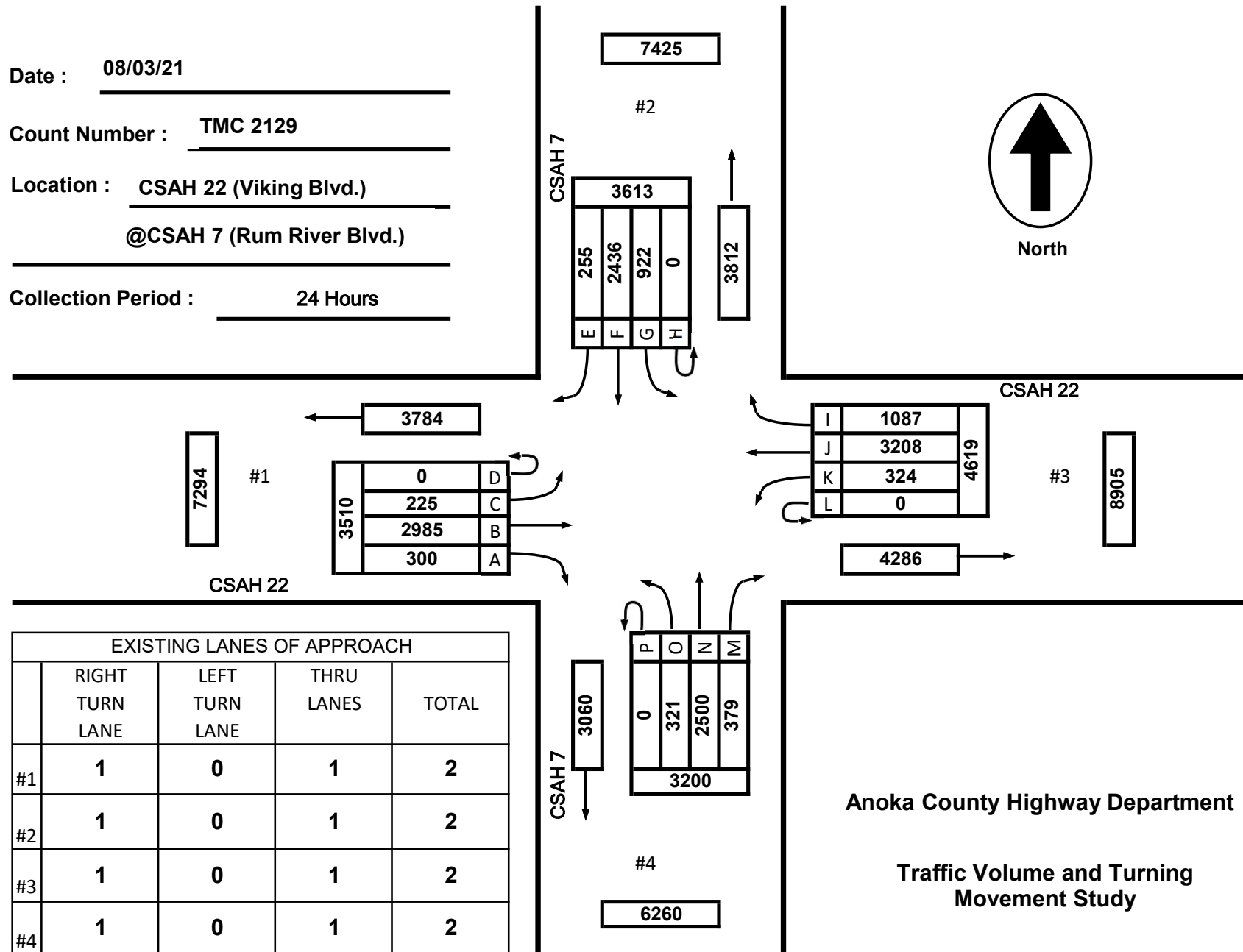


Date : 08/03/21

Count Number : TMC 2129

Location : CSAH 22 (Viking Blvd.)
@CSAH 7 (Rum River Blvd.)

Collection Period : 24 Hours



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

Anoka County Highway Department
 Traffic Volume and Turning Movement Study

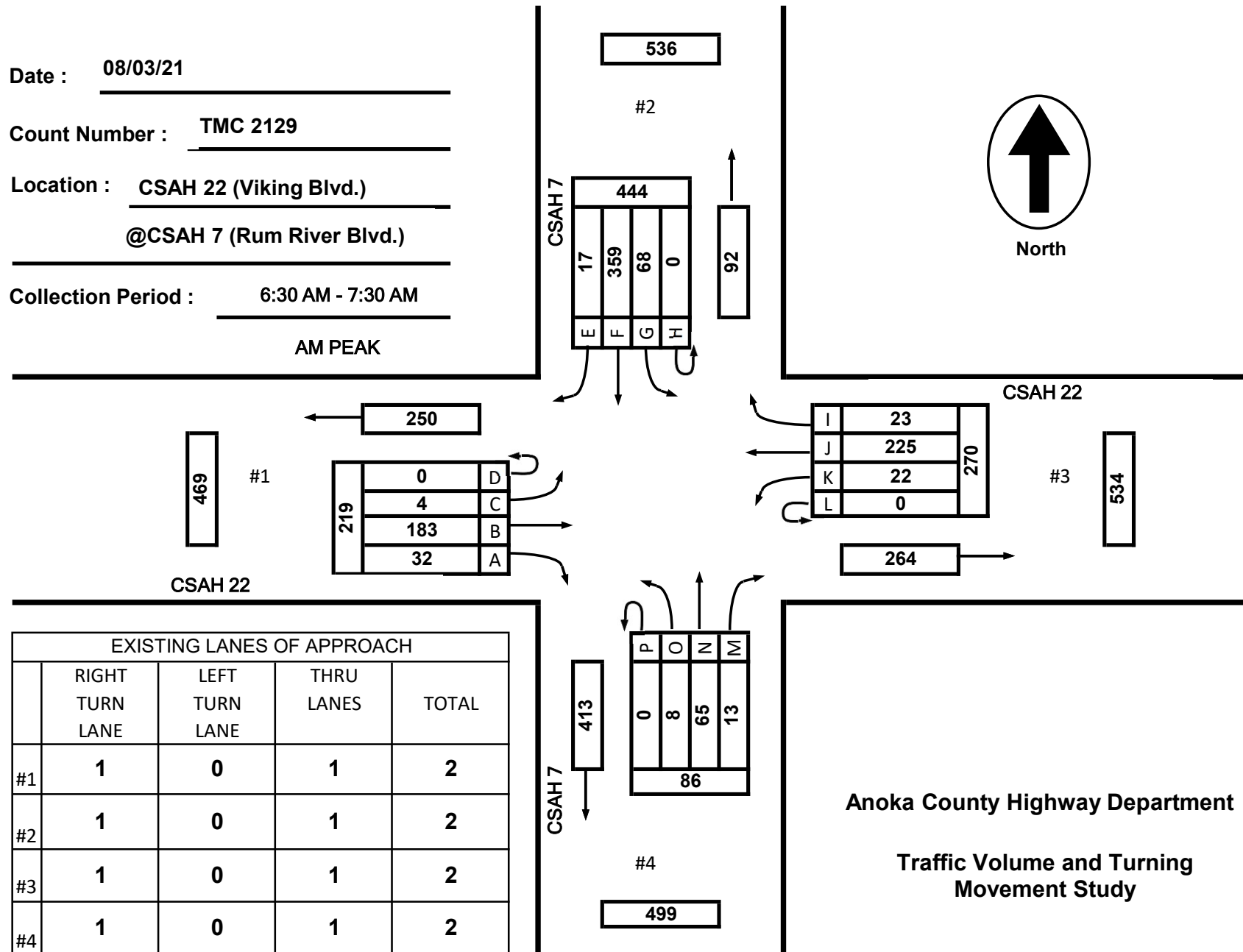
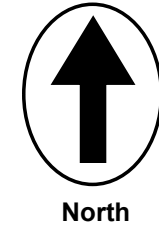
Date : 08/03/21

Count Number : TMC 2129

Location : CSAH 22 (Viking Blvd.)
@CSAH 7 (Rum River Blvd.)

Collection Period : 6:30 AM - 7:30 AM

AM PEAK



469 #1

219	0	D
	4	C
	183	B
	32	A

536 #2

CSAH 7	17	359	68	0	444
	E	F	G	H	
	92				
	↑				

CSAH 22

I	23	270
J	225	
K	22	
L	0	

#3 534

CSAH 22

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

413 #4

P	O	N	N	86
0	8	65	13	
↑				
↓				

499

Anoka County Highway Department

Traffic Volume and Turning Movement Study

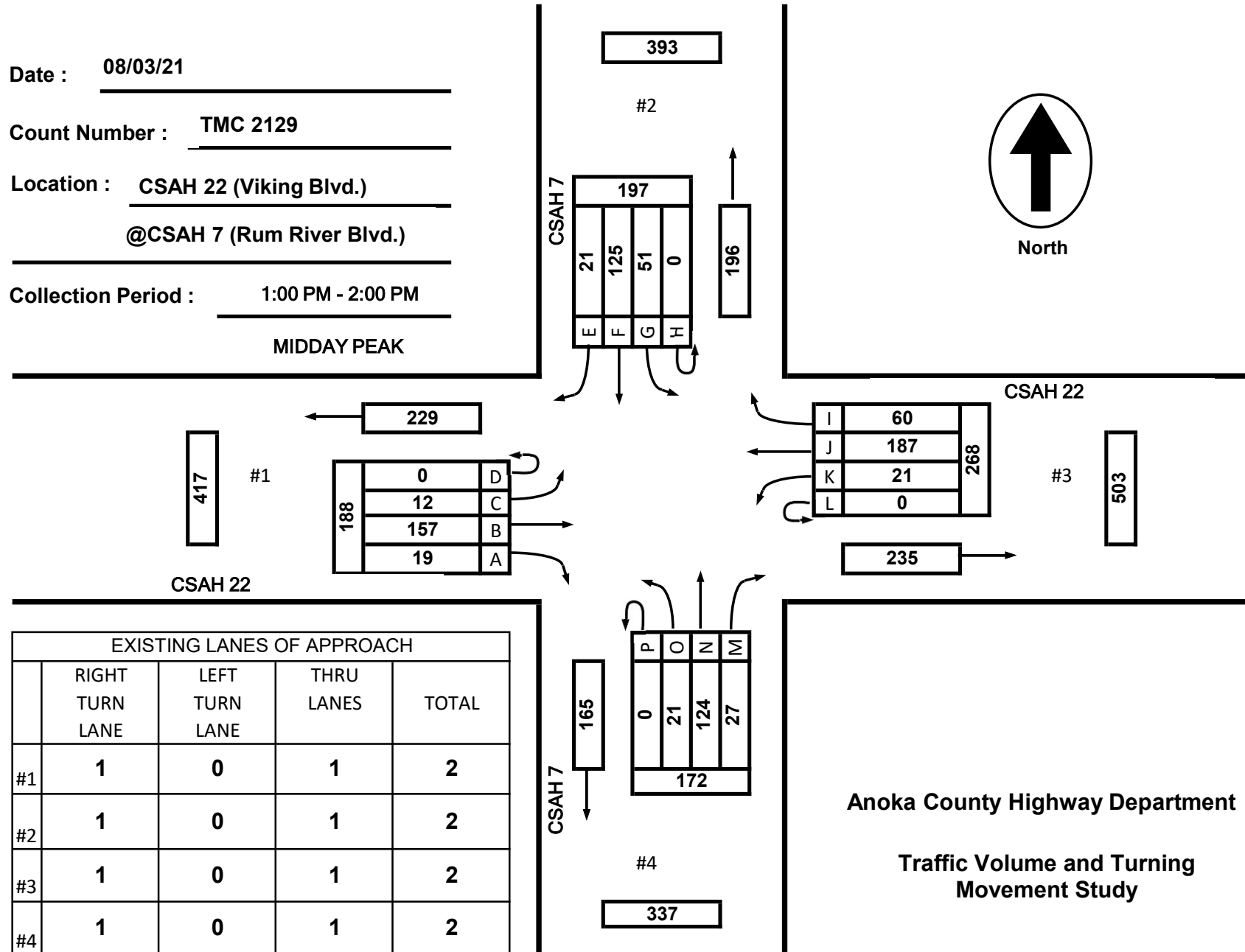
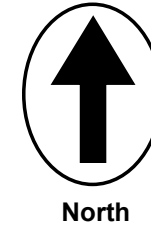
Date : 08/03/21

Count Number : TMC 2129

Location : CSAH 22 (Viking Blvd.)
@CSAH 7 (Rum River Blvd.)

Collection Period : 1:00 PM - 2:00 PM

MIDDAY PEAK



EXISTING LANES OF APPROACH

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

Anoka County Highway Department

Traffic Volume and Turning Movement Study

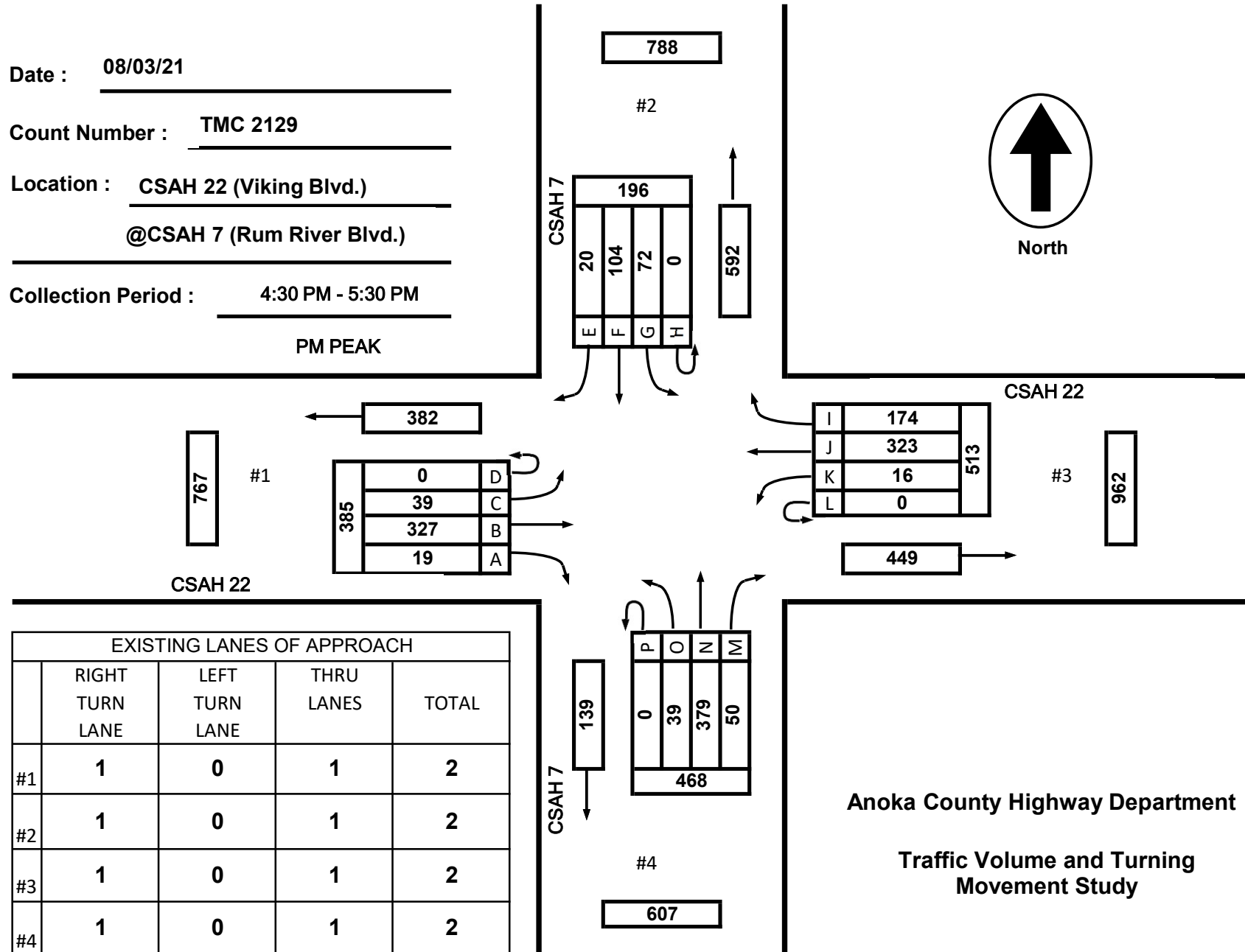
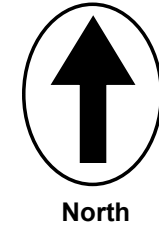
Date : 08/03/21

Count Number : TMC 2129

Location : CSAH 22 (Viking Blvd.)
@CSAH 7 (Rum River Blvd.)

Collection Period : 4:30 PM - 5:30 PM

PM PEAK



Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 1

Weather: Hot & PCloudy
 CountCAM2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	CSAH 7 Southbound						CSAH 22 Westbound						CSAH 7 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
00:00	0	0	2	0	0	2	0	2	3	1	0	6	0	1	2	2	0	5	0	0	7	0	0	7	0	20	20
00:15	0	2	0	0	0	2	0	0	2	0	0	2	0	0	4	0	0	4	0	0	6	0	0	6	0	14	14
00:30	0	1	2	0	0	3	0	1	2	0	0	3	0	0	1	1	0	2	0	2	4	0	0	6	0	14	14
00:45	0	0	2	0	0	2	0	0	0	1	0	1	0	1	0	0	0	1	0	0	4	0	0	4	0	8	8
Total	0	3	6	0	0	9	0	3	7	2	0	12	0	2	7	3	0	12	0	2	21	0	0	23	0	56	56
01:00	0	0	2	0	0	2	0	0	2	1	0	3	0	0	4	0	0	4	0	0	1	0	0	1	0	10	10
01:15	0	0	0	1	0	1	0	1	2	1	0	4	0	0	6	0	0	6	0	1	0	1	0	2	0	13	13
01:30	0	1	1	0	0	2	0	0	1	0	0	1	0	0	3	0	0	3	0	1	0	0	0	1	0	7	7
01:45	0	0	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	0	2	0	6	6
Total	0	1	3	1	0	5	0	1	7	2	0	10	0	0	15	0	0	15	0	2	3	1	0	6	0	36	36
02:00	0	0	0	1	0	1	0	0	4	1	0	5	0	0	2	0	0	2	0	0	2	0	0	2	0	10	10
02:15	0	0	3	1	0	4	0	0	1	0	0	1	0	0	1	0	0	1	0	0	2	0	0	2	0	8	8
02:30	0	0	4	0	0	4	0	0	2	0	0	2	0	0	3	0	0	3	0	0	1	0	0	1	0	10	10
02:45	0	1	1	0	0	2	0	0	3	0	0	3	0	0	3	0	0	3	0	0	1	0	0	1	0	9	9
Total	0	1	8	2	0	11	0	0	10	1	0	11	0	0	9	0	0	9	0	0	6	0	0	6	0	37	37
03:00	0	1	5	0	0	6	0	0	2	0	0	2	0	1	0	0	0	1	0	0	1	0	0	1	0	10	10
03:15	0	2	6	0	0	8	0	0	1	1	0	2	0	0	1	0	0	1	0	0	4	0	0	4	0	15	15
03:30	0	0	9	1	0	10	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	2	0	15	15
03:45	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	0	3	23	1	0	27	0	0	6	1	0	7	0	1	1	0	0	2	0	0	7	0	0	7	0	43	43
04:00	0	0	9	1	0	10	0	0	2	0	0	2	0	0	1	0	0	1	0	0	0	0	0	0	0	13	13
04:15	0	1	25	2	0	28	0	0	3	0	0	3	0	0	1	0	0	1	0	0	1	0	0	1	0	33	33
04:30	0	6	22	0	0	28	0	0	6	1	0	7	0	0	1	1	0	2	0	0	4	0	0	4	0	41	41
04:45	0	3	28	0	0	31	0	1	17	0	0	18	0	0	0	0	0	0	0	0	4	2	0	6	0	55	55
Total	0	10	84	3	0	97	0	1	28	1	0	30	0	0	3	1	0	4	0	0	9	2	0	11	0	142	142
05:00	0	6	56	2	0	64	0	3	19	0	0	22	0	0	2	1	0	3	0	0	10	5	0	15	0	104	104
05:15	0	11	61	3	0	75	0	1	31	1	0	33	0	1	4	3	0	8	0	1	15	6	0	22	0	138	138
05:30	0	15	59	5	0	79	0	3	34	3	0	40	0	1	1	4	0	6	0	0	22	3	0	25	0	150	150
05:45	0	15	69	7	0	91	0	5	42	3	0	50	0	0	4	0	0	4	0	0	22	2	0	24	0	169	169
Total	0	47	245	17	0	309	0	12	126	7	0	145	0	2	11	8	0	21	0	1	69	16	0	86	0	561	561



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 2

Weather: Hot & PCloudy
 CountCAM2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	CSAH 7 Southbound						CSAH 22 Westbound						CSAH 7 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
06:00	0	11	96	6	0	113	0	7	46	3	0	56	0	0	6	2	0	8	0	0	27	7	0	34	0	211	211
06:15	0	15	106	3	0	124	0	14	47	5	0	66	0	1	5	0	0	6	0	1	32	9	0	42	0	238	238
06:30	0	17	114	7	0	138	0	8	50	1	0	59	0	2	14	0	0	16	0	2	54	9	0	65	0	278	278
06:45	0	16	62	3	0	81	0	5	50	7	0	62	0	2	15	5	0	22	0	1	43	9	0	53	0	218	218
Total	0	59	378	19	0	456	0	34	193	16	0	243	0	5	40	7	0	52	0	4	156	34	0	194	0	945	945
07:00	0	21	93	4	0	118	0	2	52	9	0	63	0	0	10	2	0	12	0	1	40	4	0	45	0	238	238
07:15	0	14	90	3	0	107	0	7	73	6	0	86	0	4	26	6	0	36	0	0	46	10	0	56	0	285	285
07:30	0	19	73	10	0	102	0	12	56	6	0	74	0	1	25	4	0	30	0	0	52	10	0	62	0	268	268
07:45	0	17	47	6	0	70	0	9	41	10	0	60	0	3	13	2	0	18	0	2	50	8	0	60	0	208	208
Total	0	71	303	23	0	397	0	30	222	31	0	283	0	8	74	14	0	96	0	3	188	32	0	223	0	999	999
08:00	0	16	51	5	0	72	0	4	44	5	0	53	0	2	14	2	0	18	0	1	45	11	0	57	0	200	200
08:15	0	11	39	3	0	53	0	5	40	3	0	48	0	6	18	2	0	26	0	1	40	7	0	48	0	175	175
08:30	0	16	57	5	0	78	0	12	51	11	0	74	0	3	18	4	0	25	0	2	39	4	0	45	0	222	222
08:45	0	18	34	3	0	55	0	6	43	13	0	62	0	0	20	4	0	24	0	4	31	6	0	41	0	182	182
Total	0	61	181	16	0	258	0	27	178	32	0	237	0	11	70	12	0	93	0	8	155	28	0	191	0	779	779
09:00	0	10	31	1	0	42	0	6	35	13	0	54	0	3	16	5	0	24	0	2	36	6	0	44	0	164	164
09:15	0	14	28	5	0	47	0	5	37	11	0	53	0	3	15	2	0	20	0	2	42	5	0	49	0	169	169
09:30	0	6	33	2	0	41	0	5	41	5	0	51	0	3	20	3	0	26	0	1	51	3	0	55	0	173	173
09:45	0	11	25	1	0	37	0	2	35	17	0	54	0	3	14	5	0	22	0	2	29	6	0	37	0	150	150
Total	0	41	117	9	0	167	0	18	148	46	0	212	0	12	65	15	0	92	0	7	158	20	0	185	0	656	656
10:00	0	25	31	0	0	56	0	4	31	13	0	48	0	3	19	4	0	26	0	0	41	5	0	46	0	176	176
10:15	0	9	24	6	0	39	0	5	38	14	0	57	0	4	15	4	0	23	0	2	47	1	0	50	0	169	169
10:30	0	14	24	2	0	40	0	1	34	3	0	38	0	5	15	10	0	30	0	2	31	3	0	36	0	144	144
10:45	0	12	21	5	0	38	0	6	41	13	0	60	0	4	17	0	0	21	0	6	34	4	0	44	0	163	163
Total	0	60	100	13	0	173	0	16	144	43	0	203	0	16	66	18	0	100	0	10	153	13	0	176	0	652	652
11:00	0	19	18	0	0	37	0	3	47	7	0	57	0	5	16	3	0	24	0	3	33	3	0	39	0	157	157
11:15	0	12	28	7	0	47	0	5	51	10	0	66	0	6	13	6	0	25	0	3	45	3	0	51	0	189	189
11:30	0	15	29	5	0	49	0	2	43	12	0	57	0	6	23	3	0	32	0	5	32	6	0	43	0	181	181
11:45	0	14	17	2	0	33	0	4	47	15	0	66	0	3	21	5	0	29	0	1	23	3	0	27	0	155	155
Total	0	60	92	14	0	166	0	14	188	44	0	246	0	20	73	17	0	110	0	12	133	15	0	160	0	682	682
12:00	0	14	37	2	0	53	0	2	32	14	0	48	0	7	24	7	0	38	0	1	35	1	0	37	0	176	176



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 3

Weather: Hot & PCloudy
 CountCAM2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	CSAH 7 Southbound						CSAH 22 Westbound						CSAH 7 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
12:15	0	13	34	3	0	50	0	6	43	10	0	59	0	4	23	6	0	33	0	5	46	3	0	54	0	196	196
12:30	0	12	31	5	0	48	0	6	34	9	0	49	0	4	36	6	0	46	0	5	37	6	0	48	0	191	191
12:45	0	21	28	0	0	49	0	3	30	14	0	47	0	5	25	5	0	35	0	6	44	5	0	55	0	186	186
Total	0	60	130	10	0	200	0	17	139	47	0	203	0	20	108	24	0	152	0	17	162	15	0	194	0	749	749
13:00	0	14	37	2	0	53	0	5	54	18	0	77	0	7	34	10	0	51	0	3	32	4	0	39	0	220	220
13:15	0	8	31	4	0	43	0	5	51	17	0	73	0	4	27	5	0	36	0	3	42	5	0	50	0	202	202
13:30	0	11	32	7	0	50	0	5	47	14	0	66	0	6	24	7	0	37	0	2	36	7	0	45	0	198	198
13:45	0	18	25	8	0	51	0	6	35	11	0	52	0	4	39	5	0	48	0	4	47	3	0	54	0	205	205
Total	0	51	125	21	0	197	0	21	187	60	0	268	0	21	124	27	0	172	0	12	157	19	0	188	0	825	825
14:00	0	8	38	0	0	46	0	1	36	16	0	53	0	7	39	6	0	52	0	1	49	6	0	56	0	207	207
14:15	0	9	30	3	0	42	0	3	51	16	0	70	0	7	61	11	0	79	0	5	62	7	0	74	0	265	265
14:30	0	5	35	5	0	45	0	4	58	24	0	86	0	10	64	5	0	79	0	0	55	3	0	58	0	268	268
14:45	0	11	23	3	0	37	0	4	46	20	0	70	0	4	65	8	0	77	0	4	42	4	0	50	0	234	234
Total	0	33	126	11	0	170	0	12	191	76	0	279	0	28	229	30	0	287	0	10	208	20	0	238	0	974	974
15:00	0	11	19	4	0	34	0	3	43	21	0	67	0	5	68	6	0	79	0	3	51	5	0	59	0	239	239
15:15	0	14	21	3	0	38	0	8	72	19	0	99	0	9	82	7	0	98	0	4	70	3	0	77	0	312	312
15:30	0	11	19	5	0	35	0	3	75	36	0	114	0	10	98	11	0	119	0	6	73	8	0	87	0	355	355
15:45	0	20	20	12	0	52	0	6	79	37	0	122	0	12	83	12	0	107	0	6	74	3	0	83	0	364	364
Total	0	56	79	24	0	159	0	20	269	113	0	402	0	36	331	36	0	403	0	19	268	19	0	306	0	1270	1270
16:00	0	16	21	6	0	43	0	7	67	33	0	107	0	9	93	13	0	115	0	8	79	2	0	89	0	354	354
16:15	0	7	17	5	0	29	0	4	93	36	0	133	0	10	94	7	0	111	0	6	70	6	0	82	0	355	355
16:30	0	17	20	4	0	41	0	3	70	35	0	108	0	10	102	13	0	125	0	9	84	4	0	97	0	371	371
16:45	0	20	32	4	0	56	0	3	98	51	0	152	0	7	93	14	0	114	0	6	98	4	0	108	0	430	430
Total	0	60	90	19	0	169	0	17	328	155	0	500	0	36	382	47	0	465	0	29	331	16	0	376	0	1510	1510
17:00	0	19	21	5	0	45	0	4	70	48	0	122	0	10	106	7	0	123	0	12	72	5	0	89	0	379	379
17:15	0	16	31	7	0	54	0	6	85	40	0	131	0	12	78	16	0	106	0	12	73	6	0	91	0	382	382
17:30	0	15	30	2	0	47	0	2	82	26	0	110	0	8	75	16	0	99	0	3	50	3	0	56	0	312	312
17:45	0	16	20	2	0	38	0	3	60	29	0	92	0	11	73	9	0	93	0	8	60	4	0	72	0	295	295
Total	0	66	102	16	0	184	0	15	297	143	0	455	0	41	332	48	0	421	0	35	255	18	0	308	0	1368	1368
18:00	0	8	23	2	0	33	0	6	55	31	0	92	0	8	57	7	0	72	0	3	54	5	0	62	0	259	259
18:15	0	18	28	1	0	47	0	6	47	27	0	80	0	4	42	7	0	53	0	5	42	2	0	49	0	229	229



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 4

Weather: Hot & PCloudy
 CountCAM2
 Study Conducted By: Kevin

Groups Printed- Cars + - Trucks

Start Time	CSAH 7 Southbound						CSAH 22 Westbound						CSAH 7 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total	UTrn	Left	Thru	Right	Peds	App. Total			
18:30	0	8	21	2	0	31	0	3	43	25	0	71	0	6	46	1	0	53	0	4	43	0	0	47	0	202	202
18:45	0	17	16	1	0	34	0	1	39	22	0	62	0	4	44	6	0	54	0	5	48	3	0	56	0	206	206
Total	0	51	88	6	0	145	0	16	184	105	0	305	0	22	189	21	0	232	0	17	187	10	0	214	0	896	896
19:00	0	9	16	2	0	27	0	2	33	14	0	49	0	5	37	3	0	45	0	1	36	2	0	39	0	160	160
19:15	0	17	21	3	0	41	0	7	30	14	0	51	0	2	48	6	0	56	0	2	37	0	0	39	0	187	187
19:30	0	10	14	2	0	26	0	5	24	12	0	41	0	2	25	7	0	34	0	2	33	3	0	38	0	139	139
19:45	0	9	11	3	0	23	0	8	33	14	0	55	0	5	24	2	0	31	0	1	20	3	0	24	0	133	133
Total	0	45	62	10	0	117	0	22	120	54	0	196	0	14	134	18	0	166	0	6	126	8	0	140	0	619	619
20:00	0	8	9	1	0	18	0	2	25	14	0	41	0	4	18	2	0	24	0	3	29	1	0	33	0	116	116
20:15	0	10	9	1	0	20	0	6	25	11	0	42	0	2	23	5	0	30	0	3	22	1	0	26	0	118	118
20:30	0	15	9	3	0	27	0	3	26	17	0	46	0	4	33	3	0	40	0	3	33	1	0	37	0	150	150
20:45	0	8	15	4	0	27	0	3	26	10	0	39	0	1	23	9	0	33	0	2	23	0	0	25	0	124	124
Total	0	41	42	9	0	92	0	14	102	52	0	168	0	11	97	19	0	127	0	11	107	3	0	121	0	508	508
21:00	0	9	8	2	0	19	0	5	22	6	0	33	0	1	14	4	0	19	0	4	24	1	0	29	0	100	100
21:15	0	9	8	1	0	18	0	0	21	13	0	34	0	3	19	1	0	23	0	3	16	2	0	21	0	96	96
21:30	0	4	7	2	0	13	0	1	13	5	0	19	0	2	17	3	0	22	0	2	13	2	0	17	0	71	71
21:45	0	8	4	1	0	13	0	1	11	7	0	19	0	2	11	1	0	14	0	4	16	4	0	24	0	70	70
Total	0	30	27	6	0	63	0	7	67	31	0	105	0	8	61	9	0	78	0	13	69	9	0	91	0	337	337
22:00	0	0	4	3	0	7	0	3	16	4	0	23	0	2	12	2	0	16	0	1	3	1	0	5	0	51	51
22:15	0	4	4	0	0	8	0	0	13	4	0	17	0	1	11	2	0	14	0	2	14	0	0	16	0	55	55
22:30	0	1	8	0	0	9	0	2	14	2	0	18	0	0	14	0	0	14	0	0	9	0	0	9	0	50	50
22:45	0	2	5	0	0	7	0	1	8	1	0	10	0	0	9	0	0	9	0	0	10	1	0	11	0	37	37
Total	0	7	21	3	0	31	0	6	51	11	0	68	0	3	46	4	0	53	0	3	36	2	0	41	0	193	193
23:00	0	2	1	1	0	4	0	0	2	1	0	3	0	0	9	1	0	10	0	0	6	0	0	6	0	23	23
23:15	0	1	0	1	0	2	0	0	6	4	0	10	0	0	14	0	0	14	0	1	6	0	0	7	0	33	33
23:30	0	2	3	0	0	5	0	0	3	4	0	7	0	2	3	0	0	5	0	2	6	0	0	8	0	25	25
23:45	0	0	0	0	0	0	0	1	5	5	0	11	0	2	7	0	0	9	0	1	3	0	0	4	0	24	24
Total	0	5	4	2	0	11	0	1	16	14	0	31	0	4	33	1	0	38	0	4	21	0	0	25	0	105	105
Grand Total	0	922	2436	255	0	3613	0	324	3208	1087	0	4619	0	321	2500	379	0	3200	0	225	2985	300	0	3510	0	14942	14942
Apprch %	0	25.5	67.4	7.1			0	7	69.5	23.5			0	10	78.1	11.8			0	6.4	85	8.5					
Total %	0	6.2	16.3	1.7		24.2	0	2.2	21.5	7.3		30.9	0	2.1	16.7	2.5		21.4	0	1.5	20	2		23.5	0	100	
Cars +	0	904	2362	246		3512	0	312	2976	1054		4342	0	290	2439	367		3096	0	216	2781	275		3272	0	0	14222
% Cars +	0	98	97	96.5	0	97.2	0	96.3	92.8	97	0	94	0	90.3	97.6	96.8	0	96.8	0	96	93.2	91.7	0	93.2	0	0	95.2
Trucks	0	18	74	9		101	0	12	232	33		277	0	31	61	12		104	0	9	204	25		238	0	0	720
% Trucks	0	2	3	3.5	0	2.8	0	3.7	7.2	3	0	6	0	9.7	2.4	3.2	0	3.2	0	4	6.8	8.3	0	6.8	0	0	4.8

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Start Time	CSAH 7 Southbound					CSAH 22 Westbound					CSAH 7 Northbound					CSAH 22 Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	
Peak Hour Analysis From 00:00 to 09:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:30																					
06:30	0	17	114	7	138	0	8	50	1	59	0	2	14	0	16	0	2	54	9	65	278
06:45	0	16	62	3	81	0	5	50	7	62	0	2	15	5	22	0	1	43	9	53	218
07:00	0	21	93	4	118	0	2	52	9	63	0	0	10	2	12	0	1	40	4	45	238
07:15	0	14	90	3	107	0	7	73	6	86	0	4	26	6	36	0	0	46	10	56	285
Total Volume	0	68	359	17	444	0	22	225	23	270	0	8	65	13	86	0	4	183	32	219	1019
% App. Total	0	15.3	80.9	3.8		0	8.1	83.3	8.5		0	9.3	75.6	15.1		0	1.8	83.6	14.6		
PHF	.000	.810	.787	.607	.804	.000	.688	.771	.639	.785	.000	.500	.625	.542	.597	.000	.500	.847	.800	.842	.894

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 13:00																					
13:00	0	14	37	2	53	0	5	54	18	77	0	7	34	10	51	0	3	32	4	39	220
13:15	0	8	31	4	43	0	5	51	17	73	0	4	27	5	36	0	3	42	5	50	202
13:30	0	11	32	7	50	0	5	47	14	66	0	6	24	7	37	0	2	36	7	45	198
13:45	0	18	25	8	51	0	6	35	11	52	0	4	39	5	48	0	4	47	3	54	205
Total Volume	0	51	125	21	197	0	21	187	60	268	0	21	124	27	172	0	12	157	19	188	825
% App. Total	0	25.9	63.5	10.7		0	7.8	69.8	22.4		0	12.2	72.1	15.7		0	6.4	83.5	10.1		
PHF	.000	.708	.845	.656	.929	.000	.875	.866	.833	.870	.000	.750	.795	.675	.843	.000	.750	.835	.679	.870	.938

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	17	20	4	41	0	3	70	35	108	0	10	102	13	125	0	9	84	4	97	371
16:45	0	20	32	4	56	0	3	98	51	152	0	7	93	14	114	0	6	98	4	108	430
17:00	0	19	21	5	45	0	4	70	48	122	0	10	106	7	123	0	12	72	5	89	379
17:15	0	16	31	7	54	0	6	85	40	131	0	12	78	16	106	0	12	73	6	91	382
Total Volume	0	72	104	20	196	0	16	323	174	513	0	39	379	50	468	0	39	327	19	385	1562
% App. Total	0	36.7	53.1	10.2		0	3.1	63	33.9		0	8.3	81	10.7		0	10.1	84.9	4.9		
PHF	.000	.900	.813	.714	.875	.000	.667	.824	.853	.844	.000	.813	.894	.781	.936	.000	.813	.834	.792	.891	.908



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 1

Groups Printed- Trucks

Start Time	CSAH 7 Southbound					CSAH 22 Westbound					CSAH 7 Northbound					CSAH 22 Eastbound					Int. Total	
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total		
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
02:15	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	1	0	1	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	3
Total	0	0	1	1	2	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	5
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	3	1	4	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	1	7
05:15	0	0	4	0	4	0	0	2	0	2	0	0	0	1	1	0	0	0	1	1	1	8
05:30	0	2	5	1	8	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	10
05:45	0	2	2	1	5	0	0	7	0	7	0	0	0	0	0	0	0	2	0	2	2	14
Total	0	4	14	3	21	0	0	13	0	13	0	0	0	1	1	0	0	3	1	4	4	39
06:00	0	0	2	0	2	0	0	2	0	2	0	0	0	0	0	0	0	5	0	5	5	9
06:15	0	0	3	0	3	0	1	7	0	8	0	0	1	0	1	0	0	6	1	7	7	19
06:30	0	0	4	0	4	0	0	6	0	6	0	0	0	0	0	0	0	2	1	3	3	13
06:45	0	0	2	0	2	0	0	6	1	7	0	0	2	0	2	0	0	4	0	4	4	15
Total	0	0	11	0	11	0	1	21	1	23	0	0	3	0	3	0	0	17	2	19	19	56
07:00	0	0	5	0	5	0	0	6	1	7	0	0	1	0	1	0	0	4	0	4	4	17
07:15	0	0	2	1	3	0	2	4	0	6	0	0	0	0	0	0	0	1	0	1	1	10
07:30	0	2	2	0	4	0	1	6	0	7	0	0	1	0	1	0	0	6	0	6	6	18
07:45	0	0	1	0	1	0	1	7	0	8	0	0	1	0	1	0	0	5	1	6	6	16
Total	0	2	10	1	13	0	4	23	1	28	0	0	3	0	3	0	0	16	1	17	17	61
08:00	0	0	2	0	2	0	0	2	1	3	0	1	3	1	5	0	0	5	0	5	5	15
08:15	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	0	3	1	4	4	8
08:30	0	0	4	0	4	0	0	4	0	4	0	3	1	0	4	0	1	3	0	4	4	16
08:45	0	0	0	0	0	0	1	6	1	8	0	0	5	1	6	0	0	2	1	3	3	17
Total	0	0	6	0	6	0	1	16	2	19	0	4	9	2	15	0	1	13	2	16	16	56
09:00	0	0	0	0	0	0	0	2	0	2	0	0	2	0	2	0	0	7	0	7	7	11



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 2

Groups Printed- Trucks

Start Time	CSAH 7 Southbound					CSAH 22 Westbound					CSAH 7 Northbound					CSAH 22 Eastbound					Int. Total
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	
09:15	0	1	0	0	1	0	0	4	0	4	0	1	1	0	2	0	0	8	0	8	15
09:30	0	0	4	0	4	0	1	3	1	5	0	0	1	0	1	0	0	4	0	4	14
09:45	0	0	0	0	0	0	0	3	0	3	0	0	0	2	2	0	0	4	1	5	10
Total	0	1	4	0	5	0	1	12	1	14	0	1	4	2	7	0	0	23	1	24	50
10:00	0	0	2	0	2	0	1	3	0	4	0	1	1	0	2	0	0	6	0	6	14
10:15	0	0	3	0	3	0	1	5	2	8	0	1	0	0	1	0	0	4	0	4	16
10:30	0	0	1	0	1	0	0	7	0	7	0	3	0	1	4	0	0	1	1	2	14
10:45	0	0	3	0	3	0	0	3	0	3	0	1	0	0	1	0	1	2	0	3	10
Total	0	0	9	0	9	0	2	18	2	22	0	6	1	1	8	0	1	13	1	15	54
11:00	0	2	0	0	2	0	0	6	1	7	0	0	1	0	1	0	1	2	0	3	13
11:15	0	0	2	0	2	0	1	2	0	3	0	1	0	0	1	0	0	5	0	5	11
11:30	0	0	1	1	2	0	0	4	1	5	0	0	0	0	0	0	0	3	1	4	11
11:45	0	0	0	0	0	0	0	2	0	2	0	0	3	0	3	0	0	2	0	2	7
Total	0	2	3	1	6	0	1	14	2	17	0	1	4	0	5	0	1	12	1	14	42
12:00	0	0	0	0	0	0	0	2	0	2	0	1	0	1	2	0	0	3	0	3	7
12:15	0	0	0	0	0	0	0	4	1	5	0	0	2	0	2	0	0	3	0	3	10
12:30	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	1	4	0	5	9
12:45	0	2	0	0	2	0	0	2	2	4	0	0	1	0	1	0	0	7	0	7	14
Total	0	2	0	0	2	0	0	10	5	15	0	1	3	1	5	0	1	17	0	18	40
13:00	0	1	1	0	2	0	0	4	1	5	0	2	0	0	2	0	0	2	0	2	11
13:15	0	0	0	1	1	0	0	4	1	5	0	2	0	0	2	0	1	4	1	6	14
13:30	0	0	1	1	2	0	0	7	0	7	0	0	0	0	0	0	0	2	2	4	13
13:45	0	1	2	0	3	0	1	1	0	2	0	1	0	0	1	0	1	1	1	3	9
Total	0	2	4	2	8	0	1	16	2	19	0	5	0	0	5	0	2	9	4	15	47
14:00	0	0	1	0	1	0	0	8	0	8	0	1	1	0	2	0	0	4	1	5	16
14:15	0	0	3	0	3	0	0	4	1	5	0	1	2	0	3	0	1	3	1	5	16
14:30	0	0	0	0	0	0	0	7	1	8	0	1	2	0	3	0	0	4	1	5	16
14:45	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	8	0	9	11
Total	0	0	6	0	6	0	0	19	2	21	0	3	5	0	8	0	2	19	3	24	59
15:00	0	0	1	0	1	0	0	4	0	4	0	1	2	1	4	0	0	6	2	8	17
15:15	0	0	0	0	0	0	1	11	0	12	0	1	1	0	2	0	0	6	1	7	21
15:30	0	0	1	0	1	0	0	5	2	7	0	1	2	0	3	0	0	7	2	9	20
15:45	0	0	0	0	0	0	0	5	1	6	0	1	1	1	3	0	0	3	0	3	12
Total	0	0	2	0	2	0	1	25	3	29	0	4	6	2	12	0	0	22	5	27	70
16:00	0	0	1	0	1	0	0	8	3	11	0	1	1	2	4	0	0	6	1	7	23
16:15	0	0	0	0	0	0	0	4	0	4	0	0	1	0	1	0	0	2	0	2	7
16:30	0	0	0	0	0	0	0	4	0	4	0	0	1	0	1	0	0	9	1	10	15
16:45	0	0	0	0	0	0	0	6	1	7	0	0	3	0	3	0	1	8	1	10	20
Total	0	0	1	0	1	0	0	22	4	26	0	1	6	2	9	0	1	25	3	29	65
17:00	0	1	0	0	1	0	0	4	0	4	0	1	2	0	3	0	0	1	0	1	9
17:15	0	0	0	0	0	0	0	0	1	1	0	2	2	0	4	0	0	3	0	3	8
17:30	0	0	2	0	2	0	0	5	0	5	0	1	1	0	2	0	0	3	0	3	12
17:45	0	0	0	1	1	0	0	2	0	2	0	0	0	1	1	0	0	2	0	2	6
Total	0	1	2	1	4	0	0	11	1	12	0	4	5	1	10	0	0	9	0	9	35
18:00	0	0	0	0	0	0	0	1	2	3	0	1	2	0	3	0	0	0	0	0	6
18:15	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2	0	0	1	0	1	4
18:30	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	0	0	0	0	0	3
18:45	0	2	0	0	2	0	0	1	1	2	0	0	0	0	0	0	0	3	0	3	7
Total	0	2	0	0	2	0	0	3	4	7	0	1	6	0	7	0	0	4	0	4	20



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2129
 Site Code :
 Start Date : 08/03/2021
 Page No : 3

Groups Printed- Trucks

Start Time	CSAH 7 Southbound					CSAH 22 Westbound					CSAH 7 Northbound					CSAH 22 Eastbound					Int. Total					
	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total	UTrn	Left	Thru	Right	App. Total						
19:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
19:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	2
19:30	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	2	0	0	2	1	3	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	6
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
20:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
20:30	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
20:45	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	2	0	2	0	0	2	0	2	0	0	0	1	1	0	0	0	0	0	6
21:00	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	1
21:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
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	0	0
23:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23:45	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	1	2	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	18	74	9	101	0	12	232	33	277	0	31	61	12	104	0	9	204	25	238	0	0	0	0	0	720
Apprch %	0	17.8	73.3	8.9		0	4.3	83.8	11.9		0	29.8	58.7	11.5		0	3.8	85.7	10.5		0	0	0	0	0	
Total %	0	2.5	10.3	1.2	14	0	1.7	32.2	4.6	38.5	0	4.3	8.5	1.7	14.4	0	1.2	28.3	3.5	33.1	0	0	0	0	0	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 22

Number of Lanes : 1

Total Approach Volume: 3,510

Westbound: CSAH 22

Number of Lanes : 1

Total Approach Volume: 4,619

Minor Street Approaches

Northbound: CSAH 7

Number of Lanes : 1

Total Approach Volume: 3,200

Southbound: CSAH 7

Number of Lanes : 1

Total Approach Volume: 3,613

Warrant Summary (Rural Values Apply)

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

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

Required volumes reached for 14 hours, 8 are needed

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

Required volumes reached for 4 hours, 8 are needed

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

Required 1A volumes reached for 15 hours, 8 are needed

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

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

Number of hours (14) volumes exceed minimum >= minimum required (4).

Warrant 3 - Peak Hour.....Satisfied

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

Number of one hour periods (31) volumes exceed minimum >= required (1). Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Satisfied

Volumes exceed minimums for at least one hour period.

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

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

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

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

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

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

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

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

14 one hour periods meet minimums.
Warrant IS 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**

Time	Major Road				Total	Minor Road		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:45 - 17:45	344	+	515	=	859	442	202	Yes
15:45 - 16:45	351	+	470	=	821	458	165	Yes
14:45 - 15:45	273	+	350	=	623	373	144	Yes
17:45 - 18:45	230	+	335	=	565	271	149	Yes
13:45 - 14:45	242	+	261	=	503	258	184	Yes
06:45 - 07:45	216	+	285	=	501	100	408	Yes
12:45 - 13:45	189	+	263	=	452	159	195	Yes
07:45 - 08:45	210	+	235	=	445	87	273	Yes
10:45 - 11:45	177	+	240	=	417	102	171	Yes
08:45 - 09:45	189	+	220	=	409	94	185	Yes
05:45 - 06:45	165	+	231	=	396	34	466	Yes
11:45 - 12:45	166	+	222	=	388	146	184	Yes
18:45 - 19:45	172	+	203	=	375	189	128	Yes
09:45 - 10:45	169	+	197	=	366	101	172	Yes
05:30 - 06:30	125	+	212	=	337	24	407	No
19:45 - 20:45	120	+	184	=	304	125	88	No
20:00 - 21:00	121	+	168	=	289	127	92	No
05:15 - 06:15	105	+	179	=	284	26	358	No
20:15 - 21:15	117	+	160	=	277	122	93	No
20:30 - 21:30	112	+	152	=	264	115	91	No
05:00 - 06:00	86	+	145	=	231	21	309	No
20:45 - 21:45	92	+	125	=	217	97	77	No
21:00 - 22:00	91	+	105	=	196	78	63	No
04:45 - 05:45	68	+	113	=	181	17	249	No
21:15 - 22:15	67		95		162	75	51	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

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 4 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**

Time	Major Road				Minor Road			Met?
	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	
16:15 - 17:15	376	+	515	=	891	473	171	Yes
15:15 - 16:15	336	+	442	=	778	439	168	Yes
17:15 - 18:15	281	+	425	=	706	370	172	Yes
14:15 - 15:15	241	+	293	=	534	314	158	Yes
14:00 - 15:00	238	+	279	=	517	287	170	No
07:15 - 08:15	235	+	273	=	508	102	351	No
07:00 - 08:00	223	+	283	=	506	96	397	No
13:45 - 14:45	242	+	261	=	503	258	184	No
06:45 - 07:45	216	+	285	=	501	100	408	No
06:30 - 07:30	219	+	270	=	489	86	444	No
13:30 - 14:30	229	+	241	=	470	216	189	No
07:30 - 08:30	227	+	235	=	462	92	297	No
13:00 - 14:00	188	+	268	=	456	172	197	No
06:15 - 07:15	205	+	250	=	455	56	461	No
18:15 - 19:15	191	+	262	=	453	205	139	No
12:45 - 13:45	189	+	263	=	452	159	195	No
13:15 - 14:15	205	+	244	=	449	173	190	No
07:45 - 08:45	210	+	235	=	445	87	273	No
12:30 - 13:30	192	+	246	=	438	168	193	No
06:00 - 07:00	194	+	243	=	437	52	456	No
12:15 - 13:15	196	+	232	=	428	165	200	No
08:00 - 09:00	191	+	237	=	428	93	258	No
08:30 - 09:30	179	+	243	=	422	93	222	No
10:45 - 11:45	177	+	240	=	417	102	171	No
08:15 - 09:15	178		238		416	99	228	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

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

15 hours meet 1A minimums.
10 hours meet 1B minimums.
Warrant IS 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 CSAH 22

Minor Road CSAH 7

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:15 - 17:15	376	+	515	=	891	473	171	Yes
15:15 - 16:15	336	+	442	=	778	439	168	Yes
17:15 - 18:15	281	+	425	=	706	370	172	Yes
14:15 - 15:15	241	+	293	=	534	314	158	Yes
07:15 - 08:15	235	+	273	=	508	102	351	Yes
06:15 - 07:15	205	+	250	=	455	56	461	Yes
18:15 - 19:15	191	+	262	=	453	205	139	Yes
13:15 - 14:15	205	+	244	=	449	173	190	Yes
12:15 - 13:15	196	+	232	=	428	165	200	Yes
08:15 - 09:15	178	+	238	=	416	99	228	Yes
11:15 - 12:15	158	+	237	=	395	124	182	Yes
09:15 - 10:15	187	+	206	=	393	94	181	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:15 - 17:15	376	+	515	=	891	473	171	Yes
15:15 - 16:15	336	+	442	=	778	439	168	Yes
17:15 - 18:15	281	+	425	=	706	370	172	Yes
14:15 - 15:15	241	+	293	=	534	314	158	Yes
07:00 - 08:00	223	+	283	=	506	96	397	Yes
18:15 - 19:15	191	+	262	=	453	205	139	Yes
13:15 - 14:15	205	+	244	=	449	173	190	Yes
06:00 - 07:00	194	+	243	=	437	52	456	Yes
12:15 - 13:15	196	+	232	=	428	165	200	Yes
08:00 - 09:00	191	+	237	=	428	93	258	Yes
10:45 - 11:45	177	+	240	=	417	102	171	No
11:00 - 12:00	160	+	246	=	406	110	166	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

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.

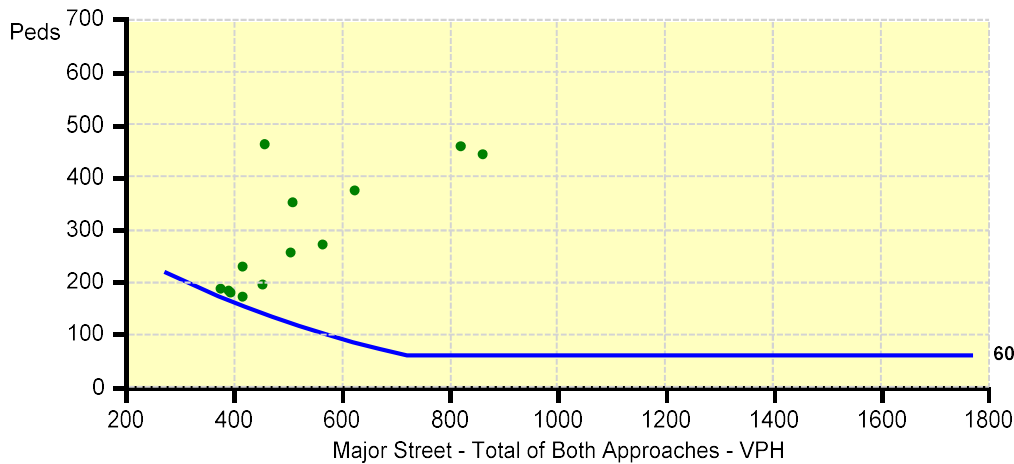
Summary

14 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road CSAH 22				=	Total	Minor Road CSAH 7		Met?
	Major EB	+	Major WB	Minor NB			Minor SB		
16:45 - 17:45	344	+	515	=	859	442	202	Yes	
15:45 - 16:45	351	+	470	=	821	458	165	Yes	
14:45 - 15:45	273	+	350	=	623	373	144	Yes	
17:45 - 18:45	230	+	335	=	565	271	149	Yes	
07:15 - 08:15	235	+	273	=	508	102	351	Yes	
13:45 - 14:45	242	+	261	=	503	258	184	Yes	
06:15 - 07:15	205	+	250	=	455	56	461	Yes	
12:45 - 13:45	189	+	263	=	452	159	195	Yes	
10:45 - 11:45	177	+	240	=	417	102	171	Yes	
08:15 - 09:15	178	+	238	=	416	99	228	Yes	
09:15 - 10:15	187	+	206	=	393	94	181	Yes	
							184	Yes	



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2129

Study Date : 06/01/2022

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

30 one hour periods meet minimums.
Warrant IS met.

Site Data Required

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

Time	Major Road CSAH 22				=	Total	Minor Road CSAH 7		Met?
	Major EB	+	Major WB	Minor NB			Minor SB		
16:30 - 17:30	385	+	513	=	898	468	196	Yes	
16:15 - 17:15	376	+	515	=	891	473	171	Yes	
16:00 - 17:00	376	+	500	=	876	465	169	Yes	
16:45 - 17:45	344	+	515	=	859	442	202	Yes	
15:45 - 16:45	351	+	470	=	821	458	165	Yes	
15:30 - 16:30	341	+	476	=	817	452	159	Yes	
15:15 - 16:15	336	+	442	=	778	439	168	Yes	
17:00 - 18:00	308	+	455	=	763	421	184	Yes	
15:00 - 16:00	306	+	402	=	708	403	159	Yes	
17:15 - 18:15	281	+	425	=	706	370	172	Yes	
14:45 - 15:45	273	+	350	=	623	373	144	Yes	
							165	Yes	

