

<b>IH 94: MN 96 TO STH 35 N</b> <b>OFF-PEAK DAY 2 LANE CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>OCTOBER</b>
	Analyzed for 2009 Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY 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	497	0.0	OFF	497	0	0.00	0	70.1	70.1	70.1
1-2 AM	379	0.0	OFF	379	0	0.00	0	70.2	70.2	70.2
2-3 AM	326	0.0	OFF	326	0	0.00	0	70.2	70.2	70.2
3-4 AM	315	0.0	OFF	315	0	0.00	0	70.2	70.2	70.2
4-5 AM	316	0.0	OFF	316	0	0.00	0	70.2	70.2	70.2
5-6 AM	407	0.0	OFF	407	0	0.00	0	70.2	70.2	70.2
6-7 AM	533	0.0	OFF	533	0	0.00	0	70.0	70.0	70.0
7-8 AM	757	0.0	OFF	757	0	0.00	0	69.8	69.8	69.8
8-9 AM	1183	0.0	OFF	1183	0	0.00	0	69.2	69.2	69.2
9-10 AM	1895	0.0	1499	1895	0	4.55	150	68.4	12.3	30.8
10-11 AM	2684	0.0	1500	2618	66	34.52+	920	67.4	4.3	30.8
11AM-NOON	3505	0.0	1499	1432	2073	47.59+	1234	66.4	3.9	30.8
NOON-1PM	3921	0.0	1499	1500	2422	48.13+	1251	64.1	3.9	30.8
1-2 PM	4503	0.0	1499	1500	3003	47.92+	1251	60.1	3.9	30.8
2-3 PM	5120	0.0	1499	1500	3620	47.67+	1251	55.9	3.9	30.8
3-4 PM	5705	0.0	1499	1500	4205	47.39+	1251	51.9	3.9	30.8
4-5 PM	5894	0.0	1499	1500	4394	47.29+	1251	50.6	3.9	30.8
5-6 PM	5620	0.0	1499	1500	4120	47.43+	1251	52.5	3.9	30.8
6-7 PM	4940	0.0	1499	1500	3440	47.75+	1251	57.1	3.9	30.8
7-8 PM	4540	0.0	OFF	4540	0	7.36	715	59.9	7.2	7.2
8-9 PM	3705	0.0	OFF	3705	0	0.00	0	65.5	65.5	65.5
9-10 PM	2664	0.0	OFF	2664	0	0.00	0	67.4	67.4	67.4
10-11 PM	1764	0.0	OFF	1764	0	0.00	0	68.6	68.6	68.6
11PM-MID	1039	0.0	OFF	1039	0	0.00	0	69.4	69.4	69.4

"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	0.0099
MAIN ROUTE WITH WORKS	0.0038
'DIVERSION'	0.0101
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$546,973
CONGESTED HOURS PER DAY*	9

\*Delays Exceeding User-Specified Maximum

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

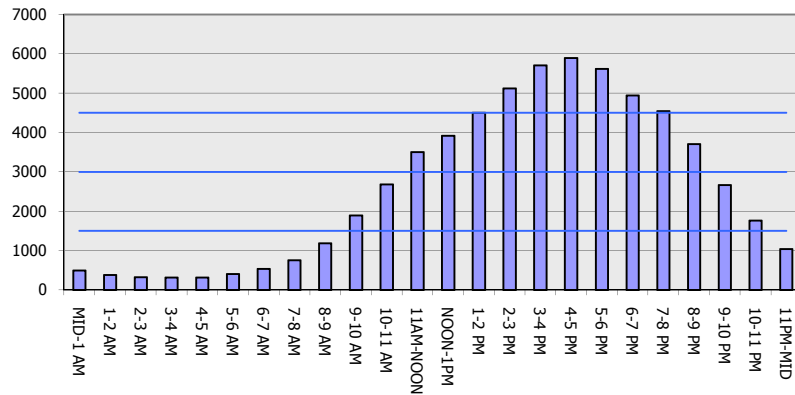
**OCTOBER**

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Construction Season

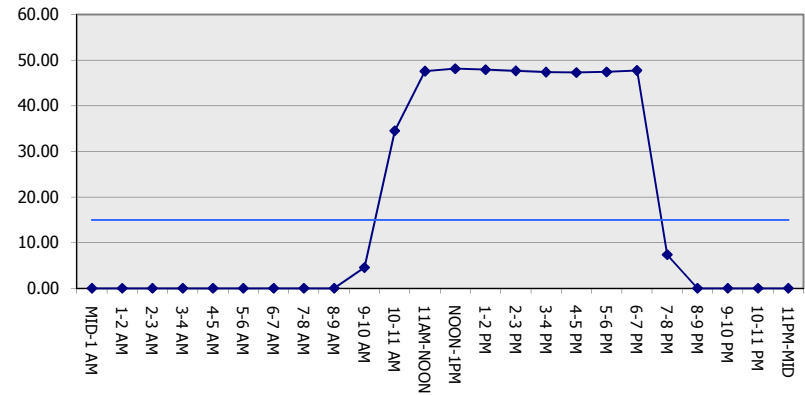
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SUNDAY WESTBOUND DIRECTION**

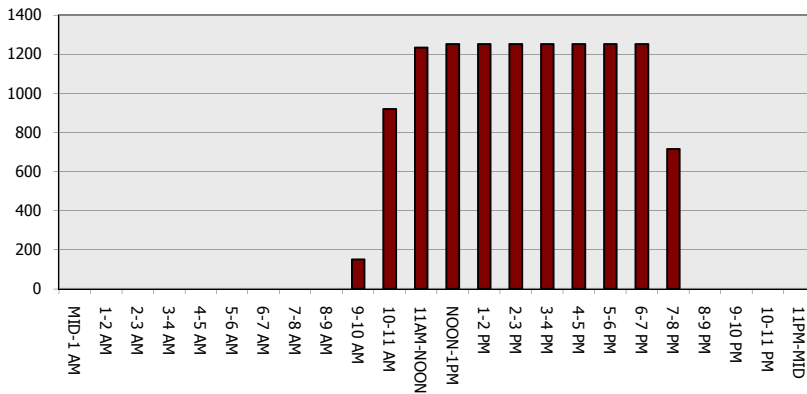
**Main Route - Traffic Demand (Vehicles Per Hour)**



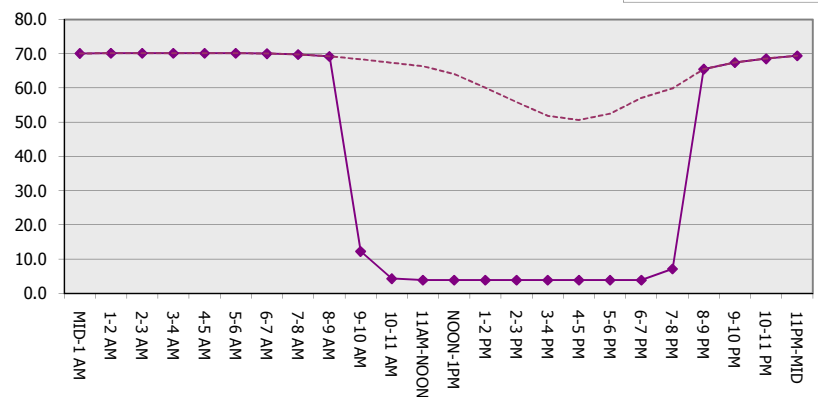
**Main Route Average Delay Per Vehicle (Minutes)**



**Main Route - Average Queue Length (Vehicles)**



**Main Route - Average Speed (MPH)**



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**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY 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	573	0.0	OFF	573	0	0.00	0	70.0	70.0	70.0
1-2 AM	358	0.0	OFF	358	0	0.00	0	70.2	70.2	70.2
2-3 AM	298	0.0	OFF	298	0	0.00	0	70.2	70.2	70.2
3-4 AM	247	0.0	OFF	247	0	0.00	0	70.2	70.2	70.2
4-5 AM	307	0.0	OFF	307	0	0.00	0	70.2	70.2	70.2
5-6 AM	424	0.0	OFF	424	0	0.00	0	70.2	70.2	70.2
6-7 AM	735	0.0	OFF	735	0	0.00	0	69.8	69.8	69.8
7-8 AM	1186	0.0	OFF	1186	0	0.00	0	69.2	69.2	69.2
8-9 AM	1790	0.0	OFF	1790	0	0.00	0	68.5	68.5	68.5
9-10 AM	2749	0.0	1499	2749	0	19.19+	565	67.3	5.5	30.8
10-11 AM	3663	0.0	1500	1500	2163	48.21+	1251	65.8	3.9	30.8
11AM-NOON	4182	0.0	1500	1500	2682	48.04+	1251	62.3	3.9	30.8
NOON-1PM	4306	0.0	1500	1500	2806	47.99+	1251	61.4	3.9	30.8
1-2 PM	4365	0.0	1500	1500	2865	47.97+	1251	61.0	3.9	30.8
2-3 PM	4341	0.0	1500	1500	2841	47.98+	1251	61.2	3.9	30.8
3-4 PM	4280	0.0	1500	1500	2779	48.00+	1251	61.6	3.9	30.8
4-5 PM	4179	0.0	1500	1500	2679	48.04+	1251	62.3	3.9	30.8
5-6 PM	3705	0.0	1500	1500	2205	48.20+	1251	65.5	3.9	30.8
6-7 PM	2977	0.0	1500	1465	1512	47.81+	1239	67.0	3.9	30.8
7-8 PM	2592	0.0	OFF	2592	0	2.20	215	67.5	19.4	19.4
8-9 PM	1757	0.0	OFF	1757	0	0.00	0	68.6	68.6	68.6
9-10 PM	1311	0.0	OFF	1311	0	0.00	0	69.1	69.1	69.1
10-11 PM	986	0.0	OFF	986	0	0.00	0	69.5	69.5	69.5
11PM-MID	648	0.0	OFF	648	0	0.00	0	69.9	69.9	69.9

"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	0.0083
MAIN ROUTE WITH WORKS	0.0029
'DIVERSION'	0.0083

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$488,435
CONGESTED HOURS PER DAY*	10

\*Delays Exceeding User-Specified Maximum

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OFF-PEAK DAY 2 LANE CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

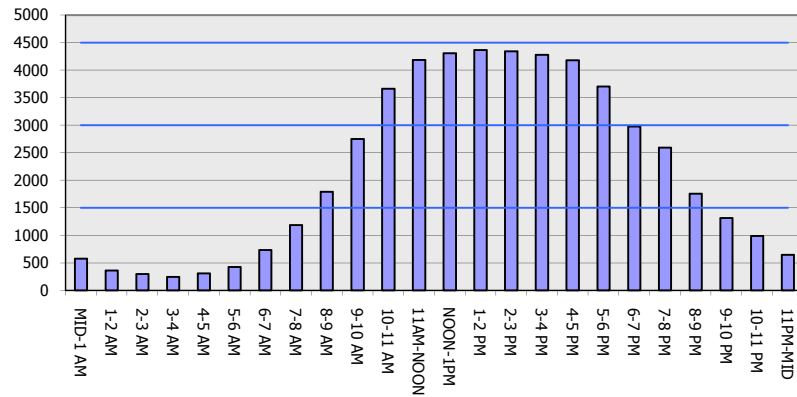
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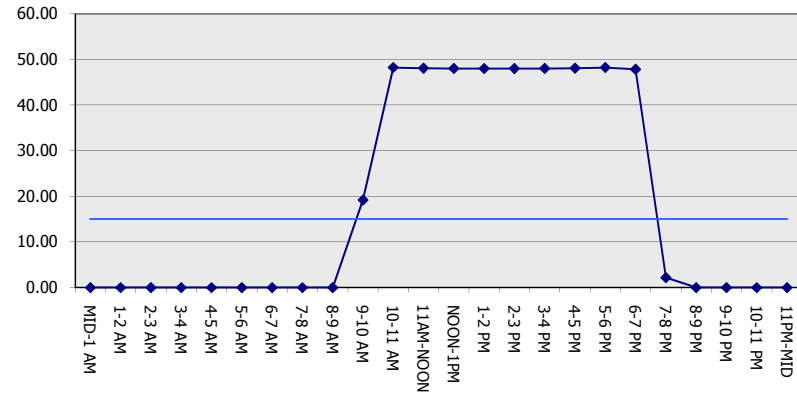
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SUNDAY EASTBOUND DIRECTION**

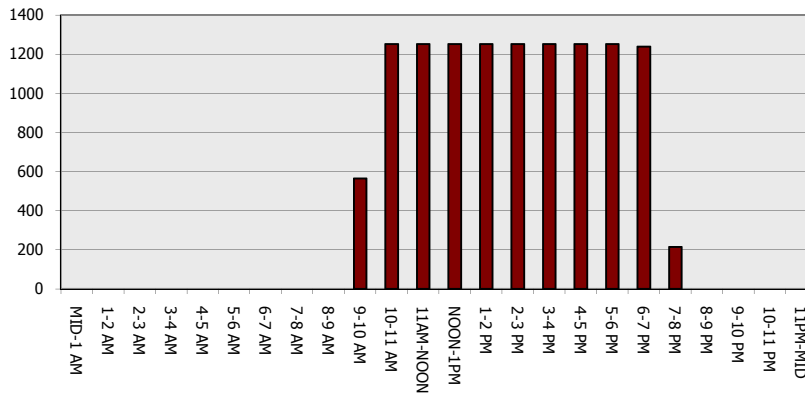
**Main Route - Traffic Demand (Vehicles Per Hour)**



**Main Route Average Delay Per Vehicle (Minutes)**



**Main Route - Average Queue Length (Vehicles)**



**Main Route - Average Speed (MPH)**

