

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

OCTOBER
Analyzed for 2009
Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY 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	900	0.0	OFF	900	0	0.00	0	69.6	69.6	69.6	
1-2 AM	491	0.0	OFF	491	0	0.00	0	70.1	70.1	70.1	
2-3 AM	478	0.0	OFF	478	0	0.00	0	70.1	70.1	70.1	
3-4 AM	349	0.0	OFF	349	0	0.00	0	70.2	70.2	70.2	
4-5 AM	474	0.0	OFF	474	0	0.00	0	70.2	70.2	70.2	
5-6 AM	906	0.0	OFF	906	0	0.00	0	69.6	69.6	69.6	
6-7 AM	1845	0.0	OFF	1845	0	0.00	0	68.4	68.4	68.4	
7-8 AM	2484	0.0	OFF	2484	0	0.00	0	67.6	67.6	67.6	
8-9 AM	3295	0.0	1999	2577	718	12.80+	433	66.6	9.8	27.9	
9-10 AM	3459	0.0	1999	1998	1461	17.41+	574	66.4	8.3	27.9	
10-11 AM	4030	0.0	1999	2000	2030	17.46+	580	63.3	8.3	27.9	
11AM-NOON	4633	0.0	1999	2000	2633	17.28+	580	59.2	8.3	27.9	
NOON-1PM	4724	0.0	1999	2000	2724	17.25+	580	58.6	8.3	27.9	
1-2 PM	4384	0.0	2000	2000	2384	17.36+	580	60.9	8.3	27.9	
2-3 PM	4629	0.0	2000	2000	2629	17.28+	580	59.2	8.3	27.9	
3-4 PM	4460	0.0	1999	2000	2460	17.33+	580	60.4	8.3	27.9	
4-5 PM	4713	0.0	1999	2000	2713	17.25+	580	58.7	8.3	27.9	
5-6 PM	4111	0.0	2000	2000	2111	17.44+	580	62.8	8.3	27.9	
6-7 PM	3886	0.0	OFF	3886	0	0.91	78	64.3	43.9	43.9	
7-8 PM	2980	0.0	OFF	2980	0	0.00	0	67.0	67.0	67.0	
8-9 PM	2194	0.0	OFF	2194	0	0.00	0	68.0	68.0	68.0	
9-10 PM	2127	0.0	OFF	2127	0	0.00	0	68.1	68.1	68.1	
10-11 PM	1894	0.0	OFF	1894	0	0.00	0	68.4	68.4	68.4	
11PM-MID	1314	0.0	OFF	1314	0	0.00	0	69.1	69.1	69.1	

"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	0.0216
MAIN ROUTE WITH WORKS	0.0130
'DIVERSION'	0.0169
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$199,098
CONGESTED HOURS PER DAY*	10

*Delays Exceeding User-Specified Maximum

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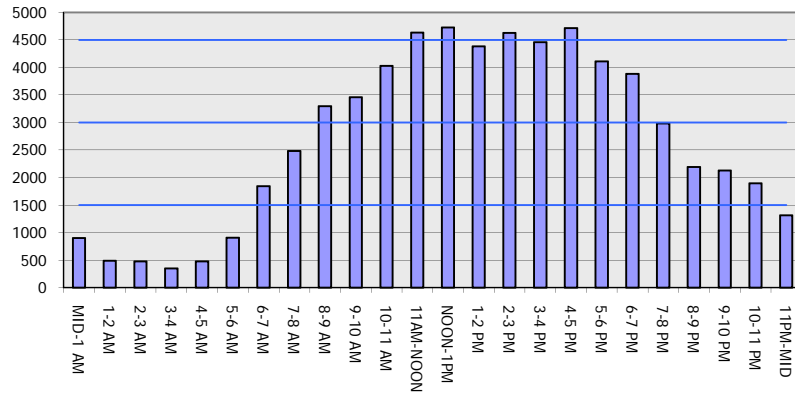
OCTOBER

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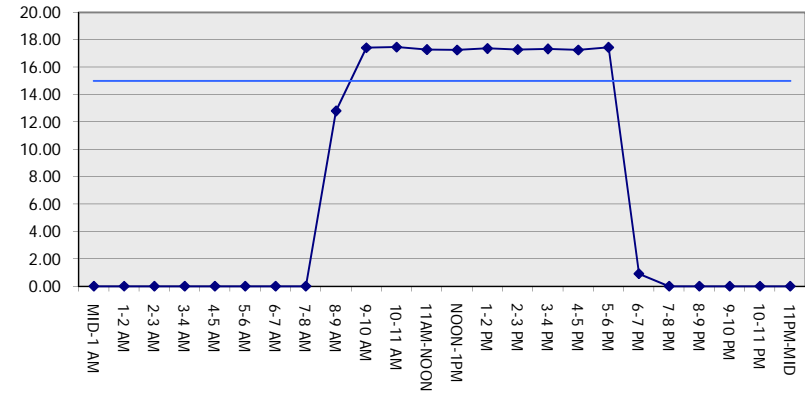
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SATURDAY SOUTHBOUND DIRECTION

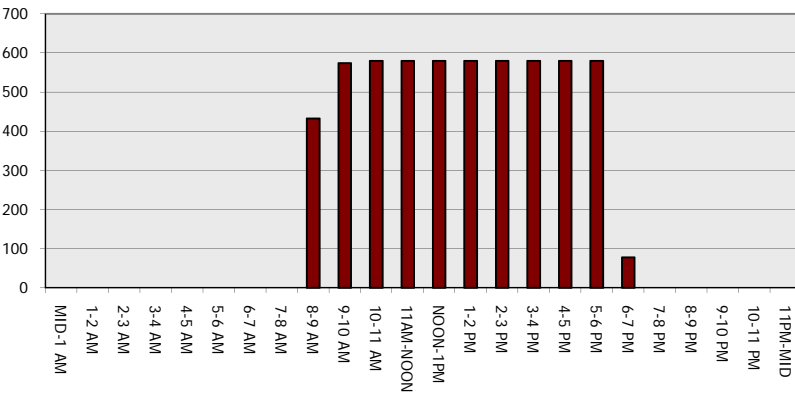
Main Route - Traffic Demand (Vehicles Per Hour)



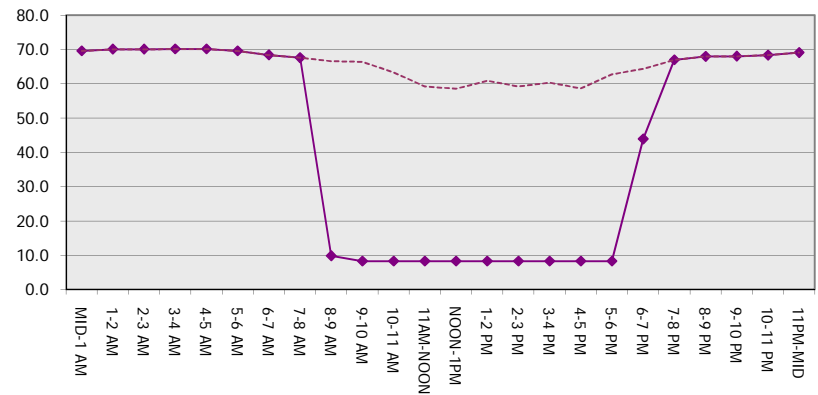
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT

SATURDAY 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	1256	0.0	OFF	1256	0	0.00	0	69.2	69.2	69.2
1-2 AM	895	0.0	OFF	895	0	0.00	0	69.6	69.6	69.6
2-3 AM	836	0.0	OFF	836	0	0.00	0	69.7	69.7	69.7
3-4 AM	681	0.0	OFF	681	0	0.00	0	69.9	69.9	69.9
4-5 AM	839	0.0	OFF	839	0	0.00	0	69.7	69.7	69.7
5-6 AM	1357	0.0	OFF	1357	0	0.00	0	69.1	69.1	69.1
6-7 AM	1928	0.0	OFF	1928	0	0.00	0	68.3	68.3	68.3
7-8 AM	2522	0.0	OFF	2522	0	0.00	0	67.6	67.6	67.6
8-9 AM	3118	0.0	1999	2514	604	11.61+	405	66.9	10.6	27.9
9-10 AM	3826	0.0	2000	2025	1801	17.43+	577	64.7	8.3	27.9
10-11 AM	4259	0.0	2000	2000	2259	17.39+	580	61.8	8.3	27.9
11AM-NOON	4334	0.0	2000	2000	2334	17.37+	580	61.2	8.3	27.9
NOON-1PM	4494	0.0	2000	2000	2494	17.32+	580	60.2	8.3	27.9
1-2 PM	4335	0.0	2000	2000	2335	17.37+	580	61.2	8.3	27.9
2-3 PM	4736	0.0	2000	2000	2736	17.24+	580	58.5	8.3	27.9
3-4 PM	4465	0.0	2000	2000	2465	17.33+	580	60.4	8.3	27.9
4-5 PM	4466	0.0	1999	2000	2466	17.33+	580	60.4	8.3	27.9
5-6 PM	4065	0.0	2000	2001	2064	17.45+	580	63.1	8.3	27.9
6-7 PM	3428	0.0	OFF	3428	0	0.65	56	66.4	49.5	49.5
7-8 PM	3061	0.0	OFF	3061	0	0.00	0	66.9	66.9	66.9
8-9 PM	2472	0.0	OFF	2472	0	0.00	0	67.7	67.7	67.7
9-10 PM	2445	0.0	OFF	2445	0	0.00	0	67.7	67.7	67.7
10-11 PM	2492	0.0	OFF	2492	0	0.00	0	67.6	67.6	67.6
11PM-MID	1887	0.0	OFF	1887	0	0.00	0	68.4	68.4	68.4

"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	0.0228
MAIN ROUTE WITH WORKS	0.0142
'DIVERSION'	0.0167

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$196,549
CONGESTED HOURS PER DAY*	10

*Delays Exceeding User-Specified Maximum

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**GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT
SATURDAY NORTHBOUND DIRECTION**

