

GENERAL CONDUIT NOTES

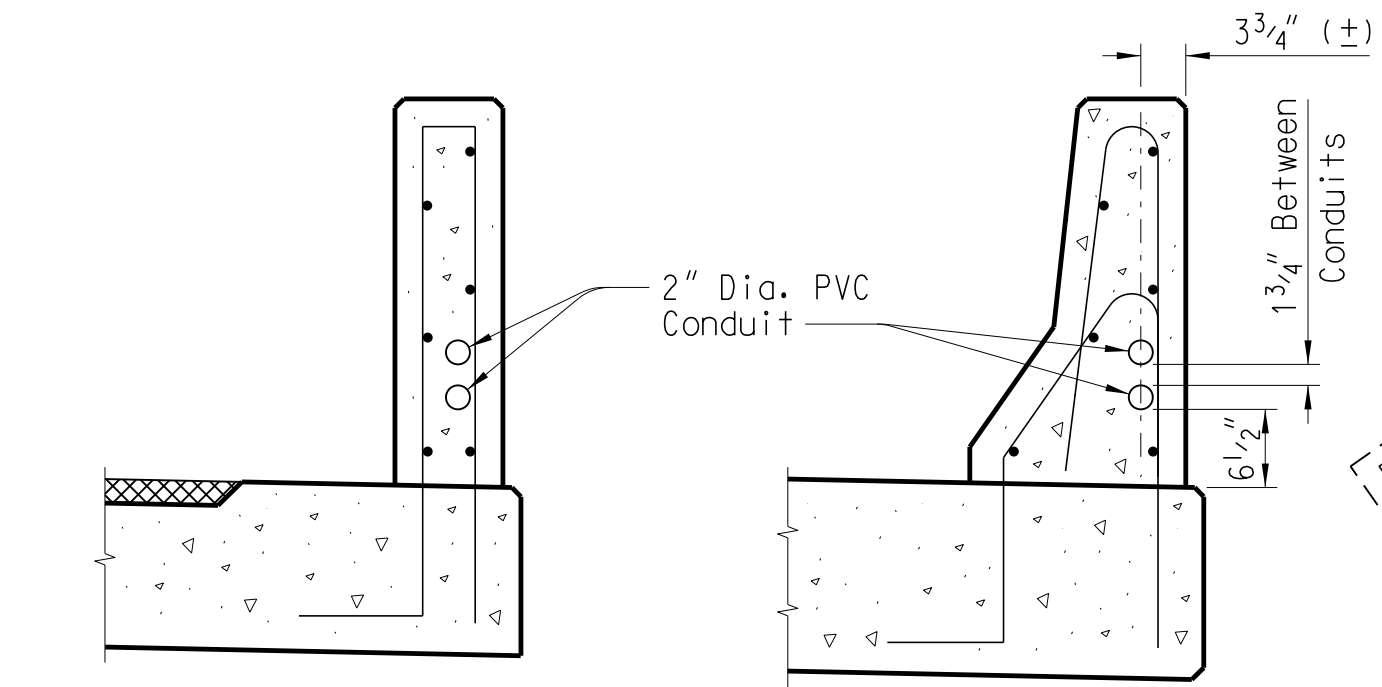
Furnish and install approved conduits and fittings in accordance with the National Electric Code (NEC) and as directed by the RCE.

Furnish Schedule 80 PVC rigid nonmetallic conduits in accordance with NEMA TC-2 and UL Standard 651 and furnish fittings in accordance with NEMA TC-3 and UL Standard 514B. Furnish conduit and fittings with UL labels: conduit - on each 10 foot length; fittings - stamped or molded on each fitting. Connect conduit and fittings using solvent cement in accordance with manufacturer's recommendations.

Furnish and install NEMA Type 4X non-metallic or galvanized steel pull boxes sized in accordance with NEC requirements and the maximum limits shown. Provide gasketed weatherproof covers for the pull boxes.

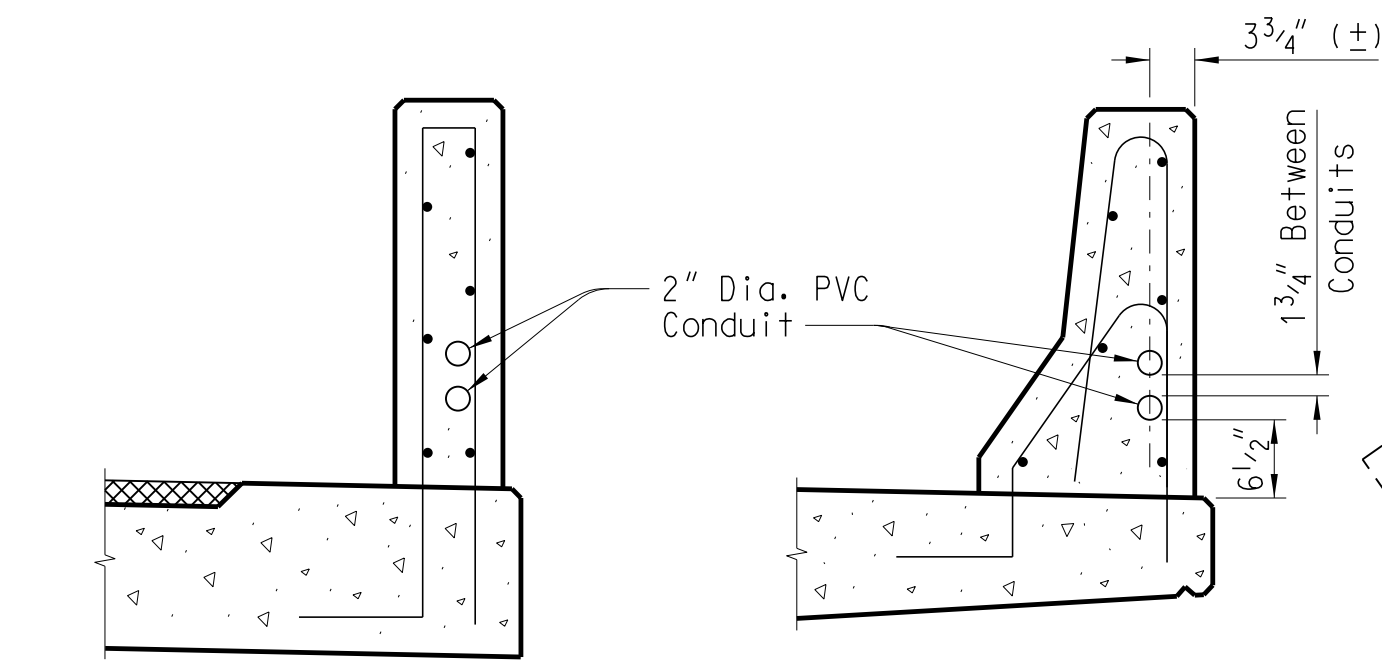
Notes to Designer:

Incorporate into the set of Bridge Plans the appropriate details for two separate 2" diameter Schedule 80 PVC conduits in all concrete bridge barrier parapets and concrete railing walls. Include the applicable Expansion/Fitting detail and/or Expansion/Deflection detail and the applicable notes. Expansion/Fittings should be detailed for open joints at interior bents of bridges with tangent alignments where little or no transverse movement is expected. Expansion/Deflection Fittings should be detailed for open expansion joints of bridges with curved alignments and for open joints at end bents where transverse movement or rotation is expected. At openings where either type of fitting is acceptable, the Expansion which type of fitting is expected. If both Expansion Fittings and Expansion/Deflection Fittings are detailed, identify which type of fitting is required at each open joint in the concrete bridge barrier parapet or concrete railing wall. For any conduit lengths in excess of 300', detail pull boxes. If pull boxes are required, insert the reinforcing steel code numbers in the drawing and include the bars in the Reinforcing Steel Schedule for the superstructure.



SECTION THRU BARRIER TRANSITION

SECTION THRU BARRIER PARAPET



SECTION THRU BARRIER TRANSITION

SECTION THRU BARRIER PARAPET

DETAILS OF CONDUIT IN BARRIER PARAPET

(Typ. ea. side of bridge)

Use Schedule 80 PVC nonmetallic pipe for conduit.

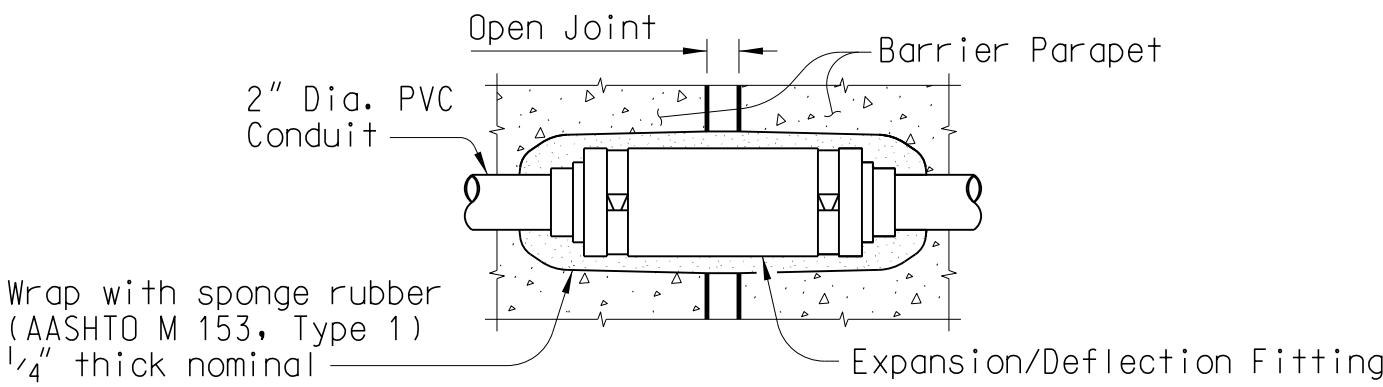
Extend conduits 6 inches beyond each end of the barrier parapet transition and cap with watertight covers.

Provide expansion fittings and/or expansion/deflection fittings at all open joints in the barrier parapet.

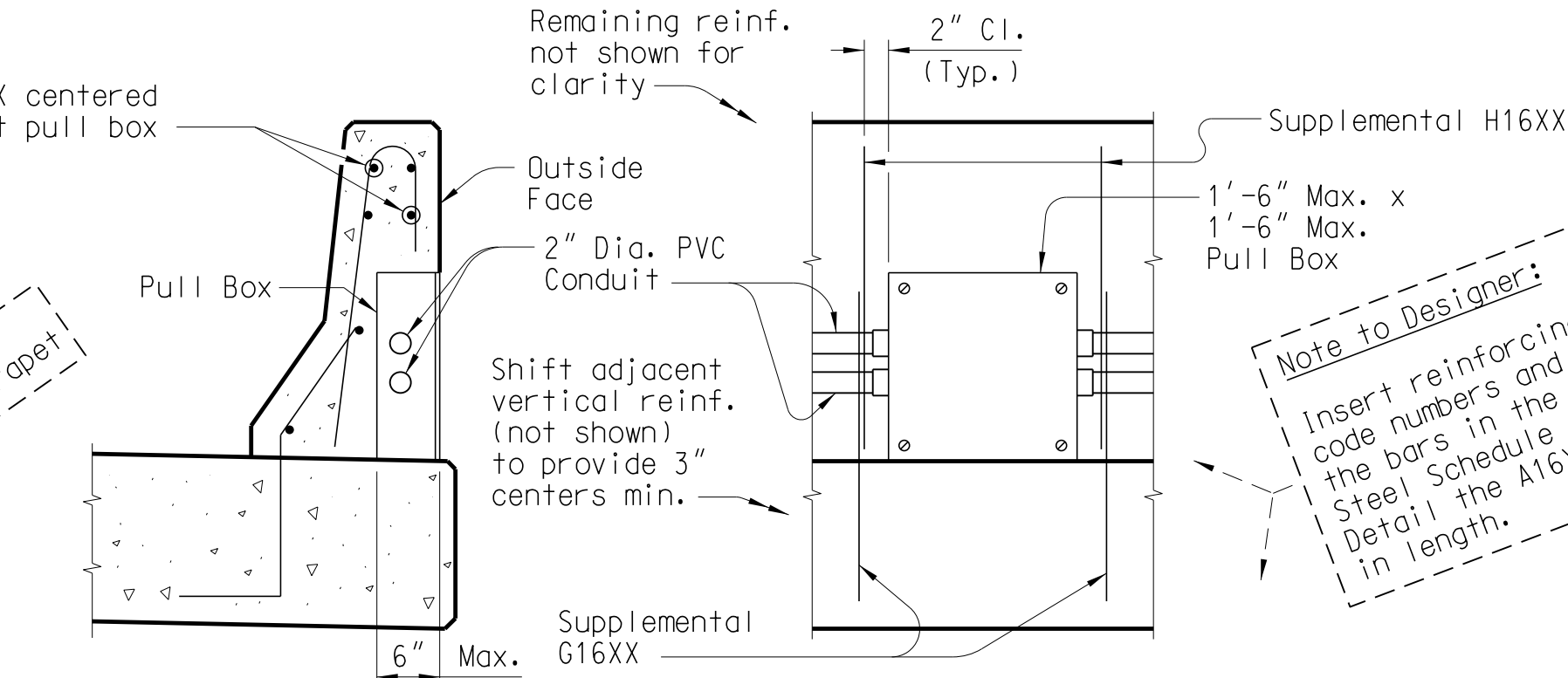
Include all costs for furnishing and installing conduit, expansion/deflection and/or expansion fittings, and any incidentals required in the unit price bid for 2.0" Schedule 80 PVC Conduit.

Note to Designer:

Edit these paragraphs to fit project specific requirements. See "Notes to Designer" above.

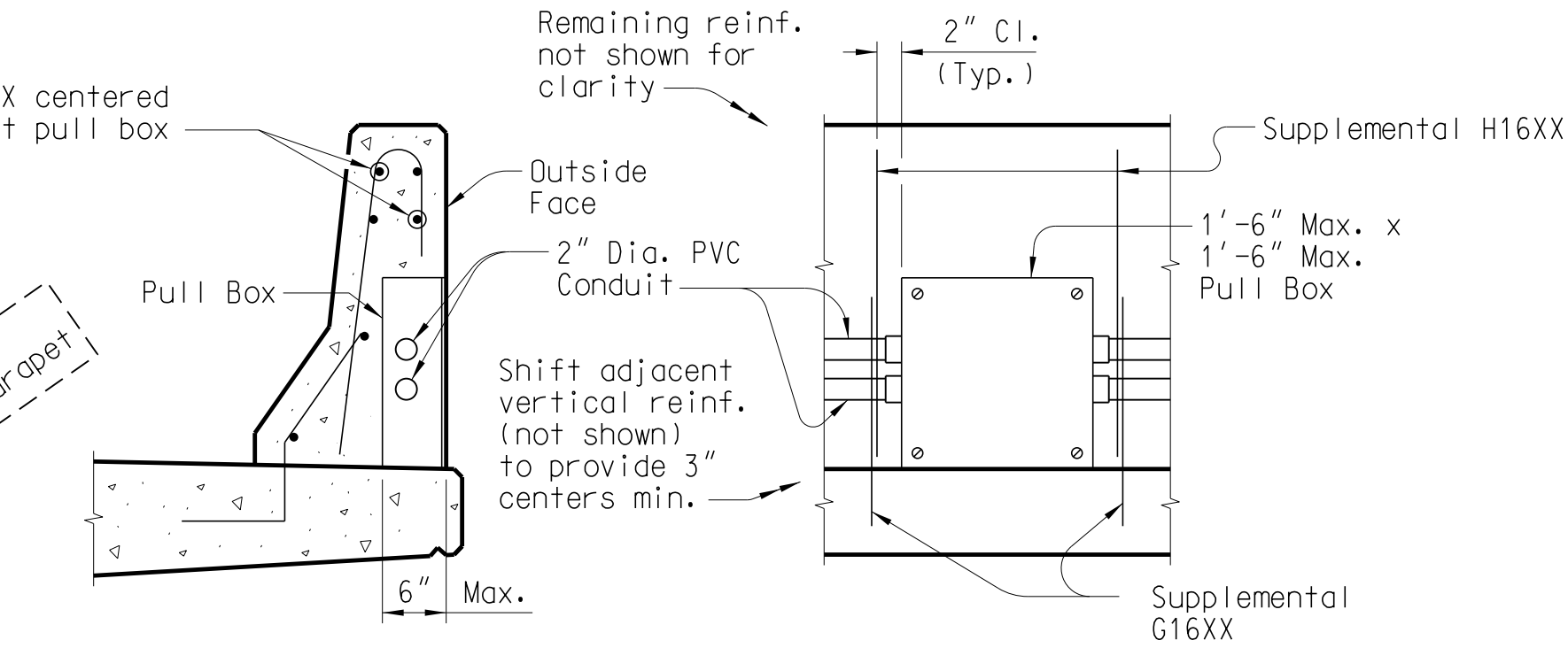


EXPANSION / DEFLECTION FITTING DETAIL



SECTION THRU BARRIER PARAPET AT PULL BOX

ELEVATION OF BARRIER PARAPET AT PULL BOX



SECTION THRU BARRIER PARAPET AT PULL BOX

ELEVATION OF BARRIER PARAPET AT PULL BOX

CONDUIT PULL BOX DETAILS

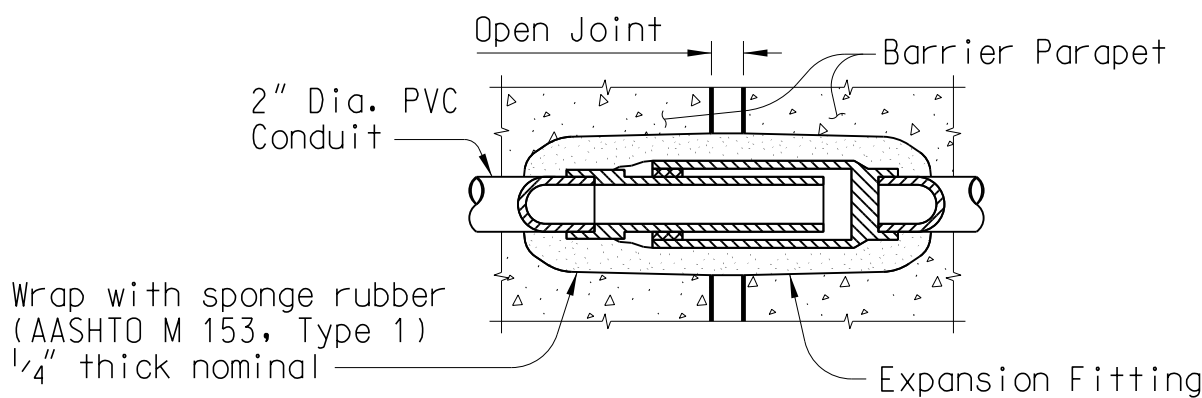
Mount nonmetallic or galvanized steel pull boxes flush with the outside face of the barrier parapet.

Space pull boxes at no more than 300 feet and a minimum of 10 feet from an open joint in the barrier parapet. Do not locate pull box within the barrier parapet transition.

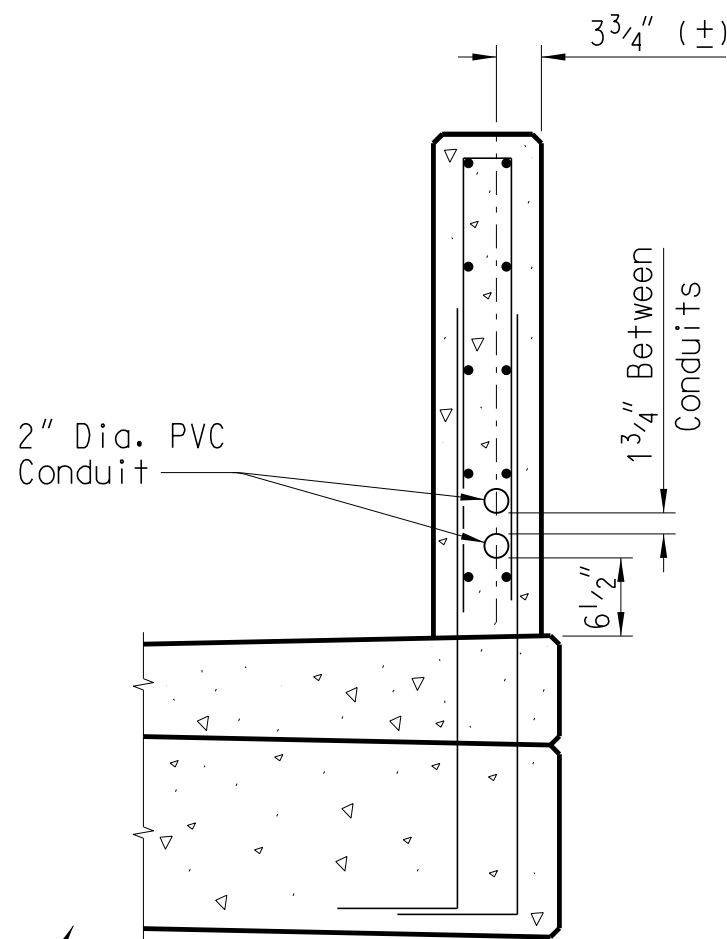
Provide pull boxes with gasketed weatherproof covers.

Field cut and/or bend barrier reinforcing along outside face around the pull boxes as necessary to provide 2 inch clearance between the reinforcing and the pull boxes.

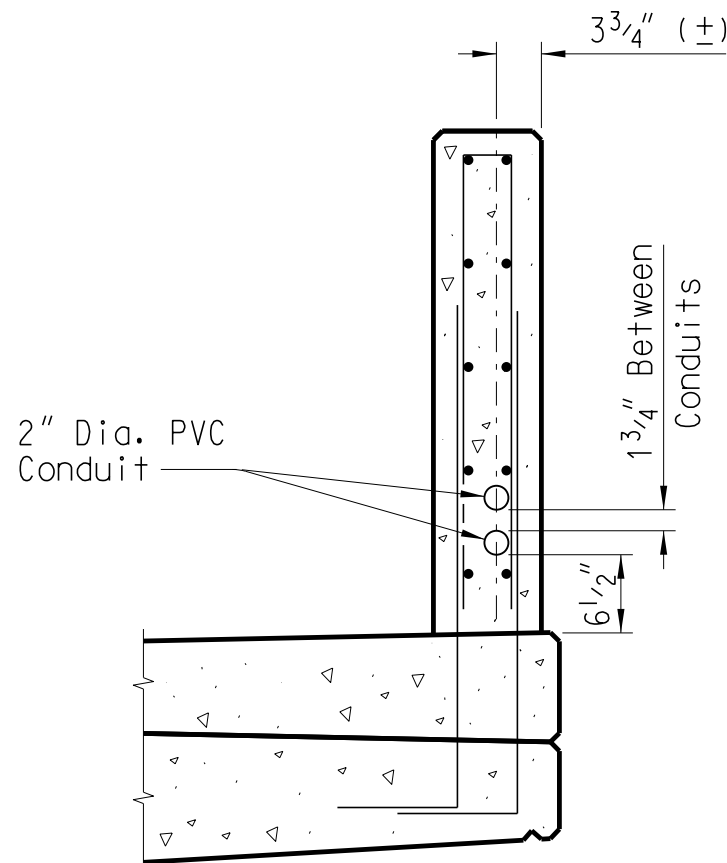
Include all costs for furnishing and installing pull boxes and any incidentals required in the unit price bid for 2.0" Schedule 80 PVC Conduit. Supplemental pull box reinforcement is included in the Superstructure Reinforcing Steel Schedule.



EXPANSION FITTING DETAIL



SECTION THRU RAILING WALL



SECTION THRU RAILING WALL

DETAILS OF CONDUIT IN RAILING WALL

(Typ. ea. side of bridge)

Use Schedule 80 PVC nonmetallic pipe for conduit.

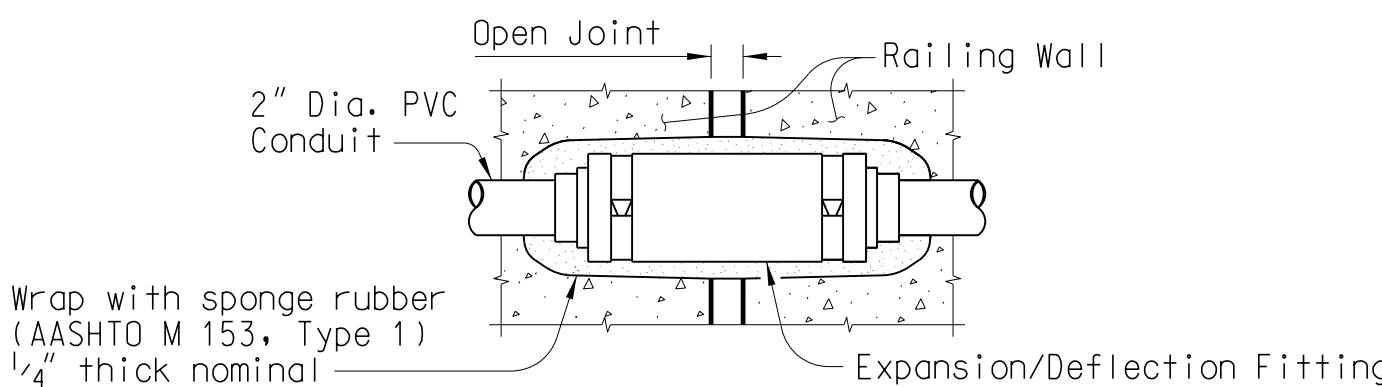
Extend conduits 6 inches beyond each end of the barrier parapet transition and cap with watertight covers.

Provide expansion fittings and/or expansion/deflection fittings at all open joints in the railing wall.

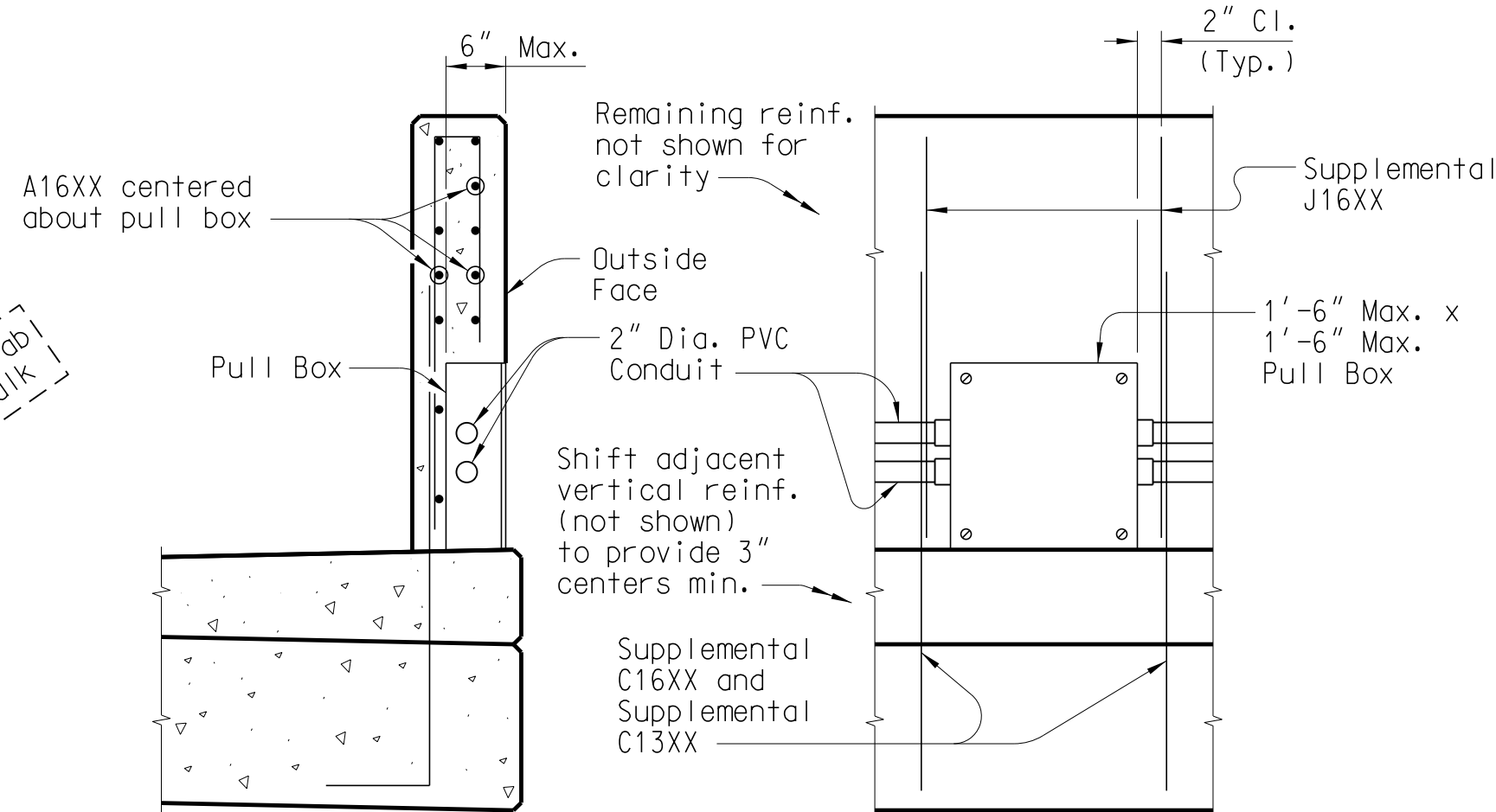
Include all costs for furnishing and installing conduit, expansion/deflection and/or expansion fittings, and any incidentals required in the unit price bid for 2.0" Schedule 80 PVC Conduit.

Note to Designer:

Edit these paragraphs to fit project specific requirements. See "Notes to Designer" above.

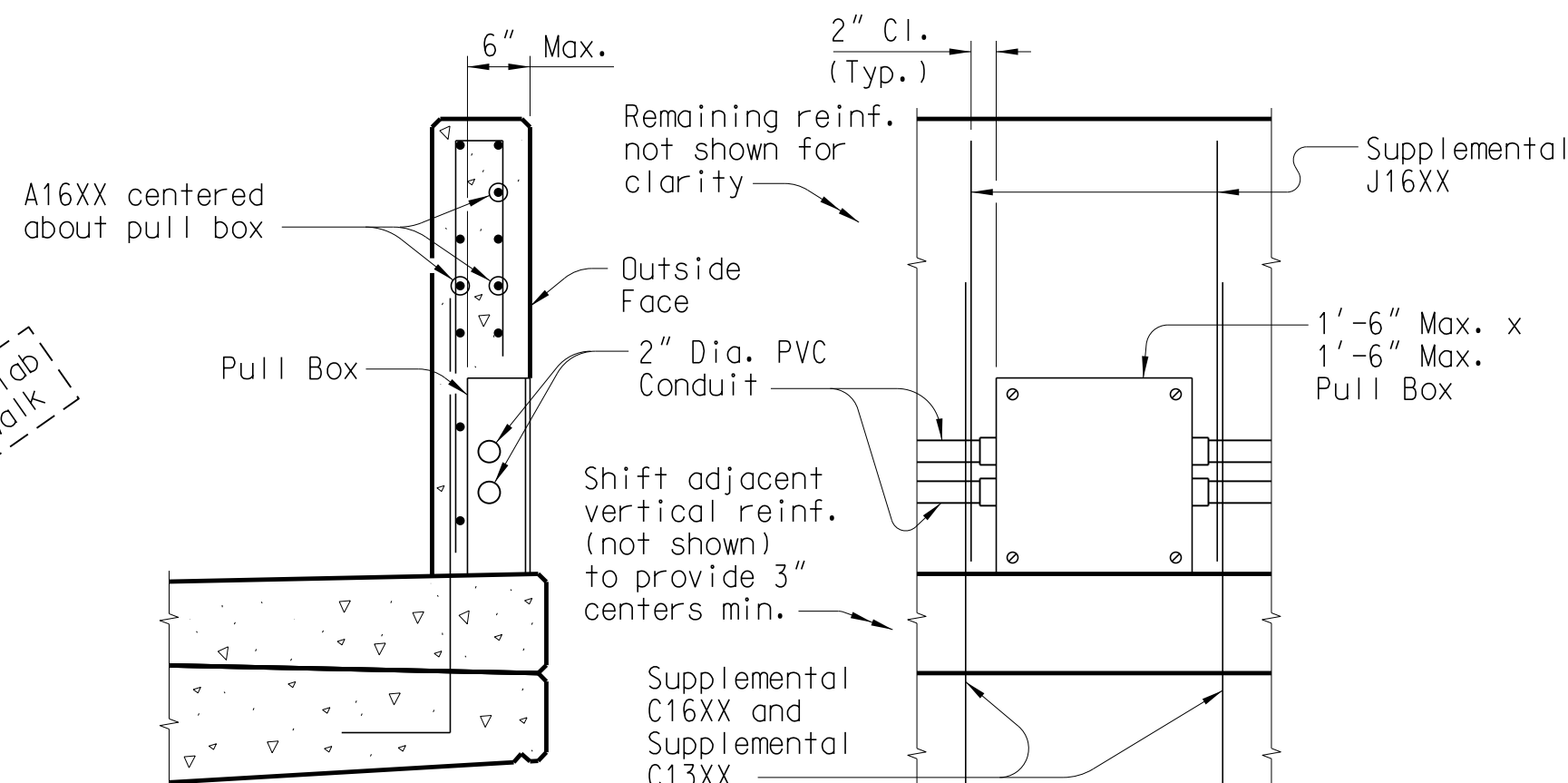


EXPANSION / DEFLECTION FITTING DETAIL



SECTION THRU RAILING WALL AT PULL BOX

ELEVATION OF RAILING WALL AT PULL BOX



SECTION THRU RAILING WALL AT PULL BOX

ELEVATION OF RAILING WALL AT PULL BOX

CONDUIT PULL BOX DETAILS

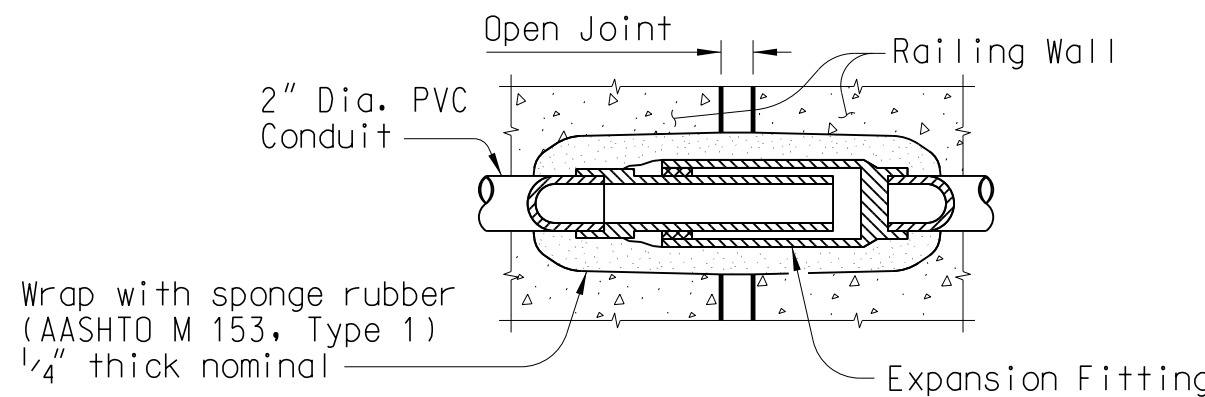
Mount nonmetallic or galvanized steel pull boxes flush with the outside face of the railing wall.

Space pull boxes at no more than 300 feet and a minimum of 10 feet from an open joint in the railing wall.

Provide pull boxes with gasketed weatherproof covers.

Field cut and/or bend railing wall reinforcing along outside face around the pull boxes as necessary to provide 2 inch clearance between the reinforcing and the pull boxes.

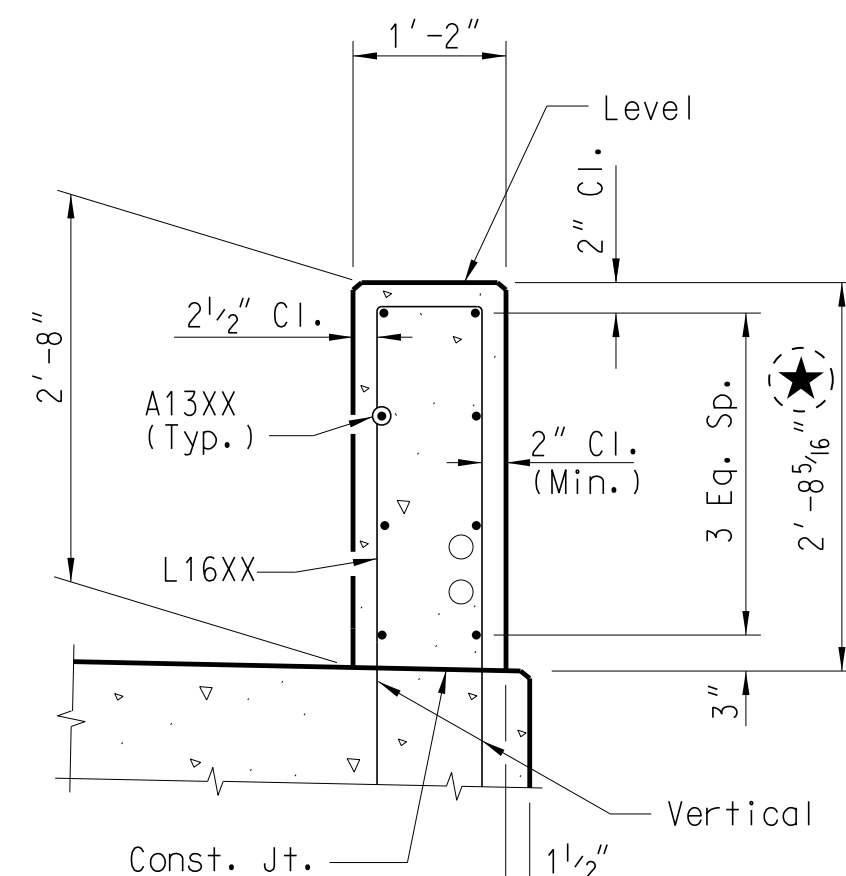
Include all costs for furnishing and installing pull boxes and any incidentals required in the unit price bid for 2.0" Schedule 80 PVC Conduit. Supplemental pull box reinforcement is included in the Superstructure Reinforcing Steel Schedule.



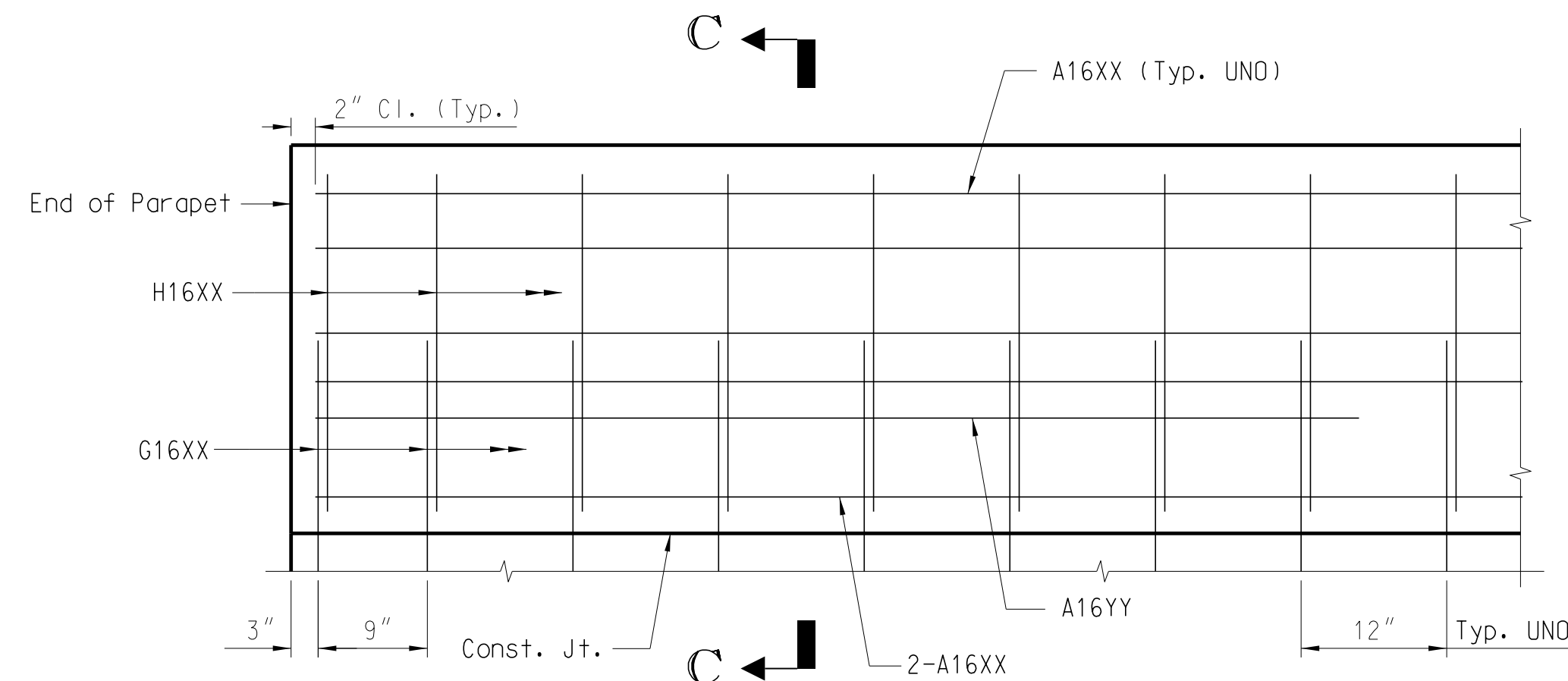
EXPANSION FITTING DETAIL

| | | | | |
|------|-----|----|-------|--------|
| REV. | | | | 4-19 |
| REV. | PCW | HL | 22x36 | Border |
| DR. | DR | DR | DR | 2-08 |

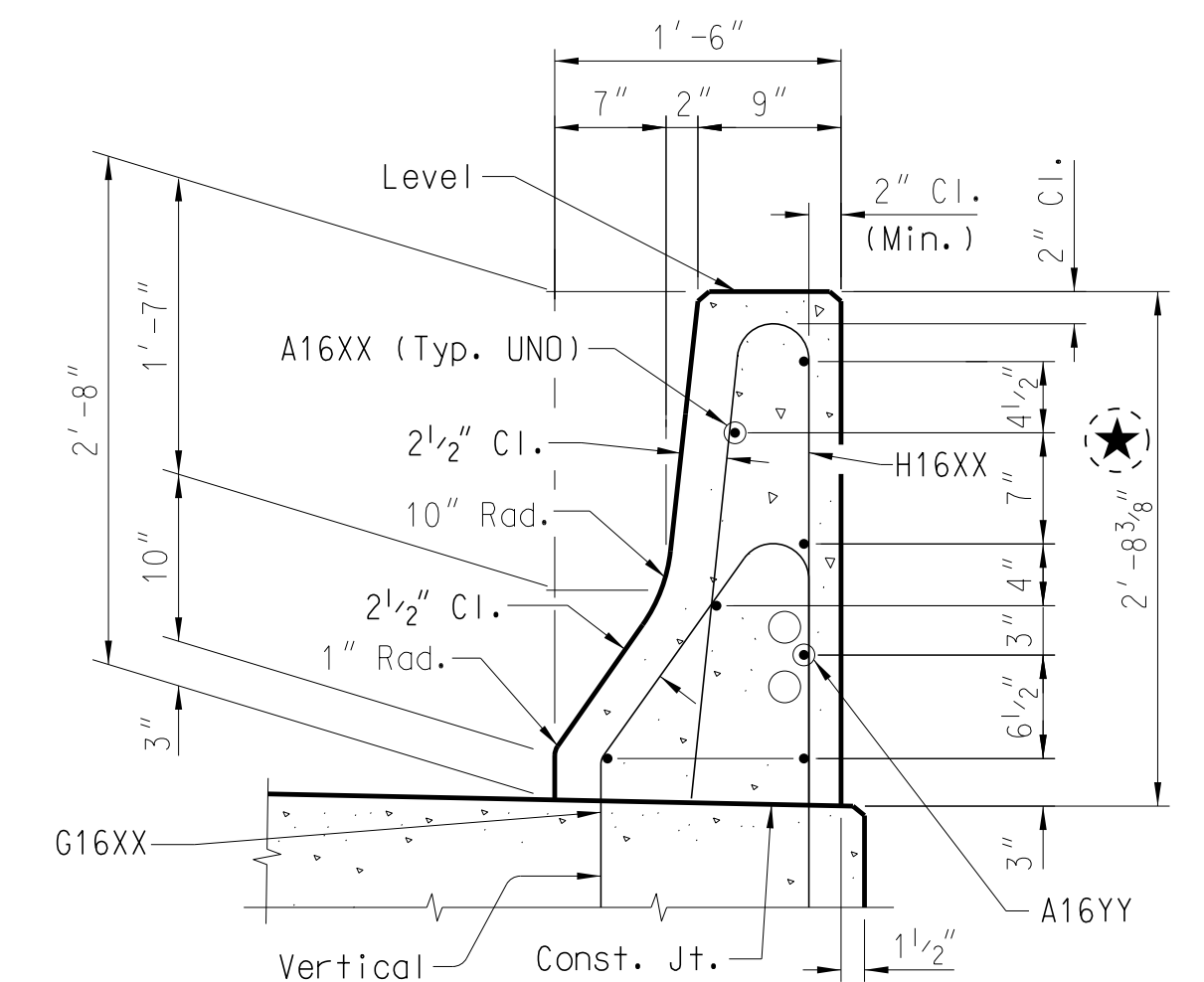
CONCRETE BRIDGE BARRIER PARAPET DETAILS



SECTION A-A
(Slab Reinforcing not Shown)



ELEVATION
(Slab Reinforcing not Shown)



SECTION C-C
(Slab Reinforcing not Shown)

Note to Designer:

This drawing furnished for information only. All dimensions shown are sheet specific. Any use of this design and drawing, including dimensions, must be checked by the User's Engineer to ensure design is adequate for the intended use. All drawings must be signed and sealed by a South Carolina Registered Professional Engineer when used.

Refer to Section 17.6.1 of the SCDOT Bridge Design Manual for barrier and transition requirements.

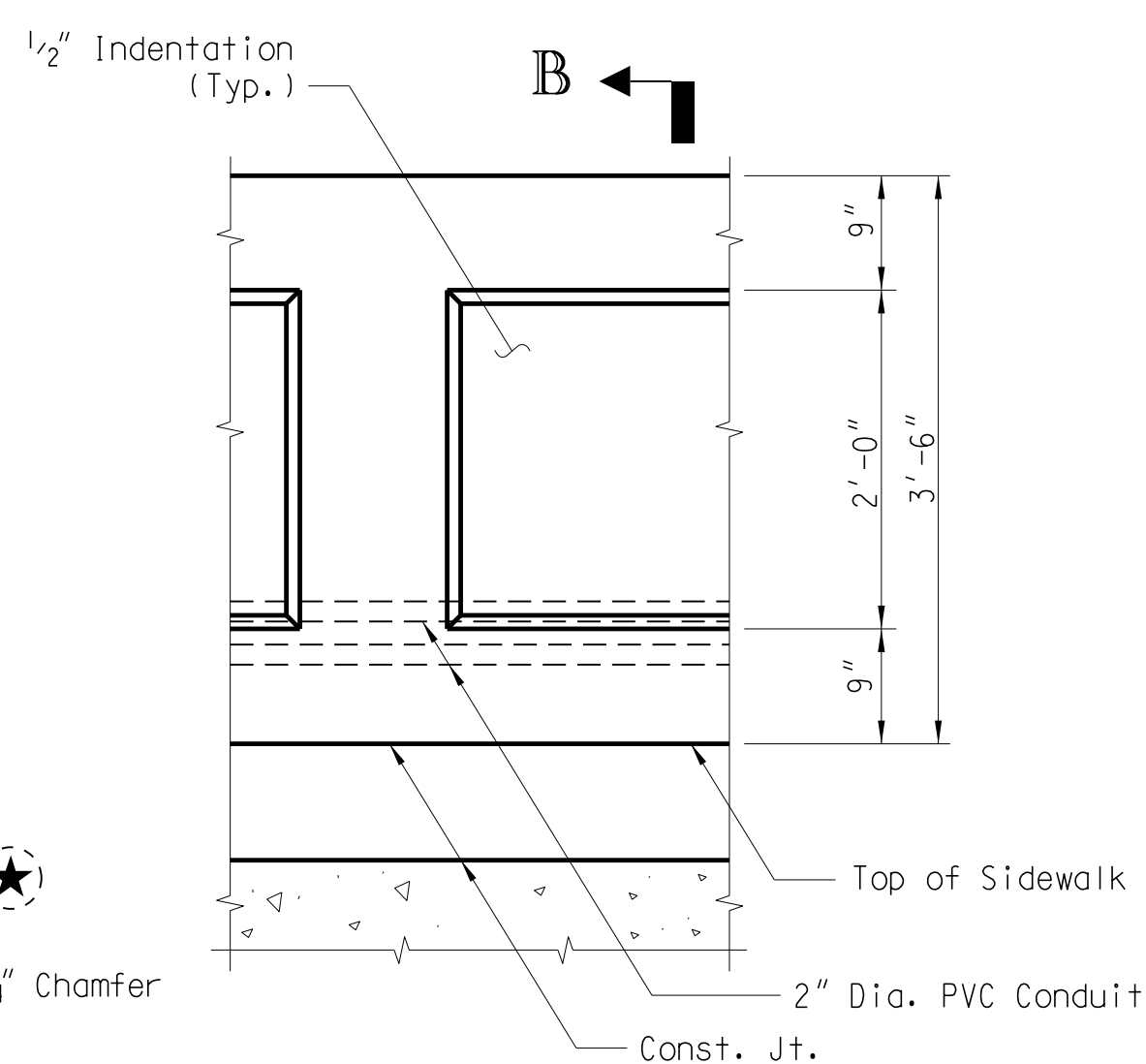
reinforcing steel designations.

Insert appropriate code numbers in reinforcing schedule.

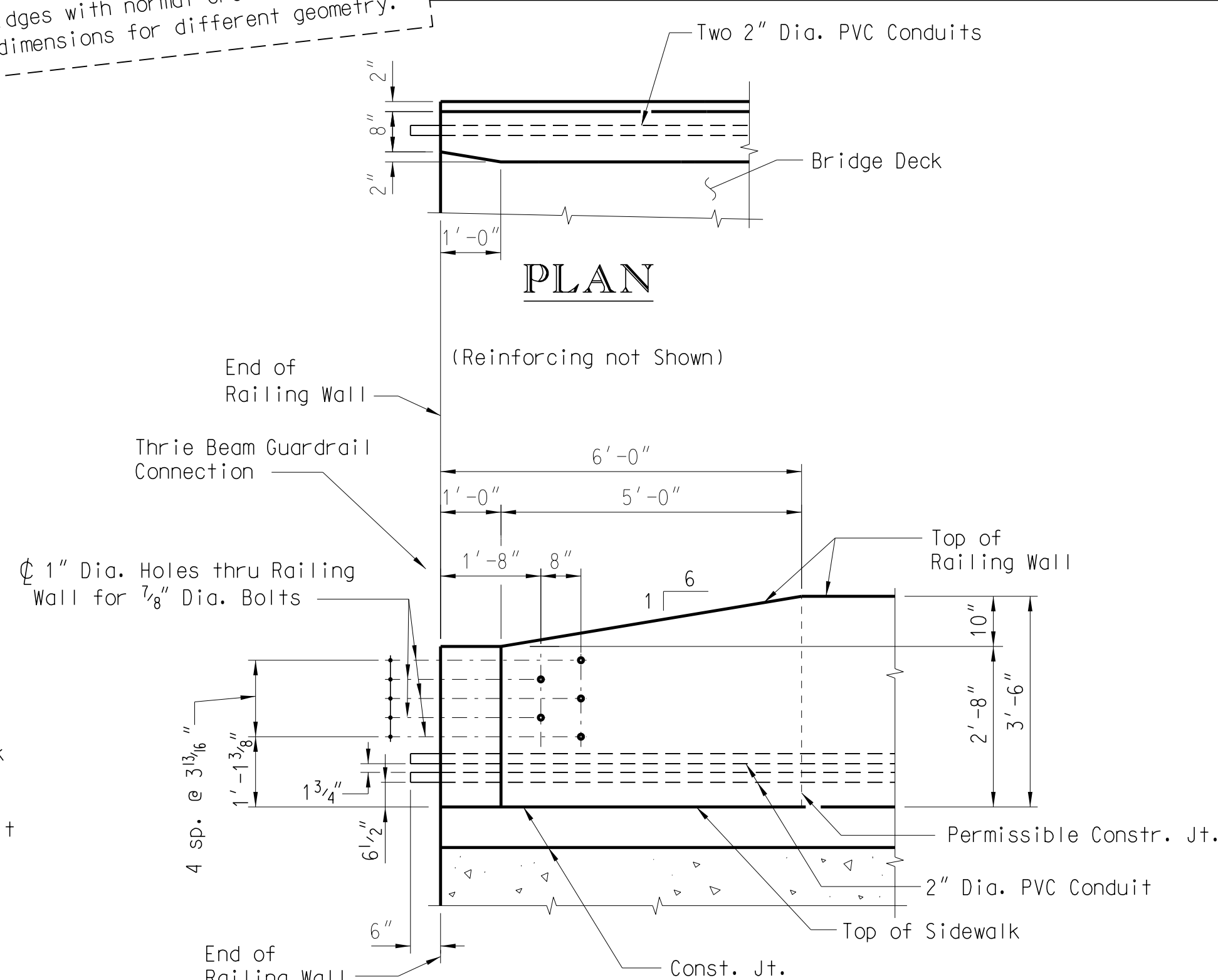
★ Dimensions shown are calculated for bridges with normal crown and SE = 0.0208 ft./ft. Designer to revise dimensions for different geometry.

Note to Designer: Detail the "A16YY" bars 7'-0" in length. The "A16YY" bar is not required at the ends of the approach slab parapet if the parapet anchorage steel is detailed in accordance with Drawings 702-30, 702-31, or 702-32.

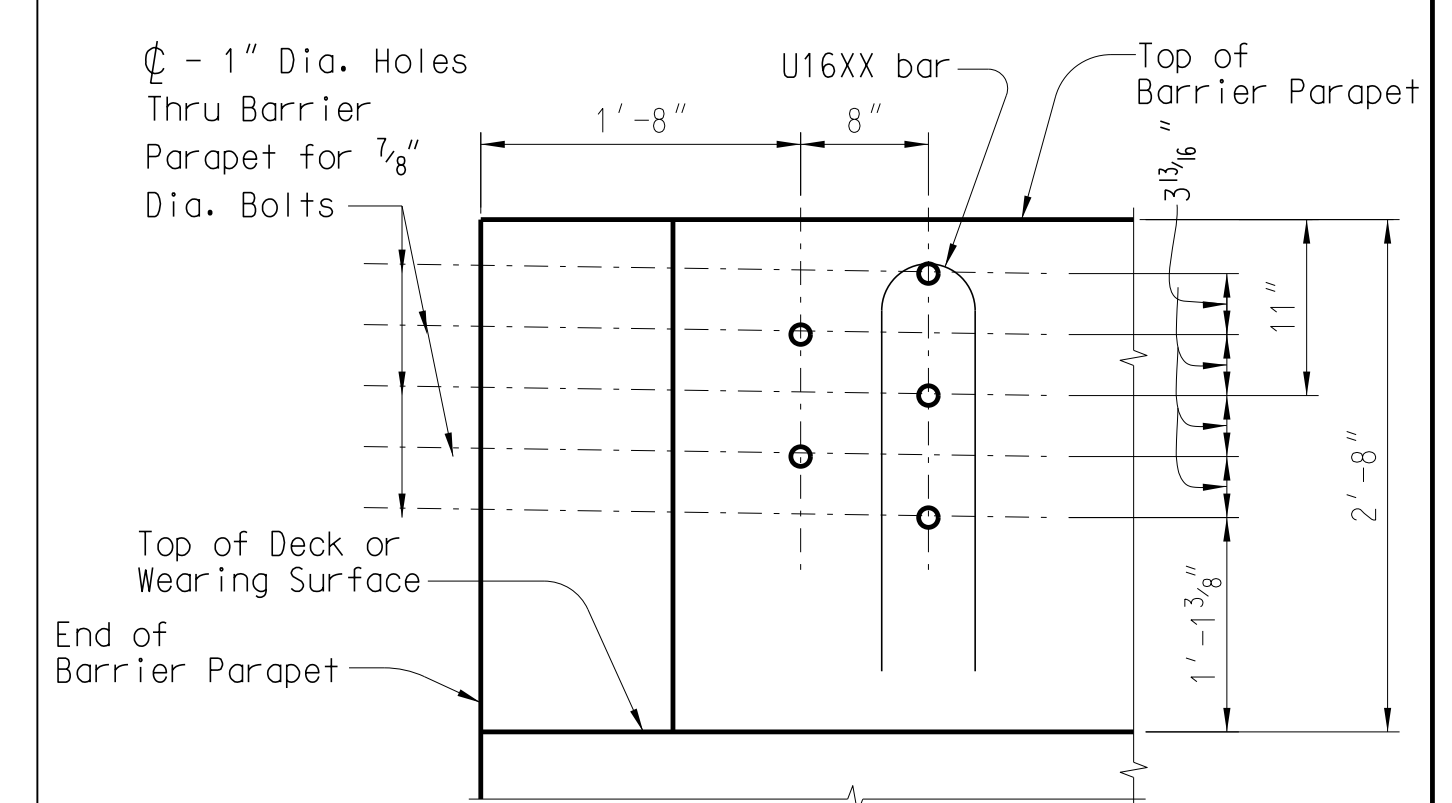
PEDESTRIAN RAILING WALL TRANSITION DETAILS



ELEVATION
(Reinforcing not Shown)



PEDESTRIAN RAILING WALL TRANSITION DETAILS
(Reinforcing not Shown)

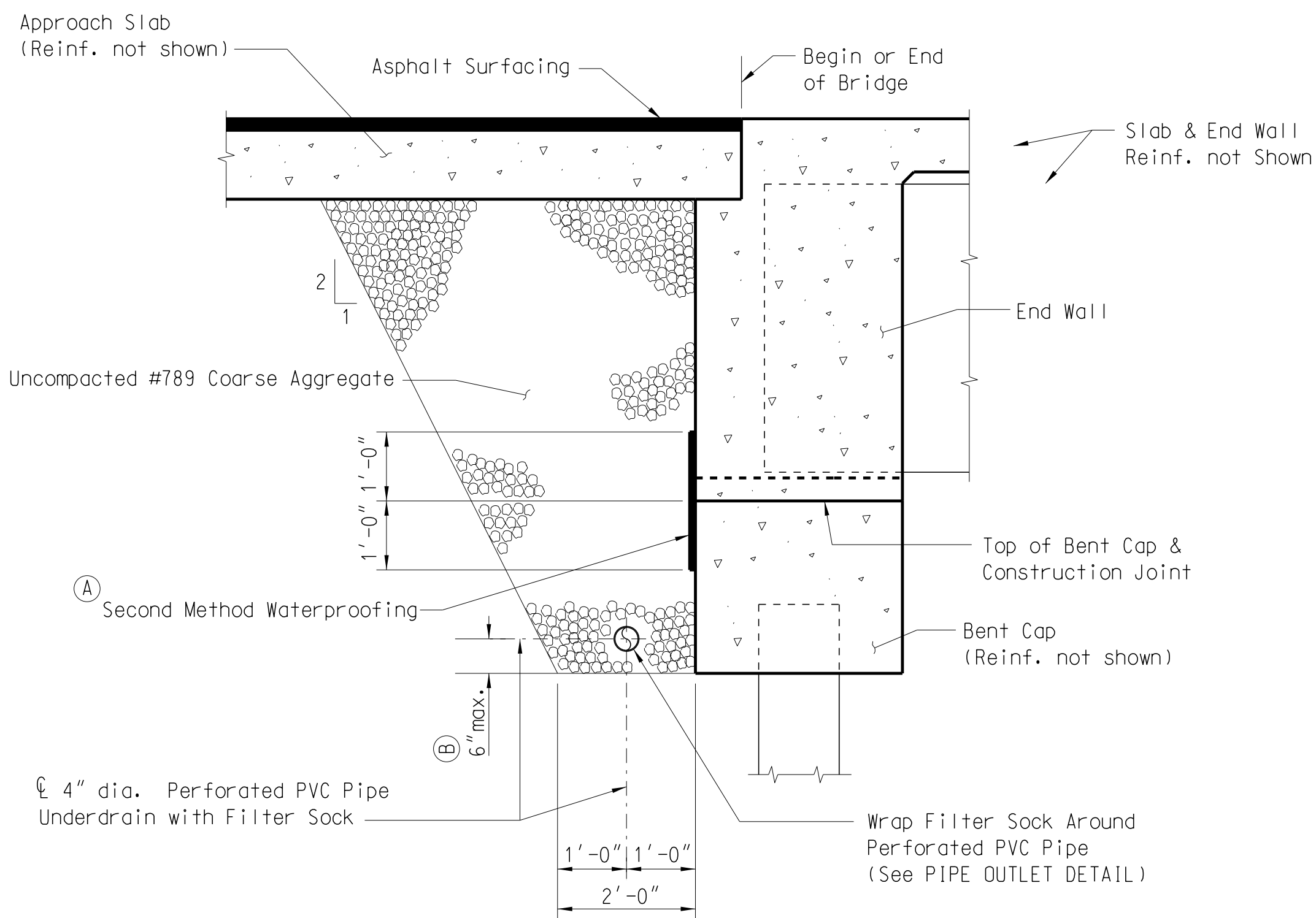


Form the 1" dia. holes with plastic pipe, PVC pipe, or galvanized standard weight steel pipe having an I.D. of 1". Include all cost of pipe and installation in the price bid for reinforcing steel. All pipe to remain in place when forms are removed. RCE to verify location of the holes to insure that the guardrail shoe will fit properly when installed.

| | | | |
|------|--------------|-----|-------|
| REV. | | | |
| | | | |
| REV. | PCW | HL | 4-19 |
| | 22x36 Border | | |
| DR. | PNP | MRW | 12-08 |

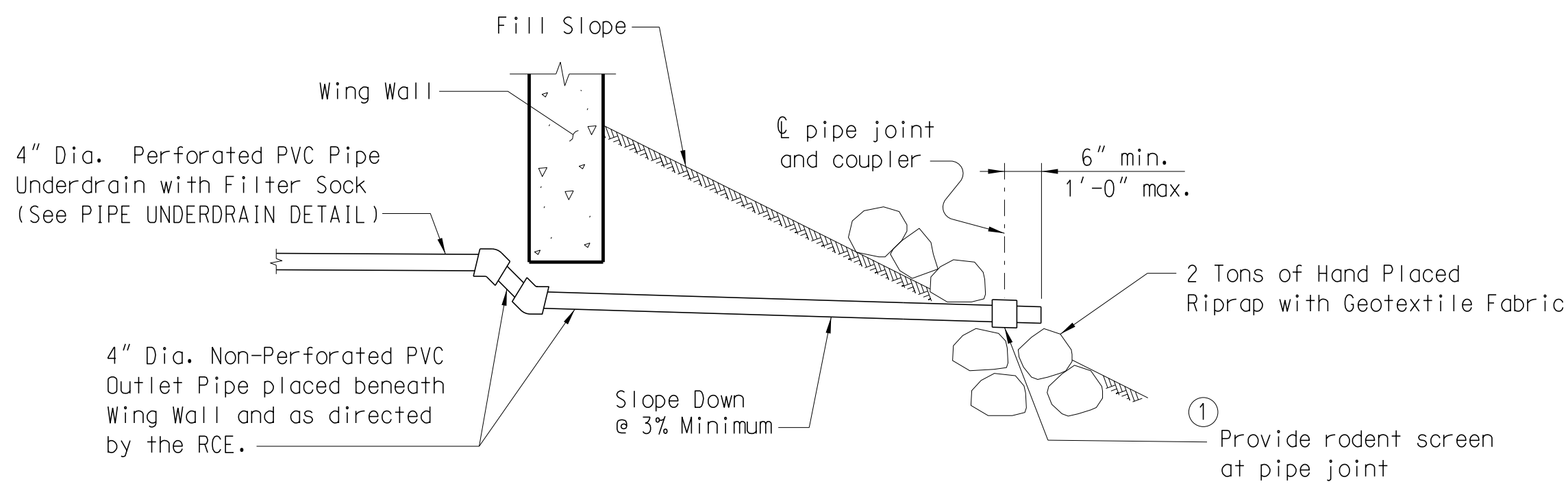
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| | | | |
|------|-------|-----------|------|
| REV. | PCW | HL | 4-19 |
| | 22x36 | Border | |
| REV. | PCW | TBK | 8-18 |
| | X-Ref | Pipe Det. | |
| DR. | JDC | BMH | 2-11 |



PIPE UNDERDRAIN DETAIL

- (A) Extend Second Method Waterproofing the full length of the End Wall and Wing Walls. See Section 814 of the Standard Specifications.
- (B) Slope Pipe a minimum of 0.5% to drain.



PIPE OUTLET DETAIL

Notes:

Install 4" Dia. Perforated Pipe Underdrain in accordance with Section 802 of the Standard Specifications. Use Uncompacted #789 Coarse Aggregate in accordance with Section 701 of the Standard Specifications. Use Geotextile for Drainage Filtration, Class 1 Fabric (Protected) for the Filter Sock in accordance with the Special Provisions.

Include all costs for furnishing and installing the 4" Dia. Perforated PVC Pipe Underdrain, Filter Sock, #789 Coarse Aggregate, 4" Dia. Non-perforated PVC Outlet Pipe, Riprap, Geotextile Fabric for Riprap, rodent screen, and constructing the outlet as directed by the RCE in the unit price bid for Aggregate Underdrain (Aggregate #789) with 4" Perforated Pipe for Structures.

Include all costs for furnishing and installing the Second Method Waterproofing in the unit price bid for Waterproofing (Substructure - Second Method).

- (1) Construct the pipe outlet with a pipe joint that is a minimum of 6" and a maximum of 1'-0" from the outlet end of the pipe. Provide rodent screen manufactured from T304 stainless steel or galvanized steel with a minimum wire diameter of 0.050". Provide a rodent screen with a minimum of 2 openings per inch and a maximum of 4 openings per inch.