

**IH 94: USH 41 AND IH 43 (MILWAUKEE COUNTY)  
NIGHTTIME 2 LANE CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**OCTOBER**  
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		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	740	0.0	1499	740	0	2.39	129	69.8	30.2	40.6	
1-2 AM	538	0.0	1500	538	0	0.54	0	70.0	54.0	43.3	
2-3 AM	451	0.0	1500	451	0	0.53	0	70.2	54.2	43.7	
3-4 AM	344	0.0	1500	344	0	0.51	0	70.2	54.5	44.1	
4-5 AM	623	0.0	1500	623	0	0.55	0	70.0	53.7	43.0	
5-6 AM	1758	0.0	OFF	1758	0	0.00	0	68.6	68.6	68.6	
6-7 AM	3790	0.0	OFF	3790	0	0.00	0	65.0	65.0	65.0	
7-8 AM	5327	0.0	OFF	5327	0	0.00	0	54.5	54.5	54.5	
8-9 AM	4416	0.0	OFF	4416	0	0.00	0	60.7	60.7	60.7	
9-10 AM	3764	0.0	OFF	3764	0	0.00	0	65.1	65.1	65.1	
10-11 AM	3356	0.0	OFF	3356	0	0.00	0	66.6	66.6	66.6	
11AM-NOON	4412	0.0	OFF	4412	0	0.00	0	60.7	60.7	60.7	
NOON-1PM	4073	0.0	OFF	4073	0	0.00	0	63.0	63.0	63.0	
1-2 PM	4091	0.0	OFF	4091	0	0.00	0	62.9	62.9	62.9	
2-3 PM	4421	0.0	OFF	4421	0	0.00	0	60.7	60.7	60.7	
3-4 PM	4325	0.0	OFF	4325	0	0.00	0	61.3	61.3	61.3	
4-5 PM	4103	0.0	OFF	4103	0	0.00	0	62.8	62.8	62.8	
5-6 PM	3513	0.0	OFF	3513	0	0.00	0	66.4	66.4	66.4	
6-7 PM	2479	0.0	OFF	2479	0	0.00	0	67.6	67.6	67.6	
7-8 PM	2164	0.0	1499	1882	282	11.53+	300	68.1	10.0	30.8	
8-9 PM	1697	0.0	1500	1516	181	16.69+	408	68.6	7.6	30.8	
9-10 PM	1849	0.0	1499	1501	348	16.76+	410	68.4	7.6	30.8	
10-11 PM	1620	0.0	1500	1501	119	16.76+	410	68.7	7.6	30.8	
11PM-MID	1770	0.0	1500	1501	270	16.76+	410	68.6	7.6	30.8	

"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	0.0219
MAIN ROUTE WITH WORKS	0.0208
'DIVERSION'	0.0009
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$34,162
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

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

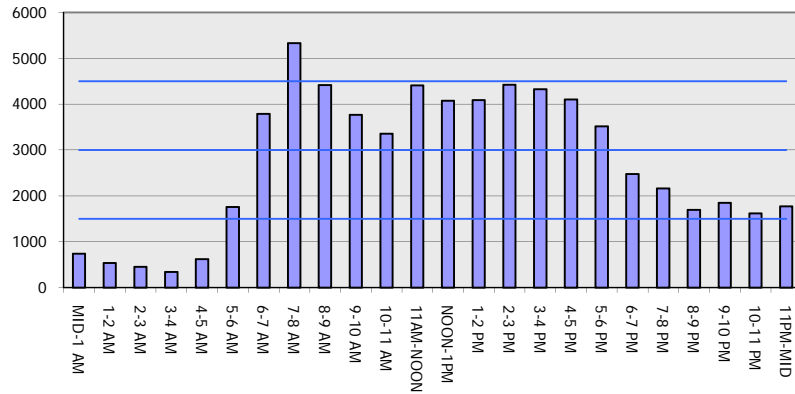
**OCTOBER**

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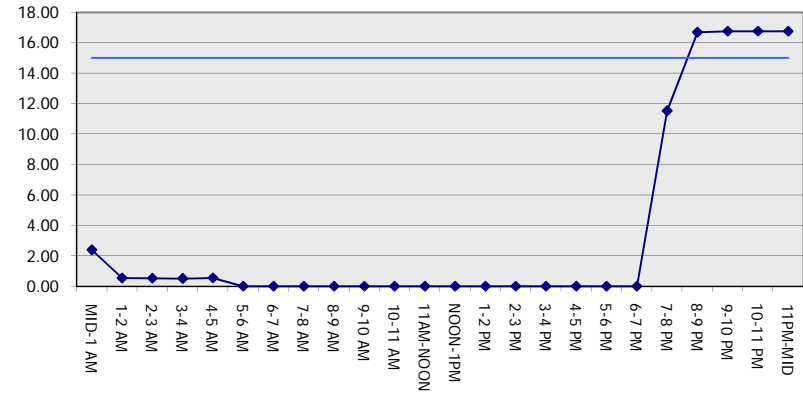
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**FRIDAY WESTBOUND DIRECTION**

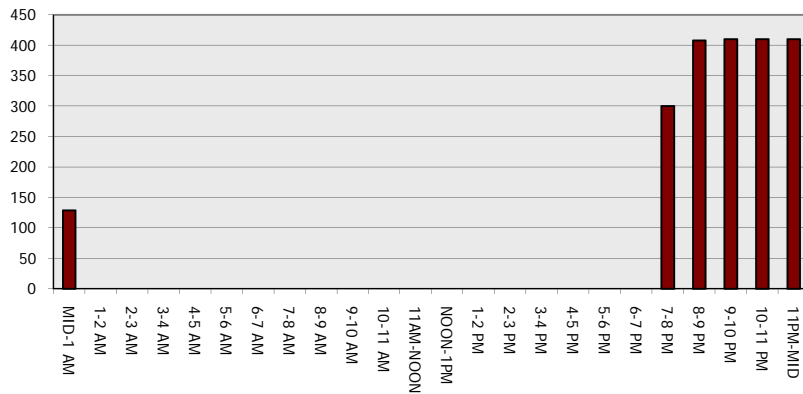
**Main Route - Traffic Demand (Vehicles Per Hour)**



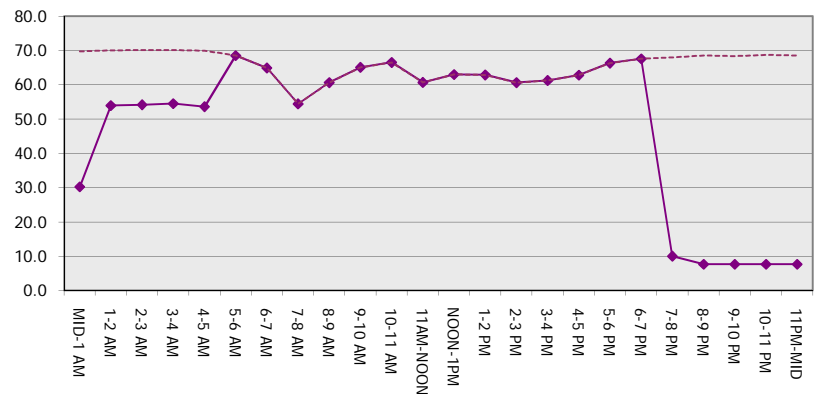
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



<b>IH 94: USH 41 AND IH 43 (MILWAUKEE COUNTY)</b> <b>NIGHTTIME 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**

FRIDAY 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	593	0.0	1500	593	0	1.71	85	70.0	35.9	42.7
1-2 AM	374	0.0	1500	374	0	0.52	0	70.2	54.5	44.0
2-3 AM	312	0.0	1500	312	0	0.51	0	70.2	54.6	44.2
3-4 AM	284	0.0	1500	284	0	0.51	0	70.2	54.7	44.3
4-5 AM	477	0.0	1500	477	0	0.53	0	70.1	54.2	43.6
5-6 AM	1765	0.0	OFF	1765	0	0.00	0	68.6	68.6	68.6
6-7 AM	4098	0.0	OFF	4098	0	0.00	0	62.8	62.8	62.8
7-8 AM	4599	0.0	OFF	4599	0	0.00	0	59.4	59.4	59.4
8-9 AM	4136	0.0	OFF	4136	0	0.00	0	62.6	62.6	62.6
9-10 AM	3324	0.0	OFF	3324	0	0.00	0	66.6	66.6	66.6
10-11 AM	2857	0.0	OFF	2857	0	0.00	0	67.2	67.2	67.2
11AM-NOON	3532	0.0	OFF	3532	0	0.00	0	66.3	66.3	66.3
NOON-1PM	3657	0.0	OFF	3657	0	0.00	0	65.9	65.9	65.9
1-2 PM	3695	0.0	OFF	3695	0	0.00	0	65.6	65.6	65.6
2-3 PM	3796	0.0	OFF	3796	0	0.00	0	64.9	64.9	64.9
3-4 PM	3707	0.0	OFF	3707	0	0.00	0	65.5	65.5	65.5
4-5 PM	4060	0.0	OFF	4060	0	0.00	0	63.1	63.1	63.1
5-6 PM	4066	0.0	OFF	4066	0	0.00	0	63.1	63.1	63.1
6-7 PM	3455	0.0	OFF	3455	0	0.00	0	66.4	66.4	66.4
7-8 PM	3055	0.0	1499	1570	1485	17.09+	427	66.9	7.6	36.6
8-9 PM	2553	0.0	1499	1721	832	14.20+	368	67.6	8.6	35.0
9-10 PM	2598	0.0	1499	1539	1059	16.74+	413	67.5	7.6	32.3
10-11 PM	2079	0.0	1500	1547	532	16.58+	406	68.1	7.7	31.0
11PM-MID	1642	0.0	1499	1479	163	15.94+	389	68.7	7.9	30.8

"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	0.0216
MAIN ROUTE WITH WORKS	0.0196
'DIVERSION'	0.0032

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$46,143
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

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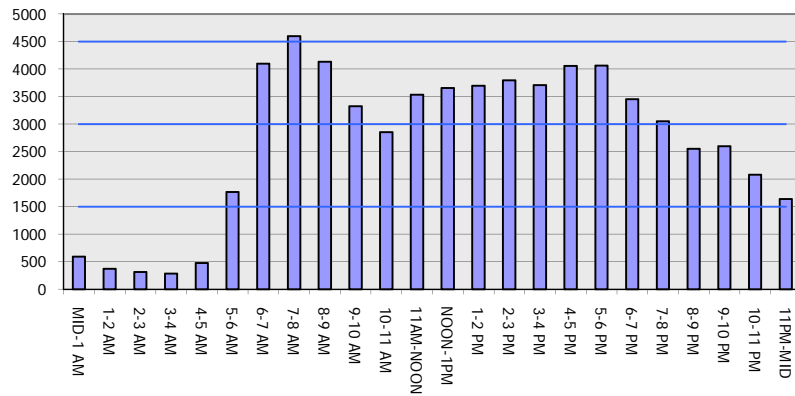
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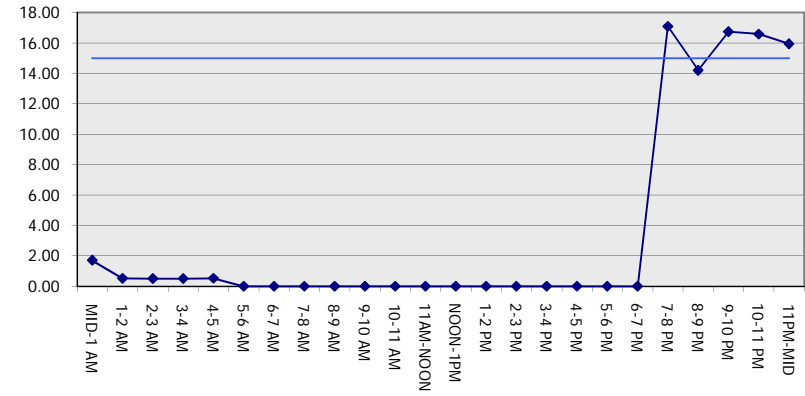
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**FRIDAY EASTBOUND DIRECTION**

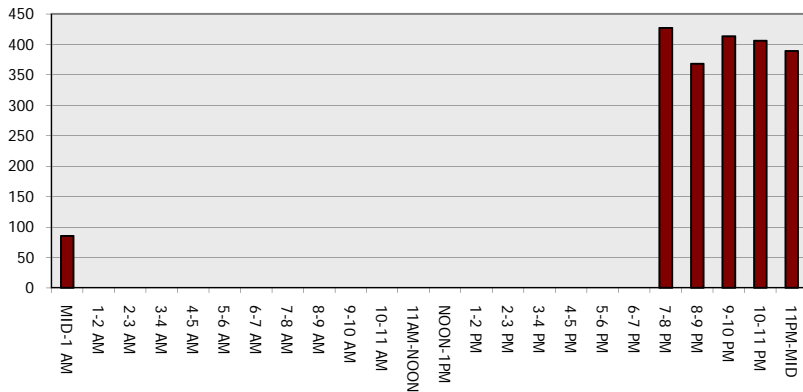
**Main Route - Traffic Demand (Vehicles Per Hour)**



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



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



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

