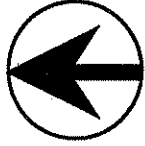


Date : 05/17/00

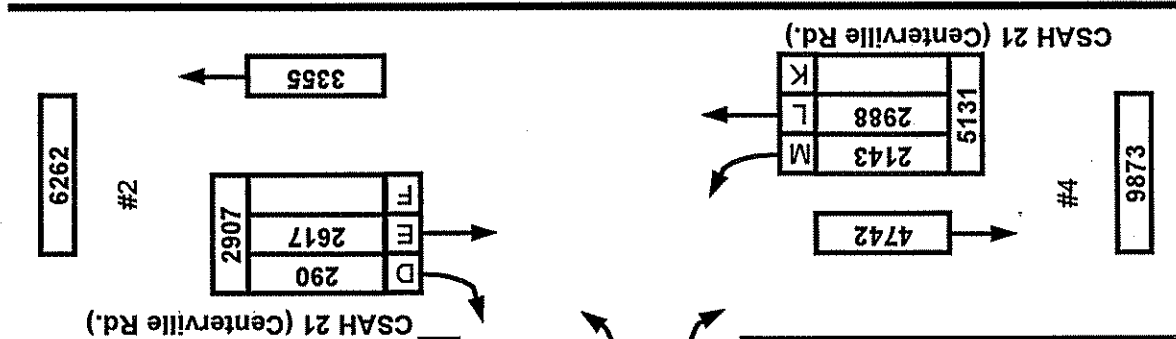
Count Number : TMC0002

Location : CSAH 21 (Centerville Rd.) @

CSAH 32



North



4925	2433			
		C	B	A
		367		2125
				2492

CSAH 32

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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department
Traffic Engineering

Weather: partly cloudy/rain
under TDC-8
Counted by: Ryan & Justin

Traffic Volume and Turning Movement Stud

File Name : TM0002
Site Code : 00020201
Start Date : 05/17/2000
Page No : 1

Groups Printed- 1 - 1 - Unshifted

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 32 Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 32 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
06:00	0	69	3	1	72	0	0	0	0	0	20	15	0	0	35	1	0	25	3	26	4	133	137
06:15	0	102	11	0	113	0	0	0	0	0	34	19	0	2	53	1	0	33	3	34	5	200	205
06:30	0	101	7	2	108	0	0	0	0	0	42	26	0	1	68	5	0	54	2	59	5	235	240
06:45	0	121	14	0	135	0	0	0	0	0	32	25	0	0	57	6	0	48	1	54	1	246	247
Total	0	393	35	3	428	0	0	0	0	0	128	85	0	3	213	13	0	160	9	173	15	814	829
07:00	0	116	14	0	130	0	0	0	0	0	48	31	0	2	79	4	0	63	3	67	5	276	281
07:15	0	97	21	0	118	0	0	0	0	0	47	29	0	2	76	6	0	79	0	85	2	279	281
07:30	0	91	12	0	103	0	0	0	0	0	49	21	0	0	70	6	0	57	0	63	0	236	236
07:45	0	66	8	1	74	0	0	0	0	0	27	19	0	0	46	1	0	46	1	47	2	167	169
Total	0	370	55	1	425	0	0	0	0	0	171	100	0	4	271	17	0	245	4	262	9	958	967
08:00	0	52	8	0	60	0	0	0	0	0	24	13	0	0	37	3	0	39	2	42	2	139	141
08:15	0	52	2	1	54	0	0	0	0	0	18	20	0	2	38	4	0	34	0	38	3	130	133
08:30	0	57	3	2	60	0	0	0	0	0	21	22	0	6	43	3	0	48	4	51	12	154	166
08:45	0	50	5	2	55	0	0	0	0	0	17	19	0	2	36	3	0	19	0	22	4	113	117
Total	0	211	18	5	229	0	0	0	0	0	80	74	0	10	154	13	0	140	6	153	21	536	557
09:00	0	29	6	1	35	0	0	0	0	0	14	18	0	2	32	8	0	30	1	38	4	105	109
09:15	0	31	2	1	33	0	0	0	0	0	13	18	0	2	31	4	0	22	0	26	3	90	93
09:30	0	26	3	1	29	0	0	0	0	0	14	23	0	1	37	8	0	27	3	35	5	101	106
09:45	0	31	2	3	33	0	0	0	0	0	21	23	0	2	44	2	0	20	1	22	6	99	105
Total	0	117	13	6	130	0	0	0	0	0	62	82	0	7	144	22	0	99	5	121	18	395	413
10:00	0	21	1	0	22	0	0	0	0	0	15	14	0	2	29	3	0	16	2	19	4	70	74
10:15	0	23	6	1	29	0	0	0	0	0	29	32	0	2	61	3	0	10	0	13	3	103	106
10:30	0	22	3	0	25	0	0	0	0	0	17	20	0	0	37	6	0	25	2	31	2	93	95
10:45	0	28	2	0	30	0	0	0	0	0	20	34	0	0	54	5	0	18	1	23	1	107	108
Total	0	94	12	1	106	0	0	0	0	0	81	100	0	4	181	17	0	69	5	86	10	373	383
11:00	0	28	0	3	28	0	0	0	0	0	21	20	0	2	41	5	0	20	0	25	5	94	99
11:15	0	29	3	0	32	0	0	0	0	0	20	34	0	0	54	1	0	24	0	25	0	111	111
11:30	0	31	4	1	35	0	0	0	0	0	16	28	0	1	44	1	0	29	3	30	5	109	114
11:45	0	28	1	3	29	0	0	0	0	0	25	25	0	1	50	4	0	29	0	33	4	112	116
Total	0	116	8	7	124	0	0	0	0	0	82	107	0	4	189	11	0	102	3	113	14	426	440
12:00	0	38	0	1	38	0	0	0	0	0	18	32	0	2	50	4	0	21	3	25	6	113	119
12:15	0	18	6	1	24	0	0	0	0	0	28	23	0	2	51	3	0	33	1	36	4	111	115
12:30	0	33	6	1	39	0	0	0	0	0	21	30	0	3	51	6	0	31	1	37	5	127	132
12:45	0	28	3	1	31	0	0	0	0	0	26	36	0	1	62	7	0	18	1	25	3	118	121
Total	0	117	15	4	132	0	0	0	0	0	93	121	0	8	214	20	0	103	6	123	18	469	487
13:00	0	20	4	2	24	0	0	0	0	0	22	36	0	3	58	2	0	26	3	28	8	110	118
13:15	0	16	6	1	22	0	0	0	0	0	26	39	0	1	65	8	0	26	1	34	3	121	124
13:30	0	32	3	0	35	0	0	0	0	0	29	48	0	1	77	2	0	20	2	22	3	134	137
13:45	0	22	3	0	25	0	0	0	0	0	31	43	0	1	74	3	0	36	3	39	4	138	142
Total	0	90	16	3	106	0	0	0	0	0	108	166	0	6	274	15	0	108	9	123	18	503	521
14:00	0	27	2	0	29	0	0	0	0	0	23	36	0	0	59	4	0	27	6	31	6	119	125
14:15	0	31	1	0	32	0	0	0	0	0	41	66	0	2	107	6	0	29	0	35	2	174	176
14:30	0	23	0	1	23	0	0	0	0	0	44	61	0	1	105	8	0	20	0	28	2	156	158
14:45	0	29	2	0	31	0	0	0	0	0	34	50	0	2	84	2	0	29	0	31	2	146	148
Total	0	110	5	1	115	0	0	0	0	0	142	213	0	5	355	20	0	105	6	125	12	595	607
15:00	0	26	3	1	29	0	0	0	0	0	32	43	0	1	75	6	0	37	4	43	6	147	153
15:15	0	49	2	1	51	0	0	0	0	0	42	73	0	2	115	4	0	32	1	36	4	202	206
15:30	0	48	5	0	53	0	0	0	0	0	48	61	0	2	109	10	0	36	2	46	4	208	212
15:45	0	57	4	1	61	0	0	0	0	0	49	93	0	0	142	8	0	43	2	51	3	254	257
Total	0	180	14	3	194	0	0	0	0	0	171	270	0	5	441	28	0	148	9	176	17	811	828
16:00	0	48	4	3	52	0	0	0	0	0	59	85	0	5	144	10	0	37	0	47	8	243	251
16:15	0	46	5	1	51	0	0	0	0	0	50	106	0	0	156	17	0	54	1	71	2	278	280
16:30	0	41	1	1	42	0	0	0	0	0	70	115	0	5	185	14	0	31	1	45	7	272	279
16:45	0	49	3	0	52	0	0	0	0	0	75	122	0	4	197	15	0	67	1	82	5	331	336
Total	0	184	13	5	197	0	0	0	0	0	254	428	0	14	682	56	0	189	3	245	22	1124	1146

Anoka County Highway Department
Traffic Engineering

Weather: partly cloudy/rain
under TDC-8
Counted by: Ryan & Justin

Traffic Volume and Turning Movement Stud

File Name : TM0002
Site Code : 00020201
Start Date : 05/17/2000
Page No : 2

Groups Printed- 1 - 1 - Unshifted

Start Time	CSAH 21 (Centerville Rd.) Southbound					CSAH 32 Westbound					CSAH 21 (Centerville Rd.) Northbound					CSAH 32 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
17:00	0	52	4	1	56	0	0	0	0	0	72	116	0	1	188	12	0	68	2	80	4	324	328
17:15	0	60	6	0	66	0	0	0	0	0	76	113	0	2	189	15	0	62	2	77	4	332	336
17:30	0	62	10	0	72	0	0	0	0	0	60	96	0	3	156	18	0	68	3	86	6	314	320
17:45	0	43	5	0	48	0	0	0	0	0	59	92	0	2	151	7	0	68	0	75	2	274	276
Total	0	217	25	1	242	0	0	0	0	0	267	417	0	8	684	52	0	266	7	318	16	1244	1260
18:00	0	39	5	1	44	0	0	0	0	0	48	87	0	0	135	14	0	49	0	63	1	242	243
18:15	0	38	5	1	43	0	0	0	0	0	48	93	0	2	141	5	0	43	0	48	3	232	235
18:30	0	50	4	0	54	0	0	0	0	0	41	49	0	2	90	8	0	50	0	58	2	202	204
18:45	0	42	9	0	51	0	0	0	0	0	42	46	0	2	88	2	0	33	0	35	2	174	176
Total	0	169	23	2	192	0	0	0	0	0	179	275	0	6	454	29	0	175	0	204	8	850	858
19:00	0	22	3	0	25	0	0	0	0	0	38	67	0	3	105	4	0	23	0	27	3	157	160
19:15	0	29	2	0	31	0	0	0	0	0	34	45	0	1	79	5	0	20	0	25	1	135	136
19:30	0	31	1	0	32	0	0	0	0	0	42	50	0	1	92	7	0	21	0	28	1	152	153
19:45	0	24	5	0	29	0	0	0	0	0	24	49	0	0	73	4	0	20	0	24	0	126	126
Total	0	106	11	0	117	0	0	0	0	0	138	211	0	5	349	20	0	84	0	104	5	570	575
20:00	0	17	4	0	21	0	0	0	0	0	18	43	0	0	61	6	0	16	0	22	0	104	104
20:15	0	24	4	0	28	0	0	0	0	0	28	54	0	0	82	3	0	30	0	33	0	143	143
20:30	0	26	4	0	30	0	0	0	0	0	24	38	0	0	62	6	0	15	0	21	0	113	113
20:45	0	14	3	0	17	0	0	0	0	0	27	41	0	0	68	5	0	13	0	18	0	103	103
Total	0	81	15	0	96	0	0	0	0	0	97	176	0	0	273	20	0	74	0	94	0	463	463
21:00	0	19	6	0	25	0	0	0	0	0	27	51	0	0	78	3	0	15	0	18	0	121	121
21:15	0	17	3	0	20	0	0	0	0	0	22	50	0	0	72	2	0	15	0	17	0	109	109
21:30	0	12	3	0	15	0	0	0	0	0	24	28	0	0	52	3	0	13	6	16	6	83	89
21:45	0	14	0	0	14	0	0	0	0	0	17	34	0	0	51	6	0	15	0	21	0	86	86
Total	0	62	12	0	74	0	0	0	0	0	90	163	0	0	253	14	0	58	6	72	6	399	405
Grand Total	0	261	290	42	2907	0	0	0	0	0	214	298	0	89	5131	367	0	212	78	2492	209	10530	10739
Apprch %	0.0	90.0	10.0			0.0	0.0	0.0			41.8	58.2	0.0			14.7	0.0	85.3			1.9	98.1	
Total %	0.0	24.9	2.8		27.6	0.0	0.0	0.0		0.0	20.4	28.4	0.0		48.7	3.5	0.0	20.2		23.7			

or Street Approaches:

Northbound:

CSAH 21 (Centerville Rd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0002.war

Count Type: IMC. Channel: 0. Count Date: 5/17/ 0

Number of Lanes: 1

Approach Speed: 50

Total Approach Traffic: 5131

Southbound:

CSAH 21 (Centerville Rd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0002.war

Count Type: IMC. Channel: 0. Count Date: 5/17/ 0

Number of Lanes: 1

Approach Speed: 50

Total Approach Traffic: 2907

Minor Street Approaches:

Eastbound:

CSAH 32

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0002.war

Count Type: IMC. Channel: 0. Count Date: 5/17/ 0

Number of Lanes: 1

Approach Speed: 45

Total Approach Traffic: 2492

Westbound:

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0002.war

Count Type: IMC. Channel: 0. Count Date: 5/17/ 0

Number of Lanes: 1

Approach Speed: 0

Total Approach Traffic: 0

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main	Side	Warrant 1	Warrant 2	Warrant 8
Begin	(Total)	Vol. Dir. Rank	Meets? Criteria	Meets? Criteria	Meets? Criteria
0	0	0 E 17	105	52	84
1	0	0 E 18	105	52	84
2	0	0 E 19	105	52	84
3	0	0 E 20	105	52	84
4	0	0 E 21	105	52	84
5	0	0 E 22	105	52	84
6	641	173 E 6	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
7	696	262 E 2	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
8	383	153 E 7	--BOTH-- 105	SIDE 52	SIDE 84
9	274	121 E 11	SIDE 105	SIDE 52	SIDE 84
10	287	86 E 15	105	SIDE 52	SIDE 84
11	313	113 E 12	SIDE 105	SIDE 52	SIDE 84
12	346	123 E 9	SIDE 105	SIDE 52	SIDE 84
13	380	123 E 10	--BOTH-- 105	SIDE 52	SIDE 84
14	470	125 E 8	--BOTH-- 105	SIDE 52	--BOTH-- 84
15	635	176 E 5	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
16	879	245 E 3	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
17	926	318 E 1	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
18	646	204 E 4	--BOTH-- 105	--BOTH-- 52	--BOTH-- 84
19	466	104 E 13	MAIN 105	SIDE 52	--BOTH-- 84
20	369	94 E 14	MAIN 105	SIDE 52	SIDE 84
21	327	72 E 16	105	SIDE 52	84
22	0	0 E 23	105	52	84
23	0	0 E 24	105	52	84

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

SATISFIED for 9 hours. Criteria--Main St.: 350; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 6 hours. Criteria--Main St.: 525; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. 8th-High Hour--Pedestrians: 6; Vehicles: 327. Criteria--Pedestrians: 105; Vehicles: 420.

Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches. Peak hour total entering volume: 1244.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which connect areas of principal traffic generation.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which have surface street freeway or expressway ramp terminals.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

SATISFIED for 8 hours. Criteria--Main: 420; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

SATISFIED for 6 hours.

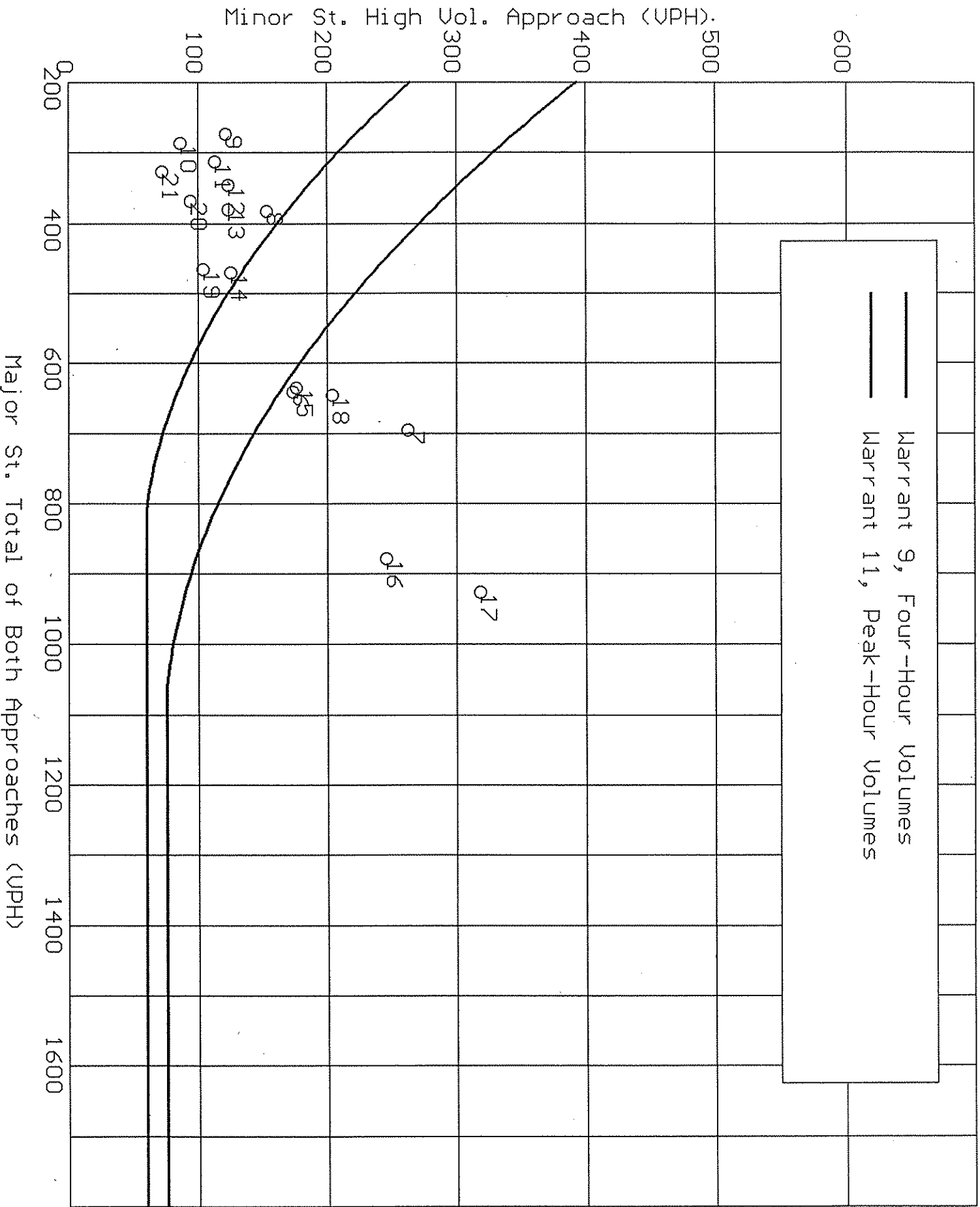
Warrant 10 - Peak Hour Delay

NOT APPLICABLE. Volume requirements satisfied, but side street peak hour delay not defined.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

SATISFIED for 6 hours.





COUNT LOCATION:

CSAH 21 (Centerville Rd.) @

DATE:

5/17/00

CSAH 32 (Ash St.)

NORTH

APP. #1 =
CSAH 21 (Centerville Rd.)

APP. #2 =

APP. #3 =
CSAH 21 (Centerville Rd.)

APP. #4 =
CSAH 32 (Ash St.)

APP. #2

APP. #1 APP. #3

APP. #4

- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						3		
6:15-6:30						2		3
6:30-6:45						3		3
6:45-7:00						1		
HOURLY TOTAL						HOURLY TOTAL		15
7:00-7:15						4		1
7:15-7:30						2		
7:30-7:45								
7:45-8:00						2		
HOURLY TOTAL						HOURLY TOTAL		9
8:00-8:15						1		1
8:15-8:30						1		2
8:30-8:45						10		2
8:45-9:00						3		1
HOURLY TOTAL						HOURLY TOTAL		21
9:00-9:15						1		3
9:15-9:30						3		
9:30-9:45						4		1
9:45-10:00						6		
HOURLY TOTAL						HOURLY TOTAL		18
10:00-10:15						3		2
10:15-10:30						2		
10:30-10:45						2		
10:45-11:00						1		
HOURLY TOTAL						HOURLY TOTAL		10
11:00-11:15						5		
11:15-11:30								
11:30-11:45						4		2
11:45-12:00						4		
HOURLY TOTAL						HOURLY TOTAL		15
12:00-12:15						4		2
12:15-12:30						3		
12:30-12:45						2		3
12:45-1:00						2		1
HOURLY TOTAL						HOURLY TOTAL		17
1:00-1:15						8		
1:15-1:30						3		
1:30-1:45						1		2
1:45-2:00						2		2
HOURLY TOTAL						HOURLY TOTAL		18



COUNT LOCATION:

CSAH 21 (Centerville Rd.) @

DATE:

5/16/00

CSAH 32 (Ash St.)

NORTH

APP. #1 = CSAH 21 (Centerville Rd.)
APP. #2 =
APP. #3 = CSAH 21 (Centerville Rd.)
APP. #4 = CSAH 32 (Ash St.)

APP. #2		
APP. #1		APP. #3
APP. #4		

- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						3		3
2:15-2:30						2		
2:30-2:45						1		1
2:45-3:00						2		
HOURLY TOTAL						HOURLY TOTAL		12
3:00-3:15						3		3
3:15-3:30						2		2
3:30-3:45						3		1
3:45-4:00						2		1
HOURLY TOTAL						HOURLY TOTAL		17
4:00-4:15						5		2
4:15-4:30						2		
4:30-4:45						5		2
4:45-5:00						5		
HOURLY TOTAL						HOURLY TOTAL		21
5:00-5:15						4		
5:15-5:30						3		
5:30-5:45						5		1
5:45-6:00						2		
HOURLY TOTAL						HOURLY TOTAL		15
6:00-6:15						1		
6:15-6:30						3		
6:30-6:45								2
6:45-7:00						2		1
HOURLY TOTAL						HOURLY TOTAL		9
7:00-7:15						2		1
7:15-7:30								1
7:30-7:45								1
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		5
8:00-8:15								
8:15-8:30								
8:30-8:45								
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		
9:00-9:15								
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		