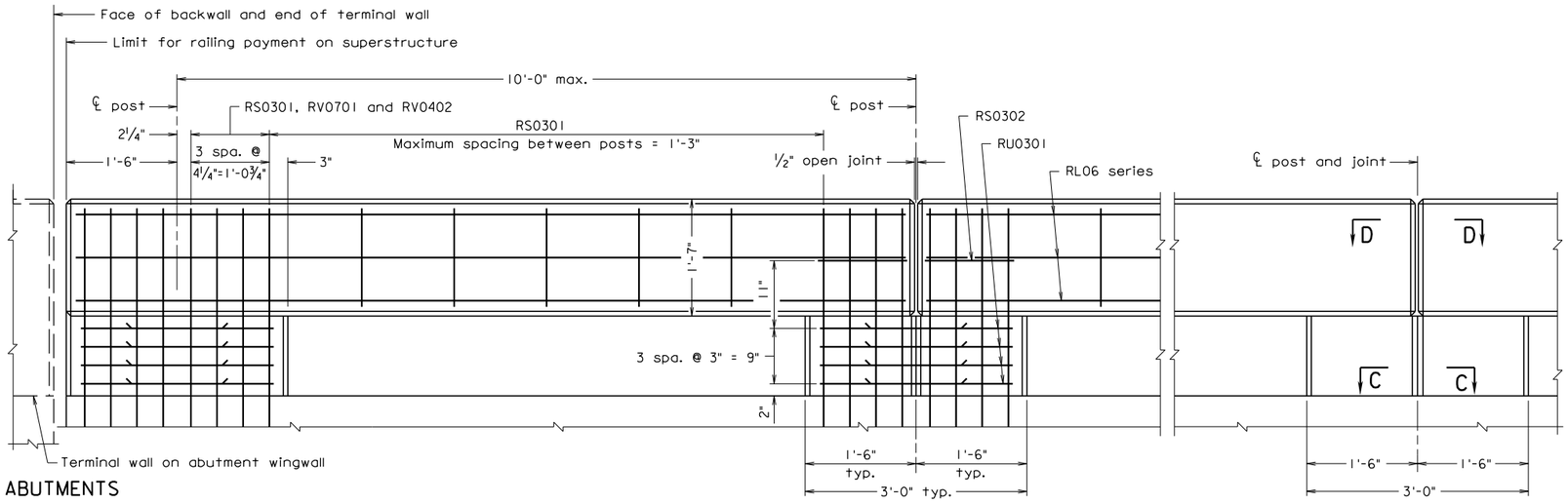
STATE	FEDERAL AID		STATE		SHEET NO.
	ROUTE	PROJECT	ROUTE	PROJECT	
VA.	—				



ABUTMENTS

TYPICAL ELEVATION

Notes:

Plan dimensions shown are measured in the respective horizontal and vertical planes.

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

All concrete shall be Low Shrinkage Class A4 Modified.

All bevels for concrete shall be ¾".

The reinforcing steel shown has been detailed based on a standard ¼" per foot cross slope and for an 8½" slab depth. The Contractor shall adjust the reinforcing steel as required for other cross slopes and slab depths.

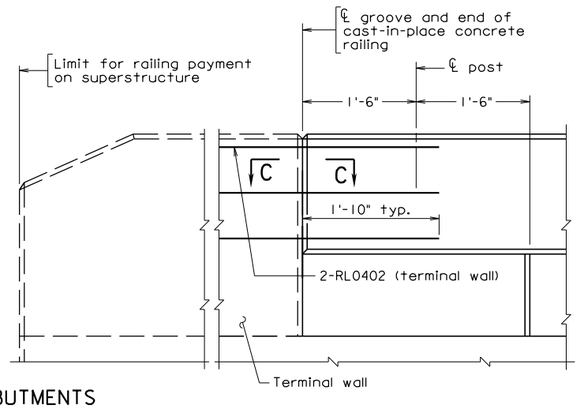
All reinforcing steel shall be Corrosion Resistant Reinforcing Steel, Class __.

RL0401 bars are not required for deck slabs.

Barrier delineator size, color and spacing shall be in accordance with the Specifications.

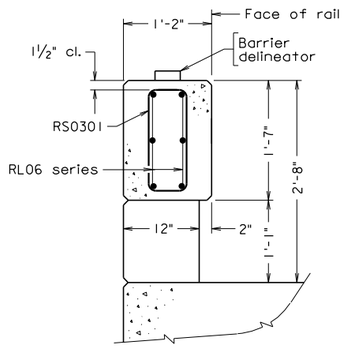
For details and reinforcing steel schedule of terminal wall, see sheet __.

Bid item for railing shall include concrete noted in plans, barrier delineators and reinforcing steel indicated in reinforcing steel schedule.

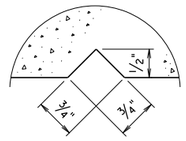


ABUTMENTS

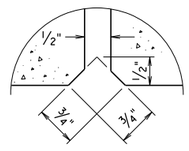
PART ELEVATION
Terminal Wall on Superstructure



TYPICAL SECTION BETWEEN POSTS
Reinforcing steel on deck not shown

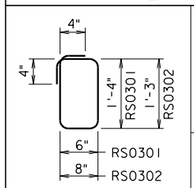


SECTION C-C
Not to scale
Groove detail for both sides of post, rail or terminal wall

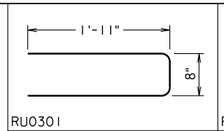


SECTION D-D
Not to scale
Deflection joint detail for both sides of rail

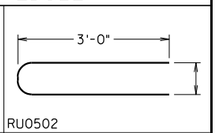
REINFORCING STEEL SCHEDULE



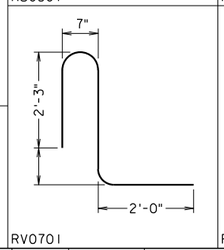
RS0301 and RS0302



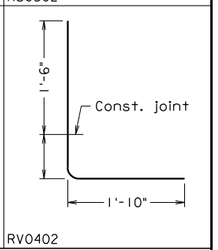
RU0301



RU0502



RV0701

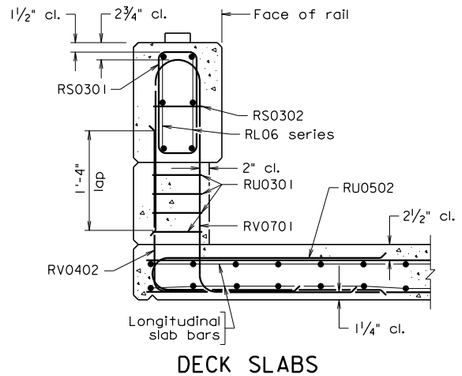


RV0402

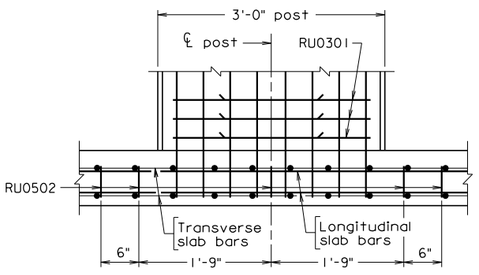
Mark	No.	Size	Pin ø	Length	Location
RS0301	·	#3	2¼"	3'-11"	Rail
RS0302	·	#3	2¼"	4'-1"	Posts
RU0301	·	#3	2¼"	4'-4"	Posts
RU0502	·	#5	——	·	Slab at posts (Deck Slabs)
RV0701	·	#7	5¼"	·	Posts
RV0402	·	#4	3"	·	Posts
RL0401	·	#4	——	6'-6"	Slab at posts (Slab Spans)
RL06	·	#6	——	·	Rail

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

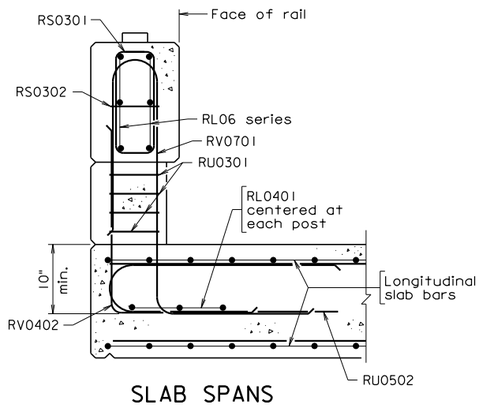
Gross concrete quantities above roadway slab :
Railing : C.Y. = Lin. Ft. x 0.084



DECK SLABS



ELEVATION SHOWING RU0502 PLACEMENT
(Elevation shown is for deck slabs. Placement of RU0502 is the same for slab spans.)



SLAB SPANS

bcr4.dgn

08-17-2016

Sealed and Signed by:
Prasad L. Nallapaneni
Lic. No. 033003
On the date of
August 17, 2016

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

BCR-4

No.	Description	Date
	Revisions	

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

STRUCTURE AND BRIDGE DIVISION

CAST-IN-PLACE CONCRETE RAILING 32" KANSAS CORRAL W/O CURB

Designed: S&B..DIV	Date	Plan No.	Sheet No.
Drawn: ...S&B..DIV		BCR-4	
Checked: S&B..DIV			

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

CAST-IN-PLACE CONCRETE RAILING
KANSAS CORRAL

2'-8" HEIGHT WITHOUT CURB

NOTES TO DESIGNER:

The Kansas Corral with a railing height of 2'-8" and without curb section is used for Adjusted Test Level TL-3 for MASH criteria. The original rail has been modified as follows: rail width increased from 12" to 14" and the width of the post increased from 10" to 12". Dimensions were changed to allow for additional reinforcement cover. This rail is for use as a traffic barrier and shall not be used for sidewalk applications.

Use standard only for structures that require increased hydraulic opening and/or visibility and when approach roadway has no curb. Standard is not intended to be used with sidewalk curb(s). Standard may be used for deck slab on stringers and concrete slab spans having a minimum slab thickness of 15".

Select the appropriate terminal wall standard (BCR-6 to BCR-9) to be included in the plans when using this standard.

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 left blank in the Reinforcing Steel Schedule.

If bituminous overlay is placed, dimensions and rebars must be adjusted as noted below.

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

TYPICAL SECTION BETWEEN POSTS:

For projects with bituminous overlay, modify vertical dimensions 1'-1" and 2'-8" (railing height) so that these dimension will be established from top of overlay surface.

NOTES:

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

Complete sheet number for terminal wall.

REINFORCING STEEL SCHEDULE:

Add dimension for rebars RV0701, RV0402, and RU0502.

For projects with bituminous overlay, modify rebar lengths to allow for dimension changes.

TITLE BLOCK:

Replace standard designation with plan number.