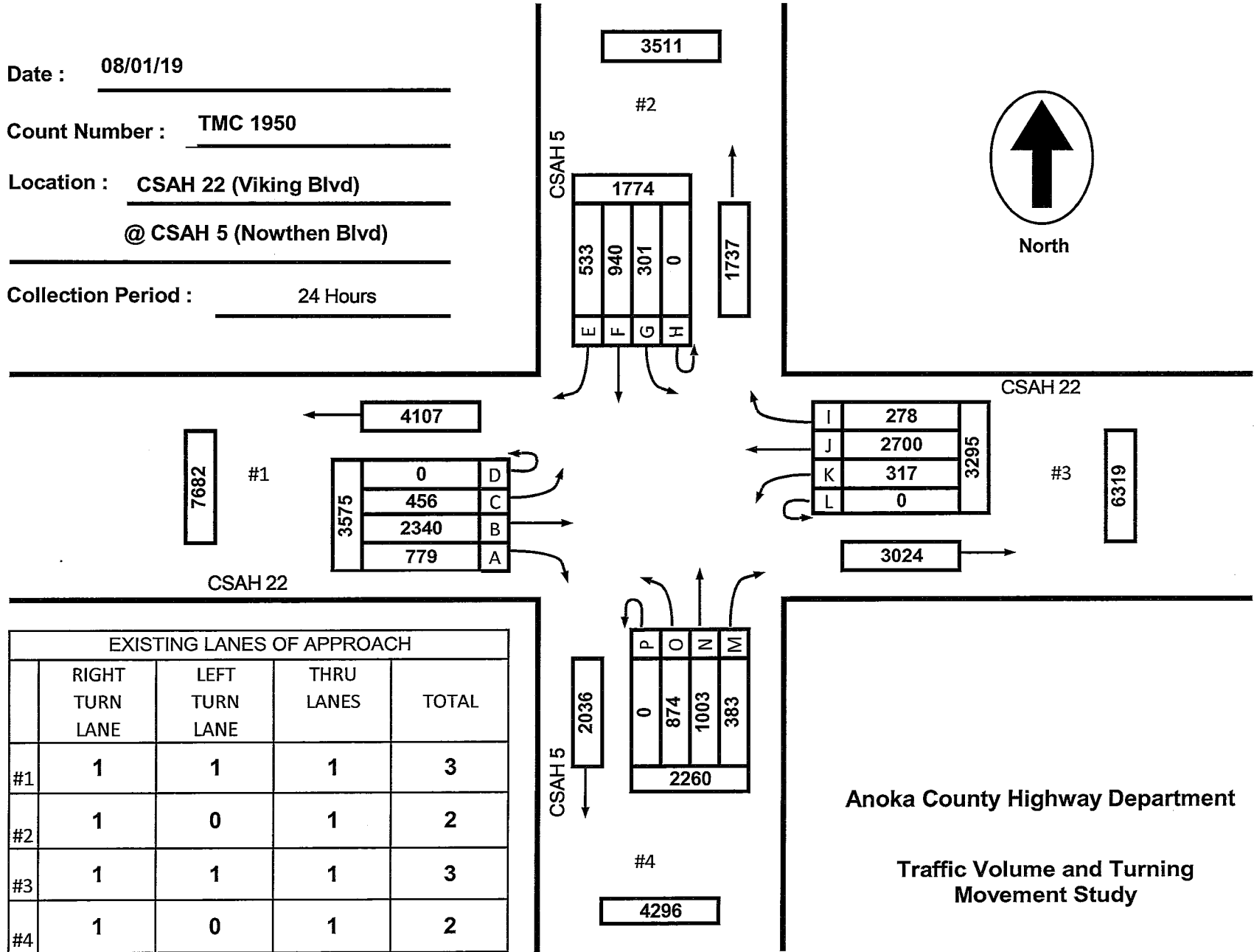


Date : 08/01/19

Count Number : TMC 1950

Location : CSAH 22 (Viking Blvd)
@ CSAH 5 (Nowthen Blvd)

Collection Period : 24 Hours



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

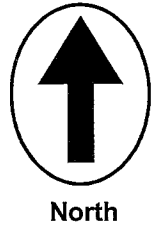
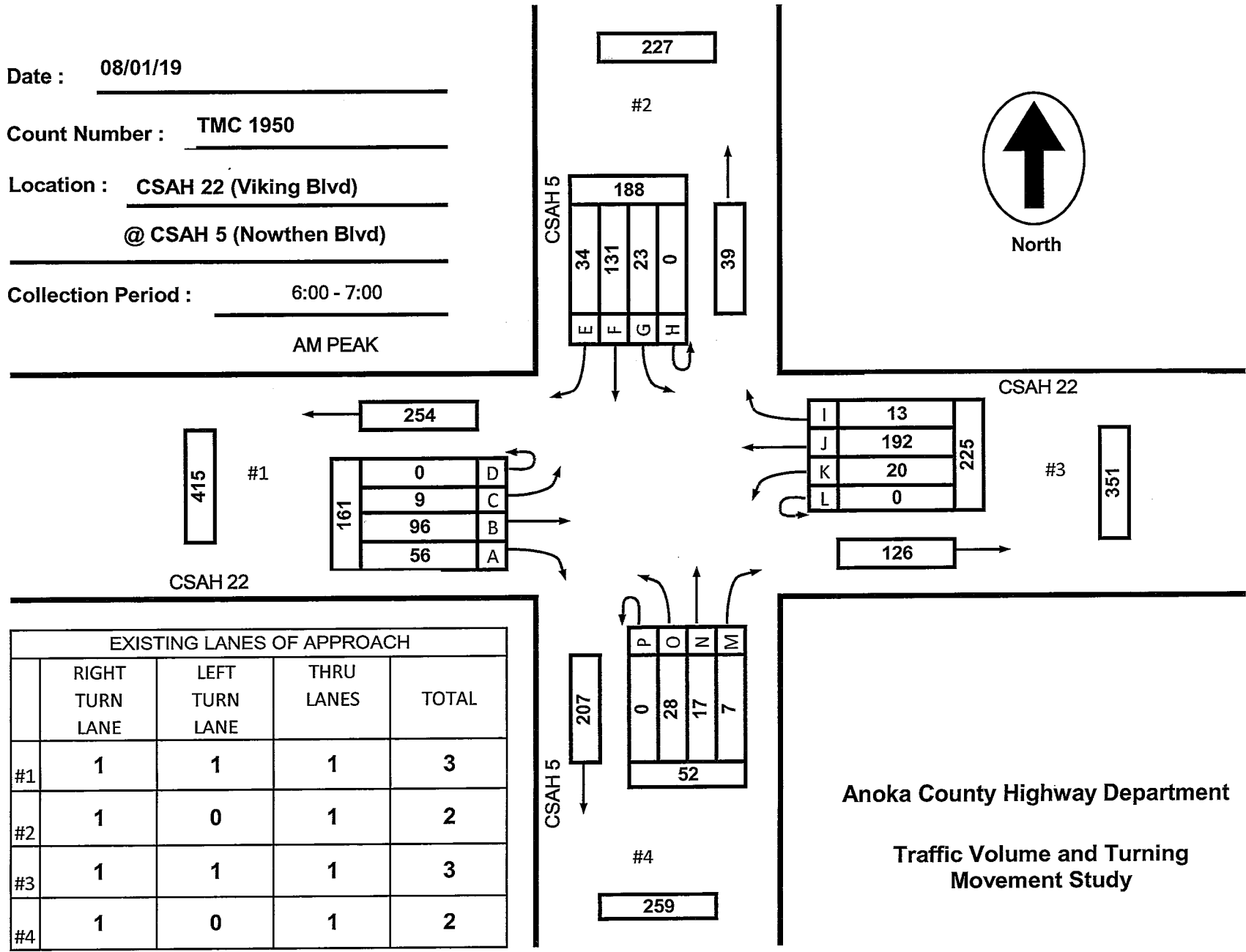
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 08/01/19

Count Number : TMC 1950

Location : CSAH 22 (Viking Blvd)
@ CSAH 5 (Nowthen Blvd)

Collection Period : 6:00 - 7:00
AM PEAK



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

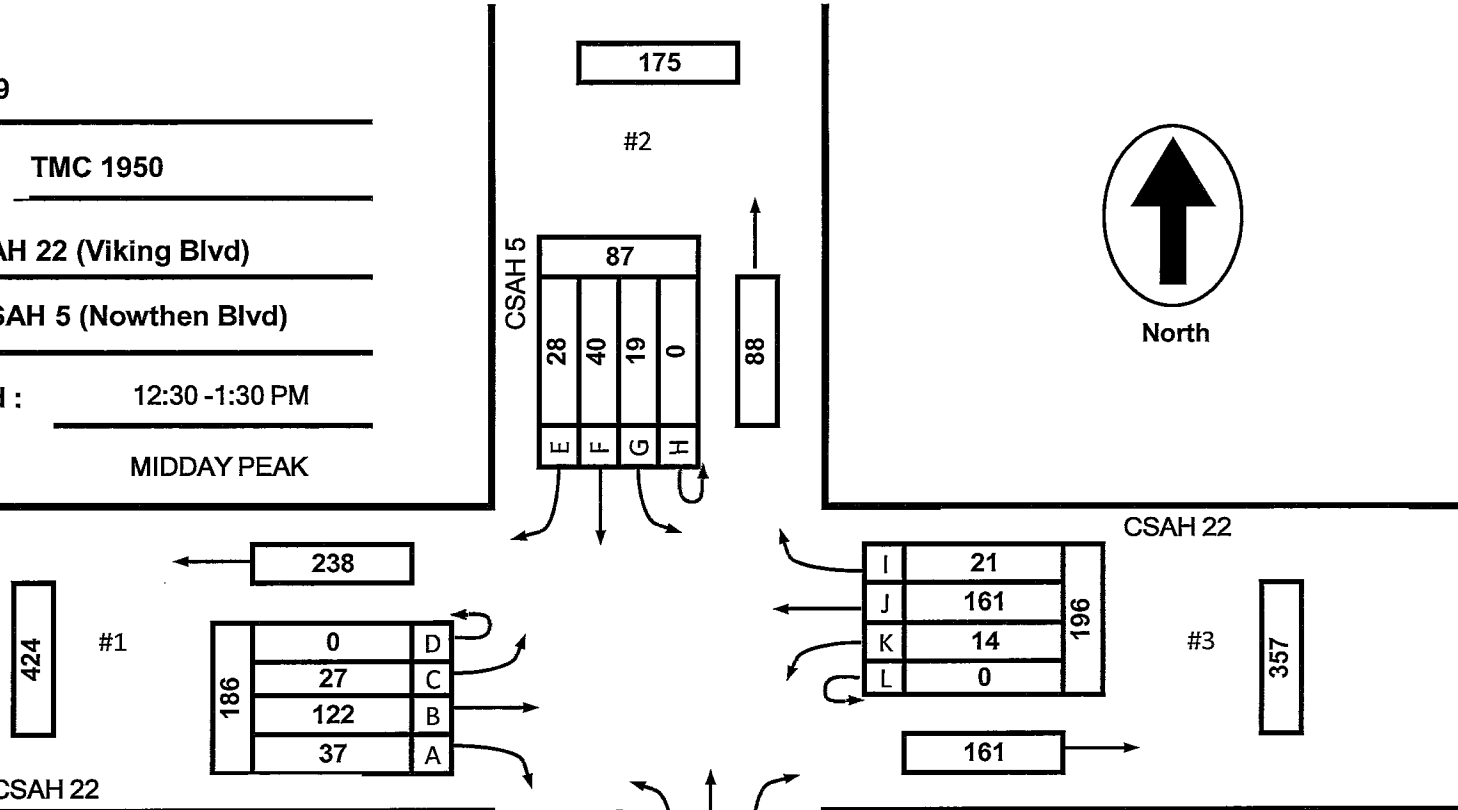
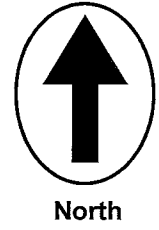
Anoka County Highway Department
 Traffic Volume and Turning Movement Study

Date : 08/01/19

Count Number : TMC 1950

Location : CSAH 22 (Viking Blvd)
@ CSAH 5 (Nowthen Blvd)

Collection Period : 12:30 -1:30 PM
MIDDAY PEAK



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

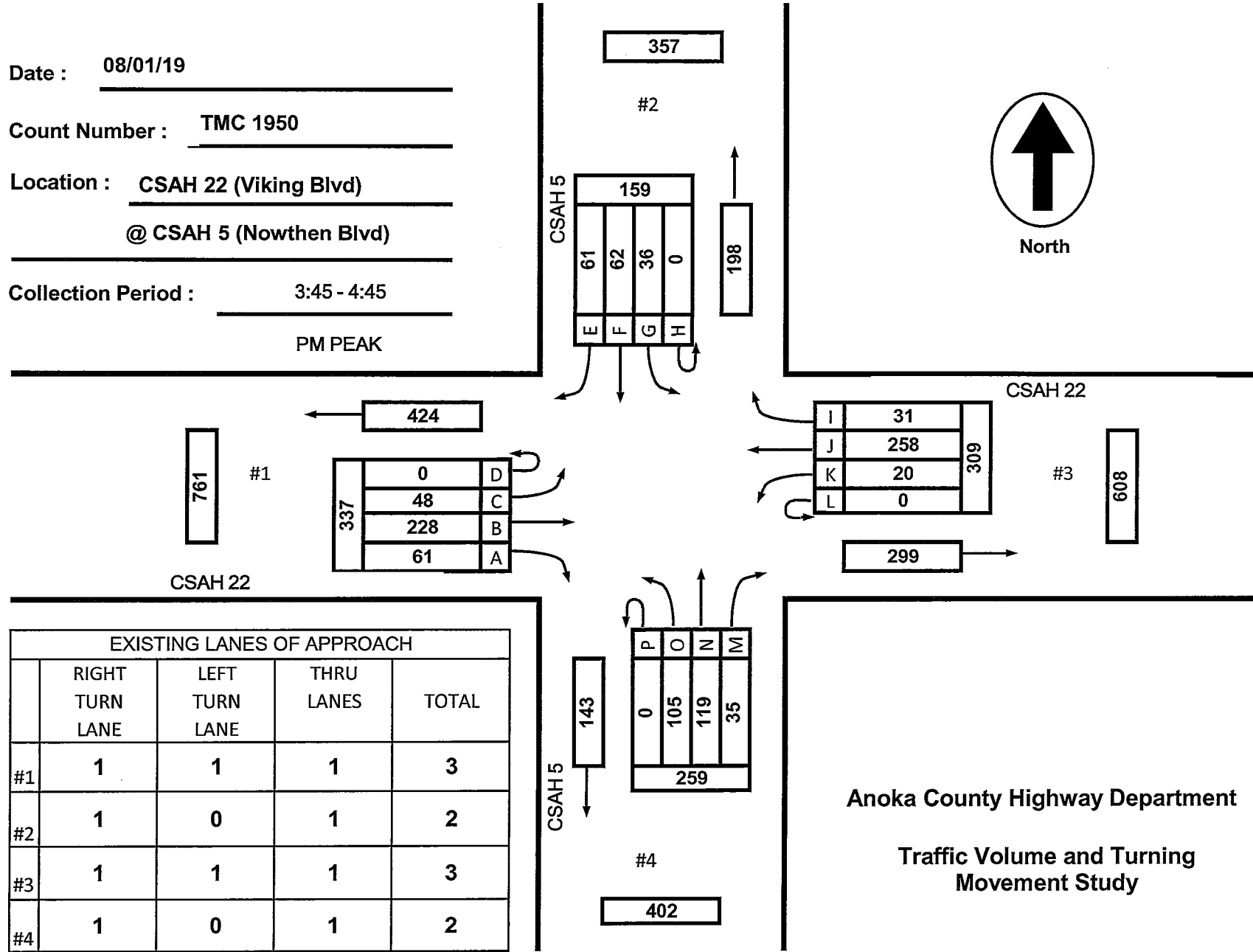
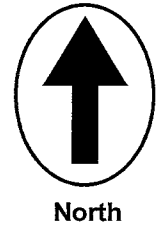
Anoka County Highway Department
Traffic Volume and Turning Movement Study

Date : 08/01/19

Count Number : TMC 1950

Location : CSAH 22 (Viking Blvd)
@ CSAH 5 (Nowthen Blvd)

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



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

357

#2

159			
E	F	G	H
61	62	36	0

198

761

#1

337	0	D
	48	C
	228	B
	61	A

424

CSAH 22

I	31	309
J	258	
K	20	
L	0	

#3

608

299

143

CSAH 5

P	O	N	M
0	105	119	35
259			

#4

402

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department
 Traffic Engineering Section
 Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 1

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 Southbound						CSAH 22 Westbound						CSAH 5 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total			
00:00	0	1	0	0	0	1	1	3	0	0	0	4	2	5	0	0	0	7	1	5	0	0	0	6	0	18	18
00:15	1	0	0	0	0	1	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	6	6
00:30	0	2	0	0	0	2	0	3	0	0	0	3	0	1	0	0	0	1	1	1	0	0	0	2	0	8	8
00:45	0	1	1	0	0	2	0	2	0	0	0	2	0	0	1	0	0	1	0	1	0	0	0	1	0	6	6
Total	1	4	1	0	0	6	1	12	0	0	0	13	2	6	1	0	0	9	2	7	1	0	0	10	0	38	38
01:00	0	0	0	0	0	0	0	2	0	0	0	2	0	1	2	0	0	3	0	3	2	0	0	5	0	10	10
01:15	0	1	0	0	0	1	0	1	2	0	0	3	0	0	0	0	0	0	0	1	1	0	0	2	0	6	6
01:30	0	2	0	0	0	2	0	2	0	0	0	2	1	2	0	0	0	3	0	0	1	0	0	1	0	8	8
01:45	0	1	0	0	0	1	0	1	0	0	0	1	2	2	0	0	0	4	2	3	0	0	0	5	0	11	11
Total	0	4	0	0	0	4	0	6	2	0	0	8	3	5	2	0	0	10	2	7	4	0	0	13	0	35	35
02:00	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	2	0	1	0	0	0	1	0	4	4
02:15	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	0	3	0	0	0	3	0	5	5
02:30	0	1	0	0	0	1	0	6	0	0	0	6	0	0	1	0	0	1	0	2	1	0	0	3	0	11	11
02:45	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	5	0	6	6
Total	0	1	0	0	0	1	0	9	0	0	0	9	1	2	1	0	0	4	0	11	1	0	0	12	0	26	26
03:00	1	0	0	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	1	1	0	0	2	0	5	5
03:15	0	0	0	0	0	0	0	4	0	0	0	4	0	2	0	0	0	2	0	2	0	0	0	2	0	8	8
03:30	1	1	1	0	0	3	0	2	0	0	0	2	0	1	0	0	0	1	0	2	0	0	0	2	0	8	8
03:45	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	1	0	0	0	0	1	0	5	5
Total	2	1	1	0	0	4	0	12	0	0	0	12	0	3	0	0	0	3	1	5	1	0	0	7	0	26	26
04:00	1	3	1	0	0	5	0	1	2	0	0	3	0	0	0	0	0	0	0	1	1	0	0	2	0	10	10
04:15	3	3	0	0	0	6	2	9	2	0	0	13	1	1	0	0	0	2	0	4	1	0	0	5	0	26	26
04:30	4	7	1	0	0	12	0	12	0	0	0	12	0	1	0	0	0	1	1	6	0	0	0	7	0	32	32
04:45	4	12	3	0	0	19	2	20	4	0	0	26	1	2	1	0	0	4	1	3	2	0	0	6	0	55	55
Total	12	25	5	0	0	42	4	42	8	0	0	54	2	4	1	0	0	7	2	14	4	0	0	20	0	123	123
05:00	3	13	1	0	0	17	2	15	0	0	0	17	3	1	2	0	0	6	7	14	0	0	0	21	0	61	61
05:15	3	14	0	0	0	17	1	32	2	0	0	35	1	6	6	0	0	13	8	14	2	0	0	24	0	89	89
05:30	5	22	1	0	0	28	4	43	2	0	0	49	2	3	6	0	0	11	11	35	2	0	0	48	0	136	136
05:45	3	28	6	0	0	37	5	47	3	0	0	55	0	8	6	0	0	14	10	22	0	0	0	32	0	138	138
Total	14	77	8	0	0	99	12	137	7	0	0	156	6	18	20	0	0	44	36	85	4	0	0	125	0	424	424

Anoka County Highway Department
 Traffic Engineering Section
 Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 2

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 Southbound						CSAH 22 Westbound						CSAH 5 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
06:00	11	40	5	0	0	56	4	45	5	0	0	54	4	2	8	0	0	14	13	14	3	0	0	30	0	154	154
06:15	10	29	7	0	0	46	3	52	4	0	0	59	1	8	7	0	0	16	13	22	1	0	0	36	0	157	157
06:30	4	33	4	0	0	41	4	58	5	0	0	67	1	5	6	0	0	12	9	34	5	0	0	48	0	168	168
06:45	9	29	7	0	0	45	2	37	6	0	0	45	1	2	7	0	0	10	21	26	0	0	0	47	0	147	147
Total	34	131	23	0	0	188	13	192	20	0	0	225	7	17	28	0	0	52	56	96	9	0	0	161	0	626	626
07:00	4	19	3	0	0	26	2	35	2	0	0	39	3	6	6	0	0	15	13	29	1	0	0	43	0	123	123
07:15	6	21	2	0	0	29	2	42	2	0	0	46	4	7	8	0	0	19	16	33	2	0	0	51	0	145	145
07:30	12	27	5	0	0	44	3	46	5	0	0	54	2	13	4	0	0	19	16	41	4	0	0	61	0	178	178
07:45	7	24	2	0	0	33	3	51	6	0	0	60	5	9	12	0	0	26	11	30	1	0	0	42	0	161	161
Total	29	91	12	0	0	132	10	174	15	0	0	199	14	35	30	0	0	79	56	133	8	0	0	197	0	607	607
08:00	4	16	6	0	0	26	0	35	4	0	0	39	7	12	8	0	0	27	7	27	1	0	0	35	0	127	127
08:15	5	15	7	0	0	27	3	51	3	0	0	57	2	6	8	0	0	16	9	23	1	0	0	33	0	133	133
08:30	5	20	5	0	0	30	0	50	9	0	0	59	8	14	9	0	0	31	12	31	5	0	0	48	0	168	168
08:45	10	19	1	0	0	30	3	41	10	0	0	54	5	13	9	0	0	27	14	17	7	0	0	38	0	149	149
Total	24	70	19	0	0	113	6	177	26	0	0	209	22	45	34	0	0	101	42	98	14	0	0	154	0	577	577
09:00	9	20	5	0	0	34	3	37	8	0	0	48	11	10	14	0	0	35	17	31	8	0	0	56	0	173	173
09:15	9	12	7	0	0	28	4	30	3	0	0	37	3	7	10	0	0	20	7	27	2	0	0	36	0	121	121
09:30	7	11	6	0	0	24	3	40	5	0	0	48	5	13	10	0	0	28	5	24	5	0	0	34	0	134	134
09:45	12	9	2	0	0	23	7	38	4	0	0	49	4	3	12	0	0	19	6	25	8	0	0	39	0	130	130
Total	37	52	20	0	0	109	17	145	20	0	0	182	23	33	46	0	0	102	35	107	23	0	0	165	0	558	558
10:00	8	9	2	0	0	19	4	31	6	0	0	41	6	3	6	0	0	15	3	32	5	0	0	40	0	115	115
10:15	8	15	1	0	0	24	1	21	5	0	0	27	2	11	6	0	0	19	8	31	7	0	0	46	0	116	116
10:30	7	5	5	0	0	17	7	29	5	0	0	41	4	5	6	0	0	15	6	24	5	0	2	37	0	110	110
10:45	6	5	2	0	0	13	1	36	4	0	0	41	5	10	6	0	0	21	7	26	6	0	0	39	0	114	114
Total	29	34	10	0	0	73	13	117	20	0	0	150	17	29	24	0	0	70	24	113	23	0	2	162	0	455	455
11:00	12	7	0	0	0	19	2	30	7	0	0	39	6	12	8	0	0	26	5	27	1	0	0	33	0	117	117
11:15	7	12	3	0	0	22	5	32	1	0	0	38	6	8	3	0	0	17	10	29	7	0	0	46	0	123	123
11:30	16	10	1	0	0	27	5	32	6	0	0	43	2	8	5	0	0	15	7	24	7	0	0	38	0	123	123
11:45	7	8	4	0	0	19	3	25	11	0	0	39	3	10	10	0	0	23	15	20	2	0	0	37	0	118	118
Total	42	37	8	0	0	87	15	119	25	0	0	159	17	38	26	0	0	81	37	100	17	0	0	154	0	481	481
12:00	5	11	5	0	0	21	5	31	3	0	0	39	9	12	27	0	0	48	8	16	8	0	0	32	0	140	140
12:15	8	6	2	0	0	16	2	38	5	0	0	45	8	17	21	0	0	46	10	17	2	0	0	29	0	136	136
12:30	7	8	3	0	0	18	3	39	4	0	0	46	2	12	11	0	0	25	10	39	7	0	0	56	0	145	145

Anoka County Highway Department
 Traffic Engineering Section
 Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 3

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 Southbound						CSAH 22 Westbound						CSAH 5 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total	Right	Thru	Left	UTm	Peds	App. Total			
12:45	9	10	3	0	0	22	6	46	4	0	0	56	6	9	10	0	0	25	11	31	10	0	0	52	0	155	155
Total	29	35	13	0	0	77	16	154	16	0	0	186	25	50	69	0	0	144	39	103	27	0	0	169	0	576	576
13:00	6	15	3	0	0	24	8	36	3	0	0	47	3	14	17	0	0	34	7	23	4	0	0	34	0	139	139
13:15	6	7	10	0	0	23	4	40	3	0	0	47	9	5	11	0	0	25	9	29	6	0	0	44	0	139	139
13:30	4	7	0	0	0	11	6	35	7	0	0	48	3	15	8	0	0	26	4	23	8	0	0	35	0	120	120
13:45	6	12	7	0	0	25	1	31	3	0	0	35	11	10	11	0	0	32	3	26	3	0	0	32	0	124	124
Total	22	41	20	0	0	83	19	142	16	0	0	177	26	44	47	0	0	117	23	101	21	0	0	145	0	522	522
14:00	5	14	4	0	0	23	1	29	5	0	0	35	7	17	11	0	0	35	4	36	9	0	0	49	0	142	142
14:15	11	7	4	0	0	22	5	47	3	0	0	55	4	19	6	0	0	29	11	51	10	0	0	72	0	178	178
14:30	7	11	2	0	1	20	5	40	5	0	0	50	14	11	13	0	0	38	9	42	5	0	1	57	1	165	166
14:45	4	3	8	0	0	15	5	37	5	0	1	48	11	20	14	0	0	45	8	36	15	0	0	59	0	167	167
Total	27	35	18	0	1	80	16	153	18	0	1	188	36	67	44	0	0	147	32	165	39	0	1	237	1	652	653
15:00	6	12	7	0	0	25	8	43	8	0	0	59	4	15	15	0	0	34	11	50	11	0	1	73	0	191	191
15:15	12	11	8	0	0	31	11	35	7	0	0	53	10	35	18	0	0	63	14	49	5	0	0	68	0	215	215
15:30	10	9	7	0	0	26	8	53	5	0	0	66	9	34	18	0	0	61	17	49	7	0	0	73	0	226	226
15:45	12	13	9	0	0	34	6	77	4	0	0	87	6	28	28	0	0	62	12	66	9	0	0	87	0	270	270
Total	40	45	31	0	0	116	33	208	24	0	0	265	29	112	79	0	0	220	54	214	32	0	1	301	0	902	902
16:00	15	14	7	0	0	36	9	59	5	0	0	73	9	35	25	0	0	69	15	57	8	0	0	80	0	258	258
16:15	14	16	7	0	0	37	8	59	5	0	0	72	8	29	25	0	0	62	17	53	14	0	0	84	0	255	255
16:30	20	19	13	0	2	52	8	63	6	0	0	77	12	27	27	0	0	66	17	52	17	0	1	87	2	282	284
16:45	7	12	4	0	0	23	8	65	10	0	0	83	4	34	25	0	0	63	17	66	11	0	0	94	0	263	263
Total	56	61	31	0	2	148	33	246	26	0	0	305	33	125	102	0	0	260	66	228	50	0	1	345	2	1058	1060
17:00	8	14	5	0	0	27	4	50	2	0	0	56	9	27	25	0	0	61	10	50	14	0	0	74	0	218	218
17:15	15	13	9	0	0	37	10	57	7	0	0	74	8	30	24	0	0	62	11	53	14	0	0	78	0	251	251
17:30	6	11	7	0	0	24	9	74	5	0	0	88	10	22	22	0	0	54	24	47	14	0	0	85	0	251	251
17:45	4	17	3	0	0	24	5	55	4	0	0	64	4	36	22	0	0	62	15	52	9	0	0	76	0	226	226
Total	33	55	24	0	0	112	28	236	18	0	0	282	31	115	93	0	0	239	60	202	51	0	0	313	0	946	946
18:00	4	12	8	0	0	24	4	38	9	0	0	51	7	21	27	0	0	55	19	53	11	0	0	83	0	213	213
18:15	12	9	7	0	0	28	4	46	3	0	0	53	9	25	19	0	0	53	15	38	8	0	0	61	0	195	195
18:30	7	8	8	0	0	23	6	37	4	0	0	47	5	18	26	0	0	49	15	49	10	0	0	74	0	193	193
18:45	10	13	4	0	0	27	2	30	6	0	0	38	4	21	12	0	0	37	16	28	8	0	0	52	0	154	154
Total	33	42	27	0	0	102	16	151	22	0	0	189	25	85	84	0	0	194	65	168	37	0	0	270	0	755	755

Anoka County Highway Department
 Traffic Engineering Section
 Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 4

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 Southbound						CSAH 22 Westbound						CSAH 5 Northbound						CSAH 22 Eastbound						Exclu. Total	Inclu. Total	Int. Total
	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total			
19:00	10	17	5	0	0	32	2	22	1	0	0	25	2	26	12	0	0	40	19	34	7	0	0	60	0	157	157
19:15	8	7	1	0	0	16	3	21	5	0	0	29	3	17	13	0	0	33	11	25	5	0	0	41	0	119	119
19:30	8	10	0	0	0	18	1	18	4	0	0	23	7	13	11	0	0	31	11	35	7	0	0	53	0	125	125
19:45	4	10	3	0	0	17	1	25	0	0	1	27	10	10	16	0	0	36	8	34	9	0	0	51	0	131	131
Total	30	44	9	0	0	83	7	86	10	0	1	104	22	66	52	0	0	140	49	128	28	0	0	205	0	532	532
20:00	8	7	3	0	0	18	2	15	4	0	0	21	7	12	14	0	0	33	17	30	3	0	0	50	0	122	122
20:15	3	6	4	0	0	13	4	21	1	0	0	26	2	12	12	0	0	26	23	30	7	0	0	60	0	125	125
20:30	6	2	0	0	0	8	2	22	5	0	0	29	3	9	11	0	0	23	12	29	8	0	0	49	0	109	109
20:45	5	6	6	0	0	17	0	15	2	0	0	17	4	7	14	0	0	25	9	30	5	0	0	44	0	103	103
Total	22	21	13	0	0	56	8	73	12	0	0	93	16	40	51	0	0	107	61	119	23	0	0	203	0	459	459
21:00	3	11	0	0	0	14	0	19	1	0	0	20	7	11	5	0	0	23	2	15	6	0	0	23	0	80	80
21:15	1	5	1	0	0	7	3	21	2	0	0	26	1	10	7	0	0	18	4	21	8	0	0	33	0	84	84
21:30	4	4	1	0	0	9	3	14	0	0	0	17	3	9	12	0	0	24	5	22	10	0	0	37	0	87	87
21:45	3	3	2	0	0	8	0	13	1	0	0	14	3	8	6	0	0	17	8	16	4	0	0	28	0	67	67
Total	11	23	4	0	0	38	6	67	4	0	0	77	14	38	30	0	0	82	19	74	28	0	0	121	0	318	318
22:00	1	3	1	0	0	5	1	9	3	0	0	13	1	4	2	0	0	7	7	9	2	0	0	18	0	43	43
22:15	0	3	2	0	0	5	0	10	1	0	0	11	2	6	2	0	0	10	5	14	2	0	0	21	0	47	47
22:30	2	1	0	0	0	3	2	7	0	0	0	9	4	5	2	0	0	11	0	8	2	0	0	10	0	33	33
22:45	0	0	0	0	0	0	0	3	2	0	0	5	3	3	1	0	0	7	1	12	2	0	0	15	0	27	27
Total	3	7	3	0	0	13	3	29	6	0	0	38	10	18	7	0	0	35	13	43	8	0	0	64	0	150	150
23:00	0	1	0	0	0	1	0	3	1	0	0	4	0	1	2	0	0	3	1	7	2	0	0	10	0	18	18
23:15	2	2	0	0	0	4	1	5	0	0	0	6	1	4	0	0	0	5	1	3	0	0	0	4	0	19	19
23:30	1	0	0	0	0	1	1	2	0	0	0	3	1	1	1	0	0	3	3	5	1	0	0	9	0	16	16
23:45	0	1	1	0	0	2	0	3	1	0	0	4	0	2	0	0	0	2	0	4	0	0	0	4	0	12	12
Total	3	4	1	0	0	8	2	13	2	0	0	17	2	8	3	0	0	13	5	19	3	0	0	27	0	65	65
Grand Total	533	940	301	0	3	1774	278	2700	317	0	2	3297	383	1003	874	0	0	2260	779	2340	456	0	5	3580	3	10911	10914
Apprch %	30	53	17	0			8.4	81.9	9.6	0	0.1		16.9	44.4	38.7	0	0		21.8	65.4	12.7	0	0.1				
Total %	4.9	8.6	2.8	0		16.3	2.5	24.7	2.9	0	0	30.2	3.5	9.2	8	0	0	20.7	7.1	21.4	4.2	0	0	32.8	0	100	
Cars +	492	838	265	0		1598	247	2441	301	0	2	2991	359	907	819	0	0	2085	733	2104	424	0	5	3266	0	0	9940
% Cars +	92.3	89.1	88	0	100	89.9	88.8	90.4	95	0	100	90.7	93.7	90.4	93.7	0	0	92.3	94.1	89.9	93	0	100	91.2	0	0	91.1
Trucks	41	102	36	0		179	31	259	16	0	0	306	24	96	55	0	0	175	46	236	32	0	0	314	0	0	974
% Trucks	7.7	10.9	12	0	0	10.1	11.2	9.6	5	0	0	9.3	6.3	9.6	6.3	0	0	7.7	5.9	10.1	7	0	0	8.8	0	0	8.9

Anoka County Highway Department
 Traffic Engineering Section
 Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 5

Start Time	CSAH 5 Southbound					CSAH 22 Westbound						CSAH 5 Northbound						CSAH 22 Eastbound						Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	
Peak Hour Analysis From 00:00 to 09:45 - Peak 1 of 1																								
Peak Hour for Entire Intersection Begins at 06:00																								
06:00	11	40	5	0	56	4	45	5	0	0	54	4	2	8	0	0	14	13	14	3	0	0	30	154
06:15	10	29	7	0	46	3	52	4	0	0	59	1	8	7	0	0	16	13	22	1	0	0	36	157
06:30	4	33	4	0	41	4	58	5	0	0	67	1	5	6	0	0	12	9	34	5	0	0	48	168
06:45	9	29	7	0	45	2	37	6	0	0	45	1	2	7	0	0	10	21	26	0	0	0	47	147
Total Volume	34	131	23	0	188	13	192	20	0	0	225	7	17	28	0	0	52	56	96	9	0	0	161	626
% App. Total	18.1	69.7	12.2	0		5.8	85.3	8.9	0	0		13.5	32.7	53.8	0	0		34.8	59.6	5.6	0	0		
PHF	.773	.819	.821	.000	.839	.813	.828	.833	.000	.000	.840	.438	.531	.875	.000	.000	.813	.667	.706	.450	.000	.000	.839	.932
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																								
Peak Hour for Entire Intersection Begins at 12:30																								
12:30	7	8	3	0	18	3	39	4	0	0	46	2	12	11	0	0	25	10	39	7	0	0	56	145
12:45	9	10	3	0	22	6	46	4	0	0	56	6	9	10	0	0	25	11	31	10	0	0	52	155
13:00	6	15	3	0	24	8	36	3	0	0	47	3	14	17	0	0	34	7	23	4	0	0	34	139
13:15	6	7	10	0	23	4	40	3	0	0	47	9	5	11	0	0	25	9	29	6	0	0	44	139
Total Volume	28	40	19	0	87	21	161	14	0	0	196	20	40	49	0	0	109	37	122	27	0	0	186	578
% App. Total	32.2	46	21.8	0		10.7	82.1	7.1	0	0		18.3	36.7	45	0	0		19.9	65.6	14.5	0	0		
PHF	.778	.667	.475	.000	.906	.656	.875	.875	.000	.000	.875	.556	.714	.721	.000	.000	.801	.841	.782	.675	.000	.000	.830	.932
Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																								
Peak Hour for Entire Intersection Begins at 15:45																								
15:45	12	13	9	0	34	6	77	4	0	0	87	6	28	28	0	0	62	12	66	9	0	0	87	270
16:00	15	14	7	0	36	9	59	5	0	0	73	9	35	25	0	0	69	15	57	8	0	0	80	258
16:15	14	16	7	0	37	8	59	5	0	0	72	8	29	25	0	0	62	17	53	14	0	0	84	255
16:30	20	19	13	0	52	8	63	6	0	0	77	12	27	27	0	0	66	17	52	17	0	1	87	282
Total Volume	61	62	36	0	159	31	258	20	0	0	309	35	119	105	0	0	259	61	228	48	0	1	338	1065
% App. Total	38.4	39	22.6	0		10	83.5	6.5	0	0		13.5	45.9	40.5	0	0		18	67.5	14.2	0	0.3		
PHF	.763	.816	.692	.000	.764	.861	.838	.833	.000	.000	.888	.729	.850	.938	.000	.000	.938	.897	.864	.706	.000	.250	.971	.944

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 1

Groups Printed- Trucks

Start Time	CSAH 5 Southbound					CSAH 22 Westbound					CSAH 5 Northbound					CSAH 22 Eastbound					Int. Total					
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left		UTrn	Peds	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	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	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	0	0	0	0
00:45	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
Total	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
01:00	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
01:15	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
01:30	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
01:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	0	0	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	2
02:15	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
02:30	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
02:45	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	0	0	1	0	1	0	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1
03:15	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
03:30	0	0	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	3
03:45	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	1	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	2	2	4
04:00	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15	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
04:30	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	3
04:45	0	0	1	0	1	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Total	0	2	1	0	3	0	3	1	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	1	8	8
05:00	1	1	0	0	2	0	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	2	2	6
05:15	0	1	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	4	4	6
05:30	1	4	0	0	5	0	2	0	0	0	2	0	0	1	0	0	1	1	4	0	0	0	5	5	13	
05:45	2	5	2	0	9	0	9	0	0	0	9	0	0	0	0	0	0	0	4	0	0	0	4	4	4	22
Total	4	11	2	0	17	0	13	1	0	0	14	0	0	1	0	0	1	1	14	0	0	0	15	15	47	
06:00	3	6	1	0	10	0	4	0	0	0	4	0	0	1	0	0	1	0	2	1	0	0	3	3	18	
06:15	2	3	4	0	9	0	8	1	0	0	9	0	0	0	0	0	0	1	2	1	0	0	4	4	22	
06:30	0	8	1	0	9	0	5	1	0	0	6	0	0	3	0	0	3	1	6	2	0	0	9	9	27	
06:45	2	4	1	0	7	0	5	0	0	0	5	0	0	2	0	0	2	5	3	0	0	0	8	8	22	
Total	7	21	7	0	35	0	22	2	0	0	24	0	0	6	0	0	6	7	13	4	0	0	24	24	89	
07:00	1	3	0	0	4	0	2	0	0	0	2	1	3	0	0	0	4	1	3	0	0	0	4	4	14	
07:15	2	4	1	0	7	2	4	0	0	0	6	0	0	1	0	0	1	3	4	2	0	0	9	9	23	
07:30	0	3	0	0	3	1	7	0	0	0	8	0	1	0	0	0	1	1	6	0	0	0	7	7	19	
07:45	1	6	0	0	7	0	7	1	0	0	8	0	0	1	0	0	1	2	6	0	0	0	8	8	24	
Total	4	16	1	0	21	3	20	1	0	0	24	1	4	2	0	0	7	7	19	2	0	0	28	28	80	
08:00	0	1	1	0	2	0	4	0	0	0	4	0	0	1	0	0	1	1	5	0	0	0	6	6	13	
08:15	0	0	2	0	2	2	6	0	0	0	8	0	1	1	0	0	2	1	6	0	0	0	7	7	19	
08:30	1	0	0	0	1	0	5	0	0	0	5	4	3	2	0	0	9	1	4	2	0	0	7	7	22	
08:45	0	2	0	0	2	0	9	0	0	0	9	1	5	0	0	0	6	4	3	0	0	0	7	7	24	
Total	1	3	3	0	7	2	24	0	0	0	26	5	9	4	0	0	18	7	18	2	0	0	27	27	78	
09:00	1	1	0	0	2	0	8	0	0	0	8	0	0	0	0	0	0	0	2	1	0	0	3	3	13	

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 2

Groups Printed- Trucks

Start Time	CSAH 5 Southbound					CSAH 22 Westbound					CSAH 5 Northbound					CSAH 22 Eastbound					Int. Total			
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left		UTrn	Peds	App. Total
09:15	1	3	1	0	5	0	4	0	0	0	4	0	0	2	0	0	2	1	5	0	0	0	6	17
09:30	0	1	0	0	1	1	7	0	0	0	8	0	7	1	0	0	8	1	5	1	0	0	7	24
09:45	2	1	0	0	3	1	5	0	0	0	6	1	1	0	0	0	2	0	2	1	0	0	3	14
Total	4	6	1	0	11	2	24	0	0	0	26	1	8	3	0	0	12	2	14	3	0	0	19	68
10:00	1	2	0	0	3	0	3	1	0	0	4	0	0	1	0	0	1	1	2	1	0	0	4	12
10:15	0	3	0	0	3	0	1	0	0	0	1	0	5	1	0	0	6	2	7	2	0	0	11	21
10:30	0	0	2	0	2	0	2	0	0	0	2	0	1	1	0	0	2	0	6	0	0	0	6	12
10:45	1	1	1	0	3	0	5	0	0	0	5	1	0	0	0	0	1	0	4	0	0	0	4	13
Total	2	6	3	0	11	0	11	1	0	0	12	1	6	3	0	0	10	3	19	3	0	0	25	58
11:00	0	1	0	0	1	0	2	0	0	0	2	0	2	0	0	0	2	0	4	0	0	0	4	9
11:15	1	1	0	0	2	1	3	0	0	0	4	2	3	1	0	0	6	0	3	0	0	0	3	15
11:30	2	2	1	0	5	2	2	0	0	0	4	0	1	0	0	0	1	0	4	3	0	0	7	17
11:45	1	0	1	0	2	0	2	0	0	0	2	0	0	0	0	0	0	0	4	1	0	0	5	9
Total	4	4	2	0	10	3	9	0	0	0	12	2	6	1	0	0	9	0	15	4	0	0	19	50
12:00	1	1	1	0	3	2	7	0	0	0	9	1	2	2	0	0	5	0	1	2	0	0	3	20
12:15	0	0	0	0	0	1	3	0	0	0	4	0	0	1	0	0	1	1	1	0	0	0	2	7
12:30	0	2	1	0	3	1	8	0	0	0	9	0	1	3	0	0	4	0	6	0	0	0	6	22
12:45	1	2	0	0	3	0	4	1	0	0	5	0	2	0	0	0	2	0	1	1	0	0	2	12
Total	2	5	2	0	9	4	22	1	0	0	27	1	5	6	0	0	12	1	9	3	0	0	13	61
13:00	0	2	1	0	3	0	2	0	0	0	2	0	0	1	0	0	1	1	7	0	0	0	8	14
13:15	0	1	0	0	1	1	4	0	0	0	5	0	0	1	0	0	1	0	5	0	0	0	5	12
13:30	0	0	0	0	0	1	4	1	0	0	6	0	0	1	0	0	1	0	3	1	0	0	4	11
13:45	1	2	2	0	5	1	5	0	0	0	6	1	1	2	0	0	4	0	3	1	0	0	4	19
Total	1	5	3	0	9	3	15	1	0	0	19	1	1	5	0	0	7	1	18	2	0	0	21	56
14:00	0	1	1	0	2	0	5	1	0	0	6	0	2	1	0	0	3	1	3	1	0	0	5	16
14:15	0	2	2	0	4	2	5	0	0	0	7	0	3	2	0	0	5	0	3	1	0	0	4	20
14:30	1	1	0	0	2	1	5	0	0	0	6	1	1	0	0	0	2	2	8	0	0	0	10	20
14:45	0	0	0	0	0	0	6	1	0	0	7	1	1	1	0	0	3	0	2	0	0	0	2	12
Total	1	4	3	0	8	3	21	2	0	0	26	2	7	4	0	0	13	3	16	2	0	0	21	68
15:00	0	3	0	0	3	1	4	1	0	0	6	1	2	0	0	0	3	0	7	0	0	0	7	19
15:15	0	0	1	0	1	1	4	1	0	0	6	0	3	1	0	0	4	1	3	0	0	0	4	15
15:30	1	0	0	0	1	1	3	0	0	0	4	1	1	3	0	0	5	0	6	1	0	0	7	17
15:45	0	0	0	0	0	0	9	0	0	0	9	0	3	2	0	0	5	2	6	0	0	0	8	22
Total	1	3	1	0	5	3	20	2	0	0	25	2	9	6	0	0	17	3	22	1	0	0	26	73
16:00	1	2	1	0	4	1	8	1	0	0	10	0	3	0	0	0	3	1	2	1	0	0	4	21
16:15	1	1	1	0	3	0	3	0	0	0	3	0	3	2	0	0	5	0	7	1	0	0	8	19
16:30	2	0	1	0	3	0	3	0	0	0	3	1	0	1	0	0	2	0	5	0	0	0	5	13
16:45	0	0	0	0	0	0	5	2	0	0	7	0	1	0	0	0	1	0	9	0	0	0	9	17
Total	4	3	3	0	10	1	19	3	0	0	23	1	7	3	0	0	11	1	23	2	0	0	26	70
17:00	0	2	0	0	2	0	6	0	0	0	6	1	1	0	0	0	2	0	3	1	0	0	4	14
17:15	0	2	1	0	3	1	2	0	0	0	3	0	0	1	0	0	1	0	3	0	0	0	3	10
17:30	1	0	0	0	1	0	2	0	0	0	2	1	3	1	0	0	5	1	3	1	0	0	5	13
17:45	0	0	0	0	0	2	6	0	0	0	8	0	2	0	0	0	2	0	2	1	0	0	3	13
Total	1	4	1	0	6	3	16	0	0	0	19	2	6	2	0	0	10	1	11	3	0	0	15	50
18:00	0	1	0	0	1	0	6	0	0	0	6	0	1	1	0	0	2	0	3	0	0	0	3	12
18:15	1	0	0	0	1	0	0	0	0	0	0	0	2	1	0	0	3	1	0	0	0	0	1	5
18:30	0	0	0	0	0	1	2	0	0	0	3	0	1	4	0	0	5	1	3	0	0	0	4	12
18:45	1	2	1	0	4	0	0	0	0	0	0	0	1	0	0	0	1	1	4	0	0	0	5	10
Total	2	3	1	0	6	1	8	0	0	0	9	0	5	6	0	0	11	3	10	0	0	0	13	39

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Hot & Sunny
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1950
 Site Code :
 Start Date : 08/01/2019
 Page No : 3

Groups Printed- Trucks

Start Time	CSAH 5 Southbound					CSAH 22 Westbound					CSAH 5 Northbound					CSAH 22 Eastbound					Int. Total			
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left	UTrn	Peds	App. Total	Right	Thru	Left		UTrn	Peds	App. Total
19:00	0	1	0	0	1	0	1	0	0	0	1	0	5	0	0	0	5	0	1	0	0	0	1	8
19:15	0	0	0	0	0	1	1	0	0	0	2	0	3	1	0	0	4	1	2	0	0	0	3	9
19:30	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	0	3	5
19:45	0	1	0	0	1	0	2	0	0	0	2	0	1	1	0	0	2	1	1	0	0	0	2	7
Total	1	2	0	0	3	1	4	0	0	0	5	0	10	2	0	0	12	2	7	0	0	0	9	29
20:00	0	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	1	0	0	0	1	3
20:15	0	1	0	0	1	1	1	0	0	0	2	0	2	0	0	0	2	0	0	0	0	0	0	5
20:30	1	1	0	0	2	1	0	0	0	0	1	0	2	0	0	0	2	1	0	0	0	0	1	6
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	0	0	3	2	1	1	0	0	4	0	5	0	0	0	5	1	1	0	0	0	2	14
21:00	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	0	2	0	1	0	0	0	1	4
21:15	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	2
21:30	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1	1	0	0	0	2	4
21:45	1	0	0	0	1	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	1	0	2	5
Total	1	0	0	0	1	0	4	0	0	0	4	0	3	1	0	0	4	2	3	1	0	0	6	15
22:00	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	2
22:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	2
22:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
22:45	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	1	0	0	0	1	3	2	0	0	0	5	1	1	0	0	0	2	8
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	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	0	0
Grand Total	41	102	36	0	179	31	259	16	0	0	306	24	96	55	0	0	175	46	236	32	0	0	314	974
Approch %	22.9	57	20.1	0		10.1	84.6	5.2	0	0		13.7	54.9	31.4	0	0		14.6	75.2	10.2	0	0		
Total %	4.2	10.5	3.7	0	18.4	3.2	26.6	1.6	0	0	31.4	2.5	9.9	5.6	0	0	18	4.7	24.2	3.3	0	0	32.2	

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name: **TMC 1950**
Study Date: **04/09/2020**
Page No: **1**

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 22
Number of Lanes : 1

Total Approach Volume: 3,575

Westbound: CSAH 22
Number of Lanes : 1

Total Approach Volume: 3,295

Minor Street Approaches

Northbound: CSAH 5
Number of Lanes : 1

Total Approach Volume: 2,260

Southbound: CSAH 5
Number of Lanes : 1

Total Approach Volume: 1,774

Warrant Summary (Rural Values Apply)

- Warrant 1 - Eight Hour Vehicular Volumes.....**Satisfied**
 - Warrant 1A - Minimum Vehicular Volume.....**Satisfied**
Required volumes reached for 11 hours, 8 are needed
 - Warrant 1B - Interruption of Continuous Traffic.....**Not Satisfied**
Required volumes reached for 3 hours, 8 are needed
 - Warrant 1C - Combination of Warrants.....**Not Satisfied**
Required 1A volumes reached for 15 hours, 8 are needed
Required 1B volumes reached for 5 hours, 8 are needed

- Warrant 2 - Four Hour Volumes.....**Satisfied**
Number of hours (6) volumes exceed minimum >= minimum required (4).

- Warrant 3 - Peak Hour.....**Satisfied**
 - Warrant 3A - Peak Hour Delay.....**Not Satisfied**
Approach volumes on minor street don't exceed minimums for any hour. Delay data not evaluated.
 - Warrant 3B - Peak Hour Volumes.....**Satisfied**
Volumes exceed minimums for at least one hour.

- 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 1950

Study Date: 04/09/2020

Page No: 2

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

11 hours 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 CSAH 22				Total	Minor Road CSAH 5		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:30 - 17:30	332	+	290	=	622	252	139	Yes
15:30 - 16:30	324	+	298	=	622	254	133	Yes
17:30 - 18:30	305	+	256	=	561	224	100	Yes
14:30 - 15:30	255	+	209	=	464	180	91	Yes
06:30 - 07:30	189	+	197	=	386	56	141	Yes
07:30 - 08:30	171	+	210	=	381	88	130	Yes
08:30 - 09:30	178	+	198	=	376	113	122	Yes
18:30 - 19:30	227	+	139	=	366	159	98	Yes
05:30 - 06:30	146	+	217	=	363	55	167	Yes
13:30 - 14:30	188	+	173	=	361	122	81	Yes
12:00 - 13:00	169	+	186	=	355	144	77	Yes
05:15 - 06:15	134	+	193	=	327	52	138	No
13:15 - 14:15	160	+	165	=	325	118	82	No
09:30 - 10:30	159	+	165	=	324	81	90	No
11:45 - 12:45	154	+	169	=	323	142	74	No
13:00 - 14:00	145	+	177	=	322	117	83	No
09:45 - 10:45	160	+	158	=	318	68	83	No
10:45 - 11:45	156	+	161	=	317	79	81	No
11:00 - 12:00	154	+	159	=	313	81	87	No
19:45 - 20:45	210	+	102	=	312	118	56	No
10:30 - 11:30	153	+	159	=	312	79	71	No
11:15 - 12:15	153	+	159	=	312	103	89	No
19:30 - 20:30	214	+	96	=	310	126	66	No
10:00 - 11:00	160	+	150	=	310	70	73	No
11:30 - 12:30	136	+	166	=	302	132	83	No

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: **TMC 1950**

Study Date: **04/09/2020**

Page No: **3**

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 3 hours 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 = **53**

Time	Major Road CSAH 22				Total	Minor Road CSAH 5		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	344	+	305	=	649	260	148	Yes
17:00 - 18:00	313	+	282	=	595	239	112	Yes
15:00 - 16:00	300	+	265	=	565	220	116	Yes
14:45 - 15:45	272	+	225	=	497	203	97	No
14:15 - 15:15	259	+	211	=	470	146	82	No
14:30 - 15:30	255	+	209	=	464	180	91	No
18:00 - 19:00	270	+	189	=	459	194	102	No
14:00 - 15:00	236	+	187	=	423	147	80	No
18:15 - 19:15	247	+	163	=	410	179	110	No
07:00 - 08:00	197	+	199	=	396	79	132	No
08:15 - 09:15	175	+	218	=	393	109	121	No
07:15 - 08:15	189	+	199	=	388	91	132	No
06:45 - 07:45	202	+	184	=	386	63	144	No
06:30 - 07:30	189	+	197	=	386	56	141	No
06:00 - 07:00	161	+	225	=	386	52	188	No
13:45 - 14:45	209	+	175	=	384	134	90	No
06:15 - 07:15	174	+	210	=	384	53	158	No
12:30 - 13:30	186	+	196	=	382	109	87	No
07:30 - 08:30	171	+	210	=	381	88	130	No
05:45 - 06:45	146	+	235	=	381	56	180	No
08:30 - 09:30	178	+	198	=	376	113	122	No
07:45 - 08:45	158	+	215	=	373	100	116	No
18:30 - 19:30	227	+	139	=	366	159	98	No
12:15 - 13:15	171	+	194	=	365	130	80	No
12:45 - 13:45	165	+	198	=	363	110	80	No

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: **TMC 1950**

Study Date: **04/09/2020**

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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.
Only 5 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 CSAH 22

Minor Road CSAH 5

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1A?
16:00 - 17:00	344	+	305	=	649	260	148	Yes
17:00 - 18:00	313	+	282	=	595	239	112	Yes
15:00 - 16:00	300	+	265	=	565	220	116	Yes
18:00 - 19:00	270	+	189	=	459	194	102	Yes
14:00 - 15:00	236	+	187	=	423	147	80	Yes
07:00 - 08:00	197	+	199	=	396	79	132	Yes
06:00 - 07:00	161	+	225	=	386	52	188	Yes
08:00 - 09:00	154	+	209	=	363	101	113	Yes
12:00 - 13:00	169	+	186	=	355	144	77	Yes
09:00 - 10:00	165	+	182	=	347	102	109	Yes
13:00 - 14:00	145	+	177	=	322	117	83	Yes
11:00 - 12:00	154		159		313	81	87	Yes

Time	Major EB	+	Major WB	=	Total	Minor NB	Minor SB	Met1B?
16:00 - 17:00	344	+	305	=	649	260	148	Yes
17:00 - 18:00	313	+	282	=	595	239	112	Yes
15:00 - 16:00	300	+	265	=	565	220	116	Yes
18:00 - 19:00	270	+	189	=	459	194	102	Yes
14:00 - 15:00	236	+	187	=	423	147	80	Yes
07:00 - 08:00	197	+	199	=	396	79	132	No
08:15 - 09:15	175	+	218	=	393	109	121	No
07:15 - 08:15	189	+	199	=	388	91	132	No
06:45 - 07:45	202	+	184	=	386	63	144	No
06:30 - 07:30	189	+	197	=	386	56	141	No
06:00 - 07:00	161	+	225	=	386	52	188	No
13:45 - 14:45	209		175		384	134	90	No

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1950
Study Date: 04/09/2020
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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

6 hours 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 5		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:15 - 17:15	338	+	288	=	626	252	139	Yes
17:15 - 18:15	322	+	277	=	599	233	109	Yes
15:15 - 16:15	308	+	279	=	587	255	127	Yes
14:15 - 15:15	259	+	211	=	470	146	82	Yes
18:15 - 19:15	247	+	163	=	410	179	110	Yes
05:45 - 06:45	146	+	235	=	381	56	180	Yes
14:00 - 15:00	236	+	187	=	423	147	80	No
07:00 - 08:00	197	+	199	=	396	79	132	No
08:15 - 09:15	175	+	218	=	393	109	121	No
07:15 - 08:15	189	+	199	=	388	91	132	No
06:45 - 07:45	202	+	184	=	386	63	144	No
						90		No



ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: **TMC 1950**
Study Date: **04/09/2020**
Page No: **6**

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

12 hours 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 5		Met?
	Major EB	+	Major WB	=		Minor NB	Minor SB	
16:00 - 17:00	344	+	305	=	649	260	148	Yes
15:45 - 16:45	337	+	309	=	646	259	159	Yes
16:45 - 17:45	331	+	301	=	632	240	111	Yes
16:15 - 17:15	338	+	288	=	626	252	139	Yes
16:30 - 17:30	332	+	290	=	622	252	139	Yes
15:30 - 16:30	324	+	298	=	622	254	133	Yes
17:15 - 18:15	322	+	277	=	599	233	109	Yes
17:00 - 18:00	313	+	282	=	595	239	112	Yes
15:15 - 16:15	308	+	279	=	587	255	127	Yes
15:00 - 16:00	300	+	265	=	565	220	116	Yes
17:30 - 18:30	305	+	256	=	561	224	100	Yes
							99	Yes

