

| | |
|---|--|
| STH 29: IH 93 TO CTH X (MARATHON COUNTY) CONTINUOUS (24 HOUR) CLOSURE DIVERSION ROUTE: BUS 51, IH 39 | MAY |
| | Analyzed for 2009 Construction Season |

SUMMARY OF TRAFFIC MODEL OUTPUT

FRIDAY WESTBOUND DIRECTION

| TIME OF DAY | FLOWS AND CAPACITY IN VEH/HR | | | | | | AVERAGE SPEEDS IN MPH | | | | | | | | |
|-------------|------------------------------|-----------|-----------------|-----------|----------------|-----------------|-----------------------|-----------------|-----------------------|---------------------|-----------------|--------------|-----------------|-----------------|--------------|
| | MAIN ROUTE | | ALTERNATE ROUTE | | SITE CAPA CITY | FLOW MAIN ROUTE | FLOW DIVER -TING | TOTAL DIVN FLOW | AV.DEL PER VEH (MINS) | AVERAGE QUEUE (VEH) | MAIN ROUTE | | ALTERNATE ROUTE | | |
| | DEMAND FLOW | PCT HEAVY | NORMAL FLOW | PCT HEAVY | | | | | | | WITHOUT WORK ZN | WITH WORK ZN | SITE | WITHOUT WORK ZN | WITH WORK ZN |
| MID-1 AM | 98 | 0.0 | 51 | 0.0 | 1500 | 98 | 0 | 51 | 0.43 | 0 | 66.2 | 48.4 | 45.1 | 38.4 | 38.4 |
| 1-2 AM | 91 | 0.0 | 47 | 0.0 | 1500 | 91 | 0 | 47 | 0.43 | 0 | 66.2 | 48.4 | 45.1 | 38.4 | 38.4 |
| 2-3 AM | 75 | 0.0 | 39 | 0.0 | 1500 | 75 | 0 | 39 | 0.43 | 0 | 66.3 | 48.5 | 45.2 | 38.4 | 38.4 |
| 3-4 AM | 101 | 0.0 | 52 | 0.0 | 1500 | 101 | 0 | 52 | 0.43 | 0 | 66.2 | 48.4 | 45.1 | 38.4 | 38.4 |
| 4-5 AM | 213 | 0.0 | 111 | 0.0 | 1500 | 213 | 0 | 111 | 0.44 | 0 | 66.0 | 48.0 | 44.6 | 38.3 | 38.3 |
| 5-6 AM | 595 | 0.0 | 311 | 0.0 | 1500 | 595 | 0 | 311 | 0.48 | 0 | 65.3 | 46.6 | 43.2 | 37.9 | 37.9 |
| 6-7 AM | 1288 | 0.0 | 673 | 0.0 | 1499 | 1288 | 0 | 673 | 0.73 | 0 | 64.0 | 39.9 | 36.3 | 37.1 | 37.1 |
| 7-8 AM | 1698 | 0.0 | 888 | 0.0 | 1499 | 1698 | 0 | 888 | 4.36 | 102 | 63.2 | 15.4 | 30.8 | 36.6 | 36.8 |
| 8-9 AM | 1189 | 0.0 | 622 | 0.0 | 1499 | 1189 | 0 | 622 | 2.19 | 77 | 64.1 | 24.5 | 36.3 | 37.2 | 37.4 |
| 9-10 AM | 1104 | 0.0 | 577 | 0.0 | 1500 | 1104 | 0 | 577 | 0.53 | 0 | 64.3 | 44.8 | 41.3 | 37.3 | 37.3 |
| 10-11 AM | 1202 | 0.0 | 628 | 0.0 | 1500 | 1202 | 0 | 628 | 0.64 | 0 | 64.1 | 42.0 | 38.4 | 37.2 | 37.2 |
| 11A-NOON | 1198 | 0.0 | 626 | 0.0 | 1500 | 1198 | 0 | 626 | 0.63 | 0 | 64.1 | 42.2 | 38.5 | 37.2 | 37.2 |
| NOON-1PM | 1305 | 0.0 | 682 | 0.0 | 1500 | 1305 | 0 | 682 | 0.77 | 0 | 64.0 | 39.1 | 35.3 | 37.1 | 37.1 |
| 1-2 PM | 1357 | 0.0 | 709 | 0.0 | 1499 | 1357 | 0 | 709 | 0.84 | 0 | 63.8 | 37.8 | 34.0 | 37.0 | 37.0 |
| 2-3 PM | 1522 | 0.0 | 796 | 0.0 | 1499 | 1522 | 0 | 796 | 1.26 | 7 | 63.5 | 31.3 | 30.9 | 36.8 | 36.8 |
| 3-4 PM | 1667 | 0.0 | 872 | 0.0 | 1500 | 1667 | 0 | 872 | 4.63 | 106 | 63.3 | 14.8 | 30.8 | 36.7 | 36.9 |
| 4-5 PM | 1773 | 0.0 | 927 | 0.0 | 1499 | 1548 | 226 | 1153 | 9.96 | 241 | 63.1 | 9.7 | 30.8 | 36.3 | 35.0 |
| 5-6 PM | 1605 | 0.0 | 839 | 0.0 | 1500 | 1480 | 125 | 964 | 9.54 | 230 | 63.4 | 9.9 | 30.8 | 36.8 | 36.5 |
| 6-7 PM | 1214 | 0.0 | 634 | 0.0 | 1499 | 1214 | 0 | 634 | 3.25 | 109 | 64.1 | 19.6 | 34.8 | 37.2 | 37.4 |
| 7-8 PM | 894 | 0.0 | 467 | 0.0 | 1500 | 894 | 0 | 467 | 0.51 | 0 | 64.7 | 45.5 | 42.0 | 37.5 | 37.5 |
| 8-9 PM | 649 | 0.0 | 340 | 0.0 | 1500 | 649 | 0 | 340 | 0.49 | 0 | 65.2 | 46.3 | 43.0 | 37.8 | 37.8 |
| 9-10 PM | 469 | 0.0 | 245 | 0.0 | 1500 | 469 | 0 | 245 | 0.47 | 0 | 65.5 | 47.0 | 43.6 | 38.0 | 38.0 |
| 10-11 PM | 352 | 0.0 | 184 | 0.0 | 1500 | 352 | 0 | 184 | 0.46 | 0 | 65.7 | 47.4 | 44.1 | 38.1 | 38.1 |
| 11PM-MID | 248 | 0.0 | 130 | 0.0 | 1500 | 248 | 0 | 130 | 0.45 | 0 | 66.0 | 47.8 | 44.5 | 38.3 | 38.3 |

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

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

| AVERAGE ACCIDENT NUMBERS (PIA/DAY) | |
|------------------------------------|--------|
| MAIN ROUTE WITHOUT WORKS | 0.0045 |
| MAIN ROUTE WITH WORKS | 0.0030 |
| DIVERSION | 0.1039 |

PIA: Personal Injury Accidents

| IMPACTS ON ROAD USERS | |
|------------------------------------|----------|
| ROAD USER COSTS PER DAY (DOLLARS) | \$15,936 |
| CONGESTED HOURS PER DAY* | 0 |

*Delays Exceeding 15 Minutes

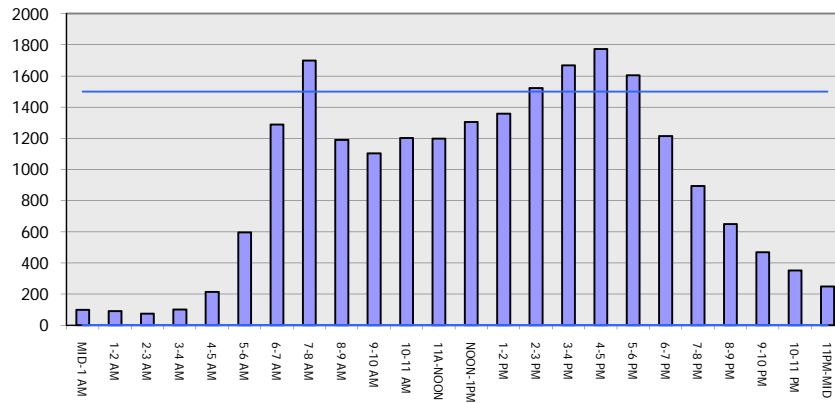
**STH 29: IH 93 TO CTH X (MARATHON COUNTY)
 CONTINUOUS (24 HOUR) CLOSURE
 DIVERSION ROUTE: BUS 51, IH 39**

MAY
 Analyzed for 2009
 Construction Season

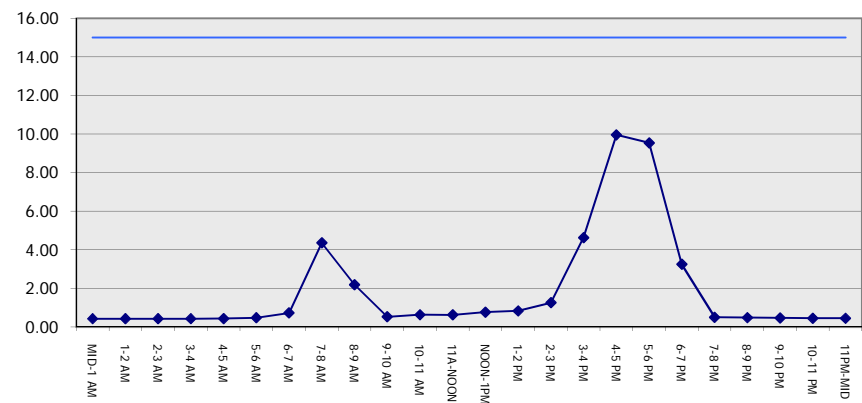
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY WESTBOUND DIRECTION

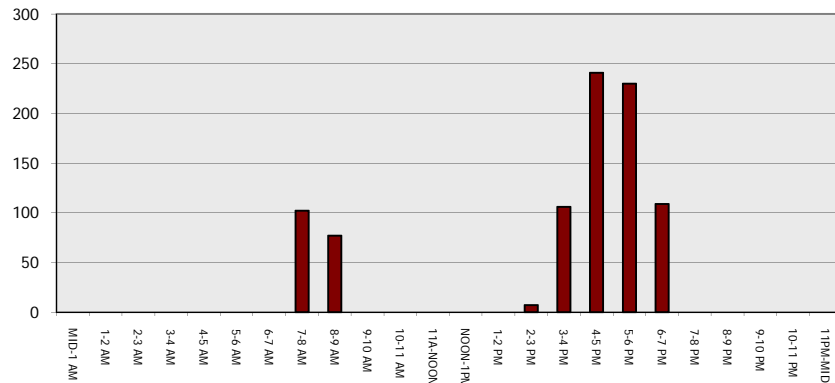
Main Route - Traffic Demand (Vehicles Per Hour)



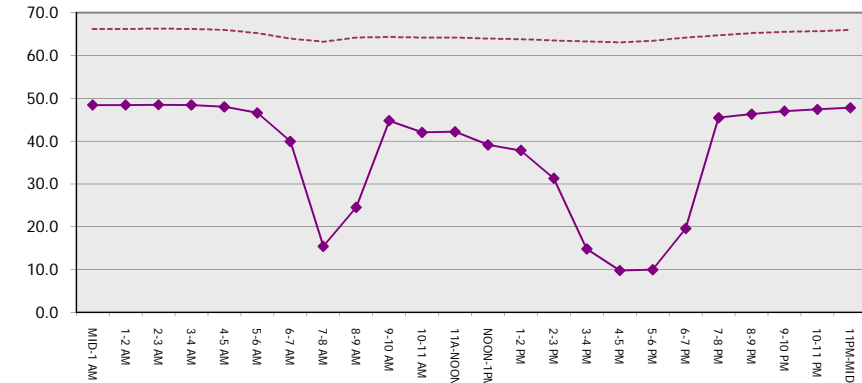
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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| STH 29: IH 93 TO CTH X (MARATHON COUNTY) CONTINUOUS (24 HOUR) CLOSURE DIVERSION ROUTE: BUS 51, IH 39 | MAY |
| | Analyzed for 2009 Construction Season |

SUMMARY OF TRAFFIC MODEL OUTPUT

FRIDAY EASTBOUND DIRECTION

| TIME OF DAY | FLOWS AND CAPACITY IN VEH/HR | | | | | | | | AVERAGE SPEEDS IN MPH | | | | | | |
|-------------|------------------------------|-----------|-------------|-----------|----------------|-----------------|------------------|-----------------|-----------------------|---------------------|-----------------|--------------|------|-----------------|--------------|
| | MAIN | | DIVERSION | | SITE CAPA CITY | FLOW MAIN ROUTE | FLOW DIVER -TING | TOTAL DIVN FLOW | AV.DEL PER VEH (MINS) | AVERAGE QUEUE (VEH) | MAIN ROUTE | | SITE | ALTERNATE ROUTE | |
| | DEMAND FLOW | PCT HEAVY | NORMAL FLOW | PCT HEAVY | | | | | | | WITHOUT WORK ZN | WITH WORK ZN | | WITHOUT WORK ZN | WITH WORK ZN |
| MID-1 AM | 129 | 0.0 | 67 | 0.0 | 1500 | 129 | 0 | 67 | 0.43 | 0 | 66.1 | 48.3 | 45.0 | 38.2 | 38.2 |
| 1-2 AM | 75 | 0.0 | 39 | 0.0 | 1500 | 75 | 0 | 39 | 0.43 | 0 | 66.3 | 48.5 | 45.2 | 38.3 | 38.3 |
| 2-3 AM | 68 | 0.0 | 36 | 0.0 | 1500 | 68 | 0 | 36 | 0.43 | 0 | 66.3 | 48.6 | 45.2 | 38.4 | 38.4 |
| 3-4 AM | 82 | 0.0 | 43 | 0.0 | 1500 | 82 | 0 | 43 | 0.43 | 0 | 66.3 | 48.5 | 45.1 | 38.3 | 38.3 |
| 4-5 AM | 198 | 0.0 | 103 | 0.0 | 1500 | 198 | 0 | 103 | 0.44 | 0 | 66.0 | 48.0 | 44.7 | 38.1 | 38.1 |
| 5-6 AM | 382 | 0.0 | 200 | 0.0 | 1500 | 382 | 0 | 200 | 0.46 | 0 | 65.7 | 47.3 | 44.0 | 37.7 | 37.7 |
| 6-7 AM | 875 | 0.0 | 457 | 0.0 | 1500 | 875 | 0 | 457 | 0.51 | 0 | 64.8 | 45.5 | 42.1 | 36.5 | 36.5 |
| 7-8 AM | 1051 | 0.0 | 550 | 0.0 | 1500 | 1051 | 0 | 550 | 0.52 | 0 | 64.4 | 45.0 | 41.5 | 34.8 | 34.8 |
| 8-9 AM | 843 | 0.0 | 441 | 0.0 | 1500 | 843 | 0 | 441 | 0.50 | 0 | 64.8 | 45.6 | 42.2 | 36.6 | 36.6 |
| 9-10 AM | 898 | 0.0 | 469 | 0.0 | 1500 | 898 | 0 | 469 | 0.51 | 0 | 64.7 | 45.5 | 42.0 | 36.2 | 36.2 |
| 10-11 AM | 979 | 0.0 | 512 | 0.0 | 1500 | 979 | 0 | 512 | 0.52 | 0 | 64.6 | 45.2 | 41.7 | 35.5 | 35.5 |
| 11A-NOON | 1137 | 0.0 | 595 | 0.0 | 1500 | 1137 | 0 | 595 | 0.56 | 0 | 64.3 | 44.1 | 40.6 | 34.0 | 34.0 |
| NOON-1PM | 1228 | 0.0 | 642 | 0.0 | 1500 | 1228 | 0 | 642 | 0.67 | 0 | 64.1 | 41.2 | 37.6 | 33.2 | 33.2 |
| 1-2 PM | 1293 | 0.0 | 676 | 0.0 | 1499 | 1293 | 0 | 676 | 0.76 | 0 | 64.0 | 39.5 | 35.7 | 32.6 | 32.6 |
| 2-3 PM | 1498 | 0.0 | 783 | 0.0 | 1499 | 1498 | 0 | 783 | 1.21 | 6 | 63.6 | 32.0 | 31.4 | 30.7 | 30.6 |
| 3-4 PM | 1760 | 0.0 | 920 | 0.0 | 1500 | 1760 | 0 | 920+ | 5.90 | 147 | 63.1 | 13.0 | 30.8 | 25.5 | 26.0 |
| 4-5 PM | 1820 | 0.0 | 951 | 0.0 | 1500 | 1678 | 142 | 1093+ | 16.67 | 426 | 63.0 | 7.8 | 30.8 | 24.2 | 23.0 |
| 5-6 PM | 1553 | 0.0 | 812 | 0.0 | 1500 | 1365 | 189 | 1001+ | 16.42 | 417 | 63.5 | 7.8 | 30.8 | 29.9 | 24.0 |
| 6-7 PM | 1159 | 0.0 | 606 | 0.0 | 1499 | 1126 | 33 | 640 | 4.42 | 153 | 64.2 | 16.6 | 35.3 | 33.8 | 33.7 |
| 7-8 PM | 892 | 0.0 | 466 | 0.0 | 1500 | 892 | 0 | 466 | 0.51 | 0 | 64.7 | 45.5 | 42.0 | 36.3 | 36.3 |
| 8-9 PM | 801 | 0.0 | 419 | 0.0 | 1500 | 801 | 0 | 419 | 0.50 | 0 | 64.9 | 45.8 | 42.4 | 36.8 | 36.8 |
| 9-10 PM | 586 | 0.0 | 307 | 0.0 | 1500 | 586 | 0 | 307 | 0.48 | 0 | 65.3 | 46.6 | 43.2 | 37.2 | 37.2 |
| 10-11 PM | 440 | 0.0 | 230 | 0.0 | 1500 | 440 | 0 | 230 | 0.47 | 0 | 65.6 | 47.1 | 43.7 | 37.6 | 37.6 |
| 11PM-MID | 290 | 0.0 | 151 | 0.0 | 1500 | 290 | 0 | 151 | 0.45 | 0 | 65.8 | 47.7 | 44.3 | 37.9 | 37.9 |

+ INDICATES DIVERSION FLOW EXCEEDS USER-SPECIFIED WARNING LIMIT

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

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

| AVERAGE ACCIDENT NUMBERS (PIA/DAY) | |
|------------------------------------|--------|
| MAIN ROUTE WITHOUT WORKS | 0.0041 |
| MAIN ROUTE WITH WORKS | 0.0028 |
| DIVERSION | 0.0954 |

PIA: Personal Injury Accidents

| IMPACTS ON ROAD USERS | |
|------------------------------------|----------|
| ROAD USER COSTS PER DAY (DOLLARS) | \$20,027 |
| CONGESTED HOURS PER DAY* | 2 |

*Delays Exceeding 15 Minutes

**STH 29: IH 93 TO CTH X (MARATHON COUNTY)
CONTINUOUS (24 HOUR) CLOSURE
DIVERSION ROUTE: BUS 51, IH 39**

MAY
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Construction Season

GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
FRIDAY EASTBOUND DIRECTION

