
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

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

Contact Information:

Date: March 24, 2023

Originator: Joshua Turley

Phone: (850) 414-4475

Email: joshua.turley@dot.state.fl.us

Standard Plans:

Index Number: 521-511

Sheet Number (s): 1 and 3 of 3

Index Title: CONCRETE BARRIER/NOISE WALL (14'-0")

Summary of the changes:

Sheet 1: Removed the reference to note 7 as there is no note 7; Updated note references in callouts.

Sheet 3: Corrected reinforcing steel estimated quantities.

Commentary / Background:

There's no note 7 so removed the reference to it and renumbers to the correct references.

The estimate for reinforcing steel was slightly off for the CIP version. We updated the estimate.

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 checked="" type="checkbox"/> | <input type="checkbox"/> | Standard Specifications – 521-723 |
| <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)

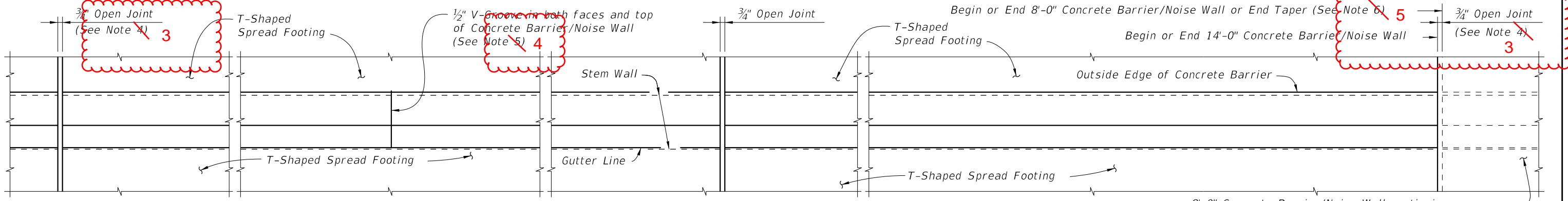
- | Yes | N/A | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Revised or Proposed Standard Plan Instruction (SPI)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

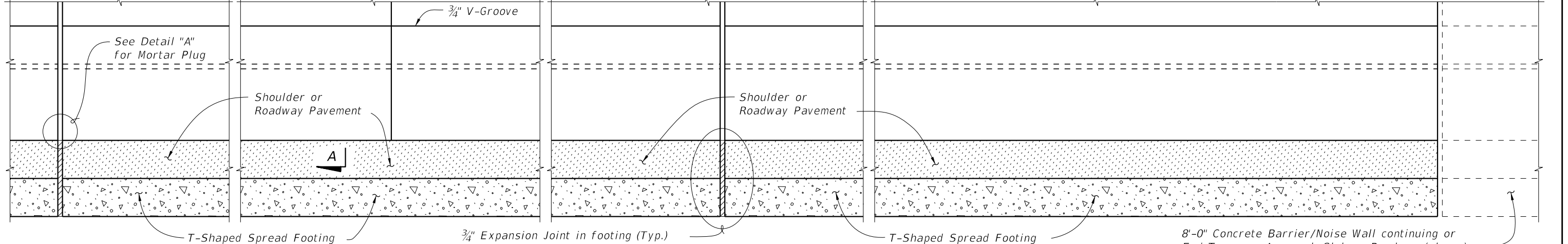
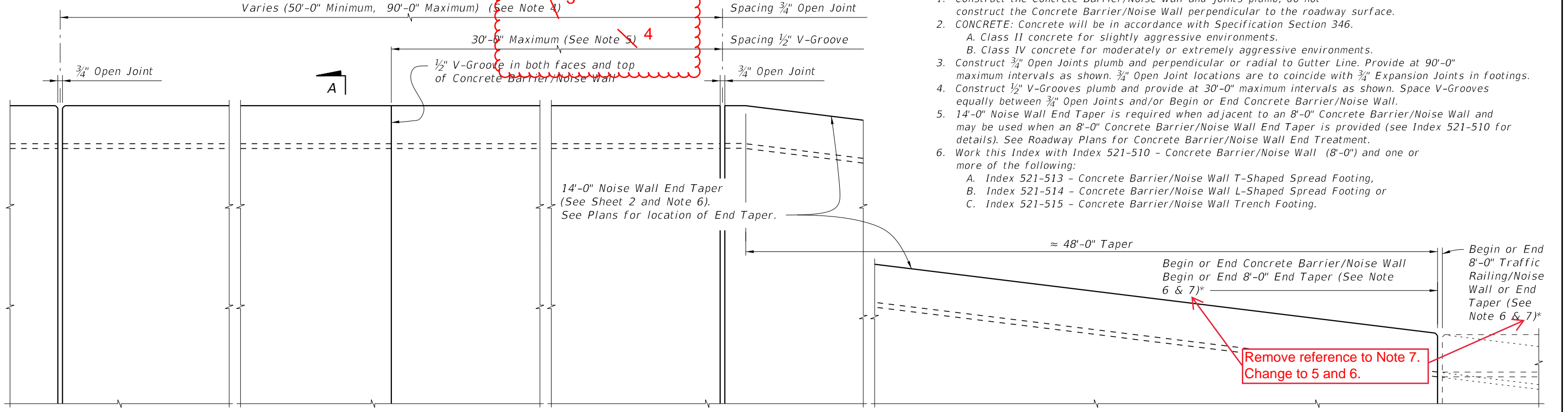


CROSS REFERENCE:
 For Section A-A, Detail "A" and Estimated Quantities, see Sheet 3.
 For Expansion Joint Detail in Footing, see Index 521-513, 521-514 or 521-515.

PLAN (Reinforcing Steel not shown for clarity)
 (T-Shaped Spread Footing Shown, L-Shaped Spread Footing and Trench Footing Similar)

Concrete Barrier/NOISE WALL NOTES

1. Construct the Concrete Barrier/Noise Wall and joints plumb; do not construct the Concrete Barrier/Noise Wall perpendicular to the roadway surface.
2. CONCRETE: 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. Construct $\frac{3}{4}$ " Open Joints plumb and perpendicular or radial to Gutter Line. Provide at 90'-0" maximum intervals as shown. $\frac{3}{4}$ " Open Joint locations are to coincide with $\frac{3}{4}$ " Expansion Joints in footings.
4. Construct $\frac{1}{2}$ " V-Grooves plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between $\frac{3}{4}$ " Open Joints and/or Begin or End Concrete Barrier/Noise Wall.
5. 14'-0" Noise Wall End Taper is required when adjacent to an 8'-0" Concrete Barrier/Noise Wall and may be used when an 8'-0" Concrete Barrier/Noise Wall End Taper is provided (see Index 521-510 for details). See Roadway Plans for Concrete Barrier/Noise Wall End Treatment.
6. Work this Index with Index 521-510 - Concrete Barrier/Noise Wall (8'-0") and one or more of the following:
 A. Index 521-513 - Concrete Barrier/Noise Wall T-Shaped Spread Footing,
 B. Index 521-514 - Concrete Barrier/Noise Wall L-Shaped Spread Footing or
 C. Index 521-515 - Concrete Barrier/Noise Wall Trench Footing.



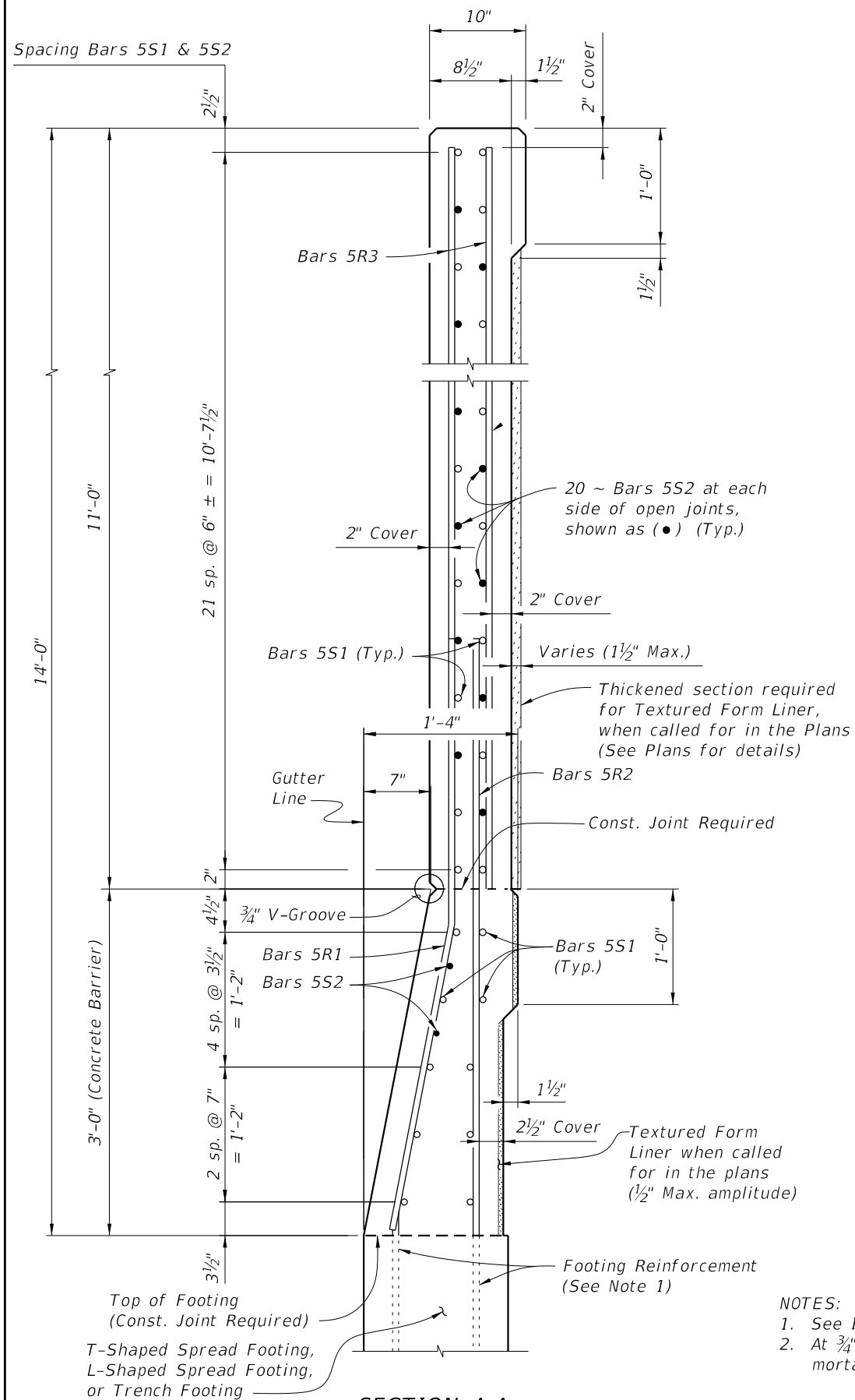
ELEVATION OF INSIDE FACE OF CONCRETE BARRIER/NOISE WALL
 (Reinforcing Steel not shown for clarity)
 (T-Shaped Spread Footing Shown, L-Shaped Spread Footing and Trench Footing Similar)

* $\frac{3}{4}$ " Open Joint may be omitted when 8'-0" Railing/Noise Wall End Taper is adjacent to a 14'-0" Concrete Barrier/Noise Wall End Taper.

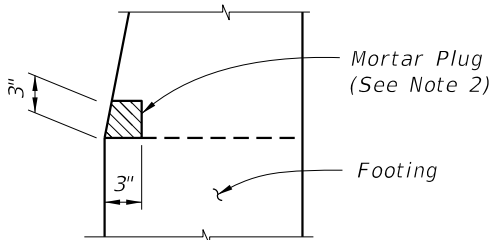
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LAST REVISION	DESCRIPTION:		FY 2023-24 STANDARD PLANS	CONCRETE BARRIER/NOISE WALL (14'-0")	INDEX 521-511	SHEET 1 of 3
11/01/18	11/01/23					

Spacing Bars 5S1 & 5S2



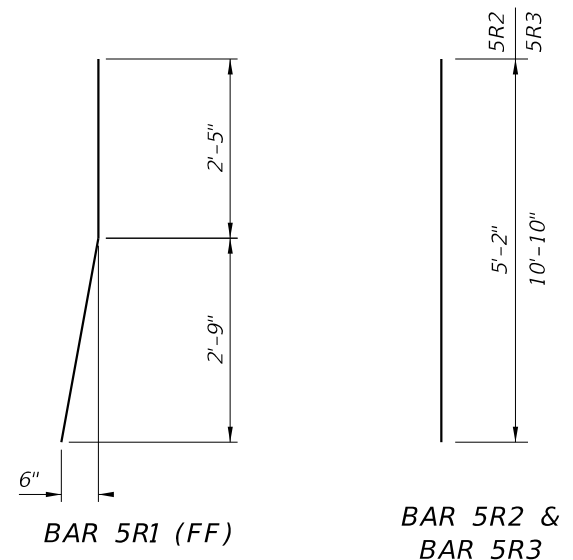
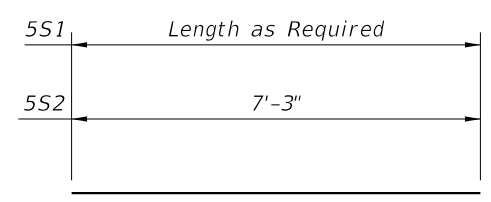
NOTES:
 1. See Index 521-513, 521-514 or 521-515 for footing reinforcement.
 2. At 3/4" Open Joints, plug the lower 3" portion of the open joint by filling it with mortar in accordance with Specification Section 400.



DETAIL "A" - SECTION AT OPEN JOINT

REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
R1	5	5'-2"
R2	5	5'-2 1/2"
R3	5	10'-10"
S1	5	AS REQD.
S2	5	7'-3"



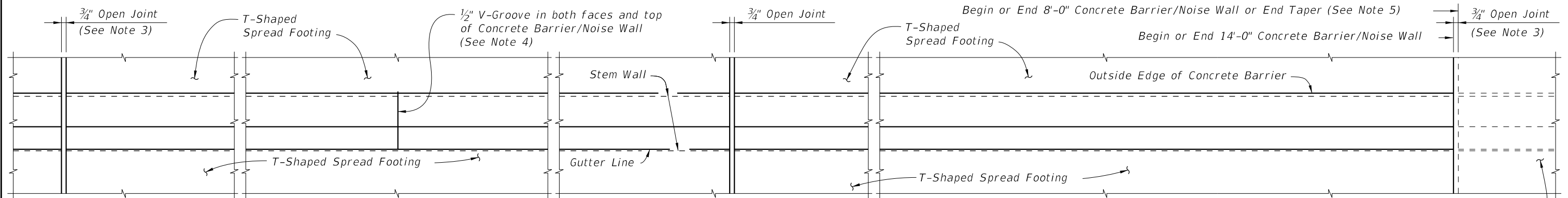
REINFORCING STEEL NOTES:
 1. All bar dimensions in the bending diagrams are out to out.
 2. All reinforcing steel at the open joints will have a 2" minimum cover.
 3. Bars 5R may be continuous or spliced at construction joints. Lap splices for Bars 5R, and 5S1 will be a minimum of 2'-2".
 4. The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of Deformed wire meeting the requirements of Specification Section 931.

ESTIMATED CONCRETE BARRIER/NOISE WALL QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete (Concrete Barrier)	CY/FT	0.107
Concrete (Noise Wall, excluding any thickening)	CY/FT	0.293
Reinforcing Steel (Railing/Noise Wall) (Bars R1, R2, R3, S1 & V)	LB/FT	100.31
Additional Reinf. @ Open Joint (Railing/Noise Wall)	LB	397.38

CHANGED TO:
 120.88
 378.22

CROSS REFERENCE:
 For locations of Section A-A and Detail "A", see Sheet 1.

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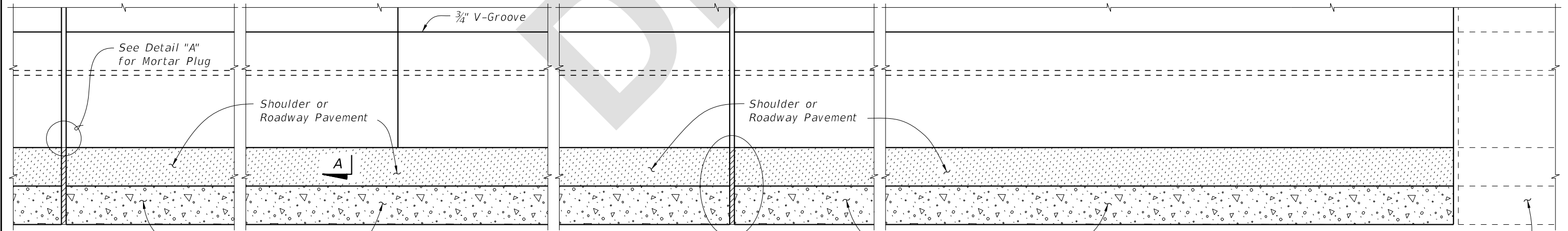
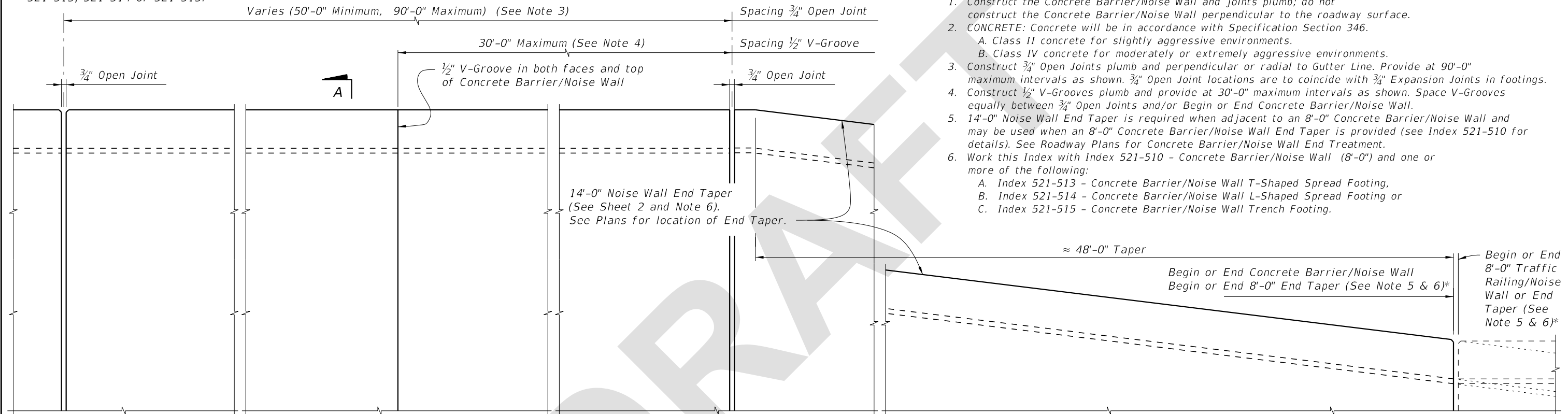
CROSS REFERENCE:
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**PLAN (Reinforcing Steel not shown for clarity)
 (T-Shaped Spread Footing Shown, L-Shaped Spread Footing and Trench Footing Similar)**

8'-0" Concrete Barrier/Noise Wall continuing or End Taper on Approach Slab or Roadway (shown)

Concrete Barrier/NOISE WALL NOTES


- Construct the Concrete Barrier/Noise Wall and joints plumb; do not construct the Concrete Barrier/Noise Wall perpendicular to the roadway surface.
- CONCRETE: Concrete will be in accordance with Specification Section 346.
 - A. Class II concrete for slightly aggressive environments.
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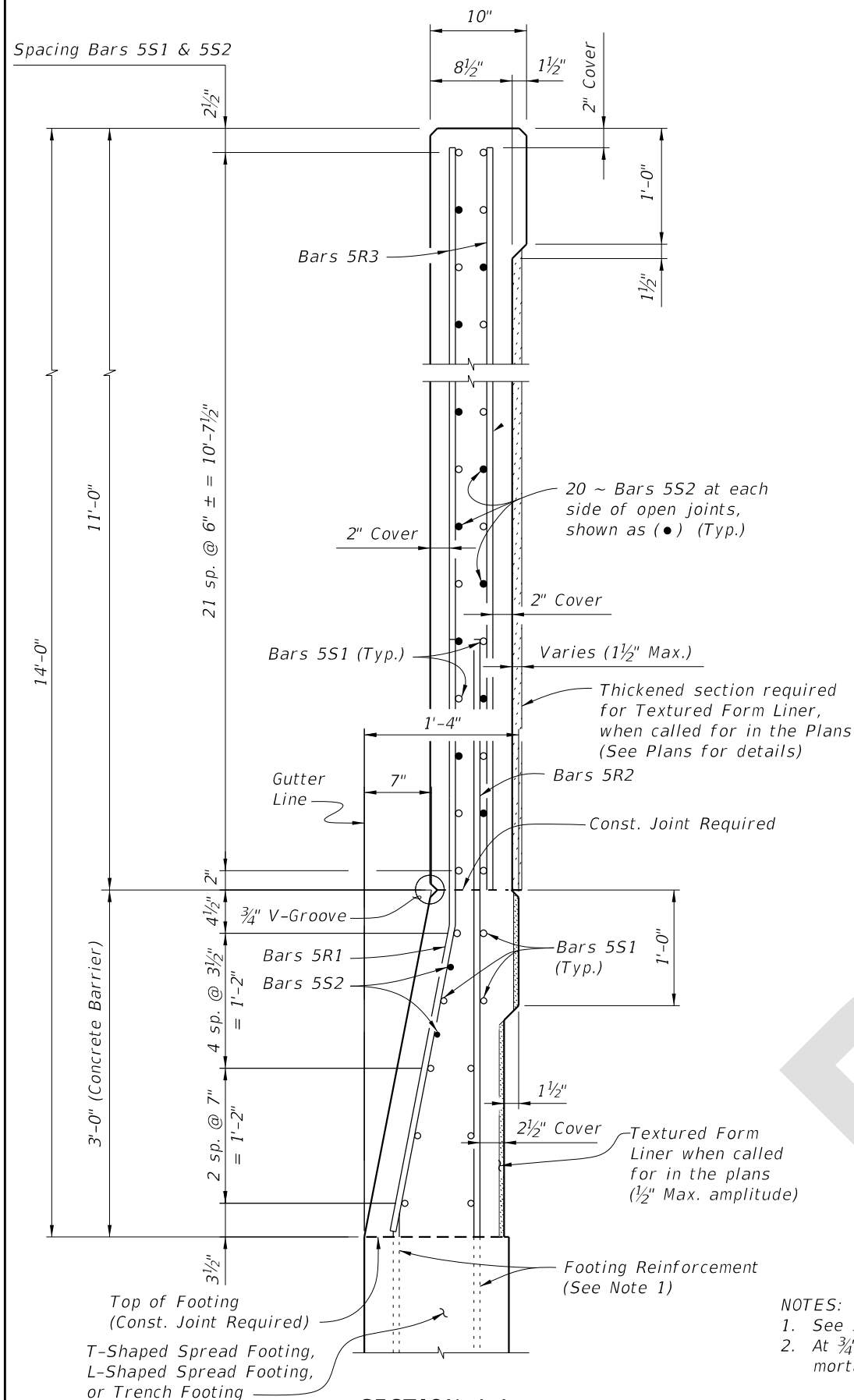
**ELEVATION OF INSIDE FACE OF CONCRETE BARRIER/NOISE WALL
 (Reinforcing Steel not shown for clarity)
 (T-Shaped Spread Footing Shown, L-Shaped Spread Footing and Trench Footing Similar)**

8'-0" Concrete Barrier/Noise Wall continuing or End Taper on Approach Slab or Roadway (shown)
 * 3/4" Open Joint may be omitted when 8'-0" Railing/Noise Wall End Taper is adjacent to a 14'-0" Concrete Barrier/Noise Wall End Taper.

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LAST REVISION 11/01/23	REVISION	DESCRIPTION:		FY 2024-25 STANDARD PLANS	CONCRETE BARRIER/NOISE WALL (14'-0")	INDEX 521-511	SHEET 1 of 3
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Spacing Bars 5S1 & 5S2



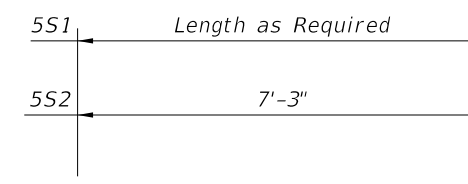
DETAIL "A" - SECTION AT OPEN JOINT

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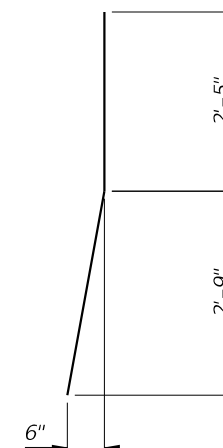
REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL

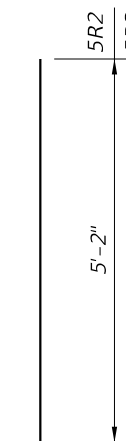
MARK	SIZE	LENGTH
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R2	5	5'-2 1/2"
R3	5	10'-10"
S1	5	AS REQD.
S2	5	7'-3"



BARS 5S1 & 5S2



BAR 5R1 (FF)



BAR 5R2 & BAR 5R3

REINFORCING STEEL NOTES:

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Additional Reinf. @ Open Joint (Railing/Noise Wall)	LB	378.22

CROSS REFERENCE:

For locations of Section A-A and Detail "A", see Sheet 1.

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LAST REVISION	DESCRIPTION:
11/01/23	



FY 2024-25
STANDARD PLANS

CONCRETE BARRIER/NOISE WALL (14'-0")

INDEX
521-511

SHEET
3 of 3