



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

SIGNAL WARRANTS ANALYSIS

LOCATION: TH-55 AT EAGANDALE BLVD.

COUNTY: DAKOTA

REF. POINT: 201.092

DATE: 7/24/2002

OPERATOR: DR

| Speed | Approach Description | Lanes |
|-------|---|-------|
| 55 | Major App1: TH-55 EB, W. OF EAGANDALE BLVD. | 2 |
| 55 | Major App3: TH-55 WB, E. OF EAGANDALE BLVD. | 2 |
| 30 | Minor App2: EAGANDALE BLVD. NB, S. OF TH-55 | 2 |
| 0 | Minor App4: N/A | 0 |

0.70 FACTOR USED? YES

POPULATION < 10,000? NO

EXISTING SIGNAL ? NO

420/630

140/70

| HOUR | MAJOR APP. 1 | MAJOR APP. 3 | TOTAL 1+3 | WARRANT MET | MINOR APP. 2 | MINOR APP. 4 | WARRANT MET APP. 2 | WARRANT MET APP. 4 | MET SAME HOURS |
|---------------|--------------|--------------|-----------|-------------|--------------|--------------|--------------------|--------------------|----------------|
| 0:00 - 1:00 | 123 | 96 | 219 | / | 24 | 0 | / | | / |
| 1:00 - 2:00 | 85 | 79 | 164 | / | 25 | 0 | / | | / |
| 2:00 - 3:00 | 68 | 87 | 155 | / | 22 | 0 | / | | / |
| 3:00 - 4:00 | 75 | 63 | 138 | / | 24 | 0 | / | | / |
| 4:00 - 5:00 | 95 | 114 | 209 | / | 25 | 0 | / | | / |
| 5:00 - 6:00 | 258 | 455 | 713 | X/X | 52 | 0 | / | | / |
| 6:00 - 7:00 | 591 | 1040 | 1631 | X/X | 80 | 0 | /X | | /X |
| 7:00 - 8:00 | 847 | 1545 | 2392 | X/X | 159 | 0 | X/X | | X/X |
| 8:00 - 9:00 | 811 | 1040 | 1851 | X/X | 138 | 0 | /X | | /X |
| 9:00 - 10:00 | 579 | 692 | 1271 | X/X | 149 | 0 | X/X | | X/X |
| 10:00 - 11:00 | 607 | 592 | 1199 | X/X | 152 | 0 | X/X | | X/X |
| 11:00 - 12:00 | 723 | 698 | 1421 | X/X | 191 | 0 | X/X | | X/X |
| 12:00 - 13:00 | 754 | 705 | 1459 | X/X | 179 | 0 | X/X | | X/X |
| 13:00 - 14:00 | 729 | 697 | 1426 | X/X | 159 | 0 | X/X | | X/X |
| 14:00 - 15:00 | 811 | 706 | 1517 | X/X | 167 | 0 | X/X | | X/X |
| 15:00 - 16:00 | 1083 | 799 | 1882 | X/X | 276 | 0 | X/X | | X/X |
| 16:00 - 17:00 | 1459 | 977 | 2436 | X/X | 307 | 0 | X/X | | X/X |
| 17:00 - 18:00 | 1287 | 998 | 2285 | X/X | 236 | 0 | X/X | | X/X |
| 18:00 - 19:00 | 770 | 615 | 1385 | X/X | 89 | 0 | /X | | /X |
| 19:00 - 20:00 | 479 | 421 | 900 | X/X | 58 | 0 | / | | / |
| 20:00 - 21:00 | 391 | 357 | 748 | X/X | 54 | 0 | / | | / |
| 21:00 - 22:00 | 416 | 302 | 718 | X/X | 39 | 0 | / | | / |
| 22:00 - 23:00 | 302 | 272 | 574 | X/ | 66 | 0 | / | | / |
| 23:00 - 24:00 | 193 | 170 | 363 | / | 63 | 0 | / | | / |

Met (Hr) Required (Hr)

| | | | |
|------------|----|---|----------------------------------|
| Warrant 1 | 10 | 8 | Satisfied |
| Warrant 2 | 13 | 8 | Satisfied |
| Warrant 6 | 15 | 8 | Satisfied, check accident record |
| Warrant 8 | 11 | 8 | Satisfied |
| Warrant 9 | 13 | 4 | Satisfied |
| Warrant 11 | 11 | 1 | Satisfied |

LOCATION: TH-55 AT EAGANDALE BLVD.

COUNTY: DAKOTA

REF. POINT: 201.092

DATE: 7/24/2002

OPERATOR: DR

| Speed | Approach Description | Lanes |
|-------|---|-------|
| 55 | Major App1: TH-55 EB, W. OF EAGANDALE BLVD. | 2 |
| 55 | Major App3: TH-55 WB, E. OF EAGANDALE BLVD. | 2 |
| 30 | Minor App2: EAGANDALE BLVD. NB, S. OF TH-55 | 2 |
| 0 | Minor App4: N/A | 0 |

0.70 FACTOR USED? YES
 POPULATION < 10,000? NO
 EXISTING SIGNAL ? NO

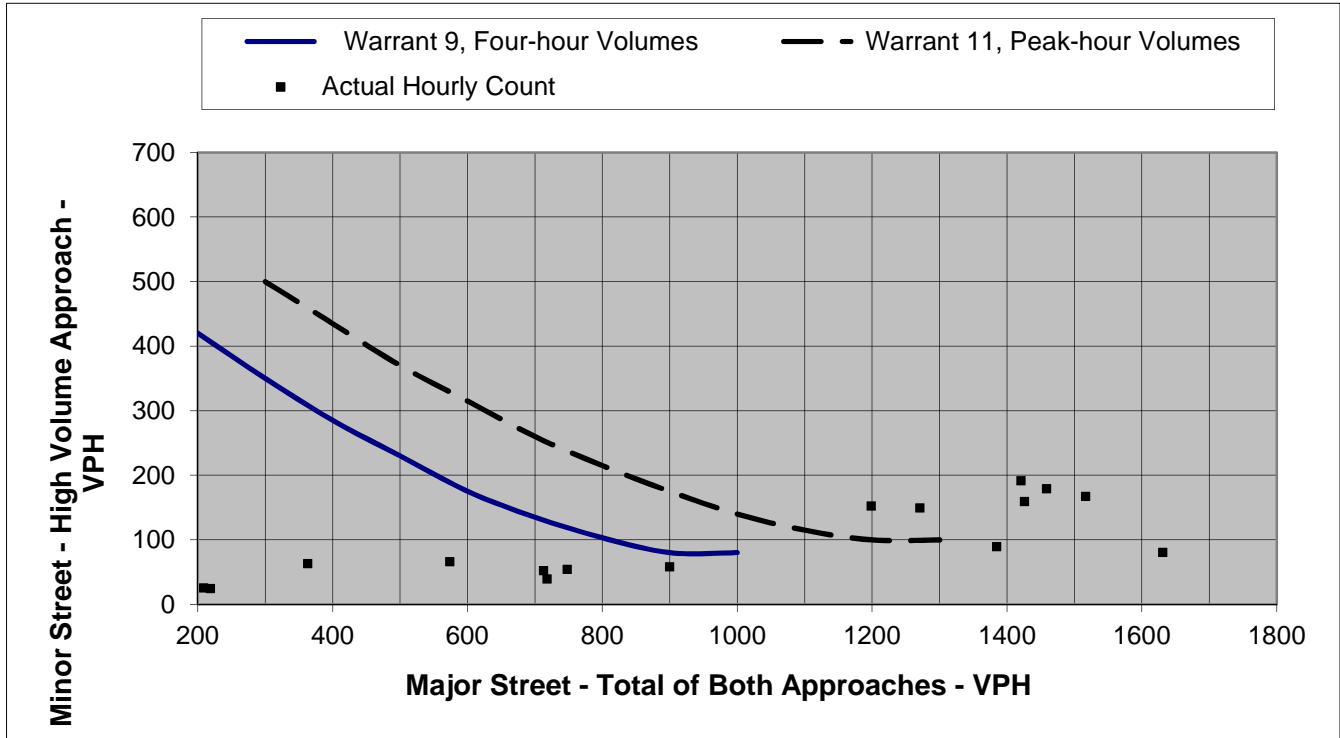


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

| Major | Warrant Criteria | | Actual Hourly Count | |
|-------|------------------|---------------|---------------------|---------------------|
| | Warrant 9, F | Warrant 11, P | Major | Actual Hourly Count |
| 200 | 420 | | 219 | 24 |
| 300 | 350 | 500 | 164 | 25 |
| 400 | 285 | 435 | 155 | 22 |
| 500 | 230 | 370 | 138 | 24 |
| 600 | 175 | 315 | 209 | 25 |
| 700 | 135 | 260 | 713 | 52 |
| 800 | 103 | 215 | 1631 | 80 |
| 900 | 80 | 175 | 2392 | 159 |
| 1000 | 80 | 140 | 1851 | 138 |
| 1100 | | 115 | 1271 | 149 |
| 1200 | | 100 | 1199 | 152 |
| 1300 | | 100 | 1421 | 191 |
| 1400 | | | 1459 | 179 |
| 1500 | | | 1426 | 159 |
| 1600 | | | 1517 | 167 |
| 1700 | | | 1882 | 276 |
| 1800 | | | 2436 | 307 |
| | | | 2285 | 236 |
| | | | 1385 | 89 |
| | | | 900 | 58 |
| | | | 748 | 54 |
| | | | 718 | 39 |
| | | | 574 | 66 |
| | | | 363 | 63 |

Four Hour Warrant

| Major App | Minor App | | |
|-----------|-----------|-------|-------|
| | 1 & 1 | 2 & 1 | 2 & 2 |
| 300 | 360 | 440 | 590 |
| 400 | 310 | 390 | 530 |
| 500 | 260 | 340 | 460 |
| 600 | 215 | 290 | 390 |
| 700 | 180 | 245 | 330 |
| 800 | 150 | 205 | 280 |
| 900 | 125 | 170 | 235 |
| 1000 | 100 | 145 | 195 |
| 1100 | 85 | 120 | 165 |
| 1200 | 80 | 100 | 135 |
| 1300 | 80 | 83 | 110 |
| 1400 | 80 | 80 | 110 |

Peak Hour

| Major App | 1 & 1 |
|-----------|-------|
| 400 | 475 |
| 500 | 425 |
| 600 | 370 |
| 700 | 330 |
| 800 | 280 |
| 900 | 240 |
| 1000 | 204 |
| 1100 | 175 |
| 1200 | 150 |
| 1300 | 130 |
| 1400 | 115 |
| 1500 | 100 |
| 1600 | 100 |
| 1700 | 100 |
| 1800 | 100 |

Four Hour Warrant Factored

| Major App | Minor App | | |
|-----------|-----------|-------|-------|
| | 1 & 1 | 2 & 1 | 2 & 2 |
| 200 | 250 | 320 | 420 |
| 300 | 210 | 265 | 350 |
| 400 | 170 | 215 | 285 |
| 500 | 130 | 170 | 230 |
| 600 | 93 | 130 | 175 |
| 700 | 70 | 100 | 135 |
| 800 | 60 | 80 | 103 |
| 900 | 60 | 65 | 80 |
| 1000 | 60 | 60 | 80 |

Peak Hour

| Major App | 1 & 1 |
|-----------|-------|
| 300 | 320 |
| 400 | 270 |
| 500 | 225 |
| 600 | 180 |
| 700 | 145 |
| 800 | 115 |
| 900 | 90 |
| 1000 | 75 |
| 1100 | 75 |
| 1200 | 75 |
| 1300 | 75 |

Warrant

Minor App

| 2 & 1 | 2 & 2 |
|-------|-------|
| 570 | 725 |
| 520 | 665 |
| 465 | 600 |
| 420 | 540 |
| 370 | 480 |
| 330 | 425 |
| 285 | 375 |
| 250 | 330 |
| 220 | 285 |
| 190 | 250 |
| 160 | 220 |
| 140 | 187 |
| 115 | 165 |
| 100 | 150 |
| 100 | 150 |

Warrant Factored

Minor App

| 2 & 1 | 2 & 2 |
|-------|-------|
| 380 | 500 |
| 335 | 435 |
| 285 | 370 |
| 240 | 315 |
| 200 | 260 |
| 160 | 215 |
| 135 | 175 |
| 110 | 140 |
| 95 | 115 |
| 75 | 100 |
| 75 | 100 |



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

ALL WAY STOP WARRANT

LOCATION: TH-55 AT EAGANDALE BLVD.

COUNTY: DAKOTA

REF. POINT: 201.092

DATE: 7/24/2002

OPERATOR: DR

| Speed | Approach Description | Lanes |
|-------|---|-------|
| 55 | Major App1: TH-55 EB, W. OF EAGANDALE BLVD. | 2 |
| 55 | Major App3: TH-55 WB, E. OF EAGANDALE BLVD. | 2 |
| 30 | Minor App2: EAGANDALE BLVD. NB, S. OF TH-55 | 2 |
| 0 | Minor App4: N/A | 0 |

0.70 FACTOR USED? Yes

| HOUR | MAJOR APP. 1 | MAJOR APP. 3 | MINOR APP. 2 | MINOR APP. 4 | 350 | 140 | WARRANT MET |
|---------------|--------------|--------------|--------------|--------------|------------------------------|--------------------------------|-------------|
| | | | | | TOTAL Σ (APP.1 to APP. 4) | MINOR TOTAL APP. 2 + APP. 4 | |
| 0:00 - 1:00 | 123 | 96 | 24 | 0 | 243 | 24 | / |
| 1:00 - 2:00 | 85 | 79 | 25 | 0 | 189 | 25 | / |
| 2:00 - 3:00 | 68 | 87 | 22 | 0 | 177 | 22 | / |
| 3:00 - 4:00 | 75 | 63 | 24 | 0 | 162 | 24 | / |
| 4:00 - 5:00 | 95 | 114 | 25 | 0 | 234 | 25 | / |
| 5:00 - 6:00 | 258 | 455 | 52 | 0 | 765 | 52 | X/ |
| 6:00 - 7:00 | 591 | 1040 | 80 | 0 | 1711 | 80 | X/ |
| 7:00 - 8:00 | 847 | 1545 | 159 | 0 | 2551 | 159 | X/X |
| 8:00 - 9:00 | 811 | 1040 | 138 | 0 | 1989 | 138 | X/ |
| 9:00 - 10:00 | 579 | 692 | 149 | 0 | 1420 | 149 | X/X |
| 10:00 - 11:00 | 607 | 592 | 152 | 0 | 1351 | 152 | X/X |
| 11:00 - 12:00 | 723 | 698 | 191 | 0 | 1612 | 191 | X/X |
| 12:00 - 13:00 | 754 | 705 | 179 | 0 | 1638 | 179 | X/X |
| 13:00 - 14:00 | 729 | 697 | 159 | 0 | 1585 | 159 | X/X |
| 14:00 - 15:00 | 811 | 706 | 167 | 0 | 1684 | 167 | X/X |
| 15:00 - 16:00 | 1083 | 799 | 276 | 0 | 2158 | 276 | X/X |
| 16:00 - 17:00 | 1459 | 977 | 307 | 0 | 2743 | 307 | X/X |
| 17:00 - 18:00 | 1287 | 998 | 236 | 0 | 2521 | 236 | X/X |
| 18:00 - 19:00 | 770 | 615 | 89 | 0 | 1474 | 89 | X/ |
| 19:00 - 20:00 | 479 | 421 | 58 | 0 | 958 | 58 | X/ |
| 20:00 - 21:00 | 391 | 357 | 54 | 0 | 802 | 54 | X/ |
| 21:00 - 22:00 | 416 | 302 | 39 | 0 | 757 | 39 | X/ |
| 22:00 - 23:00 | 302 | 272 | 66 | 0 | 640 | 66 | X/ |
| 23:00 - 24:00 | 193 | 170 | 63 | 0 | 426 | 63 | X/ |

Met (Hr) Required (Hr)

Allway Stop Warrant: **10** 8 **Satisfied**

REMARKS: _____



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

TRAFFIC COUNT DATA

ROUTE #: TH-55 EB, W. OF EAGANDALE BLVD.

COUNTY: DAKOTA

REF. PT.: 201.092

SITE CODE: APPROACH

OPERATOR: DR

FOR COUNTS BEGINNING: **July 24, 2002**

| DATE | 22 | 23 | 24 | 25 | 26 | 27 | 28 | AVE. | AVE. |
|---------------|------|------|------|-------|------|------|------|--------|-------|
| HOUR \ DAY | MON. | TUE. | WED. | THU. | FRI. | SAT. | SUN. | WK.DAY | WKEND |
| 0:00 - 1:00 | | | | 104 | 142 | | | 123 | |
| 1:00 - 2:00 | | | | 82 | 89 | | | 85 | |
| 2:00 - 3:00 | | | | 75 | 62 | | | 68 | |
| 3:00 - 4:00 | | | | 75 | 76 | | | 75 | |
| 4:00 - 5:00 | | | | 91 | 100 | | | 95 | |
| 5:00 - 6:00 | | | | 239 | 278 | | | 258 | |
| 6:00 - 7:00 | | | | 593 | 590 | | | 591 | |
| 7:00 - 8:00 | | | | 841 | 854 | | | 847 | |
| 8:00 - 9:00 | | | | 866 | 757 | | | 811 | |
| 9:00 - 10:00 | | | | 578 | 580 | | | 579 | |
| 10:00 - 11:00 | | | | 584 | 630 | | | 607 | |
| 11:00 - 12:00 | | | | 694 | 753 | | | 723 | |
| 12:00 - 13:00 | | | 734 | 726 | 803 | | | 754 | |
| 13:00 - 14:00 | | | 751 | 658 | 779 | | | 729 | |
| 14:00 - 15:00 | | | 807 | 815 | | | | 811 | |
| 15:00 - 16:00 | | | 1086 | 1080 | | | | 1083 | |
| 16:00 - 17:00 | | | 1456 | 1463 | | | | 1459 | |
| 17:00 - 18:00 | | | 1262 | 1313 | | | | 1287 | |
| 18:00 - 19:00 | | | 745 | 796 | | | | 770 | |
| 19:00 - 20:00 | | | 492 | 466 | | | | 479 | |
| 20:00 - 21:00 | | | 395 | 388 | | | | 391 | |
| 21:00 - 22:00 | | | 388 | 444 | | | | 416 | |
| 22:00 - 23:00 | | | 306 | 299 | | | | 302 | |
| 23:00 - 24:00 | | | 190 | 196 | | | | 193 | |
| TOTAL | | | 8612 | 13466 | 6493 | | | 13536 | |

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\55010948



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

TRAFFIC COUNT DATA

ROUTE #: EAGANDALE BLVD. NB, S. OF TH-55

COUNTY: DAKOTA

REF. PT.: 201.092

SITE CODE: APPROACH

OPERATOR: DR

FOR COUNTS BEGINNING: **July 24, 2002**

| DATE HOUR \ DAY | 22 MON. | 23 TUE. | 24 WED. | 25 THU. | 26 FRI. | 27 SAT. | 28 SUN. | AVE. WK.DAY | AVE. WKEND |
|--------------------|------------|------------|------------|------------|------------|------------|------------|----------------|---------------|
| 0:00 - 1:00 | | | | 21 | 28 | | | 24 | |
| 1:00 - 2:00 | | | | 29 | 21 | | | 25 | |
| 2:00 - 3:00 | | | | 19 | 25 | | | 22 | |
| 3:00 - 4:00 | | | | 24 | 25 | | | 24 | |
| 4:00 - 5:00 | | | | 20 | 31 | | | 25 | |
| 5:00 - 6:00 | | | | 60 | 44 | | | 52 | |
| 6:00 - 7:00 | | | | 65 | 96 | | | 80 | |
| 7:00 - 8:00 | | | | 169 | 149 | | | 159 | |
| 8:00 - 9:00 | | | | 145 | 131 | | | 138 | |
| 9:00 - 10:00 | | | | 154 | 144 | | | 149 | |
| 10:00 - 11:00 | | | | 149 | 156 | | | 152 | |
| 11:00 - 12:00 | | | | 189 | 194 | | | 191 | |
| 12:00 - 13:00 | | | 198 | 154 | 187 | | | 179 | |
| 13:00 - 14:00 | | | 175 | 153 | 150 | | | 159 | |
| 14:00 - 15:00 | | | 162 | 173 | | | | 167 | |
| 15:00 - 16:00 | | | 307 | 246 | | | | 276 | |
| 16:00 - 17:00 | | | 307 | 308 | | | | 307 | |
| 17:00 - 18:00 | | | 275 | 198 | | | | 236 | |
| 18:00 - 19:00 | | | 98 | 80 | | | | 89 | |
| 19:00 - 20:00 | | | 56 | 61 | | | | 58 | |
| 20:00 - 21:00 | | | 56 | 52 | | | | 54 | |
| 21:00 - 22:00 | | | 57 | 21 | | | | 39 | |
| 22:00 - 23:00 | | | 58 | 74 | | | | 66 | |
| 23:00 - 24:00 | | | 63 | 64 | | | | 63 | |
| TOTAL | | | 1812 | 2628 | 1381 | | | 2734 | |

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\02555903



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

TRAFFIC COUNT DATA

ROUTE #: TH-55 WB, E. OF EAGANDALE BLVD.

COUNTY: DAKOTA

REF. PT.: 201.092

SITE CODE: APPROACH

OPERATOR: DR

FOR COUNTS BEGINNING: **July 24, 2002**

| DATE HOUR \ DAY | 22 MON. | 23 TUE. | 24 WED. | 25 THU. | 26 FRI. | 27 SAT. | 28 SUN. | AVE. WK.DAY | AVE. WKEND |
|--------------------|------------|------------|------------|------------|------------|------------|------------|----------------|---------------|
| 0:00 - 1:00 | | | | 89 | 104 | | | 96 | |
| 1:00 - 2:00 | | | | 80 | 79 | | | 79 | |
| 2:00 - 3:00 | | | | 88 | 86 | | | 87 | |
| 3:00 - 4:00 | | | | 53 | 74 | | | 63 | |
| 4:00 - 5:00 | | | | 119 | 109 | | | 114 | |
| 5:00 - 6:00 | | | | 438 | 473 | | | 455 | |
| 6:00 - 7:00 | | | | 1096 | 984 | | | 1040 | |
| 7:00 - 8:00 | | | | 1611 | 1479 | | | 1545 | |
| 8:00 - 9:00 | | | | 1145 | 936 | | | 1040 | |
| 9:00 - 10:00 | | | | 712 | 672 | | | 692 | |
| 10:00 - 11:00 | | | | 577 | 607 | | | 592 | |
| 11:00 - 12:00 | | | | 686 | 710 | | | 698 | |
| 12:00 - 13:00 | | | | 686 | 725 | | | 705 | |
| 13:00 - 14:00 | | | 690 | 693 | 710 | | | 697 | |
| 14:00 - 15:00 | | | 700 | 712 | | | | 706 | |
| 15:00 - 16:00 | | | 821 | 777 | | | | 799 | |
| 16:00 - 17:00 | | | 954 | 1001 | | | | 977 | |
| 17:00 - 18:00 | | | 968 | 1028 | | | | 998 | |
| 18:00 - 19:00 | | | 612 | 618 | | | | 615 | |
| 19:00 - 20:00 | | | 421 | 422 | | | | 421 | |
| 20:00 - 21:00 | | | 319 | 395 | | | | 357 | |
| 21:00 - 22:00 | | | 294 | 311 | | | | 302 | |
| 22:00 - 23:00 | | | 266 | 279 | | | | 272 | |
| 23:00 - 24:00 | | | 141 | 200 | | | | 170 | |
| TOTAL | | | 6186 | 13816 | 7748 | | | 13520 | |

24 HOURS FACTOR:

FACTORED ADT:

REMARKS:

CORRECTED AADT:

DATA FILE --> a:\55036726



MINNESOTA DEPARTMENT OF TRANSPORTATION

METRO DIVISION - TRAFFIC ENGINEERING

TRAFFIC COUNT DATA

ROUTE #:

COUNTY:

REF. PT.:

SITE CODE:

OPERATOR:

FOR COUNTS BEGINNING:

| DATE HOUR \ DAY | MON. | TUE. | WED. | THU. | FRI. | SAT. | SUN. | AVE. WK.DAY | AVE. WKEND |
|--------------------|------|------|------|------|------|------|------|----------------|---------------|
| 0:00 - 1:00 | | | | | | | | | |
| 1:00 - 2:00 | | | | | | | | | |
| 2:00 - 3:00 | | | | | | | | | |
| 3:00 - 4:00 | | | | | | | | | |
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| 18:00 - 19:00 | | | | | | | | | |
| 19:00 - 20:00 | | | | | | | | | |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |

TOTAL

24 HOURS FACTOR:

FACTORED ADT:

REMARKS: _____

CORRECTED AADT: _____

DATA FILE -->