

IH 94: MN 96 TO STH 35 N CONTINUOUS (24 HOUR) 2 LANE CLOSURE NO DIVERSION ROUTE (MAX QUEUE METHOD)	OCTOBER
	Analyzed for 2009 Construction Season

SUMMARY OF TRAFFIC MODEL OUTPUT

FRIDAY WESTBOUND 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	733	0.0	1499	733	0	4.43	279	69.8	14.8	38.1	
1-2 AM	633	0.0	1500	633	0	0.28	0	69.9	52.8	43.0	
2-3 AM	693	0.0	1500	693	0	0.28	0	69.9	52.7	42.8	
3-4 AM	803	0.0	1500	803	0	0.29	0	69.7	52.4	42.4	
4-5 AM	1215	0.0	1499	1215	0	0.38	0	69.2	48.0	37.4	
5-6 AM	2181	0.0	1499	2181	0	9.85	299	68.0	7.5	30.8	
6-7 AM	2540	0.0	1500	2064	475	40.98+	1064	67.6	4.1	30.8	
7-8 AM	2748	0.0	1499	1479	1268	47.06+	1219	67.3	3.9	30.8	
8-9 AM	2557	0.0	1499	1495	1061	46.62+	1207	67.6	4.0	30.8	
9-10 AM	2660	0.0	1499	1503	1158	46.72+	1210	67.4	4.0	30.8	
10-11 AM	3003	0.0	1499	1528	1475	47.69+	1236	67.0	3.9	30.8	
11AM-NOON	3371	0.0	1499	1500	1872	48.24+	1251	66.6	3.9	30.8	
NOON-1PM	3612	0.0	1499	1500	2112	48.23+	1251	66.2	3.9	30.8	
1-2 PM	4171	0.0	1499	1500	2671	48.04+	1251	62.3	3.9	30.8	
2-3 PM	4590	0.0	1499	1500	3090	47.89+	1251	59.5	3.9	30.8	
3-4 PM	4578	0.0	1499	1500	3078	47.89+	1251	59.6	3.9	30.8	
4-5 PM	4524	0.0	1499	1500	3024	47.91+	1251	59.9	3.9	30.8	
5-6 PM	4222	0.0	1499	1500	2722	48.02+	1251	62.0	3.9	30.8	
6-7 PM	3644	0.0	1499	1500	2144	48.22+	1251	66.0	3.9	30.8	
7-8 PM	3034	0.0	1499	1468	1566	47.96+	1243	66.9	3.9	30.8	
8-9 PM	2586	0.0	1499	1480	1106	46.76+	1211	67.5	4.0	30.8	
9-10 PM	1988	0.0	1499	1497	491	46.46+	1202	68.2	4.0	30.8	
10-11 PM	1570	0.0	1499	1479	91	46.20+	1194	68.8	4.0	30.8	
11PM-MID	968	0.0	1499	968	0	36.11	935	69.6	4.2	30.8	

+ 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	0.0100
MAIN ROUTE WITH WORKS	0.0017
'DIVERSION'	0.0108
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$611,459
CONGESTED HOURS PER DAY*	17

*Delays Exceeding User-Specified Maximum

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CONTINUOUS (24 HOUR) 2 LANE CLOSURE
NO DIVERSION ROUTE (MAX QUEUE METHOD)**

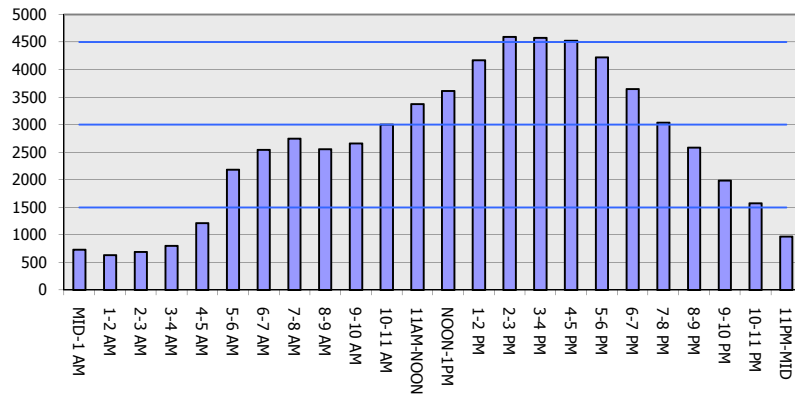
OCTOBER

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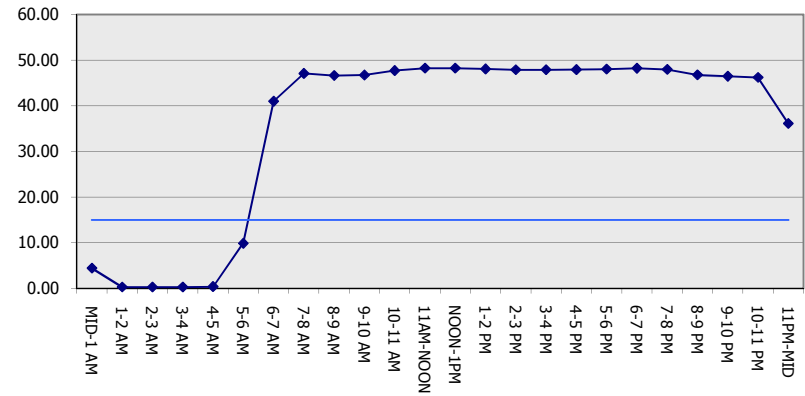
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY WESTBOUND DIRECTION

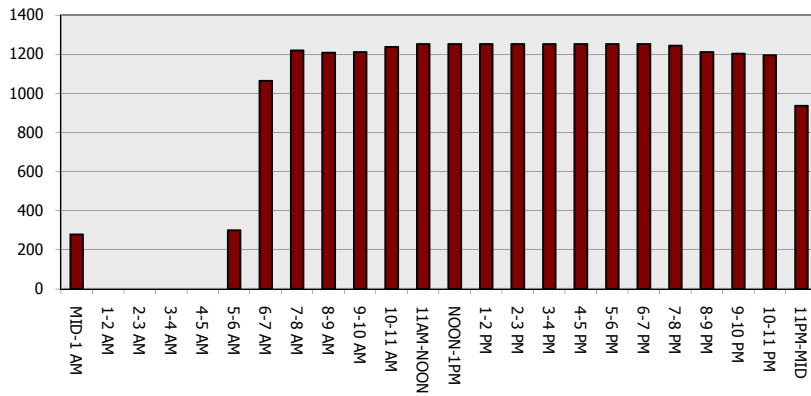
Main Route - Traffic Demand (Vehicles Per Hour)



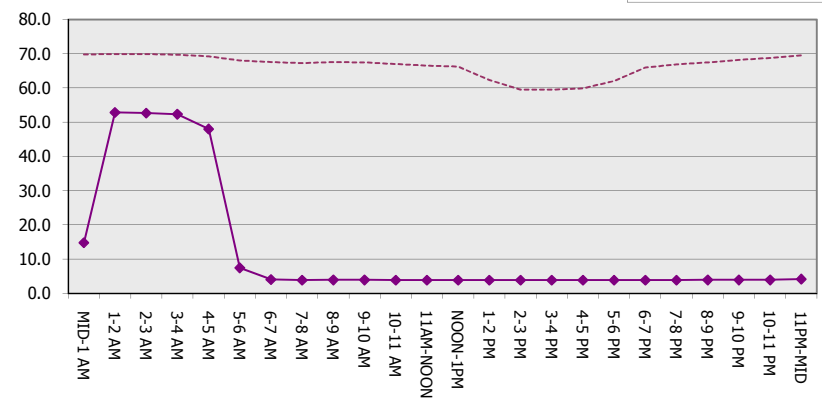
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT

FRIDAY EASTBOUND 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	701	0.0	1500	701	0	11.52	407	69.9	7.5	36.3
1-2 AM	515	0.0	1500	515	0	0.27	0	70.1	53.3	43.5
2-3 AM	402	0.0	1500	402	0	0.26	0	70.2	53.6	43.9
3-4 AM	466	0.0	1500	466	0	0.27	0	70.2	53.4	43.7
4-5 AM	571	0.0	1500	571	0	0.27	0	70.0	53.1	43.2
5-6 AM	1016	0.0	1499	1016	0	0.30	0	69.5	51.4	41.2
6-7 AM	1567	0.0	1499	1567	0	1.12	30	68.8	30.2	32.0
7-8 AM	2451	0.0	1500	2451	0	19.89	561	67.7	5.3	30.8
8-9 AM	2761	0.0	1500	1595	1165	47.36+	1227	67.3	3.9	30.8
9-10 AM	3486	0.0	1500	1521	1965	48.04+	1246	66.4	3.9	30.8
10-11 AM	4117	0.0	1500	1500	2617	48.06+	1251	62.7	3.9	30.8
11AM-NOON	4203	0.0	1500	1500	2703	48.03+	1251	62.2	3.9	30.8
NOON-1PM	4282	0.0	1500	1500	2782	48.00+	1251	61.6	3.9	30.8
1-2 PM	5055	0.0	1500	1500	3555	47.70+	1251	56.3	3.9	30.8
2-3 PM	5369	0.0	1500	1500	3869	47.56+	1251	54.2	3.9	30.8
3-4 PM	5644	0.0	1500	1500	4144	47.42+	1251	52.3	3.9	30.8
4-5 PM	5565	0.0	1500	1500	4065	47.46+	1251	52.8	3.9	30.8
5-6 PM	5071	0.0	1500	1500	3571	47.69+	1251	56.2	3.9	30.8
6-7 PM	4662	0.0	1500	1500	3162	47.86+	1251	59.0	3.9	30.8
7-8 PM	3577	0.0	1500	1500	2077	48.23+	1251	66.3	3.9	30.8
8-9 PM	2338	0.0	1500	1496	842	46.54+	1205	67.8	4.0	30.8
9-10 PM	1848	0.0	1500	1499	349	46.43+	1201	68.4	4.0	30.8
10-11 PM	1498	0.0	1500	1482	15	46.19+	1194	68.9	4.0	30.8
11PM-MID	1121	0.0	1500	1121	0	38.78+	1002	69.4	4.1	30.8

+ 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	0.0109
MAIN ROUTE WITH WORKS	0.0016
'DIVERSION'	0.0136
<small>PIA: Personal Injury Accidents</small>	
ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$668,934
CONGESTED HOURS PER DAY*	16

*Delays Exceeding User-Specified Maximum

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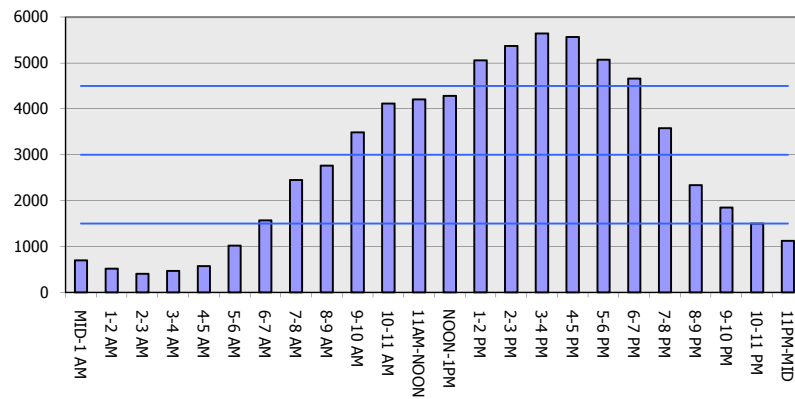
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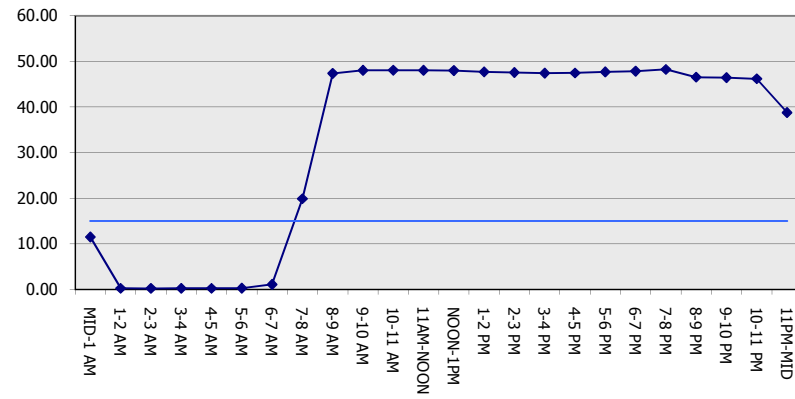
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

FRIDAY EASTBOUND DIRECTION

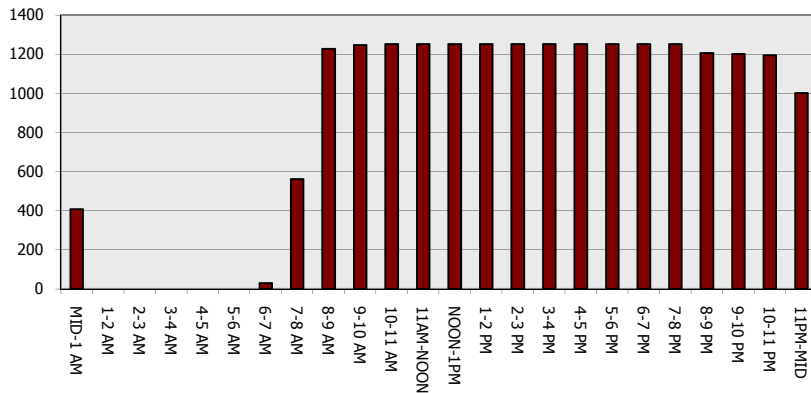
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

