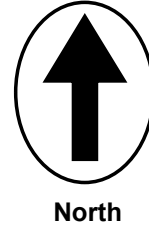


Date : 10/05/22

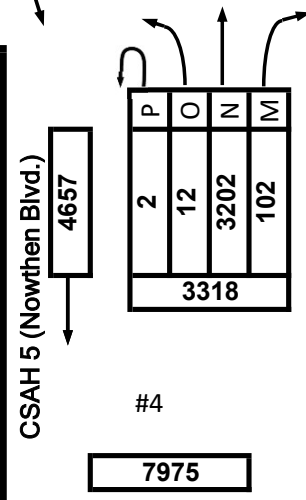
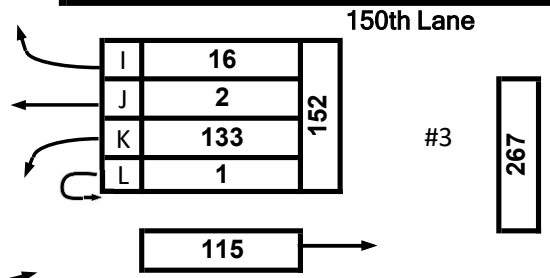
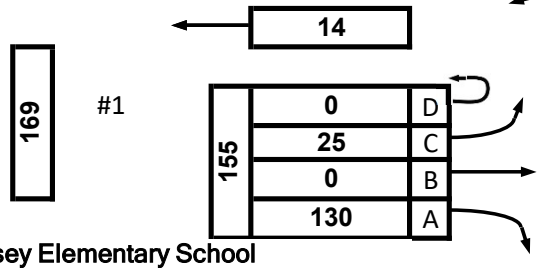
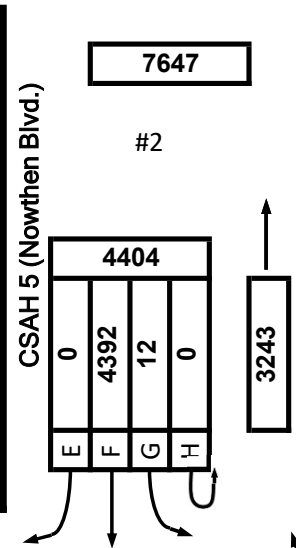
Count Number : TMC 2208

Location : CSAH 5 (Nowthen Blvd.)
@ 150th Lane

Collection Period : 24 HR



North



Ramsey Elementary School

Anoka County Highway Department

Traffic Volume and Turning
Movement Study

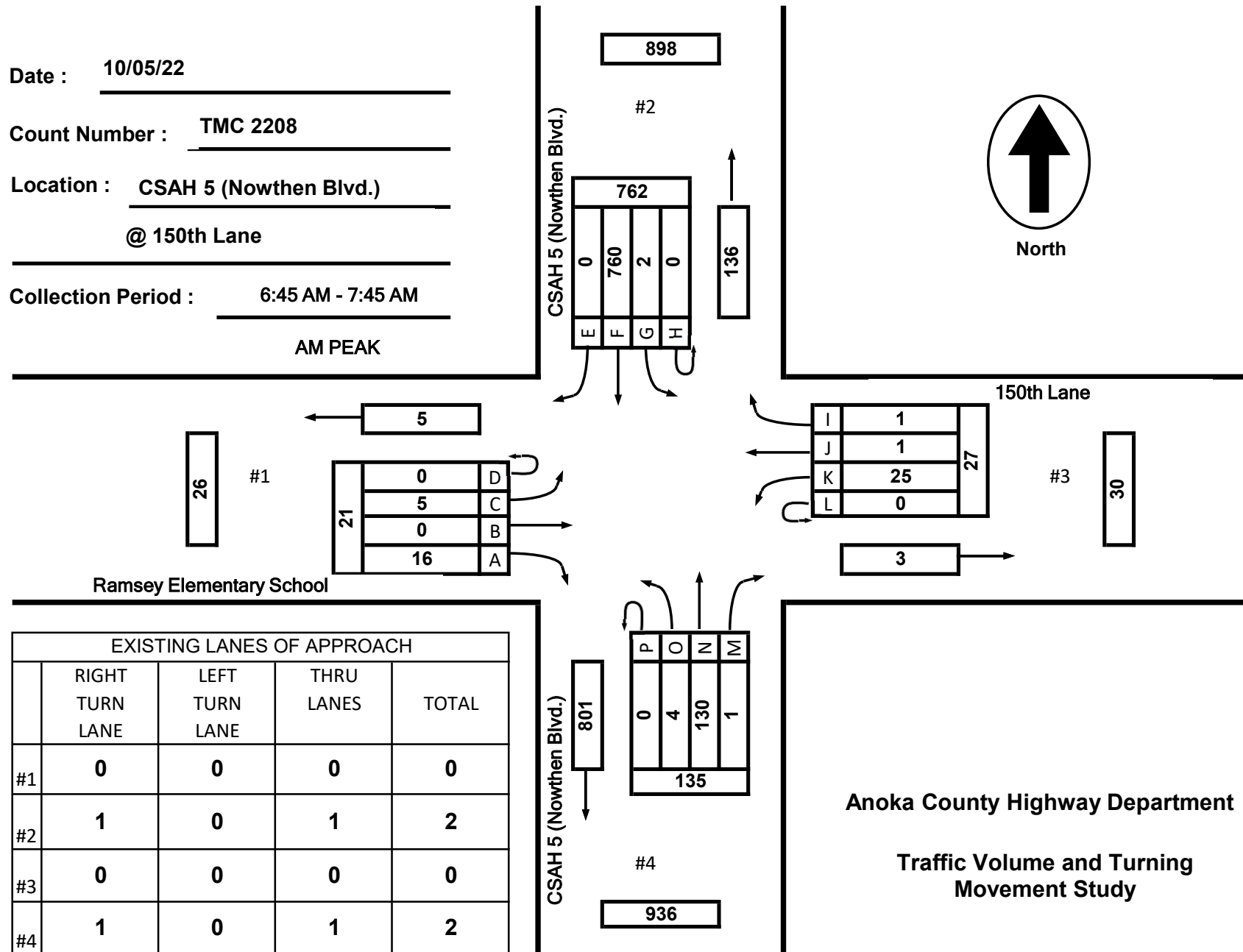
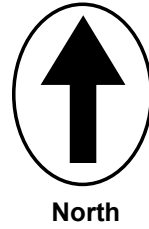
EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	0	0	0
#2	1	0	1	2
#3	0	0	0	0
#4	1	0	1	2

Date : 10/05/22

Count Number : TMC 2208

Location : CSAH 5 (Nowthen Blvd.)
@ 150th Lane

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



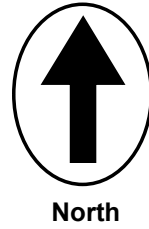
Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 10/05/22

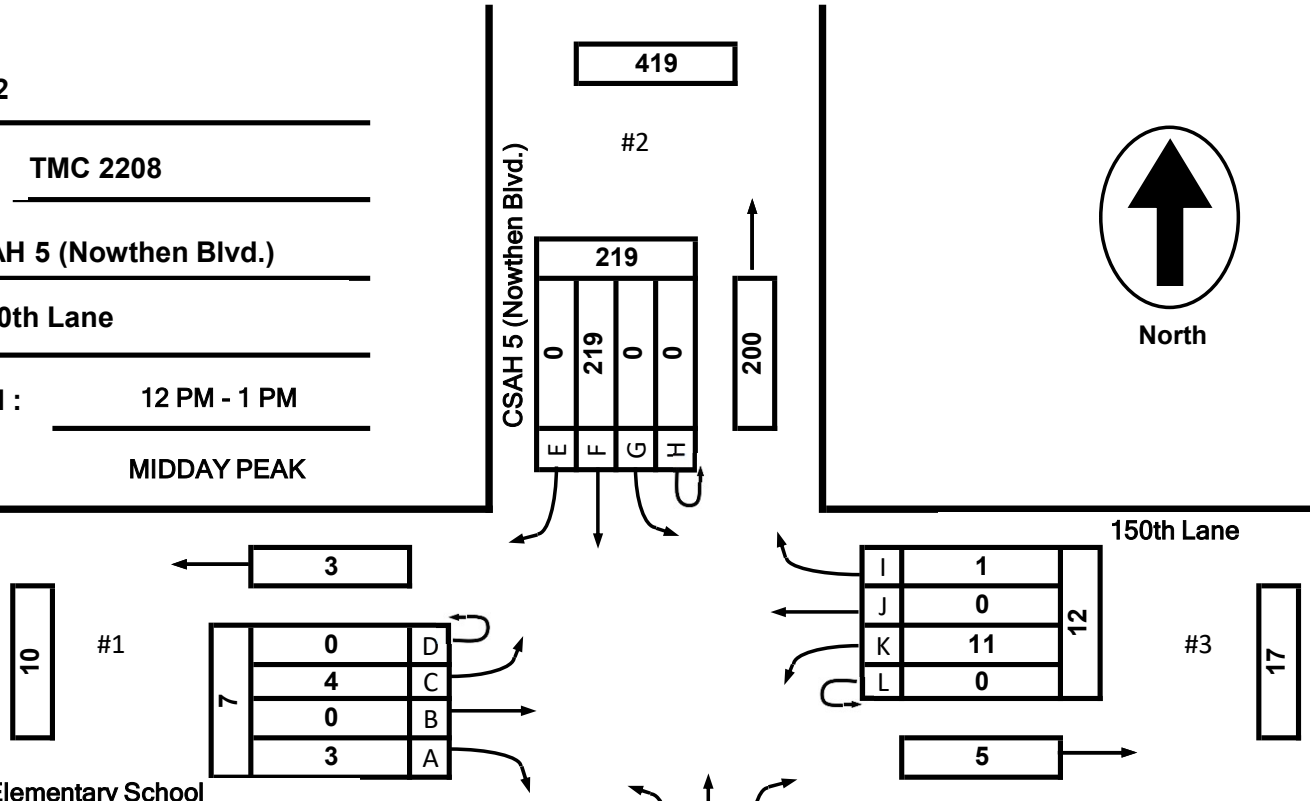
Count Number : TMC 2208

Location : CSAH 5 (Nowthen Blvd.)
@ 150th Lane

Collection Period : 12 PM - 1 PM
MIDDAY PEAK



North



Ramsey Elementary School

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

CSAH 5 (Nowthen Blvd.)

Anoka County Highway Department

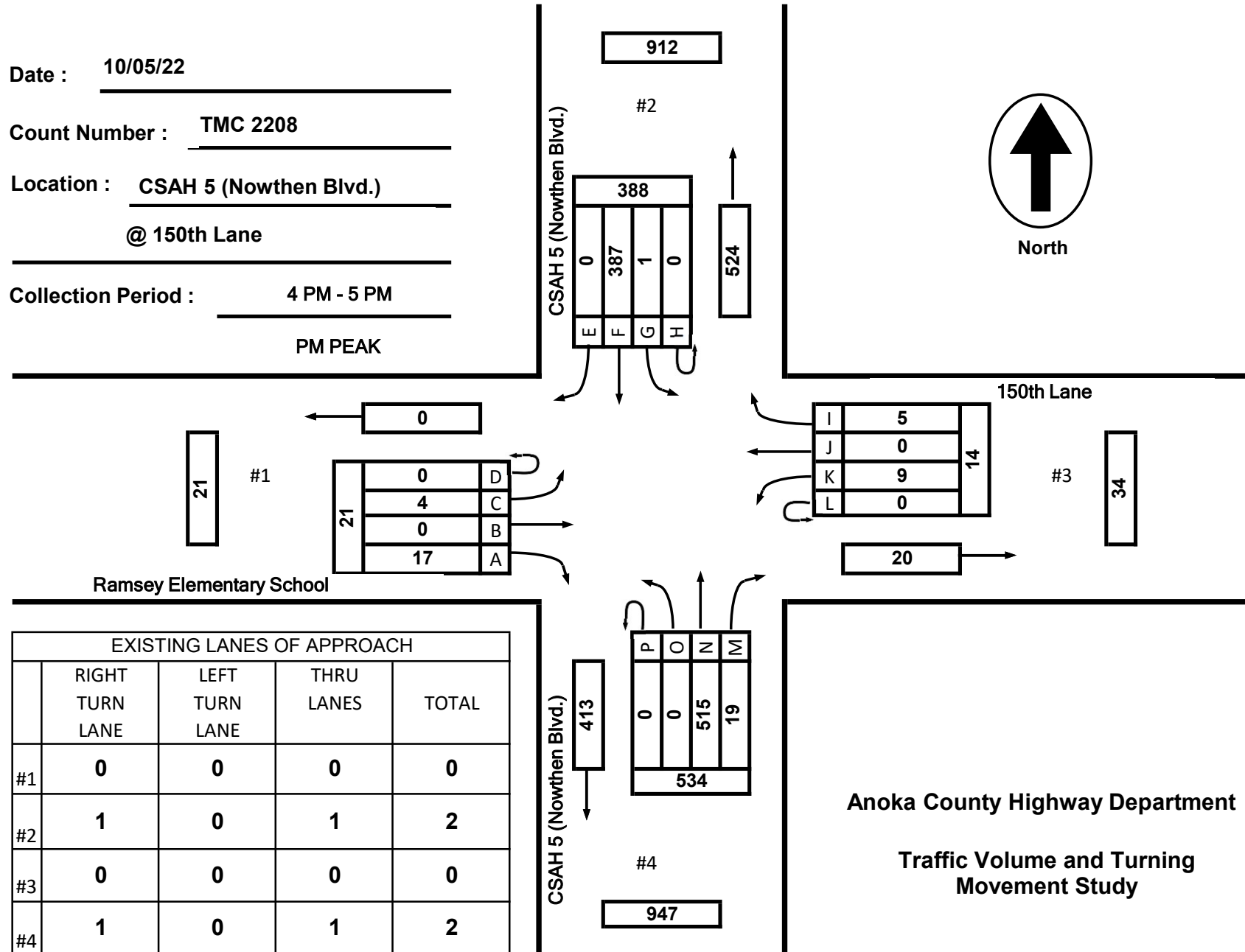
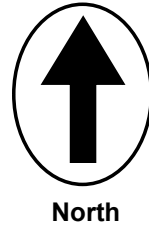
Traffic Volume and Turning Movement Study

Date : 10/05/22

Count Number : TMC 2208

Location : CSAH 5 (Nowthen Blvd.)
@ 150th Lane

Collection Period : 4 PM - 5 PM
PM PEAK



EXISTING LANES OF APPROACH				
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	TOTAL
#1	0	0	0	0
#2	1	0	1	2
#3	0	0	0	0
#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 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 1

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 (Nowthen Blvd.) Southbound						150th Lane Westbound						CSAH 5 (Nowthen Blvd.) Northbound						Ramsey Elementary School 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									
05:45	0	1	0	0	0	1	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	1	1
Total	0	1	0	0	0	1	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	1	1
06:00	0	108	0	0	0	108	0	0	2	0	0	2	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	121	121
06:15	0	108	0	0	0	108	0	0	0	0	0	0	0	14	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	122	122
06:30	0	171	0	0	0	171	0	0	3	1	0	4	0	16	0	0	0	16	5	0	0	0	0	5	0	0	0	0	0	5	0	196	196
06:45	0	167	0	0	0	167	0	0	8	0	0	8	0	26	0	0	0	26	4	0	1	0	0	5	0	0	0	0	0	5	0	206	206
Total	0	554	0	0	0	554	0	0	13	1	0	14	0	67	0	0	0	67	9	0	1	0	0	10	0	0	0	0	0	10	0	645	645
07:00	0	215	1	0	0	216	1	1	8	0	0	10	0	31	0	0	0	31	3	0	1	0	0	4	0	0	0	0	0	4	0	261	261
07:15	0	225	1	0	0	226	0	0	5	0	0	5	0	29	4	0	0	33	6	0	2	0	0	8	0	0	0	0	0	8	0	272	272
07:30	0	153	0	0	0	153	0	0	4	0	0	4	1	44	0	0	1	45	3	0	1	0	0	4	1	0	0	0	0	4	1	206	207
07:45	0	143	0	0	0	143	0	0	6	0	0	6	2	43	0	0	0	45	5	0	0	0	0	5	0	0	0	0	0	5	0	199	199
Total	0	736	2	0	0	738	1	1	23	0	0	25	3	147	4	0	1	154	17	0	4	0	0	21	1	0	0	0	0	21	1	938	939
08:00	0	145	1	0	0	146	2	0	3	0	0	5	3	46	0	0	0	49	8	0	0	0	0	8	0	0	0	0	0	8	0	208	208
08:15	0	95	0	0	0	95	0	0	4	0	1	4	0	44	0	0	0	44	5	0	2	0	0	7	1	0	0	0	0	7	1	150	151
08:30	0	81	0	0	0	81	0	0	7	0	0	7	0	39	0	0	0	39	2	0	0	0	0	2	0	0	0	0	0	2	0	129	129
08:45	0	80	0	0	0	80	0	0	3	0	0	3	0	36	2	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	121	121
Total	0	401	1	0	0	402	2	0	17	0	1	19	3	165	2	0	0	170	15	0	2	0	0	17	1	0	0	0	0	17	1	608	609
09:00	0	101	0	0	0	101	1	0	1	0	0	2	3	58	0	0	3	61	1	0	0	0	0	1	3	0	0	0	0	1	3	165	168
09:15	0	142	3	0	0	145	1	0	5	0	3	6	0	48	2	0	1	50	19	0	1	0	0	20	4	0	0	0	0	20	4	221	225
09:30	0	72	0	0	0	72	0	0	1	0	0	1	0	34	0	0	0	34	5	0	0	0	0	5	0	0	0	0	0	5	0	112	112
09:45	0	69	0	0	0	69	0	0	3	0	0	3	1	33	0	0	0	34	2	0	1	0	0	3	0	0	0	0	0	3	0	109	109
Total	0	384	3	0	0	387	2	0	10	0	3	12	4	173	2	0	4	179	27	0	2	0	0	29	7	0	0	0	0	29	7	607	614
10:00	0	64	0	0	0	64	0	0	0	0	1	0	2	23	0	0	0	25	3	0	0	0	0	3	1	0	0	0	0	3	1	92	93
10:15	0	42	0	0	0	42	0	0	4	0	2	4	1	24	0	0	0	25	0	0	0	0	0	0	2	0	0	0	0	0	2	71	73
10:30	0	46	0	0	0	46	0	0	1	0	1	1	0	36	0	0	0	36	1	0	0	0	0	1	1	0	0	0	0	1	1	84	85
10:45	0	41	0	0	0	41	0	0	1	0	0	1	1	48	0	0	0	49	2	0	0	0	0	2	0	0	0	0	0	2	0	93	93
Total	0	193	0	0	0	193	0	0	6	0	4	6	4	131	0	0	0	135	6	0	0	0	0	6	4	0	0	0	0	6	4	340	344
11:00	0	43	0	0	0	43	0	0	0	0	1	0	1	36	0	0	0	37	4	0	0	0	0	4	1	0	0	0	0	4	1	84	85
11:15	0	41	0	0	0	41	0	0	2	0	2	2	3	39	0	0	0	42	2	0	1	0	0	3	2	0	0	0	0	3	2	88	90
11:30	0	64	0	0	0	64	0	0	0	0	1	0	1	38	0	0	0	39	0	0	0	0	1	0	2	0	0	0	1	0	2	103	105



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

File Name : TMC 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 2

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 (Nowthen Blvd.) Southbound						150th Lane Westbound						CSAH 5 (Nowthen Blvd.) Northbound						Ramsey Elementary School 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			
11:45	0	51	0	0	0	51	1	0	3	0	0	4	1	36	0	0	0	37	1	0	0	0	0	1	0	93	93
Total	0	199	0	0	0	199	1	0	5	0	4	6	6	149	0	0	0	155	7	0	1	0	1	8	5	368	373
12:00	0	56	0	0	0	56	0	0	2	0	1	2	3	54	0	0	0	57	1	0	1	0	0	2	1	117	118
12:15	0	38	0	0	0	38	1	0	3	0	0	4	2	47	0	0	0	49	0	0	0	0	0	0	0	91	91
12:30	0	61	0	0	0	61	0	0	3	0	0	3	0	59	3	0	0	62	0	0	0	0	0	0	0	126	126
12:45	0	64	0	0	0	64	0	0	3	0	0	3	0	35	0	0	0	35	2	0	3	0	0	5	0	107	107
Total	0	219	0	0	0	219	1	0	11	0	1	12	5	195	3	0	0	203	3	0	4	0	0	7	1	441	442
13:00	0	45	0	0	0	45	0	0	1	0	1	1	5	55	0	0	0	60	6	0	0	0	0	6	1	112	113
13:15	0	42	0	0	0	42	0	0	2	0	0	2	3	38	0	0	0	41	0	0	0	0	0	0	0	85	85
13:30	0	55	0	0	0	55	0	0	0	0	0	0	1	57	1	0	0	59	1	0	0	0	0	1	0	115	115
13:45	0	64	0	0	0	64	0	0	0	0	0	0	0	47	0	0	0	47	1	0	0	0	0	1	0	112	112
Total	0	206	0	0	0	206	0	0	3	0	1	3	9	197	1	0	0	207	8	0	0	0	0	8	1	424	425
14:00	0	50	0	0	0	50	0	0	2	0	0	2	0	66	0	0	0	66	2	0	0	0	0	2	0	120	120
14:15	0	56	1	0	0	57	0	0	3	0	0	3	1	70	0	0	0	71	1	0	0	0	0	1	0	132	132
14:30	0	64	0	0	0	64	0	0	3	0	0	3	4	85	0	0	0	89	2	0	0	0	0	2	0	158	158
14:45	0	58	0	0	0	58	1	0	2	0	1	3	3	71	0	0	0	74	1	0	0	0	1	1	2	136	138
Total	0	228	1	0	0	229	1	0	10	0	1	11	8	292	0	0	0	300	6	0	0	0	1	6	2	546	548
15:00	0	54	0	0	0	54	0	0	5	0	0	5	3	79	0	0	0	82	1	0	1	0	0	2	0	143	143
15:15	0	67	1	0	0	68	1	0	3	0	0	4	4	101	0	0	0	105	0	0	0	0	0	0	0	177	177
15:30	0	83	0	0	0	83	0	1	3	0	0	4	4	130	0	0	1	134	1	0	0	0	0	1	1	222	223
15:45	0	73	2	0	0	75	1	0	0	0	0	1	10	121	0	0	2	131	0	0	1	0	0	1	2	208	210
Total	0	277	3	0	0	280	2	1	11	0	0	14	21	431	0	0	3	452	2	0	2	0	0	4	3	750	753
16:00	0	119	0	0	0	119	3	0	2	0	0	5	4	133	0	0	6	137	14	0	1	0	0	15	6	276	282
16:15	0	87	0	0	0	87	1	0	1	0	1	2	6	138	0	0	0	144	1	0	1	0	0	2	1	235	236
16:30	0	82	1	0	0	83	0	0	4	0	0	4	6	124	0	0	0	130	1	0	0	0	0	1	0	218	218
16:45	0	99	0	0	0	99	1	0	2	0	0	3	3	120	0	0	0	123	1	0	2	0	0	3	0	228	228
Total	0	387	1	0	0	388	5	0	9	0	1	14	19	515	0	0	6	534	17	0	4	0	0	21	7	957	964
17:00	0	88	0	0	0	88	1	0	3	0	1	4	6	110	0	0	0	116	3	0	2	0	0	5	1	213	214
17:15	0	94	1	0	0	95	0	0	1	0	1	1	5	117	0	0	1	122	4	0	0	0	0	4	2	222	224
17:30	0	77	0	0	0	77	0	0	3	0	1	3	2	103	0	0	0	105	2	0	2	0	1	4	2	189	191
17:45	0	75	0	0	0	75	0	0	1	0	1	1	1	101	0	0	0	102	2	0	1	0	0	3	1	181	182
Total	0	334	1	0	0	335	1	0	8	0	4	9	14	431	0	0	1	445	11	0	5	0	1	16	6	805	811



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 3

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

Groups Printed- Cars + - Trucks

Start Time	CSAH 5 (Nowthen Blvd.) Southbound						150th Lane Westbound						CSAH 5 (Nowthen Blvd.) Northbound						Ramsey Elementary School 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					
18:00	0	81	0	0	0	81	0	0	0	0	0	0	0	90	0	0	0	0	90	0	0	0	0	0	0	0	0	171	171
18:15	0	63	0	0	0	63	0	0	2	0	0	2	3	82	0	0	0	0	85	1	0	0	0	0	1	0	151	151	
18:30	0	60	0	0	0	60	0	0	4	0	0	4	2	56	0	0	0	0	58	1	0	0	0	0	1	0	123	123	
18:45	0	69	0	0	0	69	0	0	1	0	0	1	1	81	0	2	0	0	84	0	0	0	0	0	0	0	154	154	
Total	0	273	0	0	0	273	0	0	7	0	0	7	6	309	0	2	0	0	317	2	0	0	0	0	2	0	599	599	
Grand Total	0	4392	12	0	0	4404	16	2	133	1	20	152	102	3202	12	2	15	3318	130	0	25	0	3	155	38	8029	8067		
Apprch %	0	99.7	0.3	0			10.5	1.3	87.5	0.7			3.1	96.5	0.4	0.1			83.9	0	16.1	0			0.5	99.5			
Total %	0	54.7	0.1	0		54.9	0.2	0	1.7	0		1.9	1.3	39.9	0.1	0		41.3	1.6	0	0.3	0		1.9	0.5	99.5			
Cars +	0	4174	10	0		4184	14	2	132	1	169	99	3030	11	2		3157	99	0	19	0		121	0	0	7631			
% Cars +	0	95	83.3	0	0	95	87.5	100	99.2	100	98.3	97.1	94.6	91.7	100	100	94.7	76.2	0	76	0	100	76.6	0	0	94.6			
Trucks	0	218	2	0		220	2	0	1	0	3	3	172	1	0		176	31	0	6	0		37	0	0	436			
% Trucks	0	5	16.7	0	0	5	12.5	0	0.8	0	1.7	2.9	5.4	8.3	0	0	5.3	23.8	0	24	0	0	23.4	0	0	5.4			

Start Time	CSAH 5 (Nowthen Blvd.) Southbound						150th Lane Westbound						CSAH 5 (Nowthen Blvd.) Northbound						Ramsey Elementary School Eastbound						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				
Peak Hour Analysis From 05:45 to 09:45 - Peak 1 of 1																												
Peak Hour for Entire Intersection Begins at 06:45																												
06:45	0	167	0	0		167	0	0	8	0	8	0	26	0	0		26	4	0	1	0		5	0	0	206		
07:00	0	215	1	0		216	1	1	8	0	10	0	31	0	0		31	3	0	1	0		4	0	0	261		
07:15	0	225	1	0		226	0	0	5	0	5	0	29	4	0		33	6	0	2	0		8	0	0	272		
07:30	0	153	0	0		153	0	0	4	0	4	1	44	0	0		45	3	0	1	0		4	0	0	206		
Total Volume	0	760	2	0		762	1	1	25	0	27	1	130	4	0		135	16	0	5	0		21	0	0	945		
% App. Total	0	99.7	0.3	0			3.7	3.7	92.6	0		0.7	96.3	3	0			76.2	0	23.8	0							
PHF	.000	.844	.500	.000		.843	.250	.250	.781	.000	.675	.250	.739	.250	.000		.750	.667	.000	.625	.000		.656			.869		



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 4

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

Start Time	CSAH 5 (Nowthen Blvd.) Southbound					150th Lane Westbound					CSAH 5 (Nowthen Blvd.) Northbound					Ramsey Elementary School Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
Peak Hour Analysis From 10:00 to 13:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:00																					
12:00	0	56	0	0	56	0	0	2	0	2	3	54	0	0	57	1	0	1	0	2	117
12:15	0	38	0	0	38	1	0	3	0	4	2	47	0	0	49	0	0	0	0	0	91
12:30	0	61	0	0	61	0	0	3	0	3	0	59	3	0	62	0	0	0	0	0	126
12:45	0	64	0	0	64	0	0	3	0	3	0	35	0	0	35	2	0	3	0	5	107
Total Volume	0	219	0	0	219	1	0	11	0	12	5	195	3	0	203	3	0	4	0	7	441
% App. Total	0	100	0	0		8.3	0	91.7	0		2.5	96.1	1.5	0		42.9	0	57.1	0		
PHF	.000	.855	.000	.000	.855	.250	.000	.917	.000	.750	.417	.826	.250	.000	.819	.375	.000	.333	.000	.350	.875

Peak Hour Analysis From 14:00 to 18:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	119	0	0	119	3	0	2	0	5	4	133	0	0	137	14	0	1	0	15	276
16:15	0	87	0	0	87	1	0	1	0	2	6	138	0	0	144	1	0	1	0	2	235
16:30	0	82	1	0	83	0	0	4	0	4	6	124	0	0	130	1	0	0	0	1	218
16:45	0	99	0	0	99	1	0	2	0	3	3	120	0	0	123	1	0	2	0	3	228
Total Volume	0	387	1	0	388	5	0	9	0	14	19	515	0	0	534	17	0	4	0	21	957
% App. Total	0	99.7	0.3	0		35.7	0	64.3	0		3.6	96.4	0	0		81	0	19	0		
PHF	.000	.813	.250	.000	.815	.417	.000	.563	.000	.700	.792	.933	.000	.000	.927	.304	.000	.500	.000	.350	.867



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 1

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

Groups Printed- Trucks

Start Time	CSAH 5 (Nowthen Blvd.) Southbound					150th Lane Westbound					CSAH 5 (Nowthen Blvd.) Northbound					Ramsey Elementary School Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
05:45	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
06:00	0	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
06:15	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	13
06:30	0	14	0	0	14	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	15
06:45	0	7	0	0	7	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	9
Total	0	37	0	0	37	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	45
07:00	0	16	0	0	16	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	19
07:15	0	9	1	0	10	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	11
07:30	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10
07:45	0	8	0	0	8	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	10
Total	0	39	1	0	40	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	50
08:00	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
08:15	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	15
08:30	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10
08:45	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
Total	0	24	0	0	24	0	0	0	0	0	0	10	0	0	10	0	0	1	0	1	35
09:00	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	8
09:15	0	18	0	0	18	0	0	0	0	0	0	10	0	0	10	14	0	1	0	15	43
09:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	4
09:45	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	9
Total	0	27	0	0	27	0	0	0	0	0	1	19	0	0	20	16	0	1	0	17	64
10:00	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	3
10:15	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
10:30	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
10:45	0	4	0	0	4	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	9
Total	0	8	0	0	8	0	0	0	0	0	1	8	0	0	9	1	0	0	0	1	18
11:00	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
11:15	0	2	0	0	2	0	0	1	0	1	0	5	0	0	5	0	0	0	0	0	8
11:30	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
11:45	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	9
Total	0	8	0	0	8	0	0	1	0	1	0	19	0	0	19	0	0	0	0	0	28
12:00	0	5	0	0	5	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	8
12:15	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
12:30	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	4
12:45	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
Total	0	9	0	0	9	0	0	0	0	0	1	7	1	0	9	0	0	0	0	0	18
13:00	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	7
13:15	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
13:30	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	4
13:45	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	7
Total	0	11	0	0	11	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	25
14:00	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	9
14:15	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	6
14:30	0	1	0	0	1	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	8
14:45	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	10
Total	0	12	0	0	12	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	33



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC 2208-t
 Site Code :
 Start Date : 10/05/2022
 Page No : 2

Weather: Cool & Sunny
 CountCAM 2
 Study Conducted by Sam

Groups Printed- Trucks

Start Time	CSAH 5 (Nowthen Blvd.) Southbound					150th Lane Westbound					CSAH 5 (Nowthen Blvd.) Northbound					Ramsey Elementary School Eastbound					Int. Total
	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	Right	Thru	Left	UTrn	App. Total	
15:00	0	6	0	0	6	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	13
15:15	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	8
15:30	0	4	0	0	4	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	10
15:45	0	1	1	0	2	1	0	0	0	1	0	9	0	0	9	0	0	1	0	1	13
Total	0	17	1	0	18	1	0	0	0	1	0	24	0	0	24	0	0	1	0	1	44
16:00	0	1	0	0	1	0	0	0	0	0	0	9	0	0	9	14	0	1	0	15	25
16:15	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	3
16:30	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	9
16:45	0	7	0	0	7	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	9
Total	0	14	0	0	14	1	0	0	0	1	0	14	0	0	14	14	0	3	0	17	46
17:00	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
17:15	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	7
17:30	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
17:45	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
Total	0	7	0	0	7	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	18
18:00	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
18:15	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
18:30	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3
18:45	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	4
Total	0	5	0	0	5	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	12
Grand Total	0	218	2	0	220	2	0	1	0	3	3	172	1	0	176	31	0	6	0	37	436
Apprch %	0	99.1	0.9	0		66.7	0	33.3	0		1.7	97.7	0.6	0		83.8	0	16.2	0		
Total %	0	50	0.5	0	50.5	0.5	0	0.2	0	0.7	0.7	39.4	0.2	0	40.4	7.1	0	1.4	0	8.5	

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 10/05/2022

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 5 (Nowthen Blvd.)

Number of Lanes : 1

Total Approach Volume: 3,318

Southbound: CSAH 5 (Nowthen Blvd.)

Number of Lanes : 1

Total Approach Volume: 4,404

Minor Street Approaches

Eastbound: Ramsey Elementary School

Number of Lanes : 1

Total Approach Volume: 155

Westbound: 150th Lane

Number of Lanes : 1

Total Approach Volume: 152

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

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

Required volumes reached for 0 hours, 8 are needed

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

Required volumes reached for 0 hours, 8 are needed

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

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) 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:

Study Date : 10/05/2022

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

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	
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445	+	335	=	780	16	9	No
06:15 - 07:15	87	+	662	=	749	14	22	No
17:15 - 18:15	419	+	328	=	747	11	5	No
15:00 - 16:00	452	+	280	=	732	4	14	No
07:30 - 08:30	183	+	537	=	720	24	19	No
17:30 - 18:30	382	+	296	=	678	8	6	No
14:45 - 15:45	395	+	263	=	658	4	16	No
07:45 - 08:45	177	+	465	=	642	22	22	No
06:00 - 07:00	67	+	554	=	621	10	14	No
17:45 - 18:45	335	+	279	=	614	5	7	No
08:30 - 09:30	188	+	407	=	595	23	18	No
14:30 - 15:30	350	+	244	=	594	5	15	No
18:00 - 19:00	317	+	273	=	590	2	7	No
08:45 - 09:45	183		398		581	26	12	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 10/05/2022

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 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 = **525**

Veh/Hr Minor = **52**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 5 (Nowthen Blvd.)					Ramsey Elementary School		
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445	+	335	=	780	16	9	No
06:15 - 07:15	87	+	662	=	749	14	22	No
17:15 - 18:15	419	+	328	=	747	11	5	No
15:00 - 16:00	452	+	280	=	732	4	14	No
07:30 - 08:30	183	+	537	=	720	24	19	No
17:30 - 18:30	382	+	296	=	678	8	6	No
14:45 - 15:45	395	+	263	=	658	4	16	No
07:45 - 08:45	177	+	465	=	642	22	22	No
06:00 - 07:00	67	+	554	=	621	10	14	No
17:45 - 18:45	335	+	279	=	614	5	7	No
08:30 - 09:30	188	+	407	=	595	23	18	No
14:30 - 15:30	350	+	244	=	594	5	15	No
18:00 - 19:00	317	+	273	=	590	2	7	No
08:45 - 09:45	183		398		581	26	12	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 10/05/2022

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

Only 0 hours meet 1A minimums.
Only 0 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 5 (Nowthen Blvd.)

Minor Road Ramsey Elementary School

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445		335		780	16	9	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445		335		780	16	9	No

ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 10/05/2022

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.

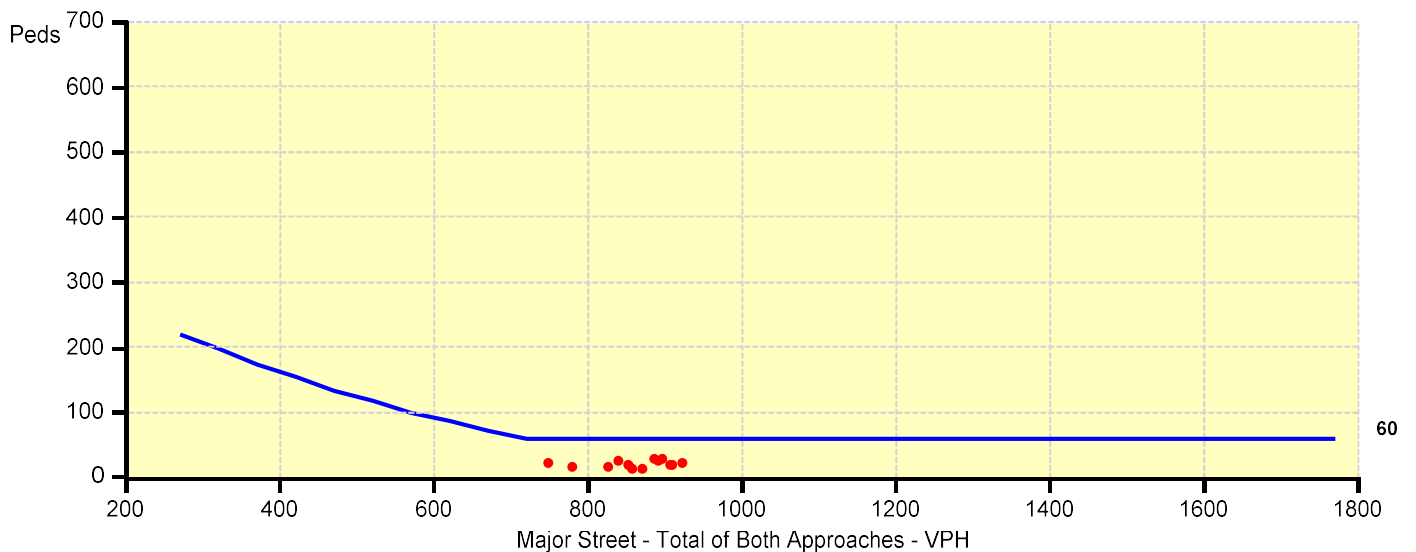
Summary

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				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 5 (Nowthen Blvd.)					Ramsey Elementary School		
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445		335		780	16	9	No



ANOKA COUNTY HIGHWAY

PC-WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 10/05/2022

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

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 5 (Nowthen Blvd.)				Total	Minor Road Ramsey Elementary School		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
16:00 - 17:00	534	+	388	=	922	21	14	No
15:30 - 16:30	546	+	364	=	910	19	12	No
15:45 - 16:45	542	+	364	=	906	19	12	No
06:45 - 07:45	135	+	762	=	897	21	27	No
07:00 - 08:00	154	+	738	=	892	21	25	No
06:30 - 07:30	106	+	780	=	886	22	27	No
16:15 - 17:15	513	+	357	=	870	11	13	No
16:30 - 17:30	491	+	365	=	856	13	12	No
15:15 - 16:15	507	+	345	=	852	17	14	No
07:15 - 08:15	172	+	668	=	840	25	20	No
16:45 - 17:45	466	+	359	=	825	16	11	No
17:00 - 18:00	445		335		780	16	9	No

