

Design Element				Manual Section	Design Criteria	
Design Controls	Design Forecast Year			9.6.2	20 Years	
	*Design Speed (maximum)	Level		9.5.2	70 mph	
		Rolling			60 mph	
		Mountainous			50 mph	
	Access Control			9.8	Controlled by Regulation	
Level of Service			9.6.4	Level/Rolling: B Mountainous: C		
Cross Section Elements	*Travel Lane Width (1)			13.2.3	12'	
	*Shoulder Width (2)	Total Width		13.2.4	10'	
		Paved			2'	
	Auxiliary Lanes	Lane Width		13.2.5	12'	
		Shoulder Width	Total Width		10'	
			Paved		2'	
		Cross Slope	*Travel Lane		13.2.3.3	2.08%
	Auxiliary Lane		13.2.5	2.08%		
	*Shoulder		Paved	13.2.4.3	2.08% (3)	
			Unpaved		8.33%	
	TWLTL Width			21.2.7	15'	
Roadway Slopes	Side Slopes	Cut Section	Foreslope	13.3.1	6H:1V to 4H:1V	
			Ditch Type		V-Ditch	
			Back Slope		4H:1V to 2H:1V	
			Rock Cut		0.25H:1V	
		Fill Section	0' – 5'		6H:1V	
			5' – 10'		4H:1V	
			> 10'		2H:1V	
			Clear Zone			14.3
	Bridges	New and Reconstructed Bridges	*Structural Capacity			HL-93
*Clear Roadway Width			13.5.1.1	44' (5)		
Existing Bridges to Remain in Place		*Structural Capacity			HS-20 (6)	
		*Clear Roadway Width		13.5.1.1	44'	
*Vertical Clearance (Arterial Under) (7a)		New/Replaced Overpassing Bridges (7b)		12.6	17'-0"	
		Existing Overpassing Bridges			16'-0"	
		Pedestrian Bridges			18'-0"	
		Overhead Signs			17'-6"	
Clearance (Arterial Over)	*Railroads		12.6	23'-0"		
	Underpass Width		13.5.2	Traveled Way plus Clear Zone		

*Controlling design criteria (see Section 9.2).

Design Criteria for Rural Two-Lane Arterials (New Construction/Reconstruction)
Figure 20.1D (SCHDM 2003)