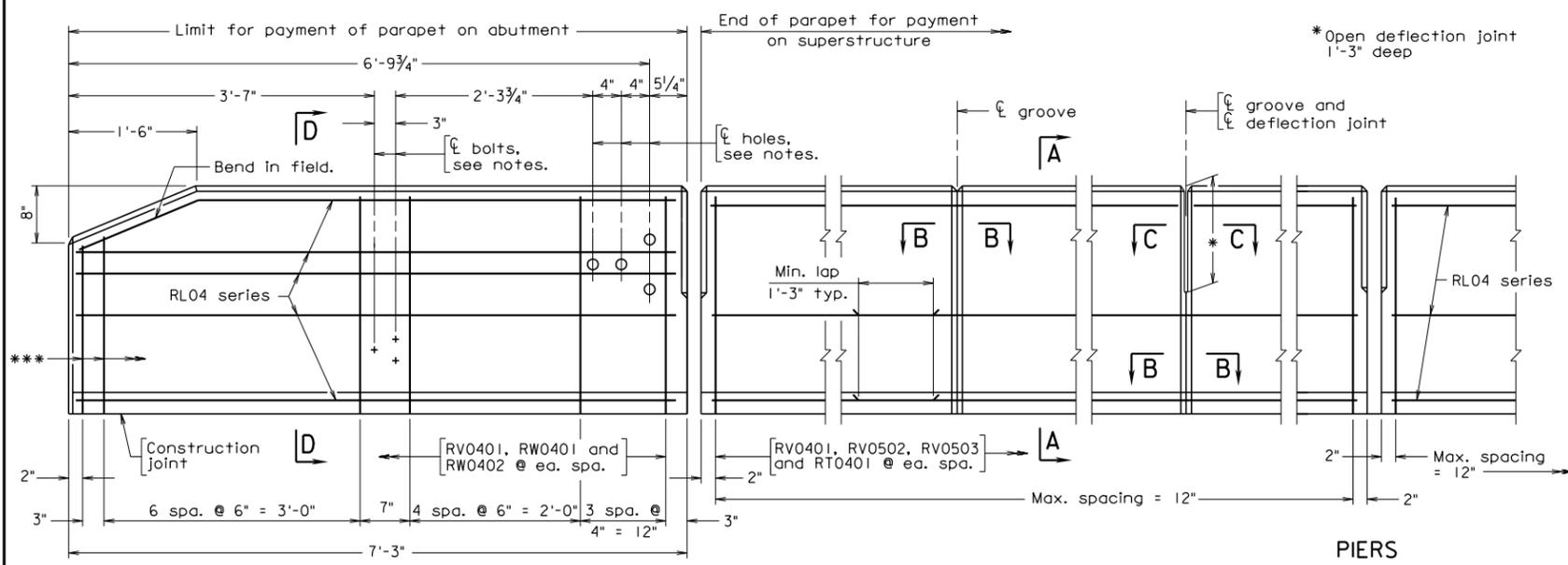


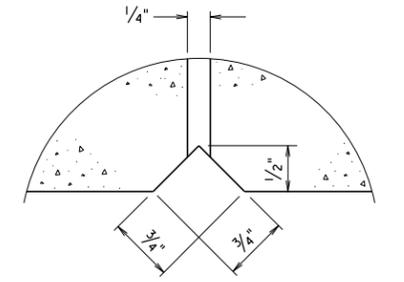
STATE	FEDERAL AID	STATE	SHEET NO.
VA.	PROJECT	ROUTE PROJECT	



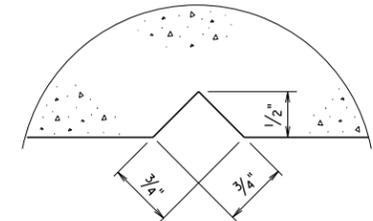
*** Adjust length of bars as needed at end.

TERMINAL WALL ABUTMENTS

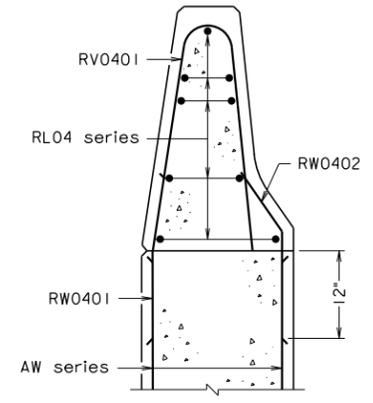
ELEVATION



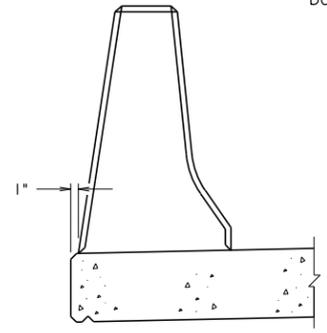
SECTION C-C
Full scale
Deflection joint detail for both sides of parapet



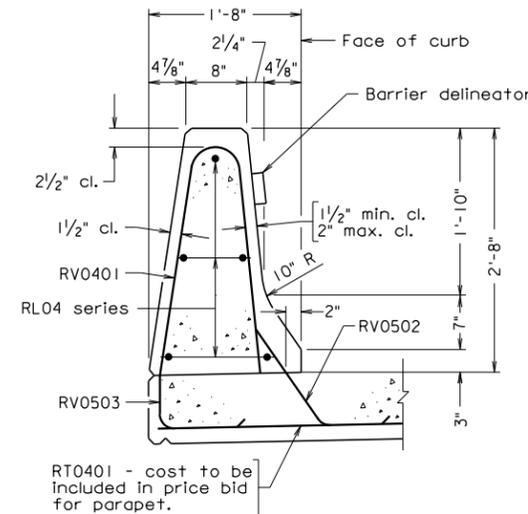
SECTION B-B
Full scale
Groove detail for both sides of parapet



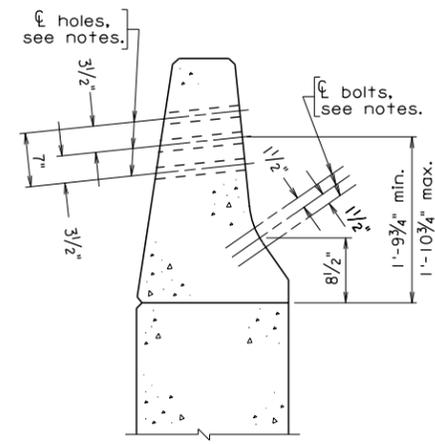
SECTION D-D
Holes and bolts not shown. For details not shown, see Section A-A.



SECTION THRU JOINTS FOR EXTRUSION ONLY



SECTION A-A



SECTION D-D
Reinforcing steel not shown.

Notes:

Rounded edges with 1" radius may be used in lieu of bevels along top of parapet.

All reinforcing bars shall be Corrosion Resistant Reinforcing Steel, Class ...

Detail shown at pier is applicable when joint is in slab. When slab is continuous over pier, use groove and deflection joint.

Spacing of grooves to be approximately 8'-0". If lighting standard is used (see Bridge Conduit System), groove shall be located approximately 4'-0" from light standard. Spacing of deflection joints shall not exceed three groove spaces.

Barrier delineator size, color, and spacing to be in accordance with the Specifications. Cost of delineator to be included in the price bid for parapet. Reflective surface of barrier delineator, in all instances, to be facing oncoming traffic.

The Contractor shall determine all dimensions and details necessary for installation.

All concrete shall be Class A4. For details of wingwall below construction joint, see abutment sheet(s).

Terminal walls are detailed to take guardrail attachment GR-FOA-2.

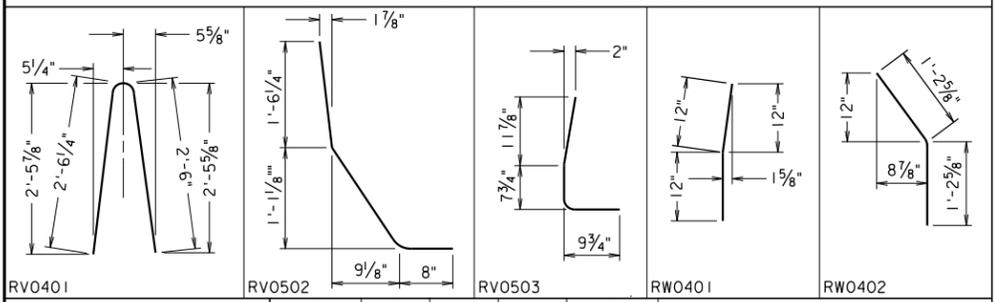
Holes, where shown, shall be formed with sleeves of 1/2" dia. nominal pipe.

Bolts, where shown, shall be 5/8" dia. expansion anchor bolts, 6" long to be drilled and installed when rub rail is attached.

For extruded parapets: During extrusion, open joints at abutments and piers shall be formed by the use of lubricated plates or other means so that uniformity of the opening and chamfers is maintained. Dimension of 1" (as shown in Section thru Joints for Extrusion Only) is additional deck slab that shall be cast at Contractor's expense. Dimension(s) to face of curb shall not be reduced.

Plan dimensions shown are measured in the respective horizontal and vertical planes. The reinforcing steel shown has been detailed based on a standard 1/4" per foot cross slope. The Contractor shall adjust the reinforcing steel as required for other cross slopes.

REINFORCING STEEL SCHEDULE



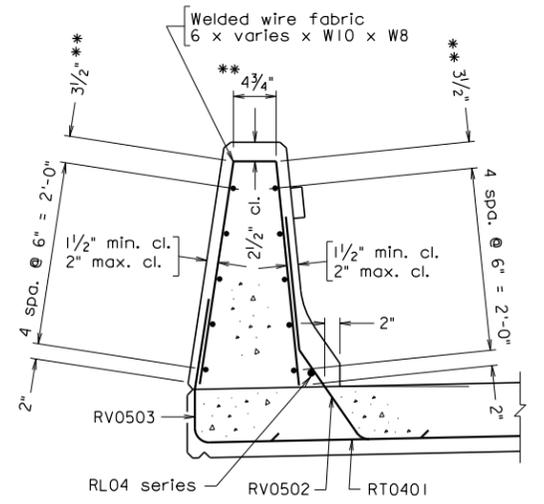
Mark	No.	Size	Pin ø	Length	Location
RT0401		#4		3'-0"	Slab
RV0401		#4	4 1/2"	5'-2"	Parapet
RV0502		#5	3 3/4"	3'-5 5/8"	Parapet
RV0503		#5	3 3/4"	2'-4"	Parapet
RW0401		#4	3"	2'-0"	Terminal wall and wing
RW0402		#4	3"	2'-5"	Terminal wall and wing
RL04		#4			Parapet

Dimensions in bending diagram are out-to-out of bars, except as shown.

Cost of all bars listed in schedule to be included in price bid for parapet.

Gross concrete quantities (C.Y.) = Lin. Ft. x 0.105
All concrete above roadway slab

RT0401 - cost to be included in price bid for parapet.



SECTION A-A
ALTERNATE REINFORCING STEEL

** Dimensions are out-to-out of wires.

bbp3b.dgn

12-14-2012

BPB-3B

Sealed and Signed by:
Julius F.J. Volgyi Jr.
Lic. No. 010487
On the date of
December 14, 2012

A copy of the original sealed and signed standard drawing is on file in the Central Office.

VDOT S&B DIVISION
RICHMOND, VA
STRUCTURAL ENGINEER

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION
STRUCTURE AND BRIDGE DIVISION

CAST-IN-PLACE
CONCRETE PARAPET (F-SHAPE)

No.	Description	Date	Designed: S&B, DIV	Date	Plan No.	Sheet No.
			Drawn: S&B, DIV		BPB-3B	
			Checked: S&B, DIV			

Scale: 1" = 1'-0" unless otherwise shown.

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CAST-IN-PLACE CONCRETE PARAPET F-SHAPE

TERMINAL WALL ON ABUTMENT

NOTES TO DESIGNER:

The F-shape parapet has a height of 2'-8" and has been crash tested for TL-4 (TL = test level). It is to be used as the normal traffic barrier unless an open rail is required.

Terminal wall is detailed on abutment.

Reinforcing steel dimensions given in the Reinforcing Steel Schedule are for a standard deck with $\frac{1}{4}$ " per foot slope and for an $8\frac{1}{2}$ " slab depth. For other slopes or slab depths, the reinforcing steel dimensions may have to be adjusted.

If an initial bituminous overlay is used on the bridge at the time of construction, vertical dimensions and dimensions for reinforcing steel need to be adjusted. The dimensions shown are established from the top of the roadway surface. Therefore, for example if a 1" overlay at the curb is set, the 3" curb dimension and the overall 2'-8" height of the parapet would need to be adjusted to 4" and 2'-9" respectively (Section A-A). In addition, the $8\frac{1}{2}$ " and 1'-9" height of the bolts would need to be adjusted to $9\frac{1}{2}$ " and 1'-10" respectively (View D-D).

It is the Contractor's responsibility to determine the number of reinforcing bars required as well as any details or dimensions. Therefore, these items are to be left blank in the Reinforcing Steel Schedule.

AW series bars are included in abutment reinforcement.

ADD THE FOLLOWING NOTES, DIMENSIONS, DETAILS, ETC. TO STANDARD:

SECTION A-A:

Modify vertical dimensions (3" curb and 2'-8" parapet height) as noted above if an initial overlay is used on bridge.

SECTION D-D:

Modify vertical dimensions ($8\frac{1}{2}$ " curb and 1'-9" bolt locations) as noted above if an initial overlay is used on bridge.

REINFORCING STEEL SCHEDULE:

Modify bars if needed due to slab depth, cross slope, or initial overlay if used on bridge.

NOTES:

Complete first note by adding the Class I, II or III of corrosion resistant reinforcing steel required. For additional information on corrosion resistant reinforcing steel (CRR), see Structure and Bridge Division Memorandum (current IIM-S&B-81).