

**USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)  
CONTINUOUS (24 HOUR) 2 LANE CLOSURE  
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

**AUGUST**

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	871	0.0	1500	871	0	0.57	0	69.7	51.6	42.2	
1-2 AM	483	0.0	1500	483	0	0.53	0	70.1	52.8	43.6	
2-3 AM	450	0.0	1500	450	0	0.53	0	70.2	53.0	43.7	
3-4 AM	268	0.0	1500	268	0	0.51	0	70.2	53.5	44.4	
4-5 AM	310	0.0	1500	310	0	0.51	0	70.2	53.4	44.2	
5-6 AM	459	0.0	1500	459	0	0.53	0	70.2	53.0	43.7	
6-7 AM	969	0.0	1500	969	0	0.58	0	69.6	51.3	41.8	
7-8 AM	1286	0.0	1499	1286	0	0.81	0	69.1	46.3	36.1	
8-9 AM	1682	0.0	1499	1682	0	2.39	51	68.6	28.1	30.8	
9-10 AM	2567	0.0	1500	1800	767	15.75+	392	67.6	7.7	31.7	
10-11 AM	3395	0.0	1499	1483	1912	17.15+	422	66.5	7.3	30.8	
11AM-NOON	3845	0.0	1499	1500	2345	17.14+	423	64.6	7.3	30.8	
NOON-1PM	4304	0.0	1500	1500	2804	17.03+	423	61.5	7.3	30.8	
1-2 PM	4135	0.0	1500	1500	2635	17.07+	423	62.6	7.3	30.8	
2-3 PM	4389	0.0	1500	1500	2889	17.01+	423	60.9	7.3	30.8	
3-4 PM	4146	0.0	1500	1500	2646	17.07+	423	62.5	7.3	30.8	
4-5 PM	4103	0.0	1500	1500	2603	17.08+	423	62.8	7.3	30.8	
5-6 PM	3281	0.0	1499	1485	1796	17.15+	422	66.6	7.3	30.8	
6-7 PM	3451	0.0	1499	1500	1951	17.20+	423	66.4	7.3	30.8	
7-8 PM	3016	0.0	1499	1483	1533	17.12+	421	67.0	7.3	30.8	
8-9 PM	2632	0.0	1499	1493	1139	16.97+	416	67.4	7.3	30.8	
9-10 PM	1867	0.0	1500	1499	368	16.91+	414	68.4	7.3	30.8	
10-11 PM	1440	0.0	1499	1397	43	16.01+	391	68.9	7.6	30.8	
11PM-MID	834	0.0	1499	834	0	1.86	87	69.7	32.8	41.1	

+ 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	0.0164
MAIN ROUTE WITH WORKS	0.0068
'DIVERSION'	0.0178
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$221,557
CONGESTED HOURS PER DAY*	14

\*Delays Exceeding User-Specified Maximum

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CONTINUOUS (24 HOUR) 2 LANE CLOSURE  
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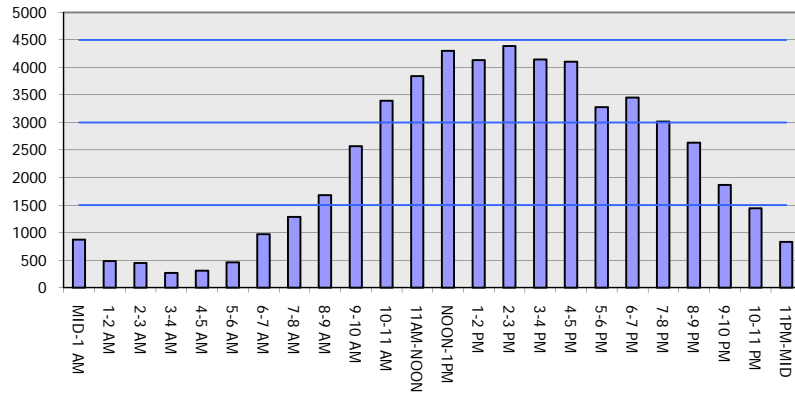
**AUGUST**

Analyzed for 2009  
Construction Season

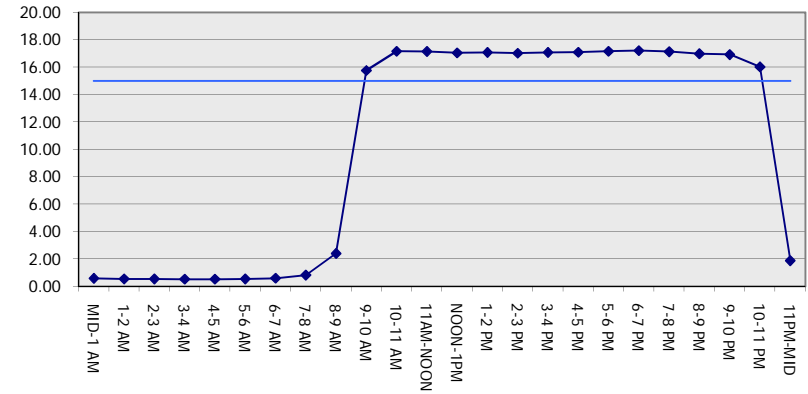
**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

**SUNDAY SOUTHBOUND DIRECTION**

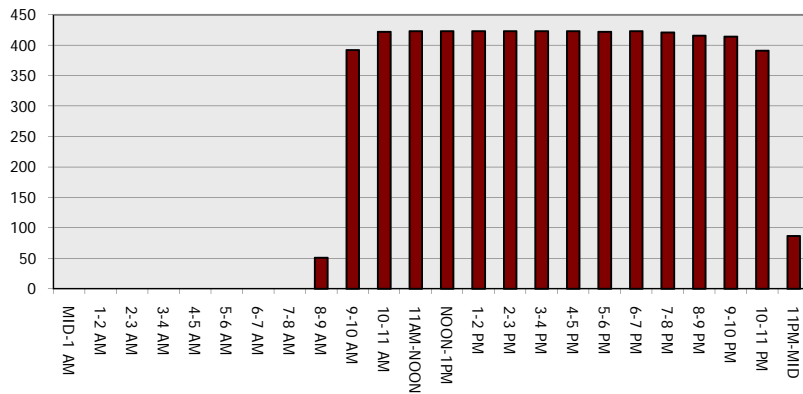
**Main Route - Traffic Demand (Vehicles Per Hour)**



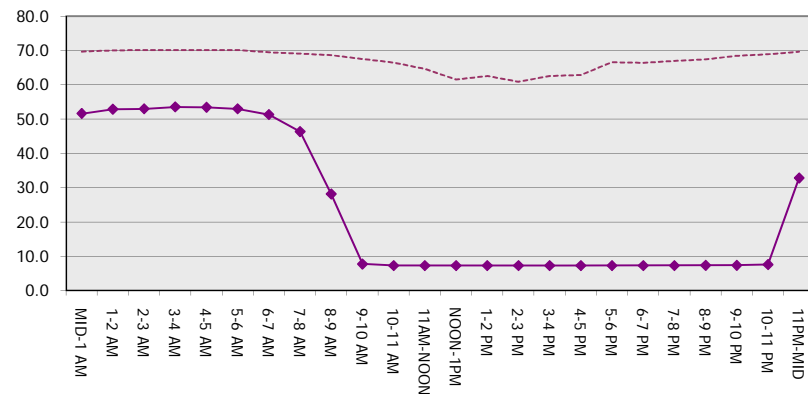
**Main Route Average Delay Per Vehicle (Minutes)**



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



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



<b>USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)</b> <b>CONTINUOUS (24 HOUR) 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**

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	1511	0.0	1500	1511	0	2.10	26	68.9	30.4	30.8
1-2 AM	957	0.0	1500	957	0	0.61	0	69.6	50.7	41.9
2-3 AM	830	0.0	1500	830	0	0.57	0	69.7	51.7	42.3
3-4 AM	579	0.0	1500	579	0	0.54	0	70.0	52.5	43.2
4-5 AM	487	0.0	1500	487	0	0.53	0	70.1	52.8	43.5
5-6 AM	699	0.0	1500	699	0	0.55	0	69.9	52.2	42.8
6-7 AM	885	0.0	1500	885	0	0.57	0	69.6	51.5	42.1
7-8 AM	1253	0.0	1499	1253	0	0.77	0	69.2	47.1	37.0
8-9 AM	1615	0.0	1499	1615	0	1.91	32	68.7	31.9	31.1
9-10 AM	2400	0.0	1500	1863	536	14.66+	369	67.8	8.1	30.8
10-11 AM	2744	0.0	1499	1467	1277	17.09+	419	67.3	7.3	30.8
11AM-NOON	3285	0.0	1499	1490	1795	17.17+	422	66.6	7.3	30.8
NOON-1PM	3708	0.0	1499	1500	2208	17.17+	423	65.5	7.3	30.8
1-2 PM	3683	0.0	1500	1500	2183	17.18+	423	65.7	7.3	30.8
2-3 PM	3655	0.0	1500	1500	2155	17.18+	423	65.9	7.3	30.8
3-4 PM	4056	0.0	1500	1500	2556	17.09+	423	63.2	7.3	30.8
4-5 PM	3782	0.0	1500	1500	2282	17.16+	423	65.0	7.3	30.8
5-6 PM	3597	0.0	1500	1500	2097	17.20+	423	66.3	7.3	30.8
6-7 PM	3616	0.0	1500	1500	2116	17.19+	423	66.1	7.3	30.8
7-8 PM	2961	0.0	1499	1482	1478	17.10+	420	67.1	7.3	30.8
8-9 PM	2570	0.0	1499	1495	1076	16.94+	415	67.6	7.3	30.8
9-10 PM	2110	0.0	1499	1499	611	16.91+	414	68.1	7.3	30.8
10-11 PM	1681	0.0	1500	1489	192	16.87+	412	68.6	7.4	30.8
11PM-MID	1101	0.0	1499	1101	0	7.68	220	69.4	12.8	34.0

+ 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	0.0163
MAIN ROUTE WITH WORKS	0.0074
'DIVERSION'	0.0158

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$211,482
CONGESTED HOURS PER DAY*	14

\*Delays Exceeding User-Specified Maximum

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**AUGUST**

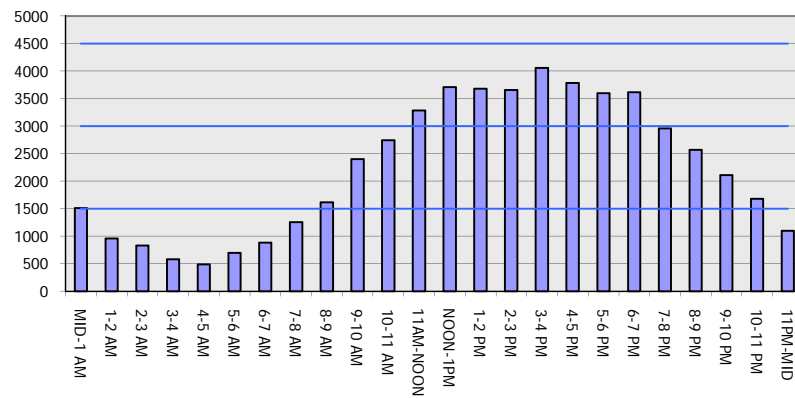
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**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT**

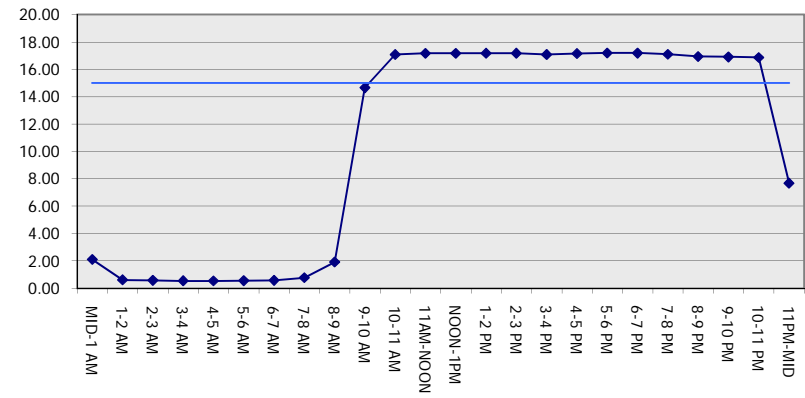
**SUNDAY**

**NORTHBOUND DIRECTION**

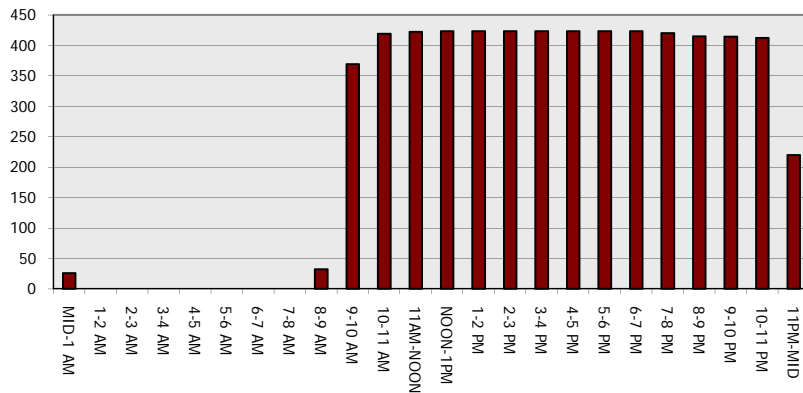
**Main Route - Traffic Demand (Vehicles Per Hour)**



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



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



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

