

**USH 45: CTH E TO STH 190 (MILWAUKEE COUNTY)
OFF-PEAK DAY 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

OCTOBER
Analyzed for 2009
Construction Season

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	OFF	728	0	0.00	0	69.8	69.8	69.8	
1-2 AM	482	0.0	OFF	482	0	0.00	0	70.1	70.1	70.1	
2-3 AM	423	0.0	OFF	423	0	0.00	0	70.2	70.2	70.2	
3-4 AM	495	0.0	OFF	495	0	0.00	0	70.1	70.1	70.1	
4-5 AM	814	0.0	OFF	814	0	0.00	0	69.7	69.7	69.7	
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	1499	1578	1841	17.31+	433	66.5	7.3	36.5	
11AM-NOON	4665	0.0	1499	1961	2705	15.72+	406	59.0	7.6	34.1	
NOON-1PM	4892	0.0	1499	1500	3392	16.77+	423	57.4	7.3	32.4	
1-2 PM	5002	0.0	1500	1500	3502	16.74+	423	56.7	7.3	32.4	
2-3 PM	5664	0.0	1500	1500	4164	16.53+	423	52.2	7.3	32.4	
3-4 PM	4713	0.0	OFF	4713	0	1.26	112	58.7	35.6	35.6	
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	OFF	3397	0	0.00	0	66.5	66.5	66.5	
8-9 PM	2549	0.0	OFF	2549	0	0.00	0	67.6	67.6	67.6	
9-10 PM	2447	0.0	OFF	2447	0	0.00	0	67.7	67.7	67.7	
10-11 PM	1861	0.0	OFF	1861	0	0.00	0	68.4	68.4	68.4	
11PM-MID	1559	0.0	OFF	1559	0	0.00	0	68.8	68.8	68.8	

"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	0.0185
'DIVERSION'	0.0109
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$70,551
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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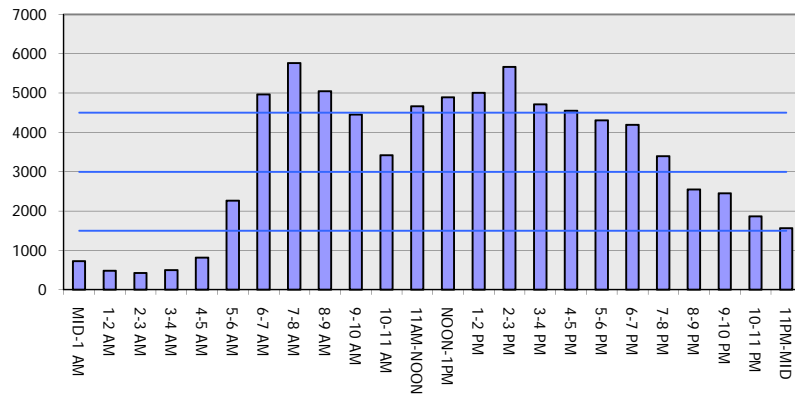
OCTOBER

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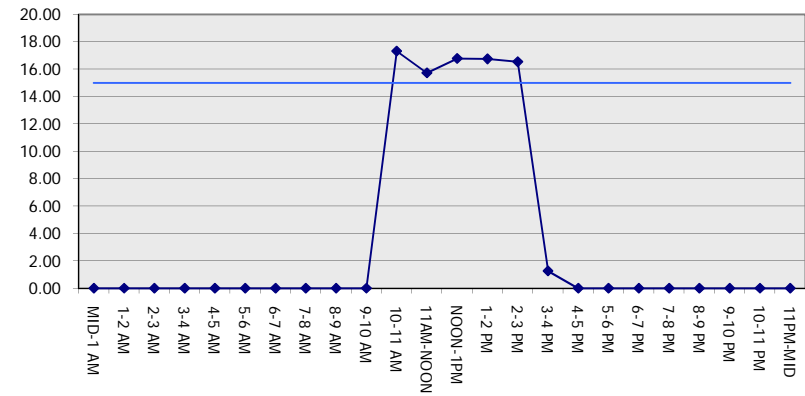
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY SOUTHBOUND DIRECTION

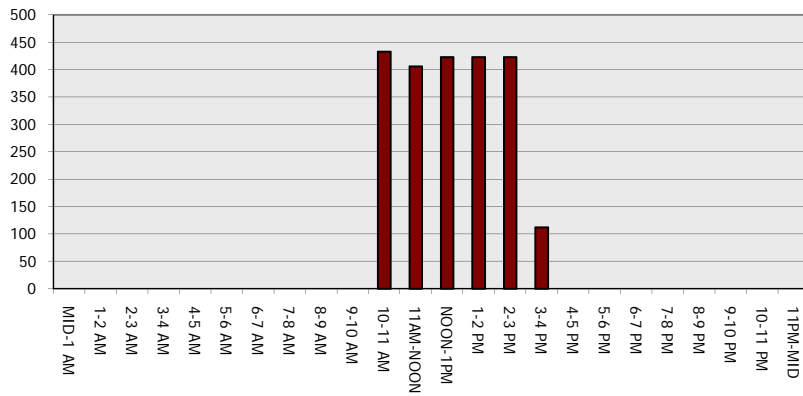
Main Route - Traffic Demand (Vehicles Per Hour)



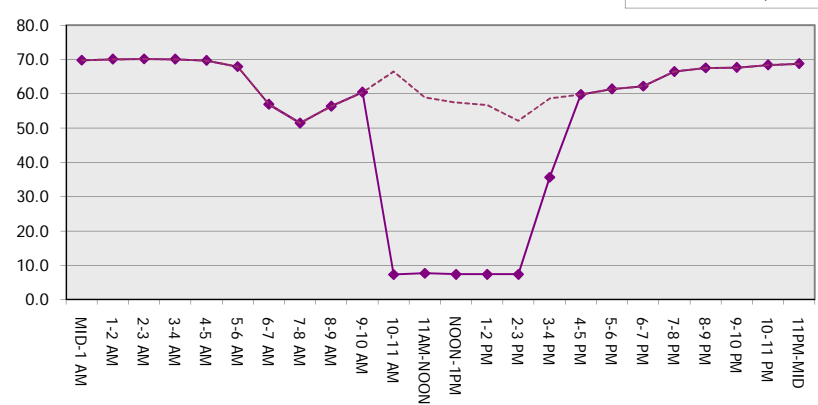
Main Route Average Delay Per Vehicle (Minutes)



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	OFF	990	0	0.00	0	69.5	69.5	69.5
1-2 AM	761	0.0	OFF	761	0	0.00	0	69.8	69.8	69.8
2-3 AM	703	0.0	OFF	703	0	0.00	0	69.9	69.9	69.9
3-4 AM	746	0.0	OFF	746	0	0.00	0	69.8	69.8	69.8
4-5 AM	1308	0.0	OFF	1308	0	0.00	0	69.1	69.1	69.1
5-6 AM	3143	0.0	OFF	3143	0	0.00	0	66.8	66.8	66.8
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	1499	1579	2042	17.31+	434	66.1	7.3	36.5
11AM-NOON	4865	0.0	1499	2004	2861	15.81+	408	57.6	7.6	33.7
NOON-1PM	5199	0.0	1499	1478	3721	16.51+	422	55.3	7.4	34.7
1-2 PM	5464	0.0	1499	1500	3964	16.52+	423	53.5	7.3	33.8
2-3 PM	6088	0.0	1500	1500	4588	16.29+	423	49.2	7.3	33.8
3-4 PM	5999	0.0	OFF	5999	0	5.61	560	49.9	14.5	14.5
4-5 PM	6494	0.0	OFF	6494	0	7.91	807	46.5	11.0	11.0
5-6 PM	6468	0.0	OFF	6468	0	12.72	1287	46.7	7.5	7.5
6-7 PM	4330	0.0	OFF	4330	0	7.31	693	61.3	12.4	12.4
7-8 PM	3669	0.0	OFF	3669	0	0.00	0	65.8	65.8	65.8
8-9 PM	2919	0.0	OFF	2919	0	0.00	0	67.1	67.1	67.1
9-10 PM	2996	0.0	OFF	2996	0	0.00	0	67.0	67.0	67.0
10-11 PM	2349	0.0	OFF	2349	0	0.00	0	67.8	67.8	67.8
11PM-MID	1881	0.0	OFF	1881	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	0.0276
MAIN ROUTE WITH WORKS	0.0219
'DIVERSION'	0.0120

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$108,845
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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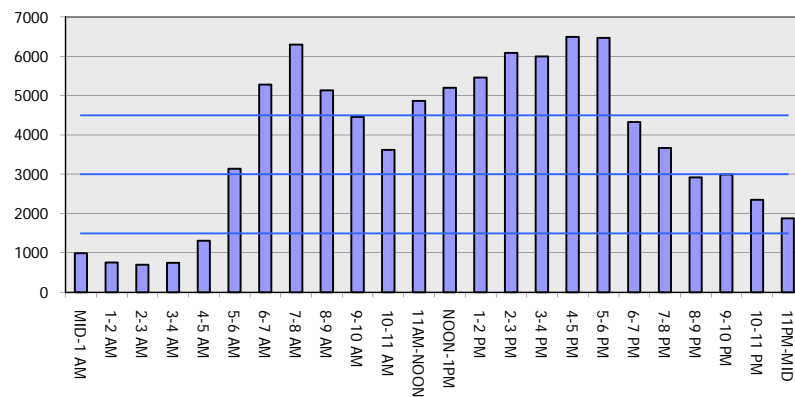
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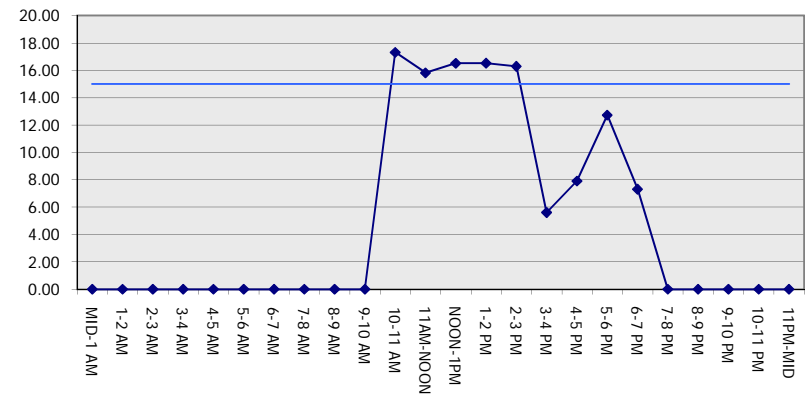
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FRIDAY NORTHBOUND DIRECTION

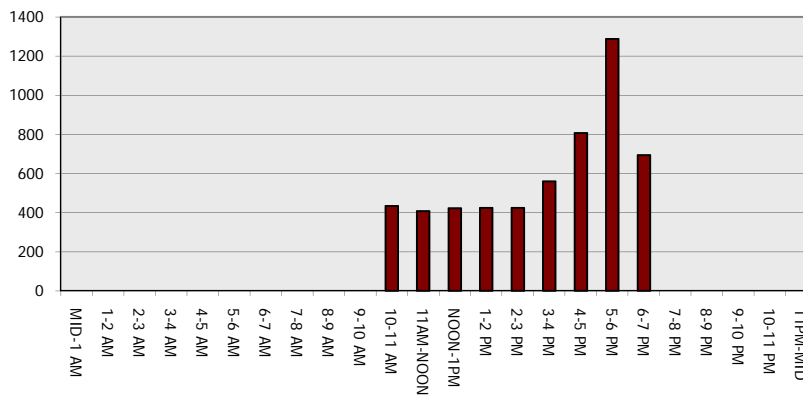
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

