

Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Turley, Joshua	Index Number:	521-514
Date:	4/21/2025	Sheet Number(s):	1, 4
E-mail:	Joshua.Turley@dot.state.fl.us	Index Title:	CONCRETE BARRIER/NOISE WALL L-SHAPED SPREAD FOOTING

Summary of the changes:

Sheet 1: Added min dimension to the inlet from the open joint.
Sheet 4: Corrected cross section and Bar 5S3 dimensions to eliminate a bump out at the inlet.

Commentary/Background:

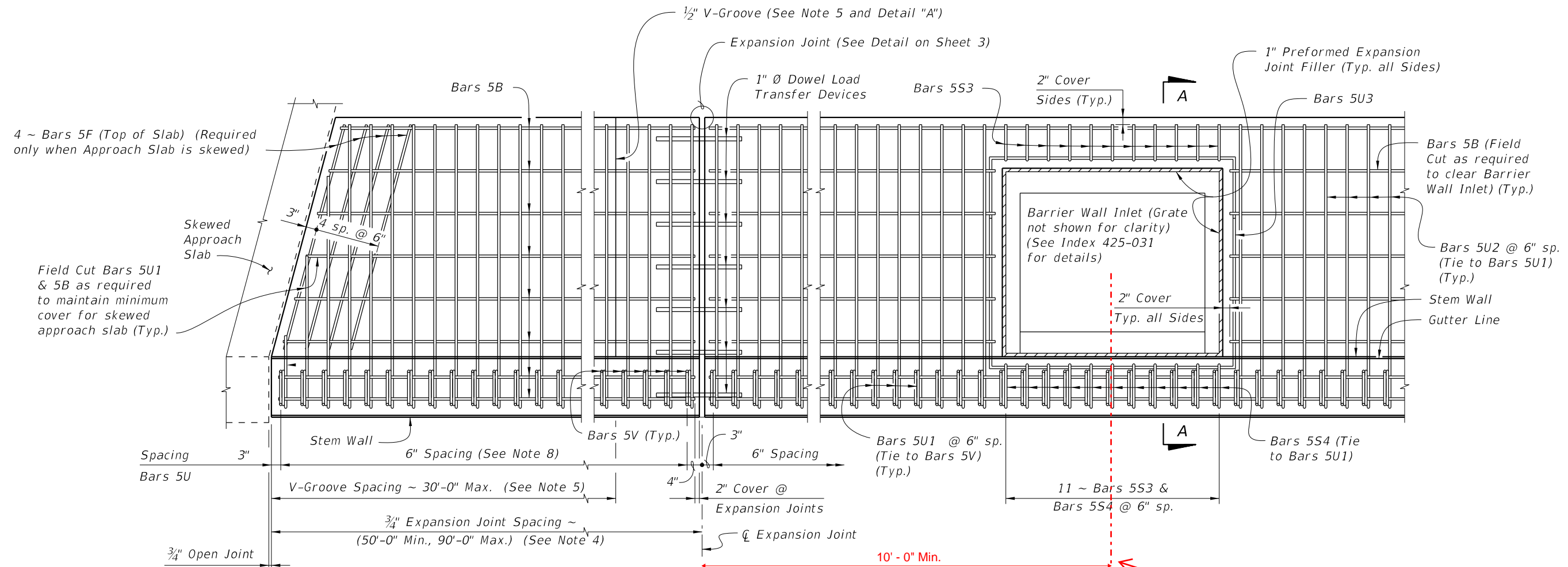
Sheet 1: An inlet should not be right next to an open joint in the case of an impact on the barrier there. The load should be able to transmit to the foundation successfully. An inlet next to an open joint would prevent the distribution of load around the inlet on one side.
Sheet 4: The dimensions in the cross section make for a bump out in the foundation which is not shown in plan. This appears to be a scaling error when originally drafting the cross section detail.

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)"]

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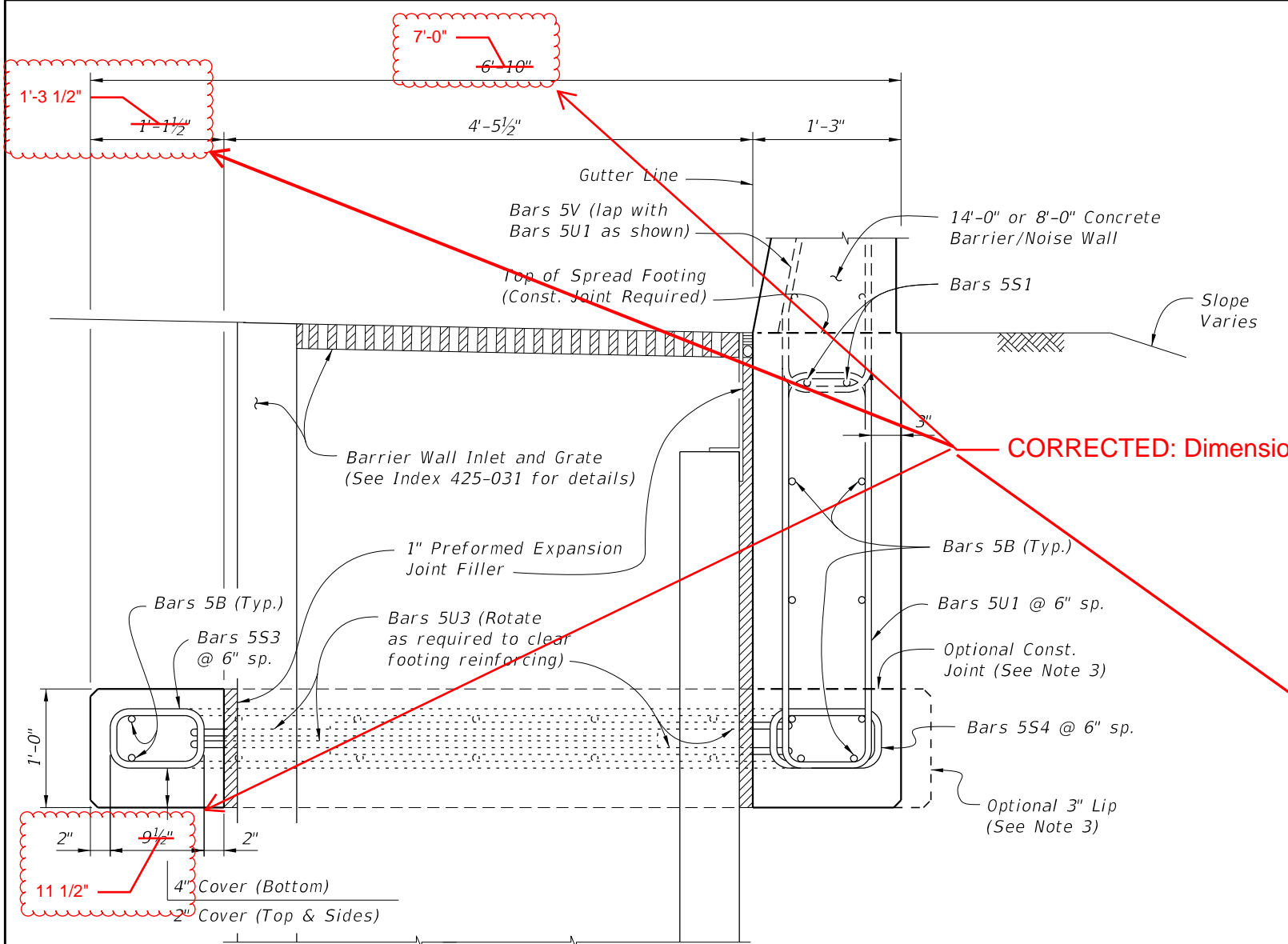
PLAN - OPTION B
SPREAD FOOTING ADJACENT TO SKEWED APPROACH SLAB AND WITH BARRIER WALL INLET
(Option A Similar) (Bars 5I Not Shown)

NOTES

1. Construct the Spread Footing level transversely; do not construct the spread footing perpendicular to the roadway surface.
2. Concrete will be in accordance with Specification Section 346.
 - A. Class II concrete for slightly aggressive environments.
 - B. Class IV concrete for moderately or extremely aggressive environments.
3. Dowel Load Transfer Devices will be ASTM A 36 smooth round bar and hot-dip galvanized in accordance with Specification Section 962. Install Dowel Load Transfer Devices in accordance with Specification Section 350.
4. Construct $\frac{3}{4}$ " Expansion Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown.
5. Construct $\frac{1}{2}$ " V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between $\frac{3}{4}$ " Expansion Joints and/or Begin or End Spread Footing. V-Groove locations are to coincide with V-Groove locations in the Concrete Barrier/Noise Wall.
6. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.
7. Shoulder or Roadway Pavement and Fill is required on the traffic side of the spread footing for a distance of 4'-0" and the full length of the spread footing (3'-0" minimum depth) on the backside of the spread footing for Option A. Fill is required for a distance of 4'-0" on the backside of the spread footing and the full length of the spread footing (3'-0" minimum depth) on the traffic side of the spread footing for Option B. See Typical Sections on Sheets 2 and 3 for details.
8. Spacing shown is along the Gutter Line.
9. Work this Index with one or both of the following:
 - a. Index 521-510 - Concrete Barrier/Noise Wall (8'-0").
 - b. Index 521-511 - Concrete Barrier/Noise Wall (14'-0").

CROSS REFERENCE:
For Detail "A", see Sheet 3.
For Section A-A and Estimated
Quantities, see Sheet 4.

LAST REVISION 11/01/18	REVISION DESCRIPTION: <div>11/01/25</div>	2026-27 FY 2025-26 STANDARD PLANS FDOT	CONCRETE BARRIER/NOISE WALL L-SHAPED SPREAD FOOTING	INDEX 521-514	SHEET 1 of 4
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SECTION A-A
TYPICAL SECTION THRU SPREAD FOOTING AND BARRIER WALL INLET - OPTION B
(Bars 5P, 5R and 5S1 in Concrete Barrier/Noise Wall not shown for clarity)

- NOTES:
- Place 8 ~ Bars 5B and 2 Bars 5S1 inside Bars 5U1 as shown.
 - For Reinforcing Steel spacing, see Typical Section Thru Spread Footing - Option B on Sheet 3.
 - Provide 3" lip when optional construction joint is used.

ESTIMATED L-SHAPED SPREAD FOOTING QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete (Footing)	CY/FT	0.398
Reinforcing Steel (Typical) *	LB/FT	68.84
Additional Reinf. @ Expansion Joint	LB	48.06

* Bars 5V and 5S1 are included in Index 521-510 or 521-511 quantities.

CROSS REFERENCE:
For location of Section A-A, see Sheet 1.

REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
B	5	AS REQD.
F	5	5'-6"
S3	5	3'-7"
S4	5	3'-10"
U1	5	9'-2"
U2	5	13'-10"
U3	5	12'-10"
DOWEL	1" Ø Smooth Bar	2'-0"

5B

5F

Length as Required

5'-6"

BARS 5B & 5F

2'-0"

1" Ø DOWEL

3'-7"

5'-8"

BAR 5U3

9"

6"

3'-4"

BAR 5U1

6"

6"

6"

6"

BAR 5S3

11"

6"

6"

6"

BAR 5S4

11 1/2"

9 1/2"

6"

6"

6"

6"

REINFORCING STEEL NOTES:

1. All bar dimensions in the bending diagrams are out to out.

2. All reinforcing steel at the open joints will have a 2" minimum cover.

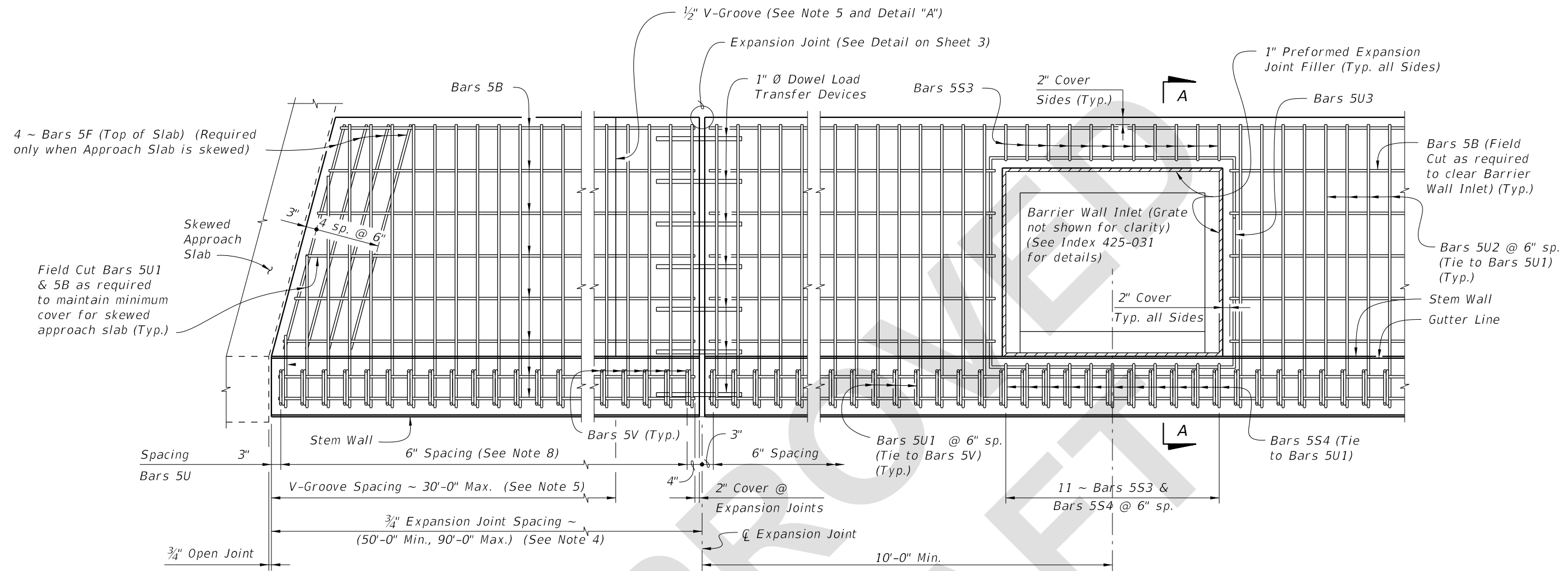
3. Lap splices for Bars 5B will be a minimum of 2'-2".

4. Lap splices Bars 5T and 5V with 5U1 will be a minimum of 2'-2".

5. The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.

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PLAN - OPTION B
SPREAD FOOTING ADJACENT TO SKEWED APPROACH SLAB AND WITH BARRIER WALL INLET
(Option A Similar) (Bars 5I Not Shown)

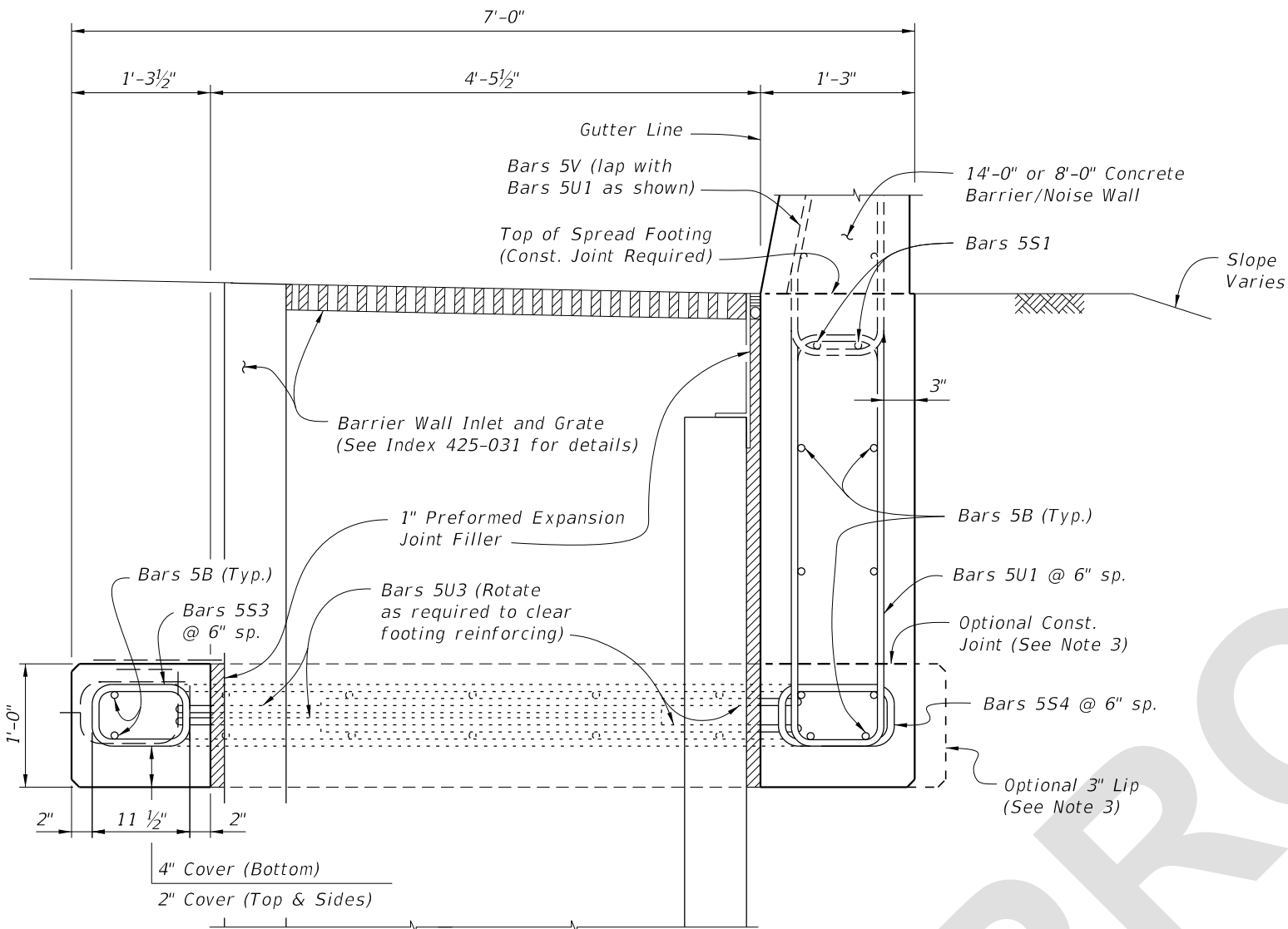
NOTES

1. Construct the Spread Footing level transversely; do not construct the spread footing perpendicular to the roadway surface.
2. Concrete will be in accordance with Specification Section 346.
 - A. Class II concrete for slightly aggressive environments.
 - B. Class IV concrete for moderately or extremely aggressive environments.
3. Dowel Load Transfer Devices will be ASTM A 36 smooth round bar and hot-dip galvanized in accordance with Specification Section 962. Install Dowel Load Transfer Devices in accordance with Specification Section 350.
4. Construct 3/4" Expansion Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown.
5. Construct 1/2" V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between 3/4" Expansion Joints and/or Begin or End Spread Footing. V-Groove locations are to coincide with V-Groove locations in the Concrete Barrier/Noise Wall.
6. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 932.
7. Shoulder or Roadway Pavement and Fill is required on the traffic side of the spread footing for a distance of 4'-0" and the full length of the spread footing (3'-0" minimum depth) on the backside of the spread footing for Option A. Fill is required for a distance of 4'-0" on the backside of the spread footing and the full length of the spread footing (3'-0" minimum depth) on the traffic side of the spread footing for Option B. See Typical Sections on Sheets 2 and 3 for details.
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9. Work this Index with one or both of the following:
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CROSS REFERENCE:
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For Section A-A and Estimated
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LAST REVISION 11/01/25	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	CONCRETE BARRIER/NOISE WALL L-SHAPED SPREAD FOOTING	INDEX 521-514	SHEET 1 of 4
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5/7/2025



SECTION A-A
TYPICAL SECTION THRU SPREAD FOOTING AND BARRIER WALL INLET - OPTION B
(Bars 5P, 5R and 5S1 in Concrete Barrier/Noise Wall not shown for clarity)

- NOTES:
- Place 8 ~ Bars 5B and 2 Bars 5S1 inside Bars 5U1 as shown.
 - For Reinforcing Steel spacing, see Typical Section Thru Spread Footing - Option B on Sheet 3.
 - Provide 3" lip when optional construction joint is used.

ESTIMATED L-SHAPED SPREAD FOOTING QUANTITIES

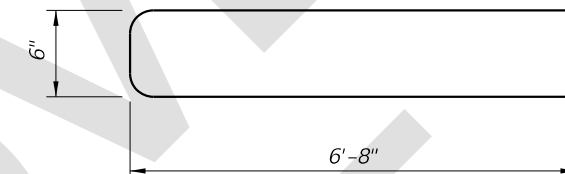
ITEM	UNIT	QUANTITY
Concrete (Footing)	CY/FT	0.398
Reinforcing Steel (Typical) *	LB/FT	68.84
Additional Reinf. @ Expansion Joint	LB	48.06

* Bars 5V and 5S1 are included in Index 521-510 or 521-511 quantities.

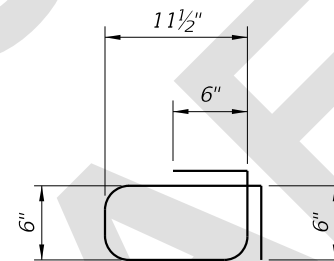
CROSS REFERENCE:
For location of Section A-A, see Sheet 1.

REINFORCING STEEL BENDING DIAGRAMS

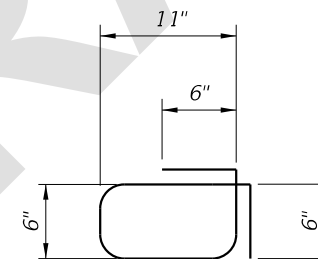
BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
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S4	5	3'-10"
U1	5	9'-2"
U2	5	13'-10"
U3	5	12'-10"
DOWEL	1" Ø Smooth Bar	2'-0"



BAR 5U2



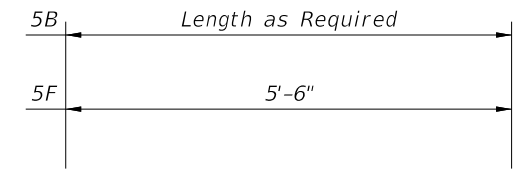
BAR 5S3



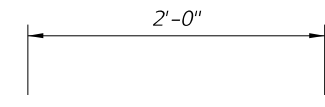
BAR 5S4

REINFORCING STEEL NOTES:

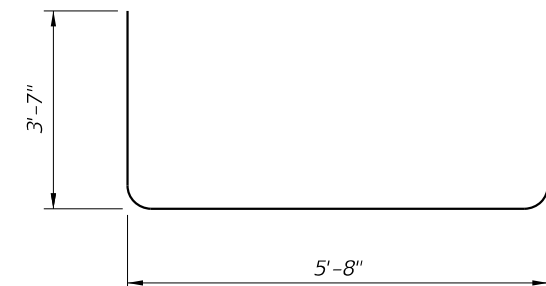
- All bar dimensions in the bending diagrams are out to out.
- All reinforcing steel at the open joints will have a 2" minimum cover.
- Lap splices for Bars 5B will be a minimum of 2'-2".
- Lap splices Bars 5T and 5V with 5U1 will be a minimum of 2'-2".
- The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.



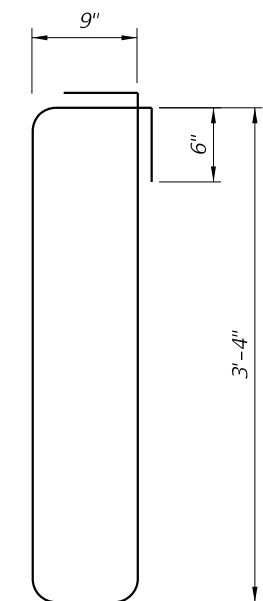
BARS 5B & 5F



1" Ø DOWEL



BAR 5U3



BAR 5U1

LAST REVISION	DESCRIPTION:
11/01/25	



FY 2026-27
STANDARD PLANS

CONCRETE BARRIER/NOISE WALL
L-SHAPED SPREAD FOOTING

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