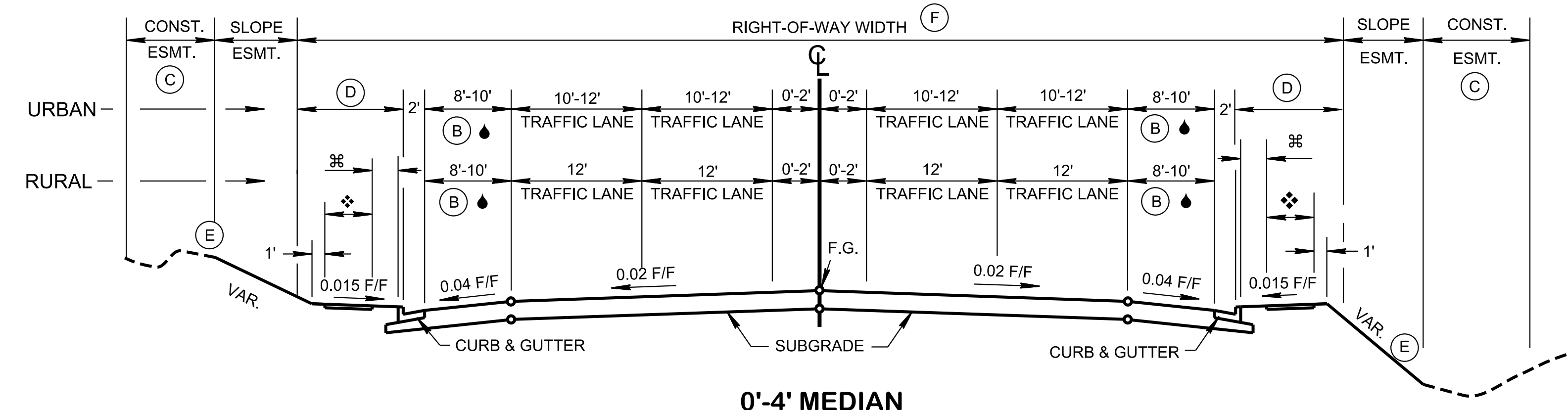
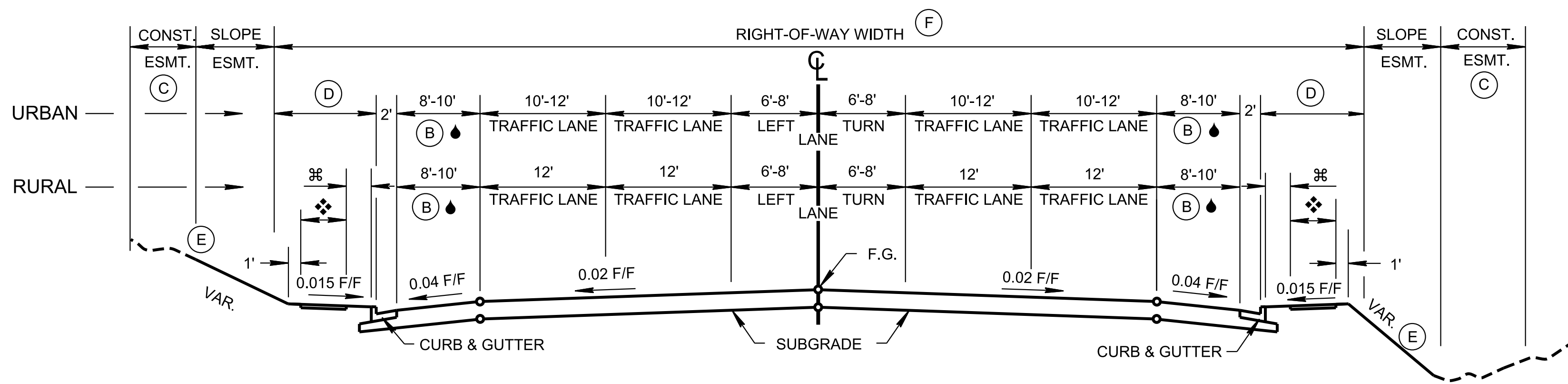


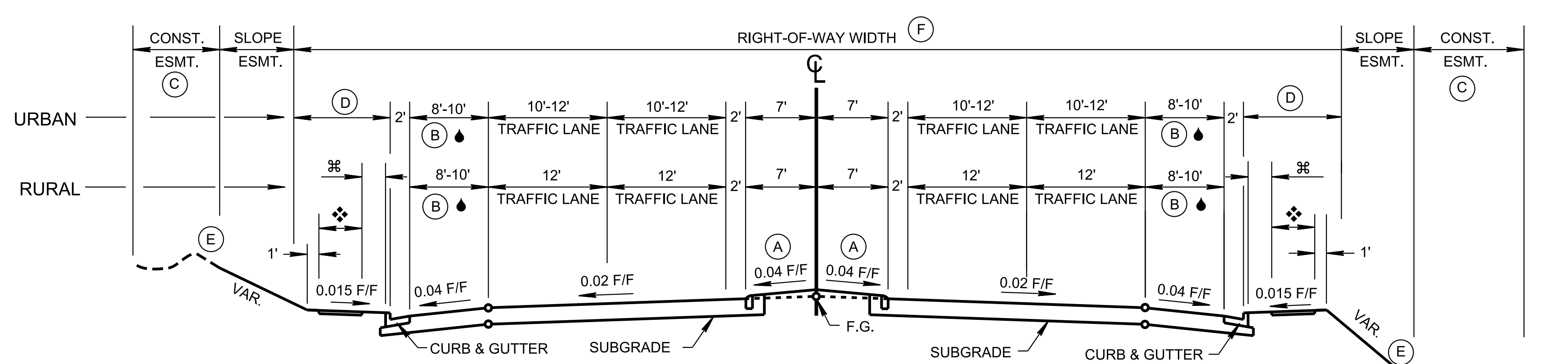
4/3/2019 8:51:18 AM P:\StandDraw\DESIGN STANDARDS\Standards Library\Standard Roadway Drawings - CURENT\In Progress\100.00 Roadway Design Standards IP\100.03 RD11 Typical Sections and Design Criteria IP



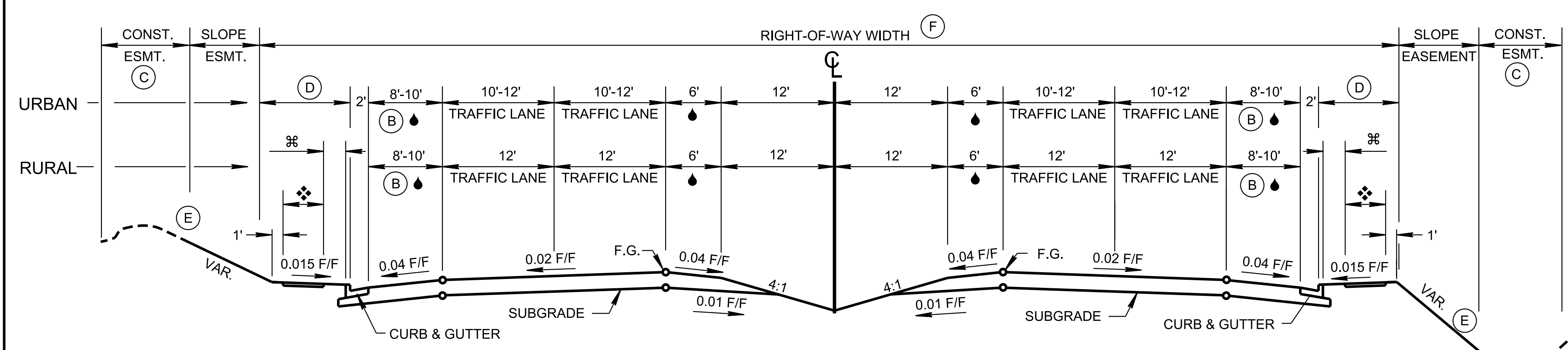
0'-4' MEDIAN



12'-16' MEDIAN



18' MEDIAN



36' MEDIAN

- LEGEND**
- ⊘ GRASS STRIP VARIES (FOR LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH SEE STD. DWG. MM-TS-2)
 - ⊘ SIDEWALK VARIES (5' MIN.) (FOR LATERAL OFFSETS FOR SIDEWALK AND SHARED USE PATH SEE STD. DWG. MM-TS-2) (FOR DETAILS FOR CONCRETE SIDEWALK SEE STD. DWG. MM-SW-1)
 - SHOULDER (FOR BIKE ACCOMMODATION DESIGN GUIDANCE SEE STD. DWG. MM-TS-1)

NOT TO SCALE

- DESIGN NOTES**
- (A) MEDIAN CURBS - MEDIAN CURBS WILL BE SLOPING CURBS. VERTICAL CURBS WILL NOT BE PERMITTED.
 - (B) SHOULDER WIDTH - SHOULDER WIDTH WILL BE SPECIFIED IN THE TRANSPORTATION INVESTMENTS REPORT.
 - (C) CONSTRUCTION EASEMENT - 10 FEET MINIMUM IS DESIRABLE.
 - (D) RIGHT-OF-WAY WIDTH - 10 FT. MINIMUM WIDTH BEHIND FACE OF CURB. WHEN THE SIDEWALK IS LOCATED 9 FT OR MORE BEHIND THE FACE OF CURB, RIGHT-OF-WAY SHALL EXTEND 1 FT. BEHIND SIDEWALK.
 - (E) SLOPES - 3:1 SLOPES OR FLATTER ARE DESIRABLE AND ARE THE MAXIMUM IN REGION IV. 2:1 SLOPES ARE APPLICABLE IN AREAS WHERE RIGHT-OF-WAY RESTRICTIONS, ENVIRONMENTAL CONSIDERATIONS, OR COST WARRANTS A STEEPER THAN 3:1 SLOPE.
 - (F) **SERVICE APPURTENANCE** (LARGE SIGNS STRUCTURES, SIGNAL, LUMINARY AND UTILITY POLES) SHALL BE PLACED OUTSIDE THE PEDESTRIAN ACCESSIBLE SPACE, PREFERABLE OUTSIDE THE SIDEWALK AREA AND INSIDE RIGHT-OF-WAY.

- GENERAL NOTES**
- (1) THESE SECTIONS ARE GENERALLY FOR URBAN AND SUBURBAN ROADWAYS WITH DESIGN SPEEDS OF 45 MILES PER HOUR OR LESS OR FOR RURAL AND SUBURBAN ROADWAYS WITH DESIGN SPEEDS OF 55 MPH OR LESS WHERE ENVIRONMENTAL OR OTHER FACTORS LIMIT THE RIGHT-OF-WAY AVAILABLE.
 - (2) OUTSIDE CURBS - FOR DESIGN SPEEDS OF LESS THAN 45 MPH, A 6" VERTICAL CURB SHOULD BE USED. FOR DESIGN SPEEDS 45-55 MPH, 6 INCH SLOPING CURBS SHALL BE USED.
 - (3) SUPERELEVATION AND MEDIAN BARRIERS - SEE "ROADSIDE DESIGN GUIDE", AASHTO 2011 AND RD11-SE-SERIES STANDARD DRAWINGS.
 - (4) SIDEWALKS - SEE STANDARD DRAWING RD11-TS-6B WHEN SIDEWALK IS LOCATED NEXT TO THE CURB. SIDEWALK WIDTH SHOULD BE A MINIMUM OF FIVE FEET WIDE. ALL SIDEWALKS SHALL BE ADA COMPLIANT.
 - (5) ABOVE GROUND UTILITIES - ABOVE GROUND UTILITIES SHOULD BE LOCATED BEHIND THE SIDEWALK AND CLOSE TO THE BACK OF RIGHT-OF-WAY.
 - (6) GRASS STRIP - ABOVE GROUND UTILITIES SHALL NOT BE PLACED IN THE GRASS STRIP. THE GRASS STRIP SHOULD BE 2 FT. TO 5 FT. WIDE.
 - (7) PARKING - REFERENCE SHOULD BE MADE TO "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK), ARTERIALS- PAGE 7-34.
 - (8) BICYCLE AND PEDESTRIAN FACILITIES - REFERENCE SHOULD BE MADE TO "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK), (PAGE 5-15 LOCAL ROADS, PAGE 6-7 RURAL COLLECTORS, PAGE 6-16 URBAN COLLECTORS, PAGE 7-25 URBAN ARTERIALS, AND PAGE 7-41 RURAL ARTERIALS) AND "GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES", AASHTO 2012 AND "GUIDE FOR THE PLANNING, DESIGN AND OPERATION OF PEDESTRIAN FACILITIES", AASHTO 2017. SEE STANDARD DRAWING NO. MM-TS-1 & 2 FOR DETAILS.
 - (9) **RURAL SECTIONS**
FOR DESIGN SPEED, ALIGNMENT, GRADE, AND OTHER DESIGN STANDARDS REFER TO THE FOLLOWING STANDARD DRAWINGS AS APPROPRIATE:
LOCAL ROADS - RD11-TS-1A
COLLECTOR ROADS - RD11-TS-2, RD11-TS-2A, RD11-TS-2B
ARTERIAL ROADS - RD11-TS-3, RD11-TS-3A, RD11-TS-3B, RD11-TS-3C
 - (10) **DESIGN SPEED - URBAN SECTIONS**
URBAN ROADS - DESIGN SPEEDS FOR URBAN ARTERIALS GENERALLY RANGE FROM 30-55 MPH WITH LOWER SPEEDS APPLYING IN CENTRAL BUSINESS DISTRICTS AND IN MORE DEVELOPED AREAS, WHILE HIGHER SPEEDS ARE MORE APPLICABLE TO OUTLYING SUBURBAN AND DEVELOPING AREAS.
COLLECTOR ROADS - DESIGN SPEEDS OF 30 MPH OR HIGHER SHOULD BE USED WITH CONSIDERATION GIVEN TO AVAILABLE RIGHT-OF-WAY, TERRAIN, ADJACENT DEVELOPMENT, AND PEDESTRIAN PRESENCE. SEE PAGE 2-53 THRU 2-58 AND 6-11 THRU 6-16 FOR ADDITIONAL INFORMATION.
LOCAL ROADS - DESIGN SPEED IS NOT A MAJOR FACTOR, FOR CONSISTENCY IN DESIGN ELEMENTS DESIGN SPEEDS RANGING FROM 20-30 MPH MAY BE USED.
 - (11) **GENERAL DESIGN CONSIDERATIONS AND CROSS-SECTIONAL ELEMENTS - URBAN SECTIONS**
SEE "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK).
LOCAL ROADS - PAGES 5-11 THRU 5-19
COLLECTOR ROADS - PAGES 6-11 THRU 6-16
ARTERIAL ROADS - PAGES 7-26 THRU 7-38
 - (12) SUBURBAN ROADWAYS - FOR DESIGN OF ARTERIAL AND COLLECTOR ROADWAYS DESIGNERS SHOULD FOLLOW GUIDANCE FOR URBAN SECTIONS. FOR LOCAL ROADS CONSIDERATION SHOULD BE GIVEN TO THE CONTEXT OF THE ROADWAY REGARDING WHETHER THE FACILITY SHOULD BE DESIGNED TO URBAN OR RURAL STANDARDS.

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

TYPICAL CURB & GUTTER SECTIONS WITH SHOULDERS AND WITH GRASS STRIPS