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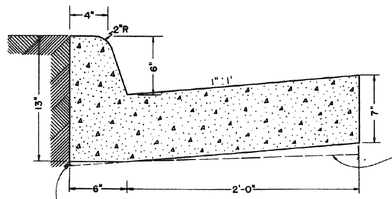
CG-6



This area may be concrete at the option of the contractor

This curb is to be used when design speed is 40 MPH or less on Rural highways and 45 MPH or less in developed urban & suburban areas.

The bottom of the curb and gutter may be constructed parallel to the slope of sub-surface courses provided a minimum depth of 7" is maintained.

Note: Comb. curb & gutter having a radius of 300' or less (along face of curb) shall be paid for as radial combination curb & gutter.

This item may be precast or cast in place.

Concrete to be Class A3 if cast in place, 4000 PSI if precast.

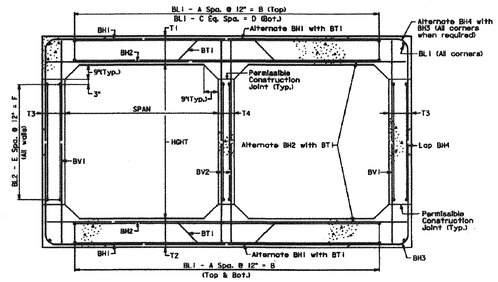
SPECIFICATION REFERENCE
105 502

COMBINATION 6" CURB & GUTTER

VIRGINIA DEPARTMENT of TRANSPORTATION

20103

BCD-DT



TYPICAL SECTION

Sheet 1 of 3

DOUBLE BOX CULVERTS

STANDARD DETAILS

VIRGINIA DEPARTMENT OF TRANSPORTATION

1003.01

STRUCTURE AND BRIDGE DIVISION

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GENERAL NOTE

Capacity: HS20-44 Loading and Alternate Military Loading.

Specifications:

Construction - Va. Department of Transportation Road and Bridge Specifications, 1991.
Design - AASHTO Standard Specifications for Highway Bridges, 1983, Including Interim Specifications, 1984, 1985 and VDOT Modifications, using Load Factor Design.

All concrete shall be Class A4.

Deformed reinforcing bars shall conform to ASTM A615, Grade 60. All reinforcing bar dimensions on the detailed drawings are to centers of bars except where otherwise noted and are subject to fabrication and construction tolerances.

Construction joints shall be constructed and bonded in accordance with the current Road and Bridge Specifications.

Barrels more than 35' in length shall be poured in sections by providing vertical construction joints, not exceeding 25' between joints nor more than 30' from ends of barrels.

** All bends shall be made with a pin diameter as listed in TABLE A except for Bars BH3 & BH4 which shall have a pin diameter of 24 bar diameters.

Dimensions on bar diagrams are out-to-out of bars. Bars are straight and #4 in size unless otherwise shown. BL2 shall be #3 in size.

The number of BL1 & BL2 bars shown in the table is the number of longitudinal bars shown in the Typical Section and may not equal the total number of bars required. BL1 & BL2 shall have a lap of 30 bar diameters at splices. At construction joints, first placed bars shall project 30 bar diameters beyond the joint. Estimated QUAN./LF shown for reinforcing steel does not include quantity for laps of BL1 & BL2 bars. The additional weight per longitudinal lap is shown in the table.

The centers of main reinforcing bars shall be 2" from the face of the concrete.

When concrete protective coating is required, all steel shall be epoxy-coated. All reinforcing steel for culverts under 0 to 2 foot fills shall be epoxy-coated.

At the Contractor's option, BV1 & BV2 bars may be spliced at the permissible construction joint in order to facilitate construction. No additional compensation shall be provided for the increase in reinforcing steel quantity due to the splices.

Bar HW2 shall be 4" less than culvert height in length.

Headwall quantities shown assume wingwalls are to be built at a 45° angle to the headwall.

The designs are applicable to the fill height and other conditions indicated. Any change in the conditions invalidates these designs.

Wingwalls referenced by letter apply when the acceptable foundation level is the same for both box and wings. If foundation levels are different, the height of the wingwall shall be adjusted by selection of another lettered wingwall of appropriate height. For wingwall details, refer to standard series BCW for the appropriate fill slope.

For details of extending existing boxes, refer to Standard BCE-01.

For modification of details for skewed culverts, see the Skewed Box Details included in the road plans.

This standard shall be used with the BCD standard series.

Sheet 2 of 3

STRUCTURE AND BRIDGE DIVISION

DOUBLE BOX CULVERTS

STANDARD DETAILS

VIRGINIA DEPARTMENT OF TRANSPORTATION

1003.02

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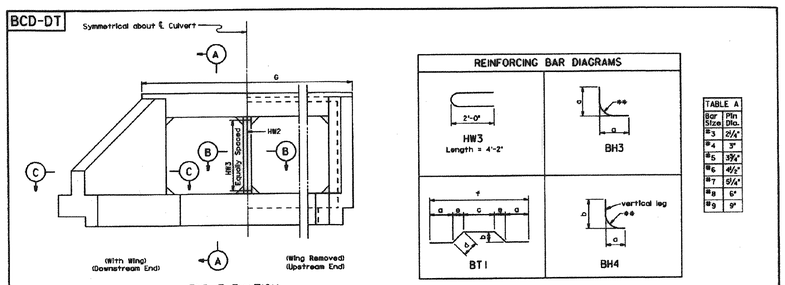
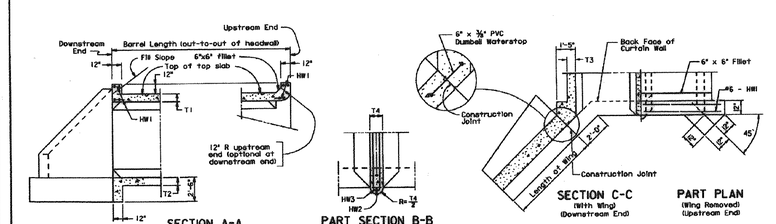


END ELEVATION

TABLE A	
Bar Size	Pin Dia.
#3	2¼"
#4	3"
#5	3¾"
#6	4½"
#7	5¼"
#8	6"
#9	9"



SECTION A-A (With Wing)

PART SECTION B-B UPSTREAM END (Optional at downstream end)

SECTION C-C (With Wing) (Downstream End)

PART PLAN (Wing Removed) (Upstream End)

Sheet 3 of 3

DOUBLE BOX CULVERTS

STANDARD DETAILS

VIRGINIA DEPARTMENT OF TRANSPORTATION

1003.03

STRUCTURE AND BRIDGE DIVISION

BCD-10

| DIMENSIONS | | | | | | REINFORCING STEEL | | | | | |