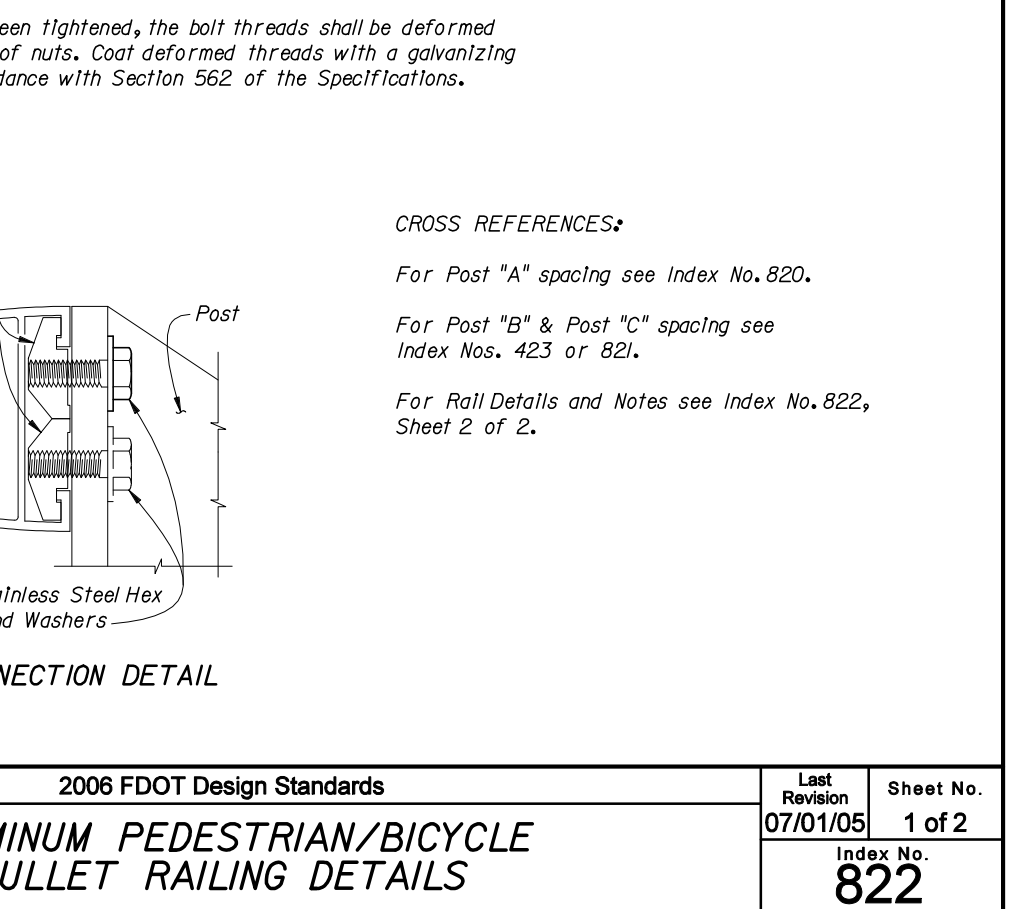
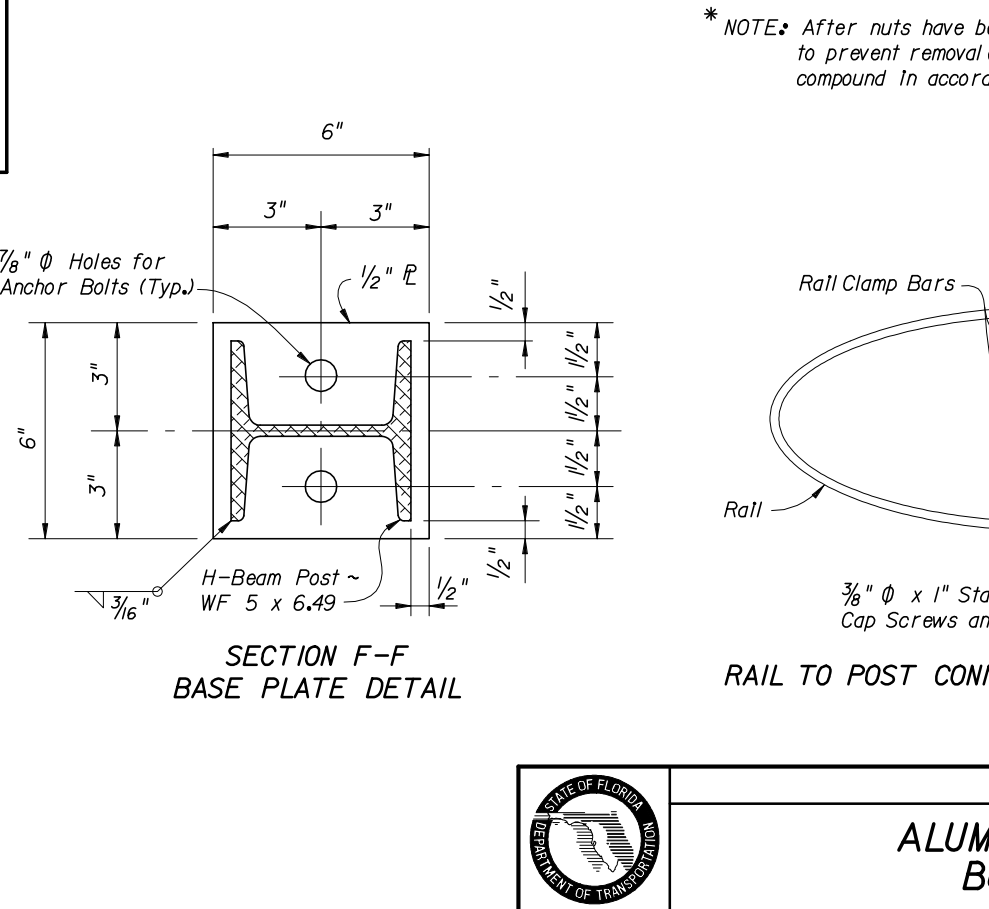
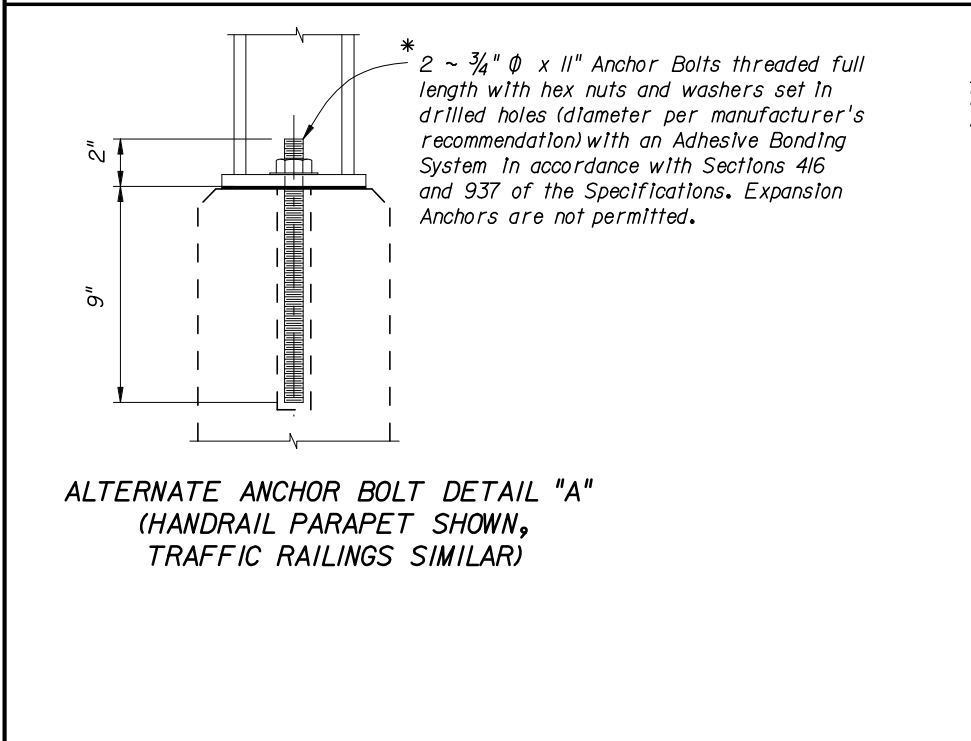


* NOTE: After nuts have been tightened, the bolt threads shall be deformed to prevent removal of nuts. Coat deformed threads with a galvanizing compound in accordance with Section 562 of the Specifications.

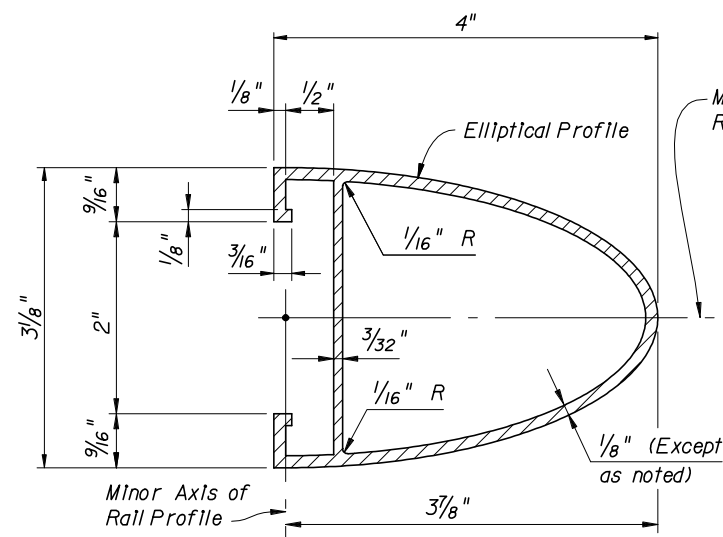


CROSS REFERENCES:

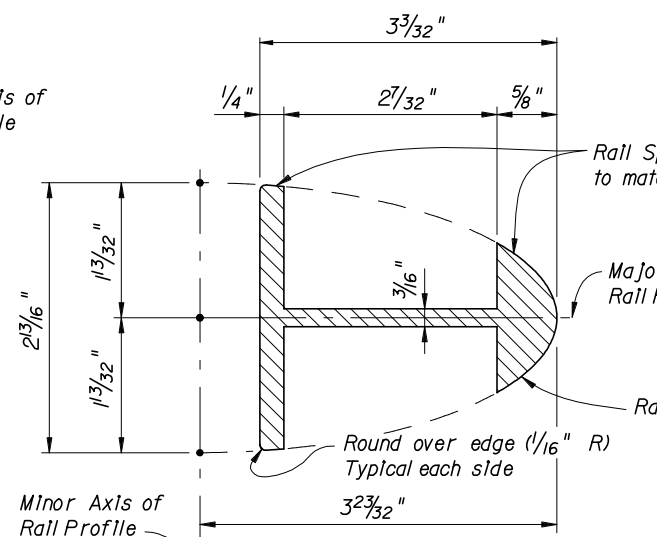
For Post "A" spacing see Index No. 820.

For Post "B" & Post "C" spacing see Index Nos. 423 or 821.

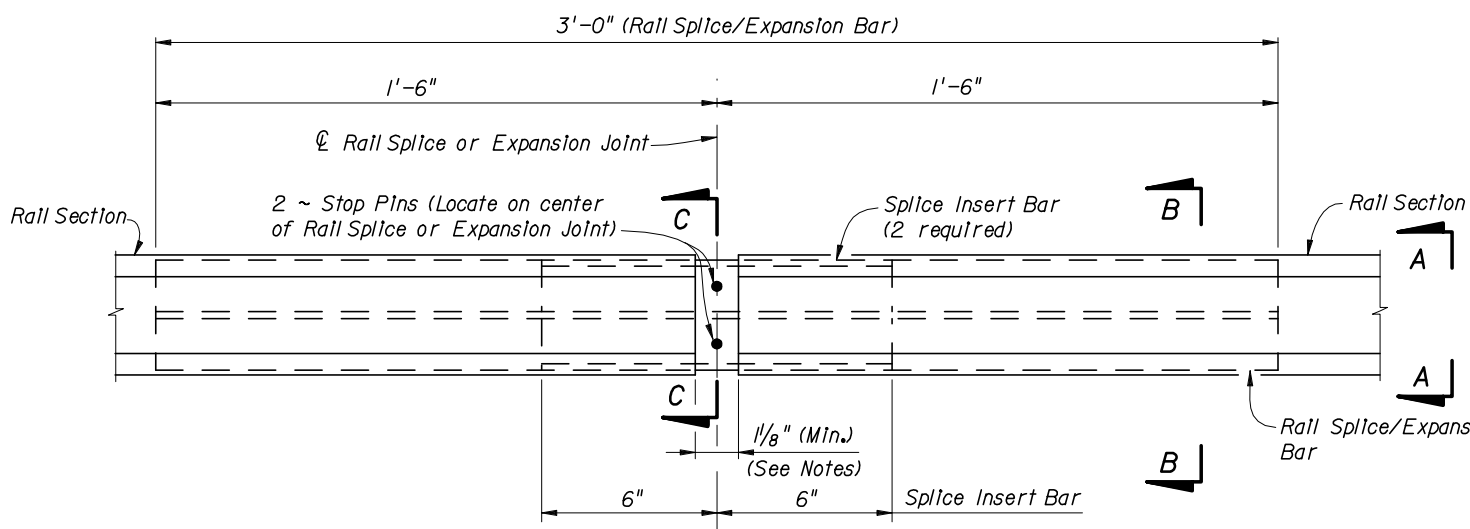
For Rail Details and Notes see Index No. 822, Sheet 2 of 2.



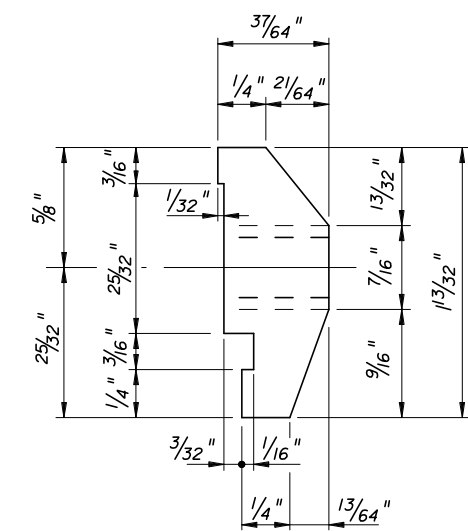
SECTION A-A
(TYPICAL SECTION THRU RAIL)



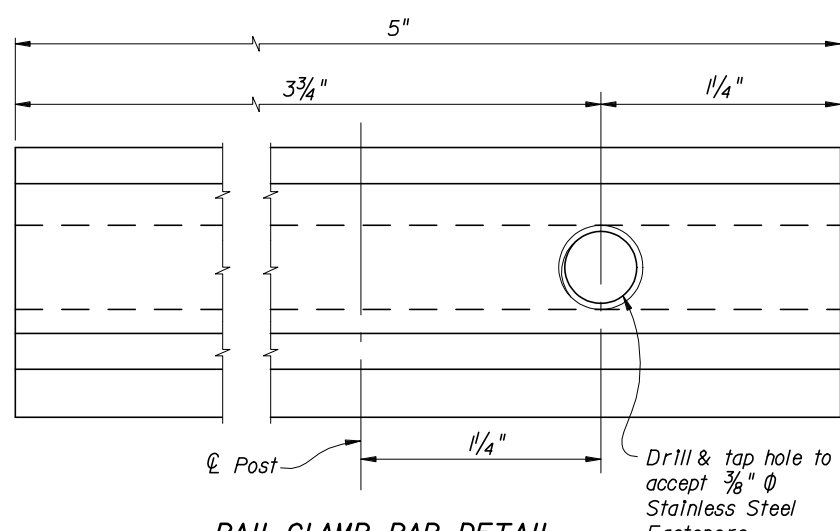
SECTION B-B - RAIL SPLICE/EXPANSION BAR
(RAIL NOT SHOWN FOR CLARITY)



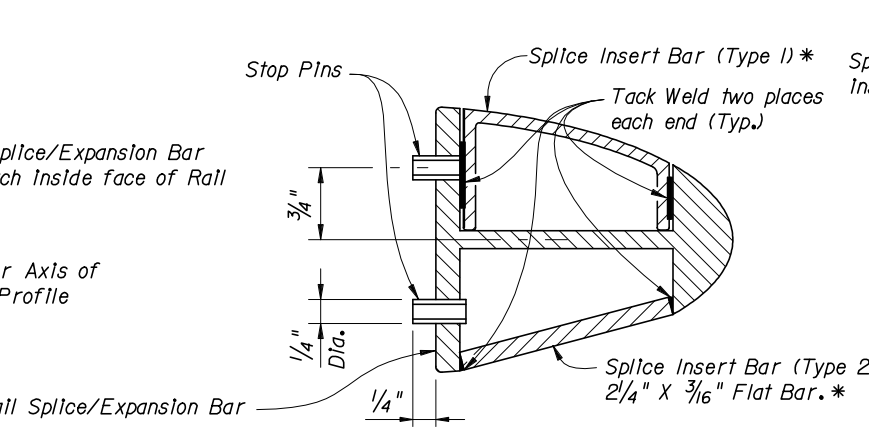
RAIL SPLICE ASSEMBLY DETAIL (TYPICAL AT BRIDGE EXPANSION JOINTS AND RAIL SPLICE LOCATIONS)



VIEW E-E



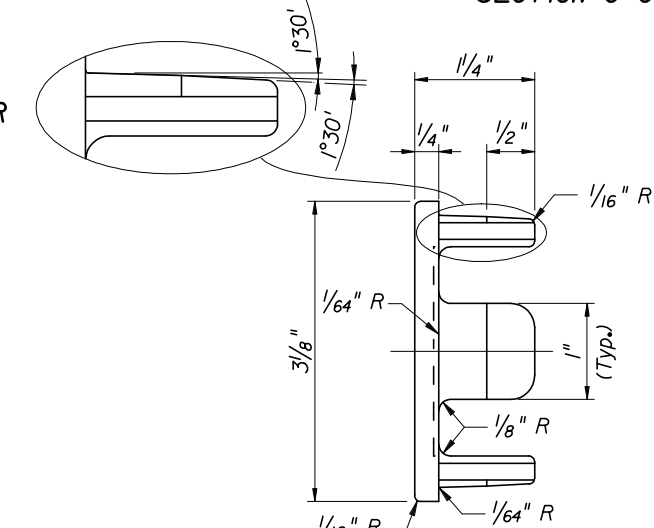
RAIL CLAMP BAR DETAIL



SECTION C-C

SPLICE INSERT BAR DETAIL (TYPE 1)

* Use of either Type 1 or Type 2 Splice Insert Bars is at the option of the Contractor.



VIEW D-D

RAIL END CAP DETAIL

RAILING NOTES:

- PAYMENT:** Payment for the railing includes Rails, Posts, Rail Splice Assemblies, Rail Clamp Bars, Rail End Caps, Anchor Bolts, Nuts, Resilient Pads, Screws and Washers and all incidental materials and labor required to complete the installation.
- POST ASSEMBLY:** Fabricated wrought aluminum; Post - ASTM B221, alloy 6061-T6, or alloy 6351-T5; Base Plate - ASTM B209, alloy 6061-T6.
- WELDING:** Welding of aluminum components shall be in accordance with ANSI and AWS D1.2 "Structures Welding Code - Aluminum".
- RAIL AND RAIL SPLICE ASSEMBLIES:** Aluminum; ASTM B221, alloy 6061-T6, or alloy 6351-T5. Stop Pins shall be press-fit Aluminum or Stainless Steel pins or tubes, unless otherwise approved by the Engineer.
- RAIL CLAMP BAR:** Aluminum; ASTM B221, alloy 6061-T6, or alloy 6351-T5.
- STAINLESS STEEL FASTENERS:** 3/8" Ø Hex Cap Screws and Washers shall be ASTM F-593, alloy group 2 (316).
- ANCHOR BOLTS:** Anchor bolts shall be in accordance with ASTM A36 or ASTM F1554, Grade 36. Anchor Bolts, Nuts, and Washers shall be hot dip galvanized in accordance with Section 962 of the Specifications.
- RAIL END CAP:** ASTM B26 sand cast aluminum alloy 356.0-F.
- RAIL INSTALLATION:** Rail Posts shall be set normal to Profile Grade longitudinally and vertical transversely. Post spacings that land on barrier or parapet obstacles such as armor expansion plates etc. shall be adjusted to clear obstacles by 9" without exceeding maximum post spacing. Posts shall be seated on 1/8" thick resilient or neoprene pads in accordance with Section 932 of the Specifications. The dimension shall be the same as the post base. Rail expansion joints shall occur in the panel between posts on either side of Bridge Expansion Joint. Rail expansion joints shall be similar to rail splice with provision for movement equal to 1.5 times the bridge joint opening. Care shall be taken to ensure rails are set with the proper openings. Any burrs or sharp edges on rails and posts shall be removed to prevent injury.
- RAIL SPLICES:** Rails shall be continuous over a minimum of 3 posts. Splices shall be spaced at 40'-0" Centers maximum. Center of splice shall be located a minimum of 1'-5" from the edge of a post. All rails in any railing section shall be spliced about the same center line.
- RESILIENT AND NEOPRENE PADS:** Resilient and Neoprene Pads shall be in accordance with the Specifications except that testing of the finished pads shall not be required. Neoprene pads shall be durometer hardness 60 or 70.
- SHOP DRAWINGS:** Complete details including rail, post and expansion joint locations and description of material of the proposed railing shall be submitted by the Contractor for the Engineer's approval prior to fabrication.
- CROSS REFERENCE:** For Post Details see Index No. 822, Sheet 1 of 2.