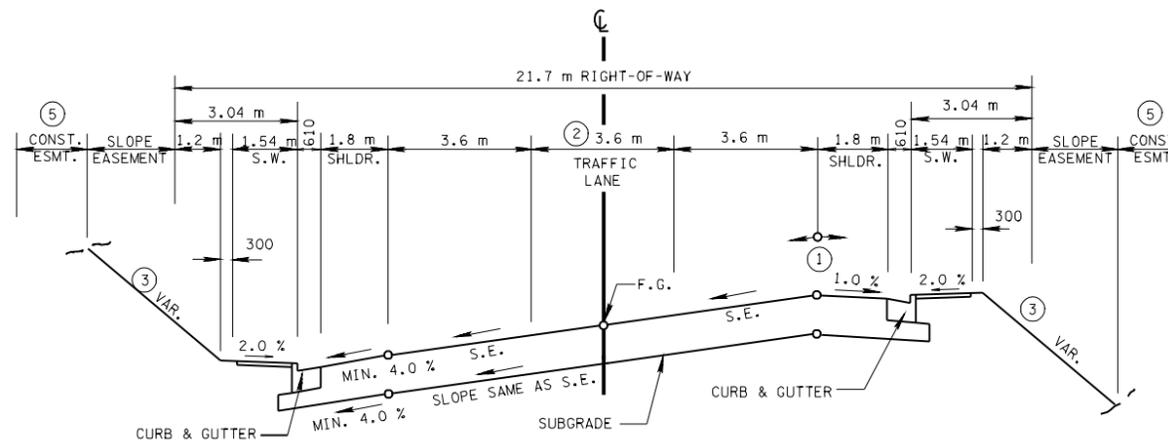


TANGENT SECTION (4)



SUPERELEVATED SECTION (4)

**GENERAL NOTES**

- (A) FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001.
- (B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001.
- (C) REFERENCE SHOULD ALSO BE MADE TO THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002.
- (D) MINIMUM RIGHT-OF WAY IS THAT REQUIRED TO ACCOMMODATE SLOPES AND EROSION CONTROL FEATURES (4.5 METERS TO 6.0 METERS OUTSIDE THE SLOPE LINES IS DESIRABLE IN RURAL AREAS).
- (E) ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR MS-18 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.
- (F) 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 0.6 METERS CLEARANCE ON EACH SIDE. BRIDGES SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 1.0 METER CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF MS-18 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.
- (G) THIS TYPICAL SECTION IS DESIGNED TO ACCOMMODATE AN AVERAGE DAILY TRAFFIC OF 5,000 TO 12,500 VEHICLES PER DAY, WHICH IS CONSIDERED TO BE THE TRAFFIC VOLUME NEEDED TO JUSTIFY THE CONTINUOUS TWO-WAY LEFT TURN LANE (CTWLTL) FOR A 2-LANE HIGHWAY. THE TYPICAL SECTION DESIGN FOR VOLUMES LESS THAN 5,000 VEHICLES PER DAY USES THE DESIGN STANDARDS SHOWN ON STANDARD DRAWINGS RDMOI-TS-1, RDMOI-TS-2 AND RDMOI-TS-3.
- (H) WHEN ENCOUNTERING MAJOR INTERSECTIONS, DO NOT EXTEND THE CONTINUOUS TWO-WAY LEFT TURN LANE (CTWLTL) UP TO THE INTERSECTION. TERMINATE THE CTWLTL IN ADVANCE OF THE INTERSECTION TO ALLOW DEVELOPMENT OF AN EXCLUSIVE LEFT-TURN LANE. MINOR INTERSECTIONS MAY NOT WARRANT AN EXCLUSIVE LEFT-TURN LANE. STRIPING DETAILS ARE SHOWN ON TM-M-1 OR CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."
- (I) ON WIDENING OF EXISTING TWO-LANE HIGHWAY TO THREE-LANE HIGHWAY THE SHOULDER WIDTH MAY BE REDUCED TO ZERO METERS AND THE ROADWAY LANE WIDTH TO 3.3 METERS UNDER THE FOLLOWING CONDITIONS:
  - (1) THE DESIGN ADT IS 12,500 VEHICLES PER DAY OR LESS.
  - (2) THE DESIGN SPEED IS 60 KILOMETERS PER HOUR.
  - (3) THERE ARE RESTRICTED AND/OR LIMITED CLEARANCES FOR RIGHT-OF-WAY DUE TO THE EXISTING SOCIAL, ENVIRONMENTAL OR ECONOMIC CONDITIONS.
  - (4) WHEN SUFFICIENT NUMBERS OF ACCIDENTS AND/OR DELAYS IN TRAFFIC EXIST DUE TO MID-BLOCK LEFT TURNS TO JUSTIFY A CONTINUOUS LEFT TURN LANE ON EXISTING TWO-LANE ROADWAY.
- (J) SEE DETAIL A FOR GUARDRAIL PLACEMENT AND GUARDRAIL STANDARD DRAWINGS (SM-GR-SERIES).

**FOOTNOTES**

- (1) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0 %.
- (2) THE DESIRABLE LANE WIDTH IN INDUSTRIAL AREAS WITH HEAVY TRUCK TRAFFIC IS 4.2 METERS.
- (3) ON URBAN PROJECTS THE BACKSLOPE AND FORESLOPE DESIGN WILL VARY FROM PROJECT TO PROJECT, AS A GENERAL RULE USE THE FOLLOWING:
  - 3:1 SLOPES OR FLATTER ARE DESIRABLE AND 2:1 SLOPES ARE APPLICABLE IN AREAS WHERE RIGHT-OF-WAY RESTRICTIONS OR COST WARRANTS A STEEPER THAN 3:1 SLOPE. THE MAXIMUM SLOPE IN REGION IV IS 3:1.
- (4) THESE TYPICAL SECTIONS WERE DEVELOPED FOR LOCAL ROADS AND STREETS AND COLLECTOR ROADS WITH DESIGN SPEEDS 70 KILOMETERS PER HOUR AND LOWER. IF A CTWLTL IS NEEDED ABOVE 70 KILOMETERS PER HOUR OR ON AN ARTERIAL, THE DESIGNER WILL REFER TO THE PROPER RDMOI-TS-SERIES SHEET FOR TYPICAL SECTION REQUIREMENTS.
- (5) 3.0 METERS MINIMUM DESIRABLE.

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ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS  
2-LANE CURB & GUTTER  
WITH CONTINUOUS  
2-WAY LEFT-TURN LANE

10-15-02 RDM01-TS-7A