



**FOOTNOTES**

- ① SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.
- ② SEE DETAILS A, B, C, OR D FOR ROUNDING.
- ③ CLEAR ZONE WIDTH SHALL BE DETERMINED FROM STANDARD DRAWING RD01-S-12. SEE THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002, FOR FURTHER INFORMATION ON CLEAR ZONES.
- ④ SEE STANDARD DRAWINGS RD01-S-11 AND RD01-S-11B FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.
- ⑤ SEE STANDARD DRAWING RD01-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
- ⑥ THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT.
- ⑦ MINIMUM MEDIAN WIDTH IS TO BE 48 FEET WHEN USING 6 FEET WIDE INSIDE SHOULDERS. MINIMUM MEDIAN WIDTH IS TO BE 64 FEET WHEN USING 12 FOOT WIDE INSIDE SHOULDERS.
- ⑧ GRADES ONE PERCENT STEEPER THAN THE VALUE SHOWN MAY BE USED FOR EXTREME CASES IN URBAN AREAS WHERE DEVELOPMENT PRECLUDES THE USE OF FLATTER HORIZONTAL CURVES OR GREATER SIGHT DISTANCES WHERE SUCH IMPROVEMENTS CAN BE PROVIDED AS A PART OF AN ECONOMICAL DESIGN (SEE PAGE 69).
- ⑨ ALTHOUGH THE SELECTED DESIGN SPEED ESTABLISHES THE LIMITING VALUES OF CURVE RADIUS AND MINIMUM SIGHT DISTANCE THAT SHOULD BE USED IN DESIGN, THERE SHOULD BE NO RESTRICTION ON THE USE OF FLATTER HORIZONTAL CURVES OR GREATER SIGHT DISTANCES WHERE SUCH IMPROVEMENTS CAN BE PROVIDED AS A PART OF AN ECONOMICAL DESIGN (SEE PAGE 69).

**GENERAL NOTES**

- Ⓐ FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001.
- Ⓑ PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001, UNLESS OTHERWISE NOTED.
- Ⓒ REFERENCE SHOULD ALSO BE MADE TO THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002.
- Ⓓ DESIRABLE RIGHT-OF-WAY IS SLOPE LINE PLUS TWENTY FEET.
- Ⓔ ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR HS-20 LOADING. THE MINIMUM CLEAR WIDTH FOR NEW AND REHABILITATED BRIDGES SHALL BE EQUAL TO THE FULL WIDTH OF THE APPROACH ROADWAY, CURB-TO-CURB OR FULL SHOULDER WIDTH AS APPLICABLE.
- Ⓕ FOR EXISTING BRIDGES TO REMAIN IN PLACE, THEY SHOULD HAVE ADEQUATE STRENGTH AND A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE TRAVELED WAY PLUS 2 FEET CLEARANCE ON EACH SIDE. BRIDGES SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 3 FEET CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF HS-20 LOADINGS. AS AN INTERIM MEASURE, ALL BRIDGES THAT ARE LESS THAN FULL WIDTH SHOULD BE CONSIDERED FOR SPECIAL NARROW BRIDGE TREATMENTS SUCH AS SIGNING AND PAVEMENT MARKING.
- Ⓖ FOR INTERSTATES, SEE THE CURRENT EDITION OF AASHTO'S "A POLICY ON DESIGN STANDARDS-INTERSTATE SYSTEM"

**TABLE II. FREEWAY - DESIGN STANDARDS** ⑨

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)	DESIGN SPEEDS (MPH)						
	50	55	60	65	70		
MINIMUM RADIUS (FT.) 0.08 MAX. S.E.	760	965	1205	1485	1820	SEE PAGE 145	
MINIMUM STOPPING SIGHT DISTANCE (FT.)	425	495	570	645	730	SEE PAGE 112	
MINIMUM "K" VALUE	CREST VERTICAL CURVE	84	114	151	193	247	SEE PAGE 274
	SAG VERTICAL CURVE	96	115	136	157	181	SEE PAGE 280
MAXIMUM GRADES % ⑧	LEVEL TERRAIN	4	4	3	3	3	SEE PAGE 510
	ROLLING TERRAIN	5	5	4	4	4	
	MOUNTAINOUS TERRAIN	6	6	6	5	5	
SUPERELEVATION		SEE STANDARD DRAWINGS RD01-SE-2 AND RD01-SE-3					

**TABLE I. MINIMUM DESIGN SPEEDS FOR FREEWAYS (SEE PAGE 507)**

LOCATION	MINIMUM DESIGN SPEED (MPH)
URBAN	50
RURAL	70
MOUNTAINOUS	50

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS  
FREEWAYS WITH  
DEPRESSED MEDIANS