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| USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY) NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD) | AUGUST Analyzed for 2009 Construction Season |
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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 | 873 | 0.0 | 2000 | 873 | 0 | 0.57 | 0 | 69.7 | 52.9 | 42.1 |
| 1-2 AM | 483 | 0.0 | 2000 | 483 | 0 | 0.53 | 0 | 70.1 | 54.2 | 43.6 |
| 2-3 AM | 451 | 0.0 | 2000 | 451 | 0 | 0.53 | 0 | 70.2 | 54.2 | 43.7 |
| 3-4 AM | 268 | 0.0 | 2000 | 268 | 0 | 0.51 | 0 | 70.2 | 54.8 | 44.4 |
| 4-5 AM | 311 | 0.0 | 2000 | 311 | 0 | 0.51 | 0 | 70.2 | 54.6 | 44.2 |
| 5-6 AM | 460 | 0.0 | 2000 | 460 | 0 | 0.53 | 0 | 70.2 | 54.2 | 43.7 |
| 6-7 AM | 971 | 0.0 | 2000 | 971 | 0 | 0.58 | 0 | 69.6 | 52.6 | 41.8 |
| 7-8 AM | 1288 | 0.0 | 2000 | 1288 | 0 | 0.82 | 0 | 69.1 | 47.6 | 35.8 |
| 8-9 AM | 1686 | 0.0 | 1999 | 1686 | 0 | 1.21 | 0 | 68.6 | 41.4 | 29.1 |
| 9-10 AM | 2573 | 0.0 | OFF | 2573 | 0 | 0.00 | 0 | 67.6 | 67.6 | 67.6 |
| 10-11 AM | 3402 | 0.0 | OFF | 3402 | 0 | 0.00 | 0 | 66.5 | 66.5 | 66.5 |
| 11AM-NOON | 3853 | 0.0 | OFF | 3853 | 0 | 0.00 | 0 | 64.5 | 64.5 | 64.5 |
| NOON-1PM | 4313 | 0.0 | OFF | 4313 | 0 | 0.00 | 0 | 61.4 | 61.4 | 61.4 |
| 1-2 PM | 4144 | 0.0 | OFF | 4144 | 0 | 0.00 | 0 | 62.5 | 62.5 | 62.5 |
| 2-3 PM | 4399 | 0.0 | OFF | 4399 | 0 | 0.00 | 0 | 60.8 | 60.8 | 60.8 |
| 3-4 PM | 4155 | 0.0 | OFF | 4155 | 0 | 0.00 | 0 | 62.5 | 62.5 | 62.5 |
| 4-5 PM | 4111 | 0.0 | OFF | 4111 | 0 | 0.00 | 0 | 62.8 | 62.8 | 62.8 |
| 5-6 PM | 3288 | 0.0 | OFF | 3288 | 0 | 0.00 | 0 | 66.6 | 66.6 | 66.6 |
| 6-7 PM | 3457 | 0.0 | OFF | 3457 | 0 | 0.00 | 0 | 66.4 | 66.4 | 66.4 |
| 7-8 PM | 3022 | 0.0 | 1999 | 2562 | 460 | 12.46+ | 422 | 67.0 | 9.9 | 27.9 |
| 8-9 PM | 2638 | 0.0 | 2000 | 2000 | 638 | 17.11+ | 562 | 67.4 | 8.4 | 27.9 |
| 9-10 PM | 1871 | 0.0 | 2000 | 1861 | 10 | 16.09+ | 526 | 68.4 | 8.6 | 27.9 |
| 10-11 PM | 1443 | 0.0 | 1999 | 1443 | 0 | 4.10 | 189 | 68.9 | 21.7 | 30.4 |
| 11PM-MID | 836 | 0.0 | 2000 | 836 | 0 | 0.57 | 0 | 69.7 | 53.0 | 42.3 |

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

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

| *----- 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 | 0.0181 |
| MAIN ROUTE WITH WORKS | 0.0168 |
| 'DIVERSION' | 0.0009 |
| <small>PIA: Personal Injury Accidents</small> | |
| IMPACTS ON ROAD USERS | |
| ROAD USER COSTS PER DAY | \$33,194 |
| CONGESTED HOURS PER DAY* | 3 |

*Delays Exceeding User-Specified Maximum

**USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)
NIGHTTIME 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

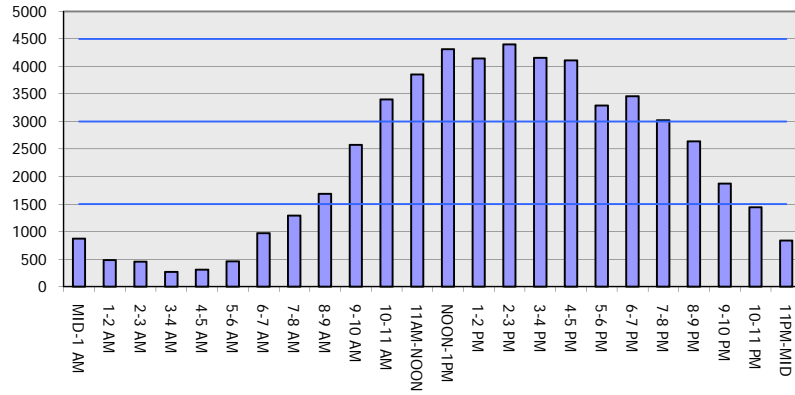
AUGUST

Analyzed for 2009
Construction Season

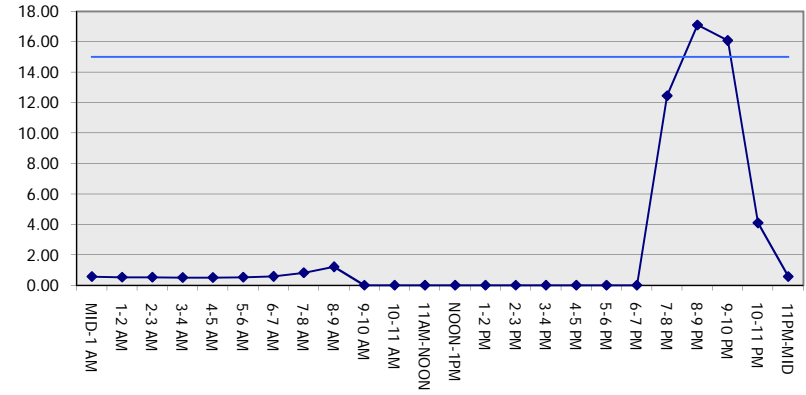
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SUNDAY SOUTHBOUND DIRECTION

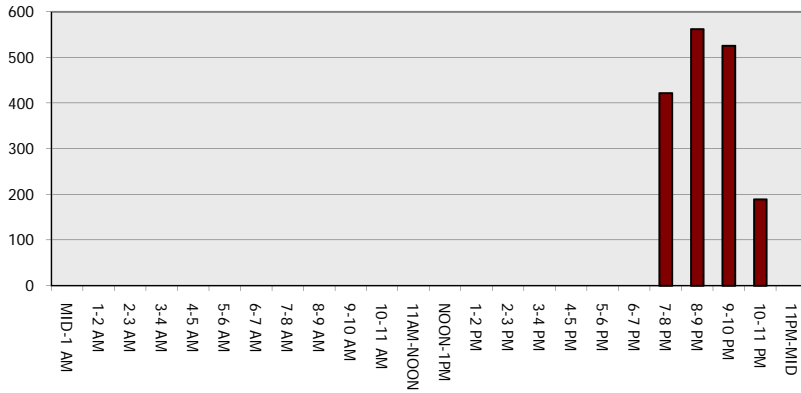
Main Route - Traffic Demand (Vehicles Per Hour)



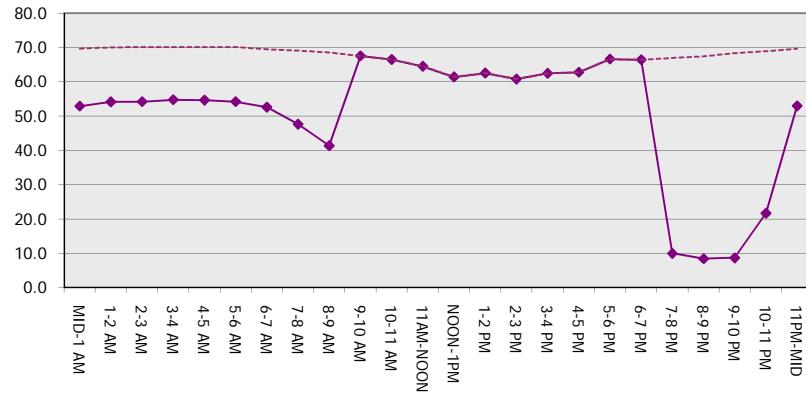
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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|---|--|
| USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY) NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD) | AUGUST |
| | Analyzed for 2009 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 | 1514 | 0.0 | 2000 | 1514 | 0 | 1.12 | 0 | 68.9 | 42.7 | 30.5 |
| 1-2 AM | 960 | 0.0 | 2000 | 960 | 0 | 0.58 | 0 | 69.6 | 52.6 | 41.8 |
| 2-3 AM | 832 | 0.0 | 2000 | 832 | 0 | 0.57 | 0 | 69.7 | 53.0 | 42.3 |
| 3-4 AM | 580 | 0.0 | 2000 | 580 | 0 | 0.54 | 0 | 70.0 | 53.8 | 43.2 |
| 4-5 AM | 488 | 0.0 | 2000 | 488 | 0 | 0.53 | 0 | 70.1 | 54.1 | 43.5 |
| 5-6 AM | 700 | 0.0 | 2000 | 700 | 0 | 0.55 | 0 | 69.9 | 53.4 | 42.8 |
| 6-7 AM | 887 | 0.0 | 2000 | 887 | 0 | 0.57 | 0 | 69.6 | 52.8 | 42.1 |
| 7-8 AM | 1256 | 0.0 | 2000 | 1256 | 0 | 0.78 | 0 | 69.2 | 48.4 | 36.8 |
| 8-9 AM | 1619 | 0.0 | 1999 | 1619 | 0 | 1.18 | 0 | 68.7 | 41.9 | 29.6 |
| 9-10 AM | 2405 | 0.0 | OFF | 2405 | 0 | 0.00 | 0 | 67.8 | 67.8 | 67.8 |
| 10-11 AM | 2750 | 0.0 | OFF | 2750 | 0 | 0.00 | 0 | 67.3 | 67.3 | 67.3 |
| 11AM-NOON | 3292 | 0.0 | OFF | 3292 | 0 | 0.00 | 0 | 66.6 | 66.6 | 66.6 |
| NOON-1PM | 3716 | 0.0 | OFF | 3716 | 0 | 0.00 | 0 | 65.5 | 65.5 | 65.5 |
| 1-2 PM | 3691 | 0.0 | OFF | 3691 | 0 | 0.00 | 0 | 65.6 | 65.6 | 65.6 |
| 2-3 PM | 3663 | 0.0 | OFF | 3663 | 0 | 0.00 | 0 | 65.8 | 65.8 | 65.8 |
| 3-4 PM | 4064 | 0.0 | OFF | 4064 | 0 | 0.00 | 0 | 63.1 | 63.1 | 63.1 |
| 4-5 PM | 3790 | 0.0 | OFF | 3790 | 0 | 0.00 | 0 | 65.0 | 65.0 | 65.0 |
| 5-6 PM | 3604 | 0.0 | OFF | 3604 | 0 | 0.00 | 0 | 66.3 | 66.3 | 66.3 |
| 6-7 PM | 3624 | 0.0 | OFF | 3624 | 0 | 0.00 | 0 | 66.1 | 66.1 | 66.1 |
| 7-8 PM | 2966 | 0.0 | 1999 | 2550 | 417 | 12.33+ | 418 | 67.1 | 10.0 | 27.9 |
| 8-9 PM | 2576 | 0.0 | 2000 | 2002 | 574 | 17.10+ | 562 | 67.5 | 8.4 | 27.9 |
| 9-10 PM | 2115 | 0.0 | 2000 | 2002 | 112 | 16.99+ | 557 | 68.1 | 8.4 | 27.9 |
| 10-11 PM | 1685 | 0.0 | 1999 | 1685 | 0 | 13.08+ | 428 | 68.6 | 9.6 | 27.9 |
| 11PM-MID | 1104 | 0.0 | 2000 | 1104 | 0 | 1.04 | 32 | 69.4 | 44.1 | 39.7 |

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

+ INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT

| | |
|--|------|
| 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 |

| | |
|--|---|
| 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 |

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|--------------------------|--------|
| MAIN ROUTE WITHOUT WORKS | 0.0180 |
| MAIN ROUTE WITH WORKS | 0.0164 |
| 'DIVERSION' | 0.0009 |

PIA: Personal Injury Accidents

| | |
|--------------------------|----------|
| ROAD USER COSTS PER DAY | \$39,152 |
| CONGESTED HOURS PER DAY* | 4 |

*Delays Exceeding User-Specified Maximum

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NIGHTTIME 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

AUGUST
Analyzed for 2009
Construction Season

GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
SUNDAY NORTHBOUND DIRECTION

