
Index 536-001 Guardrail

ORINATION

Date: August 1, 2018

Name: Richard Stepp

Phone: (850) 414-4313

Email: richard.stepp@dot.state.fl.us

COMMENTARY

The "Trailing Anchorage - Type II" end treatment is being replaced by a new design in order to align with more recent crash test studies. The updated end treatment will then be renamed to "Trailing Anchorage" (not Type II), and it will have a new Pay Item. Also, the trailing end Length of Need design will be updated in the SPI.

COMMENTS AND RESPONSES

BLACK = Industry Review Comments **RED** = Standard Plans Response

Name: Matt Schindler

Date: October 5, 2018

COMMENT:

Sheet 5: Can the Rub Rail bolt hole remain in place without using Rub Rail? This would help in stockpiling a single post type with all holes in place.

RESPONSE:

Agreed. The Rub Rail callout will change from (If Req'd.) to (Optional) to allow posts both with and without the bolt hole when no rub rail is used.

Name: Matt Schindler

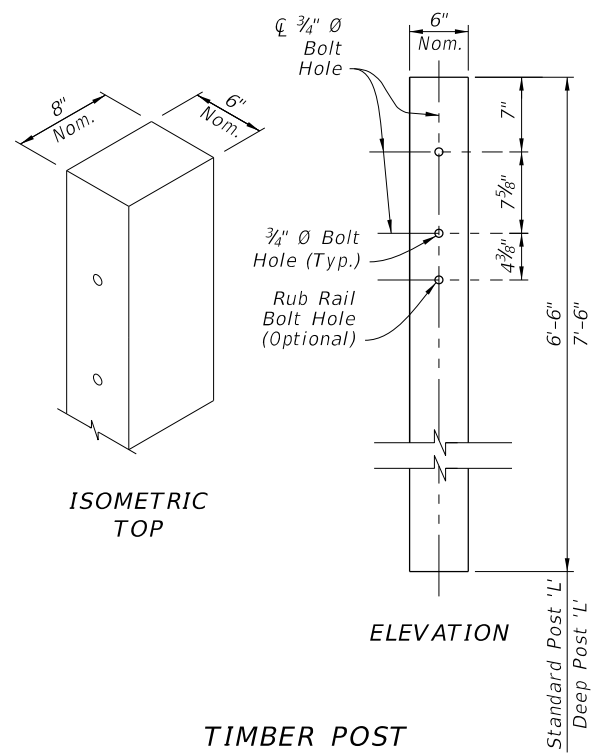
Date: October 5, 2018

COMMENT:

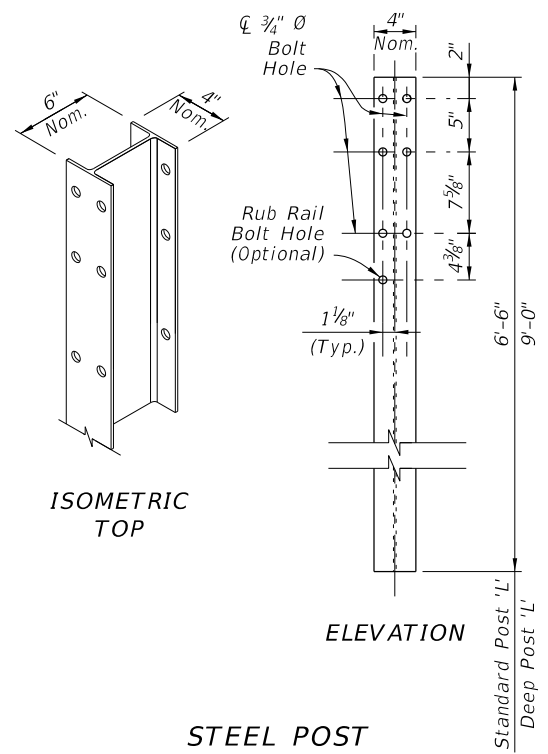
Sheet 10: For Trailing Anchorages, can the Soil Plate Bolt Holes in the Steel Tube Foundation be substituted with a single hole on the tube centerline when only one bolt is needed? This would help align the post configuration with other states.

RESPONSE:

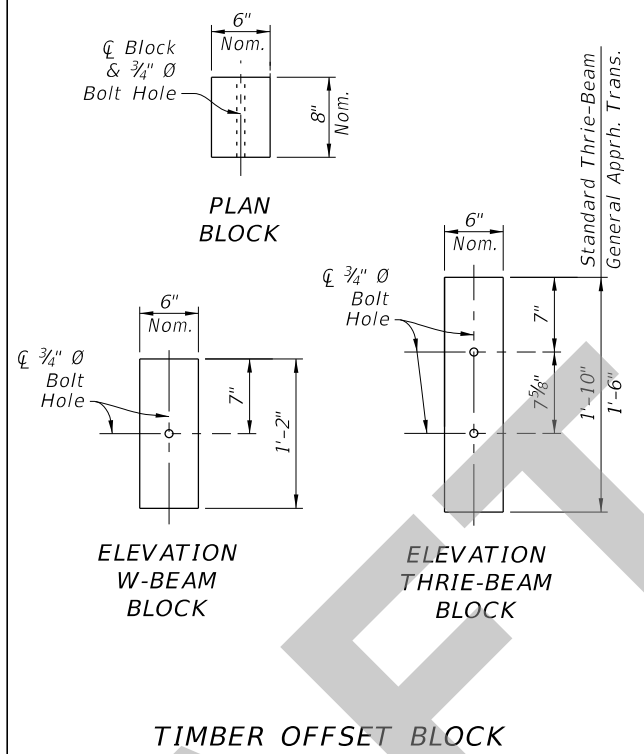
Agreed. The option for using a single Soil Plate Bolt Hole on the CL of steel tube for the Trailing Anchorage condition will be permitted per new Note 5.



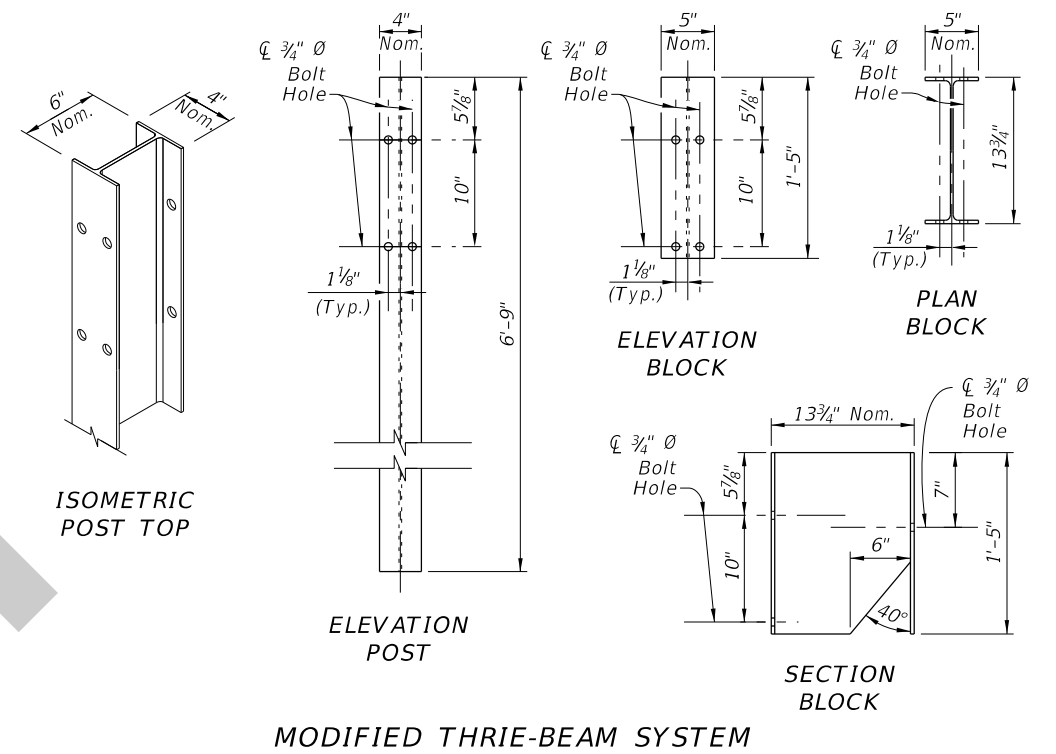
TIMBER POST
(6" X 8" Nominal)



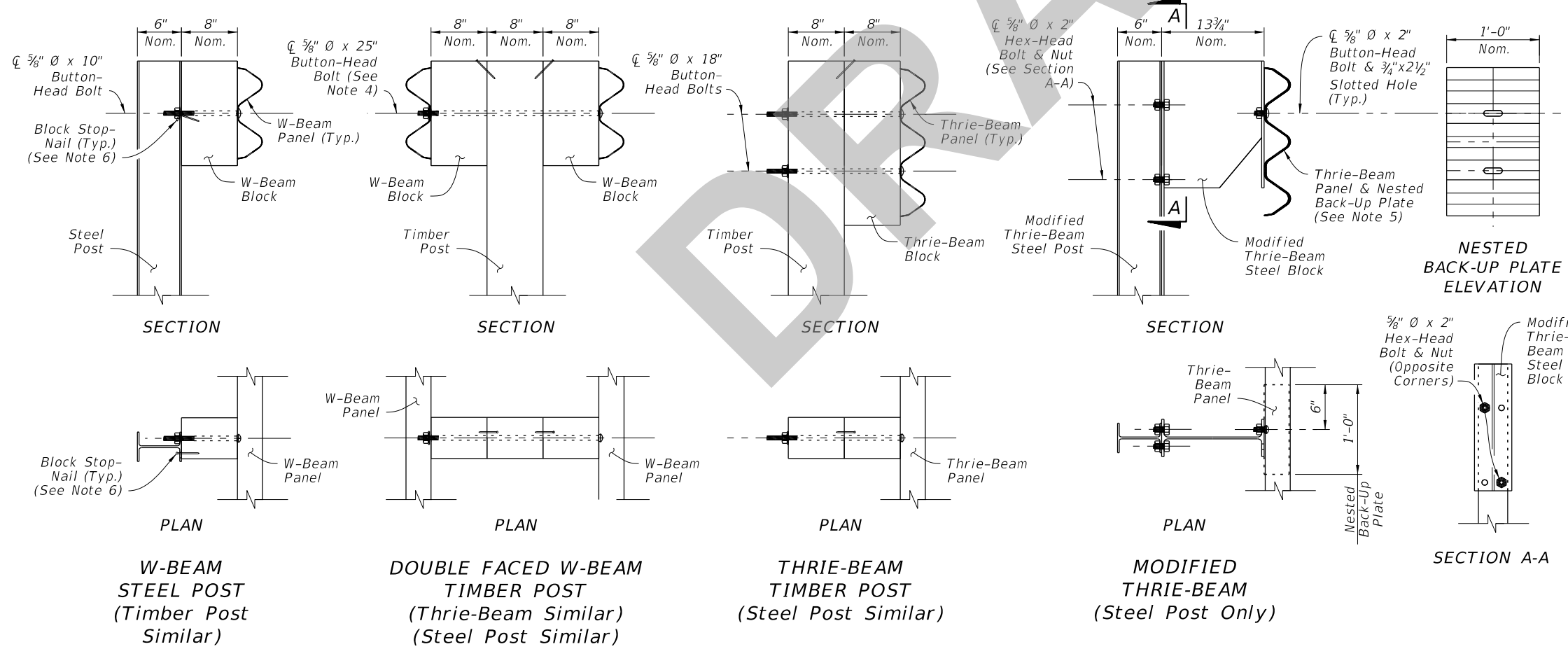
STEEL POST
(W6X8.5 or W6X9)



TIMBER OFFSET BLOCK
(6" X 8" Nominal)



MODIFIED THRIE-BEAM SYSTEM
(W6X8.5 or W6X9 Steel Post & W14X22 Steel Block)

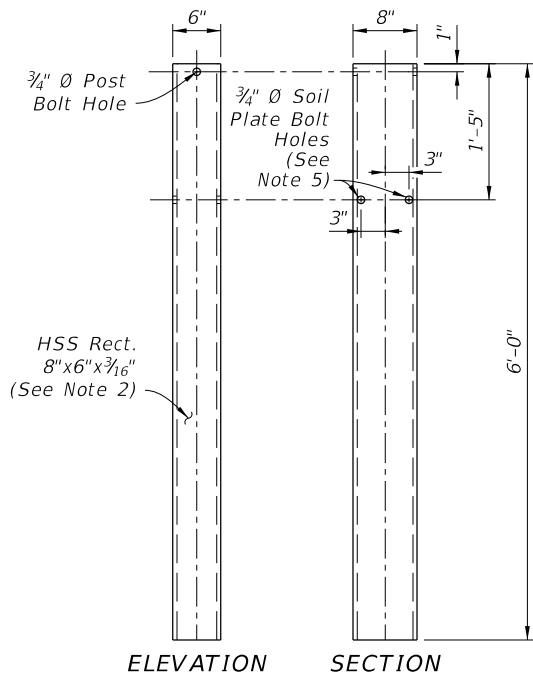


- NOTES:**
- STANDARD POSTS: Where Standard Posts are called for in this Index, use either a Timber Post or Steel Post at the Length, 'L', shown for Standard Posts. Use a single post material type consistently per each run of guardrail. Only where specified in the Plans, use the Deep Post 'L' for Slope Break Conditions as shown on Sheet 6.
 - OFFSET BLOCKS: For each Panel type, install the corresponding Offset Block type as shown. For General, TL-3 (Single Faced) Approach Transitions only, use the 1'-6" Thrie-Beam Block (See Sheet 13).
 - BOLT HOLES: 3/4" Ø Bolt Holes shown in posts within this Index may be substituted with 13/16" Ø Bolt Holes.
 - DOUBLE FACED GUARDRAIL: Orient Post Bolts with the Button-Head located on the side nearest the traffic lane. The bolt's threaded portion is not permitted to extend beyond 3/4" from the face of the tightened nut; trim the threaded portion as needed and galvanize in accordance with Specification 562.
 - MODIFIED THRIE-BEAM NESTED BACK-UP PLATE: At each post connection, install a Nested Back-up Plate between the Thrie-Beam Panel and the post. The Nested Back-up Plate has a cross-section and material matching the Thrie-Beam Panel Section.
 - BLOCK STOP-NAIL: Drive one nail per Standard Offset Block as shown to prevent Block rotation. Use steel 3 1/2" Type 16d nails with ASTM A153 hot-dip galvanization. For steel posts, drive the nail through the unused flange Bolt Hole and bend the nail so its head contacts the flange.
 - MATERIALS: Use timber and steel posts and offset blocks in accordance with Specification 967. Composite offset blocks may be substituted as approved on the APL. Use a single offset block type consistently per each run of guardrail. Steel offset blocks are only permitted for Modified Thrie Beam.

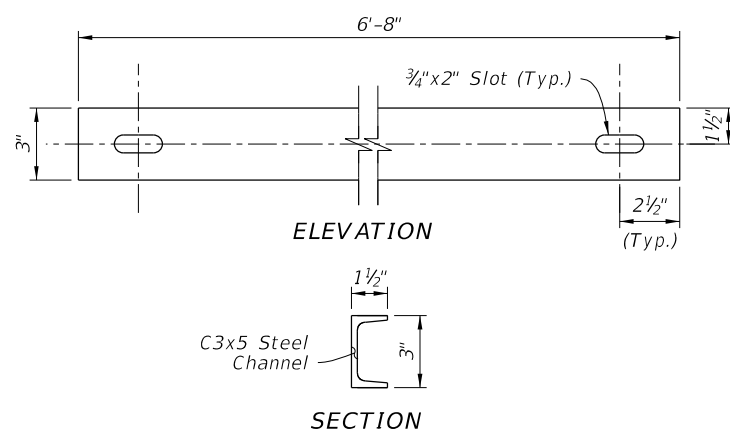
POST AND OFFSET BLOCK DETAILS

10/16/2018 12:46:57 PM

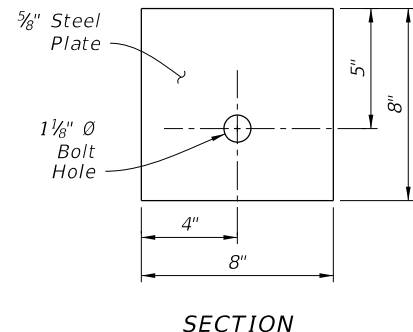
| | | | | | | |
|---------------------------|----------|--------------|----------------------------------|-----------|------------------|------------------|
| LAST REVISION 11/01/17 | REVISION | DESCRIPTION: | FY 2019-20 STANDARD PLANS | GUARDRAIL | INDEX 536-001 | SHEET 5 of 22 |
|---------------------------|----------|--------------|----------------------------------|-----------|------------------|------------------|



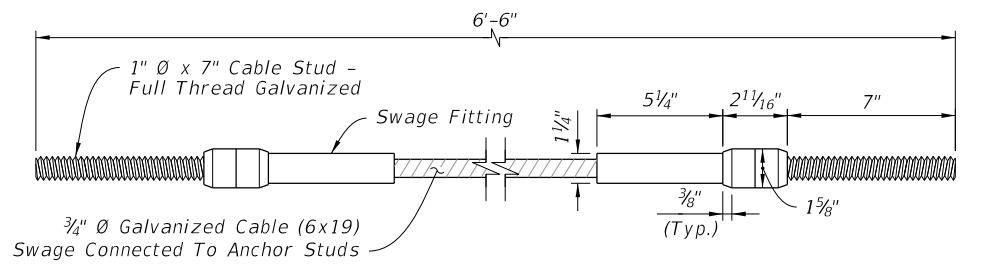
STEEL TUBE FOUNDATION



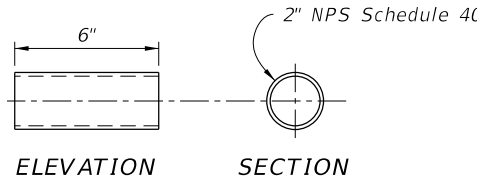
GROUND STRUT



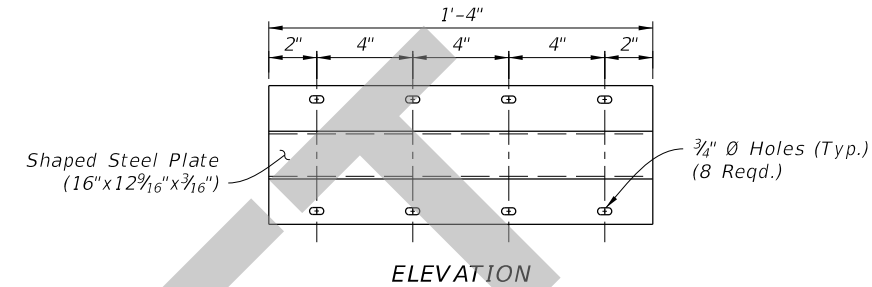
BEARING PLATE



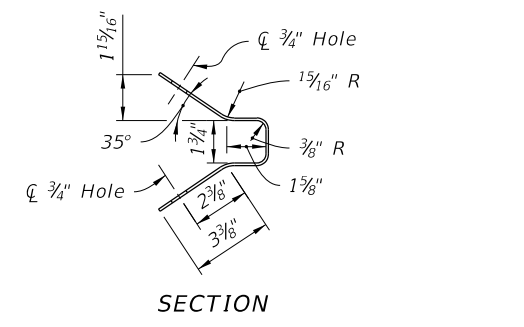
CABLE ASSEMBLY



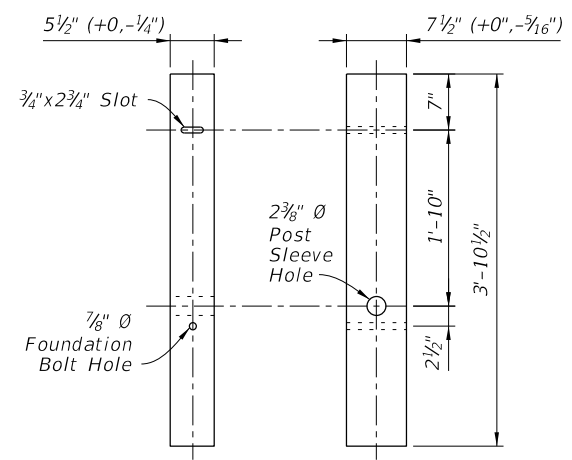
BREAKAWAY TERMINAL POST SLEEVE



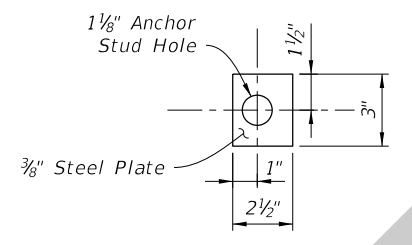
CABLE ANCHOR PLATE



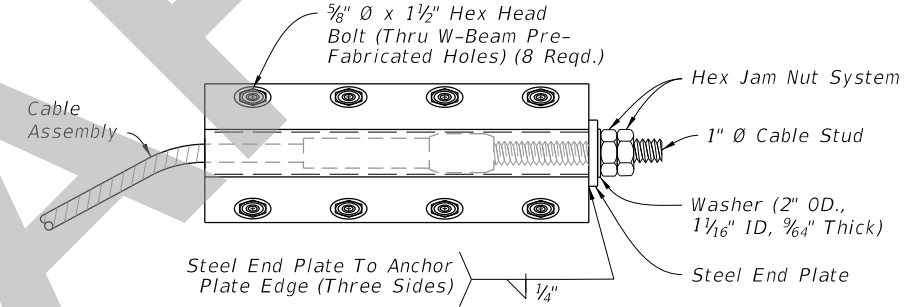
SECTION



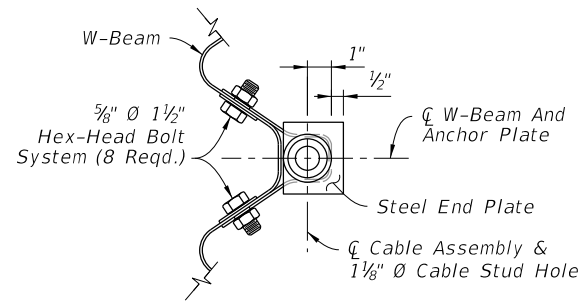
SHORT TIMBER BREAKAWAY POST (6"x8" Nom.)



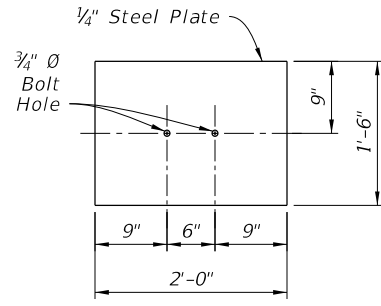
STEEL END PLATE



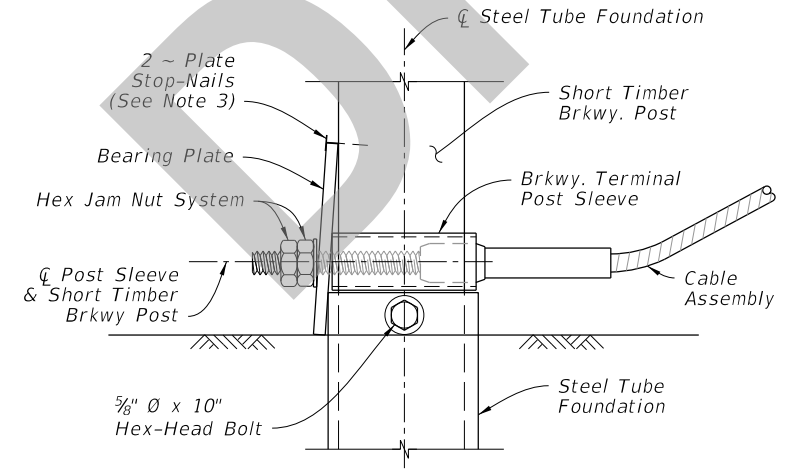
CABLE ANCHOR PLATE ASSEMBLY



SECTION



SOIL PLATE



POST & CABLE MOUNT ASSEMBLY

NOTES:

1. INSTALLATION: Use components as shown on Sheets 9 & 11.
2. MATERIALS: Use steel plates, channels, and Cable Assemblies in accordance with Specification 967. Use Short Timber Breakaway Posts and Steel Tube Foundations in accordance with Specification 536. Use Hex Nuts, Hex Jam Nuts, and Washers in accordance with the AASHTO-AGC-ARTBA Guide to Standardized Barrier Hardware with English unit equivalents of components FN24a and FWC24a, respectively. Two Hex Nuts may be used for the Hex Jam Nut System.
3. PLATE STOP-NAILS: To prevent rotation of the Bearing Plate, drive steel 2 1/2" Type 8d nails with ASTM A153 hot-dip galvanization.
4. CABLE ANCHOR PLATE ASSEMBLY INSTALLATION: Mount to the pre-fabricated Cable Anchor Plate Bolt Holes in the W-Beam Panel, as shown on Sheet 4. These panel holes are only permitted for this Cable Anchor Plate Assembly application.
5. SOIL PLATE BOLT HOLE(S): For Trailing Anchorage installations as shown on Sheet 9, the two bolt holes shown may be substituted with a single bolt hole located at the tube centerline.

END TREATMENT - COMPONENT DETAILS

10/17/2018 11:49:49 AM

| | | | | | |
|---------------------------|--------------|--------------------------------------|-----------|------------------|-------------------|
| LAST REVISION 11/01/18 | DESCRIPTION: | FDOT FY 2019-20 STANDARD PLANS | GUARDRAIL | INDEX 536-001 | SHEET 10 of 22 |
|---------------------------|--------------|--------------------------------------|-----------|------------------|-------------------|