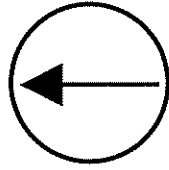


7/15/99AM 7/13/99PM

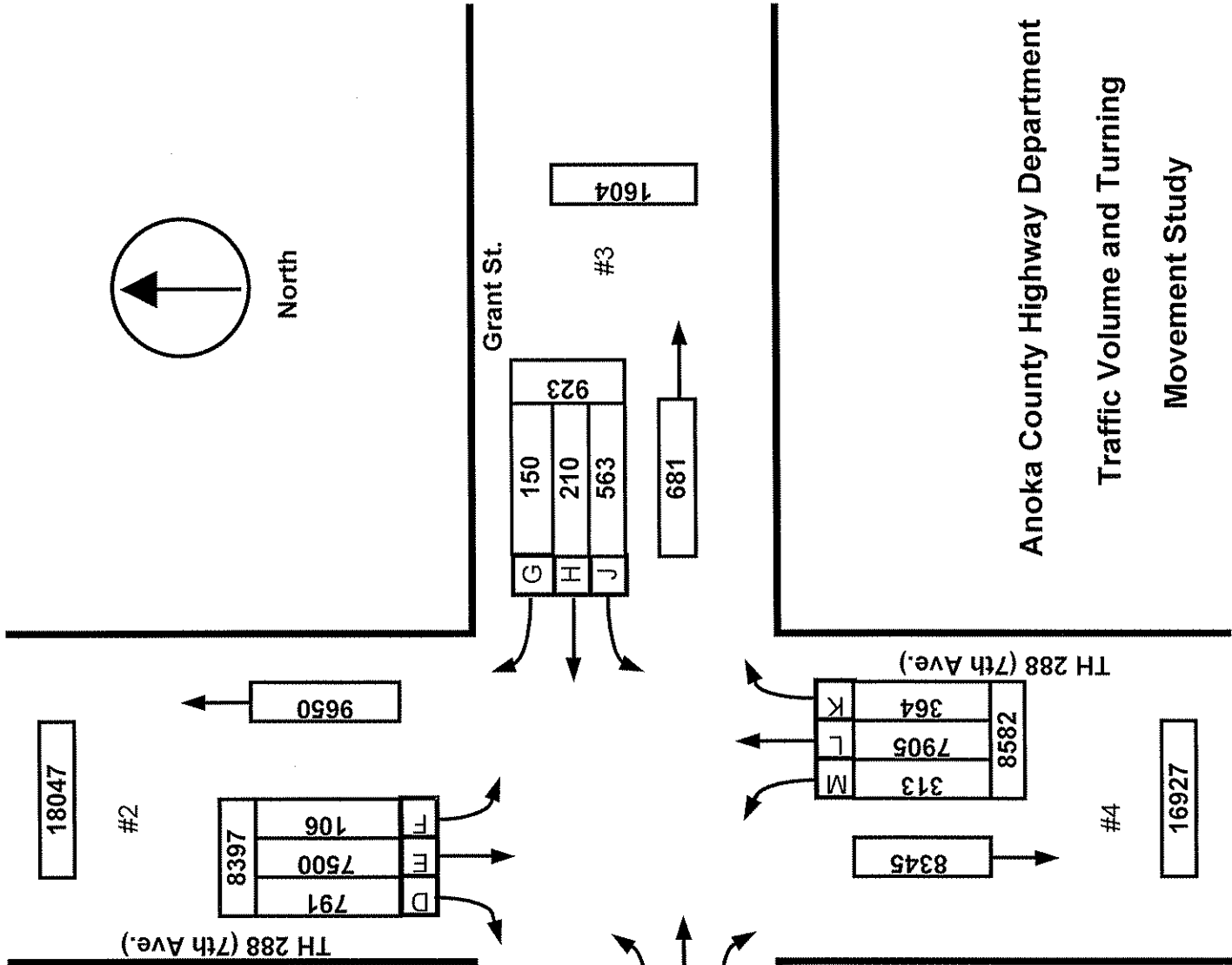
Date : 7/13/99PM 7/15/99AM

Count Number : \_\_\_\_\_

Location : TH 288 7th Ave @ \_\_\_\_\_



North



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

Anoka County Highway Department  
 Traffic Volume and Turning  
 Movement Study

Anoka County Highway Department  
Traffic Volume & Turning Movement Study

Weather  
Counter TDC-8  
Counted by Mike and Ryan

File Name : TMC9917  
Site Code : 99170101  
Start Date : 07/15/1999  
Page No : 1

Groups Printed 1 - 1 - Unshifted

Start Time	CSAH 7 (7th Ave.) Southbound				Grant St. Westbound				CSAH 7 (7th Ave.) Northbound				Grant St. Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy			
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	1	185	9	1	14	2	0	0	5	35	2	4	1	0	6	0	5	260	265
06:15	0	232	13	0	12	1	4	0	4	27	4	4	1	0	7	1	5	305	310
06:30	1	268	15	4	14	6	2	0	4	40	2	2	4	1	4	0	6	361	367
06:45	0	286	18	3	18	2	1	0	4	61	3	5	11	3	5	1	9	412	421
Total	2	971	55	8	58	11	7	0	17	163	11	15	17	4	22	2	25	1338	1363
07:00	2	255	27	2	17	7	1	0	4	57	2	3	12	1	5	3	8	390	398
07:15	0	242	17	2	20	11	2	2	4	83	4	5	9	0	3	0	9	395	404
07:30	3	203	27	7	9	5	0	0	2	56	2	6	13	2	8	1	14	330	344
07:45	1	222	56	7	22	7	1	1	4	63	2	5	7	5	8	1	14	398	412
Total	6	922	127	18	68	30	4	3	14	259	10	19	41	8	24	5	45	1513	1558
08:00	3	225	38	3	12	11	2	0	2	76	5	4	8	1	3	1	8	386	394
08:15	1	158	18	5	13	3	2	2	16	68	5	0	7	3	3	0	7	297	304
08:30	1	153	16	3	6	5	2	0	27	42	5	4	10	4	2	6	13	273	286
08:45	0	122	13	2	5	6	5	0	5	55	4	8	12	2	4	2	12	233	245
Total	5	658	85	13	36	25	11	2	50	241	19	16	37	10	12	9	40	1189	1229
09:00	3	130	17	2	10	2	0	1	3	71	5	4	11	3	5	3	10	260	270
09:15	1	101	8	3	15	2	2	0	9	62	2	3	11	2	1	0	6	216	222
09:30	1	113	19	2	13	5	2	0	4	69	11	6	15	3	5	2	10	260	270
09:45	0	126	14	4	7	3	1	0	4	72	7	3	15	4	3	1	8	256	264
Total	5	470	58	11	45	12	5	1	20	274	25	16	52	12	14	6	34	992	1026
10:00	3	100	10	3	12	1	4	0	3	72	3	8	9	6	7	1	12	230	242
10:15	3	109	12	6	10	4	1	1	0	86	5	4	17	1	4	1	12	252	264
10:30	2	94	10	0	8	2	1	0	7	95	2	2	12	1	4	1	3	238	241
10:45	1	113	12	2	5	2	0	0	3	68	5	4	6	0	8	0	6	223	229
Total	9	416	44	11	35	9	6	1	13	321	15	18	44	8	23	3	33	943	976
11:00	0	103	7	3	10	4	1	0	2	85	13	9	17	3	8	1	13	253	266
11:15	4	116	8	4	5	3	2	1	4	87	5	1	16	5	3	0	6	258	264
11:30	1	95	14	5	8	4	3	0	2	93	6	6	13	3	5	2	13	247	260
11:45	4	76	10	3	8	4	4	0	6	95	11	3	24	3	8	1	7	253	260
Total	9	390	39	15	31	15	10	1	14	360	35	19	70	14	24	4	39	1011	1050
12:00	1	111	9	4	12	3	4	0	4	102	11	9	25	9	3	3	16	294	310
12:15	2	97	8	1	7	4	5	0	2	90	7	4	13	2	1	1	6	238	244
12:30	2	98	14	3	4	2	0	0	5	108	5	8	20	5	6	0	11	269	280
12:45	0	75	6	3	1	3	4	0	3	126	4	3	16	2	1	1	7	241	248
Total	5	381	37	11	24	12	13	0	14	426	27	24	74	18	11	5	40	1042	1082
13:00	2	102	15	4	5	2	3	1	0	95	4	4	25	11	2	3	12	266	278
13:15	2	110	9	4	8	4	5	0	1	103	1	8	24	5	2	1	13	274	287
13:30	0	86	13	6	5	2	2	0	2	97	7	6	17	5	2	1	13	238	251
13:45	1	109	8	2	6	1	2	0	4	101	1	1	13	3	3	1	4	252	256
Total	5	407	45	16	24	9	12	1	7	396	13	19	79	24	9	6	42	1030	1072
14:00	5	65	12	0	4	7	3	0	5	90	6	1	12	6	9	1	2	224	226
14:15	1	82	13	3	3	3	3	1	6	106	2	6	25	2	1	0	10	247	257
14:30	3	102	7	2	6	4	2	2	0	109	2	4	22	0	2	1	9	259	268
14:45	1	104	5	5	10	0	3	1	4	114	11	3	32	1	6	1	10	291	301
Total	10	353	37	10	23	14	11	4	15	419	21	14	91	9	18	3	31	1021	1052
15:00	0	110	10	3	7	3	2	0	11	139	2	5	27	2	2	2	10	315	325
15:15	0	96	7	1	3	4	3	1	5	202	7	3	38	6	7	3	8	378	386
15:30	0	90	11	2	4	7	5	0	9	179	8	1	30	2	3	0	3	348	351
15:45	0	113	10	4	7	2	3	2	6	202	4	5	59	2	10	3	14	418	432
Total	0	409	38	10	21	16	13	3	31	722	21	14	154	12	22	8	35	1459	1494

# Anoka County Highway Department Traffic Volume & Turning Movement Study

File Name : TMC9917  
Site Code : 99170101  
Start Date : 07/15/1999  
Page No : 2

Groups Printed 1 - 1 - Unshifted

Start Time	CSAH 7 (7th Ave.) Southbound				Grant St. Westbound				CSAH 7 (7th Ave.) Northbound				Grant St. Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy	Left	Thru	Right	Heavy			
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			
16:00	2	119	15	2	7	1	3	0	8	219	3	4	55	6	6	1	7	444	451
16:15	4	102	8	4	10	5	1	1	1	169	11	0	38	5	2	0	5	356	361
16:30	1	97	10	2	10	2	0	0	4	237	7	3	40	7	0	0	5	415	420
16:45	1	75	16	0	9	1	2	0	4	264	10	2	118	7	9	2	4	516	520
<b>Total</b>	<b>8</b>	<b>393</b>	<b>49</b>	<b>8</b>	<b>36</b>	<b>9</b>	<b>6</b>	<b>1</b>	<b>17</b>	<b>889</b>	<b>31</b>	<b>9</b>	<b>251</b>	<b>25</b>	<b>17</b>	<b>3</b>	<b>21</b>	<b>1731</b>	<b>1752</b>
17:00	3	104	17	3	9	7	6	0	7	298	8	4	80	8	9	3	10	556	566
17:15	2	115	17	0	6	4	5	0	7	250	7	5	85	6	4	3	8	508	516
17:30	5	104	15	2	14	4	1	1	5	285	12	2	61	5	5	1	6	516	522
17:45	0	115	11	2	11	1	4	0	6	233	6	5	69	7	3	1	8	466	474
<b>Total</b>	<b>10</b>	<b>438</b>	<b>60</b>	<b>7</b>	<b>40</b>	<b>16</b>	<b>16</b>	<b>1</b>	<b>25</b>	<b>1066</b>	<b>33</b>	<b>16</b>	<b>295</b>	<b>26</b>	<b>21</b>	<b>8</b>	<b>32</b>	<b>2046</b>	<b>2078</b>
18:00	2	108	5	0	11	2	1	0	7	223	10	3	52	6	5	3	6	432	438
18:15	3	87	4	0	7	3	2	1	5	205	12	5	40	4	1	1	7	373	380
18:30	3	118	8	0	17	6	1	0	7	196	4	4	43	2	7	2	6	412	418
18:45	1	95	10	0	6	1	2	0	3	195	7	3	26	3	5	1	4	354	358
<b>Total</b>	<b>9</b>	<b>408</b>	<b>27</b>	<b>0</b>	<b>41</b>	<b>12</b>	<b>6</b>	<b>1</b>	<b>22</b>	<b>819</b>	<b>33</b>	<b>15</b>	<b>161</b>	<b>15</b>	<b>18</b>	<b>7</b>	<b>23</b>	<b>1571</b>	<b>1594</b>
19:00	1	104	17	0	11	0	2	0	5	174	9	2	24	5	5	3	5	357	362
19:15	4	96	13	2	7	2	2	0	7	155	4	2	25	2	5	0	4	322	326
19:30	3	64	8	1	8	7	3	0	3	145	7	2	16	4	4	1	4	272	276
19:45	0	68	10	0	6	0	2	0	7	138	5	2	28	1	3	0	2	268	270
<b>Total</b>	<b>8</b>	<b>332</b>	<b>48</b>	<b>3</b>	<b>32</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>22</b>	<b>612</b>	<b>25</b>	<b>8</b>	<b>93</b>	<b>12</b>	<b>17</b>	<b>4</b>	<b>15</b>	<b>1219</b>	<b>1234</b>
20:00	0	80	3	2	6	1	3	0	3	120	4	2	12	3	4	0	4	239	243
20:15	1	70	8	0	6	4	3	0	7	125	9	1	19	1	1	1	2	254	256
20:30	1	65	3	1	8	1	2	1	1	103	9	0	17	3	6	0	2	219	221
20:45	4	73	2	1	11	1	3	0	3	123	1	1	17	3	0	0	2	241	243
<b>Total</b>	<b>6</b>	<b>288</b>	<b>16</b>	<b>4</b>	<b>31</b>	<b>7</b>	<b>11</b>	<b>1</b>	<b>14</b>	<b>471</b>	<b>23</b>	<b>4</b>	<b>65</b>	<b>10</b>	<b>11</b>	<b>1</b>	<b>10</b>	<b>953</b>	<b>963</b>
21:00	2	63	11	0	3	1	1	0	9	115	11	0	23	0	2	0	0	241	241
21:15	0	79	4	1	5	2	3	0	3	139	3	0	17	2	12	0	1	269	270
21:30	6	57	5	0	3	0	4	0	4	109	3	0	19	2	2	0	0	214	214
21:45	1	65	6	0	7	1	2	0	2	104	5	0	12	0	3	0	0	208	208
<b>Total</b>	<b>9</b>	<b>264</b>	<b>26</b>	<b>1</b>	<b>18</b>	<b>4</b>	<b>10</b>	<b>0</b>	<b>18</b>	<b>467</b>	<b>22</b>	<b>0</b>	<b>71</b>	<b>4</b>	<b>19</b>	<b>0</b>	<b>1</b>	<b>932</b>	<b>933</b>
<b>Grand Total</b>	<b>106</b>	<b>7500</b>	<b>791</b>	<b>146</b>	<b>563</b>	<b>210</b>	<b>150</b>	<b>20</b>	<b>313</b>	<b>7905</b>	<b>364</b>	<b>226</b>	<b>1595</b>	<b>211</b>	<b>282</b>	<b>74</b>	<b>466</b>	<b>19990</b>	<b>20456</b>
Apprch %	1.3	89.3	9.4		61.0	22.8	16.3		3.6	92.1	4.2		76.4	10.1	13.5				
Total %	0.5	37.5	4.0		2.8	1.1	0.8		1.6	39.5	1.8		8.0	1.1	1.4		2.3	97.7	

Major Street Approaches:

Northbound:

Ad 288 (7th Ave.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9917.war  
 Count Type: IMC. Channel: 0. Count Date: 7/15/99  
 Number of Lanes: 2  
 Approach Speed: 35  
 Total Approach Traffic: 8582

Southbound:

CSAH 7 (7th Ave.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9917.war  
 Count Type: IMC. Channel: 0. Count Date: 7/15/99  
 Number of Lanes: 2  
 Approach Speed: 35  
 Total Approach Traffic: 8397

Minor Street Approaches:

Eastbound:

Grant St.

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9917.war  
 Count Type: IMC. Channel: 0. Count Date: 7/15/99  
 Number of Lanes: 1  
 Approach Speed: 30  
 Total Approach Traffic: 2088

Westbound:

Grant St.

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC9917.war  
 Count Type: IMC. Channel: 0. Count Date: 7/15/99  
 Number of Lanes: 1  
 Approach Speed: 30  
 Total Approach Traffic: 923

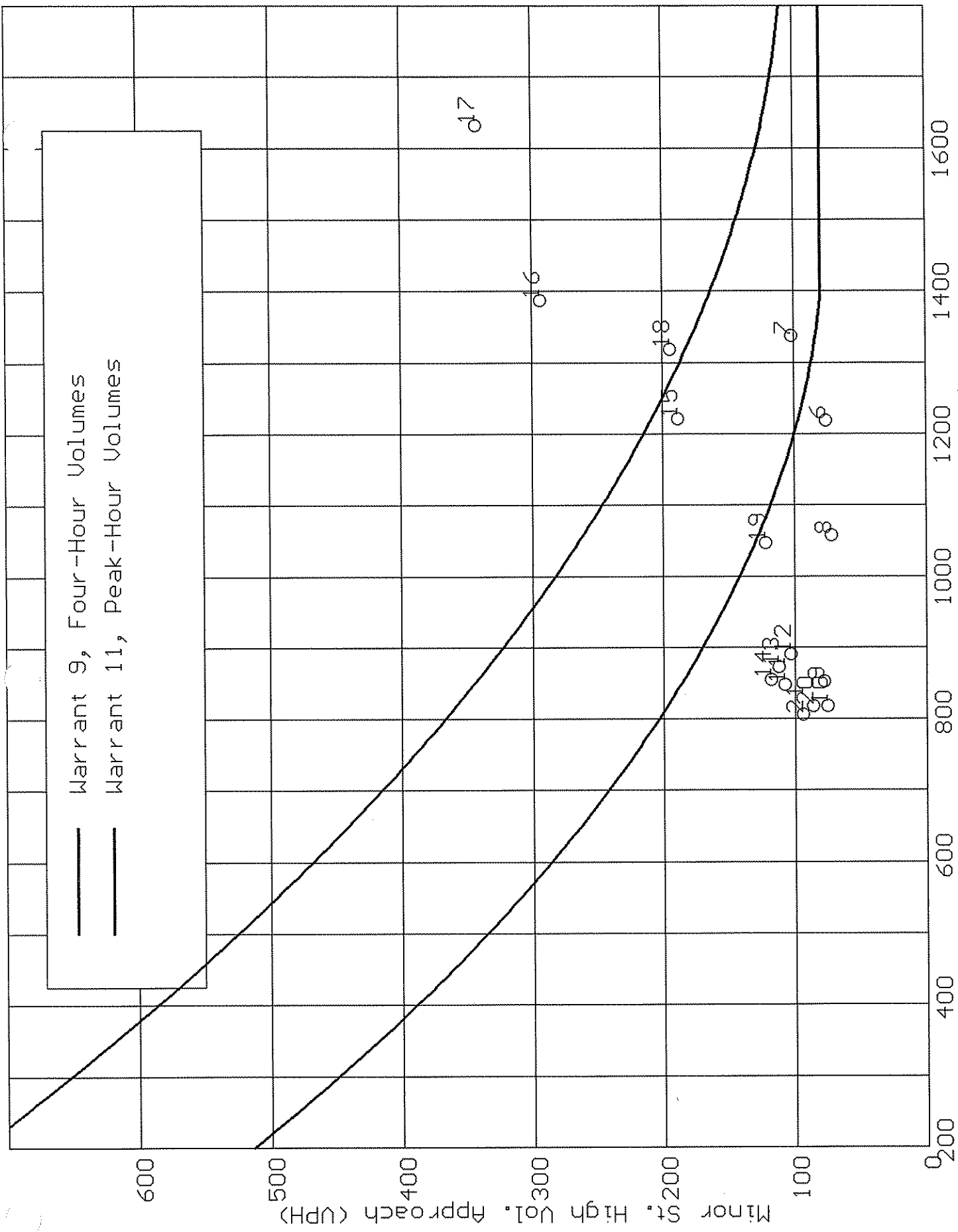
Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main	Side	Warrant 1	Warrant 2	Warrant 8
Begin	(Total)	Vol. Dir. Rank	Meets? Criteria	Meets? Criteria	Meets? Criteria
0	0	0 W 17	150	75	120
1	0	0 W 18	150	75	120
2	0	0 W 19	150	75	120
3	0	0 W 20	150	75	120
4	0	0 W 21	150	75	120
5	0	0 W 22	150	75	120
6	1219	76 W 14	MAIN 150	--BOTH-- 75	MAIN 120
7	1338	102 W 10	MAIN 150	--BOTH-- 75	MAIN 120
8	1058	72 W 16	MAIN 150	MAIN 75	MAIN 120
9	852	78 E 13	MAIN 150	SIDE 75	MAIN 120
10	818	75 E 15	MAIN 150	SIDE 75	MAIN 120
11	847	108 E 8	MAIN 150	SIDE 75	MAIN 120
12	890	103 E 9	MAIN 150	SIDE 75	MAIN 120
13	873	112 E 7	MAIN 150	SIDE 75	MAIN 120
14	855	118 E 6	MAIN 150	SIDE 75	MAIN 120
15	1221	188 E 4	--BOTH-- 150	--BOTH-- 75	--BOTH-- 120
16	1387	293 E 2	--BOTH-- 150	--BOTH-- 75	--BOTH-- 120
17	1632	342 E 1	--BOTH-- 150	--BOTH-- 75	--BOTH-- 120
18	1318	194 E 3	--BOTH-- 150	--BOTH-- 75	--BOTH-- 120
19	1047	122 E 5	MAIN 150	--BOTH-- 75	--BOTH-- 120
20	818	86 E 12	MAIN 150	SIDE 75	MAIN 120
21	806	94 E 11	MAIN 150	SIDE 75	MAIN 120
22	0	0 W 23	150	75	120
23	0	0 W 24	150	75	120

## Warrant Summary:

Urban values apply.

- Warrant 1 - Minimum Vehicular Volumes  
NOT SATISFIED. Required values reached for 4 hours. Criteria--Main St.: 600; Side St.: See Volume Summary.
- Warrant 2 - Interruption of Continuous Traffic  
NOT SATISFIED. Required values reached for 7 hours. Criteria--Main St.: 900; Side St.: See Volume Summary.
- Warrant 3 - Minimum Pedestrian Volumes  
NOT SATISFIED. Ped volumes too low. Criteria--190 Peds in peak hour, 100 peds in 4th high hour.
- 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: 2046.  
- Approaches which are part of the principal through traffic roadway network.  
- Approaches which include rural or suburban highways outside, entering or traversing a city.  
- Approaches which appear as a major route in an official transportation plan.
- Warrant 8 - Combination of Warrants  
NOT SATISFIED. Required values reached for 5 hours. Criteria--Main: 720; Side: See Volume Summary.
- Warrant 9 - Four Hour Volumes  
SATISFIED for 5 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 3 hours.



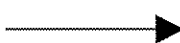
Major St. Total of Both Approaches (VPH)

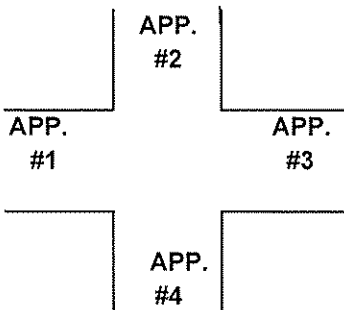
COUNT LOCATION:

TH 288 (7th Ave.) @  
Grant St.

DATE:

7/15/99

 <b>NORTH</b>
APP. #1=NB TH 288 (7th Ave.)
APP. #2 =EB Grant St.
APP. #3=SB TH 288 (7th Ave.)
APP. #4=WB Grant St.



- 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						2		3
6:15-6:30						1		4
6:30-6:45						6		2
6:45-7:00						4		4
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>26</b>
7:00-7:15						5		4
7:15-7:30						5		2
7:30-7:45						11		2
7:45-8:00						12		2
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>43</b>
8:00-8:15						7		1
8:15-8:30						5		2
8:30-8:45						7		2
8:45-9:00						8		4
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>36</b>
9:00-9:15						6		3
9:15-9:30						6		
9:30-9:45						8		2
9:45-10:00						7		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>32</b>
10:00-10:15						12		1
10:15-10:30						11		1
10:30-10:45						2		1
10:45-11:00						6		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>34</b>
11:00-11:15						10		1
11:15-11:30						5		1
11:30-11:45						10		3
11:45-12:00						6		1
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>37</b>
12:00-12:15						16		
12:15-12:30						7		
12:30-12:45						8		2
12:45-1:00						5		2
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>40</b>
1:00-1:15						8		4
1:15-1:30						13		1
1:30-1:45						9		5
1:45-2:00						5		
<b>HOURLY TOTAL</b>						<b>HOURLY TOTAL</b>		<b>45</b>

→

**NORTH**

APP. #1=NB TH 288  
(7th Ave.)

APP. #2 =EB Grant St.

APP. #3=SB TH 288  
(7th Ave.)

APP. #4=WB Grant St.

**COUNT LOCATION:**

TH 288 (7th Ave.) @  
Grant St.

**DATE:**

7/13/99

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	1			4	5	2		1	
2:15-2:30	1				1	9		1	
2:30-2:45						9			
2:45-3:00				2	2	10			
<b>HOURLY TOTAL</b>						<b>8</b>	<b>HOURLY TOTAL 32</b>		
3:00-3:15						10		1	
3:15-3:30				1	1	7		1	
3:30-3:45						3			
3:45-4:00						10	1	3	
<b>HOURLY TOTAL</b>						<b>1</b>	<b>HOURLY TOTAL 36</b>		
4:00-4:15						4	1	1	
4:15-4:30						3		2	
4:30-4:45						5			
4:45-5:00						4			
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 20</b>		
5:00-5:15						5		5	
5:15-5:30						2		6	
5:30-5:45						8		2	
5:45-6:00						5			
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 33</b>		
6:00-6:15						5			
6:15-6:30						5		2	
6:30-6:45						5		1	
6:45-7:00						4			
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 22</b>		
7:00-7:15						3		2	
7:15-7:30						4			
7:30-7:45						4			
7:45-8:00						2			
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 15</b>		
8:00-8:15						3			
8:15-8:30						3			
8:30-8:45							1	1	
8:45-9:00						1			
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 9</b>		
9:00-9:15									
9:15-9:30						1			
9:30-9:45									
9:45-10:00									
<b>HOURLY TOTAL</b>							<b>HOURLY TOTAL 1</b>		