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July 31, 1996

INSTRUCTIONAL BULLETIN NO. 96-12

Superseded by 1999-9 Superseded by 1998-8 Superseded by 2002-4

SUBJECT: Bridge End Curb And Flume
EFFECTIVE DATE: November 1, 1996
SUPERSEDES: Instructional Bulletin No. 95-14 - BRIDGE END BITUMINOUS CURB AND FLUME
RE: NONE

Standard Drawing 721-1 has been changed to provide a "Concrete Curb (9" x 15") "in lieu of Bituminous Curb" at bridge ends. This has resulted in a change of Instructional Bulletin 95-14 as noted below.

Use "Bridge End Concrete Curb (9" x 15") and Flume" on all bridge ends where concrete curb and gutter with flume is not provided by bridge plans. Bid items as shown on Standard Drawing No. 721-1 should be calculated and included in the General Construction Note.

Asphalt Concrete Surface Course of the same type used on the roadway shall be used for shoulder paving at an application rate of 275 kg/m^2 (500 lbs/SY).

Asphalt Cement in Paving Mixture is included in Asphalt Concrete Surface Course For Ditch Paving.

EXAMPLE FOR TWO BRIDGE ENDS (FOUR CORNERS) ON TANGENT NORMAL CROWN

Inclusion Note:

Concrete Curb (9" x 15")	8 m (26 LF) for Bridge Ends
Hand Placed Rip Rap	40 t (40 Tons) for Bridge Flume Ends

Geotextile for Erosion Control Under Rip Rap (Class 2) Type __	80 m^2 (80 S. Y.) to be placed under Hand Placed Rip Rap
*Asphalt Concrete Surface Course	51 t (54 Tons) for Drives 15t (16), Leveling 23 t (25) and Bridge Ends 13 t (13)
*Asphalt Cement in Paving Mixture Ends	3 t (3 Tons) for Drives, Leveling & Bridge
#Asphalt Conc. Surf. Course For Ditch Paving	3 t (3 Tons) For Flumes

*These quantities vary according to shoulder width
#This quantity varies according to fill height and slope

Note For Plan Sheet (to Be Placed On One Corner Only)

Construct Shoulder Paving, Bridge End
Concrete Curb (9" x 15") And Flume With Riprap
^Erect Thrie Beam Bridge Connector and MELT
(Typical Four Corners)

^Bridge end protection note may be modified to fit varying end treatment conditions

EXAMPLE FOR TWO BRIDGE ENDS (FOUR CORNERS) ON CURVE - SUPERELEVATED

Inclusion Note:

Concrete Curb (9" x 15")	4 m (13 LF) for Bridge Ends
Hand Placed Rip Rap	20 t (20 Tons) for Bridge Flume Ends
Geotextile for Erosion Control Under Rip Rap (Class 2) Type __	40 m^2 (40 S. Y.) to be placed under Hand Placed Rip Rap
*Asphalt Concrete Surface Course	51 t (54 Tons) for Drives 15t (16), Leveling 23 t (25) and Bridge Ends 13t (13)
*Asphalt Cement in Paving Mixture Ends	3 t (3 Tons) for Drives, Leveling & Bridge
#Asphalt Conc. Surf. Course For Ditch Paving	2 t (2 Tons) For Flumes

*These quantities vary according to shoulder width
#This quantity varies according to fill height and slope

Note For Plan Sheet (to Be Placed On One Corner Only)

Construct Shoulder Paving, Bridge End
Concrete Curb (9" x 15") And Flume With Riprap
^Erect Thrie Beam Bridge Connector and MELT
(Typical Four Corners)

^Bridge end protection note may be modified to fit varying end treatment conditions

Do not place "Bridge End Concrete Curb and Flume" on the high side of a superelevated bridge. Paved shoulder will be included on high side of superelevation

APPROVED: _____

E. S. Eagle
Road Design Engineer