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| IH 94: MN 96 TO STH 35 N NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD) | OCTOBER |
| | Analyzed for 2009 Construction Season |

SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY WESTBOUND 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 | 739 | 0.0 | 1500 | 739 | 0 | 0.95 | 70 | 69.8 | 34.2 | 42.2 | |
| 1-2 AM | 552 | 0.0 | 1500 | 552 | 0 | 0.27 | 0 | 70.0 | 53.2 | 43.3 | |
| 2-3 AM | 503 | 0.0 | 1500 | 503 | 0 | 0.27 | 0 | 70.1 | 53.3 | 43.5 | |
| 3-4 AM | 497 | 0.0 | 1500 | 497 | 0 | 0.27 | 0 | 70.1 | 53.3 | 43.5 | |
| 4-5 AM | 605 | 0.0 | 1500 | 605 | 0 | 0.28 | 0 | 70.0 | 53.0 | 43.1 | |
| 5-6 AM | 791 | 0.0 | 1500 | 791 | 0 | 0.29 | 0 | 69.7 | 52.4 | 42.4 | |
| 6-7 AM | 954 | 0.0 | 1499 | 954 | 0 | 0.29 | 0 | 69.6 | 51.9 | 41.9 | |
| 7-8 AM | 1418 | 0.0 | 1499 | 1418 | 0 | 0.64 | 4 | 69.0 | 39.9 | 33.2 | |
| 8-9 AM | 1926 | 0.0 | OFF | 1926 | 0 | 0.00 | 0 | 68.3 | 68.2 | 68.2 | |
| 9-10 AM | 2678 | 0.0 | OFF | 2678 | 0 | 0.00 | 0 | 67.4 | 67.4 | 67.4 | |
| 10-11 AM | 3197 | 0.0 | OFF | 3197 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 | |
| 11AM-NOON | 3354 | 0.0 | OFF | 3354 | 0 | 0.00 | 0 | 66.6 | 66.6 | 66.6 | |
| NOON-1PM | 3130 | 0.0 | OFF | 3130 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 | |
| 1-2 PM | 3041 | 0.0 | OFF | 3041 | 0 | 0.00 | 0 | 66.9 | 66.9 | 66.9 | |
| 2-3 PM | 3168 | 0.0 | OFF | 3168 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 | |
| 3-4 PM | 3206 | 0.0 | OFF | 3206 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 | |
| 4-5 PM | 3312 | 0.0 | OFF | 3312 | 0 | 0.00 | 0 | 66.6 | 66.6 | 66.6 | |
| 5-6 PM | 2942 | 0.0 | OFF | 2942 | 0 | 0.00 | 0 | 67.1 | 67.1 | 67.1 | |
| 6-7 PM | 2512 | 0.0 | 1499 | 2512 | 0 | 18.52 | 524 | 67.6 | 5.5 | 30.8 | |
| 7-8 PM | 2356 | 0.0 | 1500 | 1561 | 794 | 46.94+ | 1215 | 67.8 | 4.0 | 30.8 | |
| 8-9 PM | 1924 | 0.0 | 1500 | 1512 | 411 | 46.44+ | 1201 | 68.4 | 4.0 | 30.8 | |
| 9-10 PM | 1737 | 0.0 | 1500 | 1574 | 163 | 45.72+ | 1182 | 68.6 | 4.0 | 30.8 | |
| 10-11 PM | 1312 | 0.0 | 1500 | 1312 | 0 | 42.32+ | 1093 | 69.1 | 4.0 | 30.8 | |
| 11PM-MID | 847 | 0.0 | 1500 | 847 | 0 | 25.27 | 663 | 69.7 | 4.7 | 31.7 | |

"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 | 0.0074 |
| MAIN ROUTE WITH WORKS | 0.0055 |
| 'DIVERSION' | 0.0005 |
| <small>PIA: Personal Injury Accidents</small> | |
| IMPACTS ON ROAD USERS | |
| ROAD USER COSTS PER DAY | \$107,974 |
| CONGESTED HOURS PER DAY* | 4 |

*Delays Exceeding User-Specified Maximum

**IH 94: MN 96 TO STH 35 N
NIGHTTIME 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

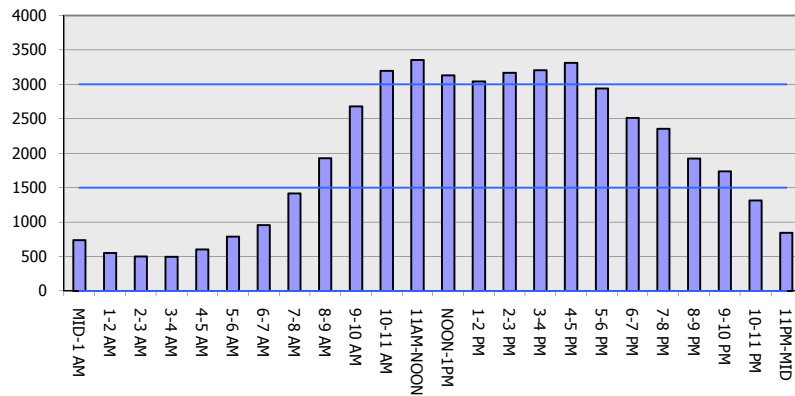
OCTOBER

Analyzed for 2009
Construction Season

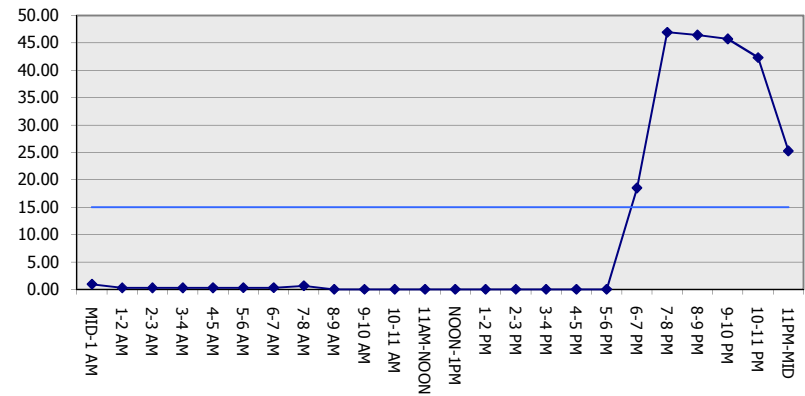
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SATURDAY WESTBOUND DIRECTION

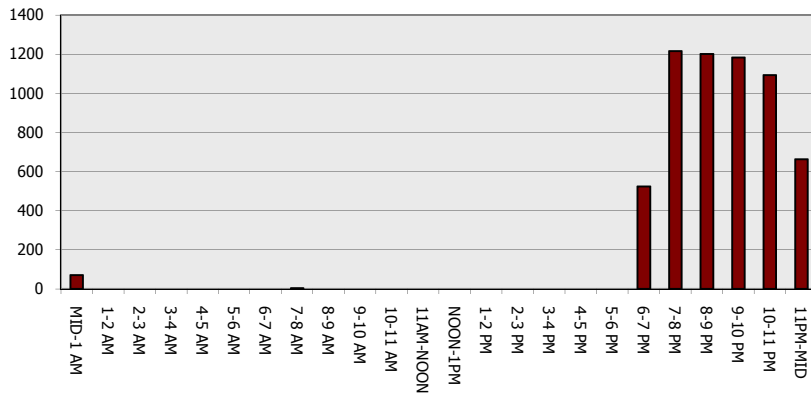
Main Route - Traffic Demand (Vehicles Per Hour)



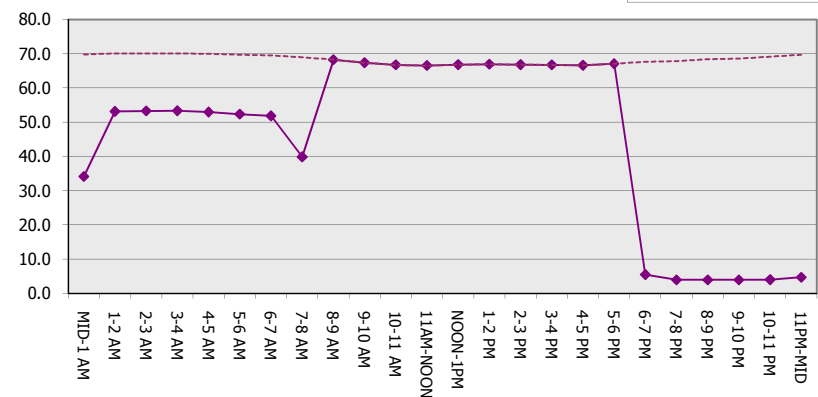
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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|--|--|
| IH 94: MN 96 TO STH 35 N NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD) | OCTOBER Analyzed for 2009 Construction Season |
|--|--|

SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY EASTBOUND 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 | 784 | 0.0 | 1500 | 784 | 0 | 0.45 | 13 | 69.7 | 45.7 | 42.4 |
| 1-2 AM | 498 | 0.0 | 1500 | 498 | 0 | 0.27 | 0 | 70.1 | 53.3 | 43.5 |
| 2-3 AM | 380 | 0.0 | 1500 | 380 | 0 | 0.26 | 0 | 70.2 | 53.7 | 44.0 |
| 3-4 AM | 406 | 0.0 | 1500 | 406 | 0 | 0.26 | 0 | 70.2 | 53.6 | 43.8 |
| 4-5 AM | 512 | 0.0 | 1500 | 512 | 0 | 0.27 | 0 | 70.1 | 53.3 | 43.5 |
| 5-6 AM | 766 | 0.0 | 1500 | 766 | 0 | 0.28 | 0 | 69.8 | 52.4 | 42.5 |
| 6-7 AM | 1306 | 0.0 | 1499 | 1306 | 0 | 0.42 | 0 | 69.1 | 46.6 | 35.9 |
| 7-8 AM | 2031 | 0.0 | 1499 | 2031 | 0 | 6.96 | 220 | 68.2 | 9.3 | 30.8 |
| 8-9 AM | 2756 | 0.0 | OFF | 2756 | 0 | 0.44 | 43 | 67.3 | 45.0 | 45.0 |
| 9-10 AM | 3475 | 0.0 | OFF | 3475 | 0 | 0.00 | 0 | 66.4 | 66.4 | 66.4 |
| 10-11 AM | 3841 | 0.0 | OFF | 3841 | 0 | 0.00 | 0 | 64.6 | 64.6 | 64.6 |
| 11AM-NOON | 3723 | 0.0 | OFF | 3723 | 0 | 0.00 | 0 | 65.5 | 65.5 | 65.5 |
| NOON-1PM | 3371 | 0.0 | OFF | 3371 | 0 | 0.00 | 0 | 66.6 | 66.6 | 66.6 |
| 1-2 PM | 3224 | 0.0 | OFF | 3224 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 |
| 2-3 PM | 3183 | 0.0 | OFF | 3183 | 0 | 0.00 | 0 | 66.8 | 66.8 | 66.8 |
| 3-4 PM | 3086 | 0.0 | OFF | 3086 | 0 | 0.00 | 0 | 66.9 | 66.9 | 66.9 |
| 4-5 PM | 3097 | 0.0 | OFF | 3097 | 0 | 0.00 | 0 | 66.9 | 66.9 | 66.9 |
| 5-6 PM | 2825 | 0.0 | OFF | 2825 | 0 | 0.00 | 0 | 67.3 | 67.3 | 67.3 |
| 6-7 PM | 2370 | 0.0 | 1499 | 2370 | 0 | 16.29 | 460 | 67.8 | 5.8 | 30.8 |
| 7-8 PM | 2025 | 0.0 | 1500 | 1856 | 169 | 42.96+ | 1112 | 68.2 | 4.0 | 30.8 |
| 8-9 PM | 1659 | 0.0 | 1500 | 1492 | 167 | 46.36+ | 1199 | 68.7 | 4.0 | 30.8 |
| 9-10 PM | 1403 | 0.0 | 1500 | 1384 | 19 | 45.26+ | 1170 | 69.0 | 4.0 | 30.8 |
| 10-11 PM | 1171 | 0.0 | 1500 | 1171 | 0 | 36.95 | 954 | 69.3 | 4.2 | 30.8 |
| 11PM-MID | 859 | 0.0 | 1500 | 859 | 0 | 16.82 | 464 | 69.7 | 5.7 | 34.3 |

"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 | 0.0078 |
| MAIN ROUTE WITH WORKS | 0.0060 |
| 'DIVERSION' | 0.0001 |
| <small>PIA: Personal Injury Accidents</small> | |
| ECONOMIC IMPACT ON ROAD USERS | |
| ROAD USER COSTS PER DAY | \$90,709 |
| CONGESTED HOURS PER DAY* | 3 |

*Delays Exceeding User-Specified Maximum

**IH 94: MN 96 TO STH 35 N
NIGHTTIME 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

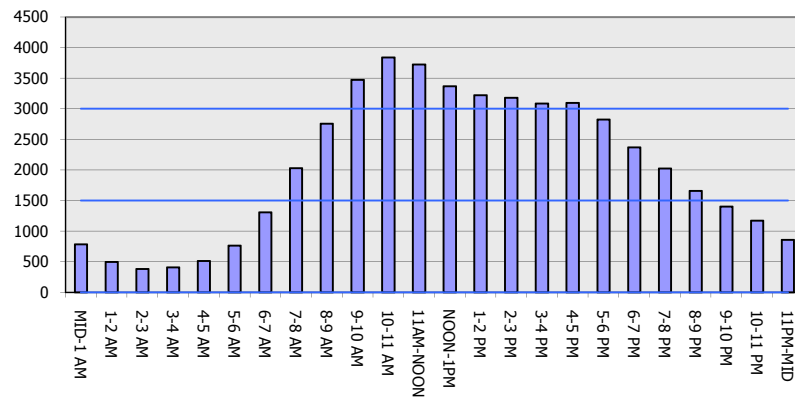
OCTOBER

Analyzed for 2009
Construction Season

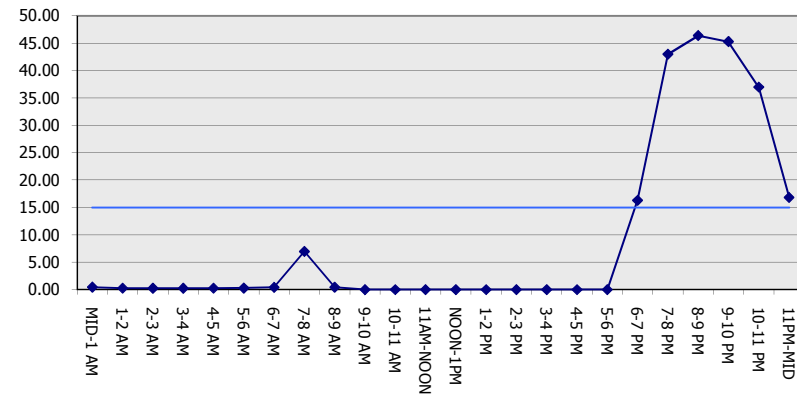
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SATURDAY EASTBOUND DIRECTION

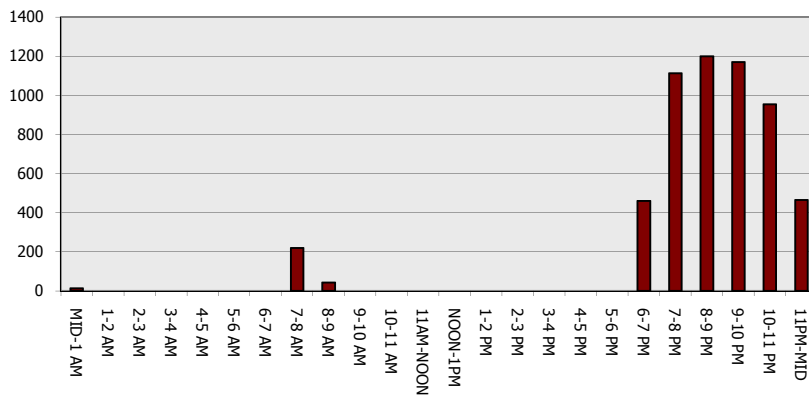
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

