

SwashWare

HCM-CALC

Project Properties

Analyst		Roadway Name		Analysis Period	AM Peak
Analysis Date	2024-07-16 10:15:34 PM	From		Analysis Module	Two-Lane Highway Segment
Agency		To		Module Version Date	11/25/2016
Location		Analysis Direction		HCM Edition	HCM2016
User Notes					
File Name					

Input Values and Intermediate Calculation Results

Highway Class	1		
Demand, d (veh/h)	Demand, o (veh/h)	D Factor	Peak Hour Factor
509	212	0.71	0.870
Percent No-Passing Zones	Passing Lane (Yes/No)		
30	Yes		

Grade Adjustment Factor Values			
Terrain	Level		
Grade Adj. Factor PTSF (d)	Grade Adj. Factor PTSF (o)	Grade Adj. Factor ATS (d)	Grade Adj. Factor ATS (o)
1.00	1.00	1.00	1.00

Heavy Vehicle Factor Values					
Terrain	% Grade	Length (mi)	% Trucks	% RVs	
Level	N/A	N/A	25.0	0.0	
Truck PCE PTSF (d)	RV PCE PTSF (d)	Heavy Vehicle Factor PTSF (d)	Truck PCE ATS (d)	RV PCE ATS (d)	Heavy Vehicle Factor ATS (d)
1.00	1.00	1.000	1.10	1.00	0.976
Truck PCE PTSF (o)	RV PCE PTSF (o)	Heavy Vehicle Factor PTSF (o)	Truck PCE ATS (o)	RV PCE ATS (o)	Heavy Vehicle Factor ATS (o)
1.10	1.00	0.976	1.50	1.00	0.889

Free Flow Speed Adjustment Values			
FFS Method	Measured FFS (mi/h)	FFS Prevailing Flow Rate (veh/h)	FFS (mi/h)
Measured		551	44.6

Passing Lane Values

Total Segment Length (mi)	Length Upstream of Passing Lane (mi)	Passing Lane Length (mi)	
1.0000	0.00	0.25	
PTSF L _d	PTSF L _{de}	PTSF L _{de'}	PTSF f _{pl}
-5.9	N/A	0.8	0.61
ATS L _d	ATS L _{de}	ATS L _{de'}	ATS f _{pl}
-1.0	N/A	0.8	1.11

PTSF Analysis Flow Rate (d) (pc/h)	PTSF Analysis Flow Rate (o) (pc/h)	ATS Analysis Flow Rate (d) (pc/h)	ATS Analysis Flow Rate (o) (pc/h)
585	250	600	274
PTSF Capacity (veh/h)		ATS Capacity (veh/h)	
1700		1700	
PTSF Coeff. 'a'	PTSF Coeff. 'b'	PTSF f _{np}	ATS f _{np}
-0.0016	0.9606	24.89	1.05

Performance Measures and LOS

v/c ratio	PTSF (%)	Avg. Speed (mi/h)	Pct. FFS
0.35	43.3	40.1	90.0
LOS		Service Measure	
D		ATS	

Service Volumes

	A	B	C	D	E
Lanes	Hourly Volume In Peak Direction				
1	--	--	--	--	--
Lanes	Hourly Volume In Both Directions [D = 0.71]				
2	--	--	--	--	--
Lanes	Annual Average Daily Traffic [K = 0.1]				
2	--	--	--	--	--
	Notes				
--	Not applicable for this facility type.				
*	Cannot be achieved based on input data provided.				
**	No defined LOS threshold for this LOS level.				
***	Service volume the same as for previous LOS level.				