

York Ridge2.txt

HCS2000: Two-Lane Highways Release 4.1d

Phone: Fax:  
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Two-Way Two-Lane Highway Segment Analysis

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Date Performed 08/21/03  
Analysis Time Period  
Highway York Ridge  
From/To  
Jurisdiction  
Analysis Year 2030  
Description Existing Roads with Future Traffic Volumes

Input Data

Highway class	Class 2				
Shoulder width	0.0	ft	Peak-hour factor, PHF	0.89	
Lane width	9.0	ft	% Trucks and buses	2	%
Segment length	7.4	mi	% Recreational vehicles	4	%
Terrain type	Level		% No-passing zones	100	%
Grade: Length		mi	Access points/mi	26	/mi
Up/down		%			
Two-way hourly volume, v	93	veh/h			
Directional split	81 / 19	%			

Average Travel Speed

Grade adjustment factor, fG	1.00	
PCE for trucks, ET	1.7	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor,	0.986	
Two-way flow rate, (note-1) vp	106	pc/h
Highest directional split proportion (note-2)	86	pc/h
Free-Flow Speed from Field Measurement:		
Field measured speed, SFM	40	mi/h
Observed volume, Vf	0	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, BFFS	-	mi/h
Adj. for lane and shoulder width, fLS	-	mi/h
Adj. for access points, fA	-	mi/h
Free-flow speed, FFS	40.0	mi/h
Adjustment for no-passing zones, fnp	1.9	mi/h
Average travel speed, ATS	37.3	mi/h

Percent Time-Spent-Following

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Grade adjustment factor, fg	1.00	
PCE for trucks, ET	1.1	
PCE for RVs, ER	1.0	
Heavy-vehicle adjustment factor, fhv	0.998	
Two-way flow rate,(note-1) vp	105	pc/h
Highest directional split proportion (note-2)	85	
Base percent time-spent-following, BPTSF	8.8	%
Adj.for directional distribution and no-passing zones, fd/np	34.0	
Percent time-spent-following, PTSF	42.8	%

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Level of Service and Other Performance Measures

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Level of service, LOS	B	
Volume to capacity ratio, v/c	0.03	
Peak 15-min vehicle-miles of travel, VMT15	193	veh-mi
Peak-hour vehicle-miles of travel, VMT60	685	veh-mi
Peak 15-min total travel time, TT15	5.2	veh-h

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Notes:

1. If vp >= 3200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split vp >= 1700 pc/h, terminate analysis-the LOS is F.