

Origination Form
Proposed Revisions to a Standard Plans Index

| | | | |
|--------------------|-------------------------------|-------------------------|--|
| Originator: | Turley, Joshua | Index Number: | 521-422 |
| Date: | 1/15/2025 | Sheet Number(s): | 2, 3 |
| E-mail: | Joshua.Turley@dot.state.fl.us | Index Title: | Traffic Railing - (42" Vertical Shape) |

Summary of the changes:

Sheet 2: Added "Max." to the slope
Sheet 3: Added a grout plug option as an alternate detail.

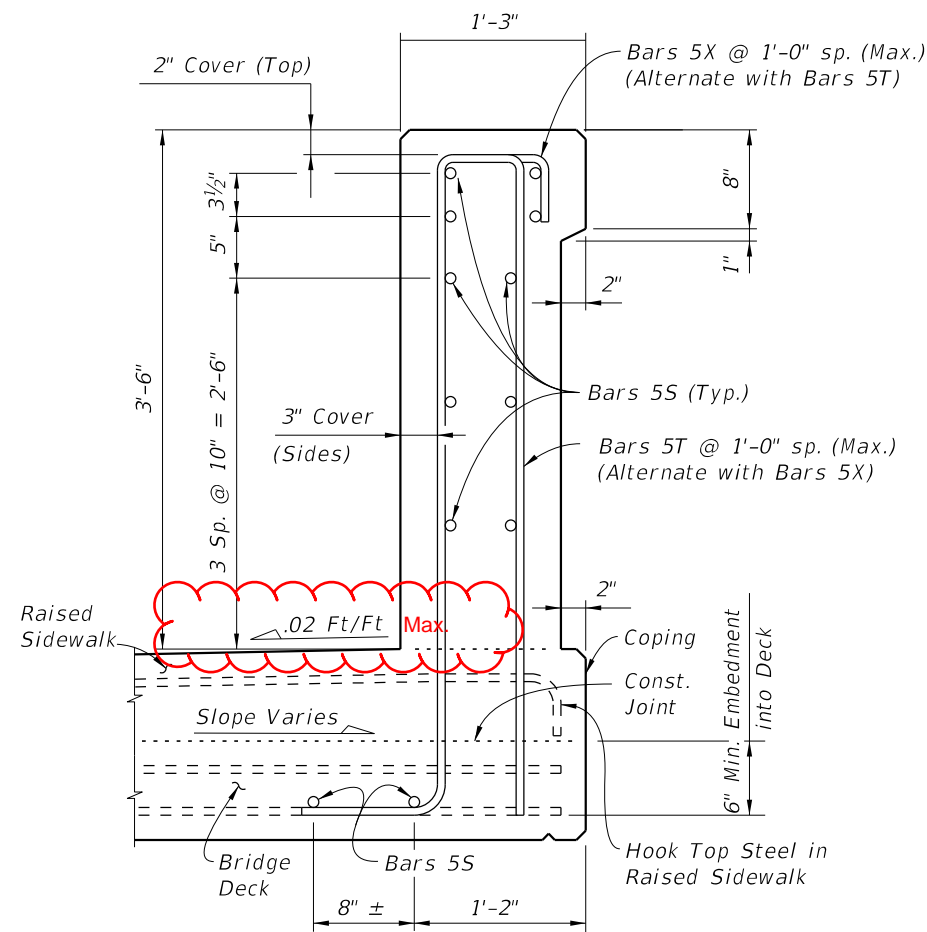
Commentary/Background:

Sheet 2: Some Districts and EORs have been using a sidewalk slope of 0.015 ft/ft to help make sure the finished slope stays within the ADA limit of 0.02 ft/ft. By adding "max" to the slope detail, the EOR has the flexibility to choose the slope. The intent is to hold the barrier height constant and thus the curb height along the roadway may be slightly taller (if the slope is less).
Sheet 3: Contractors requested a more constructible and economical option that would still perform the intended function of preventing water to flow out between the open joints.

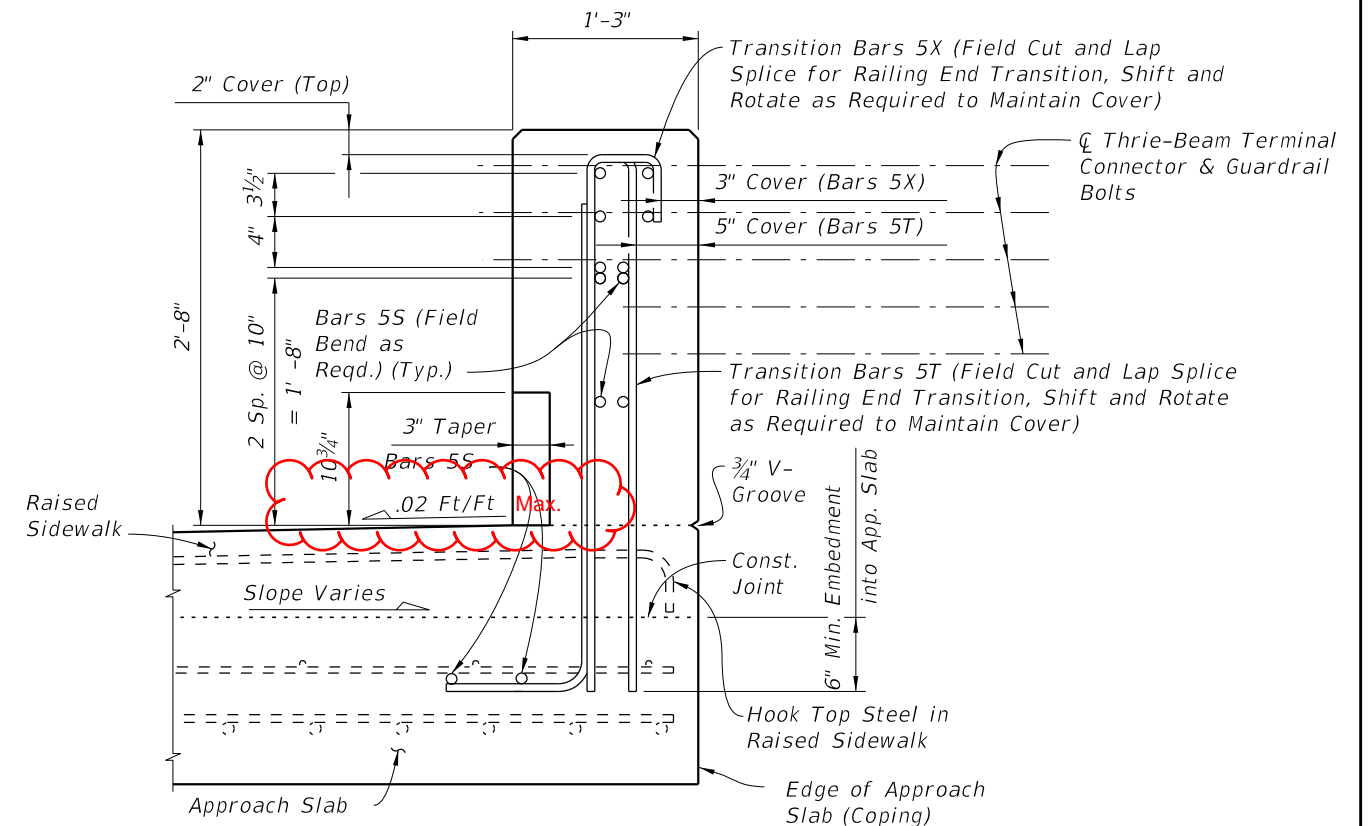
| Other Affected Documents/Offices | Person Contacted | Affected (Yes/No) |
|----------------------------------|------------------|-------------------|
| Other Standard Plans | | No |
| FDOT Design Manual | | No |
| Standard Specifications | | No |
| Basis of Estimates Manual | | No |
| Approved Product List | | No |
| Construction Office | | No |
| Maintenance Office | | No |

Implementation

["FY-Standard Plans (Next Release)"]



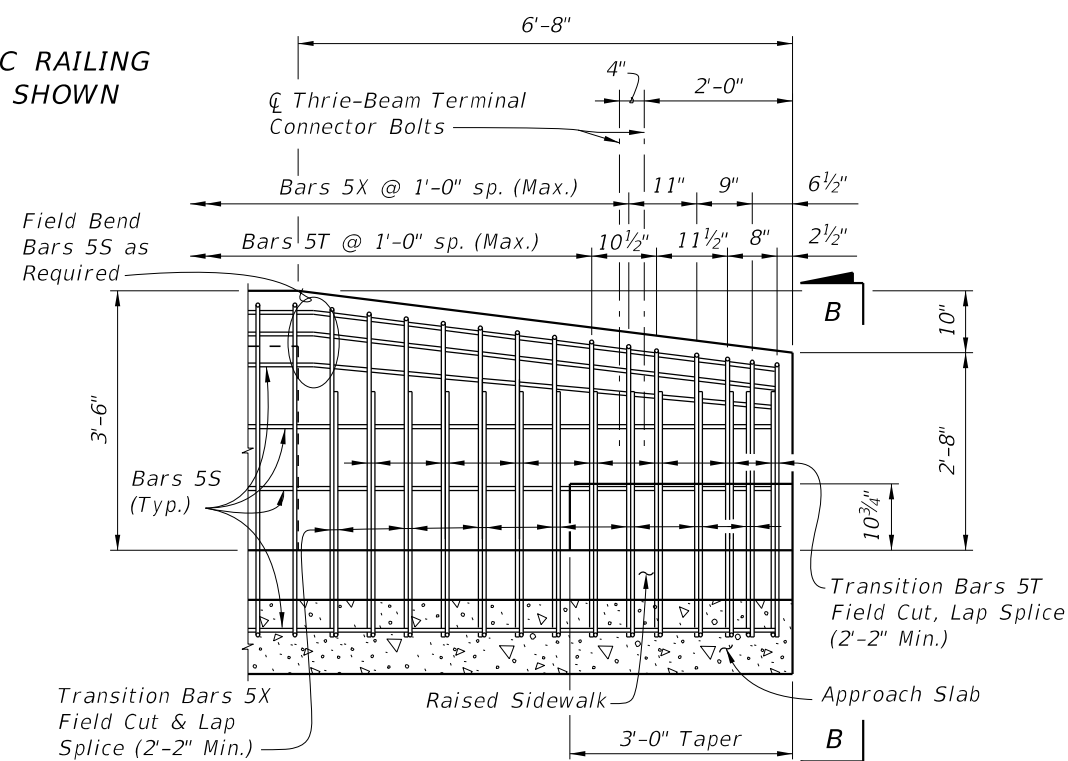
SECTION A-A
TYPICAL SECTION THRU TRAFFIC RAILING
SECTION THRU BRIDGE DECK SHOWN



VIEW B-B
(END VIEW OF TRAFFIC RAILING END TRANSITION)
(Approach Slab shown, Retaining Wall Junction Slab similar)

NOTES:

1. Begin placing Railing Bars 5T and 5X on Approach Slab at the railing end and proceed toward Begin or End Bridge to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars 5T and 5X shall be made immediately adjacent to Begin or End Bridge. Cut, shift and rotate Bars 5T and 5X as required to maintain cover in Railing End Transition.
2. Omit Railing End Transition and Guardrail if Concrete Traffic Railing is used beyond the Approach Slab or Retaining Wall. See Structures Plans, Plan and Elevation Sheet and Roadway Plans. If Taper and Railing End Transition is omitted, extend Typical Section to end of the Approach Slab or limiting station on Retaining Wall, and space Bars 5T and 5X at 1'-0" (Typ.)



VIEW C-C
RAILING END TRANSITION
(Guardrail Not Shown For Clarity)

CROSS REFERENCE:
For location of Section A-A, View B-B
and View C-C, see Sheet 1.

10/17/2024 10:28:36 AM

| LAST REVISION | DESCRIPTION: | FDOT | FY 2025-26 STANDARD PLANS | TRAFFIC RAILING - (42" VERTICAL SHAPE) | INDEX 521-422 | SHEET 2 of 3 |
|----------------------|--------------|------|------------------------------|--|------------------|-----------------|
| 11/01/17 11/01/25 | | | | | | |

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

| BILL OF REINFORCING STEEL | | |
|---------------------------|------|-----------|
| MARK | SIZE | LENGTH |
| S | 5 | As Req'd. |
| T | 5 | 10'-8" |
| X | 5 | 6'-9" |

Length as Required

BAR 5S

4'-6 3/4"

ØA

11"

7"

Varies (Field cut to maintain cover. 10" Max.)

Field Cut & Discard

END TRANSITION STIRRUP BARS 5T

To Be Field Cut (7 of each required per Railing End Transition)

STIRRUP BAR 5T

4'-6 3/4"

ØA

11"

9"

Varies (Field cut to maintain cover. 10")

Field Cut & Discard

END TRANSITION STIRRUP BARS 5X

To Be Field Cut (7 of each required per Railing End Transition)

STIRRUP BAR 5X

ROADWAY CROSS-SLOPE

0% to 2%

2% to 6%

6% to 10%

ØA

LOW GUTTER

HIGH GUTTER

Option II

DETAIL "A"

SECTION AT OPEN JOINT

(Alternative Mortar Plug at Open Joint)

Pre-cured Silicone Sealant (4" wide)

6"

2"

Option I

DETAIL "A" SECTION

AT INTERMEDIATE OPEN JOINT

INTERMEDIATE JOINT SEAL NOTES:
1. At Intermediate Open Joints, seal the lower 6" portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
2. Apply sealant prior to any Class V finish coating and remove all curing compound and loose material from the surface prior to application of bonding agent.
3. The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Traffic Railing.
4. As an alternative option, a mortar plug may be used to seal the joint as shown in the mortar plug detail and in accordance with Specification Section 400.

3/8"

45°

45°

Paint Recessed Surfaces Black

SECTION THRU RECESSED "V" GROOVE TO FORM INSCRIBED LETTERS AND FIGURES

REINFORCING STEEL NOTES:
1. All bar dimensions in the bending diagrams are out to out.
2. The 4'-6 3/4" vertical dimension shown for Bars 5T and 5X is based on a bridge deck with a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and a counter 2% raised sidewalk cross slope. If the raised sidewalk thickness, width or cross slope vary from the above amounts, adjust this dimension accordingly to achieve a 6" minimum embedment into the bridge deck. See Structures Plans, Superstructure and Approach Slab Sheets.
3. The reinforcement for the railing on a retaining wall shall be the same as detailed above with ØA = 90°.
4. All reinforcing steel at the open joints shall have a 2" minimum cover.
5. Bars 5S may be continuous or spliced at the construction joints. Bar splices for Bars 5S shall be a minimum of 2'-2".
6. The Contractor may utilize Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.

ESTIMATED TRAFFIC RAILING QUANTITIES

| ITEM | UNIT | QUANTITY |
|-------------------|-------|----------|
| Concrete | CY/LF | 0.145 |
| Reinforcing Steel | LB/LF | 30.68 |

(The above quantities are based on a 6" thick x 6' wide raised sidewalk at low side of deck, 2% deck cross slope and counter 2% sidewalk cross slope)

2026-27

LAST REVISION

11/01/17

11/01/25

DESCRIPTION:

FDOT

FY ~~2025-26~~

STANDARD PLANS

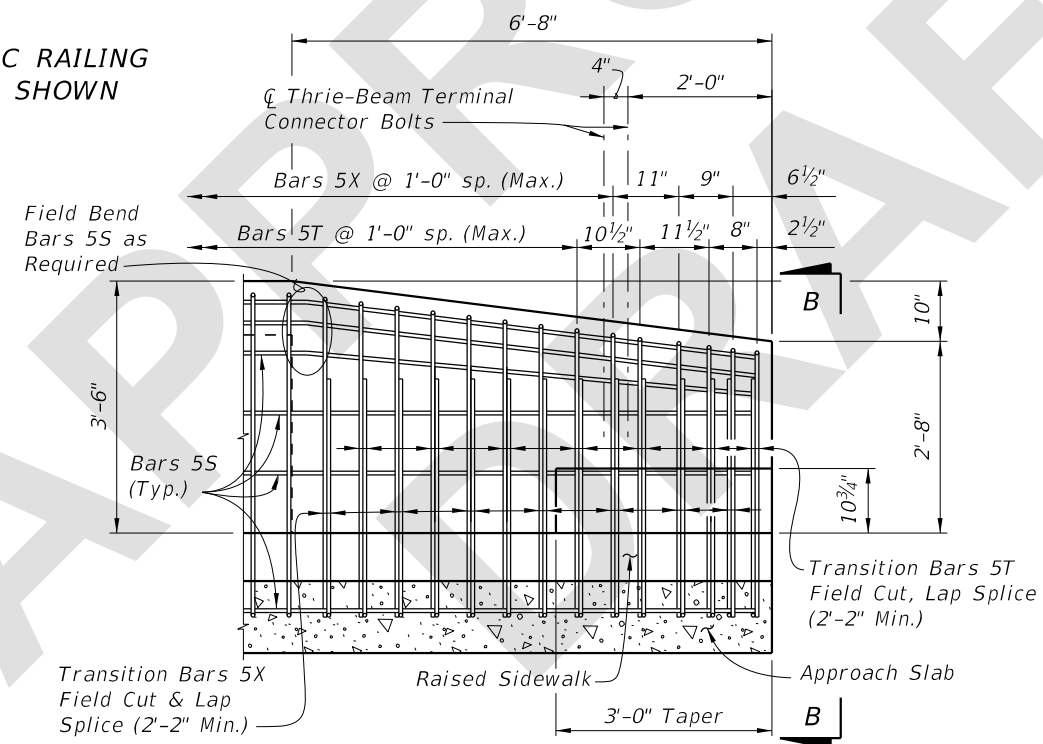
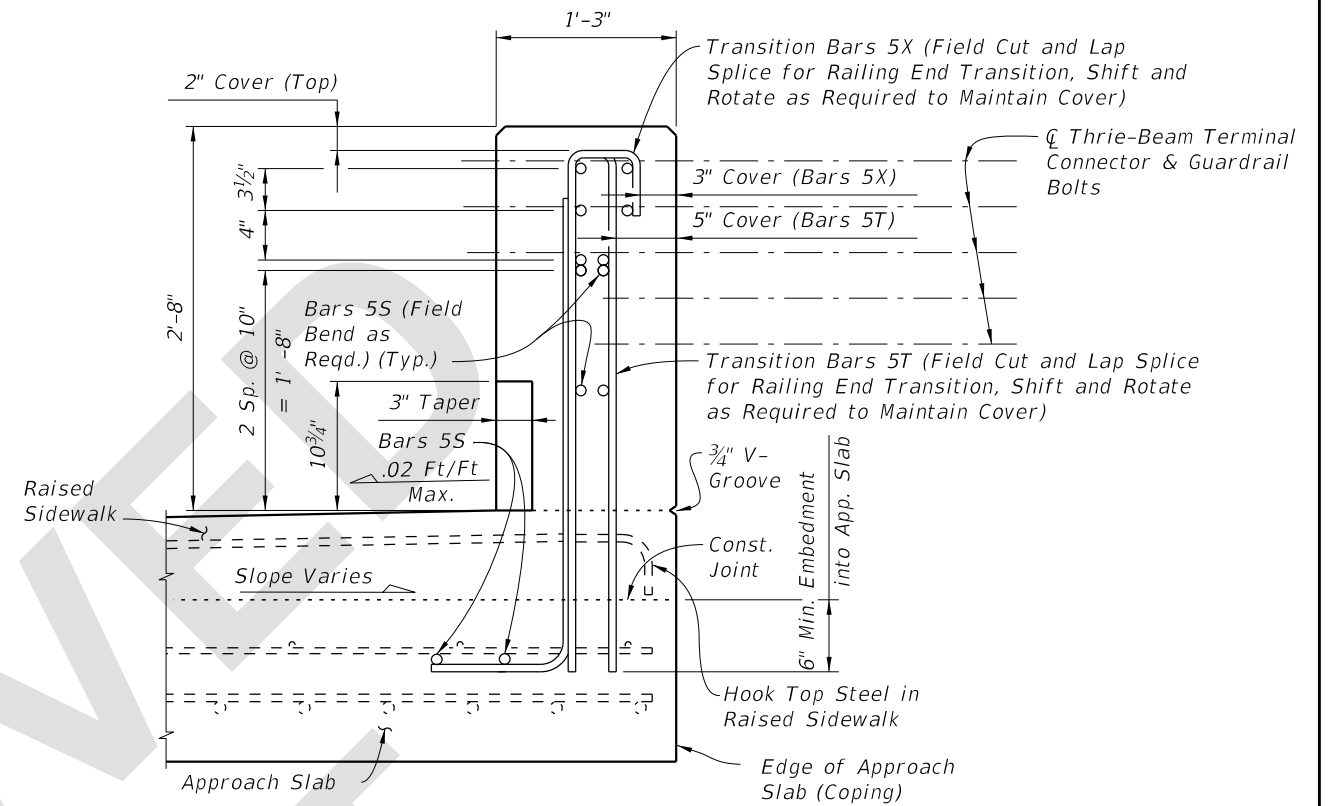
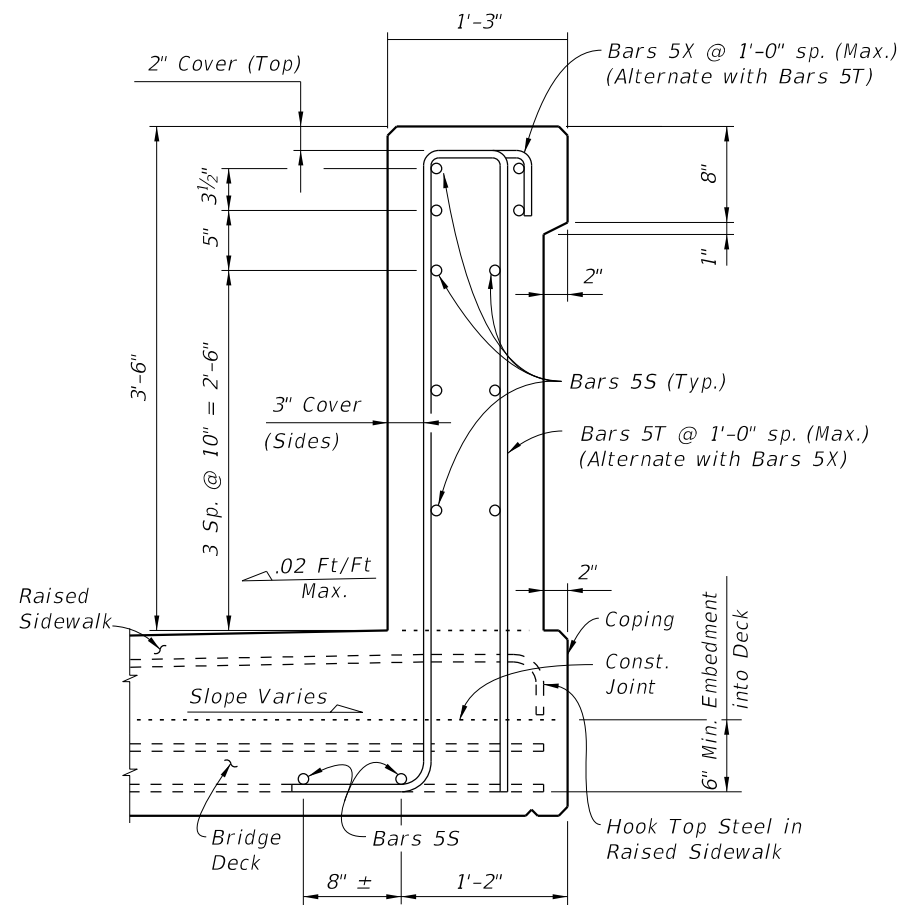
TRAFFIC RAILING - (42" VERTICAL SHAPE)

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SHEET

3 of 3



NOTES:

1. *Begin placing Railing Bars 5T and 5X on Approach Slab at the railing end and proceed toward Begin or End Bridge to avoid conflict with guardrail bolt holes. If required, adjustments to the bar spacing for Bars 5T and 5X shall be made immediately adjacent to Begin or End Bridge. Cut, shift and rotate Bars 5T and 5X as required to maintain cover in Railing End Transition.*
2. *Omit Railing End Transition and Guardrail if Concrete Traffic Railing is used beyond the Approach Slab or Retaining Wall. See Structures Plans, Plan and Elevation Sheet and Roadway Plans. If Taper and Railing End Transition is omitted, extend Typical Section to end of the Approach Slab or limiting station on Retaining Wall, and space Bars 5T and 5X at 1'-0" (Typ.)*

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CROSS REFERENCE:
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and View C-C, see Sheet 1.

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| BILL OF REINFORCING STEEL | | |
|---------------------------|------|-----------|
| MARK | SIZE | LENGTH |
| S | 5 | As Req'd. |
| T | 5 | 10'-8" |
| X | 5 | 6'-9" |

| ROADWAY CROSS-SLOPE | ØA | |
|------------------------|------------|-------------|
| | LOW GUTTER | HIGH GUTTER |
| 0% to 2% | 90° | 90° |
| 2% to 6% | 87° | 83° |
| 6% to 10% | 84° | 96° |

Length as Required

BAR 5S

4'-6¾"

ØA

11"

7"

Varies (Field cut to maintain cover. 10" Max.)

Field Cut & Discard

1'-2"

END TRANSITION STIRRUP BARS 5T

To Be Field Cut (7 of each required per Railing End Transition)

4'-6¾"

ØA

11"

9"

Varies (Field cut to maintain cover. 10" Max.)

Field Cut & Discard

1'-2"

END TRANSITION STIRRUP BARS 5X

To Be Field Cut (7 of each required per Railing End Transition)

STIRRUP BAR 5T

STIRRUP BAR 5X

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3. The cost of the Pre-cured Silicone Sealant shall be included in the Contract Unit Price for the Traffic Railing.

4. As an alternative option, a mortar plug may be used to seal the joint as shown in the mortar plug detail and in accordance with Specification Section 400.

Pre-cured Silicone Sealant (4" wide)

6"

2"

OPTION I

Mortar Plug

3"

3"

OPTION II

(Alternative Mortar Plug at Open Joint)

DETAIL "A"

3/8"

45°

45°

Paint Recessed Surfaces Black

SECTION THRU RECESSED "V" GROOVE
TO FORM INSCRIBED LETTERS AND FIGURES

| ESTIMATED TRAFFIC RAILING QUANTITIES | | |
|--------------------------------------|-------|----------|
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LAST REVISION
11/01/25

REVISION

DESCRIPTION:

FDOT

FY 2026-27
STANDARD PLANS

TRAFFIC RAILING - (42" VERTICAL SHAPE)

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