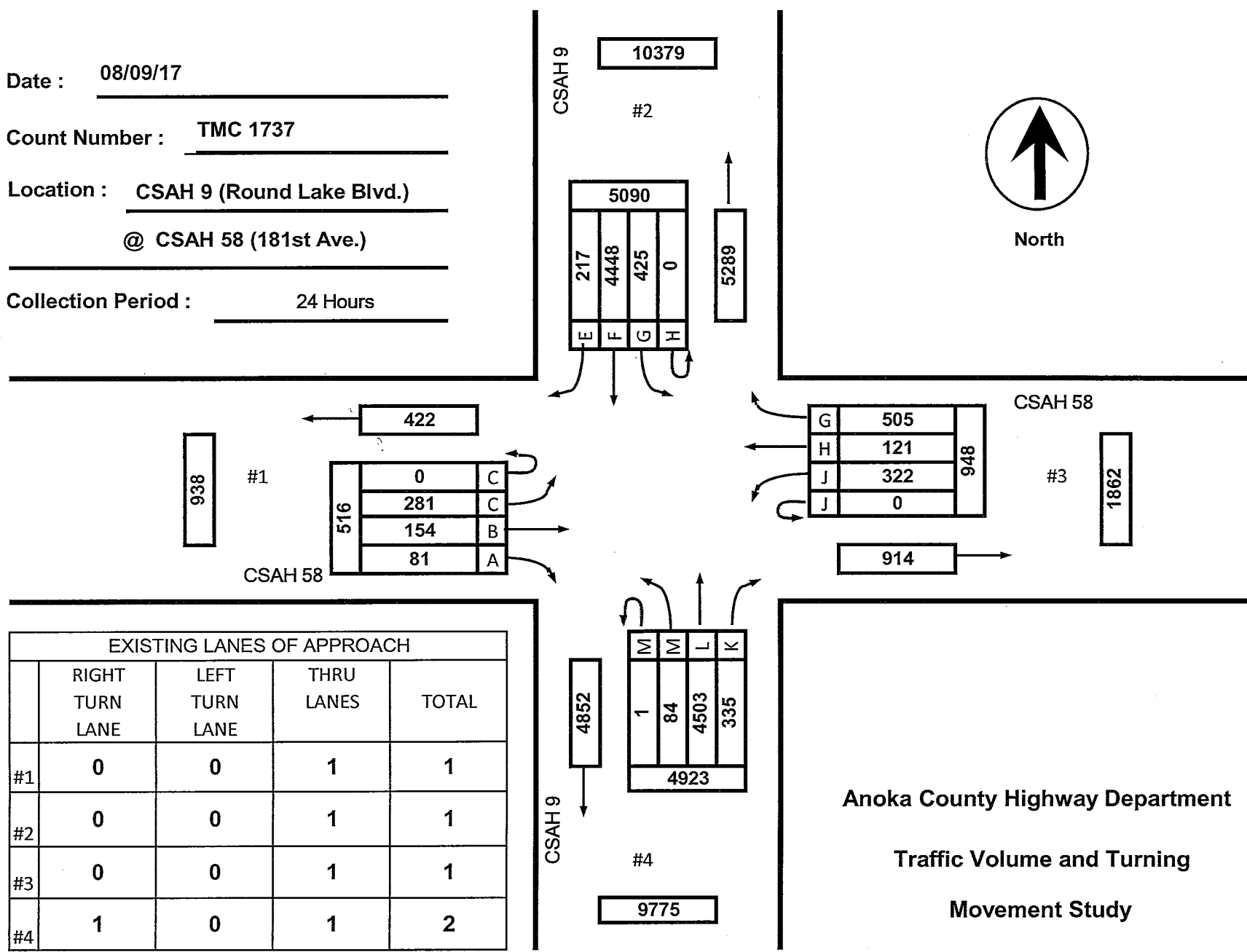


Date : 08/09/17

Count Number : TMC 1737

Location : CSAH 9 (Round Lake Blvd.)
@ CSAH 58 (181st Ave.)

Collection Period : 24 Hours



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

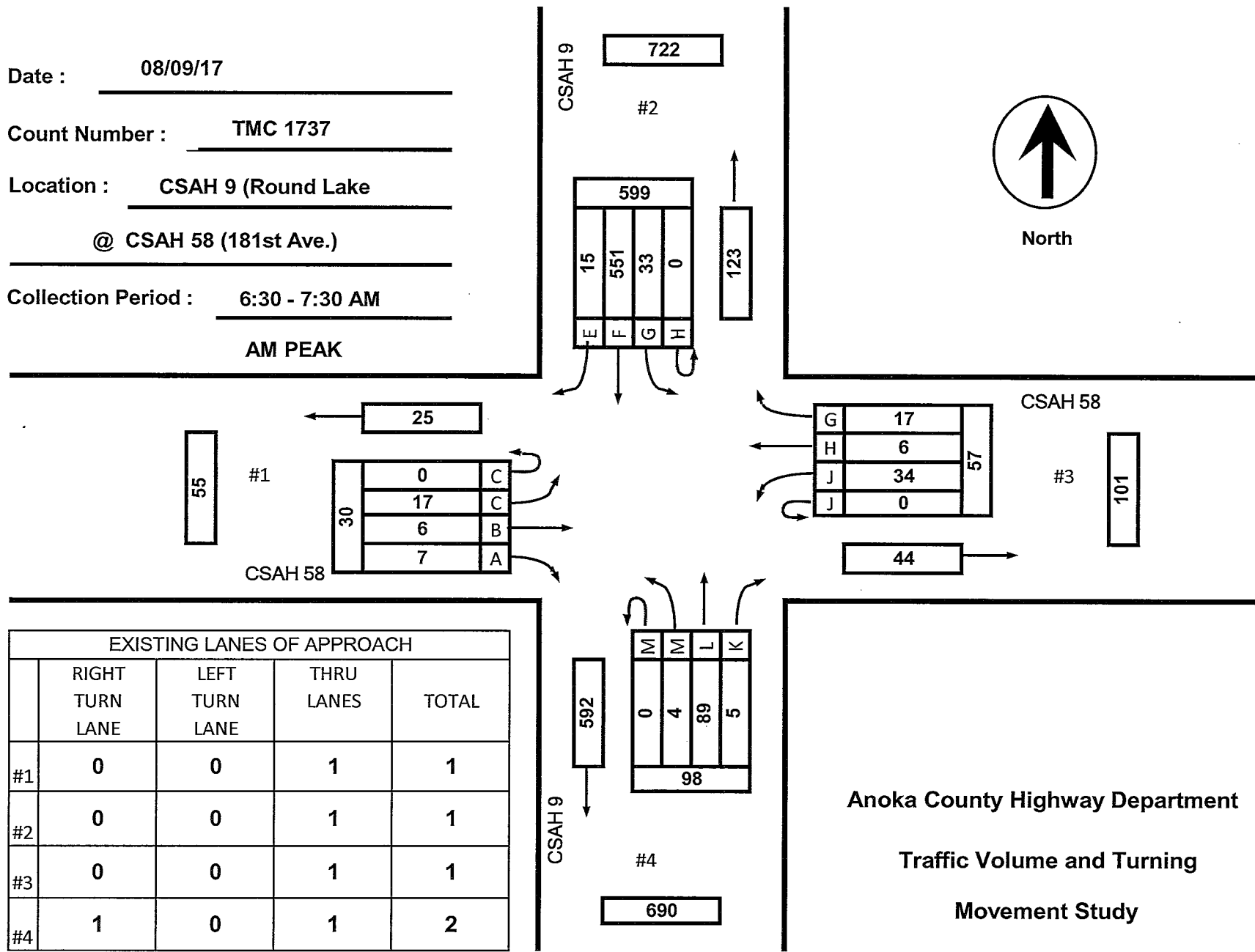
Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 08/09/17

Count Number : TMC 1737

Location : CSAH 9 (Round Lake
@ CSAH 58 (181st Ave.)

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



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 08/09/17

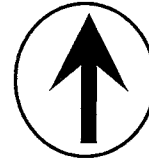
Count Number : TMC 1737

Location : CSAH 9 (Round Lake Blvd.)

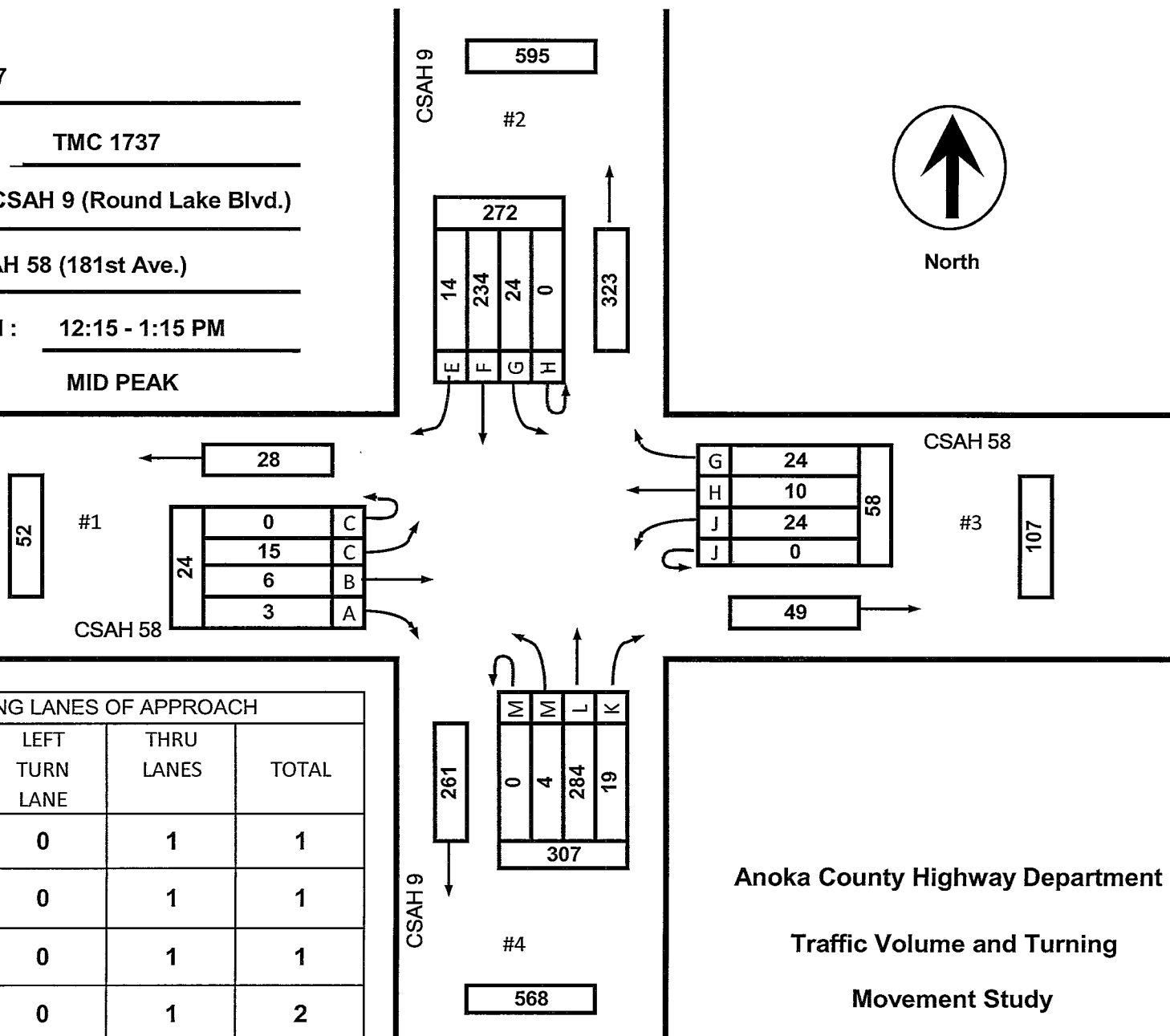
@ CSAH 58 (181st Ave.)

Collection Period : 12:15 - 1:15 PM

MID PEAK



North



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

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

Date : 08/09/17

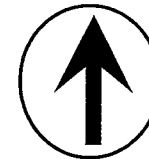
Count Number : TMC 1737

Location : CSAH 9 (Round Lake Blvd.)

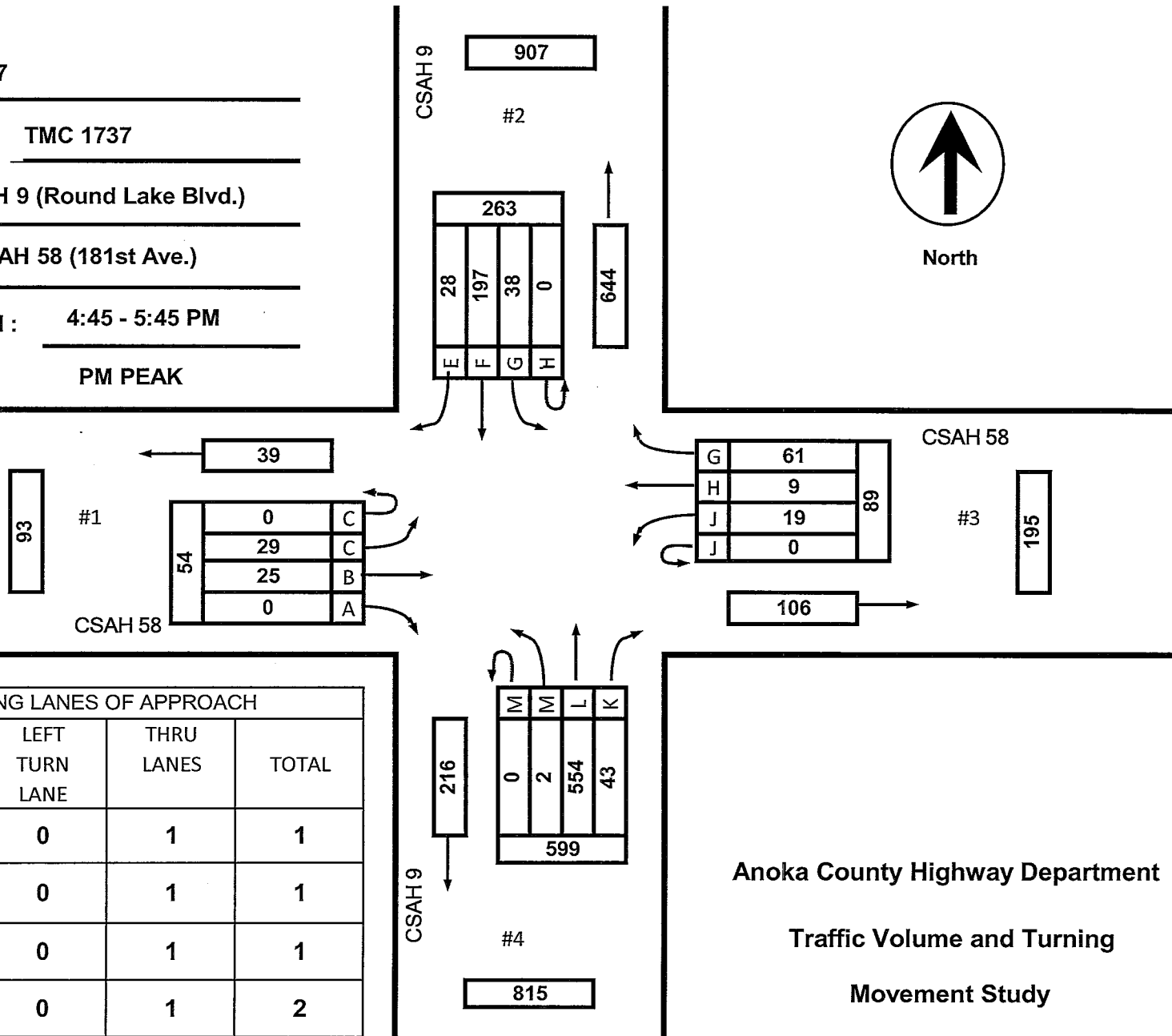
@ CSAH 58 (181st Ave.)

Collection Period : 4:45 - 5:45 PM

PM PEAK



North



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

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 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 1

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 58 Westbound						CSAH 9 Northbound						CSAH 58 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	9	0	0	9	0	1	0	0	0	1	0	0	18	0	0	18	0	0	0	0	0	0	0	0	0	28	28
00:15	0	0	5	1	0	6	0	1	0	1	0	2	0	0	34	2	0	36	0	0	0	0	0	0	0	0	44	44	
00:30	0	0	6	0	0	6	0	0	0	2	0	2	1	1	12	0	0	14	0	0	0	0	0	0	0	0	22	22	
00:45	0	0	3	0	0	3	0	0	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	0	0	13	13	
Total	0	0	23	1	0	24	0	2	0	3	0	5	1	1	74	2	0	78	0	0	0	0	0	0	0	0	107	107	
01:00	0	0	6	0	0	6	0	0	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	0	0	22	22	
01:15	0	0	3	0	0	3	0	0	0	0	0	0	0	0	10	2	0	12	0	0	0	0	0	0	0	0	15	15	
01:30	0	0	2	0	0	2	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	6	6	
01:45	0	0	1	0	0	1	0	0	0	0	0	0	0	0	9	2	0	11	0	0	0	0	0	0	0	0	12	12	
Total	0	0	12	0	0	12	0	0	0	0	0	0	0	0	39	4	0	43	0	0	0	0	0	0	0	0	55	55	
02:00	0	0	2	0	0	2	0	0	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	0	0	13	13	
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	0	10	0	0	0	0	0	0	0	0	0	10	10	
02:30	0	0	3	0	0	3	0	0	0	1	0	1	0	0	5	2	7	0	2	0	0	0	0	2	0	0	13	13	
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	15	0	0	0	0	0	0	0	0	0	15	15	
Total	0	0	5	0	0	5	0	0	0	1	0	1	0	2	39	2	0	43	0	2	0	0	0	2	0	0	51	51	
03:00	0	1	0	0	0	1	0	0	0	1	0	1	0	0	5	0	5	0	0	0	0	0	0	0	0	0	7	7	
03:15	0	0	8	0	0	8	0	0	0	0	0	0	0	0	9	0	9	0	0	2	2	0	4	0	0	21	21		
03:30	0	0	10	0	0	10	0	2	0	1	0	3	0	0	2	0	2	0	0	0	0	0	0	0	0	0	15	15	
03:45	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	2	0	0	2	0	0	2	0	0	10	10		
Total	0	1	24	0	0	25	0	2	0	2	0	4	0	0	18	0	18	0	2	2	2	0	6	0	0	53	53		
04:00	0	0	15	0	0	15	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	18	18	
04:15	0	0	26	0	0	26	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0	29	29	
04:30	0	0	46	0	0	46	0	3	0	0	0	3	0	0	2	1	3	0	1	0	0	0	1	0	0	53	53		
04:45	0	1	33	1	0	35	0	4	1	0	0	5	0	0	2	0	2	0	0	1	0	0	1	0	0	43	43		
Total	0	1	120	1	0	122	0	7	1	0	0	8	0	0	9	2	11	0	1	1	0	0	2	0	0	143	143		
05:00	0	4	72	0	0	76	0	4	1	1	0	6	0	0	3	0	3	0	1	0	1	0	2	0	0	87	87		
05:15	0	3	90	1	0	94	0	8	1	0	0	9	0	0	7	2	9	0	2	1	2	0	5	0	0	117	117		
05:30	0	5	102	1	0	108	0	5	1	4	0	10	0	0	10	1	11	0	1	1	1	0	3	0	0	132	132		
05:45	0	3	98	1	0	102	0	9	1	1	0	11	0	0	10	2	12	0	2	1	2	0	5	0	0	130	130		
Total	0	15	362	3	0	380	0	26	4	6	0	36	0	0	30	5	35	0	6	3	6	0	15	0	0	466	466		



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 2

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 58 Westbound						CSAH 9 Northbound						CSAH 58 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	2	129	1	0	132	0	13	0	3	0	16	0	1	13	0	0	14	0	0	2	2	0	4	0	166	166
06:15	0	9	132	1	0	142	0	10	0	5	0	15	0	1	11	0	0	12	0	3	2	1	0	6	0	175	175
06:30	0	5	162	4	0	171	0	12	4	8	0	24	0	1	17	1	0	19	0	2	2	2	0	6	0	220	220
06:45	0	8	128	4	0	140	0	3	2	3	0	8	0	0	33	2	0	35	0	3	1	3	0	7	0	190	190
Total	0	24	551	10	0	585	0	38	6	19	0	63	0	3	74	3	0	80	0	8	7	8	0	23	0	751	751
07:00	0	12	136	3	0	151	0	10	0	4	0	14	0	1	16	0	0	17	0	6	2	2	0	10	0	192	192
07:15	0	8	125	4	0	137	0	9	0	2	0	11	0	2	23	2	0	27	0	6	1	0	0	7	0	182	182
07:30	0	7	146	1	0	154	0	6	0	5	0	11	0	1	26	1	0	28	0	3	2	1	0	6	0	199	199
07:45	0	9	113	2	3	124	0	6	1	5	0	12	0	0	27	0	0	27	0	5	1	2	0	8	3	171	174
Total	0	36	520	10	3	566	0	31	1	16	0	48	0	4	92	3	0	99	0	20	6	5	0	31	3	744	747
08:00	0	6	82	0	0	88	0	4	2	5	0	11	0	0	36	1	0	37	0	6	7	2	0	15	0	151	151
08:15	0	7	88	8	0	103	0	5	1	7	0	13	0	0	28	1	0	29	0	1	3	2	0	6	0	151	151
08:30	0	5	83	0	0	88	0	9	0	7	0	16	0	1	31	2	0	34	0	3	2	2	0	7	0	145	145
08:45	0	5	99	4	2	108	0	3	1	4	2	8	0	0	25	2	2	27	0	3	4	2	2	9	8	152	160
Total	0	23	352	12	2	387	0	21	4	23	2	48	0	1	120	6	2	127	0	13	16	8	2	37	8	599	607
09:00	0	2	69	2	0	73	0	0	2	6	0	8	0	1	31	1	3	33	0	0	3	3	0	6	3	120	123
09:15	0	11	85	1	0	97	0	6	1	6	0	13	0	2	33	3	0	38	0	2	2	1	0	5	0	153	153
09:30	0	7	61	2	0	70	0	5	1	8	0	14	0	2	33	4	0	39	0	4	1	0	0	5	0	128	128
09:45	0	5	58	1	0	64	0	3	4	3	0	10	0	0	33	4	0	37	0	2	0	1	0	3	0	114	114
Total	0	25	273	6	0	304	0	14	8	23	0	45	0	5	130	12	3	147	0	8	6	5	0	19	3	515	518
10:00	0	6	45	1	0	52	0	6	2	6	0	14	0	1	33	0	0	34	0	3	0	2	0	5	0	105	105
10:15	0	6	60	2	0	68	0	3	2	3	0	8	0	1	35	3	0	39	0	1	3	2	0	6	0	121	121
10:30	0	4	48	2	0	54	0	2	1	10	0	13	0	2	25	3	0	30	0	3	2	1	0	6	0	103	103
10:45	0	6	66	2	0	74	0	4	2	5	0	11	0	0	54	4	0	58	0	2	0	1	0	3	0	146	146
Total	0	22	219	7	0	248	0	15	7	24	0	46	0	4	147	10	0	161	0	9	5	6	0	20	0	475	475
11:00	0	10	39	2	0	51	0	4	1	6	0	11	0	0	43	6	0	49	0	3	3	1	0	7	0	118	118
11:15	0	8	56	2	0	66	0	8	2	8	0	18	0	0	45	2	0	47	0	4	2	3	0	9	0	140	140
11:30	0	2	67	5	0	74	0	6	2	8	0	16	0	0	55	6	0	61	0	3	5	1	0	9	0	160	160
11:45	0	5	50	3	0	58	0	3	2	7	0	12	0	2	41	4	0	47	0	3	5	3	0	11	0	128	128
Total	0	25	212	12	0	249	0	21	7	29	0	57	0	2	184	18	0	204	0	13	15	8	0	36	0	546	546
12:00	0	4	66	3	0	73	0	6	0	13	0	19	0	2	42	5	0	49	0	6	4	4	0	14	0	155	155
12:15	0	5	59	5	0	69	0	5	6	4	0	15	0	0	69	5	0	74	0	2	1	2	0	5	0	163	163
12:30	0	6	58	2	0	66	0	3	0	10	0	13	0	1	76	4	0	81	0	3	1	0	0	4	0	164	164



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 3

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 58 Westbound						CSAH 9 Northbound						CSAH 58 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			
12:45	0	7	62	4	0	73	0	9	2	4	0	15	0	3	73	0	0	76	0	3	1	0	0	4	0	168	168
Total	0	22	245	14	0	281	0	23	8	31	0	62	0	6	260	14	0	280	0	14	7	6	0	27	0	650	650
13:00	0	6	55	3	0	64	0	7	2	6	0	15	0	0	66	10	0	76	0	7	3	1	0	11	0	166	166
13:15	0	4	75	5	0	84	0	3	2	3	0	8	0	2	56	7	0	65	0	4	1	1	0	6	0	163	163
13:30	0	5	51	4	0	60	0	3	2	3	0	8	0	0	62	5	0	67	0	3	3	0	0	6	0	141	141
13:45	0	3	45	3	0	51	0	6	1	9	0	16	0	2	55	7	0	64	0	3	0	0	0	3	0	134	134
Total	0	18	226	15	0	259	0	19	7	21	0	47	0	4	239	29	0	272	0	17	7	2	0	26	0	604	604
14:00	0	7	47	4	0	58	0	2	1	7	0	10	0	1	81	1	0	83	0	2	2	0	0	4	0	155	155
14:15	0	4	39	3	0	46	0	6	2	4	0	12	0	4	74	5	0	83	0	4	3	2	0	9	0	150	150
14:30	0	9	69	3	0	81	0	4	1	7	0	12	0	4	98	10	0	112	0	5	1	2	0	8	0	213	213
14:45	0	3	43	3	0	49	0	3	1	16	0	20	0	1	102	12	0	115	0	6	4	2	0	12	0	196	196
Total	0	23	198	13	0	234	0	15	5	34	0	54	0	10	355	28	0	393	0	17	10	6	0	33	0	714	714
15:00	0	5	47	1	0	53	0	5	1	9	0	15	0	3	85	5	0	93	0	6	4	0	0	10	0	171	171
15:15	0	6	55	2	0	63	0	2	4	10	0	16	0	1	119	10	0	130	0	8	3	1	0	12	0	221	221
15:30	0	8	59	3	0	70	0	5	1	11	0	17	0	1	111	10	0	122	0	4	3	0	0	7	0	216	216
15:45	0	5	39	4	0	48	0	6	1	11	0	18	0	2	114	7	0	123	0	11	0	0	0	11	0	200	200
Total	0	24	200	10	0	234	0	18	7	41	0	66	0	7	429	32	0	468	0	29	10	1	0	40	0	808	808
16:00	0	7	41	3	0	51	0	5	4	11	0	20	0	0	121	9	0	130	0	6	4	1	0	11	0	212	212
16:15	0	12	57	7	0	76	0	3	2	9	0	14	0	1	129	6	0	136	0	9	4	0	0	13	0	239	239
16:30	0	10	47	7	0	64	0	3	5	14	0	22	0	1	129	5	0	135	0	10	3	1	0	14	0	235	235
16:45	0	7	41	13	0	61	0	5	2	14	0	21	0	1	144	11	0	156	0	9	8	0	0	17	0	255	255
Total	0	36	186	30	0	252	0	16	13	48	0	77	0	3	523	31	0	557	0	34	19	2	0	55	0	941	941
17:00	0	9	40	3	0	52	0	8	2	19	0	29	0	0	125	12	0	137	0	9	2	0	0	11	0	229	229
17:15	0	9	55	5	0	69	0	3	2	17	0	22	0	0	159	11	0	170	0	8	8	0	0	16	0	277	277
17:30	0	13	61	7	0	81	0	3	3	11	0	17	0	1	126	9	0	136	0	3	7	0	0	10	0	244	244
17:45	0	6	47	2	0	55	0	3	1	12	0	16	0	5	102	5	0	112	0	8	2	2	0	12	0	195	195
Total	0	37	203	17	0	257	0	17	8	59	0	84	0	6	512	37	0	555	0	28	19	2	0	49	0	945	945
18:00	0	6	56	11	0	73	0	8	4	19	0	31	0	2	97	11	0	110	0	6	3	0	0	9	0	223	223
18:15	0	11	51	4	0	66	0	3	2	12	0	17	0	2	114	7	0	123	0	3	2	3	0	8	0	214	214
18:30	0	8	47	4	0	59	0	3	1	10	0	14	0	3	93	8	0	104	0	3	2	1	0	6	0	183	183
18:45	0	8	41	3	0	52	0	4	5	12	0	21	0	2	88	3	0	93	0	1	1	0	0	2	0	168	168
Total	0	33	195	22	0	250	0	18	12	53	0	83	0	9	392	29	0	430	0	13	8	4	0	25	0	788	788



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 4

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Groups Printed- Cars + - Trucks

Start Time	CSAH 9 Southbound						CSAH 58 Westbound						CSAH 9 Northbound						CSAH 58 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			
19:00	0	7	32	4	0	43	0	1	2	8	0	11	0	0	80	3	0	83	0	6	0	2	0	8	0	145	145
19:15	0	2	28	1	0	31	0	1	2	7	0	10	0	1	73	6	0	80	0	3	1	0	0	4	0	125	125
19:30	0	11	23	4	0	38	0	0	1	5	0	6	0	3	59	6	0	68	0	0	2	1	0	3	0	115	115
19:45	0	5	24	1	0	30	0	2	3	8	0	13	0	0	71	3	0	74	0	4	0	0	0	4	0	121	121
Total	0	25	107	10	0	142	0	4	8	28	0	40	0	4	283	18	0	305	0	13	3	3	0	19	0	506	506
20:00	0	3	28	3	0	34	0	3	1	3	0	7	0	0	52	8	0	60	0	8	3	4	0	15	0	116	116
20:15	0	2	24	2	0	28	0	1	1	4	0	6	0	2	54	3	0	59	0	4	1	0	0	5	0	98	98
20:30	0	9	13	2	0	24	0	1	3	5	0	9	0	1	59	7	0	67	0	2	1	1	0	4	0	104	104
20:45	0	3	18	1	0	22	0	1	1	8	0	10	0	2	65	5	0	72	0	5	1	1	0	7	0	111	111
Total	0	17	83	8	0	108	0	6	6	20	0	32	0	5	230	23	0	258	0	19	6	6	0	31	0	429	429
21:00	0	2	28	5	0	35	0	2	2	4	0	8	0	1	54	2	0	57	0	3	1	0	0	4	0	104	104
21:15	0	4	20	3	0	27	0	4	2	3	0	9	0	2	43	6	0	51	0	1	1	0	0	2	0	89	89
21:30	0	2	13	2	0	17	0	0	0	2	0	2	0	1	45	6	0	52	0	3	2	1	0	6	0	77	77
21:45	0	2	10	2	0	14	0	0	0	2	0	2	0	0	40	0	0	40	0	1	0	0	0	1	0	57	57
Total	0	10	71	12	0	93	0	6	4	11	0	21	0	4	182	14	0	200	0	8	4	1	0	13	0	327	327
22:00	0	1	7	0	0	8	0	0	1	2	0	3	0	0	39	4	0	43	0	1	0	0	0	1	0	55	55
22:15	0	3	10	1	0	14	0	0	1	2	0	3	0	1	19	1	0	21	0	1	0	0	0	1	0	39	39
22:30	0	2	4	0	0	6	0	2	1	1	0	4	0	0	15	0	0	15	0	1	0	0	0	1	0	26	26
22:45	0	1	12	1	0	14	0	0	0	3	0	3	0	1	18	2	0	21	0	1	0	0	0	1	0	39	39
Total	0	7	33	2	0	42	0	2	3	8	0	13	0	2	91	7	0	100	0	4	0	0	0	4	0	159	159
23:00	0	0	8	2	0	10	0	1	1	0	0	2	0	0	11	0	0	11	0	0	0	0	0	0	0	23	23
23:15	0	1	5	0	0	6	0	0	1	4	0	5	0	1	14	3	0	18	0	2	0	0	0	2	0	31	31
23:30	0	0	9	0	0	9	0	0	0	0	0	0	0	0	15	0	0	15	0	1	0	0	0	1	0	25	25
23:45	0	0	6	0	0	6	0	0	0	1	0	1	0	1	11	3	0	15	0	0	0	0	0	0	0	22	22
Total	0	1	28	2	0	31	0	1	2	5	0	8	0	2	51	6	0	59	0	3	0	0	0	3	0	101	101
Grand Total	0	425	4448	217	5	5090	0	322	121	505	2	948	1	84	4503	335	5	4923	0	281	154	81	2	516	14	11477	11491
Apprch %	0	8.3	87.4	4.3			0	34	12.8	53.3			0	1.7	91.5	6.8			0	54.5	29.8	15.7					
Total %	0	3.7	38.8	1.9		44.3	0	2.8	1.1	4.4		8.3	0	0.7	39.2	2.9		42.9	0	2.4	1.3	0.7		4.5	0.1	99.9	
Cars +	0	416	4322	211		4954	0	317	120	488		927	1	80	4384	328		4798	0	275	151	76		504	0	0	11183
% Cars +	0	97.9	97.2	97.2	100	97.2	0	98.4	99.2	96.6	100	97.6	100	95.2	97.4	97.9	100	97.4	0	97.9	98.1	93.8	100	97.3	0	0	97.3
Trucks	0	9	126	6		141	0	5	1	17		23	0	4	119	7		130	0	6	3	5		14	0	0	308
% Trucks	0	2.1	2.8	2.8	0	2.8	0	1.6	0.8	3.4	0	2.4	0	4.8	2.6	2.1	0	2.6	0	2.1	1.9	6.2	0	2.7	0	0	2.7



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 5

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Start Time	CSAH 9 Southbound					CSAH 58 Westbound					CSAH 9 Northbound					CSAH 58 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	5	162	4	171	0	12	4	8	24	0	1	17	1	19	0	2	2	2	6	220
06:45	0	8	128	4	140	0	3	2	3	8	0	0	33	2	35	0	3	1	3	7	190
07:00	0	12	136	3	151	0	10	0	4	14	0	1	16	0	17	0	6	2	2	10	192
07:15	0	8	125	4	137	0	9	0	2	11	0	2	23	2	27	0	6	1	0	7	182
Total Volume	0	33	551	15	599	0	34	6	17	57	0	4	89	5	98	0	17	6	7	30	784
% App. Total	0	5.5	92	2.5		0	59.6	10.5	29.8		0	4.1	90.8	5.1		0	56.7	20	23.3		
PHF	.000	.688	.850	.938	.876	.000	.708	.375	.531	.594	.000	.500	.674	.625	.700	.000	.708	.750	.583	.750	.891

Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:15																					
12:15	0	5	59	5	69	0	5	6	4	15	0	0	69	5	74	0	2	1	2	5	163
12:30	0	6	58	2	66	0	3	0	10	13	0	1	76	4	81	0	3	1	0	4	164
12:45	0	7	62	4	73	0	9	2	4	15	0	3	73	0	76	0	3	1	0	4	168
13:00	0	6	55	3	64	0	7	2	6	15	0	0	66	10	76	0	7	3	1	11	166
Total Volume	0	24	234	14	272	0	24	10	24	58	0	4	284	19	307	0	15	6	3	24	661
% App. Total	0	8.8	86	5.1		0	41.4	17.2	41.4		0	1.3	92.5	6.2		0	62.5	25	12.5		
PHF	.000	.857	.944	.700	.932	.000	.667	.417	.600	.967	.000	.333	.934	.475	.948	.000	.536	.500	.375	.545	.984

Peak Hour Analysis From 14:00 to 23:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	7	41	13	61	0	5	2	14	21	0	1	144	11	156	0	9	8	0	17	255
17:00	0	9	40	3	52	0	8	2	19	29	0	0	125	12	137	0	9	2	0	11	229
17:15	0	9	55	5	69	0	3	2	17	22	0	0	159	11	170	0	8	8	0	16	277
17:30	0	13	61	7	81	0	3	3	11	17	0	1	126	9	136	0	3	7	0	10	244
Total Volume	0	38	197	28	263	0	19	9	61	89	0	2	554	43	599	0	29	25	0	54	1005
% App. Total	0	14.4	74.9	10.6		0	21.3	10.1	68.5		0	0.3	92.5	7.2		0	53.7	46.3	0		
PHF	.000	.731	.807	.538	.812	.000	.594	.750	.803	.767	.000	.500	.871	.896	.881	.000	.806	.781	.000	.794	.907



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 1

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 58 Westbound					CSAH 9 Northbound					CSAH 58 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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	1	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	2	0	2	0	0	0	0	0	0	2
01:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	1	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	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	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	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
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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30	0	0	2	0	2	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	4
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	3	0	3	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	5
05:00	0	1	2	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4
05:15	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:30	0	0	2	0	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3
05:45	0	0	2	0	2	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	4
Total	0	1	10	0	11	0	2	0	1	3	0	0	1	0	1	0	0	0	0	0	0	15
06:00	0	0	6	0	6	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	8
06:15	0	0	4	0	4	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	6
06:30	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
06:45	0	0	6	1	7	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	9
Total	0	0	18	1	19	0	0	0	0	0	0	0	7	0	7	0	1	0	0	1	0	27
07:00	0	0	4	0	4	0	0	0	0	0	0	0	3	0	3	0	0	0	1	1	0	8
07:15	0	0	3	0	3	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	6
07:30	0	0	2	0	2	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	0	5
07:45	0	1	4	0	5	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	7
Total	0	1	13	0	14	0	0	0	0	0	0	1	9	0	10	0	1	0	1	2	0	26
08:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	4
08:15	0	0	2	1	3	0	0	0	2	2	0	0	2	0	2	0	0	1	0	1	0	8
08:30	0	0	4	0	4	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	7
08:45	0	0	8	0	8	0	1	0	0	1	0	0	2	0	2	0	0	0	1	1	0	12
Total	0	0	14	1	15	0	1	0	2	3	0	0	11	0	11	0	0	1	1	2	0	31
09:00	0	0	3	1	4	0	0	1	0	1	0	0	3	0	3	0	0	0	0	0	0	8



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 2

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 58 Westbound					CSAH 9 Northbound					CSAH 58 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	0	4	0	4	0	0	0	0	0	0	0	2	1	3	0	0	0	0	0	0	7
09:30	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
09:45	0	0	1	0	1	0	0	0	0	0	0	0	0	2	2	0	1	0	0	1	0	4
Total	0	0	10	1	11	0	0	1	0	1	0	0	5	3	8	0	1	0	0	1	0	21
10:00	0	0	1	0	1	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	4
10:15	0	1	3	0	4	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	6
10:30	0	0	2	0	2	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	4
10:45	0	0	1	0	1	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	5
Total	0	1	7	0	8	0	0	0	1	1	0	0	8	0	8	0	1	0	1	2	0	19
11:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
11:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30	0	0	1	1	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	4
11:45	0	1	1	0	2	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	4
Total	0	1	3	1	5	0	0	0	2	2	0	1	2	0	3	0	0	0	0	0	0	10
12:00	0	0	3	0	3	0	0	0	3	3	0	0	1	0	1	0	0	0	0	0	0	7
12:15	0	0	1	0	1	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	4
12:30	0	0	2	0	2	0	0	0	1	1	0	0	3	0	3	0	0	0	0	0	0	6
12:45	0	0	2	0	2	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	6
Total	0	0	8	0	8	0	0	0	4	4	0	0	11	0	11	0	0	0	0	0	0	23
13:00	0	0	4	0	4	0	0	0	1	1	0	0	0	1	1	0	1	0	0	1	0	7
13:15	0	1	3	0	4	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	5
13:30	0	0	2	0	2	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	6
13:45	0	1	1	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	3
Total	0	2	10	0	12	0	0	0	1	1	0	0	6	1	7	0	1	0	0	1	0	21
14:00	0	1	1	0	2	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	7
14:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14:30	0	0	1	0	1	0	1	0	1	2	0	1	5	1	7	0	0	0	1	1	0	11
14:45	0	0	0	0	0	0	0	0	1	1	0	1	4	0	5	0	1	0	1	2	0	8
Total	0	1	3	0	4	0	1	0	2	3	0	2	14	1	17	0	1	0	2	3	0	27
15:00	0	1	2	1	4	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	8
15:15	0	0	4	0	4	0	0	0	0	0	0	0	5	1	6	0	0	0	0	0	0	10
15:30	0	0	2	0	2	0	0	0	1	1	0	0	3	0	3	0	0	0	0	0	0	6
15:45	0	0	2	0	2	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	4
Total	0	1	10	1	12	0	0	0	2	2	0	0	13	1	14	0	0	0	0	0	0	28
16:00	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	3
16:15	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
16:30	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
16:45	0	0	1	0	1	0	0	0	1	1	0	0	2	0	2	0	0	0	0	0	0	4
Total	0	0	6	0	6	0	0	0	1	1	0	0	7	0	7	0	0	1	0	1	0	15
17:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	1	0	1	0	3
17:30	0	1	2	0	3	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	7
17:45	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
Total	0	1	3	0	4	0	0	0	0	0	0	0	7	1	8	0	0	1	0	1	0	13
18:00	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	2
18:15	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
18:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2
18:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total	0	0	1	0	1	0	0	0	1	1	0	0	5	0	5	0	0	0	0	0	0	7



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Cloudy and Rain
 CountCAM 200
 Study Conducted By: Andrea

File Name : TMC 1737
 Site Code :
 Start Date : 08/09/2017
 Page No : 3

Groups Printed- Trucks

Start Time	CSAH 9 Southbound					CSAH 58 Westbound					CSAH 9 Northbound					CSAH 58 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	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
19:15	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
19:30	0	0	2	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	3	0	3	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0
20:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
Total	0	0	1	0	1	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
21:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
21:45	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
Total	0	0	1	1	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	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
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	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
23:45	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
Grand Total	0	9	126	6	141	0	5	1	17	23	0	4	119	7	130	0	6	3	5	14	308
Apprch %	0	6.4	89.4	4.3		0	21.7	4.3	73.9		0	3.1	91.5	5.4		0	42.9	21.4	35.7		
Total %	0	2.9	40.9	1.9	45.8	0	1.6	0.3	5.5	7.5	0	1.3	38.6	2.3	42.2	0	1.9	1	1.6	4.5	

ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737
Study Date : 06/14/2018

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 4,923

Southbound: CSAH 9

Number of Lanes : 1

Total Approach Volume: 5,090

Minor Street Approaches

Eastbound: CSAH 58

Number of Lanes : 1

Total Approach Volume: 516

Westbound: CSAH 58

Number of Lanes : 1

Total Approach Volume: 948

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 9 hours, 8 are needed

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

Required 1A volumes reached for 2 hours, 8 are needed

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

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

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

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

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

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

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

Volumes do not exceed minimums for any one hour period.

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

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

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

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

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

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

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737
 Study Date : 06/14/2018

Warrant 1A - Minimum Volumes

Description

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

Summary

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

Site Data Required

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

Volume Requirements

Rural Factor of 70 % applied
 Veh/Hr Major = **350**
 Veh/Hr Minor = **105**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:45 - 17:45	599	+	263	=	862	54	89	No
16:30 - 17:30	598	+	246	=	844	58	94	No
16:15 - 17:15	564	+	253	=	817	55	86	No
17:00 - 18:00	555	+	257	=	812	49	84	No
16:00 - 17:00	557	+	252	=	809	55	77	No
17:15 - 18:15	528	+	278	=	806	47	86	No
15:45 - 16:45	524	+	239	=	763	49	74	No
15:30 - 16:30	511	+	245	=	756	42	69	No
17:30 - 18:30	481	+	275	=	756	39	81	No
15:15 - 16:15	505	+	232	=	737	41	71	No
15:00 - 16:00	468	+	234	=	702	40	66	No
17:45 - 18:45	449	+	253	=	702	35	78	No
06:30 - 07:30	98	+	599	=	697	30	57	No
14:30 - 15:30	450	+	246	=	696	42	63	No
14:45 - 15:45	460	+	235	=	695	41	68	No
06:45 - 07:45	107	+	582	=	689	30	44	No
06:15 - 07:15	83	+	604	=	687	29	61	No
18:00 - 19:00	430	+	250	=	680	25	83	No
07:00 - 08:00	99	+	566	=	665	31	48	No
06:00 - 07:00	80	+	585	=	665	23	63	No
14:15 - 15:15	403	+	229	=	632	39	59	No
14:00 - 15:00	393	+	234	=	627	33	54	No
18:15 - 19:15	403	+	220	=	623	24	63	No
07:15 - 08:15	119	+	503	=	622	36	45	No
05:45 - 06:45	57		547		604	21	66	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737

Study Date : 06/14/2018

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

9 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 = **525**
 Veh/Hr Minor = **52**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
17:00 - 18:00	555	+	257	=	812	49	84	Yes
16:00 - 17:00	557	+	252	=	809	55	77	Yes
15:00 - 16:00	468	+	234	=	702	40	66	Yes
06:30 - 07:30	98	+	599	=	697	30	57	Yes
18:00 - 19:00	430	+	250	=	680	25	83	Yes
14:00 - 15:00	393	+	234	=	627	33	54	Yes
12:00 - 13:00	280	+	281	=	561	27	62	Yes
05:30 - 06:30	49	+	484	=	533	18	52	Yes
07:45 - 08:45	127	+	403	=	530	36	52	Yes
07:30 - 08:30	121	+	469	=	590	35	47	No
13:45 - 14:45	342	+	236	=	578	24	50	No
13:15 - 14:15	279	+	253	=	532	19	42	No
13:00 - 14:00	272	+	259	=	531	26	47	No
11:45 - 12:45	251	+	266	=	517	34	59	No
13:30 - 14:30	297	+	215	=	512	22	46	No
11:30 - 12:30	231	+	274	=	505	39	62	No
08:45 - 09:45	137	+	348	=	485	25	43	No
05:15 - 06:15	46	+	436	=	482	17	46	No
10:45 - 11:45	215	+	265	=	480	28	56	No
11:15 - 12:15	204	+	271	=	475	43	65	No
11:00 - 12:00	204	+	249	=	453	36	57	No
09:00 - 10:00	147	+	304	=	451	19	45	No
19:00 - 20:00	305	+	142	=	447	19	40	No
09:15 - 10:15	148	+	283	=	431	18	51	No
10:30 - 11:30	184	+	245	=	429	25	53	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737
 Study Date : 06/14/2018

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 2 hours meet 1A minimums.
 14 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 9

Minor Road CSAH 58

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:15 - 17:15	564	+	253	=	817	55	86	Yes
17:15 - 18:15	528	+	278	=	806	47	86	Yes
16:00 - 17:00	557	+	252	=	809	55	77	No
15:45 - 16:45	524	+	239	=	763	49	74	No
15:30 - 16:30	511	+	245	=	756	42	69	No
15:15 - 16:15	505	+	232	=	737	41	71	No
15:00 - 16:00	468	+	234	=	702	40	66	No
06:30 - 07:30	98	+	599	=	697	30	57	No
14:30 - 15:30	450	+	246	=	696	42	63	No
14:45 - 15:45	460	+	235	=	695	41	68	No
06:45 - 07:45	107	+	582	=	689	30	44	No
06:15 - 07:15	83	+	604	=	687	29	61	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:15 - 17:15	564	+	253	=	817	55	86	Yes
17:15 - 18:15	528	+	278	=	806	47	86	Yes
15:15 - 16:15	505	+	232	=	737	41	71	Yes
06:15 - 07:15	83	+	604	=	687	29	61	Yes
14:15 - 15:15	403	+	229	=	632	39	59	Yes
18:15 - 19:15	403	+	220	=	623	24	63	Yes
07:15 - 08:15	119	+	503	=	622	36	45	Yes
12:15 - 13:15	307	+	272	=	579	24	58	Yes
13:15 - 14:15	279	+	253	=	532	19	42	Yes
08:15 - 09:15	123	+	372	=	495	28	45	Yes
05:15 - 06:15	46	+	436	=	482	17	46	Yes
11:15 - 12:15	204	+	271	=	475	43	65	Yes

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737

Study Date : 06/14/2018

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.

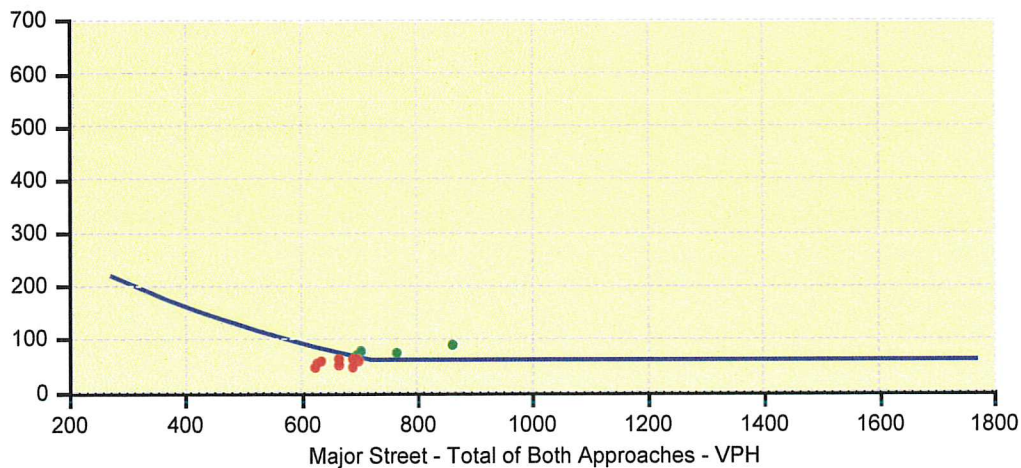
Summary

4 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 9			=	Total	Minor Road CSAH 58		Met?
	Major NB	+	Major SB			Minor EB	Minor WB	
16:45 - 17:45	599	+	263	=	862	54	89	Yes
15:45 - 16:45	524	+	239	=	763	49	74	Yes
17:45 - 18:45	449	+	253	=	702	35	78	Yes
14:45 - 15:45	460	+	235	=	695	41	68	Yes
06:30 - 07:30	98	+	599	=	697	30	57	No
14:30 - 15:30	450	+	246	=	696	42	63	No
06:45 - 07:45	107	+	582	=	689	30	44	No
06:15 - 07:15	83	+	604	=	687	29	61	No
07:00 - 08:00	99	+	566	=	665	31	48	No
06:00 - 07:00	80	+	585	=	665	23	63	No
14:15 - 15:15	403	+	229	=	632	39	59	No
							54	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 1737

Study Date : 06/14/2018

Warrant 3B - Peak Hour Volumes

Description

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

Summary

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

Site Data Required

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

Time	Major Road CSAH 9				Total	Minor Road CSAH 58		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:45 - 17:45	599	+	263	=	862	54	89	No
16:30 - 17:30	598	+	246	=	844	58	94	No
16:15 - 17:15	564	+	253	=	817	55	86	No
17:00 - 18:00	555	+	257	=	812	49	84	No
16:00 - 17:00	557	+	252	=	809	55	77	No
17:15 - 18:15	528	+	278	=	806	47	86	No
15:45 - 16:45	524	+	239	=	763	49	74	No
15:30 - 16:30	511	+	245	=	756	42	69	No
17:30 - 18:30	481	+	275	=	756	39	81	No
15:15 - 16:15	505	+	232	=	737	41	71	No
15:00 - 16:00	468	+	234	=	702	40	66	No
							78	No

