

Date : 03/07/23

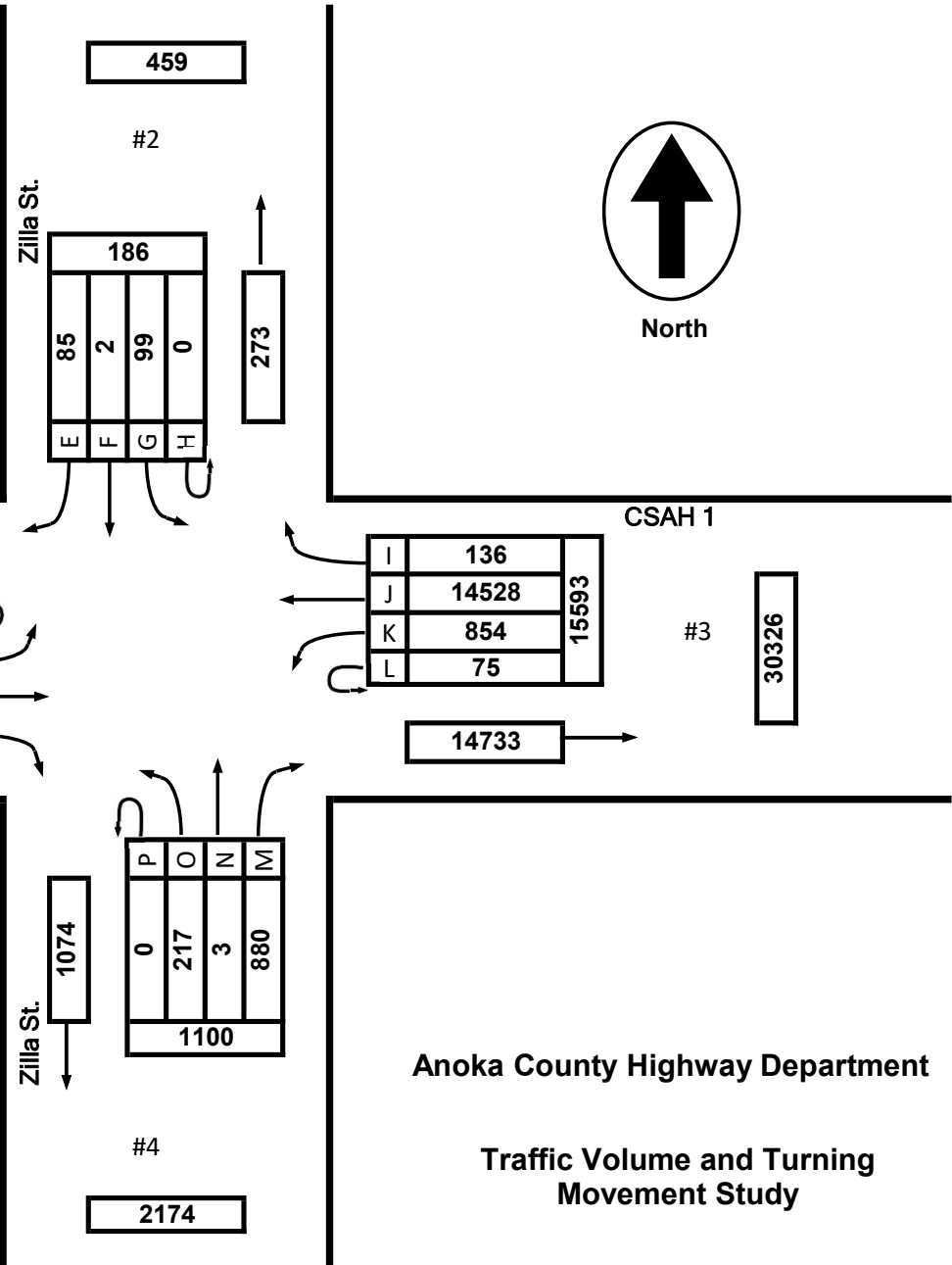
Count Number : TMC 2329

Location : CSAH 1
@ Zilla St.

Collection Period : 24 HR



North



EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	3	5
#2	0	1	1	2
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

Traffic Volume and Turning Movement Study

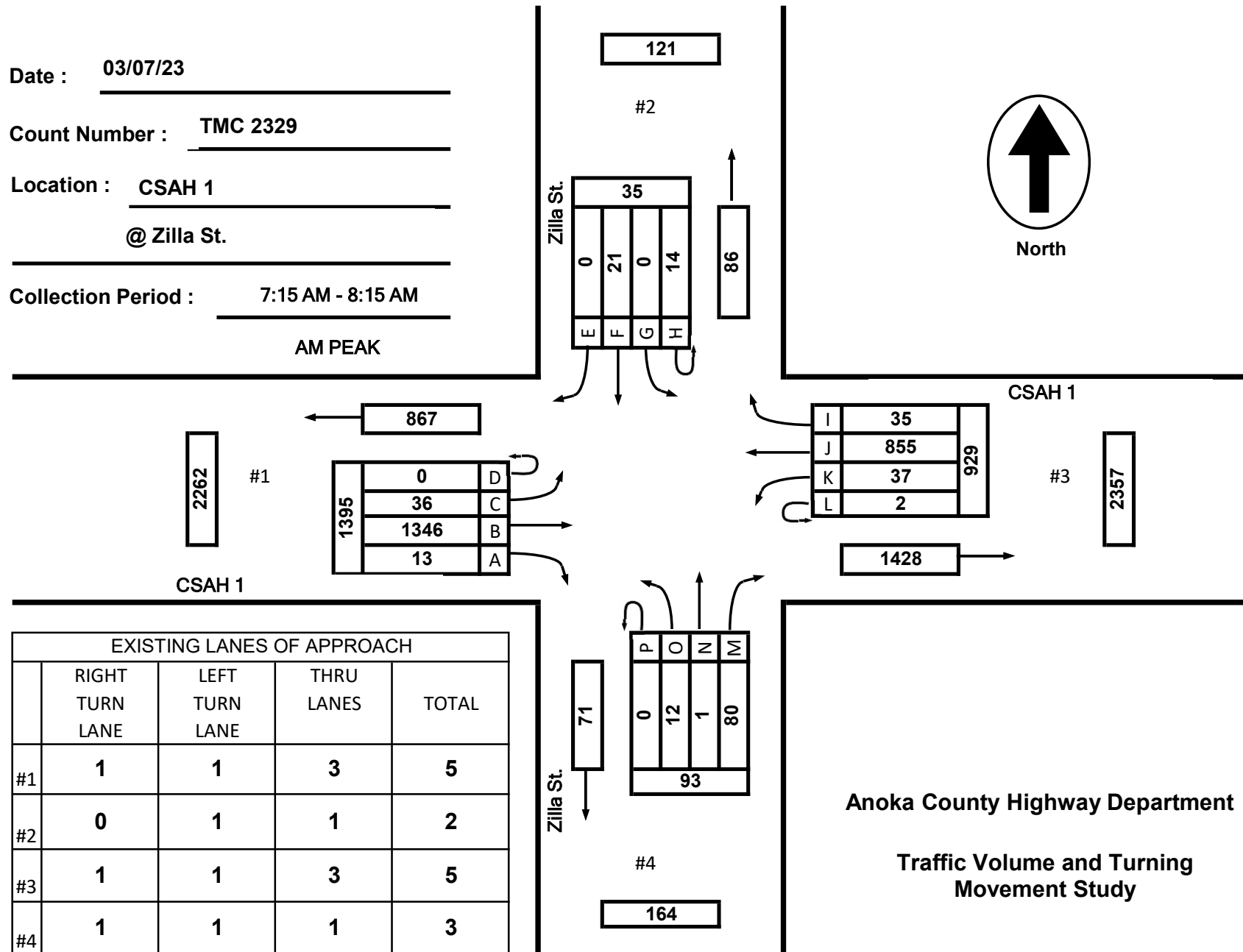
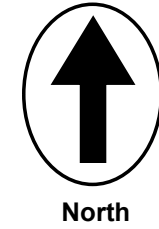
Date : 03/07/23

Count Number : TMC 2329

Location : CSAH 1
@ Zilla St.

Collection Period : 7:15 AM - 8:15 AM

AM PEAK



CSAH 1

CSAH 1

EXISTING LANES OF APPROACH

	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	1	1	3	5
#2	0	1	1	2
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department

Traffic Volume and Turning Movement Study

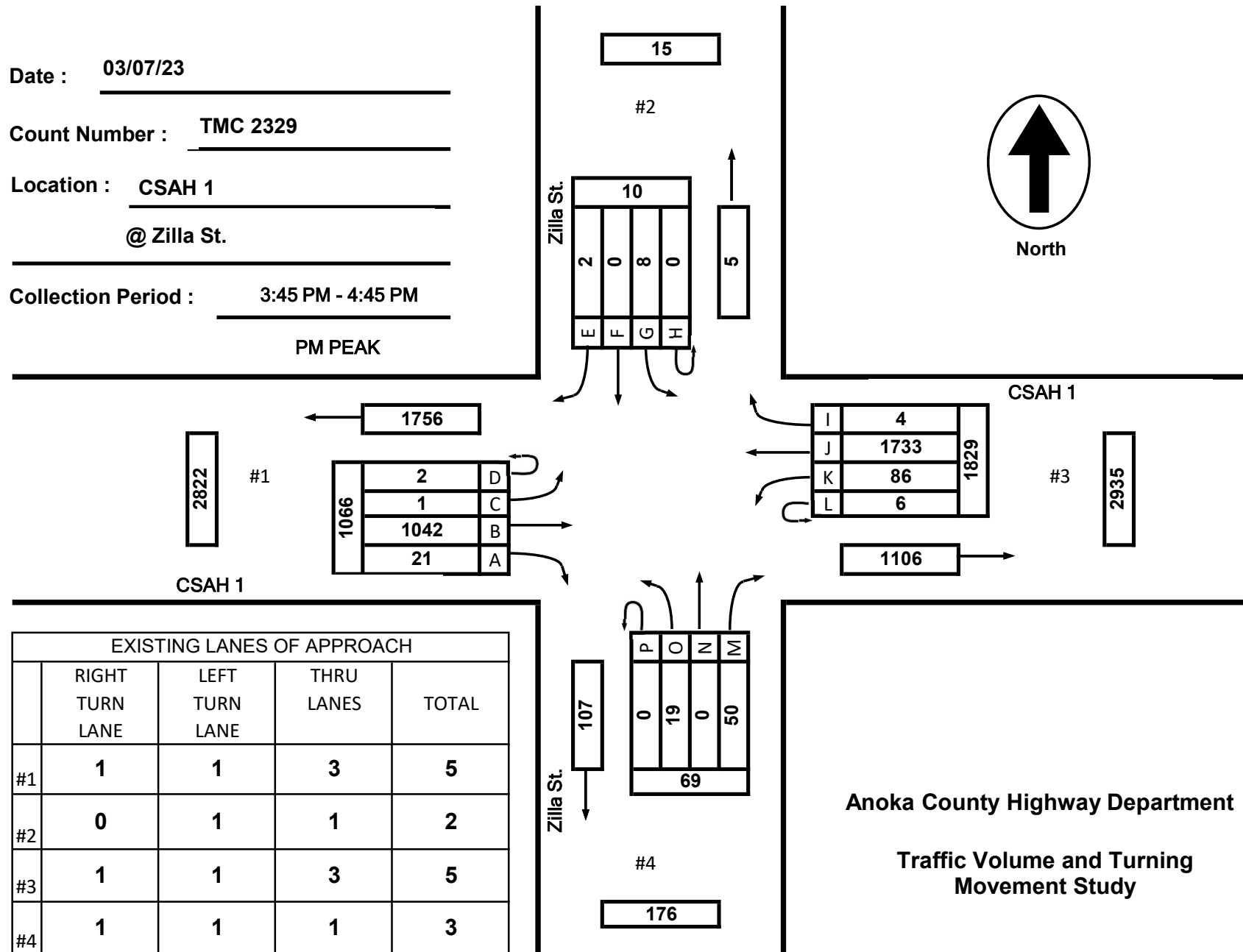
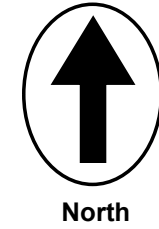
Date : 03/07/23

Count Number : TMC 2329

Location : CSAH 1
@ Zilla 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	1	1	3	5
#2	0	1	1	2
#3	1	1	3	5
#4	1	1	1	3

Anoka County Highway Department
Traffic Volume and Turning Movement Study

TMC 2329 - CSAH 1 @ Zilla St

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	0	0	0	0	1	0	26	0	0	27	0	0	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	43
12:15 AM	0	0	0	0	0	0	0	3	29	0	0	32	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	42
12:30 AM	0	0	0	0	0	0	0	3	23	0	0	26	0	0	0	1	0	1	0	0	15	0	0	15	0	0	0	0	0	0	42
12:45 AM	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	1	0	1	0	0	6	0	0	6	0	0	0	0	0	0	20
Hourly Total	0	0	0	0	0	0	1	7	90	0	0	98	0	0	0	2	0	2	0	0	47	0	0	47	0	0	0	0	0	0	147
1:00 AM	0	0	0	0	0	0	0	1	14	0	0	15	0	0	0	1	0	1	1	0	9	0	0	10	0	0	0	0	0	0	26
1:15 AM	0	0	0	0	0	0	0	1	11	0	0	12	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	23
1:30 AM	0	0	0	0	0	0	0	1	15	0	0	16	0	1	0	1	0	2	0	0	9	0	0	9	0	0	0	0	0	0	27
1:45 AM	0	0	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	23
Hourly Total	0	0	0	0	0	0	0	4	55	0	0	59	0	1	0	2	0	3	1	0	36	0	0	37	0	0	0	0	0	0	99
2:00 AM	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	18
2:15 AM	0	0	0	0	0	0	1	1	16	0	0	18	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	23
2:30 AM	0	0	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	20
2:45 AM	0	0	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	18
Hourly Total	0	0	0	0	0	0	1	2	46	0	0	49	0	0	0	0	0	0	0	0	30	0	0	30	0	0	0	0	0	0	79
3:00 AM	0	0	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	0	0	13	0	0	13	0	0	0	0	0	0	26
3:15 AM	0	0	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	28
3:30 AM	0	0	0	0	0	0	0	2	16	0	0	18	0	1	0	0	0	1	0	0	33	0	0	33	0	0	0	0	0	0	52
3:45 AM	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	1	0	1	0	0	21	0	0	21	0	0	0	0	0	0	32
Hourly Total	0	0	0	0	0	0	0	3	48	0	0	51	0	1	0	1	0	2	0	0	85	0	0	85	0	0	0	0	0	0	138
4:00 AM	0	0	0	0	0	0	0	1	16	0	0	17	0	0	0	2	0	2	0	2	33	0	0	35	0	0	0	0	0	0	54
4:15 AM	0	0	0	0	0	0	0	3	11	0	0	14	0	1	0	3	0	4	0	0	49	0	0	49	0	0	0	0	0	0	67
4:30 AM	0	0	0	1	0	1	0	1	18	0	0	19	0	1	0	5	0	6	0	0	93	0	0	93	0	0	0	0	0	0	119
4:45 AM	0	0	0	0	0	0	0	2	15	0	0	17	0	0	0	3	0	3	0	0	73	3	0	76	0	0	0	0	0	0	96
Hourly Total	0	0	0	1	0	1	0	7	60	0	0	67	0	2	0	13	0	15	0	2	248	3	0	253	0	0	0	0	0	0	336
5:00 AM	0	0	0	0	0	0	0	2	17	0	0	19	0	2	0	5	0	7	0	0	109	2	0	111	0	0	0	0	0	0	137
5:15 AM	0	0	0	0	0	0	0	1	20	0	0	21	0	0	0	11	0	11	0	0	127	0	0	127	0	0	0	0	0	0	159
5:30 AM	0	0	0	0	0	0	0	1	37	0	0	38	0	0	0	9	0	9	0	0	165	5	0	170	0	0	0	0	0	0	217
5:45 AM	0	0	0	0	0	0	0	0	50	0	0	50	0	0	0	12	0	12	0	0	165	4	0	169	0	0	0	0	0	0	231
Hourly Total	0	0	0	0	0	0	0	4	124	0	0	128	0	2	0	37	0	39	0	0	566	11	0	577	0	0	0	0	0	0	744
6:00 AM	0	0	0	0	0	0	0	7	46	1	0	54	0	1	0	9	0	10	0	0	194	2	0	196	0	0	0	0	0	0	260
6:15 AM	0	0	0	0	0	0	0	7	70	1	0	78	0	0	0	15	0	15	0	0	225	6	0	231	0	0	0	0	0	0	324
6:30 AM	0	0	0	0	0	0	0	5	105	0	0	110	0	2	0	20	0	22	0	1	293	5	0	299	0	0	0	0	0	0	431
6:45 AM	0	0	0	0	0	0	0	10	149	2	0	161	0	4	0	16	0	20	0	2	274	3	0	279	0	0	0	0	0	0	460
Hourly Total	0	0	0	0	0	0	0	29	370	4	0	403	0	7	0	60	0	67	0	3	986	16	0	1005	0	0	0	0	0	0	1475
7:00 AM	0	0	0	0	0	0	0	6	161	6	0	173	0	5	0	21	0	26	0	4	312	1	0	317	0	0	0	0	0	0	516
7:15 AM	0	1	0	0	0	1	1	4	186	7	0	198	0	8	0	23	0	31	0	3	359	1	0	363	0	0	0	0	0	0	593
7:30 AM	0	4	0	4	0	8	0	11	216	11	0	238	0	2	1	19	0	22	0	6	386	5	0	397	0	0	0	0	0	0	665
7:45 AM	0	8	0	5	0	13	0	14	269	8	0	291	0	2	0	19	0	21	0	18	307	5	0	330	0	0	0	0	0	0	655
Hourly Total	0	13	0	9	0	22	1	35	832	32	0	900	0	17	1	82	0	100	0	31	1364	12	0	1407	0	0	0	0	0	0	2429

TMC 2329 - CSAH 1 @ Zilla St

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	8	0	5	0	13	1	8	184	9	0	202	0	0	0	19	0	19	0	9	294	2	0	305	539
8:15 AM	0	3	0	1	0	4	0	10	170	2	0	182	0	4	0	16	1	20	0	6	230	1	1	237	443
8:30 AM	0	2	0	1	0	3	1	7	154	1	0	163	0	1	0	16	0	17	0	6	226	3	0	235	418
8:45 AM	0	2	0	3	0	5	0	2	189	4	0	195	0	0	0	15	0	15	1	2	235	3	0	241	456
Hourly Total	0	15	0	10	0	25	2	27	697	16	0	742	0	5	0	66	1	71	1	23	985	9	1	1018	1856
9:00 AM	0	2	0	2	0	4	1	9	159	5	1	174	0	1	0	11	0	12	2	5	220	3	0	230	420
9:15 AM	0	1	1	2	0	4	0	5	196	3	0	204	0	2	0	16	2	18	2	4	189	2	0	197	423
9:30 AM	0	0	0	1	0	1	1	11	156	3	0	171	0	1	0	7	0	8	0	4	178	1	0	183	363
9:45 AM	0	0	0	1	0	1	0	7	193	2	0	202	0	0	0	11	0	11	0	2	182	3	0	187	401
Hourly Total	0	3	1	6	0	10	2	32	704	13	1	751	0	4	0	45	2	49	4	15	769	9	0	797	1607
10:00 AM	0	0	0	0	0	0	2	6	155	1	0	164	0	4	0	14	0	18	1	2	155	3	0	161	343
10:15 AM	0	0	0	0	0	0	1	9	147	1	0	158	0	4	0	9	0	13	0	0	162	3	0	165	336
10:30 AM	0	0	0	2	0	2	1	6	154	3	0	164	0	2	0	15	0	17	2	1	155	2	1	160	343
10:45 AM	0	1	0	0	0	1	3	9	168	0	0	180	0	1	0	8	0	9	1	1	177	1	0	180	370
Hourly Total	0	1	0	2	0	3	7	30	624	5	0	666	0	11	0	46	0	57	4	4	649	9	1	666	1392
11:00 AM	0	1	0	0	0	1	1	9	168	0	0	178	0	3	0	9	0	12	1	2	180	3	0	186	377
11:15 AM	0	0	0	2	0	2	1	11	164	2	0	178	0	2	0	13	0	15	4	1	192	4	0	201	396
11:30 AM	0	0	0	2	0	2	3	8	168	0	0	179	0	3	0	13	0	16	0	2	184	1	0	187	384
11:45 AM	0	1	0	2	1	3	1	11	173	1	1	186	0	5	0	6	1	11	3	1	168	6	0	178	378
Hourly Total	0	2	0	6	1	8	6	39	673	3	1	721	0	13	0	41	1	54	8	6	724	14	0	752	1535
12:00 PM	0	1	0	2	0	3	5	12	168	3	0	188	0	4	0	10	0	14	1	1	170	3	1	175	380
12:15 PM	0	1	0	3	0	4	4	18	221	3	0	246	0	6	0	16	0	22	2	0	168	1	1	171	443
12:30 PM	0	1	0	0	0	1	3	15	203	1	0	222	0	5	0	14	0	19	2	1	195	1	0	199	441
12:45 PM	0	3	0	1	0	4	0	17	216	0	0	233	0	5	0	17	0	22	2	2	179	4	1	187	446
Hourly Total	0	6	0	6	0	12	12	62	808	7	0	889	0	20	0	57	0	77	7	4	712	9	3	732	1710
1:00 PM	0	1	0	1	1	2	1	11	174	1	0	187	0	5	0	13	0	18	1	1	201	4	0	207	414
1:15 PM	0	1	0	1	0	2	1	8	194	1	1	204	0	3	0	14	0	17	2	3	192	4	0	201	424
1:30 PM	0	2	0	1	0	3	1	10	240	4	1	255	0	3	0	13	0	16	1	3	181	5	0	190	464
1:45 PM	0	0	0	1	1	1	1	11	214	13	0	239	0	6	0	15	0	21	1	16	206	4	0	227	488
Hourly Total	0	4	0	4	2	8	4	40	822	19	2	885	0	17	0	55	0	72	5	23	780	17	0	825	1790
2:00 PM	0	18	0	18	0	36	1	11	229	6	0	247	0	5	1	24	0	30	0	12	181	6	0	199	512
2:15 PM	0	2	0	2	0	4	1	19	292	5	0	317	0	6	0	10	0	16	0	4	226	11	2	241	578
2:30 PM	0	0	0	1	0	1	0	20	278	2	0	300	0	4	0	12	0	16	2	1	241	7	0	251	568
2:45 PM	0	1	0	1	1	2	2	15	296	2	0	315	0	8	0	25	0	33	0	0	218	1	0	219	569
Hourly Total	0	21	0	22	1	43	4	65	1095	15	0	1179	0	23	1	71	0	95	2	17	866	25	2	910	2227
3:00 PM	0	16	0	2	0	18	1	13	317	1	0	332	0	2	0	24	0	26	1	1	244	1	0	247	623
3:15 PM	0	2	1	5	0	8	1	13	356	3	0	373	0	7	0	14	0	21	0	0	245	2	0	247	649
3:30 PM	0	4	0	1	0	5	3	24	374	2	0	403	0	6	0	11	0	17	0	0	264	1	0	265	690
3:45 PM	0	3	0	0	0	3	3	23	429	1	0	456	0	4	0	15	0	19	0	0	254	5	0	259	737
Hourly Total	0	25	1	8	0	34	8	73	1476	7	0	1564	0	19	0	64	0	83	1	1	1007	9	0	1018	2699

TMC 2329 - CSAH 1 @ Zilla St
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	2	0	1	0	3	1	23	428	0	0	452	0	1	0	8	0	9	0	1	253	5	0	259	723
4:15 PM	0	3	0	0	0	3	2	16	464	2	0	484	0	9	0	13	0	22	1	0	279	9	0	289	798
4:30 PM	0	0	0	1	0	1	0	24	412	1	0	437	0	5	0	14	0	19	1	0	256	2	0	259	716
4:45 PM	0	0	0	0	0	0	4	23	403	0	0	430	0	2	0	13	0	15	0	0	221	3	0	224	669
Hourly Total	0	5	0	2	0	7	7	86	1707	3	0	1803	0	17	0	48	0	65	2	1	1009	19	0	1031	2906
5:00 PM	0	0	0	1	0	1	2	13	429	3	0	447	0	2	0	16	0	18	1	0	235	3	1	239	705
5:15 PM	0	0	0	2	0	2	2	31	410	2	0	445	0	4	0	14	0	18	0	0	206	2	0	208	673
5:30 PM	0	0	0	0	0	0	0	23	333	0	0	356	0	2	1	19	0	22	0	0	184	3	0	187	565
5:45 PM	0	0	0	0	0	0	3	22	304	1	0	330	0	2	0	9	0	11	0	0	166	4	0	170	511
Hourly Total	0	0	0	3	0	3	7	89	1476	6	0	1578	0	10	1	58	0	69	1	0	791	12	1	804	2454
6:00 PM	0	0	0	0	0	0	0	13	264	1	0	278	0	4	0	13	0	17	0	0	195	1	0	196	491
6:15 PM	0	0	0	0	0	0	2	13	233	0	0	248	0	4	0	10	0	14	0	0	156	1	0	157	419
6:30 PM	0	1	0	2	0	3	0	16	264	1	0	281	0	3	0	11	0	14	0	0	150	1	0	151	449
6:45 PM	0	0	0	0	0	0	0	17	171	1	0	189	0	2	0	8	0	10	0	0	139	1	0	140	339
Hourly Total	0	1	0	2	0	3	2	59	932	3	0	996	0	13	0	42	0	55	0	0	640	4	0	644	1698
7:00 PM	0	0	0	0	0	0	0	8	166	0	0	174	0	2	0	3	0	5	0	0	130	8	0	138	317
7:15 PM	0	0	0	0	0	0	0	12	149	0	0	161	0	1	0	7	0	8	0	0	99	2	0	101	270
7:30 PM	0	1	0	0	0	1	1	15	135	2	0	153	0	0	0	9	0	9	1	0	105	2	0	108	271
7:45 PM	0	0	0	0	0	0	1	9	108	0	0	118	0	2	0	7	0	9	0	0	98	7	0	105	232
Hourly Total	0	1	0	0	0	1	2	44	558	2	0	606	0	5	0	26	0	31	1	0	432	19	0	452	1090
8:00 PM	0	0	0	0	0	0	0	14	142	0	0	156	0	4	0	5	0	9	1	0	113	1	0	115	280
8:15 PM	0	0	0	1	0	1	0	10	132	0	0	142	0	1	0	7	0	8	0	1	99	2	0	102	253
8:30 PM	0	0	0	1	0	1	1	10	121	0	0	132	0	0	0	5	0	5	0	1	79	1	0	81	219
8:45 PM	0	0	0	0	0	0	1	12	114	0	0	127	0	3	0	4	0	7	0	0	75	2	0	77	211
Hourly Total	0	0	0	2	0	2	2	46	509	0	0	557	0	8	0	21	0	29	1	2	366	6	0	375	963
9:00 PM	0	0	0	0	0	0	0	7	89	0	0	96	0	1	0	3	0	4	0	0	71	1	0	72	172
9:15 PM	0	0	0	0	0	0	1	12	94	0	0	107	0	0	0	1	0	1	0	0	66	0	0	66	174
9:30 PM	0	0	0	0	0	0	1	8	96	0	0	105	0	3	0	4	0	7	0	0	72	1	0	73	185
9:45 PM	0	0	0	0	0	0	1	1	84	0	0	86	0	3	0	9	0	12	0	0	63	4	0	67	165
Hourly Total	0	0	0	0	0	0	3	28	363	0	0	394	0	7	0	17	0	24	0	0	272	6	0	278	696
10:00 PM	0	0	0	0	0	0	1	8	91	0	0	100	0	2	0	3	0	5	0	0	56	5	0	61	166
10:15 PM	0	0	0	0	0	0	2	7	72	0	0	81	0	2	0	2	0	4	0	0	59	3	0	62	147
10:30 PM	0	0	0	0	0	0	0	6	73	0	0	79	0	1	0	8	0	9	0	0	41	0	0	41	129
10:45 PM	0	0	0	1	0	1	1	4	52	1	0	58	0	7	0	5	0	12	0	1	38	1	0	40	111
Hourly Total	0	0	0	1	0	1	4	25	288	1	0	318	0	12	0	18	0	30	0	1	194	9	0	204	553
11:00 PM	0	0	0	1	0	1	0	6	54	0	0	60	0	3	0	2	0	5	0	1	38	0	0	39	105
11:15 PM	0	2	0	0	0	2	0	6	44	0	0	50	0	0	0	2	0	2	0	0	28	0	0	28	82
11:30 PM	0	0	0	0	0	0	0	1	39	0	0	40	0	0	0	2	0	2	0	0	29	0	0	29	71
11:45 PM	0	0	0	0	0	0	0	5	34	0	0	39	0	0	0	2	0	2	0	0	26	0	0	26	67
Hourly Total	0	2	0	1	0	3	0	18	171	0	0	189	0	3	0	8	0	11	0	1	121	0	0	122	325
DAILY TOTAL	0	99	2	85	4	186	75	854	14528	136	4	15593	0	217	3	880	4	1100	38	134	13679	218	8	14069	30948
Cars	0	92	2	83	4	177	74	843	14265	129	4	15311	0	212	3	860	4	1075	38	121	13420	212	8	13791	30354
Heavy Vehicles	0	7	0	2	0	9	1	11	263	7	0	282	0	5	0	20	0	25	0	13	259	6	0	278	594
Heavy Vehicle %	0.00%	7.07%	0.00%	2.35%	0.00%	4.84%	1.33%	1.29%	1.81%	5.15%	0.00%	1.81%	0.00%	2.30%	0.00%	2.27%	0.00%	2.27%	0.00%	9.70%	1.89%	2.75%	0.00%	1.98%	1.92%

TMC 2329 - CSAH 1 @ Zilla St

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	
7:15 AM	0	1	0	0	0	1	1	4	186	7	0	198	0	8	0	23	0	31	0	3	359	1	0	363	593
7:30 AM	0	4	0	4	0	8	0	11	216	11	0	238	0	2	1	19	0	22	0	6	386	5	0	397	665
7:45 AM	0	8	0	5	0	13	0	14	269	8	0	291	0	2	0	19	0	21	0	18	307	5	0	330	655
8:00 AM	0	8	0	5	0	13	1	8	184	9	0	202	0	0	0	19	0	19	0	9	294	2	0	305	539
Peak Hour Total PHF	0	21	0	14	0	35	2	37	855	35	0	929	0	12	1	80	0	93	0	36	1346	13	0	1395	2452
	0.000	0.656	0.000	0.700	0.000	0.673	0.500	0.661	0.795	0.795	0.000	0.798	0.000	0.375	0.250	0.870	0.000	0.750	0.000	0.500	0.872	0.650	0.000	0.878	0.922

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	3	0	0	0	3	3	23	429	1	0	456	0	4	0	15	0	19	0	0	254	5	0	259	737
4:00 PM	0	2	0	1	0	3	1	23	428	0	0	452	0	1	0	8	0	9	0	1	253	5	0	259	723
4:15 PM	0	3	0	0	0	3	2	16	464	2	0	484	0	9	0	13	0	22	1	0	279	9	0	289	798
4:30 PM	0	0	0	1	0	1	0	24	412	1	0	437	0	5	0	14	0	19	1	0	256	2	0	259	716
Peak Hour Total PHF	0	8	0	2	0	10	6	86	1733	4	0	1829	0	19	0	50	0	69	2	1	1042	21	0	1066	2974
	0.000	0.667	0.000	0.500	0.000	0.833	0.500	0.896	0.934	0.500	0.000	0.945	0.000	0.528	0.000	0.833	0.000	0.784	0.500	0.250	0.934	0.583	0.000	0.922	0.932

Total Vehicles On Leg		459					
Vehicles Entering Intersection		186		Vehicles Exiting Intersection		273	
Southbound							
Cars	83	2	92	0	4		
Heavy	2	0	7	0	0		
Total	85	2	99	0	4		



Total Vehicles on Leg 28937	Vehicles Entering Intersection	Eastbound	Cars	Heavy	Total	
	14069		8	0	8	
			38	0	38	
			121	13	134	
			13420	259	13679	
Vehicles Exiting Intersection	212	6	218			
14868						

Daily Volumes

Cars	Heavy	Total	Westbound	Vehicles Entering Intersection 15593	Total Vehicles on Leg 30326
129	7	136			
14265	263	14528			
843	11	854			
74	1	75			
4	0	4		Vehicles Exiting Intersection 14733	



Cars	4	0	212	3	860
Heavy	0	0	5	0	20
Total	4	0	217	3	880
Northbound					
Vehicles Entering Intersection			1100		
Vehicles Exiting Intersection			1074		
Total Vehicles On Leg		2174			

Heavy Vehicles

Date	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
03/7/2023	0:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0:30	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0:45	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	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	2:45	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	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	3:45	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15	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	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	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
	5:15	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	5:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	6:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
	6:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
	6:45	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	2	0	0	0	0	5	0	0	0
	7:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	0	0	6	0	0	0
	7:15	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0
	7:30	0	1	0	0	0	0	0	0	7	1	0	0	0	0	0	1	0	0	0	1	5	0	0	0
	7:45	0	0	0	1	0	0	0	1	5	1	0	0	0	0	0	0	0	0	0	3	9	2	0	0
	8:00	0	1	0	0	0	0	0	0	6	0	0	0	0	0	0	1	0	0	0	1	11	0	0	0
	8:15	0	1	0	0	0	0	0	1	6	0	0	0	0	0	1	0	0	0	0	0	6	0	0	0
	8:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	2	0	0	0	0	8	1	0	0
	8:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
	9:00	0	1	0	0	0	0	1	0	6	1	0	0	0	0	0	1	0	0	0	0	8	0	0	0
	9:15	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
	9:30	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
	9:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
	10:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
	10:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0
	10:30	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	6	0	0	0
	10:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0
	11:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0
	11:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0
	11:30	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0
	11:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/13/2023

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 1

Number of Lanes : 2+

Total Approach Volume: 14,069

Westbound: CSAH 1

Number of Lanes :2+

Total Approach Volume: 15,593

Minor Street Approaches

Northbound: Zilla St

Number of Lanes :1

Total Approach Volume: 1,100

Southbound: Zilla St

Number of Lanes :1

Total Approach Volume: 186

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 0 hours, 8 are needed

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

Required volumes reached for 13 hours, 8 are needed

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

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

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

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

Number of hours (10) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (1) 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 : 04/13/2023

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

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

Site Data Required

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

Volume Requirements

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

Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:45 - 16:45	1066	+	1829	=	2895	69	10	No
15:30 - 16:30	1072	+	1795	=	2867	67	14	No
16:00 - 17:00	1031	+	1803	=	2834	65	7	No
16:15 - 17:15	1011	+	1798	=	2809	74	5	No
15:15 - 16:15	1030	+	1684	=	2714	66	19	No
16:30 - 17:30	930	+	1759	=	2689	70	4	No
15:00 - 16:00	1018	+	1564	=	2582	83	34	No
16:45 - 17:45	858	+	1678	=	2536	73	3	No
14:45 - 15:45	978	+	1423	=	2401	97	33	No
17:00 - 18:00	804	+	1578	=	2382	69	3	No
07:15 - 08:15	1395	+	929	=	2324	93	35	No
07:00 - 08:00	1407	+	900	=	2307	100	22	No
14:30 - 15:30	964	+	1320	=	2284	96	29	No
14:15 - 15:15	958	+	1264	=	2222	91	25	No
07:30 - 08:30	1269	+	913	=	2182	82	38	No
17:15 - 18:15	761	+	1409	=	2170	68	2	No
06:45 - 07:45	1356	+	770	=	2126	99	9	No
14:00 - 15:00	910	+	1179	=	2089	95	43	No
13:45 - 14:45	918	+	1103	=	2021	83	42	No
07:45 - 08:45	1107	+	838	=	1945	77	33	No
17:30 - 18:30	710	+	1212	=	1922	64	0	No
13:30 - 14:30	857	+	1058	=	1915	83	44	No
06:30 - 07:30	1258	+	642	=	1900	99	1	No
17:45 - 18:45	674	+	1137	=	1811	56	3	No
13:15 - 14:15	817		945		1762	84	42	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/13/2023

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

13 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 = **1**

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **630**
 Veh/Hr Minor = **53**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	1031	+	1803	=	2834	65	7	Yes
15:00 - 16:00	1018	+	1564	=	2582	83	34	Yes
17:00 - 18:00	804	+	1578	=	2382	69	3	Yes
06:45 - 07:45	1356	+	770	=	2126	99	9	Yes
14:00 - 15:00	910	+	1179	=	2089	95	43	Yes
07:45 - 08:45	1107	+	838	=	1945	77	33	Yes
13:00 - 14:00	825	+	885	=	1710	72	8	Yes
18:00 - 19:00	644	+	996	=	1640	55	3	Yes
12:00 - 13:00	732	+	889	=	1621	77	12	Yes
08:45 - 09:45	851	+	744	=	1595	53	14	Yes
11:00 - 12:00	752	+	721	=	1473	54	8	Yes
09:45 - 10:45	673	+	688	=	1361	59	3	Yes
05:45 - 06:45	895	+	292	=	1187	59	0	Yes
10:45 - 11:45	754	+	715	=	1469	52	6	No
19:00 - 20:00	452	+	606	=	1058	31	1	No
19:15 - 20:15	429	+	588	=	1017	35	1	No
19:30 - 20:30	430	+	569	=	999	35	2	No
05:30 - 06:30	766	+	220	=	986	46	0	No
19:45 - 20:45	403	+	548	=	951	31	2	No
20:00 - 21:00	375	+	557	=	932	29	2	No
20:15 - 21:15	332	+	497	=	829	24	2	No
05:15 - 06:15	662	+	163	=	825	42	0	No
20:30 - 21:30	296	+	462	=	758	17	1	No
20:45 - 21:45	288	+	435	=	723	19	0	No
05:00 - 06:00	577		128		705	39	0	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/13/2023

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

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

Site Data Required

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

Volume Requirements

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

Veh/Hr Minor = **84 42**

Time	Major Road				Total	Minor Road		Met1A?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
14:15 - 15:15	958	+	1264	=	2222	91	25	Yes
06:30 - 07:30	1258	+	642	=	1900	99	1	Yes
13:15 - 14:15	817	+	945	=	1762	84	42	Yes
15:45 - 16:45	1066	+	1829	=	2895	69	10	No
15:30 - 16:30	1072	+	1795	=	2867	67	14	No
16:00 - 17:00	1031	+	1803	=	2834	65	7	No
16:15 - 17:15	1011	+	1798	=	2809	74	5	No
15:15 - 16:15	1030	+	1684	=	2714	66	19	No
16:30 - 17:30	930	+	1759	=	2689	70	4	No
16:45 - 17:45	858	+	1678	=	2536	73	3	No
17:00 - 18:00	804	+	1578	=	2382	69	3	No
07:30 - 08:30	1269		913		2182	82	38	No

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	1011	+	1798	=	2809	74	5	Yes
15:15 - 16:15	1030	+	1684	=	2714	66	19	Yes
07:15 - 08:15	1395	+	929	=	2324	93	35	Yes
14:15 - 15:15	958	+	1264	=	2222	91	25	Yes
17:15 - 18:15	761	+	1409	=	2170	68	2	Yes
13:15 - 14:15	817	+	945	=	1762	84	42	Yes
08:15 - 09:15	943	+	714	=	1657	64	16	Yes
12:15 - 13:15	764	+	888	=	1652	81	11	Yes
06:15 - 07:15	1126	+	522	=	1648	83	0	Yes
18:15 - 19:15	586	+	892	=	1478	43	3	Yes
11:15 - 12:15	741	+	731	=	1472	56	10	Yes
09:15 - 10:15	728		741		1469	55	6	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/13/2023

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.

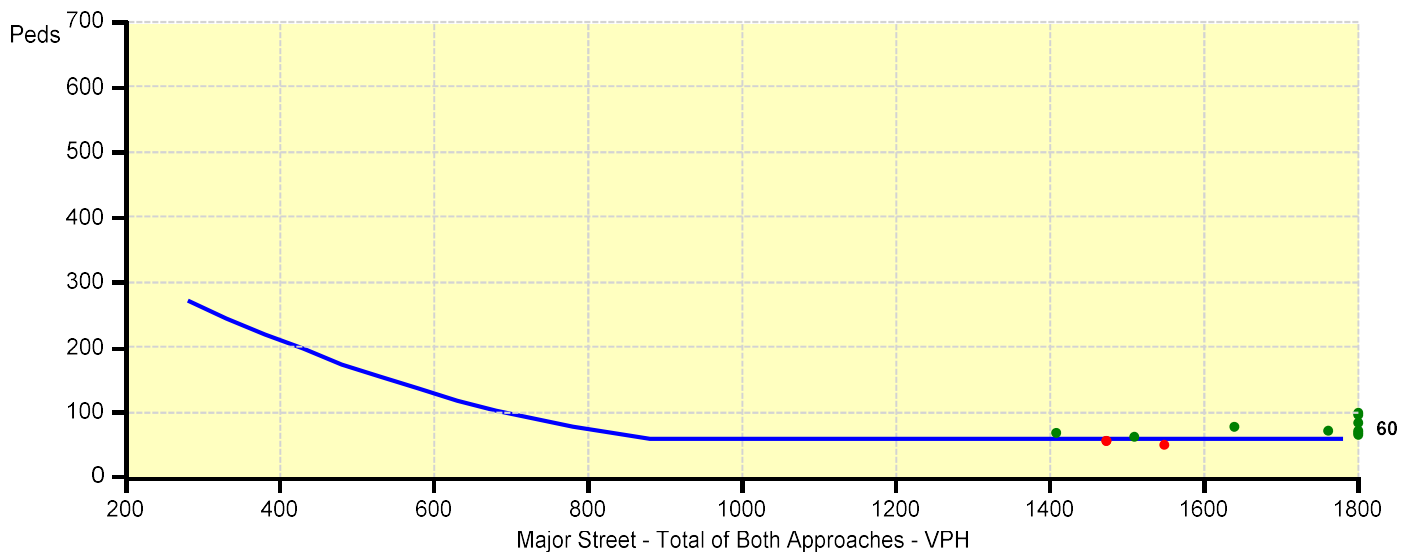
Summary

10 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 = **1**

Time	Major Road CSAH 1				Total	Minor Road Zilla St		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:30 - 16:30	1072	+	1795	=	2867	67	14	Yes
16:30 - 17:30	930	+	1759	=	2689	70	4	Yes
07:00 - 08:00	1407	+	900	=	2307	100	22	Yes
14:30 - 15:30	964	+	1320	=	2284	96	29	Yes
17:30 - 18:30	710	+	1212	=	1922	64	0	Yes
13:30 - 14:30	857	+	1058	=	1915	83	44	Yes
08:00 - 09:00	1018	+	742	=	1760	71	25	Yes
12:30 - 13:30	794	+	846	=	1640	76	9	Yes
11:30 - 12:30	711	+	799	=	1510	63	12	Yes
06:00 - 07:00	1005	+	403	=	1408	67	0	Yes
09:00 - 10:00	797	+	751	=	1548	49	10	No
11:00 - 12:00	752	+	721	=	1473	54	8	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 04/13/2023

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

18 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 = **1**

Time	Major Road CSAH 1				Total	Minor Road Zilla St		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
15:00 - 16:00	1018	+	1564	=	2582	83	34	Yes
14:45 - 15:45	978	+	1423	=	2401	97	33	Yes
07:15 - 08:15	1395	+	929	=	2324	93	35	Yes
07:00 - 08:00	1407	+	900	=	2307	100	22	Yes
14:30 - 15:30	964	+	1320	=	2284	96	29	Yes
14:15 - 15:15	958	+	1264	=	2222	91	25	Yes
07:30 - 08:30	1269	+	913	=	2182	82	38	Yes
06:45 - 07:45	1356	+	770	=	2126	99	9	Yes
14:00 - 15:00	910	+	1179	=	2089	95	43	Yes
13:45 - 14:45	918	+	1103	=	2021	83	42	Yes
07:45 - 08:45	1107	+	838	=	1945	77	33	Yes
13:30 - 14:30	857	+	1058	=	1915	83	44	Yes

