

**USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)  
NIGHTTIME CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**OCTOBER**  
Analyzed for 2009  
Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**  
SUNDAY 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	842	0.0	3000	842	0	0.35	0	69.7	57.3	49.7	
1-2 AM	473	0.0	3000	473	0	0.36	0	70.2	57.4	49.7	
2-3 AM	428	0.0	3000	428	0	0.36	0	70.2	57.4	49.7	
3-4 AM	306	0.0	3000	306	0	0.36	0	70.2	57.4	49.7	
4-5 AM	279	0.0	3000	279	0	0.36	0	70.2	57.4	49.7	
5-6 AM	486	0.0	3000	486	0	0.36	0	70.1	57.4	49.7	
6-7 AM	905	0.0	3000	905	0	0.35	0	69.6	57.3	49.7	
7-8 AM	1156	0.0	3000	1156	0	0.35	0	69.3	57.2	49.7	
8-9 AM	1702	0.0	3000	1702	0	0.34	0	68.6	57.0	49.7	
9-10 AM	2584	0.0	OFF	2584	0	0.00	0	67.5	67.5	67.5	
10-11 AM	3214	0.0	OFF	3214	0	0.00	0	66.8	66.8	66.8	
11AM-NOON	3815	0.0	OFF	3815	0	0.00	0	64.8	64.8	64.8	
NOON-1PM	4429	0.0	OFF	4429	0	0.00	0	60.6	60.6	60.6	
1-2 PM	4484	0.0	OFF	4484	0	0.00	0	60.2	60.2	60.2	
2-3 PM	4689	0.0	OFF	4689	0	0.00	0	58.8	58.8	58.8	
3-4 PM	4437	0.0	OFF	4437	0	0.00	0	60.5	60.5	60.5	
4-5 PM	4151	0.0	OFF	4151	0	0.00	0	62.5	62.5	62.5	
5-6 PM	4025	0.0	OFF	4025	0	0.00	0	63.3	63.3	63.3	
6-7 PM	3794	0.0	OFF	3794	0	0.00	0	65.0	65.0	65.0	
7-8 PM	3004	0.0	2999	3004	0	1.59	49	67.0	34.7	38.0	
8-9 PM	2277	0.0	3000	2277	0	0.35	0	67.9	56.2	48.9	
9-10 PM	1638	0.0	3000	1638	0	0.34	0	68.7	57.0	49.7	
10-11 PM	1076	0.0	3000	1076	0	0.35	0	69.4	57.2	49.7	
11PM-MID	662	0.0	3000	662	0	0.36	0	69.9	57.4	49.7	

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

*----- 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	0.0166
MAIN ROUTE WITH WORKS	0.0156
'DIVERSION'	0.0000
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$2,145
CONGESTED HOURS PER DAY*	0

\*Delays Exceeding User-Specified Maximum

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

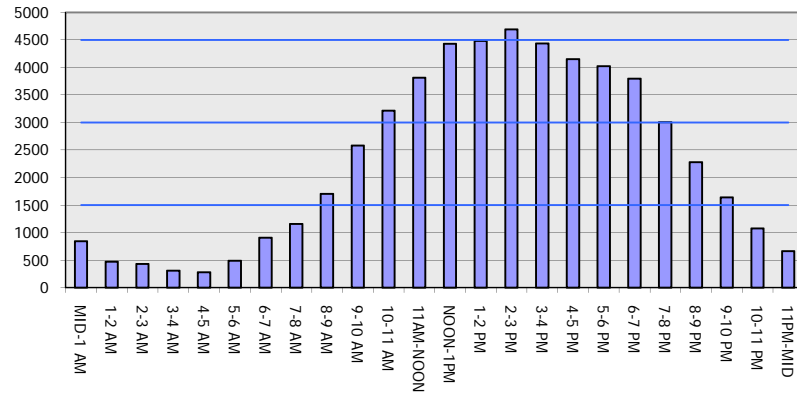
**OCTOBER**

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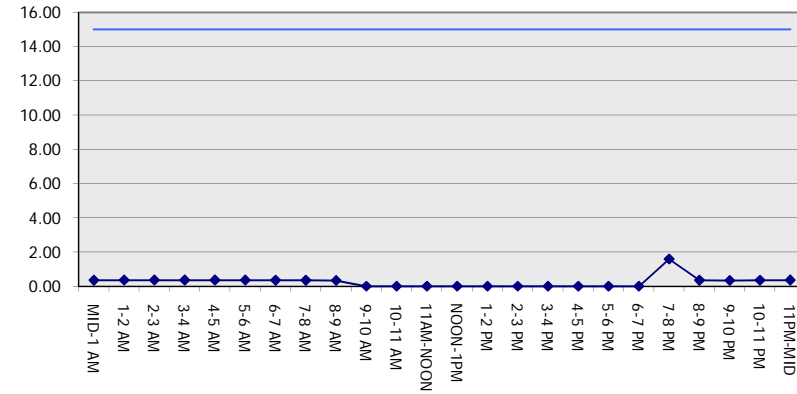
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SUNDAY SOUTHBOUND DIRECTION**

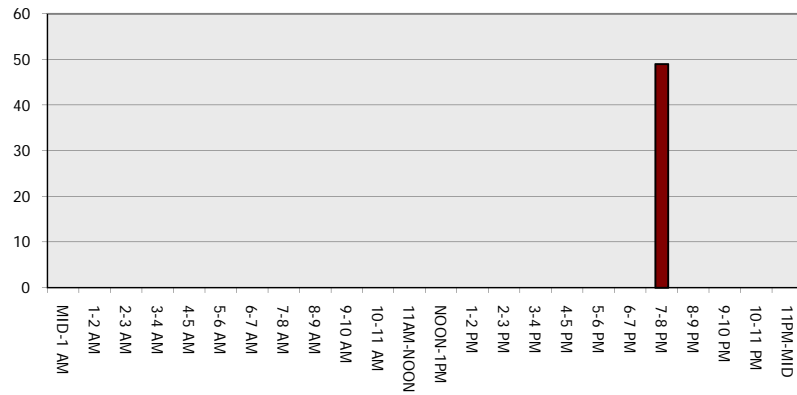
**Main Route - Traffic Demand (Vehicles Per Hour)**



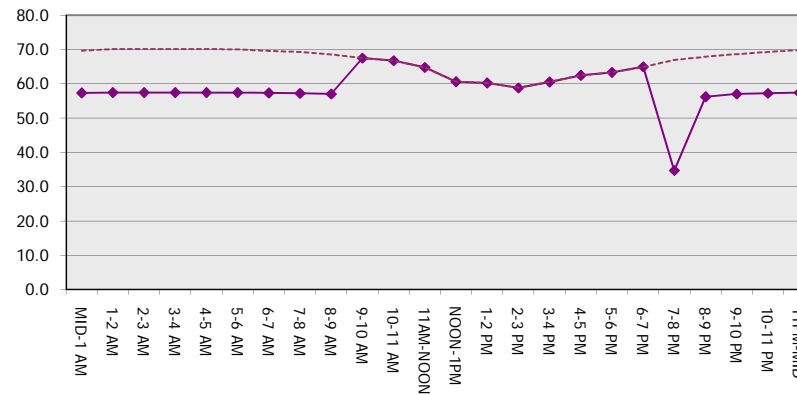
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



<b>USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)</b> <b>NIGHTTIME CLOSURE</b> <b>NO DIVERSION ROUTE (MAX QUEUE METHOD)</b>	<b>OCTOBER</b>
	Analyzed for 2009 Construction Season

**SUMMARY OF TRAFFIC MODEL OUTPUT**

SUNDAY 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	1278	0.0	3000	1278	0	0.35	0	69.1	57.1	49.7
1-2 AM	825	0.0	3000	825	0	0.35	0	69.7	57.3	49.7
2-3 AM	825	0.0	3000	825	0	0.35	0	69.7	57.3	49.7
3-4 AM	559	0.0	3000	559	0	0.36	0	70.0	57.4	49.7
4-5 AM	548	0.0	3000	548	0	0.36	0	70.0	57.4	49.7
5-6 AM	736	0.0	3000	736	0	0.35	0	69.8	57.4	49.7
6-7 AM	1015	0.0	3000	1015	0	0.35	0	69.5	57.3	49.7
7-8 AM	1296	0.0	3000	1296	0	0.35	0	69.1	57.1	49.7
8-9 AM	1795	0.0	3000	1795	0	0.34	0	68.5	56.9	49.7
9-10 AM	2510	0.0	OFF	2510	0	0.00	0	67.6	67.6	67.6
10-11 AM	3067	0.0	OFF	3067	0	0.00	0	66.9	66.9	66.9
11AM-NOON	3388	0.0	OFF	3388	0	0.00	0	66.5	66.5	66.5
NOON-1PM	3881	0.0	OFF	3881	0	0.00	0	64.3	64.3	64.3
1-2 PM	3868	0.0	OFF	3868	0	0.00	0	64.5	64.5	64.5
2-3 PM	3907	0.0	OFF	3907	0	0.00	0	64.1	64.1	64.1
3-4 PM	4233	0.0	OFF	4233	0	0.00	0	61.9	61.9	61.9
4-5 PM	3911	0.0	OFF	3911	0	0.00	0	64.1	64.1	64.1
5-6 PM	3899	0.0	OFF	3899	0	0.00	0	64.2	64.2	64.2
6-7 PM	3174	0.0	OFF	3174	0	0.00	0	66.8	66.8	66.8
7-8 PM	2946	0.0	2999	2946	0	0.86	11	67.1	44.5	38.6
8-9 PM	2231	0.0	3000	2231	0	0.33	0	67.9	56.8	49.7
9-10 PM	1963	0.0	3000	1963	0	0.34	0	68.3	56.9	49.7
10-11 PM	1564	0.0	3000	1564	0	0.34	0	68.8	57.0	49.7
11PM-MID	1071	0.0	3000	1071	0	0.35	0	69.4	57.3	49.7

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC)

*----- 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	0.0165
MAIN ROUTE WITH WORKS	0.0153
'DIVERSION'	0.0000

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$1,883
CONGESTED HOURS PER DAY*	0

\*Delays Exceeding User-Specified Maximum

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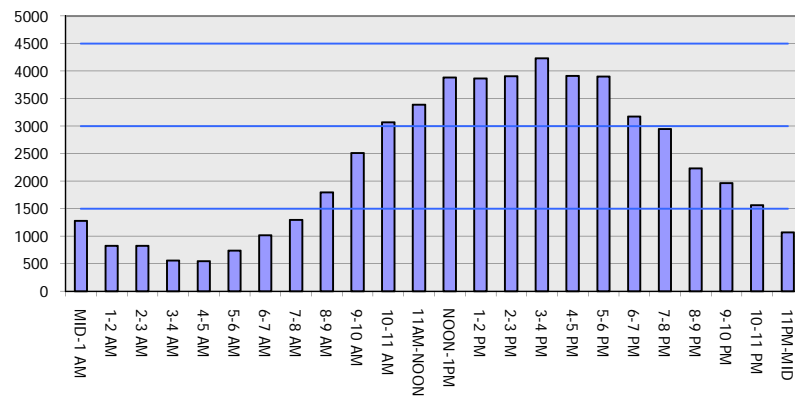
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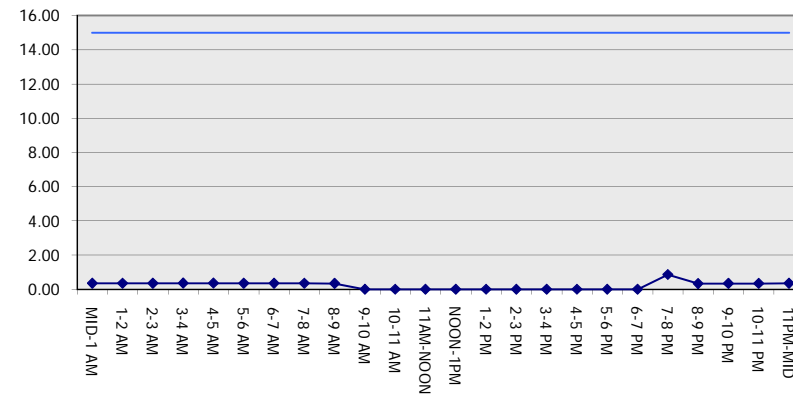
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**SUNDAY NORTHBOUND DIRECTION**

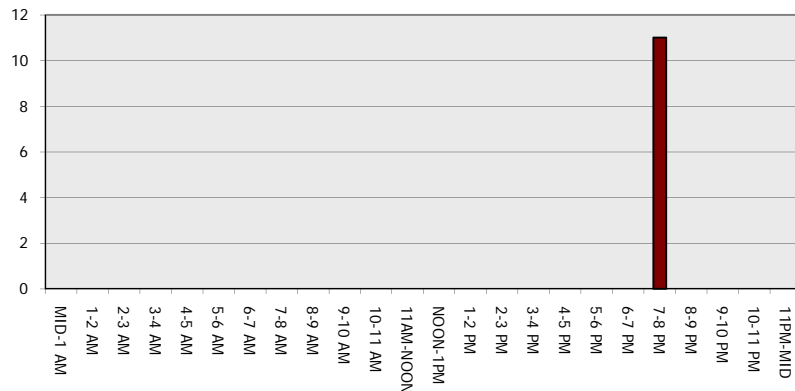
**Main Route - Traffic Demand (Vehicles Per Hour)**



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



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



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

