

INPUTS

Project Information	
Name:	US 90
Application ID Number:	300804
Sponsor ID Number (CSJ, etc.):	
Year Open to Traffic? (Must be >=2018)	2018

Daily Travel Demand	With Project	Without Project
2018 VHT		
2018 Volume	17,400	
2018 Capacity	27,600	
2025 Volume	15,500	
2025 Capacity	27,600	
2040 Volume	16,400	
2040 Capacity	27,600	

OUTPUTS

Benefit Results	
Annual Discounted Delay Benefits	\$1,773,900

Using the difference in *user cost of delays* per day for each direction of travel from the summary output.

See *Summary View Sheet* for more details.

SummaryView

period length (min)		60		PROJECT INFORMATION				REPORT INFORMATION				
annual traffic growth (%)		3.00%		US90, FM 563 to FM160				DETAILED USER COST REPORT				
years of growth		0		C.S.				SUMMARY SHEET				
VEHICLE INPUT		cars		trucks		LIBERTY						
design demand (%)		87.0%		13.0%		REPORT BY						
user cost per hour (\$/V hr)		\$17.44		\$30.77		REPORT DATE						
user cost per mile, (\$/V mi)		\$0.56		\$1.81		1/12/2015						
user cost per cancellation, (\$/V)						NOTES: Existing 2 lane, Widen to 4 lanes w/continuous center left turn FM563 to FM160						
METHOD INPUT				METHOD 1		METHOD 2		METHOD 3		METHOD 4		
method title				Existing 2 lanes		Proposed 5 lanes						
DISTANCE AND SPEED (mi) (mph)				distance	speed	distance	speed	distance	speed	distance	speed	
work zone				method travel	2.4	see delay	2.4	see delay	see delay	see delay	see delay	
diversion				normal travel	2.4	50.0	2.4	50.0				
SPEED DELAY				threshold	range	threshold	range	threshold	range	threshold	range	
capacity for speed delay (V/period)				1500		3400						
speed (when D=0) (mph)				50		50						
speed (when D=C) (mph)				35		35						
DECREASE TO DEMAND				threshold	range	threshold	range	threshold	range	threshold	range	
capacity for decreases to design demand (V/period)				2100								
canceled cars (with no delay) (%)												
canceled trucks (with no delay) (%)												
canceled cars (with delay) (%/min)												
canceled trucks (with delay) (%/min)												
diverted cars (with no delay) (%)				0.0%								
diverted trucks (with no delay) (%)				0.0%								
diverted cars (with delay) (%/min)												
diverted trucks (with delay) (%/min)												
OTHER USER COST INPUT				cars	trucks	cars	trucks	cars	trucks	cars	trucks	
other user cost per actual demand (\$/V)				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
user cost per diversion (\$/V)				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
PERIOD INPUT				backup at start (V)		0	0	0	0	0	0	
direction:	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB		
period	historical demand	design demand	capacity	capacity	capacity	capacity	capacity	capacity	capacity	capacity		
(hr)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)	(V/period)		
12 A	75	75	75	75	1500	1500	3400	3400				
1 A	75	75	75	75	1500	1500	3400	3400				
2 A	100	100	100	100	1500	1500	3400	3400				
3 A	100	100	100	100	1500	1500	3400	3400				
4 A	150	150	150	150	1500	1500	3400	3400				
5 A	300	300	300	300	1500	1500	3400	3400				
6 A	700	700	700	700	1500	1500	3400	3400				
7 A	1000	1000	1000	1000	1500	1500	3400	3400				
8 A	1300	1300	1300	1300	1500	1500	3400	3400				
9 A	1200	1200	1200	1200	1500	1500	3400	3400				
10 A	1000	1000	1000	1000	1500	1500	3400	3400				
11 A	900	900	900	900	1500	1500	3400	3400				
12 P	900	900	900	900	1500	1500	3400	3400				
1 P	900	900	900	900	1500	1500	3400	3400				
2 P	800	800	800	800	1500	1500	3400	3400				
3 P	800	800	800	800	1500	1500	3400	3400				
4 P	1200	1200	1200	1200	1500	1500	3400	3400				
5 P	1300	1300	1300	1300	1500	1500	3400	3400				
6 P	1200	1200	1200	1200	1500	1500	3400	3400				
7 P	1000	1000	1000	1000	1500	1500	3400	3400				
8 P	800	800	800	800	1500	1500	3400	3400				
9 P	700	700	700	700	1500	1500	3400	3400				
10 P	500	500	500	500	1500	1500	3400	3400				
11 P	400	400	400	400	1500	1500	3400	3400				
Total	17400	17400	17400	17400	36000	36000	81600	81600	0	0		
SUMMARY OUTPUT				Existing 2 lanes		Proposed 5 lanes						
traffic method direction				EB	WB	EB	WB	EB	WB	EB	WB	
total user cost				\$3,017	\$3,017	\$587	\$587	\$0	\$0	\$0	\$0	
user cost of delays				\$3,017	\$3,017	\$587	\$587	\$0	\$0	\$0	\$0	
user cost of decreases				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
maximum backup (V)				0	0	0	0	0	0	0	0	
maximum backup length (lane mi)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
maximum delay (min.)				0.9	0.9	0.2	0.2	0.0	0.0	0.0	0.0	
total delay, except diversions (V hr)				157	157	31	31	0	0	0	0	
average delay, except diversions (min)				0.5	0.5	0.1	0.1	0.0	0.0	0.0	0.0	
total vehicles canceled(V)				0	0	0	0	0	0	0	0	
total vehicles diverted (V)				0	0	0	0	0	0	0	0	
total decrease in demand (V)				0	0	0	0	0	0	0	0	
% decrease in demand				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
delay per diverted vehicle (min)				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
total diversion delay (V hr)				0	0	0	0	0	0	0	0	
total delay, including diversions (V hr)				157	157	31	31	0	0	0	0	
average delay, including diversions (min)				0.5	0.5	0.1	0.1	0.0	0.0	0.0	0.0	
user cost / design demand				\$0.17	\$0.17	\$0.03	\$0.03	\$0.00	\$0.00	\$0.00	\$0.00	
delay cost / actual demand				\$0.17	\$0.17	\$0.03	\$0.03	\$0.00	\$0.00	\$0.00	\$0.00	
Aut	ON	Prin	ON	Nov	OK	validity of output	VALID	VALID	NOT VALID	NOT VALID	NOT VALID	NOT VALID