
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: September 27, 2014

Originator: Olivia Townsend

Phone: (850) 414-4303

Email: olivia.townsend@dot.state.fl.us

Standard Plans:

Index Number: 102-110

Sheet Number (s): 2 of 17

Index Title: Type K Temporary Concrete Barrier System

Summary of the changes:

Sheet 2: Updated the ADHESIVE-BONDING MATERIAL SYSTEM Note to “When using adhesive bonding material systems for anchor bolts, use a Type HSHV adhesive meeting the requirements of Section 937 and listed on the APL. Install anchor bolts in accordance with Specification 416. Field testing requirements of Specification 416 do not apply”.

Commentary / Background:

Index 102-110 references Specification 416 for the installation and field testing of anchor bolts on temporary concrete barrier. The field test requirements of Specification 416 were discussed with Structures design and it was clarified that they were intended for permanent installations.

Other Affected Offices / Documents: (Provide name of person contacted)

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Standard Plans –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FDOT Design Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Basis of Estimates Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Standard Specifications –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved Product List –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance –

Origination Package Includes: (Submit package to Rick Jenkins)

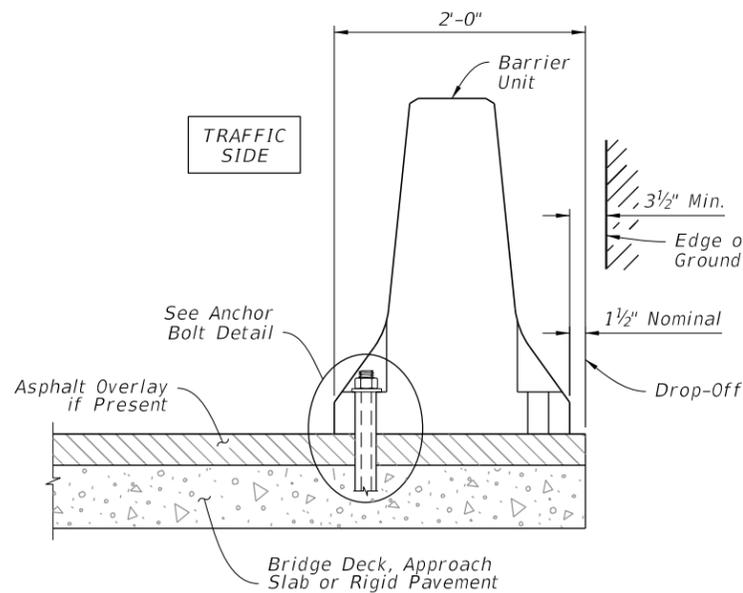
Yes	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Redline Mark-ups
<input type="checkbox"/>	<input type="checkbox"/>	Revised or Proposed Standard Plan Instruction (SPI)
<input type="checkbox"/>	<input type="checkbox"/>	Other Support Documents

Implementation:

<input type="checkbox"/>	Design Bulletin (Interim)
<input type="checkbox"/>	DCE Memo
<input type="checkbox"/>	Program Mgmt. Bulletin
<input checked="" type="checkbox"/>	FY-Standard Plans (Next Release)

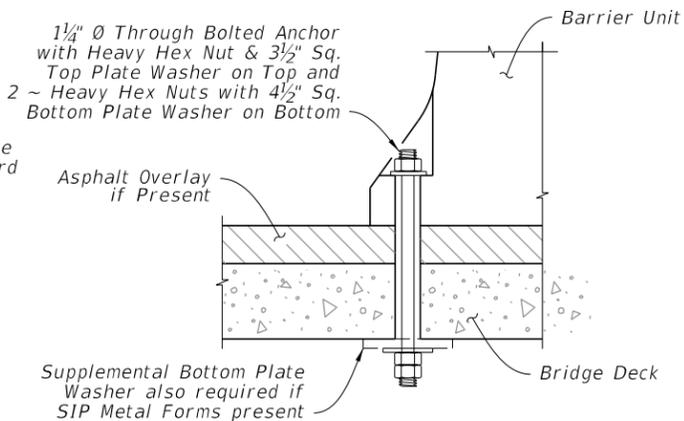
Contact the Roadway Design Office for assistance in completing this form

Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us

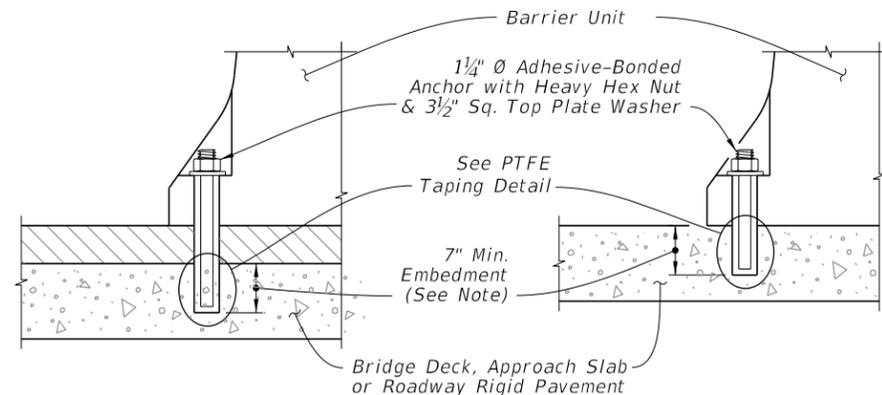


NOTE: Traffic Side for Transition to Median Traffic Railings, see Sheet 6

TYPICAL SECTION

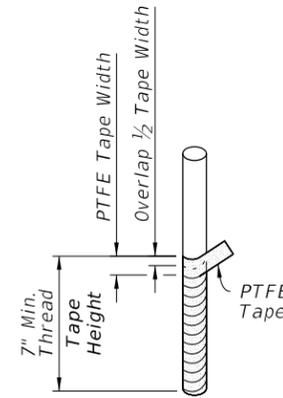


THROUGH BOLTED ANCHOR



WITH ASPHALT OVERLAY

WITHOUT ASPHALT OVERLAY



PTFE TAPING DETAIL

NOTE: Wrap threads with a single overlapping layer of PTFE tape to facilitate removal of anchors.

ADHESIVE BONDED ANCHOR INSTALLATION

NOTES FOR BOLTED INSTALLATIONS:

Bridge deck shown, approach slab or rigid pavement similar; installation adjacent to drop-off shown, median transition installation similar.

LIMITATION OF USE: This installation technique can only be used on rigid pavement and concrete bridge decks as shown. Anchor Bolts must not be installed on both sides of the Barrier Units. Do not bolt down Barrier Units across bridge finger or modular expansion joints.

ANCHOR BOLTS, NUTS AND WASHERS: When using Adhesive-Bonded Anchor Bolts, use fully threaded rods in accordance with ASTM F 1554 Grade 36. Install Anchor Bolts for through bolting in accordance with ASTM A 307 or ASTM F 1554 Grade 36. Install nuts in accordance with ASTM A 563 or ASTM A 194. Install Flat Washers in accordance with ASTM F 436 and Plate Washers in accordance with ASTM A 36 or ASTM A 709 Grade 36.

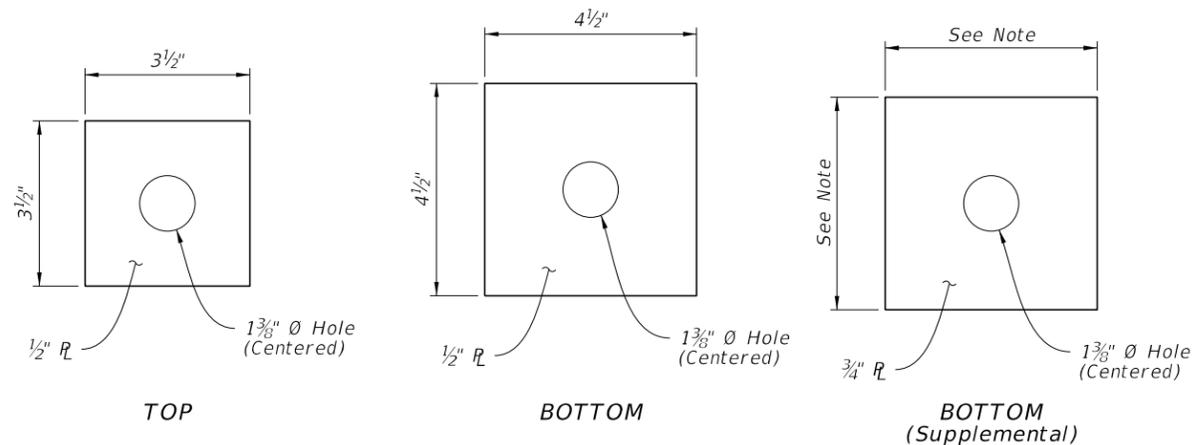
Install three (3) Anchor Bolts per Barrier Unit on the traffic side of the Barrier Units as shown, except for Transition Installations. For the number and positions of Anchor Bolts required in Transition Installations see Sheets 8 and 9 and Index 102-100. Drilling through deck reinforcing steel to install Anchor Bolts is permitted. Unless otherwise shown in the Plans, at the Contractor's option Barrier Units may be installed by through bolting (where geometrically possible) or by the use of Adhesive-Bonded Anchor Bolts. Do not drill into or otherwise damage the tops of supporting beams or girders, bridge deck expansion joints or drains. Install Anchor Bolts and Nuts so that the maximum extension beyond the face of the Barrier Units is 1/2". Snug tighten the Nuts on the Anchor Bolts. For through bolted installations, snug tighten the double Nuts on the underside of the deck against each other to minimize the potential for loosening.

Omit one (1) Anchor Bolt within a single Barrier Unit if a conflict exists between the Anchor Bolt location and a bridge deck expansion joint or drain. The adjacent Barrier Units must each be installed with the standard three (3) Anchor Bolts.

Omit one (1) Anchor Bolt within a single Barrier Unit as shown in the Treatment at Bridge Deck Expansion Joint Schematic if the Barrier Unit straddles a bridge deck expansion joint. The adjacent Barrier Units must each be installed with the standard three (3) Anchor Bolts.

ADHESIVE-BONDING MATERIAL SYSTEMS: When using Adhesive Bonding Material Systems for Anchor Bolts, Use Type HSHV in accordance with Specification 937 and installed them in accordance with Specification 416. Prior to installation of the Barrier Units in the Plan location(s), install a demonstration Barrier Unit using the proposed production installation method, at a location approved by the Engineer. In lieu of the production test requirements of Specification 416, install six (6) Adhesive-Bonded Anchor Bolts in the demonstration Barrier Unit and test each Anchor Bolt with a 29,800 pound tensile proof load. Install and test additional demonstration Barrier Units when requested by the Engineer. Remove the demonstration Barrier Unit prior to testing the Anchor Bolts. Remove the test Anchor Bolts after testing as directed by the Engineer.

Updated Note to read "When using adhesive bonding material systems for anchor bolts, use a Type HSHV adhesive meeting the requirements of Section 937 and listed on the APL. Install anchor bolts in accordance with Specification 416. Field testing requirements of Specification 416 do not apply."



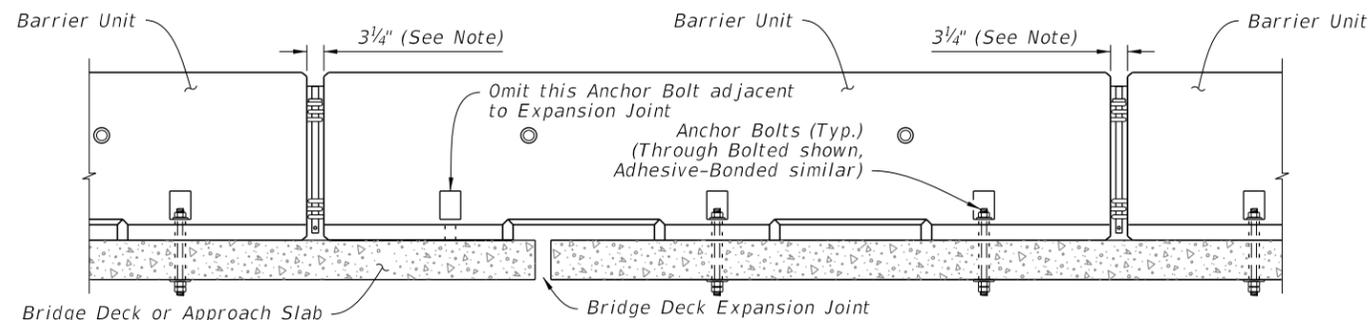
TOP

BOTTOM

BOTTOM (Supplemental)

NOTE: Dimension as required to span SIP Metal Form Corrugations plus 1/2" Minimum overlap each side.

PLATE WASHER DETAIL

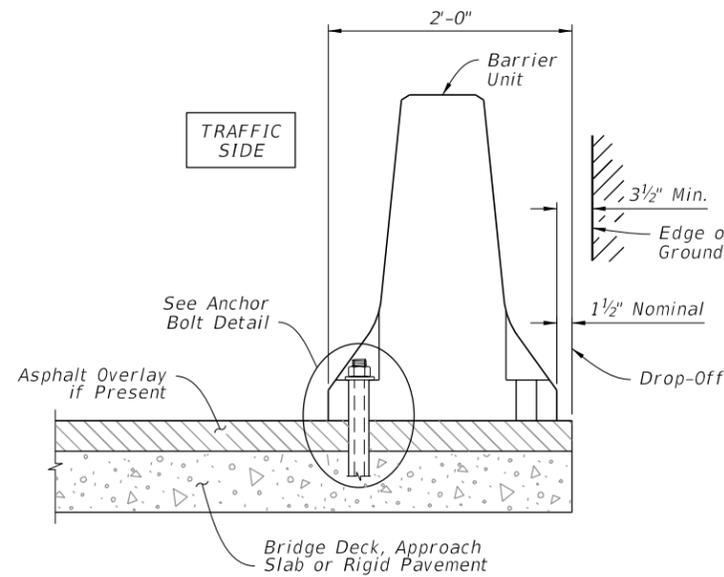


NOTE: Joint, set Barrier Units with 3 3/4" gap at locations shown.

DECK EXPANSION JOINT SCHEMATIC

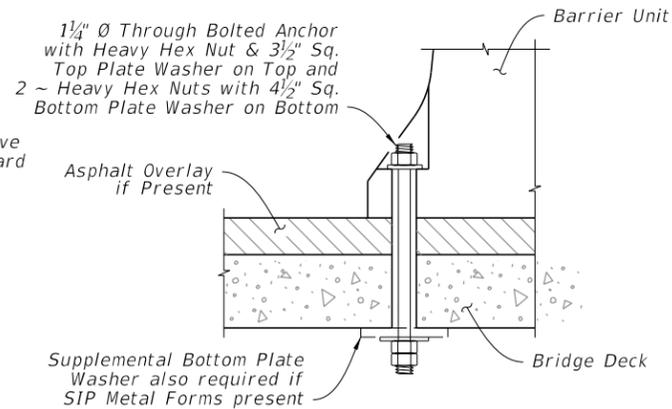
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LAST REVISION 11/01/20	REVISION	DESCRIPTION: 11/01/23		FY 2023-24 STANDARD PLANS	TYPE K TEMPORARY CONCRETE BARRIER SYSTEM	INDEX 102-110	SHEET 2 of 17
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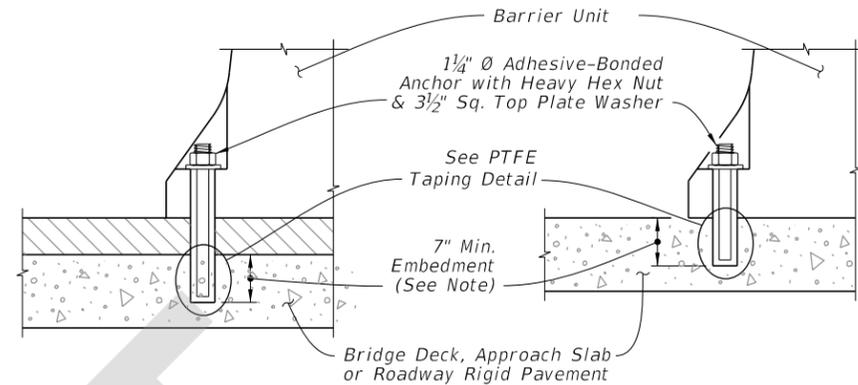


NOTE: Traffic Side for Transition to Median Traffic Railings, see Sheet 6

TYPICAL SECTION



THROUGH BOLTED ANCHOR

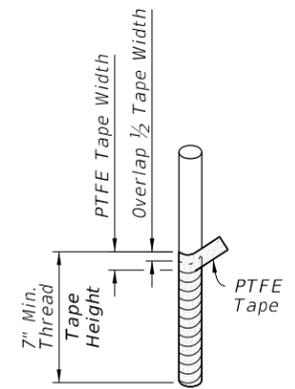


WITH ASPHALT OVERLAY

WITHOUT ASPHALT OVERLAY

NOTE: Wrap threads with a single overlapping layer of PTFE tape to facilitate removal of anchors.

ADHESIVE BONDED ANCHOR INSTALLATION



PTFE TAPING DETAIL

BOLTED INSTALLATION NOTES:

Bridge deck shown, approach slab or rigid pavement similar; installation adjacent to drop-off shown, median transition installation similar.

LIMITATION OF USE: This installation technique can only be used on rigid pavement and concrete bridge decks as shown. Anchor Bolts must not be installed on both sides of the Barrier Units. Do not bolt down Barrier Units across bridge finger or modular expansion joints.

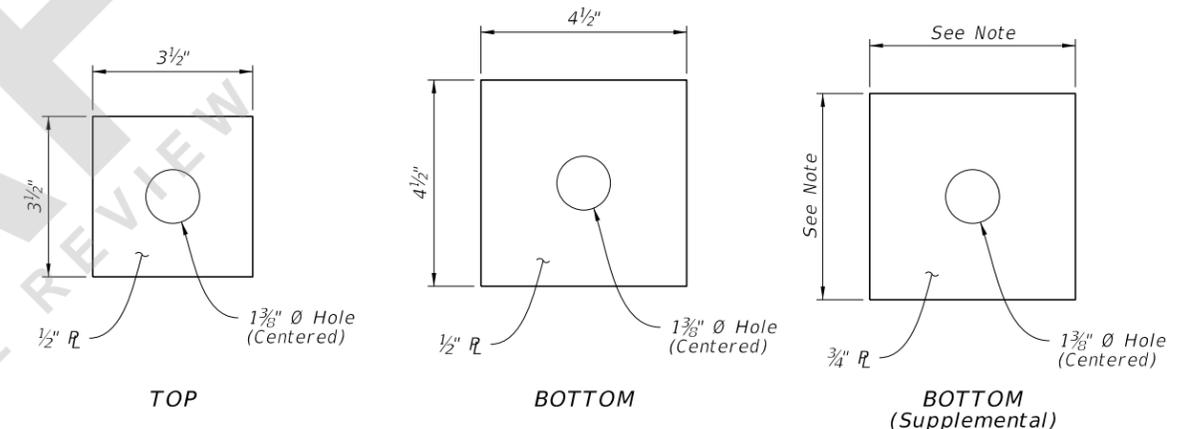
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Omit one (1) Anchor Bolt within a single Barrier Unit if a conflict exists between the Anchor Bolt location and a bridge deck expansion joint or drain. The adjacent Barrier Units must each be installed with the standard three (3) Anchor Bolts.

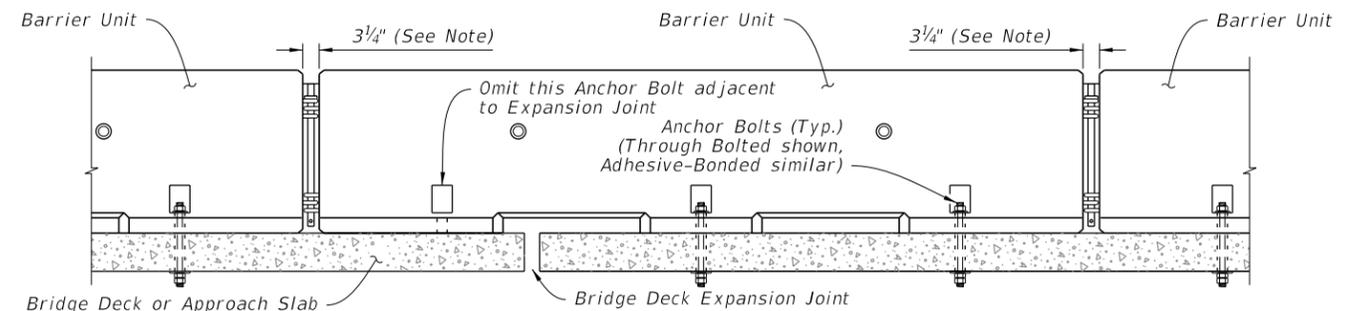
Omit one (1) Anchor Bolt within a single Barrier Unit as shown in the Treatment at Bridge Deck Expansion Joint Schematic if the Barrier Unit straddles a bridge deck expansion joint. The adjacent Barrier Units must each be installed with the standard three (3) Anchor Bolts.

ADHESIVE-BONDING MATERIAL SYSTEMS: When using adhesive bonding material systems for anchor bolts, use a Type HSHV adhesive meeting the requirements of Section 937 and listed on the APL. Install anchor bolts in accordance with Specification 416. Field testing requirements of Specification 416 do not apply.



NOTE: Dimension as required to span SIP Metal Form Corrugations plus 1/2" Minimum overlap each side.

PLATE WASHER DETAIL



NOTE: To accommodate movement at Expansion Joint, set Barrier Units with 3 3/4" gap at locations shown.

TREATMENT AT BRIDGE DECK EXPANSION JOINT SCHEMATIC

ANCHORED INSTALLATIONS - BOLTED

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LAST REVISION 11/01/23	REVISION	DESCRIPTION:	 FY 2024-25 STANDARD PLANS	TYPE K TEMPORARY CONCRETE BARRIER SYSTEM	INDEX 102-110	SHEET 2 of 17
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