

Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Turley, Joshua	Index Number:	521-427
Date:	4/29/2025	Sheet Number(s):	Sheet 4
E-mail:	Joshua.Turley@dot.state.fl.us	Index Title:	TRAFFIC RAILING - (36" SINGLE-SLOPE)

Summary of the changes:

Sheet 4: Added a grout plug option as an alternate detail.

Commentary/Background:

Contractors wanted 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

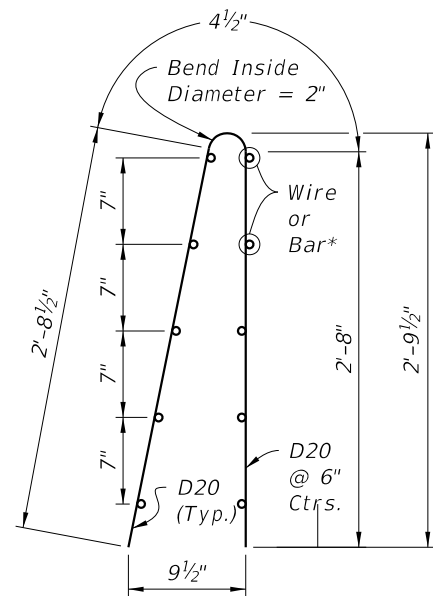
Implementation

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

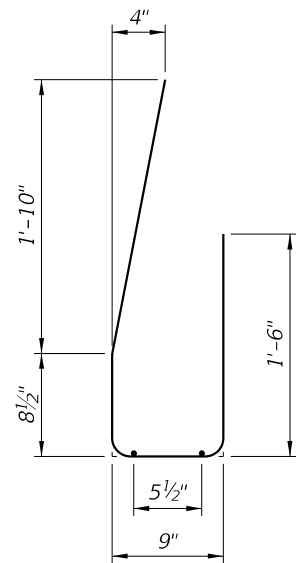
ALTERNATE REINFORCING STEEL (WWR) DETAILS

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

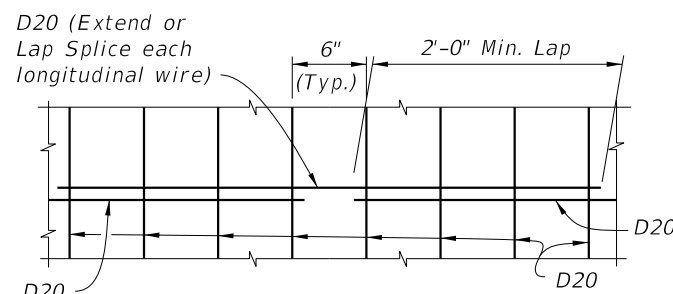
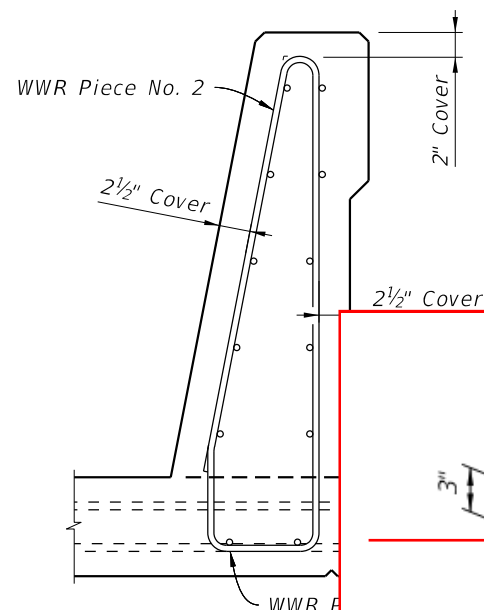
* Longitudinal D20 Wires or #4 Bars may be tied.



WWR Piece No. 2



WWR Piece No. 1



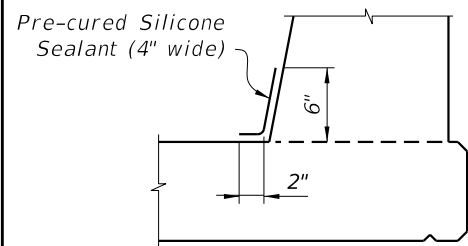
SPLICE DETAIL (Between WWR Sections)

WELDED WIRE REINFORCEMENT NOTES:

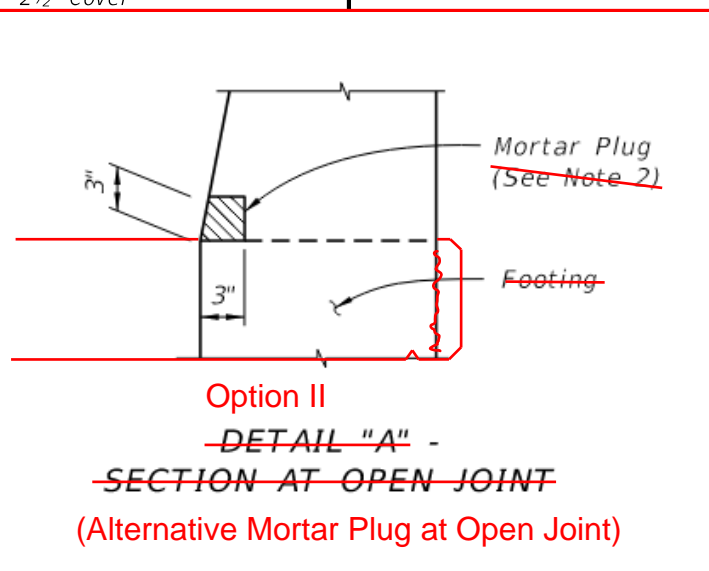
- At the option of the Contractor deformed Welded Wire Reinforcement (WWR) may be utilized in Bars 4S and 4V. WWR must consist of Deformed wire meeting the requirements of Specification Section 400.
- WWR at Railing End Transition shall be field bent inward as required (Piece 2) to maintain cover over vertical wires (D20) in Piece 2 shall be cut a maximum of 4 inches and the gutter side portion required to allow placement.

INTERMEDIATE JOINT SEAL NOTES:

- At Intermediate Open Joints, seal the lower portion of the open joint with Pre-cured Silicone Sealant in accordance with Specification Section 932.
- 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.
- Include the cost of the Pre-cured Silicone Sealant in the Contract Unit Price for the Traffic Railing.
- 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.



DETAIL "C" SECTION AT INTERMEDIATE OPEN JOINT

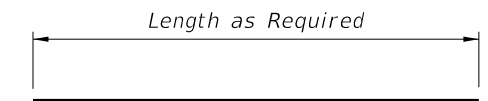


Option II
~~DETAIL "A" - SECTION AT OPEN JOINT~~
Alternative Mortar Plug at Open Joint

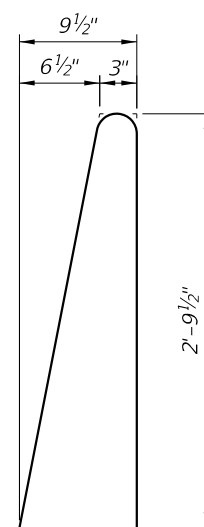
ROADWAY CROSS-SLOPE	LOW GUTTER	HIGH GUTTER
	θB	θB
0% to 2%	90°	90°
2% to 6%	87°	93°
6% to 10%	84°	96°

θB shall be 90° if Contractor elects to place railing perpendicular to the deck and approach slabs.

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
P	4	5'-11"
S	4	As Req'd.
V	4	4'-10"

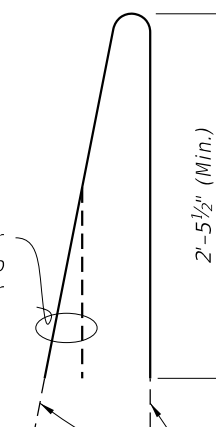


BAR 4S

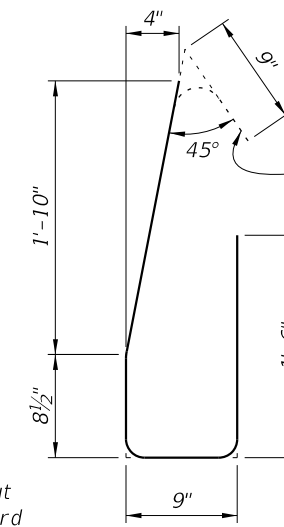


Field Bend Bar as req'd to maintain cover

END STIRRUP BAR 4P To Be Field Cut and Bent



Field Cut & Discard

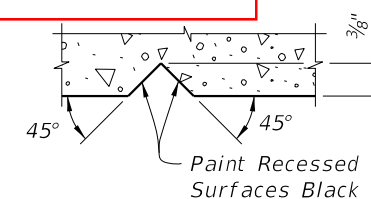


BAR 4V

END TRANSITION BAR 4V Field Cut and Lapped

NOTES:

- The bending diagrams are out to out.
- Dimensions shown for Bar 4V is based on a 6" embedment into the bridge deck sidewalk. If a raised sidewalk is to be provided, increase this dimension to embedment into the bridge deck. See Structures Plans, Superstructure Details.
- All open joints shall have a 2" minimum cover.
- Bars shall be continuous or spliced at the construction joints. Bar splices for Bars 4S and 4V shall be 2'-0".



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

ESTIMATED TRAFFIC RAILING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.107
Reinforcing Steel	LB/LF	24.78

(The above quantities are based on a 2% deck cross slope; railing on low side of deck.)

10/17/2024 10:30:59 AM

LAST REVISION	DESCRIPTION:
11/01/17	
11/01/25	



FY ~~2025-26~~ 2026-27
STANDARD PLANS

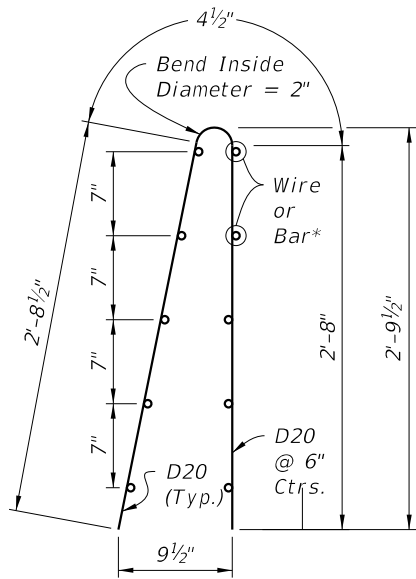
TRAFFIC RAILING - (36" SINGLE-SLOPE)

INDEX	SHEET
521-427	4 of 5

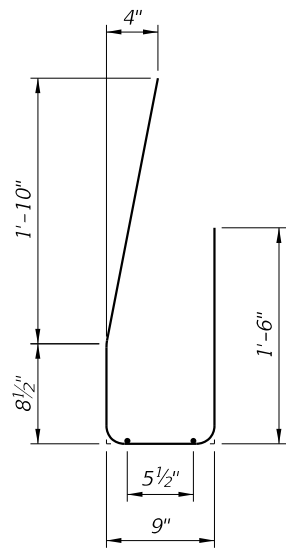
ALTERNATE REINFORCING STEEL (WWR) DETAILS

CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

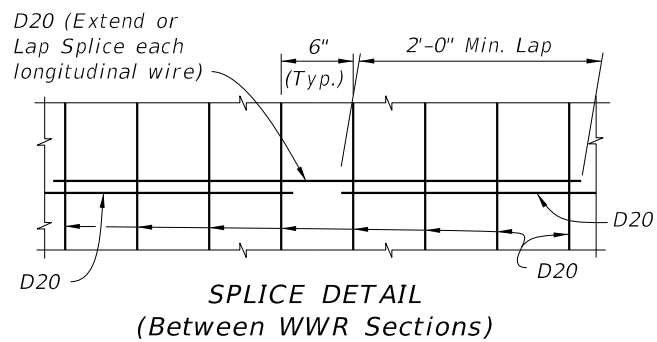
* Longitudinal D20 Wires or #4 Bars may be tied.



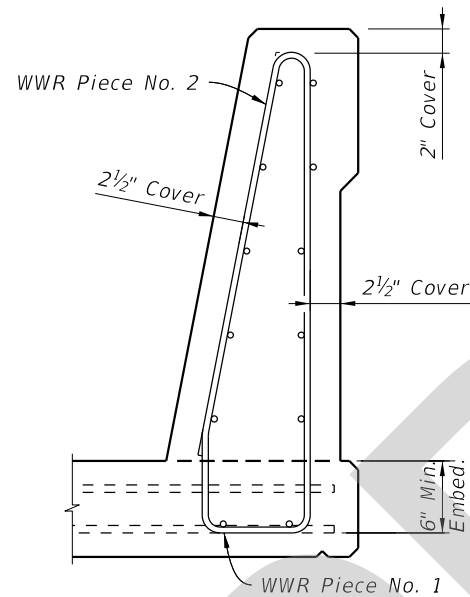
WWR Piece No. 2



WWR Piece No. 1



SPLICE DETAIL (Between WWR Sections)



WWR Piece No. 1

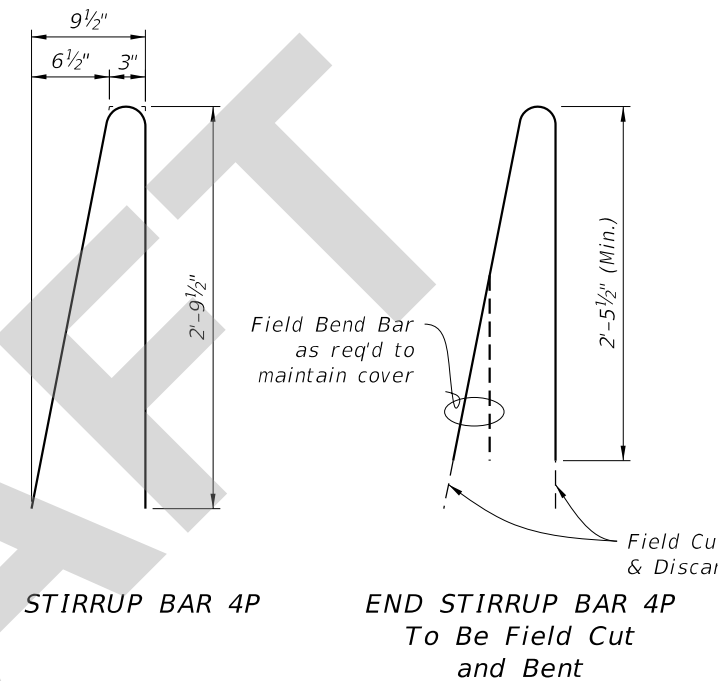
WELDED WIRE REINFORCEMENT NOTES:

1. At the option of the Contractor deformed Welded Wire Reinforcement (WWR) may be utilized in lieu of all Bars 4P, 4S and 4V. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.
2. WWR at Railing End Transition shall be field bent inward as required (Piece 2) to maintain cover. The bottom of the vertical wires (D20) in Piece 2 shall be cut a maximum of 4 inches and the gutter side portion bent inward as required to allow placement.

ROADWAY CROSS-SLOPE	LOW GUTTER	HIGH GUTTER
	ØB	ØB
0% to 2%	90°	90°
2% to 6%	87°	93°
6% to 10%	84°	96°

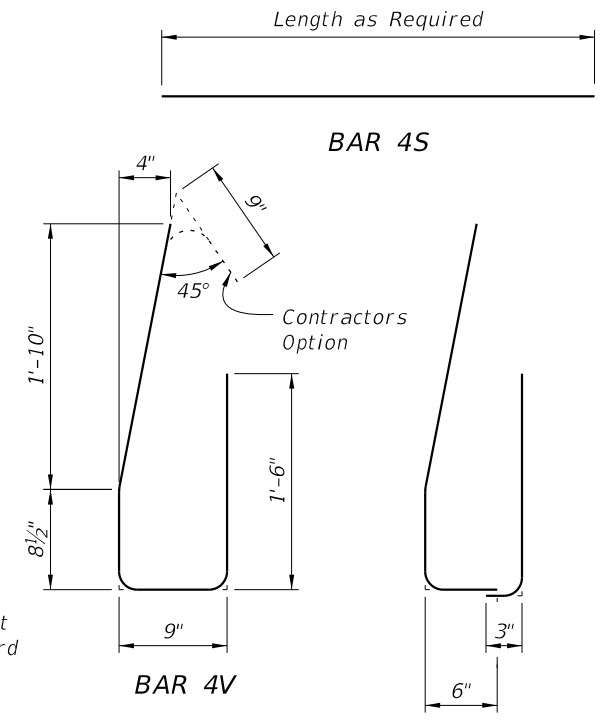
ØB shall be 90° if Contractor elects to place railing perpendicular to the deck and approach slabs.

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
P	4	5'-11"
S	4	As Reqd.
V	4	4'-10"



STIRRUP BAR 4P

END STIRRUP BAR 4P To Be Field Cut and Bent



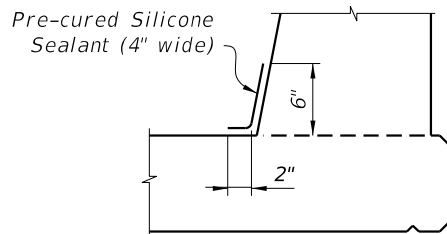
BAR 4S

BAR 4V

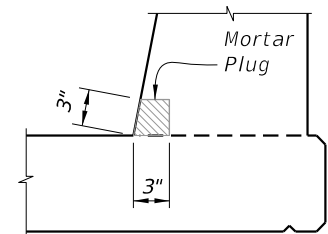
END TRANSITION BAR 4V Field Cut and Lapped

REINFORCING STEEL NOTES:

1. All bar dimensions in the bending diagrams are out to out.
2. The 8 1/2" vertical dimensions shown for Bar 4V is based on a 6" embedment into the bridge deck without a raised sidewalk. If a raised sidewalk is to be provided, increase this dimension to achieve a 6" minimum embedment into the bridge deck. See Structures Plans, Superstructure and Approach Slab Sheets.
3. All reinforcing steel at the open joints shall have a 2" minimum cover.
4. Bars 4S may be continuous or spliced at the construction joints. Bar splices for Bars 4S shall be a minimum of 2'-0".



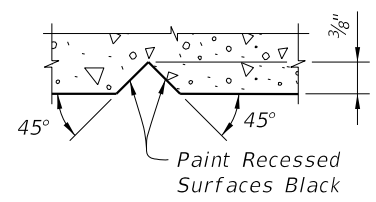
OPTION I



OPTION II (Alternative Mortar Plug at 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. Include the cost of the Pre-cured Silicone Sealant 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.



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

ESTIMATED TRAFFIC RAILING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete	CY/LF	0.107
Reinforcing Steel	LB/LF	24.78

(The above quantities are based on a 2% deck cross slope; railing on low side of deck.)

DETAIL "C"

5/23/2025 12:25:09 PM