

**USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)  
NIGHTTIME CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**AUGUST**  
Analyzed for 2009  
Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**  
SUNDAY SOUTHBOUND DIRECTION

| TIME OF DAY | FLOWS AND CAPACITY IN VEH/HR |           |                |            |             |                       | AVERAGE SPEEDS IN MPH |                   |                |      |  |
|-------------|------------------------------|-----------|----------------|------------|-------------|-----------------------|-----------------------|-------------------|----------------|------|--|
|             | MAIN ROUTE                   |           | SITE CAPA CITY | FLOW       |             | AV.DEL PER VEH (MINS) | AVERAGE QUEUE (VEH)   | MAIN ROUTE        |                | SITE |  |
|             | DEMAND FLOW                  | PCT HEAVY |                | MAIN ROUTE | 'DIVER TED' |                       |                       | WITHOUT WORK ZONE | WITH WORK ZONE |      |  |
| MID-1 AM    | 871                          | 0.0       | 3000           | 871        | 0           | 0.35                  | 0                     | 69.7              | 57.3           | 49.7 |  |
| 1-2 AM      | 483                          | 0.0       | 3000           | 483        | 0           | 0.36                  | 0                     | 70.1              | 57.4           | 49.7 |  |
| 2-3 AM      | 450                          | 0.0       | 3000           | 450        | 0           | 0.36                  | 0                     | 70.2              | 57.4           | 49.7 |  |
| 3-4 AM      | 268                          | 0.0       | 3000           | 268        | 0           | 0.36                  | 0                     | 70.2              | 57.4           | 49.7 |  |
| 4-5 AM      | 310                          | 0.0       | 3000           | 310        | 0           | 0.36                  | 0                     | 70.2              | 57.4           | 49.7 |  |
| 5-6 AM      | 459                          | 0.0       | 3000           | 459        | 0           | 0.36                  | 0                     | 70.2              | 57.4           | 49.7 |  |
| 6-7 AM      | 969                          | 0.0       | 3000           | 969        | 0           | 0.35                  | 0                     | 69.6              | 57.3           | 49.7 |  |
| 7-8 AM      | 1286                         | 0.0       | 3000           | 1286       | 0           | 0.35                  | 0                     | 69.1              | 57.1           | 49.7 |  |
| 8-9 AM      | 1682                         | 0.0       | 3000           | 1682       | 0           | 0.34                  | 0                     | 68.6              | 57.0           | 49.7 |  |
| 9-10 AM     | 2567                         | 0.0       | OFF            | 2567       | 0           | 0.00                  | 0                     | 67.6              | 67.6           | 67.6 |  |
| 10-11 AM    | 3395                         | 0.0       | OFF            | 3395       | 0           | 0.00                  | 0                     | 66.5              | 66.5           | 66.5 |  |
| 11AM-NOON   | 3845                         | 0.0       | OFF            | 3845       | 0           | 0.00                  | 0                     | 64.6              | 64.6           | 64.6 |  |
| NOON-1PM    | 4304                         | 0.0       | OFF            | 4304       | 0           | 0.00                  | 0                     | 61.5              | 61.5           | 61.5 |  |
| 1-2 PM      | 4135                         | 0.0       | OFF            | 4135       | 0           | 0.00                  | 0                     | 62.6              | 62.6           | 62.6 |  |
| 2-3 PM      | 4389                         | 0.0       | OFF            | 4389       | 0           | 0.00                  | 0                     | 60.9              | 60.9           | 60.9 |  |
| 3-4 PM      | 4146                         | 0.0       | OFF            | 4146       | 0           | 0.00                  | 0                     | 62.5              | 62.5           | 62.5 |  |
| 4-5 PM      | 4103                         | 0.0       | OFF            | 4103       | 0           | 0.00                  | 0                     | 62.8              | 62.8           | 62.8 |  |
| 5-6 PM      | 3281                         | 0.0       | OFF            | 3281       | 0           | 0.00                  | 0                     | 66.6              | 66.6           | 66.6 |  |
| 6-7 PM      | 3451                         | 0.0       | OFF            | 3451       | 0           | 0.00                  | 0                     | 66.4              | 66.4           | 66.4 |  |
| 7-8 PM      | 3016                         | 0.0       | 2999           | 3016       | 0           | 1.33                  | 33                    | 67.0              | 37.6           | 37.4 |  |
| 8-9 PM      | 2632                         | 0.0       | 3000           | 2632       | 0           | 0.49                  | 0                     | 67.4              | 52.2           | 44.0 |  |
| 9-10 PM     | 1867                         | 0.0       | 3000           | 1867       | 0           | 0.34                  | 0                     | 68.4              | 56.9           | 49.7 |  |
| 10-11 PM    | 1440                         | 0.0       | 3000           | 1440       | 0           | 0.34                  | 0                     | 68.9              | 57.1           | 49.7 |  |
| 11PM-MID    | 834                          | 0.0       | 3000           | 834        | 0           | 0.35                  | 0                     | 69.7              | 57.3           | 49.7 |  |

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

| *----- SITE BREAKDOWN DELAYS -----*    |      |
|--|------|
| BREAKDOWN DURATION (MINS)              | 0    |
| RANGE OF QUEUE DELAY - MIN (VEH-H) MAX | 0.0  |
| AV BREAKDOWNS PER DAY                  | 0.00 |
| AV QUEUE DELAY/DAY (VEH-H)             | 0.0  |
| AV TOTAL DELAY/DAY (VEH-H)             | 0.0  |

| *----- SITE ACCIDENT DELAYS -----*     |   |
|--|---|
| BREAKDOWN DURATION (MINS)              | 0 |
| RANGE OF QUEUE DELAY - MIN (VEH-H) MAX | 0 |
| AV BREAKDOWNS PER DAY                  | 0 |
| AV QUEUE DELAY/DAY (VEH-H)             | 0 |
| AV TOTAL DELAY/DAY (VEH-H)             | 0 |

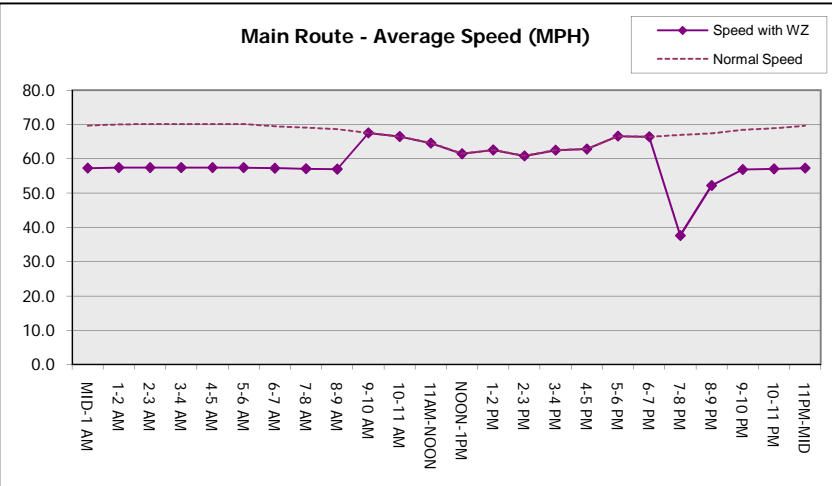
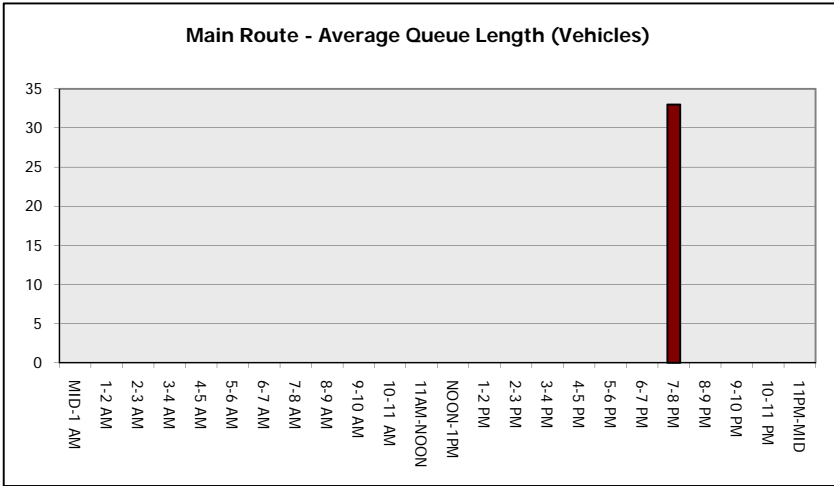
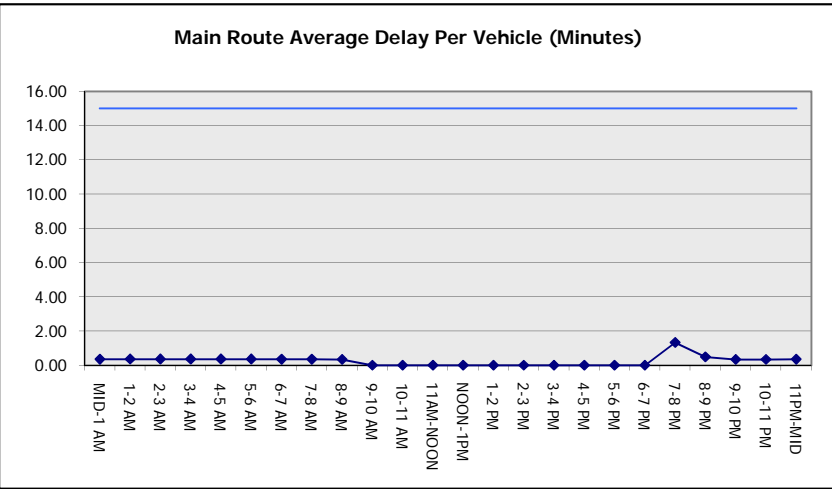
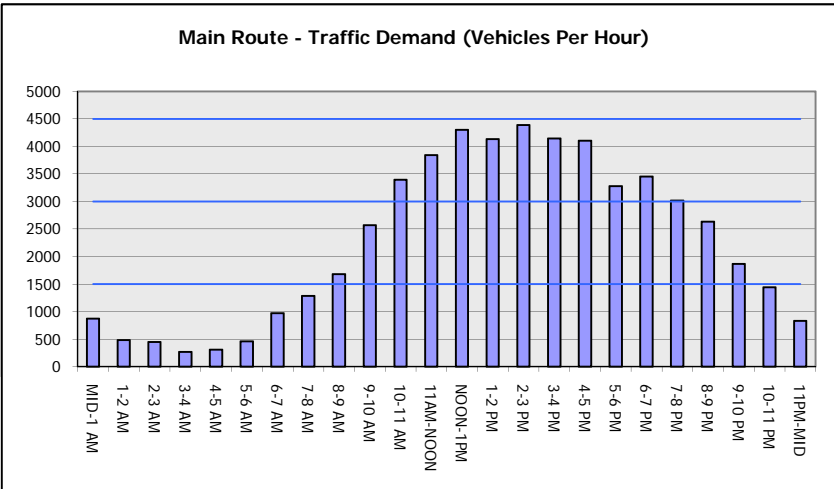
| AVERAGE ACCIDENT NUMBERS (PIA/DAY) |         |
|------------------------------------|---------|
| MAIN ROUTE WITHOUT WORKS           | 0.0164  |
| MAIN ROUTE WITH WORKS              | 0.0153  |
| 'DIVERSION'                        | 0.0000  |
| PIA: Personal Injury Accidents     |         |
| IMPACTS ON ROAD USERS              |         |
| ROAD USER COSTS PER DAY            | \$2,167 |
| CONGESTED HOURS PER DAY*           | 0       |

\*Delays Exceeding User-Specified Maximum

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**NIGHTTIME CLOSURE**  
**NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**AUGUST**  
 Analyzed for 2009  
 Construction Season

**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**  
**SUNDAY SOUTHBOUND DIRECTION**



|  |  |
|--|--|
| <b>USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)</b><br><b>NIGHTTIME CLOSURE</b><br><b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b> | <b>AUGUST</b>                            |
|  | Analyzed for 2009<br>Construction Season |

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY NORTHBOUND DIRECTION

| TIME OF DAY | FLOWS AND CAPACITY IN VEH/HR |           |                |            |             |                       |                     | AVERAGE SPEEDS IN MPH |                |      |
|-------------|------------------------------|-----------|----------------|------------|-------------|-----------------------|---------------------|-----------------------|----------------|------|
|             | MAIN ROUTE                   |           | SITE CAPA CITY | FLOW       |             | AV.DEL PER VEH (MINS) | AVERAGE QUEUE (VEH) | MAIN ROUTE            |                | SITE |
|             | DEMAND FLOW                  | PCT HEAVY |                | MAIN ROUTE | 'DIVER TED' |                       |                     | WITHOUT WORK ZONE     | WITH WORK ZONE |      |
| MID-1 AM    | 1511                         | 0.0       | 3000           | 1511       | 0           | 0.34                  | 0                   | 68.9                  | 57.1           | 49.7 |
| 1-2 AM      | 957                          | 0.0       | 3000           | 957        | 0           | 0.35                  | 0                   | 69.6                  | 57.3           | 49.7 |
| 2-3 AM      | 830                          | 0.0       | 3000           | 830        | 0           | 0.35                  | 0                   | 69.7                  | 57.3           | 49.7 |
| 3-4 AM      | 579                          | 0.0       | 3000           | 579        | 0           | 0.36                  | 0                   | 70.0                  | 57.4           | 49.7 |
| 4-5 AM      | 487                          | 0.0       | 3000           | 487        | 0           | 0.36                  | 0                   | 70.1                  | 57.4           | 49.7 |
| 5-6 AM      | 699                          | 0.0       | 3000           | 699        | 0           | 0.36                  | 0                   | 69.9                  | 57.4           | 49.7 |
| 6-7 AM      | 885                          | 0.0       | 3000           | 885        | 0           | 0.35                  | 0                   | 69.6                  | 57.3           | 49.7 |
| 7-8 AM      | 1253                         | 0.0       | 3000           | 1253       | 0           | 0.35                  | 0                   | 69.2                  | 57.1           | 49.7 |
| 8-9 AM      | 1615                         | 0.0       | 3000           | 1615       | 0           | 0.34                  | 0                   | 68.7                  | 57.0           | 49.7 |
| 9-10 AM     | 2400                         | 0.0       | OFF            | 2400       | 0           | 0.00                  | 0                   | 67.8                  | 67.8           | 67.8 |
| 10-11 AM    | 2744                         | 0.0       | OFF            | 2744       | 0           | 0.00                  | 0                   | 67.3                  | 67.3           | 67.3 |
| 11AM-NOON   | 3285                         | 0.0       | OFF            | 3285       | 0           | 0.00                  | 0                   | 66.6                  | 66.6           | 66.6 |
| NOON-1PM    | 3708                         | 0.0       | OFF            | 3708       | 0           | 0.00                  | 0                   | 65.5                  | 65.5           | 65.5 |
| 1-2 PM      | 3683                         | 0.0       | OFF            | 3683       | 0           | 0.00                  | 0                   | 65.7                  | 65.7           | 65.7 |
| 2-3 PM      | 3655                         | 0.0       | OFF            | 3655       | 0           | 0.00                  | 0                   | 65.9                  | 65.9           | 65.9 |
| 3-4 PM      | 4056                         | 0.0       | OFF            | 4056       | 0           | 0.00                  | 0                   | 63.2                  | 63.2           | 63.2 |
| 4-5 PM      | 3782                         | 0.0       | OFF            | 3782       | 0           | 0.00                  | 0                   | 65.0                  | 65.0           | 65.0 |
| 5-6 PM      | 3597                         | 0.0       | OFF            | 3597       | 0           | 0.00                  | 0                   | 66.3                  | 66.3           | 66.3 |
| 6-7 PM      | 3616                         | 0.0       | OFF            | 3616       | 0           | 0.00                  | 0                   | 66.1                  | 66.1           | 66.1 |
| 7-8 PM      | 2961                         | 0.0       | 2999           | 2961       | 0           | 0.98                  | 17                  | 67.1                  | 42.5           | 38.4 |
| 8-9 PM      | 2570                         | 0.0       | 3000           | 2570       | 0           | 0.45                  | 0                   | 67.6                  | 53.4           | 45.1 |
| 9-10 PM     | 2110                         | 0.0       | 3000           | 2110       | 0           | 0.33                  | 0                   | 68.1                  | 56.8           | 49.7 |
| 10-11 PM    | 1681                         | 0.0       | 3000           | 1681       | 0           | 0.34                  | 0                   | 68.6                  | 57.0           | 49.7 |
| 11PM-MID    | 1101                         | 0.0       | 3000           | 1101       | 0           | 0.35                  | 0                   | 69.4                  | 57.2           | 49.7 |

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

| *----- SITE BREAKDOWN DELAYS -----*    |      |
|--|------|
| BREAKDOWN DURATION (MINS)              | 0    |
| RANGE OF QUEUE DELAY - MIN (VEH-H) MAX | 0.0  |
| AV BREAKDOWNS PER DAY                  | 0.00 |
| AV QUEUE DELAY/DAY (VEH-H)             | 0.0  |
| AV TOTAL DELAY/DAY (VEH-H)             | 0.0  |

| *----- SITE ACCIDENT DELAYS -----*     |   |
|--|---|
| BREAKDOWN DURATION (MINS)              | 0 |
| RANGE OF QUEUE DELAY - MIN (VEH-H) MAX | 0 |
| AV BREAKDOWNS PER DAY                  | 0 |
| AV QUEUE DELAY/DAY (VEH-H)             | 0 |
| AV TOTAL DELAY/DAY (VEH-H)             | 0 |

| AVERAGE ACCIDENT NUMBERS (PIA/DAY) |        |
|------------------------------------|--------|
| MAIN ROUTE WITHOUT WORKS           | 0.0163 |
| MAIN ROUTE WITH WORKS              | 0.0150 |
| 'DIVERSION'                        | 0.0000 |

PIA: Personal Injury Accidents

| ECONOMIC IMPACT ON ROAD USERS |         |
|-------------------------------|---------|
| ROAD USER COSTS PER DAY       | \$2,093 |
| CONGESTED HOURS PER DAY*      | 0       |

\*Delays Exceeding User-Specified Maximum

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