

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
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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	728	0.0	1499	728	0	2.12	114	69.8	30.9	41.2	
1-2 AM	482	0.0	1500	482	0	0.53	0	70.1	52.8	43.6	
2-3 AM	423	0.0	1500	423	0	0.52	0	70.2	53.0	43.8	
3-4 AM	495	0.0	1500	495	0	0.53	0	70.1	52.8	43.5	
4-5 AM	814	0.0	1500	814	0	0.57	0	69.7	51.8	42.4	
5-6 AM	2260	0.0	OFF	2260	0	0.00	0	67.9	67.9	67.9	
6-7 AM	4962	0.0	OFF	4962	0	0.00	0	56.9	56.9	56.9	
7-8 AM	5760	0.0	OFF	5760	0	0.00	0	51.5	51.5	51.5	
8-9 AM	5046	0.0	OFF	5046	0	0.00	0	56.4	56.4	56.4	
9-10 AM	4449	0.0	OFF	4449	0	0.00	0	60.5	60.5	60.5	
10-11 AM	3419	0.0	OFF	3419	0	0.00	0	66.5	66.5	66.5	
11AM-NOON	4665	0.0	OFF	4665	0	0.00	0	59.0	59.0	59.0	
NOON-1PM	4892	0.0	OFF	4892	0	0.00	0	57.4	57.4	57.4	
1-2 PM	5002	0.0	OFF	5002	0	0.00	0	56.7	56.7	56.7	
2-3 PM	5664	0.0	OFF	5664	0	0.00	0	52.2	52.2	52.2	
3-4 PM	4713	0.0	OFF	4713	0	0.00	0	58.7	58.7	58.7	
4-5 PM	4548	0.0	OFF	4548	0	0.00	0	59.8	59.8	59.8	
5-6 PM	4309	0.0	OFF	4309	0	0.00	0	61.4	61.4	61.4	
6-7 PM	4192	0.0	OFF	4192	0	0.00	0	62.2	62.2	62.2	
7-8 PM	3397	0.0	1499	1579	1818	17.33+	434	66.5	7.3	36.5	
8-9 PM	2549	0.0	1499	1660	889	14.77+	384	67.6	8.1	35.5	
9-10 PM	2447	0.0	1499	1688	759	16.27+	400	67.7	7.5	30.8	
10-11 PM	1861	0.0	1500	1499	362	16.91+	414	68.4	7.3	30.8	
11PM-MID	1559	0.0	1499	1458	101	16.73+	409	68.8	7.4	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	0.0238
MAIN ROUTE WITH WORKS	0.0219
'DIVERSION'	0.0028
<small>PIA: Personal Injury Accidents</small>	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$46,466
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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

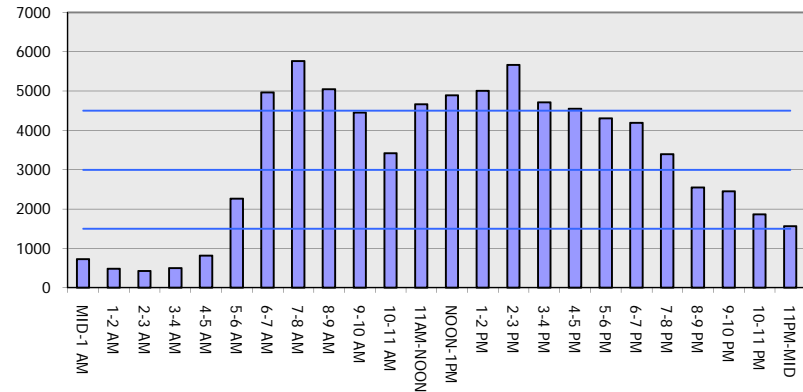
OCTOBER

Analyzed for 2009
Construction Season

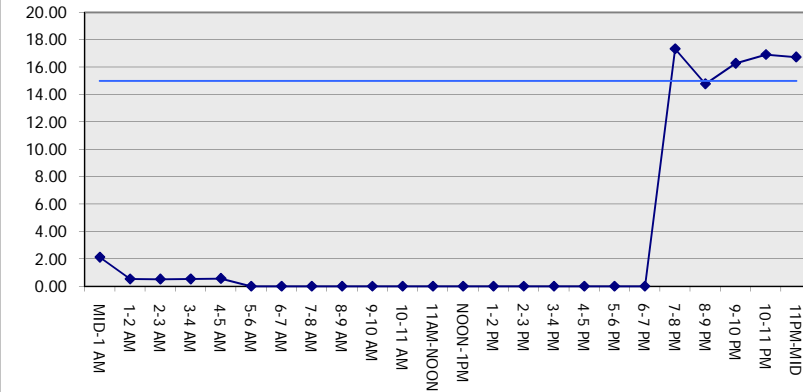
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY SOUTHBOUND DIRECTION

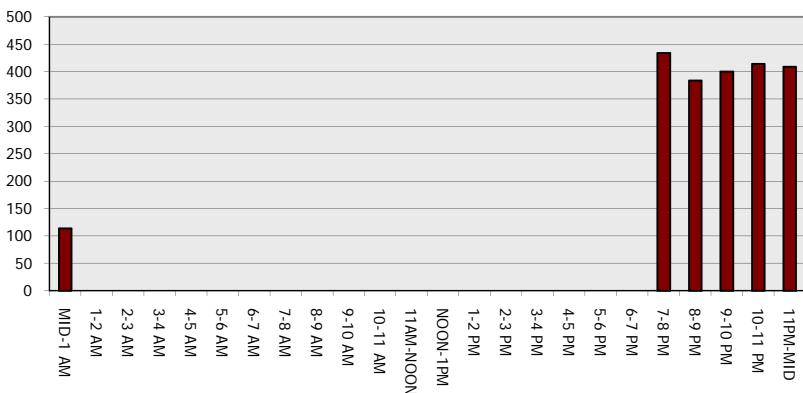
Main Route - Traffic Demand (Vehicles Per Hour)



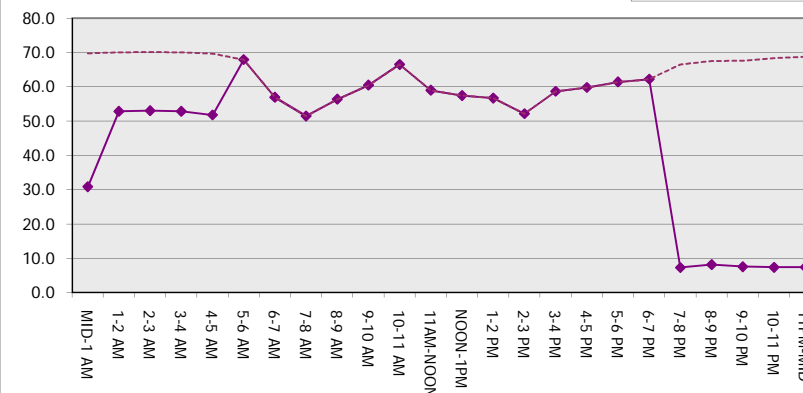
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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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	990	0.0	1499	990	0	4.56	195	69.5	19.1	36.6
1-2 AM	761	0.0	1500	761	0	0.56	0	69.8	52.0	42.5
2-3 AM	703	0.0	1500	703	0	0.55	0	69.9	52.2	42.7
3-4 AM	746	0.0	1500	746	0	0.56	0	69.8	52.0	42.6
4-5 AM	1308	0.0	1499	1308	0	1.16	13	69.1	40.6	36.2
5-6 AM	3143	0.0	OFF	3143	0	0.01	0	66.8	66.6	66.6
6-7 AM	5283	0.0	OFF	5283	0	0.00	0	54.8	54.8	54.8
7-8 AM	6297	0.0	OFF	6297	0	0.00	0	47.8	47.8	47.8
8-9 AM	5138	0.0	OFF	5138	0	0.00	0	55.8	55.8	55.8
9-10 AM	4463	0.0	OFF	4463	0	0.00	0	60.4	60.4	60.4
10-11 AM	3620	0.0	OFF	3620	0	0.00	0	66.1	66.1	66.1
11AM-NOON	4865	0.0	OFF	4865	0	0.00	0	57.6	57.6	57.6
NOON-1PM	5199	0.0	OFF	5199	0	0.00	0	55.3	55.3	55.3
1-2 PM	5464	0.0	OFF	5464	0	0.00	0	53.5	53.5	53.5
2-3 PM	6088	0.0	OFF	6088	0	0.00	0	49.2	49.2	49.2
3-4 PM	5999	0.0	OFF	5999	0	0.00	0	49.9	49.9	49.9
4-5 PM	6494	0.0	OFF	6494	0	0.00	0	46.5	46.5	46.5
5-6 PM	6468	0.0	OFF	6468	0	0.00	0	46.7	46.7	46.7
6-7 PM	4330	0.0	OFF	4330	0	0.00	0	61.3	61.3	61.3
7-8 PM	3669	0.0	1499	1579	2089	17.32+	434	65.8	7.3	36.5
8-9 PM	2919	0.0	1499	1670	1250	15.08+	392	67.1	8.0	35.5
9-10 PM	2996	0.0	1499	1605	1390	16.85+	414	67.0	7.3	30.9
10-11 PM	2349	0.0	1500	1512	837	16.96+	415	67.8	7.3	30.8
11PM-MID	1881	0.0	1500	1540	341	16.73+	409	68.4	7.4	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	0.0276
MAIN ROUTE WITH WORKS	0.0250
'DIVERSION'	0.0041

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$55,924
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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 NIGHTTIME 2 LANE CLOSURE
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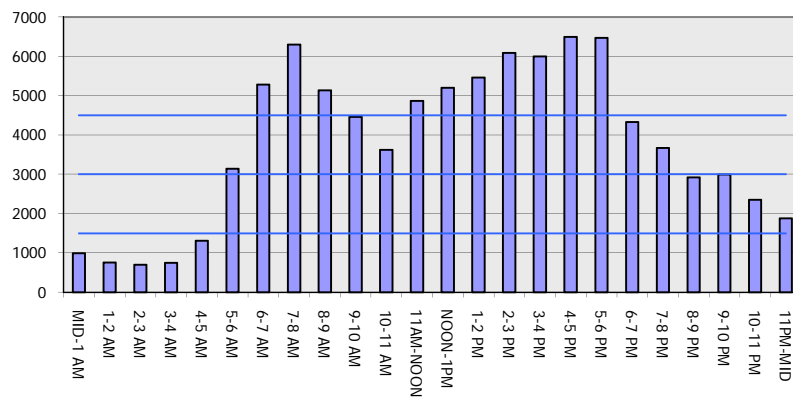
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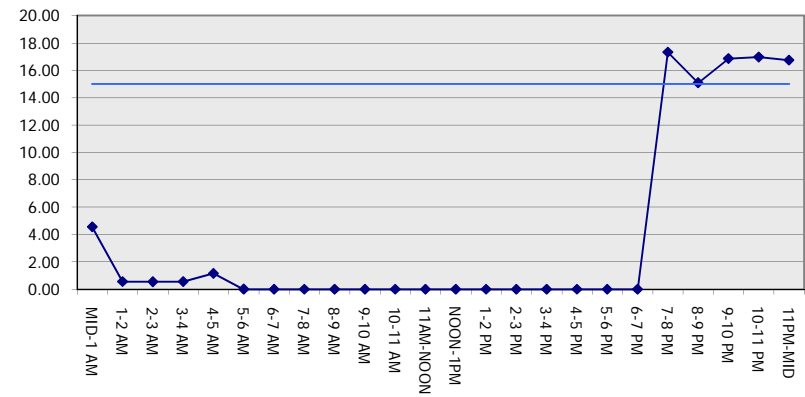
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY NORTHBOUND DIRECTION

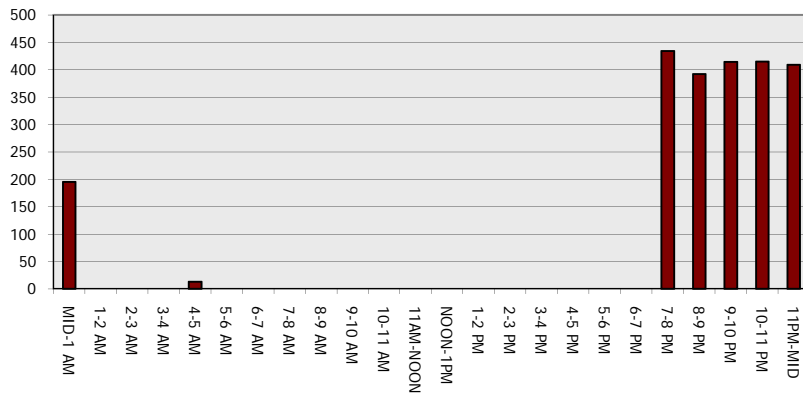
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

