

# ORIGINATION FORM

Proposed Revisions to a Standard Plans Index  
(Please provide all information – Incomplete forms will be returned)

## Contact Information:

Date: March 13, 2019  
Originator: Cheryl Hudson  
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Email: cheryl.hudson@dot.state.fl.us

## Standard Plans:

Index Number: 521-428  
Sheet Number (s): 1 & 3  
Index Title: Traffic Railing (42" Single-Slope)

## Summary of the changes:

Sheet 1: Added reference to drainage detail in Index 521-427; Sheet 3 Added transition from 42" Traffic Railing on bridge to 36" or 38" traffic railing on approaches.

## Commentary / Background:

Per multiple requests from Districts, 42" on bridge and 38" on retaining wall approaches.

## Other Affected Offices / Documents: (Provide name of responsible personnel)

- | 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 –               |

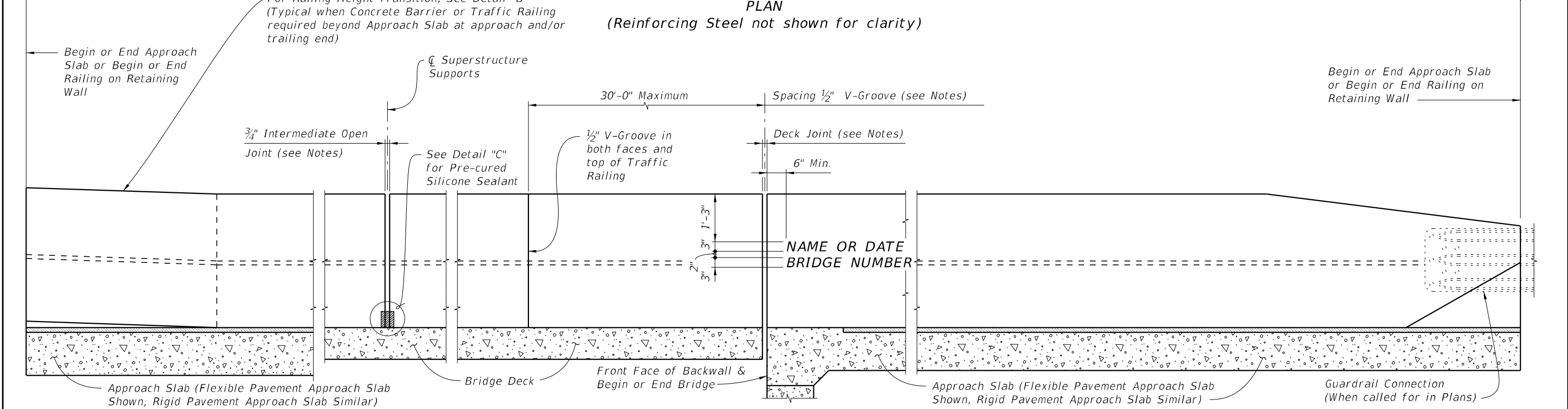
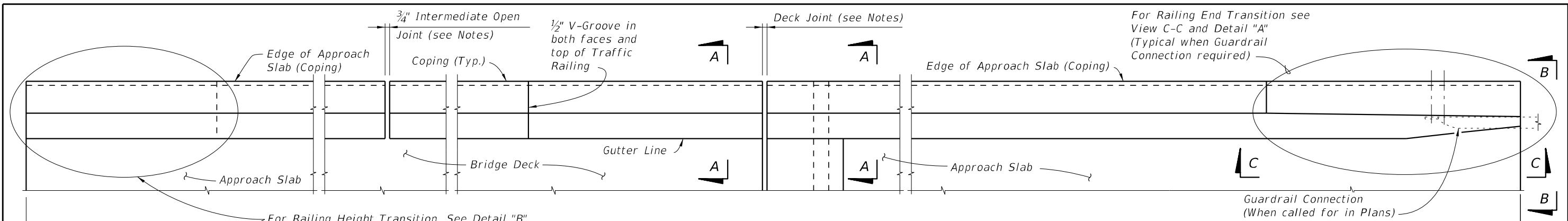
## Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

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

## Implementation:

- Design Bulletin (Interim)    DCE Memo    Program Mgmt. Bulletin    FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form



**ELEVATION OF INSIDE FACE OF RAILING**  
 (Reinforcing Steel not shown for clarity)  
 (Railing on Bridge Deck and Approach Slab shown, Railing on Retaining Wall similar)

**CROSS REFERENCE:**  
 For Section A-A, End View B-B and Detail "A" see Sheet 2.  
 For Detail "B" see Sheet 3.  
 For Detail "C" see Sheet 4.

**TRAFFIC RAILING NOTES**

This railing has been structurally evaluated to be equivalent or greater in strength to other single slope railings which have been crash tested to MASH TL-5.

**CONCRETE AND REINFORCING STEEL:** See Structures Plans, General Notes.

**SUPERELEVATED BRIDGES:** At the option of the Contractor the Traffic Railing on superelevated bridges may be constructed perpendicular to the roadway surface. If an adjoining railing is constructed plumb, transition the end of the Traffic Railing from perpendicular to plumb over a minimum distance of 20'-0". The cost of all modifications will be at the Contractor's expense.

**GUARDRAIL:** For Guardrail connection details, see Index 536-001.

**V-GROOVES:** Construct 1/2" V-Grooves plumb. Space V-Grooves equally between 3/4" Open Joints and/or Deck Joints and at V-Groove locations on Retaining Wall footings.

**END TRANSITIONS:** When guardrail approaches are shown in the Plans, provide the Railing End Transition as shown in Detail "A". When a concrete traffic railing or barrier is shown on the approaches, provide the Railing Height Transition as shown in Detail "B".

**NAME, DATE, AND BRIDGE NUMBER:** The Name and Bridge Number shall be placed on the Traffic Railing so as to be seen on the driver's right side when approaching the bridge. The Date shall be placed on the driver's left side when approaching the bridge. The Name shall be as shown in the General Notes in the Structures Plans. The Date shall be the year the bridge is completed. For a widening when the existing railing is removed, use both the existing date and the year of the widening. Black plastic letters and figures 3" in height may be used, as approved by the Engineer, in lieu of the letters and figures formed by 3/8" V-Grooves. V-Grooves shall be formed by preformed letters and figures.


**JOINTS:** See Structures Plans, Superstructure, Approach Slab and Retaining Walls Sheets for actual dimensions and joint orientation. Provide open Railing Joints at Deck Expansion Joint locations matching the dimensions of the Deck Joint. For treatment of Railings on skewed bridges see Index 521-427.

Provide 3/4" Intermediate Open Joints shall be provided at:  
 (1) - Superstructure supports where slab is continuous.  
 (2) - Ends of approach slabs when adjacent to retaining walls and at expansion joints on retaining wall junction slabs.

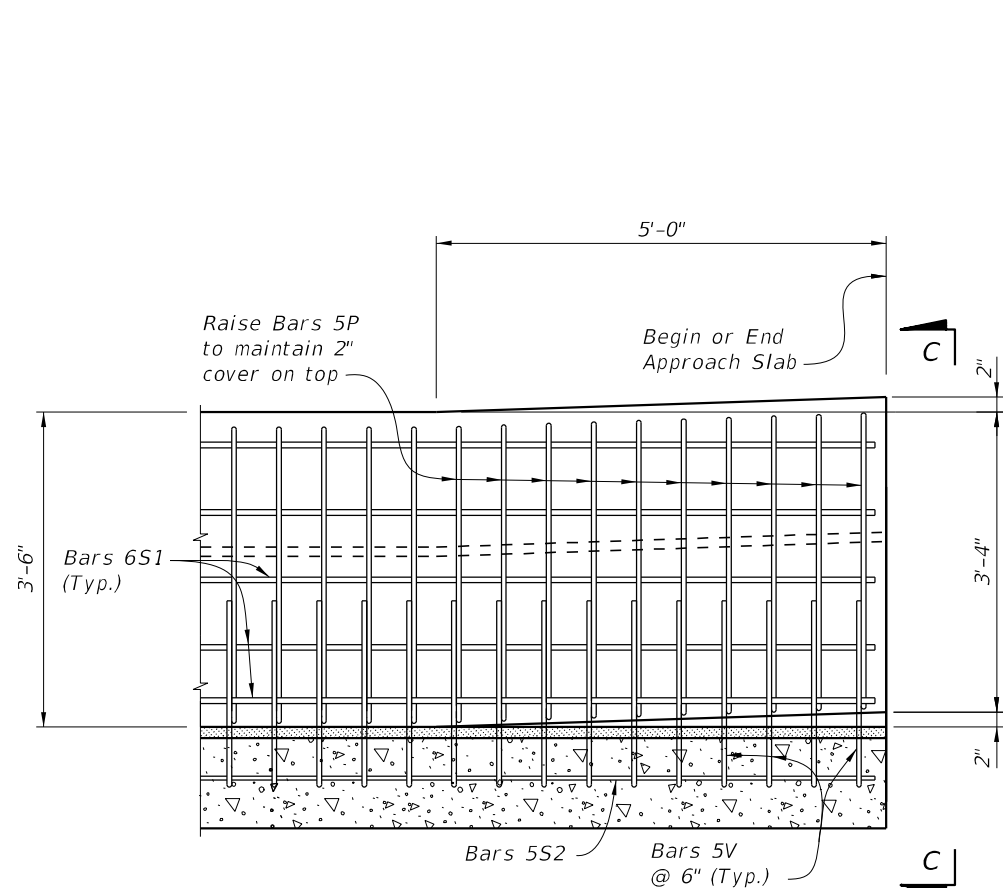
**BARRIER DELINEATORS:** Install Barrier Delineators on top of the Traffic Railing 2" from the face on the traffic side in accordance with Specification Section 705. Match the Barrier Delineator to the color (white or yellow) of the near edgeline.

**DRAINAGE SLOTS:** When shown in the plans, see Index 521-427 Sheet 5 for details.

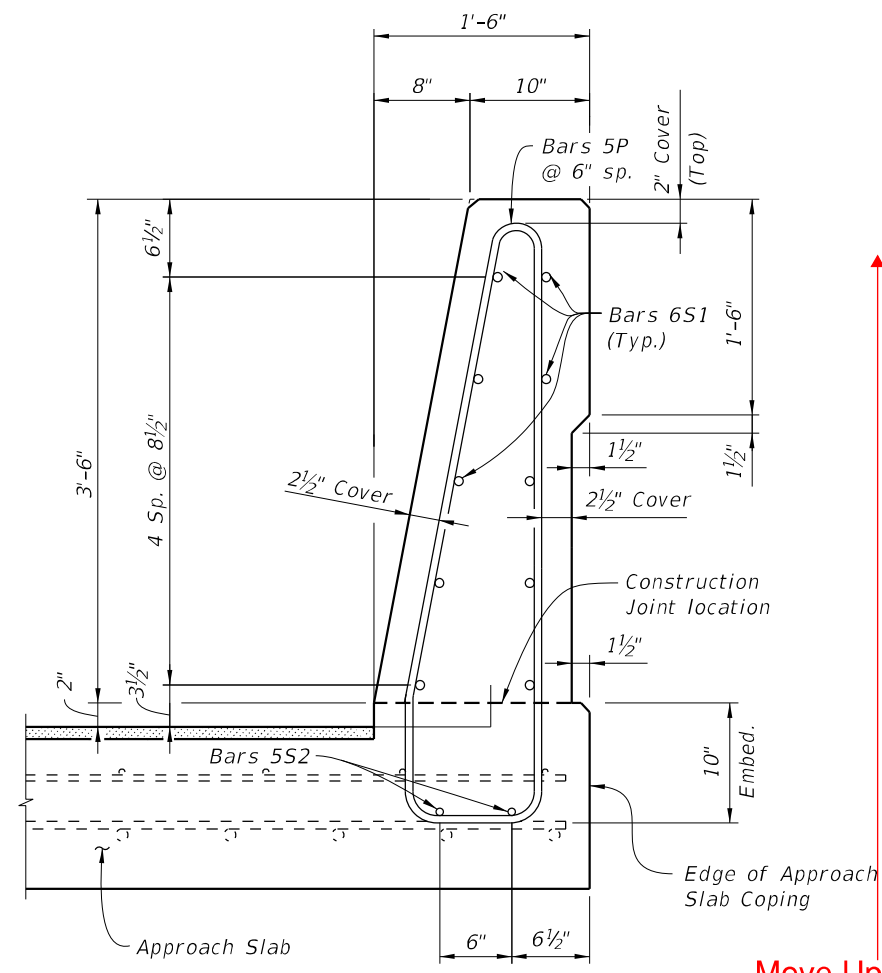
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LAST REVISION <del>11/01/18</del>	DESCRIPTION: ← 11/01/19	 FY 2019-20 STANDARD PLANS	<b>TRAFFIC RAILING - (42" SINGLE-SLOPE)</b>	INDEX 521-428	SHEET 1 of 4
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ELEVATION  
RAILING HEIGHT TRANSITION



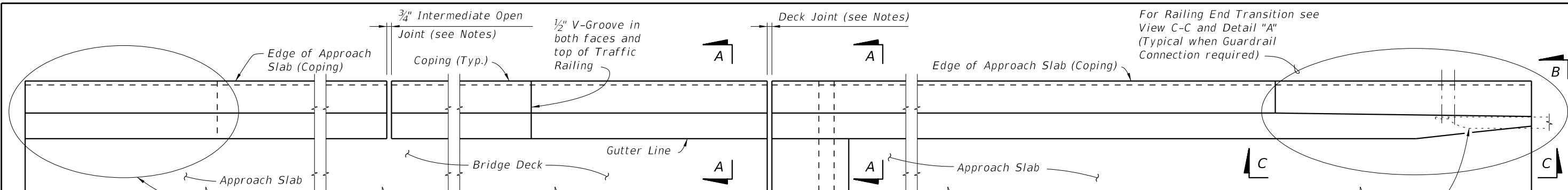
VIEW C-C  
RAILING HEIGHT TRANSITION  
(Section Thru Approach Slab shown)

Move Up and add  
Detail C below:  
Transition from 42"  
traffic railing to 36" or  
38" single-slope

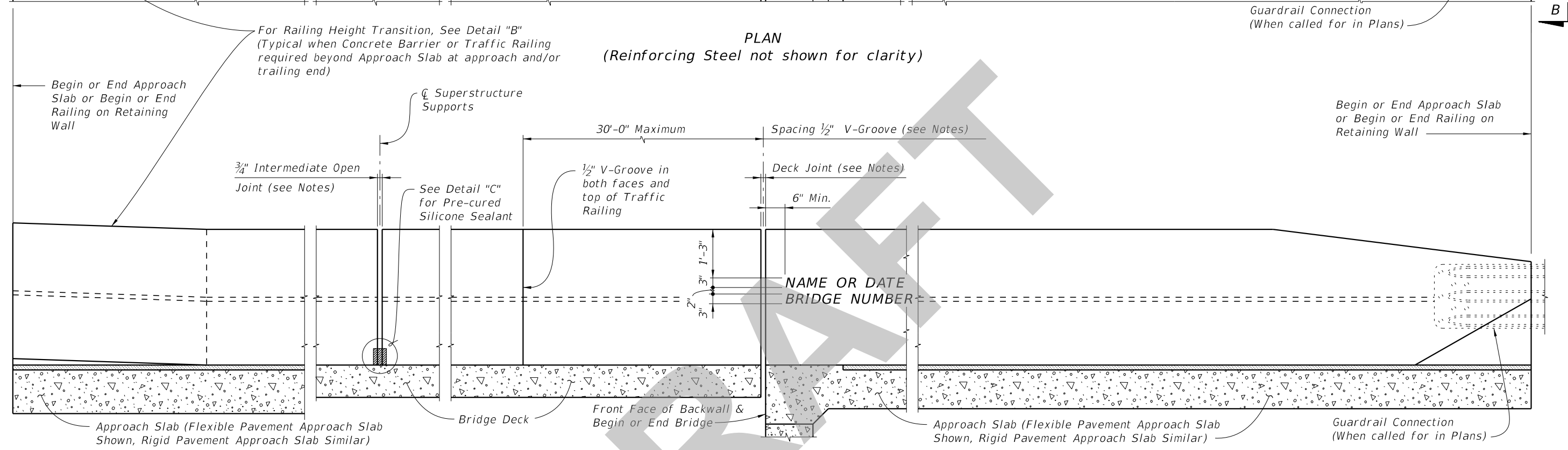
NOTE:  
Provide Detail "B" Height Transition where 44" Single-Slope Traffic Railings or Barriers are shown on approaches.

DETAIL "B"

<p>LAST REVISION <del>11/01/17</del></p>	<p>DESCRIPTION: ← 11/01/19</p>	<p>FDOT FY 2019-20 STANDARD PLANS</p>	<p>TRAFFIC RAILING - (42" SINGLE-SLOPE)</p>	<p>INDEX 521-428</p>	<p>SHEET 3 of 4</p>
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**PLAN**  
(Reinforcing Steel not shown for clarity)



**ELEVATION OF INSIDE FACE OF RAILING**  
(Reinforcing Steel not shown for clarity)  
(Railing on Bridge Deck and Approach Slab shown, Railing on Retaining Wall similar)

**CROSS REFERENCE:**  
For Section A-A, End View B-B and Detail "A" see Sheet 2.  
For Detail "B" see Sheet 3.  
For Detail "C" see Sheet 4.

**TRAFFIC RAILING NOTES**

This railing has been structurally evaluated to be equivalent or greater in strength to other single slope railings which have been crash tested to MASH TL-5.

**CONCRETE AND REINFORCING STEEL:** See Structures Plans, General Notes.

**SUPERELEVATED BRIDGES:** At the option of the Contractor the Traffic Railing on superelevated bridges may be constructed perpendicular to the roadway surface. If an adjoining railing is constructed plumb, transition the end of the Traffic Railing from perpendicular to plumb over a minimum distance of 20'-0". The cost of all modifications will be at the Contractor's expense.

**GUARDRAIL:** For Guardrail connection details, see Index 536-001.

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**DRAINAGE SLOTS:** When shown in the plans, see Index 521-427 Sheet 5 for details.


**NAME, DATE, AND BRIDGE NUMBER:** The Name and Bridge Number shall be placed on the Traffic Railing so as to be seen on the driver's right side when approaching the bridge. The Date shall be placed on the driver's left side when approaching the bridge. The Name shall be as shown in the General Notes in the Structures Plans. The Date shall be the year the bridge is completed. For a widening when the existing railing is removed, use both the existing date and the year of the widening. Black plastic letters and figures 3" in height may be used, as approved by the Engineer, in lieu of the letters and figures formed by 3/8" V-Grooves. V-Grooves shall be formed by preformed letters and figures.

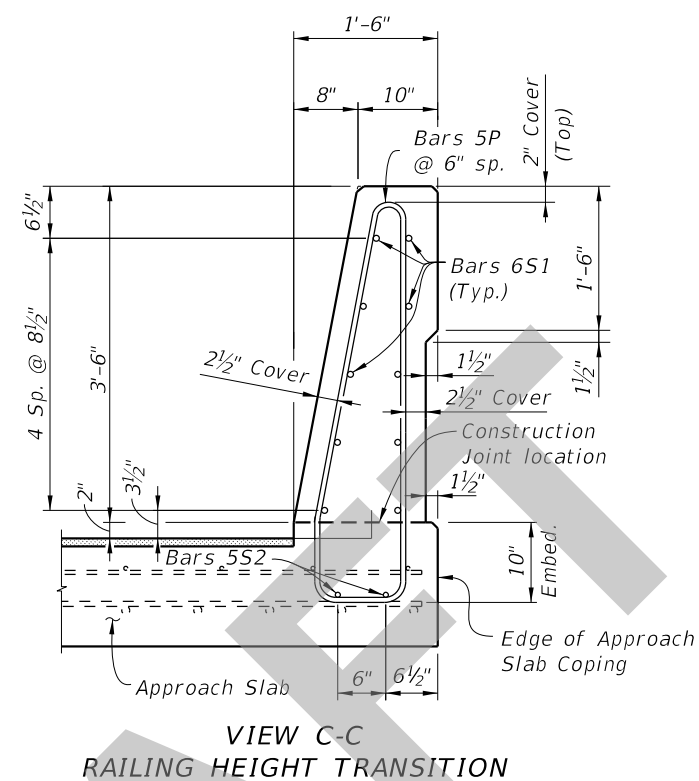
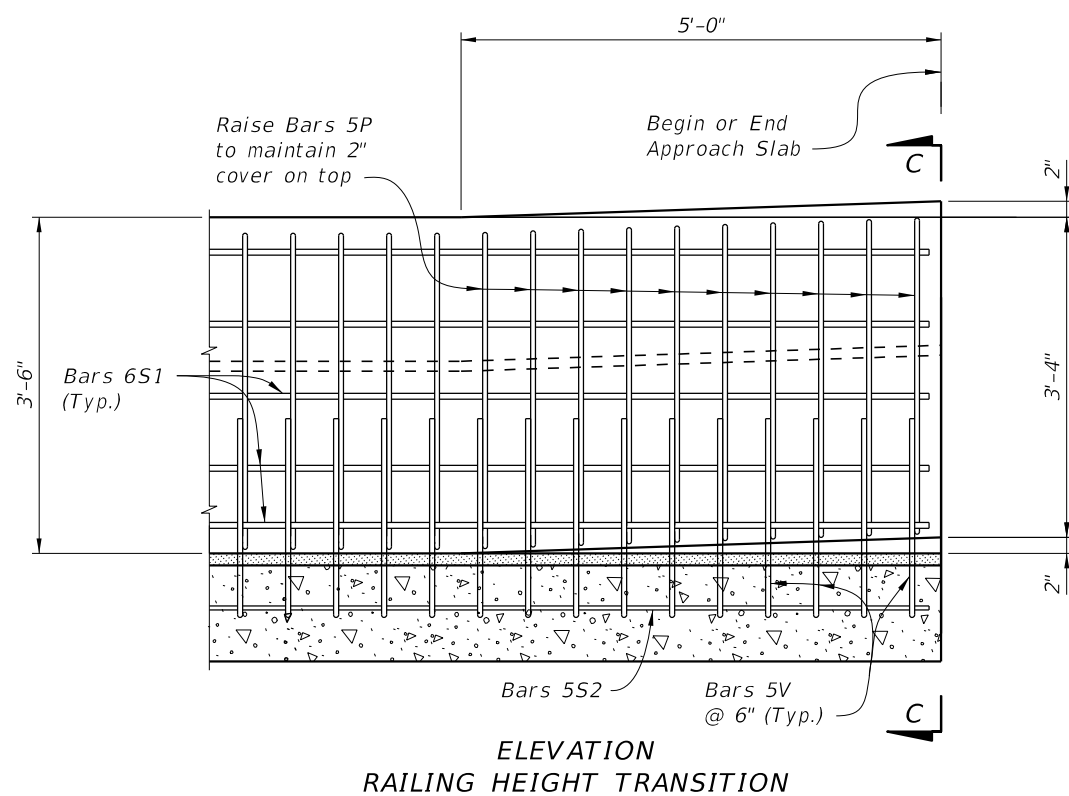
**JOINTS:** See Structures Plans, Superstructure, Approach Slab and Retaining Walls Sheets for actual dimensions and joint orientation. Provide open Railing Joints at Deck Expansion Joint locations matching the dimensions of the Deck Joint. For treatment of Railings on skewed bridges see Index 521-427.

- Provide 3/4" Intermediate Open Joints shall be provided at:
- (1) - Superstructure supports where slab is continuous.
  - (2) - Ends of approach slabs when adjacent to retaining walls and at expansion joints on retaining wall junction slabs.

**BARRIER DELINEATORS:** Install Barrier Delineators on top of the Traffic Railing 2" from the face on the traffic side in accordance with Specification Section 705. Match the Barrier Delineator to the color (white or yellow) of the near edge line.

SDATES

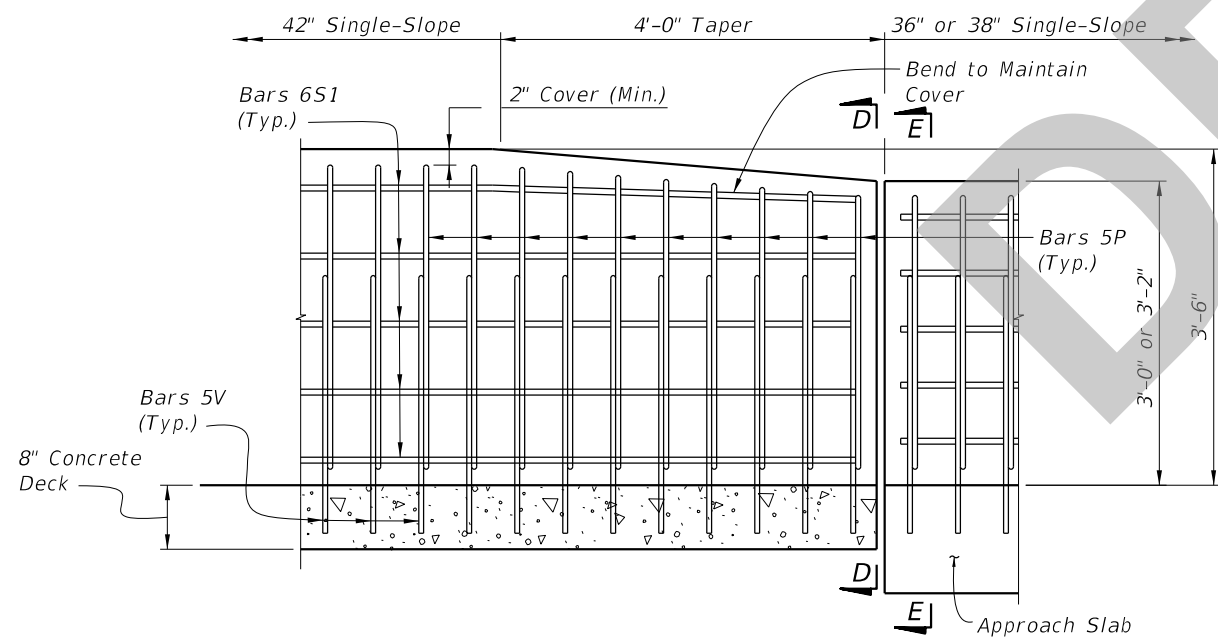
LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 <b>FY 2020-21 STANDARD PLANS</b>	<b>TRAFFIC RAILING - (42" SINGLE-SLOPE)</b>	INDEX <b>521-428</b>	SHEET <b>1 of 4</b>
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NOTE:

1. Provide Detail "B" height transition where 42" Single-Slope Traffic Railings increase to 44" Barriers beyond flexible pavement approaches.
2. Work Detail "B" with Index 400-090.
3. Provide Detail "C" height transition where 42" Traffic Railings are required on bridge, and 36" or 38" Barriers are shown on approaches.
4. Work Detail "C" with Indexes 400-090 or 400-091, 521-427, and 521-610 as necessary.
5. Field cut 5P Bars as shown to maintain 2" min. (4" max.) cover at top of traffic railing.

DETAIL "B"



VIEW D-D  
RAILING HEIGHT TRANSITION  
(Begin/End of Bridge)  
(Bars 5V not shown for clarity)

SECTION E-E  
(Index 400-091 Shown, 400-090 Similar)  
(Index 521-427 Bars 4V not shown for Clarity)

DETAIL "C"

SDATES

LAST REVISION  
11/01/19

REVISION  
DESCRIPTION:



FY 2020-21  
STANDARD PLANS

TRAFFIC RAILING - (42" SINGLE-SLOPE)

INDEX  
521-428

SHEET  
3 of 4