

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

SUMMARY OF TRAFFIC MODEL OUTPUT

SUNDAY 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	497	0.0	3000	497	0	0.18	0	70.1	57.9	49.7	
1-2 AM	379	0.0	3000	379	0	0.18	0	70.2	57.9	49.7	
2-3 AM	326	0.0	3000	326	0	0.18	0	70.2	57.9	49.7	
3-4 AM	315	0.0	3000	315	0	0.18	0	70.2	57.9	49.7	
4-5 AM	316	0.0	3000	316	0	0.18	0	70.2	57.9	49.7	
5-6 AM	407	0.0	3000	407	0	0.18	0	70.2	57.9	49.7	
6-7 AM	533	0.0	3000	533	0	0.18	0	70.0	57.8	49.7	
7-8 AM	757	0.0	3000	757	0	0.18	0	69.8	57.8	49.7	
8-9 AM	1183	0.0	3000	1183	0	0.18	0	69.2	57.6	49.7	
9-10 AM	1895	0.0	3000	1895	0	0.17	0	68.4	57.3	49.7	
10-11 AM	2684	0.0	2999	2684	0	0.26	0	67.4	52.2	43.2	
11AM-NOON	3505	0.0	2999	3505	0	3.46	214	66.4	16.1	37.3	
NOON-1PM	3921	0.0	3000	3921	0	16.88	935	64.1	8.3	37.3	
1-2 PM	4503	0.0	3000	4503	0	38.51+	2140	60.1	7.1	37.3	
2-3 PM	5120	0.0	2999	3000	2120	51.07+	2859	55.9	6.9	37.3	
3-4 PM	5705	0.0	2999	2999	2706	50.52+	2859	51.9	6.9	37.3	
4-5 PM	5894	0.0	2999	3000	2894	50.32+	2859	50.6	6.9	37.3	
5-6 PM	5620	0.0	2999	3000	2620	50.61+	2859	52.5	6.9	37.3	
6-7 PM	4940	0.0	2999	2967	1973	51.08+	2851	57.1	6.9	37.3	
7-8 PM	4540	0.0	2999	2873	1667	50.98+	2828	59.9	6.9	37.3	
8-9 PM	3705	0.0	2999	2829	876	48.30+	2648	65.5	7.0	37.3	
9-10 PM	2664	0.0	2999	2664	0	45.61+	2491	67.4	7.0	37.3	
10-11 PM	1764	0.0	2999	1764	0	31.06	1695	68.6	7.4	37.3	
11PM-MID	1039	0.0	2999	1039	0	1.48	292	69.4	32.2	49.7	

+ 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	0.0099
MAIN ROUTE WITH WORKS	0.0024
'DIVERSION'	0.0055
PIA: Personal Injury Accidents	
IMPACTS ON ROAD USERS	
ROAD USER COSTS PER DAY	\$624,298
CONGESTED HOURS PER DAY*	9

*Delays Exceeding User-Specified Maximum

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CONTINUOUS (24 HOUR) CLOSURE
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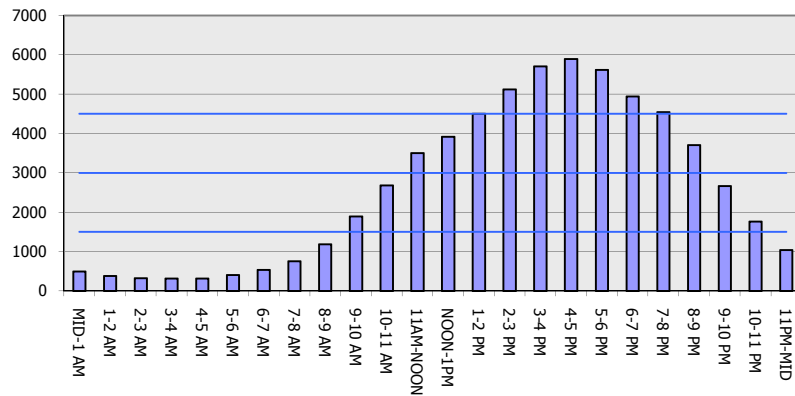
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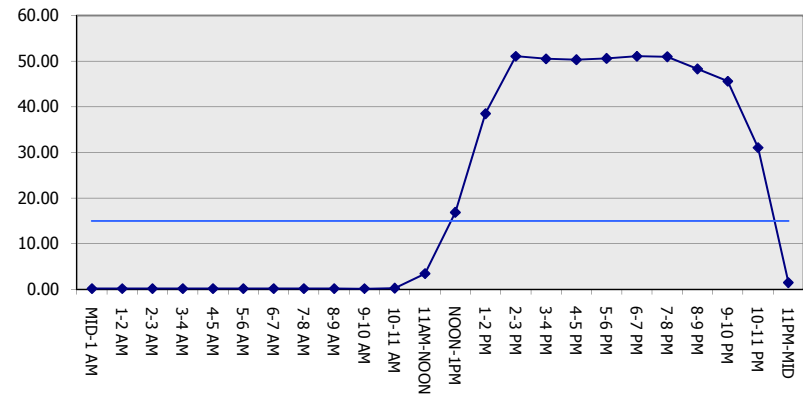
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SUNDAY WESTBOUND DIRECTION

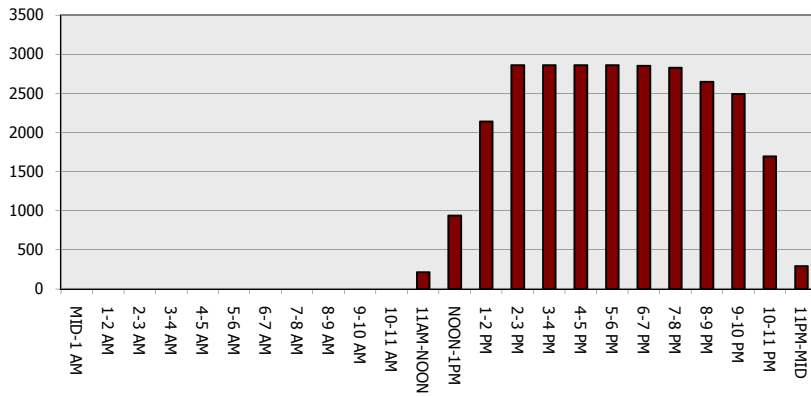
Main Route - Traffic Demand (Vehicles Per Hour)



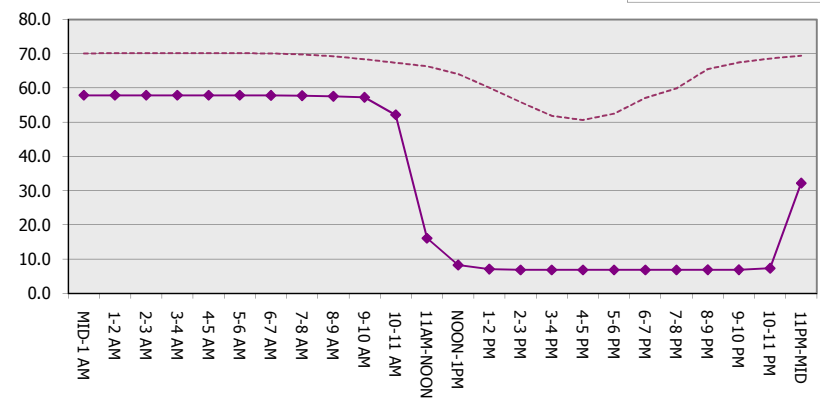
Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)



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SUMMARY OF TRAFFIC MODEL OUTPUT

SUNDAY 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	573	0.0	3000	573	0	0.18	0	70.0	57.8	49.7
1-2 AM	358	0.0	3000	358	0	0.18	0	70.2	57.9	49.7
2-3 AM	298	0.0	3000	298	0	0.18	0	70.2	57.9	49.7
3-4 AM	247	0.0	3000	247	0	0.18	0	70.2	57.9	49.7
4-5 AM	307	0.0	3000	307	0	0.18	0	70.2	57.9	49.7
5-6 AM	424	0.0	3000	424	0	0.18	0	70.2	57.9	49.7
6-7 AM	735	0.0	3000	735	0	0.18	0	69.8	57.8	49.7
7-8 AM	1186	0.0	3000	1186	0	0.18	0	69.2	57.6	49.7
8-9 AM	1790	0.0	3000	1790	0	0.17	0	68.5	57.3	49.7
9-10 AM	2749	0.0	2999	2749	0	0.28	0	67.3	51.2	42.0
10-11 AM	3663	0.0	2999	3663	0	4.63	286	65.8	13.8	37.3
11AM-NOON	4182	0.0	3000	4182	0	22.18	1233	62.3	7.8	37.3
NOON-1PM	4306	0.0	3000	3903	403	43.25+	2391	61.4	7.0	37.3
1-2 PM	4365	0.0	3000	2993	1372	49.56+	2742	61.0	6.9	37.3
2-3 PM	4341	0.0	3000	2987	1355	49.44+	2734	61.2	6.9	37.3
3-4 PM	4280	0.0	3000	2972	1308	49.12+	2714	61.6	6.9	37.3
4-5 PM	4179	0.0	3000	2946	1233	48.61+	2682	62.3	7.0	37.3
5-6 PM	3705	0.0	3000	2969	737	47.69+	2614	65.5	7.0	37.3
6-7 PM	2977	0.0	3000	2880	97	46.90+	2564	67.0	7.0	37.3
7-8 PM	2592	0.0	3000	2592	0	42.64+	2327	67.5	7.0	37.3
8-9 PM	1757	0.0	3000	1757	0	27.53	1504	68.6	7.5	37.3
9-10 PM	1311	0.0	2999	1311	0	1.20	223	69.1	34.0	49.7
10-11 PM	986	0.0	3000	986	0	0.18	0	69.5	57.6	49.7
11PM-MID	648	0.0	3000	648	0	0.18	0	69.9	57.8	49.7

+ 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	0.0083
MAIN ROUTE WITH WORKS	0.0023
'DIVERSION'	0.0024

PIA: Personal Injury Accidents

ECONOMIC IMPACT ON ROAD USERS	
ROAD USER COSTS PER DAY	\$454,337
CONGESTED HOURS PER DAY*	8

*Delays Exceeding User-Specified Maximum

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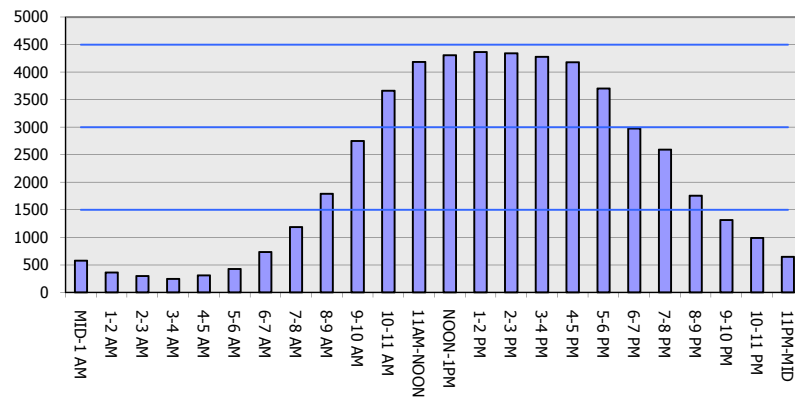
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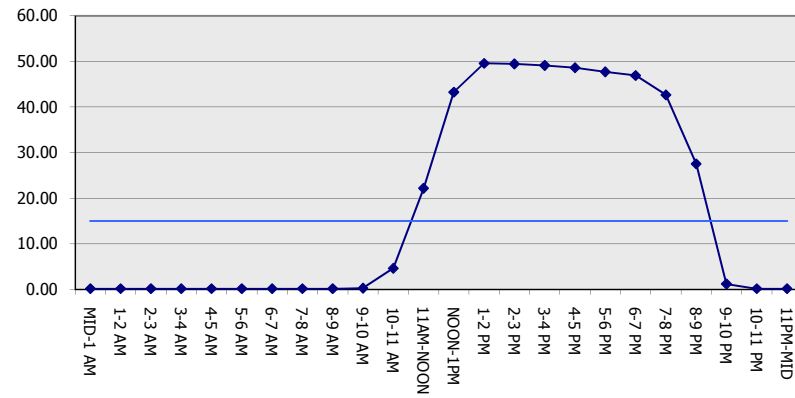
GRAPHICAL REPRESENTATION OF TRAFFIC MODEL INPUT AND OUTPUT

SUNDAY EASTBOUND DIRECTION

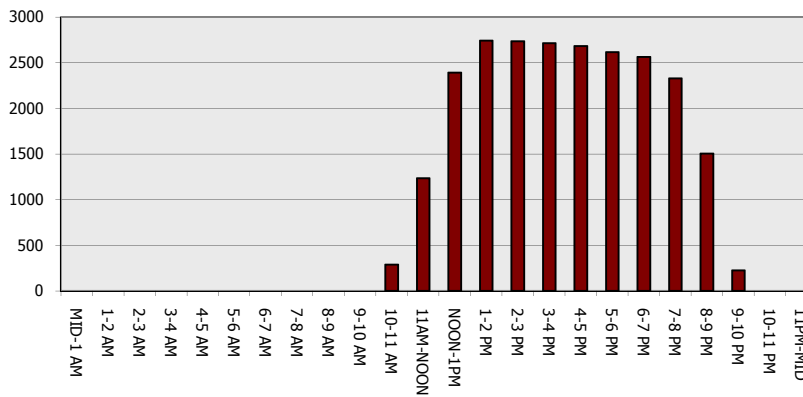
Main Route - Traffic Demand (Vehicles Per Hour)



Main Route Average Delay Per Vehicle (Minutes)



Main Route - Average Queue Length (Vehicles)



Main Route - Average Speed (MPH)

