

USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY) NIGHTTIME 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)	OCTOBER
	Analyzed for 2009 Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

MON-THUR 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	584	0.0	1500	584	0	0.70	8	70.0	49.0	43.2	
1-2 AM	431	0.0	1500	431	0	0.53	0	70.2	53.0	43.8	
2-3 AM	386	0.0	1500	386	0	0.52	0	70.2	53.2	44.0	
3-4 AM	464	0.0	1500	464	0	0.53	0	70.2	52.9	43.7	
4-5 AM	835	0.0	1500	835	0	0.57	0	69.7	51.7	42.3	
5-6 AM	2366	0.0	OFF	2366	0	0.00	0	67.8	67.8	67.8	
6-7 AM	5192	0.0	OFF	5192	0	0.00	0	55.4	55.4	55.4	
7-8 AM	5750	0.0	OFF	5750	0	0.00	0	51.5	51.5	51.5	
8-9 AM	5296	0.0	OFF	5296	0	0.00	0	54.6	54.6	54.6	
9-10 AM	4237	0.0	OFF	4237	0	0.00	0	61.9	61.9	61.9	
10-11 AM	3993	0.0	OFF	3993	0	0.00	0	63.6	63.6	63.6	
11AM-NOON	4247	0.0	OFF	4247	0	0.00	0	61.9	61.9	61.9	
NOON-1PM	4402	0.0	OFF	4402	0	0.00	0	60.8	60.8	60.8	
1-2 PM	4262	0.0	OFF	4262	0	0.00	0	61.7	61.7	61.7	
2-3 PM	5100	0.0	OFF	5100	0	0.00	0	56.0	56.0	56.0	
3-4 PM	4985	0.0	OFF	4985	0	0.00	0	56.8	56.8	56.8	
4-5 PM	4209	0.0	OFF	4209	0	0.00	0	62.1	62.1	62.1	
5-6 PM	3921	0.0	OFF	3921	0	0.00	0	64.1	64.1	64.1	
6-7 PM	4185	0.0	OFF	4185	0	0.00	0	62.3	62.3	62.3	
7-8 PM	2842	0.0	1499	1553	1290	16.45+	410	67.2	7.5	36.6	
8-9 PM	2212	0.0	1504	1909	303	13.00+	335	68.0	8.7	30.7	
9-10 PM	1965	0.0	1499	1491	474	16.89+	413	68.3	7.3	30.8	
10-11 PM	1537	0.0	1499	1430	107	16.33+	398	68.8	7.5	30.8	
11PM-MID	1238	0.0	1499	1238	0	11.05	277	69.2	9.6	32.1	

"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	0.0226
MAIN ROUTE WITH WORKS	0.0212
'DIVERSION'	0.0015
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$34,040
CONGESTED HOURS PER DAY*	4

*Delays Exceeding User-Specified Maximum

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

OCTOBER

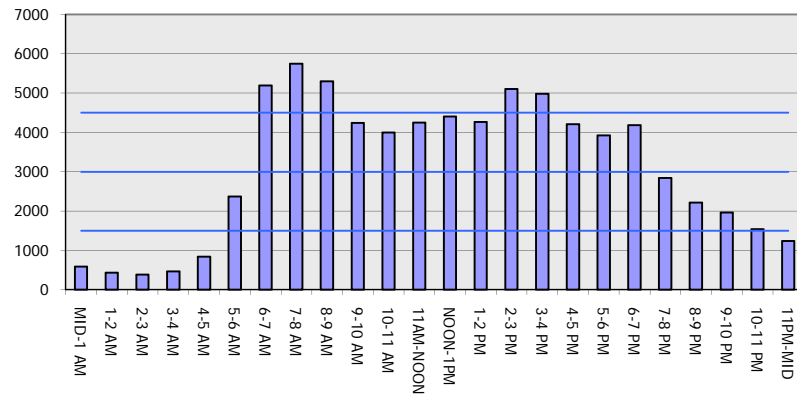
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GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

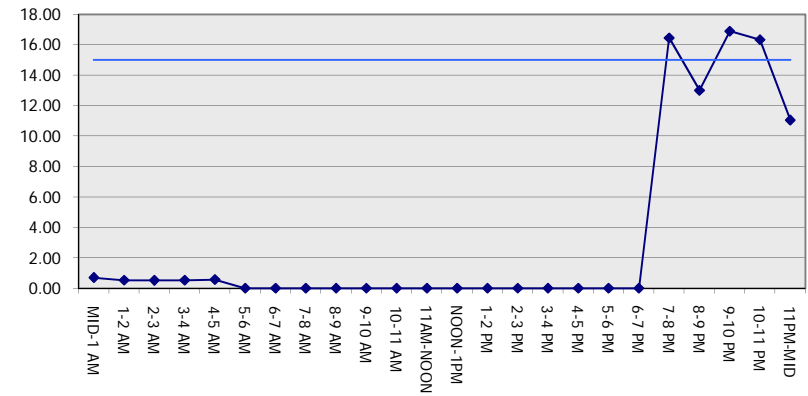
MON-THUR

SOUTHBOUND DIRECTION

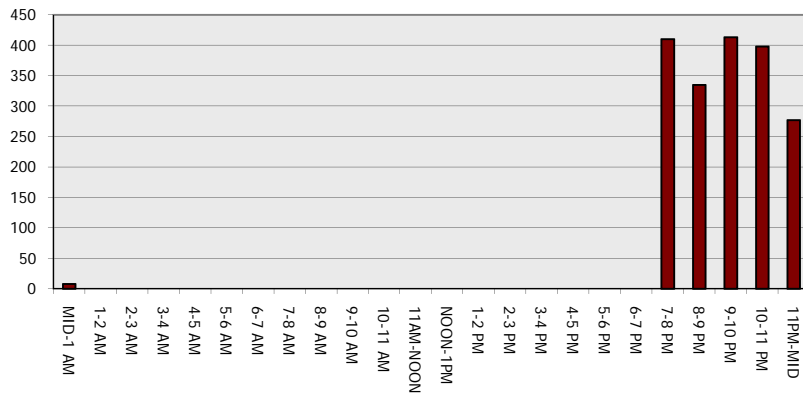
Main Route - Traffic Demand (Vehicles Per Hour)



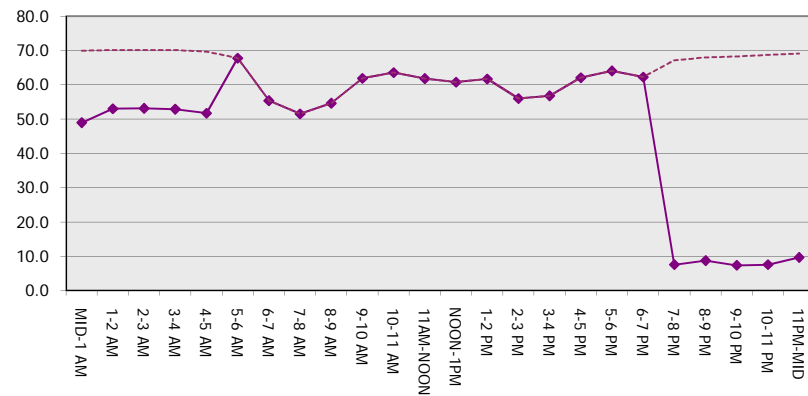
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT	
MON-THUR	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	782	0.0	1500	782	0	1.22	42	69.7	39.9	42.2
1-2 AM	627	0.0	1500	627	0	0.55	0	69.9	52.4	43.0
2-3 AM	591	0.0	1500	591	0	0.54	0	70.0	52.5	43.2
3-4 AM	662	0.0	1500	662	0	0.55	0	69.9	52.3	42.9
4-5 AM	1228	0.0	1499	1228	0	0.96	5	69.2	43.8	36.4
5-6 AM	3174	0.0	OFF	3174	0	0.00	0	66.8	66.8	66.8
6-7 AM	5320	0.0	OFF	5320	0	0.00	0	54.5	54.5	54.5
7-8 AM	6186	0.0	OFF	6186	0	0.00	0	48.6	48.6	48.6
8-9 AM	5442	0.0	OFF	5442	0	0.00	0	53.7	53.7	53.7
9-10 AM	4225	0.0	OFF	4225	0	0.00	0	62.0	62.0	62.0
10-11 AM	3969	0.0	OFF	3969	0	0.00	0	63.7	63.7	63.7
11AM-NOON	4174	0.0	OFF	4174	0	0.00	0	62.3	62.3	62.3
NOON-1PM	4359	0.0	OFF	4359	0	0.00	0	61.1	61.1	61.1
1-2 PM	4393	0.0	OFF	4393	0	0.00	0	60.9	60.9	60.9
2-3 PM	5218	0.0	OFF	5218	0	0.00	0	55.2	55.2	55.2
3-4 PM	5941	0.0	OFF	5941	0	0.00	0	50.3	50.3	50.3
4-5 PM	6383	0.0	OFF	6383	0	0.00	0	47.3	47.3	47.3
5-6 PM	6184	0.0	OFF	6184	0	0.00	0	48.6	48.6	48.6
6-7 PM	4585	0.0	OFF	4585	0	0.00	0	59.6	59.6	59.6
7-8 PM	3151	0.0	1499	1578	1573	17.32+	433	66.8	7.3	36.5
8-9 PM	2690	0.0	1499	1635	1055	15.01+	392	67.4	8.1	35.7
9-10 PM	2538	0.0	1499	1739	798	16.15+	398	67.6	7.6	30.8
10-11 PM	1948	0.0	1499	1485	462	16.87+	413	68.3	7.3	30.8
11PM-MID	1334	0.0	1499	1293	41	14.49+	355	69.1	8.1	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	0.0258
MAIN ROUTE WITH WORKS	0.0238
'DIVERSION'	0.0028

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$43,693
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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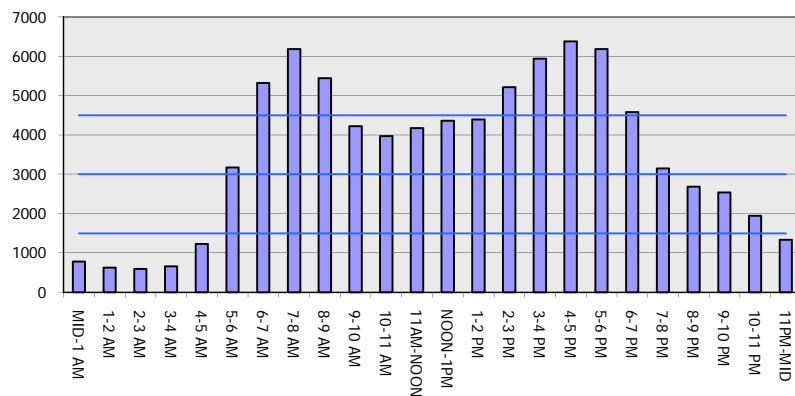
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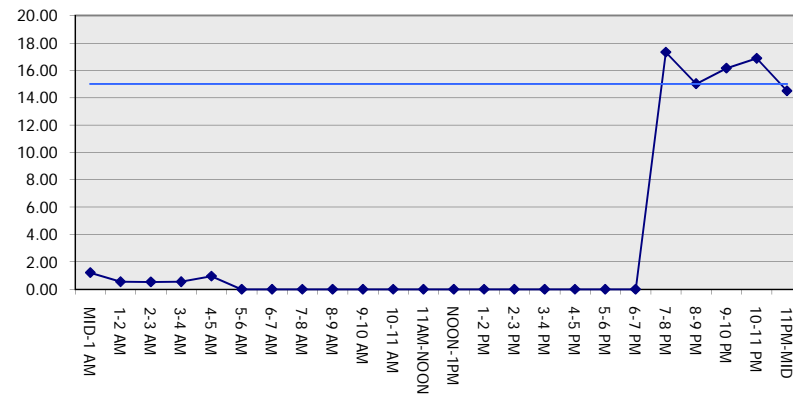
MON-THUR

NORTHBOUND DIRECTION

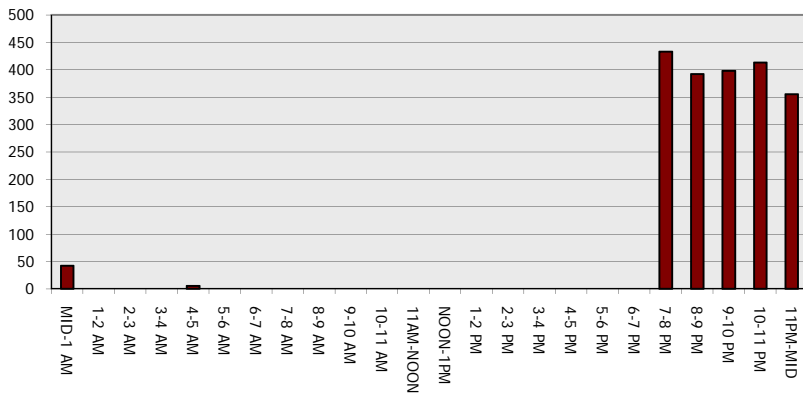
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

