

FINAL RFP

1

TP ATTACHMENT 440-1 – ROADWAY DESIGN CRITERIA

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TP Attachment 440-1 Roadway Design Criteria					
	Mainlines	System to System 2-Lane Direct Connectors and HOV Direct Connectors	Interchange Ramps	Frontage Roads/ Access Roads	Crossroads (within Access Control)
General					
Minimum Design Speed	65 MPH	Body: 55 MPH	Body: 50 MPH	45 MPH	40 MPH
		@ Mainline Entrance Gore: 60 MPH	@ Mainline Entrance Gore: 55 MPH		But not less than the design speed of the approaches to the interchange
		@ Mainline Exit Gore: 65 MPH	@ Mainline Exit Gore: 60 MPH @ Crossroad Terminus: 35 MPH		
Cross Section					
Lane Width	12 feet	12 feet	12 feet	12 feet	12 feet
Shoulder Width ¹ (includes gutters):					
Left Shoulder	10 feet	4 feet	2 feet	2 feet	
Right Shoulder	10 feet	8 feet	Multi-Lane: 2 feet 1-Lane: 8 feet	4 feet (5 feet where there is commercial access)	6 feet (including gutter)
Barrier Offset ²	2 feet	2 feet	2 feet	2 feet	2 feet
Maximum Superelevation Rate	6%	6%	6%	4%	2%
Normal Cross-Slope	2%	2%	2%	2%	2% ³

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Curb Type (ADOT Construction Std C-05.10)	If used, Type B, E (or E-1) or C (or C-1), See Section 302.2 of the ADOT <i>Roadway Design Guidelines</i> for guidance			Type D (or D-3), h=6 inches	Outside: Type D (or D-3), h=6 inches Medians: Type A or A-1, h=6 inches
Vertical Clearance⁴					
Over Roadway	16 feet – 6 inches				
Overhead Signs	18 feet – 0 inches; 18 feet – 6 inches to variable message signs				
Overhead Pedestrian Crossings	17 feet – 6 inches				
Multiuse Crossings	Varies, 16 feet -0 inches at point where equestrians would cross				
Over Railroad	23 feet – 6 inches				
Over Canals and Channels	Per Canal / Channel Authority Requirements				
Other					
Design Vehicles	WB-67	WB-67	WB-67	WB-67	WB-67
Notes: <ol style="list-style-type: none"> 1. Left and right are in the direction of travel 2. Does not apply to median shoulders. Does not apply to 12 foot shoulders. 12 feet is the maximum shoulder. 3. 1.5% is allowable on crossroads at frontage road intersections to minimize crown breakover for the through movement. 4. The required vertical clearance must be provided over the entire roadway width, including shoulders and bike lanes. For railroads, clearance is measured from the top of rail. 5. See <u>Section DR 440</u> of the TPs for design vehicle requirements at traffic interchanges and outside ADOT access control. 					

1