3	5	0	24	0	19	102	27	0	148	0	5	1	28	0	34	525
Peak Hour Total	0	25	1044	59	0	1128	0	64	10	21	0	95	1	66	503	71	0	641	0	19	10	105	1	134	1998
PHF	0.000	0.568	0.859	0.738	0.000	0.884	0.000	0.889	0.500	0.875	0.000	0.848	0.250	0.868	0.801	0.657	0.000	0.852	0.000	0.679	0.625	0.938	0.250	0.931	0.951

PM Peak Hour

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
3:45 PM	0	17	113	7	0	137	0	33	5	11	0	49	1	21	232	49	0	303	0	8	3	17	0	28	517
4:00 PM	0	5	120	8	0	133	0	34	12	27	0	73	0	13	204	37	0	254	0	7	3	20	1	30	490
4:15 PM	0	11	104	12	0	127	0	35	5	25	0	65	0	22	250	48	0	320	0	13	1	17	0	31	543
4:30 PM	0	10	106	9	0	125	0	42	4	22	0	68	1	25	254	35	0	315	0	19	7	20	0	46	554
Peak Hour Total	0	43	443	36	0	522	0	144	26	85	0	255	2	81	940	169	0	1192	0	47	14	74	1	135	2104
PHF	0.000	0.632	0.923	0.750	0.000	0.953	0.000	0.857	0.542	0.787	0.000	0.873	0.500	0.810	0.925	0.862	0.000	0.931	0.000	0.618	0.500	0.925	0.250	0.734	0.949

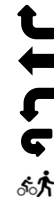
Total Vehicles On Leg				17319			
Vehicles Entering Intersection		8814		Vehicles Exiting Intersection		8505	
Southbound							
Cars	721	7415	474	2	22		
Heavy	27	170	5	0	2		
Total	748	7585	479	2	24		



Total Vehicles on Leg 4392	Vehicles Entering Intersection 2145	Eastbound	Cars	Heavy	Total	
			18	4	22	
			0	0	0	
	526		15	541		
	262		7	269		
Vehicles Exiting Intersection 2247	1250	85	1335			

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 2892 Vehicles Exiting Intersection 2594	Total Vehicles on Leg 5486
820	7	827			
361	6	367			
1659	39	1698			
0	0	0			
8	1	9			



Cars	4	18	1056	6949	1803
Heavy	0	0	76	186	43
Total	4	18	1132	7135	1846
Northbound					
Vehicles Entering Intersection			10131		
Vehicles Exiting Intersection			10636		
Total Vehicles On Leg			20767		



Time	Southbound						Westbound						Northbound						Eastbound					
	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	EB Bicycles in Crosswalk	WB Bicycles in Crosswalk	U Turns	Left Turns	Straight Through	Right Turns	NB Bicycles in Crosswalk	SB Bicycles in Crosswalk
12:00	0	0	4	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	1	0
12:15	0	0	2	1	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	0
12:30	0	0	2	1	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	0	1	1	0	0
12:45	0	0	3	0	0	0	0	1	1	0	0	0	0	1	0	2	0	0	0	0	0	3	0	0
13:00	0	0	0	1	0	0	0	1	0	0	0	0	0	7	1	0	0	0	0	0	0	2	0	0
13:15	0	1	0	0	0	0	0	1	0	0	0	0	0	1	3	3	0	0	0	0	1	2	0	0
13:30	0	0	3	0	0	0	0	1	0	0	0	0	0	1	6	2	0	0	0	0	0	2	0	0
13:45	0	0	1	0	0	0	0	0	0	0	0	0	0	1	6	2	0	0	0	0	0	3	0	0
14:00	0	0	3	0	0	0	0	2	1	0	0	0	0	1	18	1	0	0	0	1	1	0	0	0
14:15	0	0	3	1	0	0	0	4	0	0	0	0	0	1	3	1	0	0	0	0	0	3	0	0
14:30	0	1	12	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	2	0	0
14:45	0	0	3	1	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	1	1	2	0	0
15:00	0	0	1	0	0	0	0	1	0	0	0	0	0	2	4	1	0	0	0	0	0	2	1	0
15:15	0	0	2	0	0	0	0	0	0	1	0	0	0	2	17	3	0	0	0	0	0	1	1	0
15:30	0	0	1	0	0	0	0	1	0	0	0	1	0	1	4	1	0	0	0	1	0	0	0	0
15:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0
16:00	0	0	1	1	0	0	0	0	0	1	0	0	0	1	3	0	0	0	0	0	0	0	0	0
16:15	0	0	2	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0
16:30	0	0	6	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	3	0	0
16:45	0	0	12	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
17:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0
17:15	0	0	2	0	0	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
17:30	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
17:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
18:00	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
19:00	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
19:15	0	0	1	0	0	0	0	1	0	0	0	0	0	1	2	0	0	0	0	2	0	1	0	0
19:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
20:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/14/2023

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 7

Number of Lanes : 2+

Total Approach Volume: 10,131

Southbound: CSAH 7

Number of Lanes :2+

Total Approach Volume: 8,814

Minor Street Approaches

Eastbound: Buchanan St

Number of Lanes :1

Total Approach Volume: 2,145

Westbound: North St

Number of Lanes :1

Total Approach Volume: 2,892

Warrant Summary (Urban Values Apply)

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

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

Required volumes reached for 9 hours, 8 are needed

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

Required volumes reached for 10 hours, 8 are needed

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

Required 1A volumes reached for 13 hours, 8 are needed

Required 1B volumes reached for 14 hours, 8 are needed

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

Number of hours (9) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (55) 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:

Study Date : 04/14/2023

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

Veh/Hr Major = **600**

Veh/Hr Minor = **150**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 7					Buchanan St		
15:00 - 16:00	1155	+	521	=	1676	127	241	Yes
16:00 - 17:00	1157	+	513	=	1670	144	265	Yes
17:00 - 18:00	982	+	466	=	1448	113	238	Yes
14:00 - 15:00	798	+	636	=	1434	157	307	Yes
13:00 - 14:00	647	+	414	=	1061	133	232	Yes
12:00 - 13:00	499	+	409	=	908	125	234	Yes
18:00 - 19:00	463	+	429	=	892	93	175	Yes
11:00 - 12:00	450	+	391	=	841	112	169	Yes
10:00 - 11:00	404	+	405	=	809	100	152	Yes
06:45 - 07:45	641	+	1128	=	1769	134	95	No
07:00 - 08:00	632	+	1093	=	1725	145	103	No
06:30 - 07:30	575	+	1086	=	1661	124	91	No
07:15 - 08:15	549	+	1034	=	1583	136	116	No
06:15 - 07:15	473	+	998	=	1471	111	83	No
07:30 - 08:30	495	+	905	=	1400	132	122	No
06:00 - 07:00	320	+	934	=	1254	102	89	No
07:45 - 08:45	473	+	747	=	1220	129	117	No
08:00 - 09:00	458	+	639	=	1097	115	110	No
05:45 - 06:45	247	+	802	=	1049	101	70	No
08:15 - 09:15	452	+	583	=	1035	107	108	No
08:30 - 09:30	453	+	546	=	999	97	110	No
08:45 - 09:45	419	+	524	=	943	97	123	No
09:00 - 10:00	414	+	500	=	914	103	133	No
09:15 - 10:15	421	+	473	=	894	112	140	No
05:30 - 06:30	198		666		864	99	57	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/14/2023

Warrant 1B - Interruption of Continuous Traffic

Description

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

Summary

10 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

Veh/Hr Major = **900**

Veh/Hr Minor = **75**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
06:45 - 07:45	641	+	1128	=	1769	134	95	Yes
15:00 - 16:00	1155	+	521	=	1676	127	241	Yes
16:00 - 17:00	1157	+	513	=	1670	144	265	Yes
17:00 - 18:00	982	+	466	=	1448	113	238	Yes
14:00 - 15:00	798	+	636	=	1434	157	307	Yes
07:45 - 08:45	473	+	747	=	1220	129	117	Yes
13:00 - 14:00	647	+	414	=	1061	133	232	Yes
05:45 - 06:45	247	+	802	=	1049	101	70	Yes
08:45 - 09:45	419	+	524	=	943	97	123	Yes
12:00 - 13:00	499	+	409	=	908	125	234	Yes
18:00 - 19:00	463	+	429	=	892	93	175	No
11:45 - 12:45	489	+	395	=	884	128	225	No
05:30 - 06:30	198	+	666	=	864	99	57	No
11:30 - 12:30	470	+	386	=	856	125	214	No
10:45 - 11:45	445	+	400	=	845	99	169	No
11:15 - 12:15	449	+	393	=	842	113	182	No
11:00 - 12:00	450	+	391	=	841	112	169	No
10:30 - 11:30	436	+	403	=	839	96	168	No
18:15 - 19:15	462	+	374	=	836	73	152	No
10:15 - 11:15	419	+	408	=	827	103	161	No
09:45 - 10:45	393	+	423	=	816	109	145	No
10:00 - 11:00	404	+	405	=	809	100	152	No
05:15 - 06:15	150	+	581	=	731	96	53	No
18:30 - 19:30	439	+	287	=	726	75	152	No
18:45 - 19:45	427		228		655	67	143	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/14/2023

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

13 hours meet 1A minimums.
14 hours meet 1B minimums.
Warrant IS met.

Site Data Required

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

Volume Requirements

Warrant 1A 1B
Veh/Hr Major = **480 720**

Veh/Hr Minor = **120 60**

Major Road CSAH 7

Minor Road Buchanan St

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
15:45 - 16:45	1192	+	522	=	1714	135	255	Yes
06:30 - 07:30	575	+	1086	=	1661	124	91	Yes
14:45 - 15:45	1054	+	519	=	1573	144	257	Yes
16:45 - 17:45	1025	+	474	=	1499	123	245	Yes
07:30 - 08:30	495	+	905	=	1400	132	122	Yes
13:45 - 14:45	790	+	595	=	1385	135	299	Yes
17:45 - 18:45	604	+	466	=	1070	109	194	Yes
12:45 - 13:45	585	+	425	=	1010	146	228	Yes
08:45 - 09:45	419	+	524	=	943	97	123	Yes
11:45 - 12:45	489	+	395	=	884	128	225	Yes
10:45 - 11:45	445	+	400	=	845	99	169	Yes
09:45 - 10:45	393	+	423	=	816	109	145	Yes

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	1194	+	500	=	1694	137	260	Yes
15:15 - 16:15	1107	+	544	=	1651	129	244	Yes
07:15 - 08:15	549	+	1034	=	1583	136	116	Yes
14:15 - 15:15	897	+	630	=	1527	154	276	Yes
06:15 - 07:15	473	+	998	=	1471	111	83	Yes
17:15 - 18:15	837	+	450	=	1287	127	216	Yes
13:15 - 14:15	728	+	430	=	1158	134	270	Yes
08:15 - 09:15	452	+	583	=	1035	107	108	Yes
12:15 - 13:15	501	+	411	=	912	127	240	Yes
09:15 - 10:15	421	+	473	=	894	112	140	Yes
11:15 - 12:15	449	+	393	=	842	113	182	Yes
18:15 - 19:15	462	+	374	=	836	73	152	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/14/2023

Warrant 2 - Four Hour Volumes

Description

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

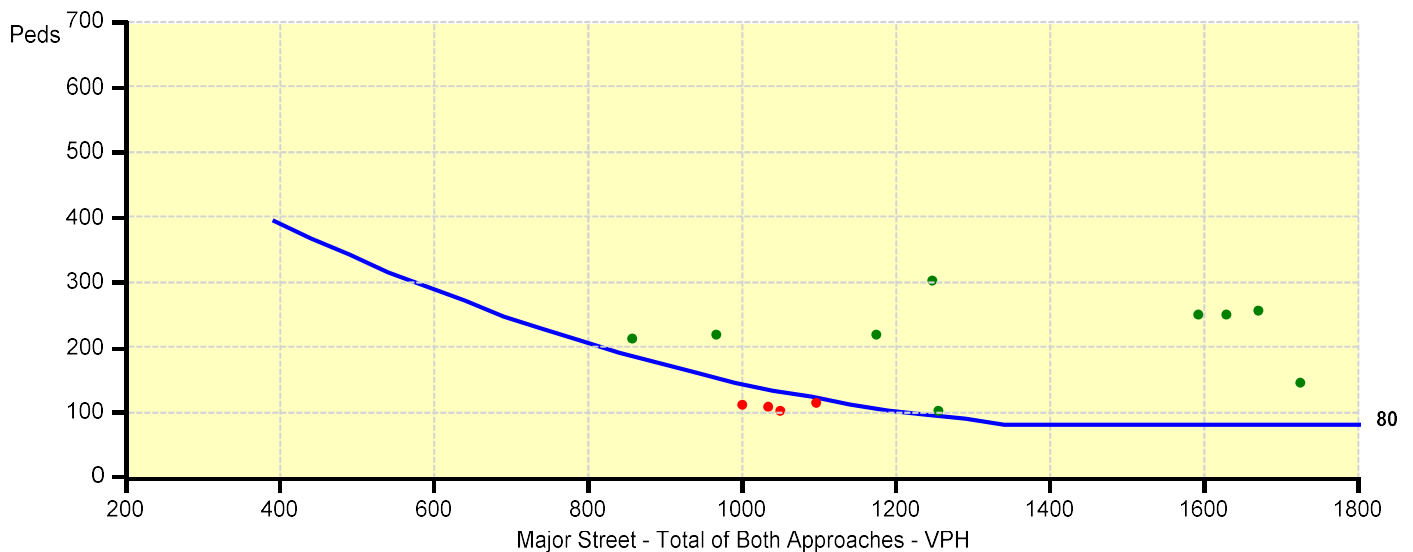
Summary

9 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road CSAH 7				Total	Minor Road Buchanan St		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
07:00 - 08:00	632	+	1093	=	1725	145	103	Yes
15:30 - 16:30	1133	+	536	=	1669	127	256	Yes
16:30 - 17:30	1132	+	496	=	1628	135	251	Yes
14:30 - 15:30	1004	+	588	=	1592	149	250	Yes
06:00 - 07:00	320	+	934	=	1254	102	89	Yes
13:30 - 14:30	746	+	502	=	1248	139	303	Yes
17:30 - 18:30	711	+	464	=	1175	118	218	Yes
12:30 - 13:30	546	+	419	=	965	128	219	Yes
11:30 - 12:30	470	+	386	=	856	125	214	Yes
08:00 - 09:00	458	+	639	=	1097	115	110	No
05:45 - 06:45	247	+	802	=	1049	101	70	No
08:15 - 09:15	452	+	583	=	1035	107	108	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/14/2023

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

Summary

21 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road CSAH 7				Total	Minor Road Buchanan St		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
06:45 - 07:45	641	+	1128	=	1769	134	95	Yes
07:00 - 08:00	632	+	1093	=	1725	145	103	Yes
15:45 - 16:45	1192	+	522	=	1714	135	255	Yes
16:15 - 17:15	1194	+	500	=	1694	137	260	Yes
15:00 - 16:00	1155	+	521	=	1676	127	241	Yes
16:00 - 17:00	1157	+	513	=	1670	144	265	Yes
15:30 - 16:30	1133	+	536	=	1669	127	256	Yes
06:30 - 07:30	575	+	1086	=	1661	124	91	Yes
15:15 - 16:15	1107	+	544	=	1651	129	244	Yes
16:30 - 17:30	1132	+	496	=	1628	135	251	Yes
14:30 - 15:30	1004	+	588	=	1592	149	250	Yes
07:15 - 08:15	549	+	1034	=	1583	136	116	Yes

