

URBAN CONDITION

URBAN CONDITIONS APPLY TO URBAN STREET SYSTEMS AND ANY OTHER ROAD WITH PRESENT OR FUTURE URBAN STREET OPERATING CONDITIONS.

THESE TABLES CONTAIN THE MINIMUM SUPERELEVATION RATES AND TRANSITION LENGTHS FOR STANDARD URBAN PAVEMENT WIDTHS THROUGH A RANGE OF DESIGN VELOCITIES CONSIDERED MOST LIKELY TO BE USED IN URBAN ROAD DESIGN.

DEFINITIONS FOR THE STANDARD SYMBOLS USED THROUGHOUT THESE TABLES ARE FOUND ON SHEET 803.02.

A TABLE FOR "LOW SPEED URBAN" DESIGNS IS ON SHEET 803.23 WITH A RANGE OF STANDARD PAVEMENT WIDTHS (W), TRANSITION LENGTHS (L_r), AND RADII OF CURVE WHEN SUPERELEVATED BY AN AMOUNT EQUAL TO THE NORMAL CROWN AND THE APPROXIMATE MAXIMUM SAFE SPEEDS (DV) AFFORDED THEREBY. VALUES IN THIS TABLE CAN BE USED ON STREETS WITH OPERATING SPEEDS LESS THAN OR EQUAL TO 45 MPH. ALSO SHOWN ARE THE APPROXIMATE MAXIMUM SAFE SPEEDS (NC) WITH NO SUPERELEVATION. VALUES FOR (NC) CAN BE USED ON URBAN ARTERIAL, COLLECTOR, AND LOCAL STREETS.

FOR MINIMUM DESIGN FACTORS FOR VARIOUS DESIGN SPEEDS FOR URBAN CONDITIONS SEE SHEETS 803.24 THRU 803.31

THE USE OF SPIRAL TRANSITIONS FOR COMPOUND AND REVERSE CURVES ON URBAN ROADWAYS SHOULD BE AVOIDED. HOWEVER, THE ENGINEER DOES HAVE LATITUDE IN THE USE OF SPIRAL TRANSITIONS IF THE GEOMETRICS ARE WARRANTED. SHOULD SPIRAL TRANSITIONS BE UTILIZED, SEE PAGE 803.13 AND 803.14 FOR DETAILS. WHEN URBAN CONDITIONS APPLY THERE WILL BE NO PAVEMENT WIDENING. THE LENGTH OF TRANSITION (L_r) DETERMINES THE LENGTH OF SUPERELEVATION TRANSITION THROUGH WHICH THE OUTER EDGE OF PAVEMENT IS RAISED ABOVE THE BASELINE GRADE TO A MAXIMUM OF $E(\frac{W}{2})$. SEE SHEET 803.07 FOR A GRAPHICAL ILLUSTRATION OF THE APPLICATION OF THIS CORRECTION.

FOR CURVE RADII NOT LISTED IN TABLES REFER TO SHEET 803.20 TO CALCULATE TRANSITION LENGTHS (L_r).

L_r SHALL BE SHOWN ON THE PLANS FOR ALL CURVES.

E SHALL BE SHOWN ON THE PLANS FOR ALL CURVES WITH URBAN STREET CONDITIONS.

FOR ADDITIONAL GENERAL INSTRUCTIONS (BOTH URBAN AND RURAL) SEE SHEET 803.01.



ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1

REVISION DATE

803.04

EXPLANATION OF TABLES AND INSTRUCTIONS FOR USE URBAN CONDITION

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION
REFERENCE