

USH 41/45: CTH Q TO STH 145 (WAUKESHA AND MILWAUKEE COUNTIES) 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	431	0.0	OFF	431	0	0.00	0	70.2	70.2	70.2
1-2 AM	281	0.0	OFF	281	0	0.00	0	70.2	70.2	70.2
2-3 AM	307	0.0	OFF	307	0	0.00	0	70.2	70.2	70.2
3-4 AM	419	0.0	OFF	419	0	0.00	0	70.2	70.2	70.2
4-5 AM	818	0.0	OFF	818	0	0.00	0	69.7	69.7	69.7
5-6 AM	2735	0.0	OFF	2735	0	0.00	0	67.3	67.3	67.3
6-7 AM	5613	0.0	OFF	5613	0	0.00	0	52.5	52.5	52.5
7-8 AM	6113	0.0	OFF	6113	0	0.00	0	49.1	49.1	49.1
8-9 AM	4053	0.0	OFF	4053	0	0.00	0	63.2	63.2	63.2
9-10 AM	3216	0.0	OFF	3216	0	0.00	0	66.8	66.8	66.8
10-11 AM	3174	0.0	1499	1550	1624	16.45+	412	66.8	13.4	36.6
11AM-NOON	3268	0.0	1499	1627	1641	14.42+	379	66.7	14.8	36.0
NOON-1PM	3544	0.0	1499	1710	1835	15.66+	387	66.3	13.9	30.8
1-2 PM	3554	0.0	1500	1500	2054	16.22+	400	66.3	13.5	30.8
2-3 PM	3990	0.0	1500	1500	2490	16.04+	400	63.6	13.5	30.8
3-4 PM	4179	0.0	OFF	4179	0	0.61	41	62.3	54.8	54.8
4-5 PM	4181	0.0	OFF	4181	0	0.00	0	62.3	62.3	62.3
5-6 PM	3858	0.0	OFF	3858	0	0.00	0	64.5	64.5	64.5
6-7 PM	3307	0.0	OFF	3307	0	0.00	0	66.6	66.6	66.6
7-8 PM	2340	0.0	OFF	2340	0	0.00	0	67.8	67.8	67.8
8-9 PM	1801	0.0	OFF	1801	0	0.00	0	68.5	68.5	68.5
9-10 PM	1750	0.0	OFF	1750	0	0.00	0	68.6	68.6	68.6
10-11 PM	1421	0.0	OFF	1421	0	0.00	0	69.0	69.0	69.0
11PM-MID	1133	0.0	OFF	1133	0	0.00	0	69.3	69.3	69.3

"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	0.0479
MAIN ROUTE WITH WORKS	0.0403
'DIVERSION'	0.0163
<small>PIA: Personal Injury Accidents</small>	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$38,862
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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 OFF-PEAK DAY 2 LANE CLOSURE
 NO DIVERSION ROUTE (MAX QUEUE METHOD)**

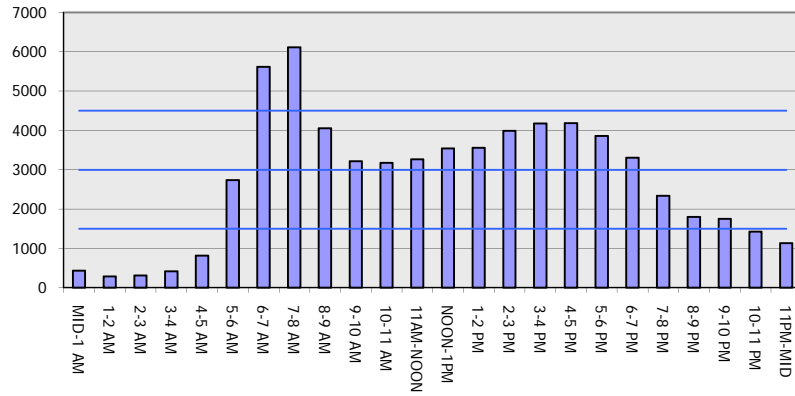
OCTOBER

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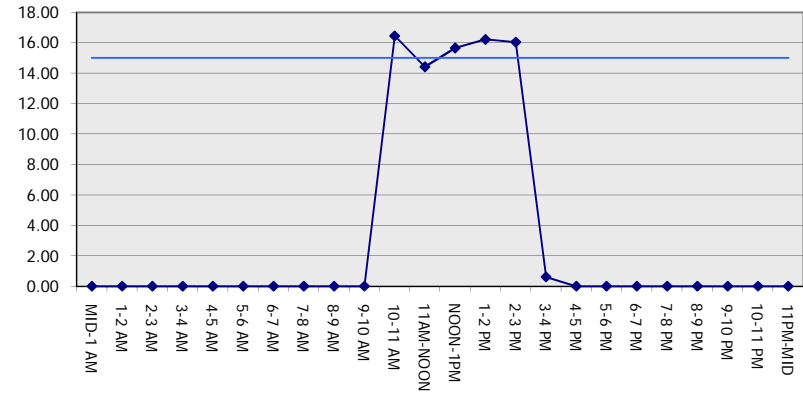
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY SOUTHBOUND DIRECTION

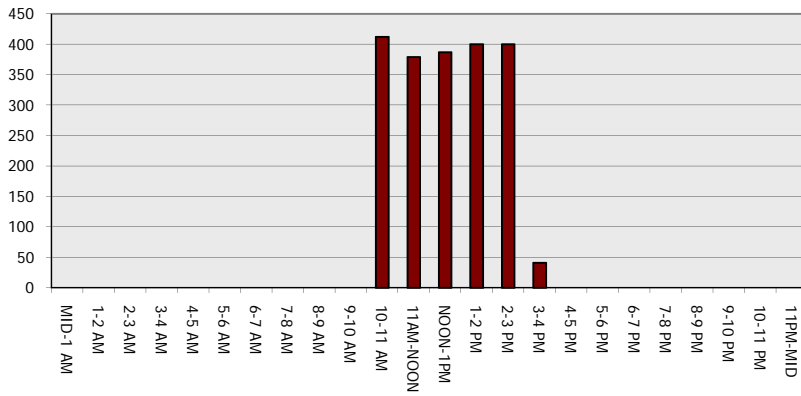
Main Route - Traffic Demand (Vehicles Per Hour)



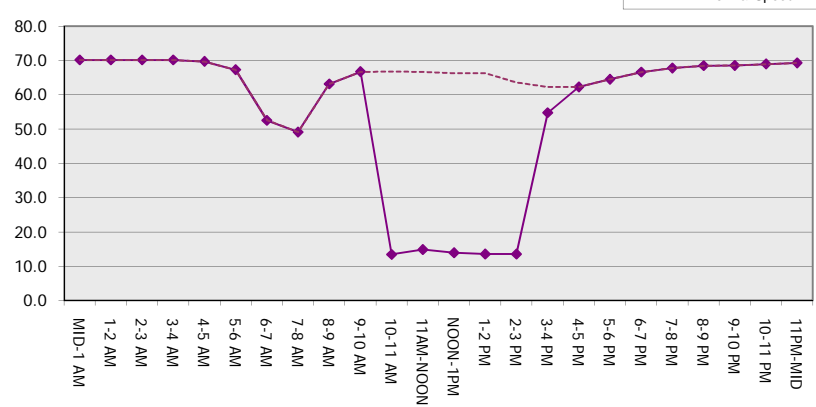
Main Route Average Delay Per Vehicle (Minutes)



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	519	0.0	OFF	519	0	0.00	0	70.1	70.1	70.1
1-2 AM	362	0.0	OFF	362	0	0.00	0	70.2	70.2	70.2
2-3 AM	345	0.0	OFF	345	0	0.00	0	70.2	70.2	70.2
3-4 AM	369	0.0	OFF	369	0	0.00	0	70.2	70.2	70.2
4-5 AM	724	0.0	OFF	724	0	0.00	0	69.9	69.9	69.9
5-6 AM	1729	0.0	OFF	1729	0	0.00	0	68.6	68.6	68.6
6-7 AM	2941	0.0	OFF	2941	0	0.00	0	67.1	67.1	67.1
7-8 AM	3181	0.0	OFF	3181	0	0.00	0	66.8	66.8	66.8
8-9 AM	2872	0.0	OFF	2872	0	0.00	0	67.2	67.2	67.2
9-10 AM	2809	0.0	OFF	2809	0	0.00	0	67.3	67.3	67.3
10-11 AM	3172	0.0	1499	1532	1639	15.95+	399	66.8	13.7	36.6
11AM-NOON	3665	0.0	1499	1585	2079	14.76+	387	65.8	14.5	36.2
NOON-1PM	3989	0.0	1499	1875	2114	15.20+	385	63.6	14.1	31.3
1-2 PM	4238	0.0	1500	1500	2738	15.86+	400	61.9	13.6	31.8
2-3 PM	5172	0.0	1500	1500	3672	15.35+	400	55.5	13.6	31.8
3-4 PM	6397	0.0	OFF	6397	0	6.59	691	47.1	22.2	22.2
4-5 PM	7251	0.0	OFF	7251	0	14.01	1514	41.3	13.4	13.4
5-6 PM	6002	0.0	OFF	6002	0	21.41	2141	49.9	10.2	10.2
6-7 PM	4275	0.0	OFF	4275	0	13.85	1279	61.7	15.0	15.0
7-8 PM	2744	0.0	OFF	2744	0	0.30	26	67.3	62.7	62.7
8-9 PM	2202	0.0	OFF	2202	0	0.00	0	68.0	68.0	68.0
9-10 PM	2192	0.0	OFF	2192	0	0.00	0	68.0	68.0	68.0
10-11 PM	1592	0.0	OFF	1592	0	0.00	0	68.7	68.7	68.7
11PM-MID	1146	0.0	OFF	1146	0	0.00	0	69.3	69.3	69.3

"OFF" INDICATES NO ROAD WORK (ALL LANES OPEN TO TRAFFIC) + INDICATES QUEUEING EXCEEDS USER-SPECIFIED MAXIMUM LIMIT
 WARNING: THE DEMAND FLOW IN ONE OR MORE HOURS EXCEEDS THE THEORETICAL CAPACITY OF THE MAIN ROUTE *WITHOUT* CONSTRUCTION

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

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

MAIN ROUTE WITHOUT WORKS	0.0511
MAIN ROUTE WITH WORKS	0.0417
'DIVERSION'	0.0207
PIA: Personal Injury Accidents	
ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$89,722
CONGESTED HOURS PER DAY*	5

*Delays Exceeding User-Specified Maximum

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OFF-PEAK DAY 2 LANE CLOSURE
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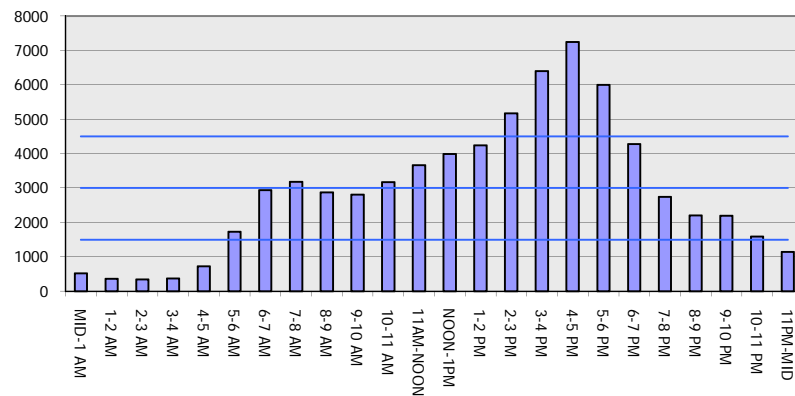
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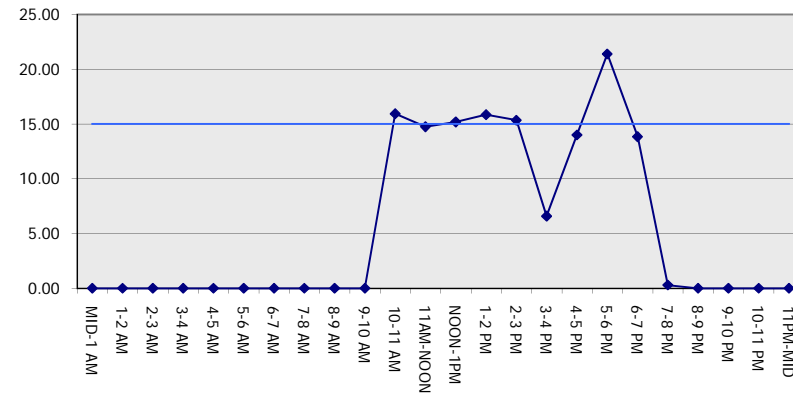
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FRIDAY NORTHBOUND DIRECTION

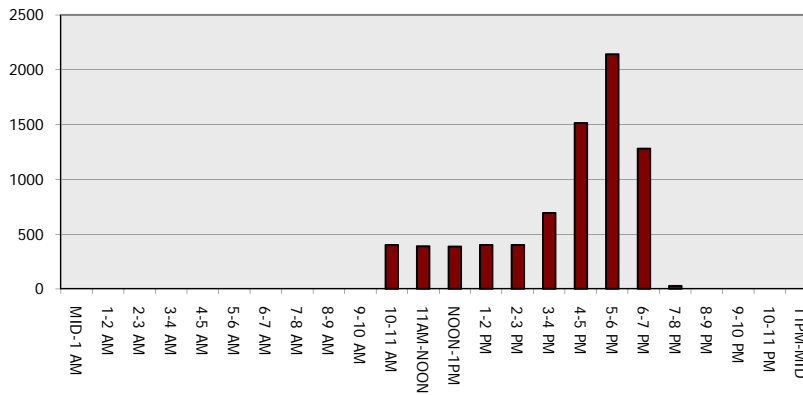
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

