

<b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)</b> <b>OFF-PEAK DAY 2 LANE CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>AUGUST</b> Analyzed for 2009 Construction Season
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**SUMMARY OF TRAFFIC MODEL OUTPUT**

FRIDAY      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	481	0.0	OFF	481	0	0.00	0	70.1	70.1	70.1	
1-2 AM	324	0.0	OFF	324	0	0.00	0	70.2	70.2	70.2	
2-3 AM	301	0.0	OFF	301	0	0.00	0	70.2	70.2	70.2	
3-4 AM	336	0.0	OFF	336	0	0.00	0	70.2	70.2	70.2	
4-5 AM	813	0.0	OFF	813	0	0.00	0	69.7	69.7	69.7	
5-6 AM	2265	0.0	OFF	2265	0	0.00	0	67.9	67.9	67.9	
6-7 AM	4721	0.0	OFF	4721	0	0.00	0	58.6	58.6	58.6	
7-8 AM	5771	0.0	OFF	5771	0	0.00	0	51.4	51.4	51.4	
8-9 AM	5316	0.0	OFF	5316	0	0.00	0	54.5	54.5	54.5	
9-10 AM	4655	0.0	OFF	4655	0	0.00	0	59.1	59.1	59.1	
10-11 AM	4691	0.0	1999	2123	2568	17.24+	592	58.8	8.3	34.5	
11AM-NOON	4882	0.0	1999	2389	2493	15.70+	544	57.5	8.7	28.6	
NOON-1PM	4969	0.0	1999	2000	2969	17.16+	580	56.9	8.3	27.9	
1-2 PM	5002	0.0	2000	2000	3002	17.15+	580	56.7	8.3	27.9	
2-3 PM	5338	0.0	2000	2000	3338	17.03+	580	54.4	8.3	27.9	
3-4 PM	4390	0.0	OFF	4390	0	0.94	81	60.9	41.9	41.9	
4-5 PM	3607	0.0	OFF	3607	0	0.00	0	66.2	66.2	66.2	
5-6 PM	3916	0.0	OFF	3916	0	0.00	0	64.1	64.1	64.1	
6-7 PM	4425	0.0	OFF	4425	0	0.00	0	60.6	60.6	60.6	
7-8 PM	3414	0.0	OFF	3414	0	0.00	0	66.5	66.5	66.5	
8-9 PM	2622	0.0	OFF	2622	0	0.00	0	67.5	67.5	67.5	
9-10 PM	2324	0.0	OFF	2324	0	0.00	0	67.9	67.9	67.9	
10-11 PM	1978	0.0	OFF	1978	0	0.00	0	68.2	68.2	68.2	
11PM-MID	1588	0.0	OFF	1588	0	0.00	0	68.7	68.7	68.7	

"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	0.0261
MAIN ROUTE WITH WORKS	0.0206
'DIVERSION'	0.0111
<small>PIA: Personal Injury Accidents</small>	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$77,136
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

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

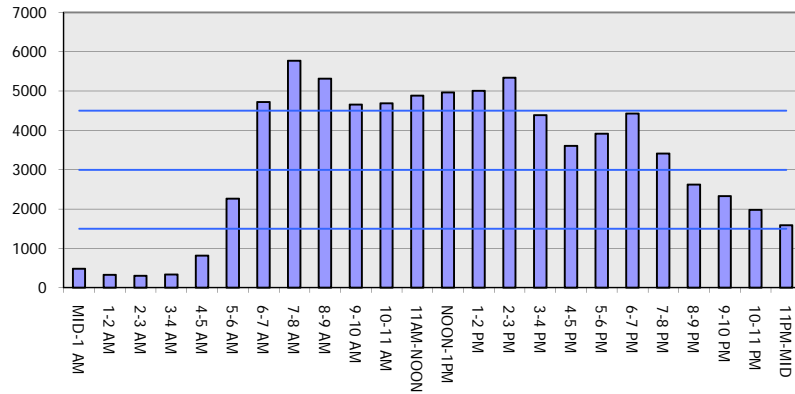
**AUGUST**

Analyzed for 2009  
 Construction Season

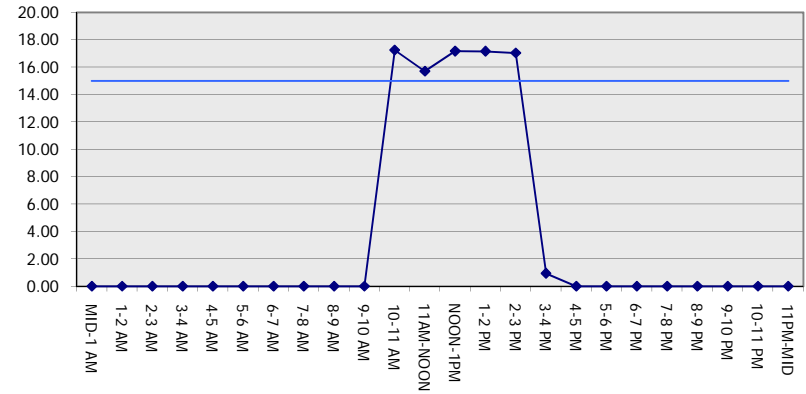
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**FRIDAY SOUTHBOUND DIRECTION**

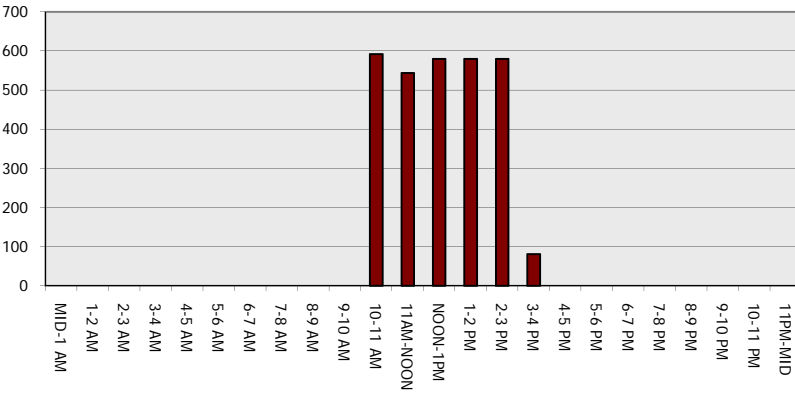
**Main Route - Traffic Demand (Vehicles Per Hour)**



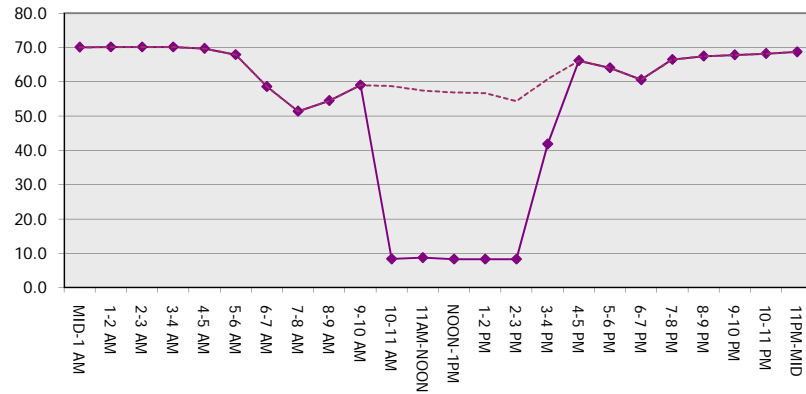
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



<b>USH 45: STH 190 TO NORTH AVE (MILWAUKEE COUNTY)</b> <b>OFF-PEAK DAY 2 LANE CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>AUGUST</b>
	Analyzed for 2009 Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**

FRIDAY 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	772	0.0	OFF	772	0	0.00	0	69.8	69.8	69.8
1-2 AM	554	0.0	OFF	554	0	0.00	0	70.0	70.0	70.0
2-3 AM	491	0.0	OFF	491	0	0.00	0	70.1	70.1	70.1
3-4 AM	475	0.0	OFF	475	0	0.00	0	70.1	70.1	70.1
4-5 AM	1263	0.0	OFF	1263	0	0.00	0	69.2	69.2	69.2
5-6 AM	3133	0.0	OFF	3133	0	0.00	0	66.8	66.8	66.8
6-7 AM	5280	0.0	OFF	5280	0	0.00	0	54.8	54.8	54.8
7-8 AM	6227	0.0	OFF	6227	0	0.00	0	48.3	48.3	48.3
8-9 AM	5211	0.0	OFF	5211	0	0.00	0	55.3	55.3	55.3
9-10 AM	4385	0.0	OFF	4385	0	0.00	0	60.9	60.9	60.9
10-11 AM	4516	0.0	1999	2122	2394	17.27+	591	60.0	8.3	34.5
11AM-NOON	4834	0.0	1999	2385	2449	15.67+	542	57.8	8.8	28.6
NOON-1PM	4993	0.0	1999	2000	2993	17.16+	580	56.8	8.3	27.9
1-2 PM	5305	0.0	2000	2000	3305	17.04+	580	54.6	8.3	27.9
2-3 PM	6008	0.0	2000	2000	4008	16.75+	580	49.8	8.3	27.9
3-4 PM	6248	0.0	OFF	6248	0	6.23	631	48.2	14.2	14.2
4-5 PM	6497	0.0	OFF	6497	0	9.85	1003	46.5	10.0	10.0
5-6 PM	5747	0.0	OFF	5747	0	11.34	1125	51.6	9.1	9.1
6-7 PM	4931	0.0	OFF	4931	0	4.96	466	57.2	17.6	17.6
7-8 PM	3593	0.0	OFF	3593	0	0.00	0	66.3	66.3	66.3
8-9 PM	3127	0.0	OFF	3127	0	0.00	0	66.8	66.8	66.8
9-10 PM	3098	0.0	OFF	3098	0	0.00	0	66.9	66.9	66.9
10-11 PM	2921	0.0	OFF	2921	0	0.00	0	67.1	67.1	67.1
11PM-MID	2099	0.0	OFF	2099	0	0.00	0	68.1	68.1	68.1

"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	0.0307
MAIN ROUTE WITH WORKS	0.0249
'DIVERSION'	0.0117

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$113,445
CONGESTED HOURS PER DAY*	5

\*Delays Exceeding User-Specified Maximum

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

**AUGUST**  
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**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**  
**FRIDAY NORTHBOUND DIRECTION**

