

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	1
Federal Structure No.		FHWA Construction and Scour Code: <b>X932-S-</b>		
Federal Stewardship and Oversight Code: NFO		UPC No. 122979		

**DESIGN EXCEPTION(S) AND DESIGN WAIVER(S):**

Design waiver for the use of steel truss bridge, dated March 27, 2026.

**GENERAL NOTES:**

The original approved sheet, including original signatures, is filed in the VDOT Central Office. Any misuse of electronic files, including scanned signatures, is illegal. Violators will be prosecuted to the full extent of the applicable laws.

Width: 12'-0" face-to-face of handrails along bridge

Span layout: 210'-7 $\frac{5}{8}$ " +/- prefabricated steel truss span.

Capacity: 90 psf pedestrian loading.

**Specifications:**

Construction: Virginia Department of Transportation Road and Bridge Specifications, 2020 and SP407-000500 (Special Provision for Superstructure Erection Stability).

Design: AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT Modifications.

LRFD Guide Specifications for the Design of Pedestrian Bridges, 2nd Edition, 2009, 2015 interims; and VDOT Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016; including all current revisions.

These plans are incomplete unless accompanied by the Supplemental Specifications and Special Provisions included in the contract documents.

Design loading includes a 20 psf allowance for construction tolerances and construction methods.

All structural steel, except in bearings and sole plates, shall be ASTM A709 Grade 50W and shall be painted. Structural steel in bearings and sole plates shall be ASTM A709 Grade 36 and shall be painted.

The truss structure is a Nonredundant Tension Steel Member and the requirements of AASHTO/AWS Fracture Control Plan (FCP) for Nonredundant Members as noted in the AASHTO/AWS Bridge Welding Code shall apply.

Finish paint color shall be brown, Federal Standard Color No. 595-20059.

Concrete in footings shall be Class A3 in accordance with Section 217.12(a).

All reinforcing steel shall be deformed and shall conform to ASTM A615 Grade 60 except for steels noted as Corrosion Resistant Reinforcing (CRR) which shall conform to Section 223 of the Specifications. All reinforcing bar dimensions on the detailed drawings are to centers of bars except where otherwise noted and are subject to fabrication and construction tolerances.

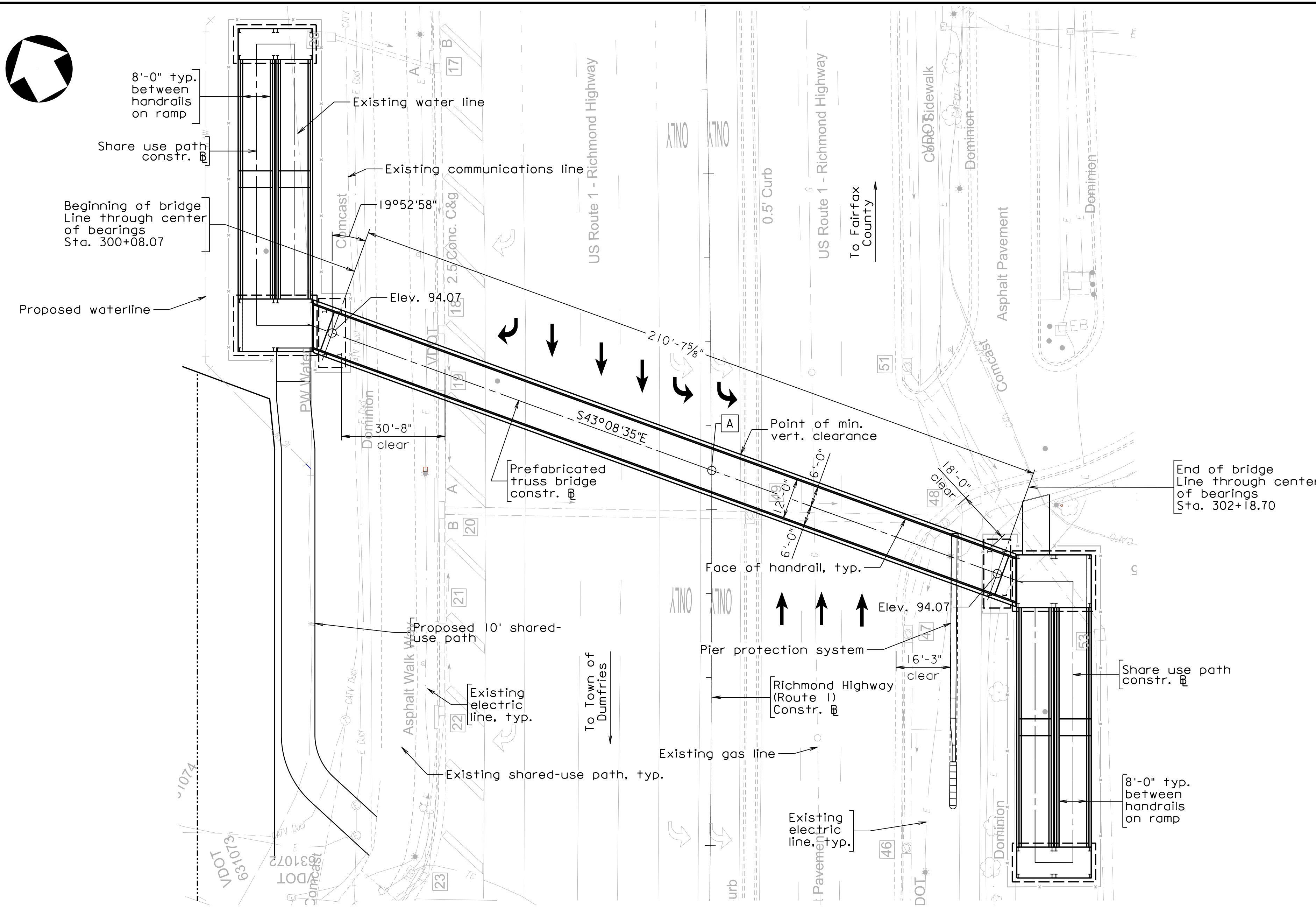
These plans include the design of the foundations for the abutment support towers and ramp support frames. The components whose design is deferred to the Contractor include: the bridge and ramp trusses, abutment support towers and anchorage, ramp support frames and anchorage, bearing assemblies, joints and concrete decks and reinforcing. For prefabricated steel truss, support towers and frames general notes, see sheet 15.

General Notes continued on sheet 2.



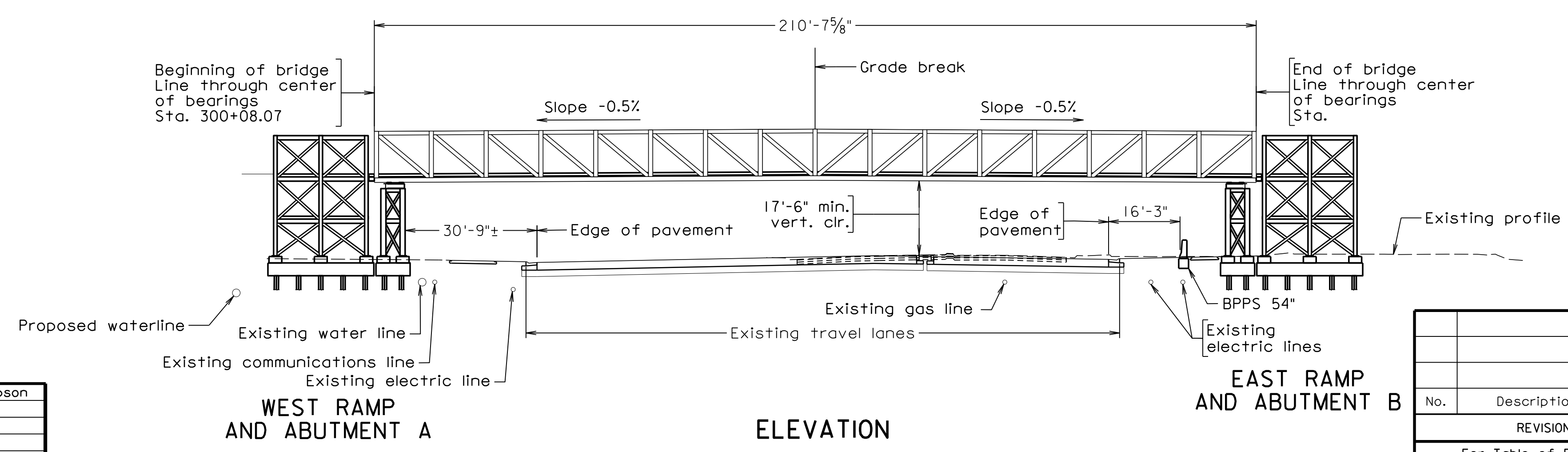
COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF TRANSPORTATION  
PROPOSED PEDESTRIAN BRIDGE AT

ROUTE 1 AND NORTH WOODBRIDGE VRE STATION  
PRINCE WILLIAM CO. - 0.9 MI. S. OF I-95  
PROJ. 0001-076-634



**A** = POT Sta. 301+28.17 Prefabricated bridge truss constr. **B**  
POT Sta. 71+11.76 Route 1  
 $\Delta = 110^{\circ}-07'-27.2''$

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION



JOHNSON, MIRIRAN & THOMPSON HERNDON, VA STRUCTURAL ENGINEER	
PLANS BY:	Johnson, Miriran & Thompson
COORDINATED:	Gladis Arboleda
SUPERVISED:	Christopher J. Friend
DESIGNED:	Scott R. Canfield
DRAWN:	Gregory A. Crank
CHECKED:	Christopher J. Friend

No.	Description	Date
REVISIONS		
For Table of Revisions, see Sheet 2.		

Recommended for Approval: \_\_\_\_\_ Date \_\_\_\_\_  
District Project Development Engineer

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
District Administrator

STATE	FEDERAL AID		STATE	SHEET
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				2

ESTIMATED QUANTITIES - SUBSTRUCTURE ONLY											
		Concrete Class A3	Concrete Class T3	Reinforcing Steel	Steel Piles 12"	Steel Piles 14"	Pile Point for 14" Steel Pile	Dynamic Pile Test	NS Preboring 12" Steel Pile	Structure Excavation	Pier Protection System 54"
		CY**	CY	LB**	LF	LF	EA	EA	LF	CY ⊗	LF
Abutment A	Footing	16	27	2,400	240			1	232	48	63
Abutment B	Footing	16	—	2,400	—	320	8	1	—	48	—
East Ramp	Footing	90	—	13,500	—	1,030	30	2	—	203	—
West Ramp	Footing	90	98	13,500	900	—	—	2	870	203	—
Total		212	125	31,800	1,140	1,350	38	6	1102	502	63

⊗ Denotes items to be paid for on the basis of plan quantities in accordance with current Road and Bridge Specifications.

\*\*Concrete and reinforcing steel in the table above includes that in the concrete column pedestals.

\*\*The ramp concrete and reinforcing steel in the table above includes that in the footings for Frame A, Frame B and the footing for the bottom ramp.

LUMP SUM BID ITEMS	
Mobilization	LS
Construction Surveying	LS
Deck Drainage System	LS
Prefabricated Bridge and Support Towers ***	LS
Prefabricated Ramps and Support Frames ***	LS

\*\*\* For all items included in the prefabricated structures, including trusses, towers and frames, see sheet 15.

\*\*\* For measurement and payment of Prefabricated Bridge and Support Towers and Prefabricated Ramps and Support Frames, see Special Provisions.

Bid item Deck Drainage System shall include deck drain assemblies, drain pipes, and pipe supports.

MISCELLANEOUS ITEMS		
Item	Units	Quantity
NBIS Access, Under Bridge (BXXX)	Day	1

ESTIMATED QUANTITIES - SUPERSTRUCTURE ONLY		
Item	Units	Quantity
Pedestrian Fence with Handrail ⊗	LF	1,205
Adhesive Based Joint Sealer Class II ⊗	LF	30
Cover Depth Survey ⊗	SY	940

⊗ Denotes items to be paid for on the basis of plan quantities in accordance with current Road and Bridge Specifications.

### GENERAL NOTES CONTINUED:

All H-piles shall be ASTM A709 Grade 50.

All piles at the Abutment A tower foundation shall be installed through prebored holes. Preboring shall penetrate IGM a minimum of 10 feet, with a 24" diameter socket. See the Pile Data Table on sheet 10 for estimated tip elevations.

Piles in the remaining foundations shall be driven to practical refusal and to the required nominal axial resistance. For axial resistance requirements, see the Pile Data Tables on sheet 10. All piles shall be driven to or below the minimum tip elevations shown in the Pile Data Table, unless otherwise directed or authorized by the Engineer.

### INDEX OF SHEETS

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5	Ramps - Typical Elevation - 2
6	Ramps - Deck Slab Plan and Elevations - 1
7	Ramps - Deck Slab Plan and Elevations - 2
8	Pile Layout and Reinforcement Plan
9	Footing Reinforcement Plan and Details
10	Miscellaneous Foundation Details
11	Bridge and Ramp Support Frame Elevations - 1
12	Bridge and Ramp Support Frame Elevations - 2
13	Bridge and Ramp Transverse Sections
14	Bridge Deck Slab Plan and Elevations
15	Steel Truss and Support Frame General Notes
16	Joint and Transition Slab Details
17	Pier Protection System 54" High (BPPS-1A)
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21	Pedestrian Fence with Handrail (BPF-6) - 1
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29	Engineering Geology - Boring Logs - 4
30	Engineering Geology - Boring Logs - 5
31	Engineering Geology - Boring Logs - 6

### PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

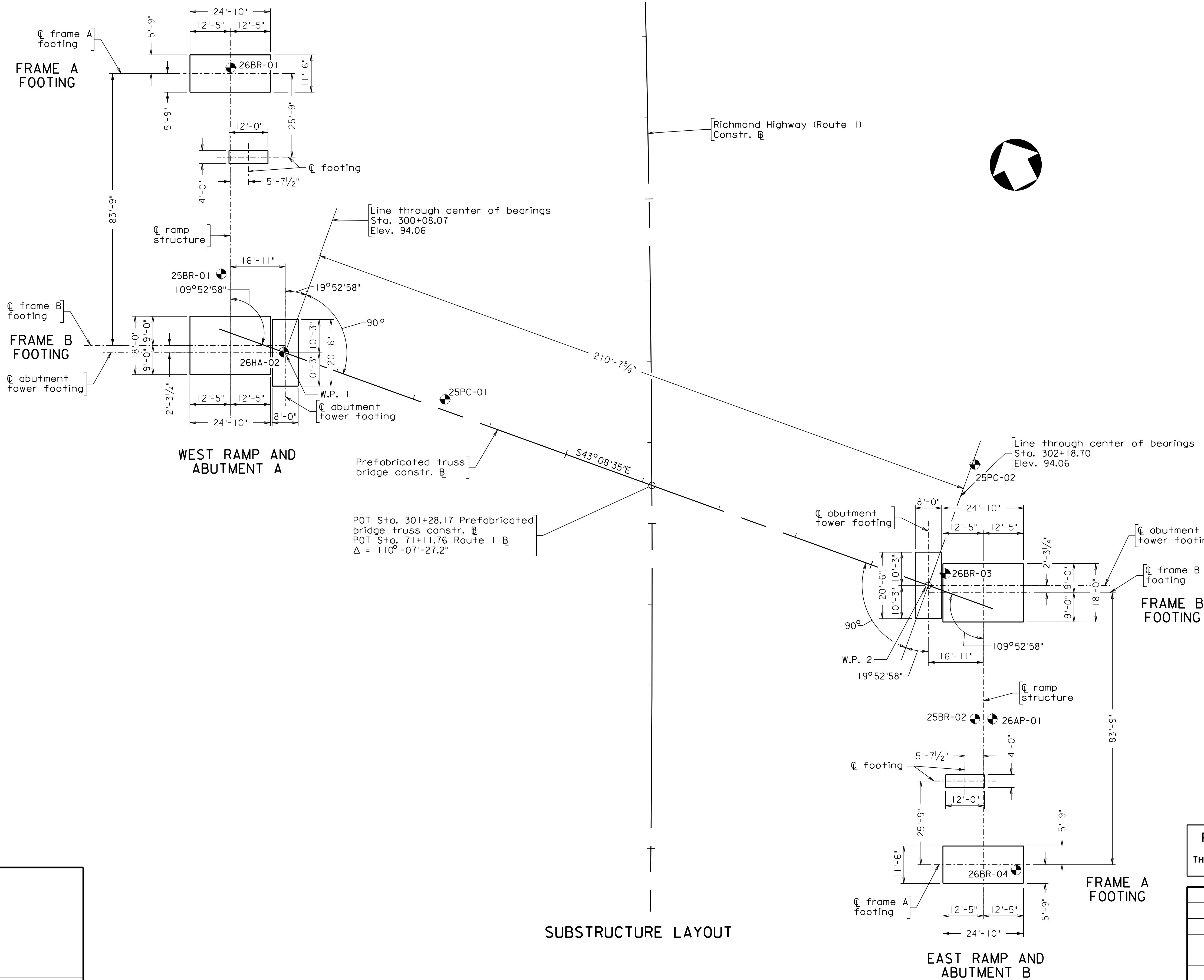
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ESTIMATED QUANTITIES, INDEX OF SHEETS, AND TABLE OF REVISIONS			
No.	Description	Date	Plan No.
	Revisions	March 2026	2 of 31

North Woodbridge-02.dgn

JOHNSON, MIRAMIRAN & THOMPSON  
HERNDON, VA  
STRUCTURAL ENGINEER

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	3

Notes:  
 This layout is to be used only for the purpose of locating footings.  
 For footing details, see sheets 8 through 10.  
 ● - Boring locations. For engineering geology, see sheets 24 through 31



North Woodbridge\_03.dgn

**SUBSTRUCTURE LAYOUT**

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>SUBSTRUCTURE LAYOUT</b>			
No.	Description	Date	Designed: SRC..... Drawn: GAF..... Checked: SJE.....
Revisions		March 2026	Plan No. Sheet No. 3 of 31

JOHNSON, MIRAMIRAN & THOMPSON  
 HERNDON, VA  
 STRUCTURAL ENGINEER

Scale: 1/16" = 1'-0" ©2026, Commonwealth of Virginia

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	4

Notes:

For general notes, see sheets 1 and 2.

For ramp transverse sections, see sheet 13.

For drainage details, see sheets 19 and 20.

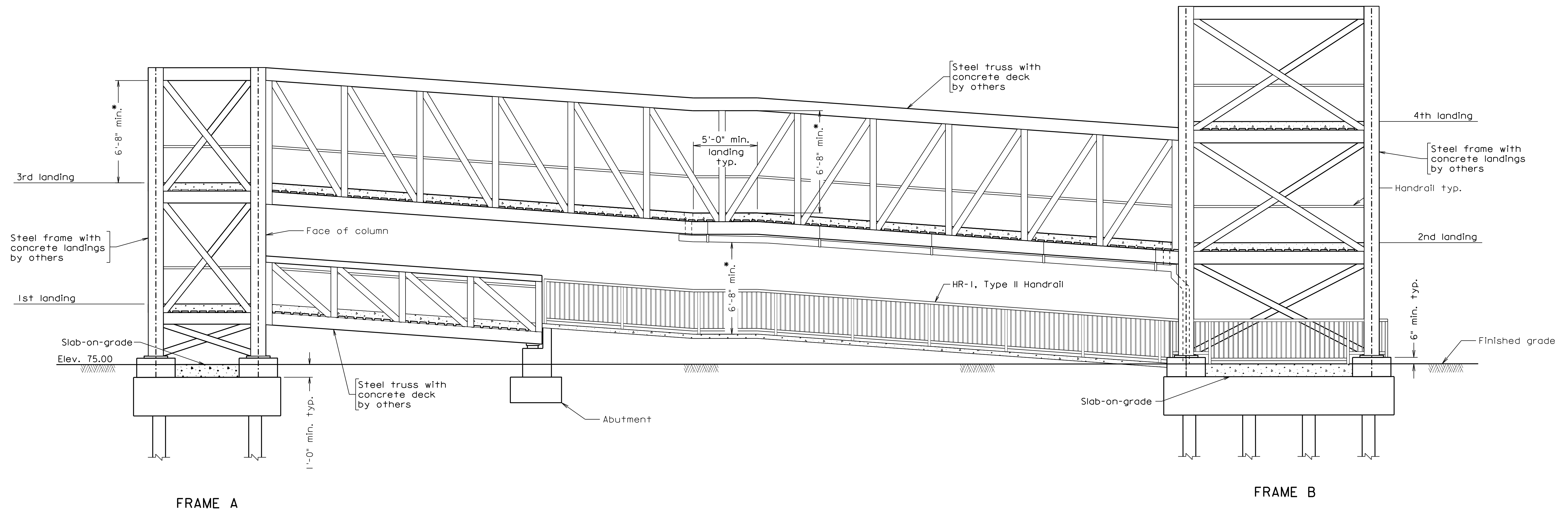
For prefabricated steel truss and support frame general notes, see sheet 15.

For handrail details along slab on grade, see VDOT Standard Detail HR-1.

Pedestrian fence on the ramps and landings not shown. For fence details see sheets 13, 21 and 22.

Security fence shall be installed directly adjacent to the bottom ramp on each side and around the lowest story of Frames A and B. See roadway plans for details.

\* Minimum height shown shall be from the top of deck or landing to the bottom of the lowest drain pipes or truss bottom chord.



**TYPICAL RAMP ELEVATION**  
 Pedestrian fence not shown for clarity.

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>RAMP TYPICAL ELEVATION - I</b>			
No.	Description	Date	Sheet No.
	Revisions		4 of 31
Designed: SRC	Date	Plan No.	
Drawn: GAF	March 2026		
Checked: SJE			

North Woodbridge\_04.dgn

JOHNSON, MIRAMIRAN & THOMPSON  
 HERNDON, VA  
 STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	5

Notes:

For general notes, see sheets 1 and 2.

For ramp transverse sections, see sheet 13.

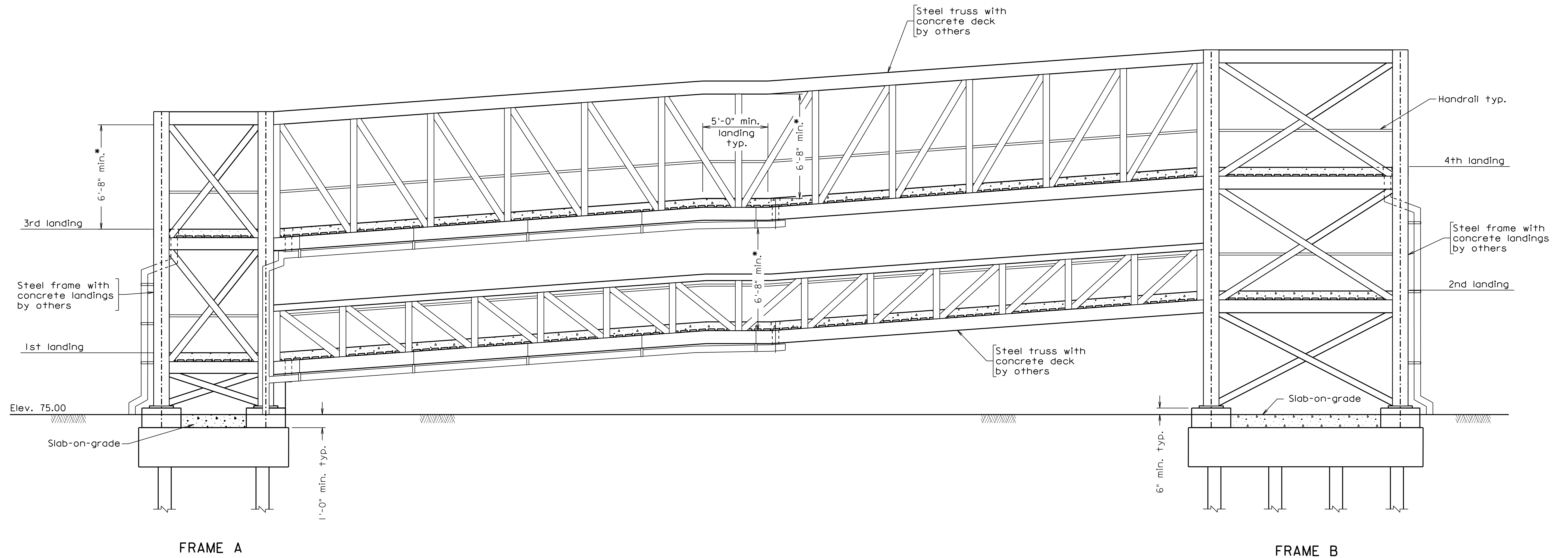
For drainage details, see sheets 19 and 20.

For prefabricated steel truss and support frame general notes, see sheet 15.

Pedestrian fence on the ramps and landings not shown. For fence location see sheet 6. For fence details see sheets 13, 21 and 22.

Security fence shall be installed directly adjacent to the bottom ramp on each side and around the lowest story of Frames A and B. See roadway plans for details.

\* Minimum height shown shall be from the top of deck or landing to the bottom of the lowest drain pipes or truss bottom chord.



**TYPICAL RAMP ELEVATION**  
 6,7 B  
 Pedestrian fence not shown for clarity.

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

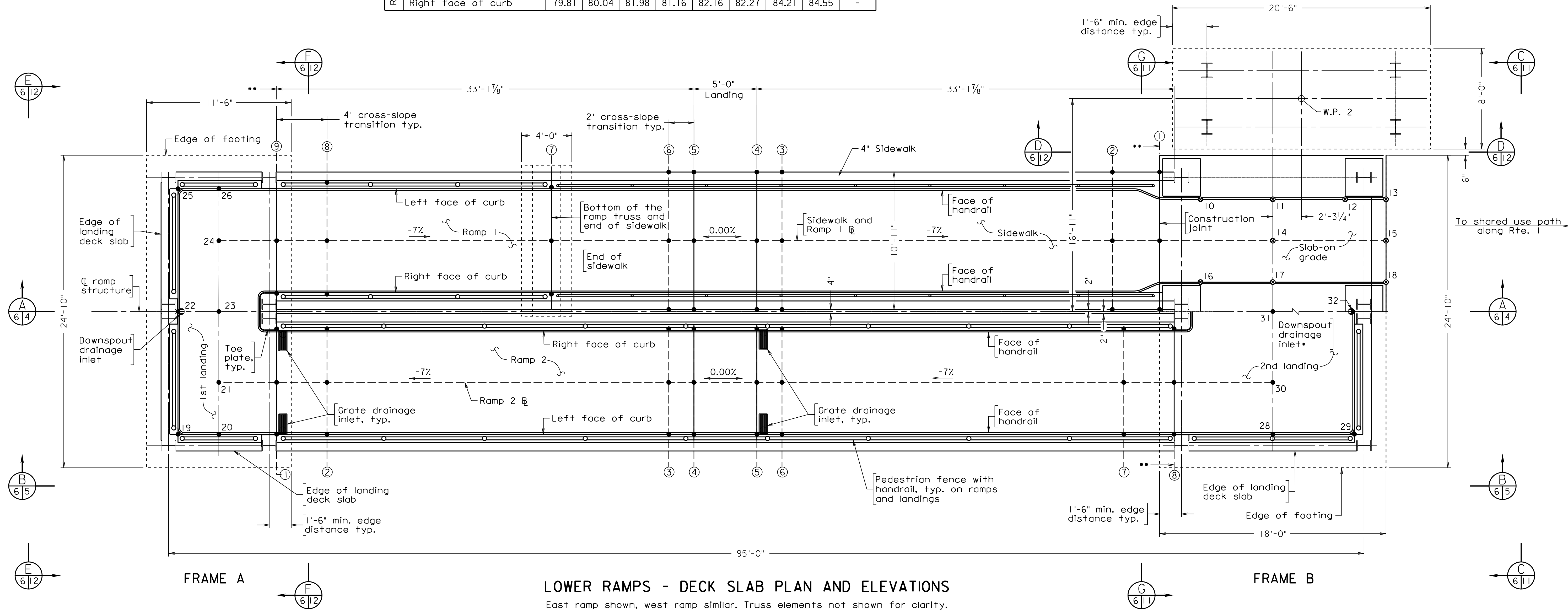
COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>RAMP TYPICAL ELEVATION - 2</b>			
No.	Description	Date	Designed: SRC..... Drawn: GAC..... Checked: SJE.....
Revisions		March 2026	Plan No. Sheet No. 5 of 31

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STATE	FEDERAL AID		STATE		SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.	
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DECK SLAB ALONG RAMPS AND SIDEWALK ELEVATIONS										
Point	1	2	3	4	5	6	7	8	9	
Sidewalk	Left edge of sidewalk	75.08	75.29	77.22	77.42	77.42	77.51	-	-	-
	Ramp B	75.08	75.36	77.30	77.45	77.45	77.59	-	-	-
	Right edge of sidewalk	75.08	75.29	77.22	77.42	77.42	77.51	-	-	-
Ramp 1	Left face of curb	-	-	-	-	-	78.21	79.47	79.81	
	Ramp B	-	-	-	-	-	78.27	79.53	79.81	
	Right face of curb	-	-	-	-	-	78.21	79.47	79.81	
Ramp 2	Left face of curb	79.81	80.04	81.98	82.16	82.16	82.27	84.21	84.55	-
	Ramp B	79.81	80.10	82.04	82.18	82.18	82.33	84.27	84.55	-
	Right face of curb	79.81	80.04	81.98	81.16	82.16	82.27	84.21	84.55	-

Notes:  
 For ramp transverse sections, see sheet 13.  
 For drainage details, see sheets 19 and 20.  
 • Downspout drain shown is on the 2nd landing.  
 For sidewalk details, see roadway plans.  
 For foundation details, see sheets 8 through 10.  
 Sidewalk elevations based on an 11'-0" wide sidewalk. Ultimately, the sidewalk edges will align with the outside of the ramp truss.



**LOWER RAMPS - DECK SLAB PLAN AND ELEVATIONS**  
 East ramp shown, west ramp similar. Truss elements not shown for clarity.

SLAB-ON-GRADE ELEVATIONS										
Point	10	11	12	13	14	15	16	17	18	19
Slab-on-grade	75.08	75.04	75.01	74.98	75.04	75.00	75.08	75.04	74.98	-

LANDING ELEVATIONS								
Point	19	20	21	22	23	24	25	26
1st Landing	79.80	79.82	79.79	79.74	79.76	79.79	79.80	79.82
Point	28	29	30	31	32	-	-	-
2nd Landing	84.54	84.50	84.51	84.51	84.44	-	-	-

- Legend:  
 ○ Indicates top of slab elevation along ramps.  
 ⊙ Indicates top of slab elevation at slab-on-grade.  
 ● Transition between ramp deck slab and landing or slab on grade.  
 ● Indicates top of sidewalk, ramp and landing slab elevations.

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>RAMPS - DECK SLAB PLAN AND ELEVATIONS - I</b>			
No.	Description	Date	Revisions
Designed: SRC	Drawn: GAC	Checked: SJE	Date: March 2026
Plan No.			Sheet No.
			6 of 31

North Woodbridge\_06.dgn

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	7

Notes:

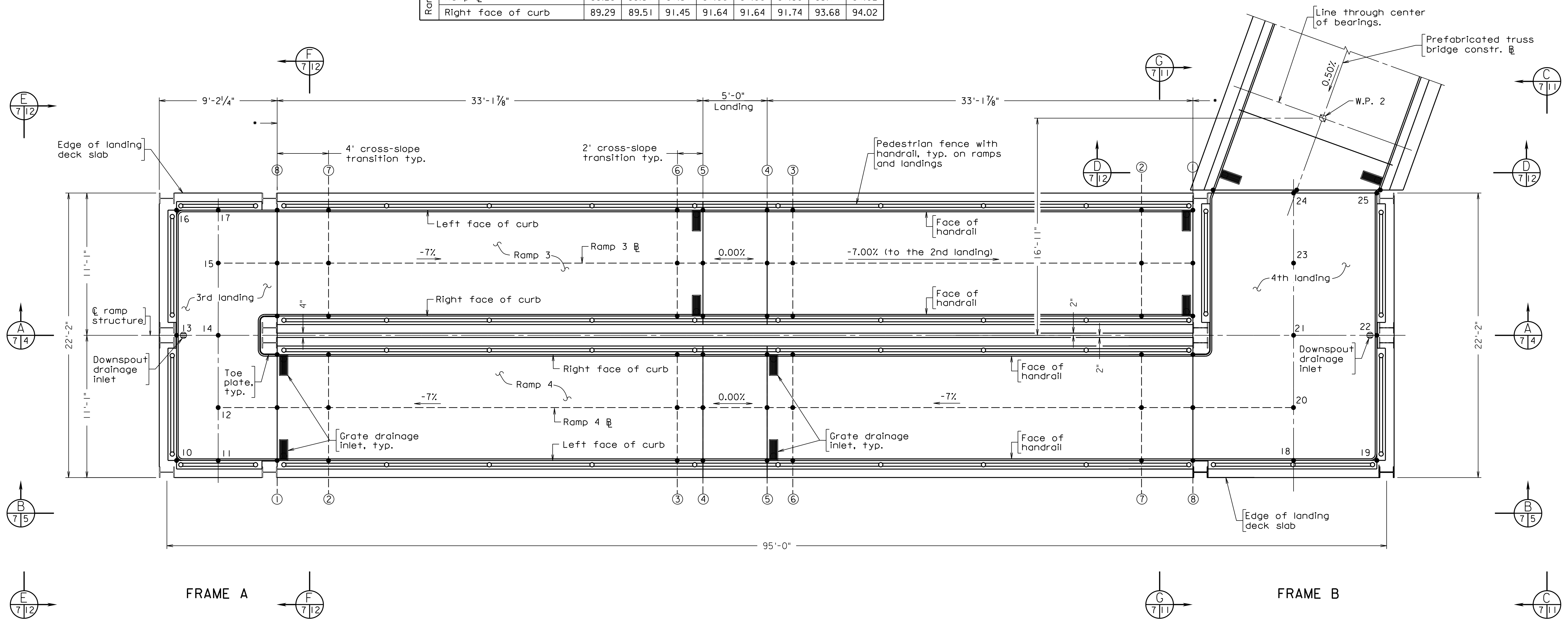
For ramp transverse sections, see sheet 13.

For bridge deck elevations, see sheet 14.

For drainage details, see sheets 19 and 20.

For foundation details, see sheets 8 through 10.

DECK SLAB ELEVATIONS								
Point	1	2	3	4	5	6	7	8
Ramp 3 Left face of curb	84.55	84.78	86.72	86.90	96.90	87.00	88.94	89.29
Ramp 3 Ramp $\bar{E}$	84.55	84.84	86.78	86.92	86.92	87.06	89.00	89.29
Ramp 3 Right face of curb	84.55	84.78	86.72	86.90	86.90	87.00	88.94	89.29
Ramp 4 Left face of curb	89.29	89.51	91.45	91.64	91.64	91.74	93.68	94.02
Ramp 4 Ramp $\bar{E}$	89.29	89.57	91.51	91.66	91.66	91.80	93.74	94.02
Ramp 4 Right face of curb	89.29	89.51	91.45	91.64	91.64	91.74	93.68	94.02



**UPPER RAMPS - DECK SLAB PLAN AND ELEVATIONS**

East ramp shown, west ramp similar.  
Truss elements not shown for clarity.

LANDING ELEVATIONS								
Point	10	11	12	13	14	15	16	17
3rd Landing	89.27	89.29	89.27	89.21	89.24	89.27	89.27	89.29
Point	18	19	20	21	22	23	24	25
4th Landing	94.01	93.97	93.99	93.96	93.92	93.99	94.02	94.02

Legend:

- ① Indicates top of slab elevation along ramps.
- Indicates top of ramp and landing slab elevations.
- Transition between ramp deck slab and landing.

Scale: 1/4" = 1'-0"

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**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>RAMPS - DECK SLAB PLAN AND ELEVATIONS - 2</b>			
No.	Description	Date	Designed: SRC Drawn: GAC Checked: SJE
Revisions		March 2026	Plan No. Sheet No. 7 of 31

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STATE	FEDERAL AID		STATE	SHEET
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Notes:

Foundation details shown are typical for both west and east ramps and both abutment towers, except for piles, which are called out in the sections this sheet.

For substructure layout, see sheet 3.

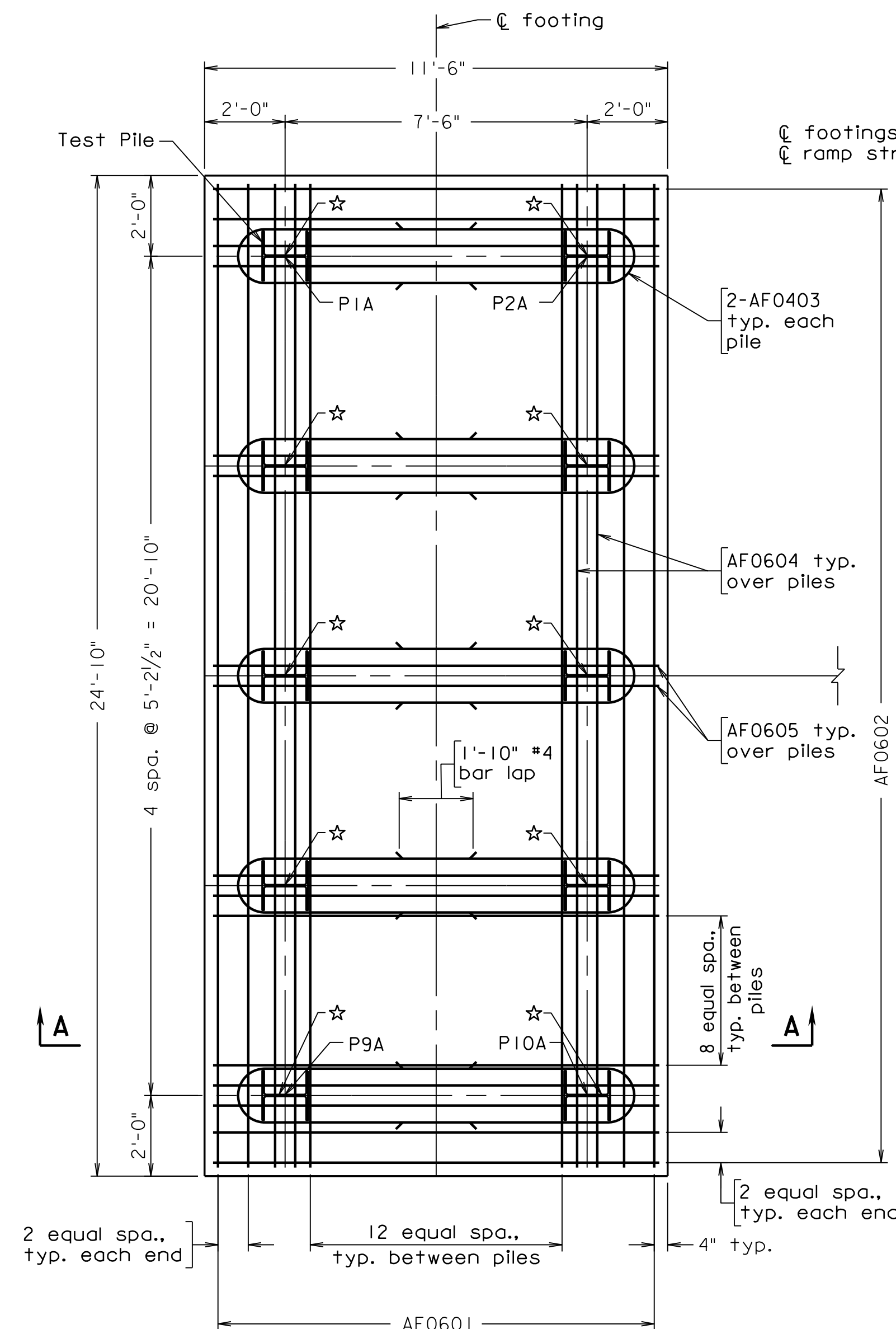
For pile uplift anchor details, see sheet 10.

For pile installation notes, see sheet 10.

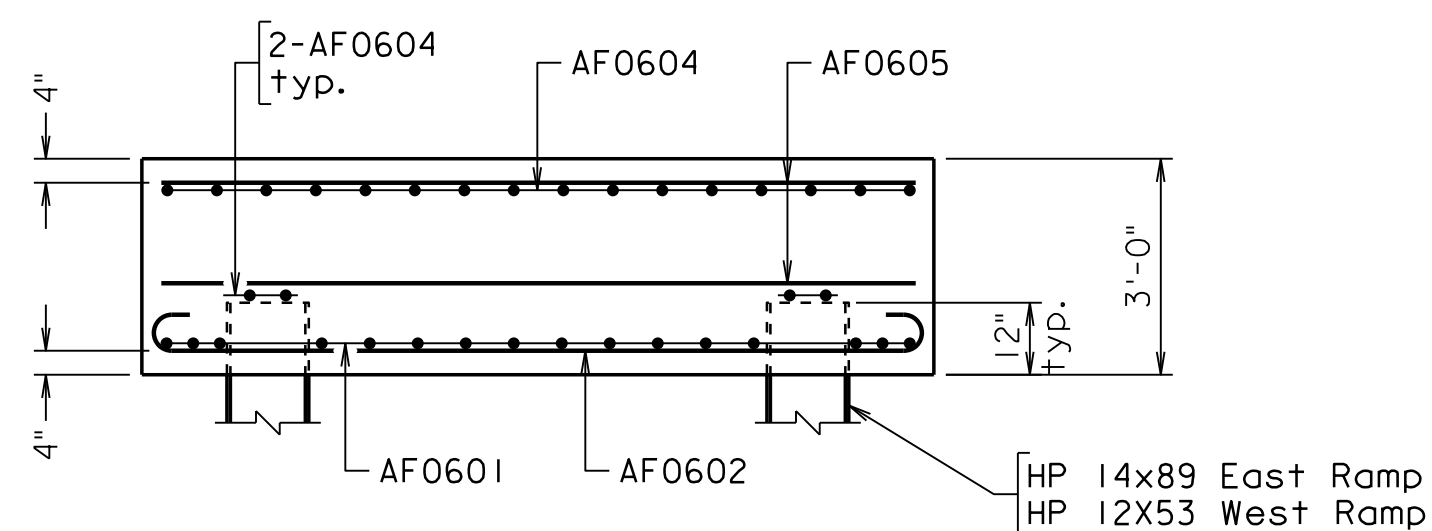
For pile data tables and socket details, see sheet 10.

Legend:

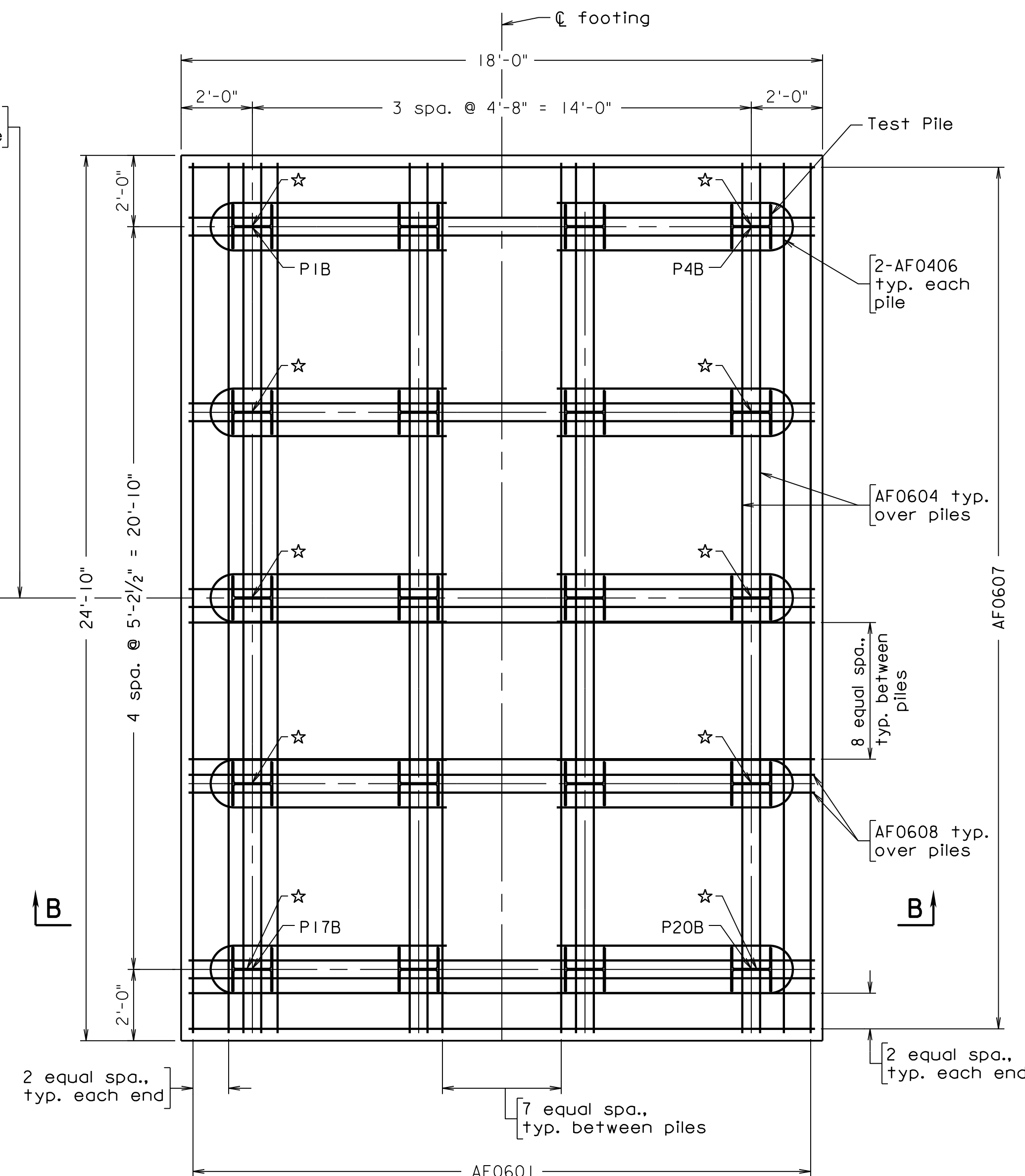
- P\*X Indicates the pile number and footing designation.
- A: Frame A footing
- B: Frame B footing
- T: Abutment support tower footing
- ☆ Indicates the pile requires uplift anchors. See sheet 10 for details.



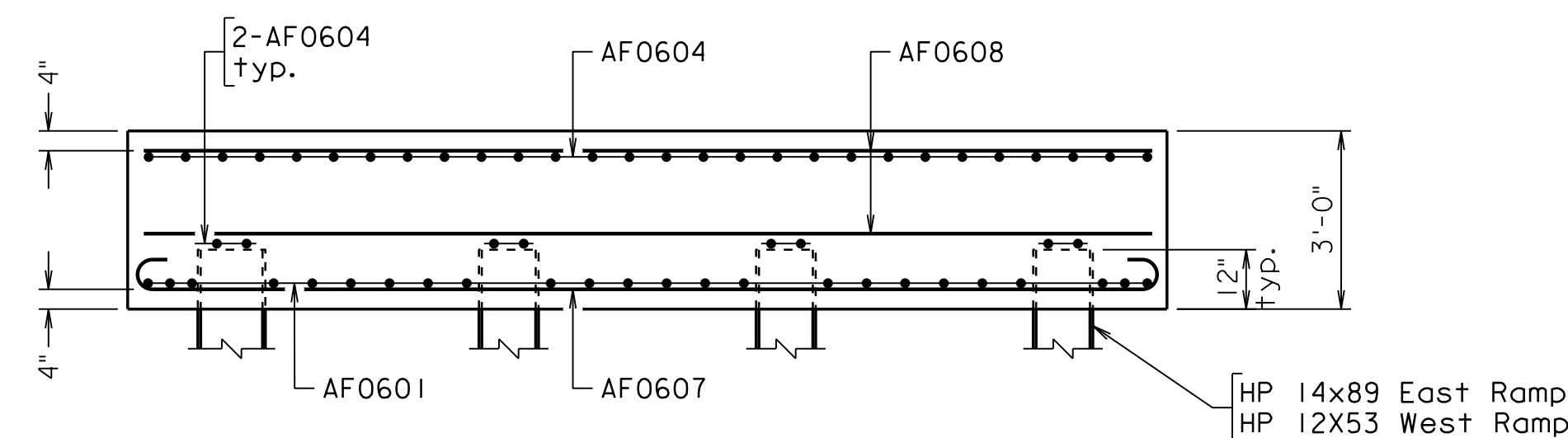
**RAMP FRAME A  
PILE AND REINFORCEMENT PLAN**  
Bottom reinforcement only shown



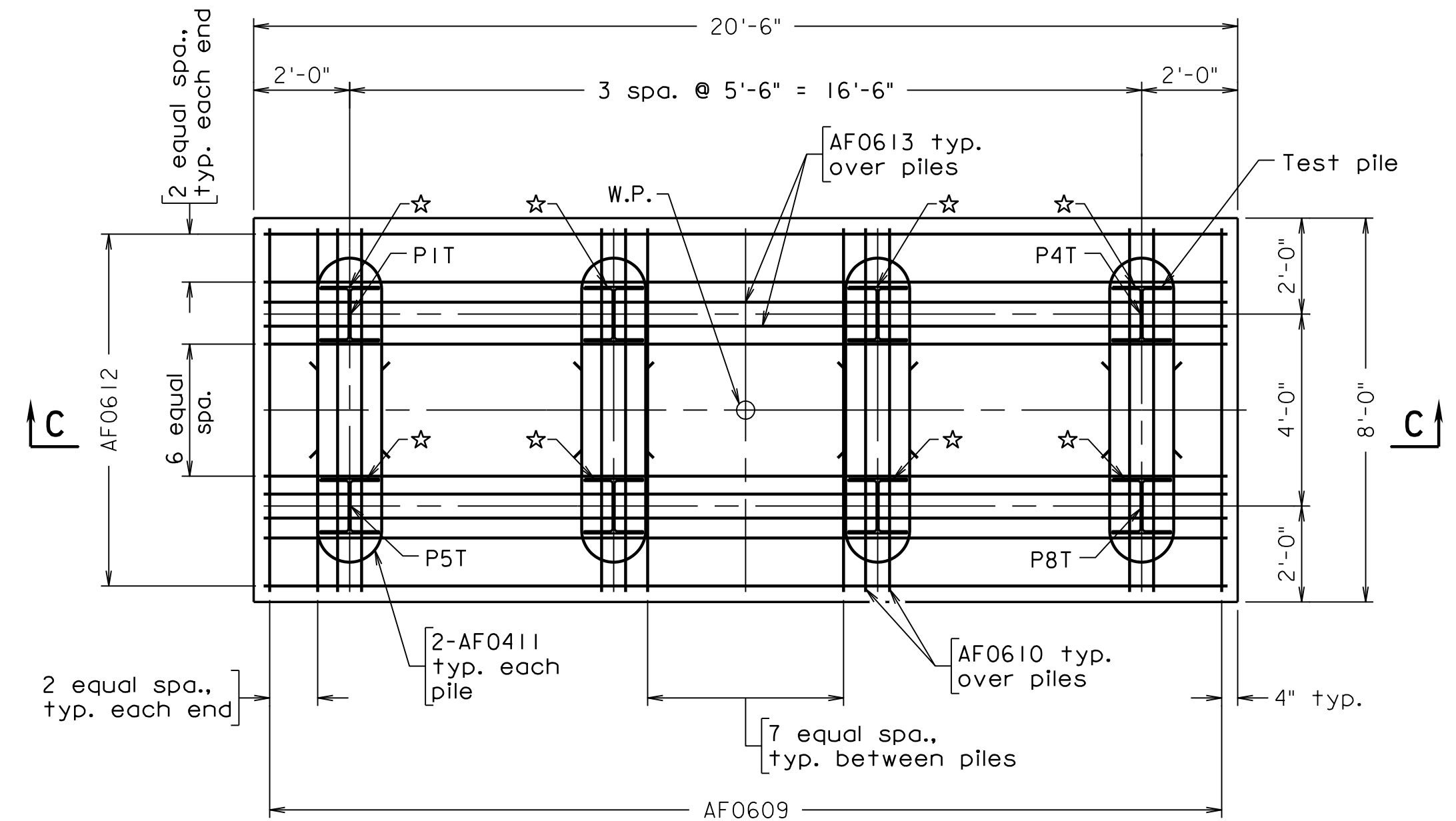
**SECTION A-A**  
Concrete column pedestals  
not shown. See sheet 9.



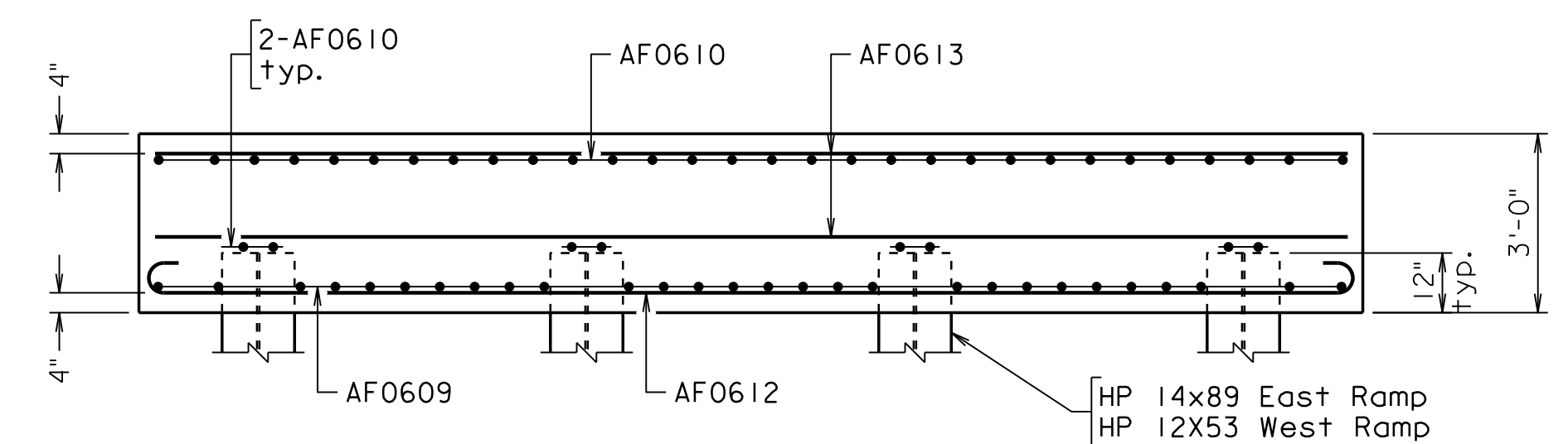
**RAMP FRAME B  
PILE AND REINFORCEMENT PLAN**  
Bottom reinforcement only shown



**SECTION B-B**  
Concrete column pedestals  
not shown. See sheet 9.



**ABUTMENT SUPPORT TOWER  
PILE AND REINFORCEMENT PLAN**  
Bottom reinforcement only shown



**SECTION C-C**  
Concrete column pedestals  
not shown. See sheet 9.

**PRELIMINARY PLANS**

**THESE PLANS NOT TO BE USED  
FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION STRUCTURE AND BRIDGE DIVISION			
<b>PILE LAYOUT AND REINFORCEMENT PLAN</b>			
No.	Description	Date	Designed: SRC Drawn: SRC Checked: SRC
	Revisions		Date: March 2026 Plan No.: Sheet No.: 8 of 31

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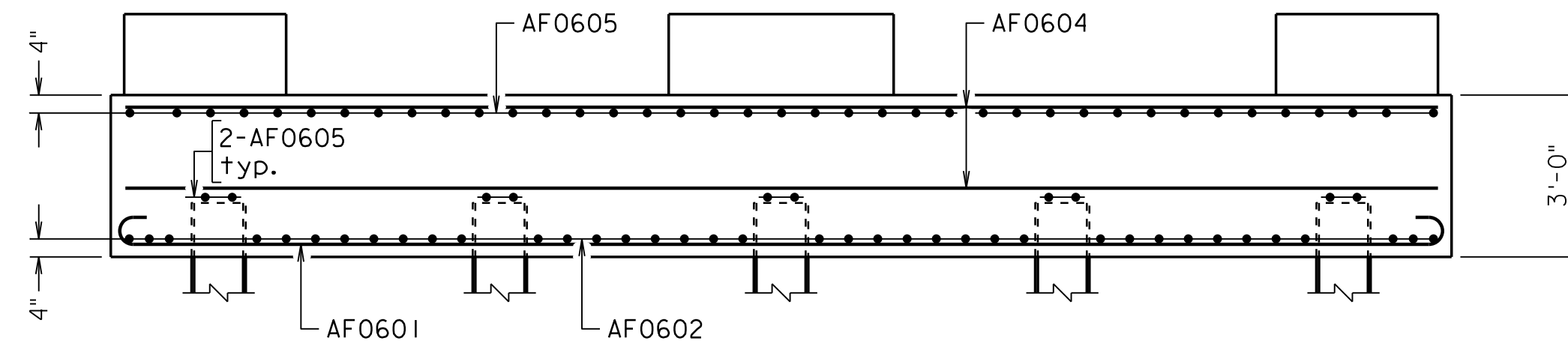
STATE	FEDERAL AID		STATE	SHEET
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VA.		0001	0001-076-634	9

Notes:

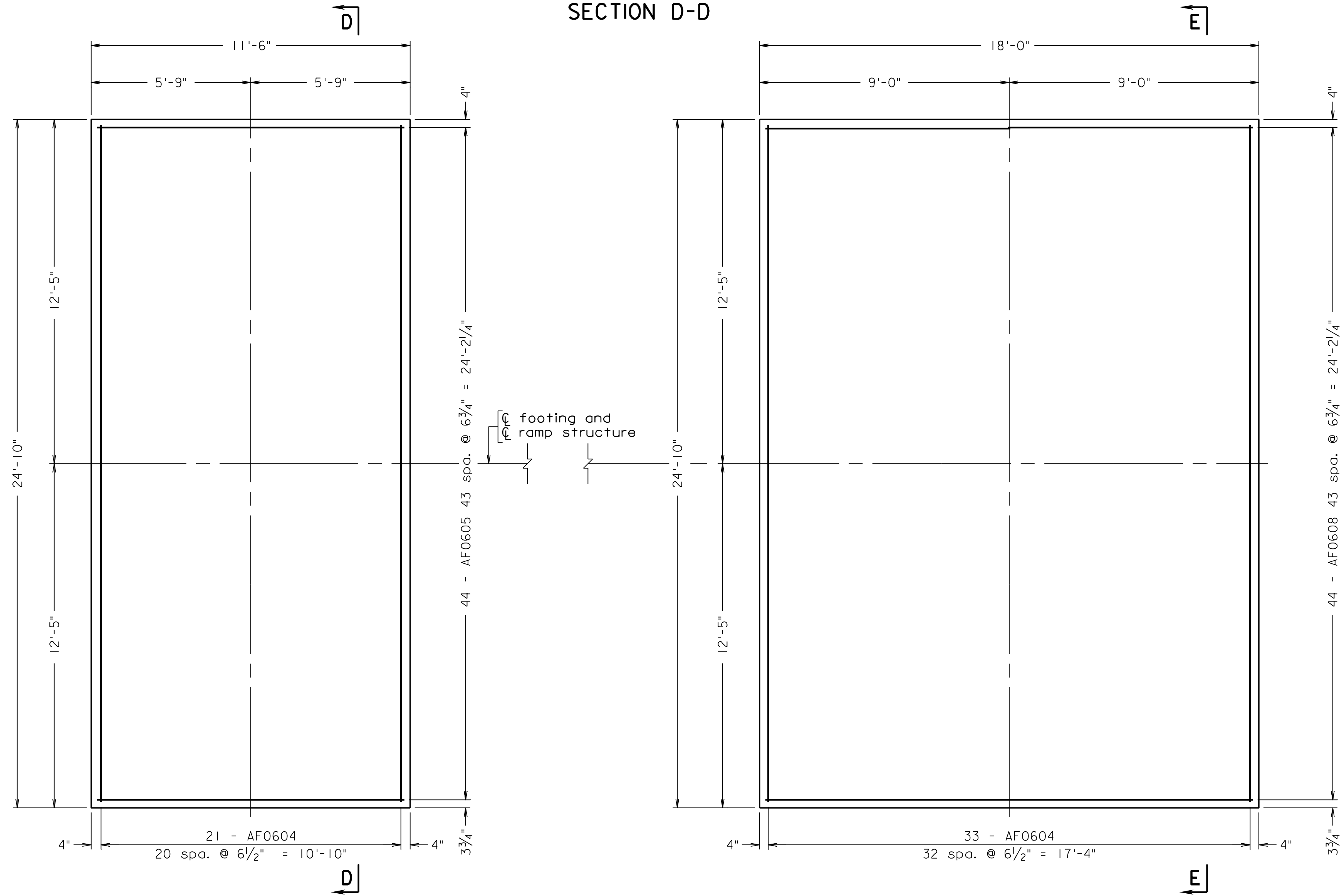
For substructure layout, see sheet 3

Foundation details shown are typical for both west and east ramps, and both abutment towers.

For pile uplift anchor details, see sheet 10.

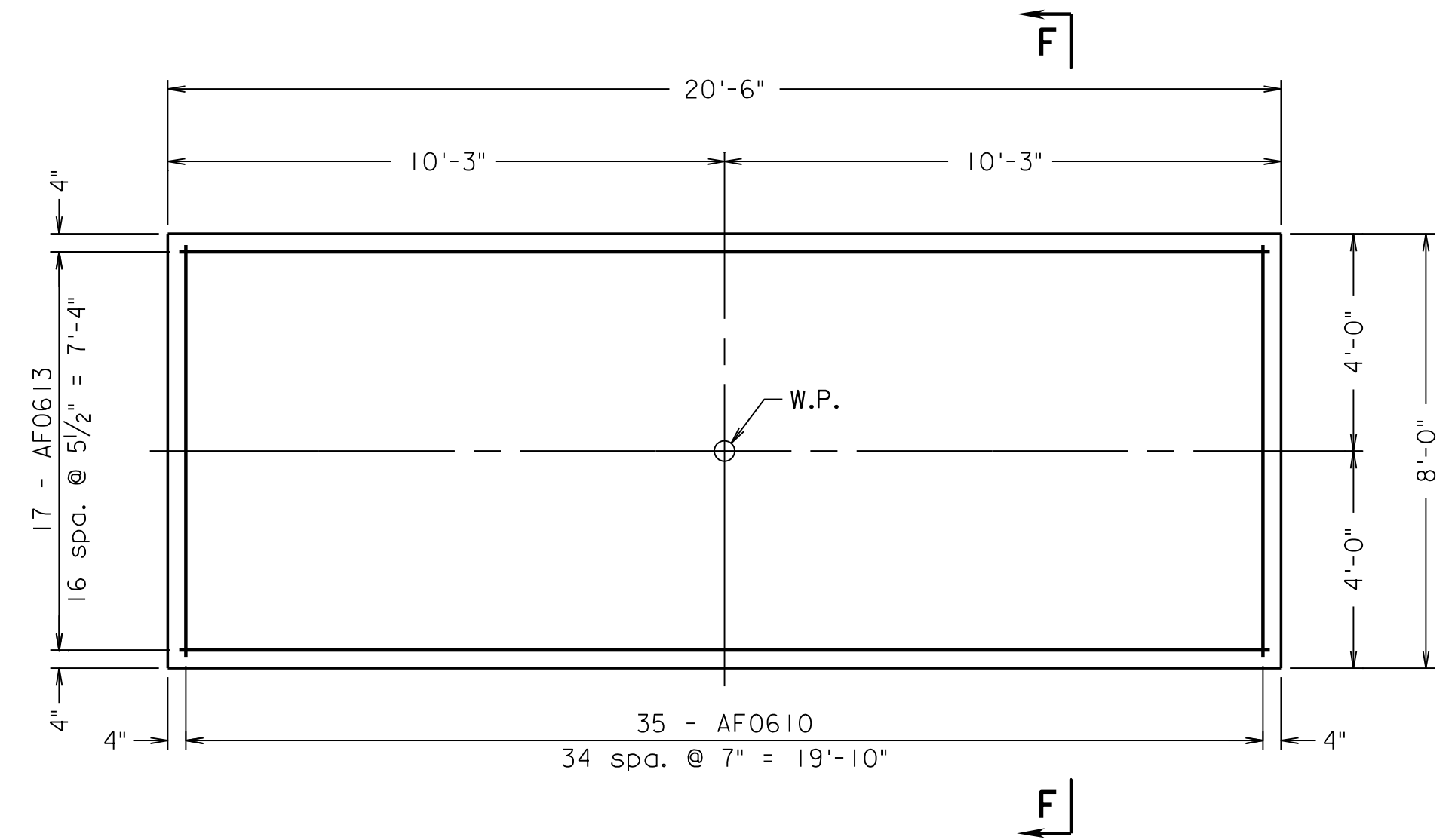


SECTION D-D

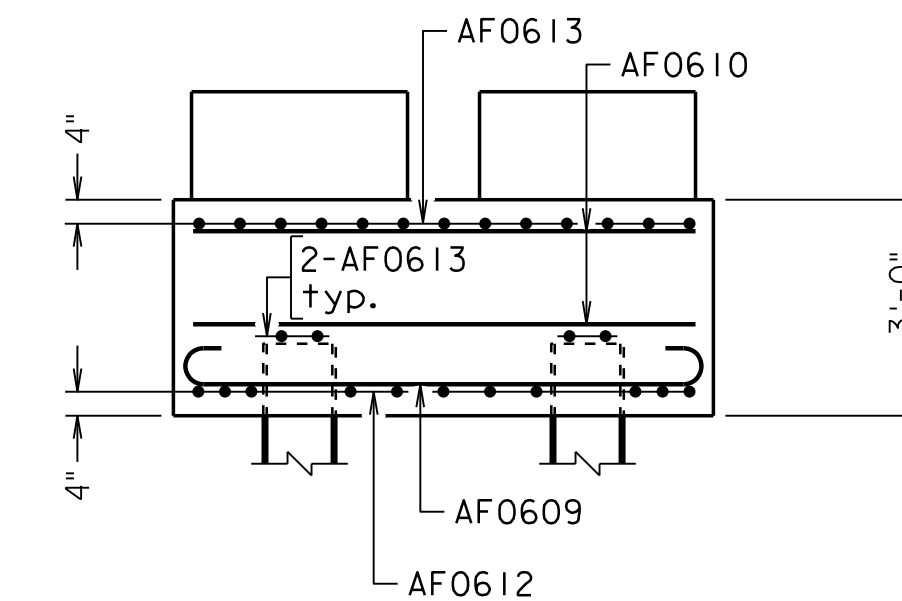


RAMP FRAME A  
TOP REINFORCEMENT PLAN

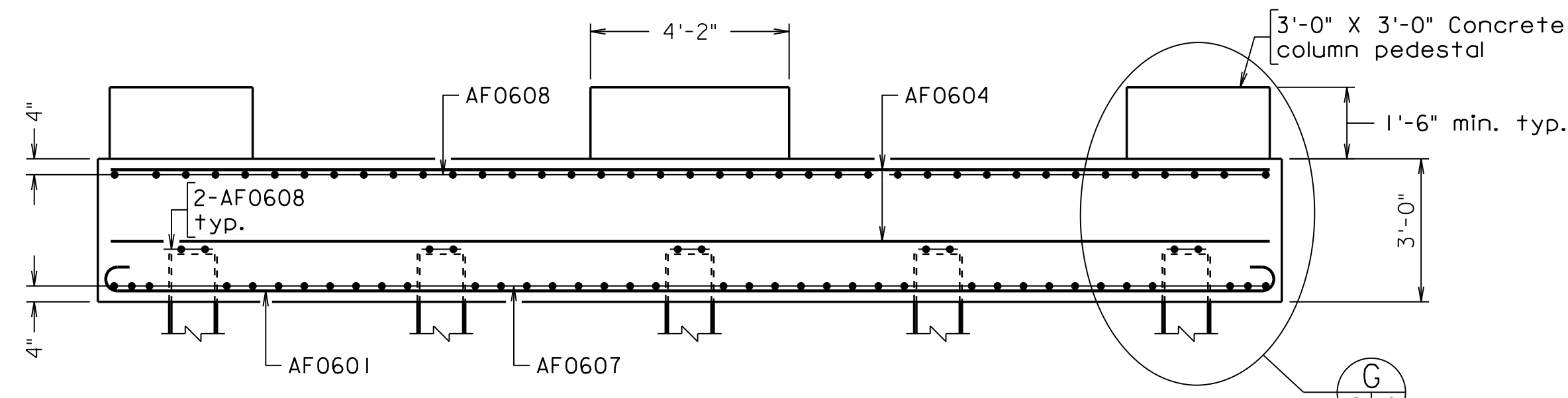
RAMP FRAME B  
TOP REINFORCEMENT PLAN



ABUTMENT SUPPORT TOWER  
TOP REINFORCEMENT PLAN



SECTION F-F



SECTION E-E

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED  
FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>FOOTING REINFORCEMENT PLAN AND DETAILS</b>			
No.	Description	Date	Revisions
Designed: SRC	Drawn: SRC	Checked: SRC	Date: March 2026
			Plan No.
			Sheet No.
			9 of 31

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	10

Notes:

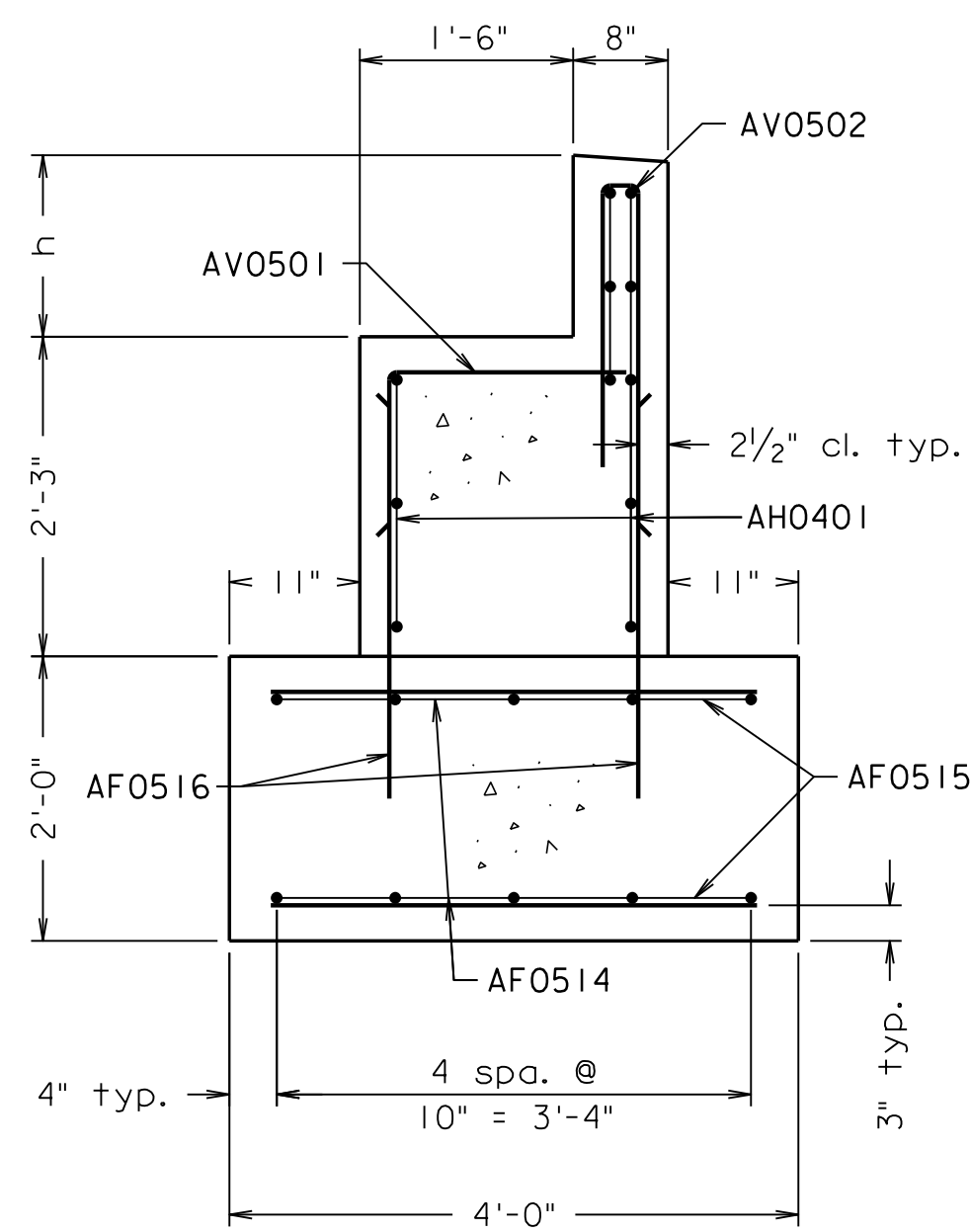
All HP 12x53 piles of the west ramp Frames A and B footings and Abutment A footing shall be installed through prebored holes. Preboring shall penetrate IGM a length provided in the Pile Data Table on sheet 10, with a 24" diameter socket.

All HP 14x89 piles in the east ramp Frames A and B footings and Abutment B footings shall be driven to practical refusal and to the required nominal axial resistance. Pile points shall be used for the HP 14x89 piles. For axial resistance requirements, see the Pile Data Table on sheet 10. All piles shall be driven to or below the minimum tip elevations shown in the Pile Data Table, unless otherwise directed or authorized by the Engineer.

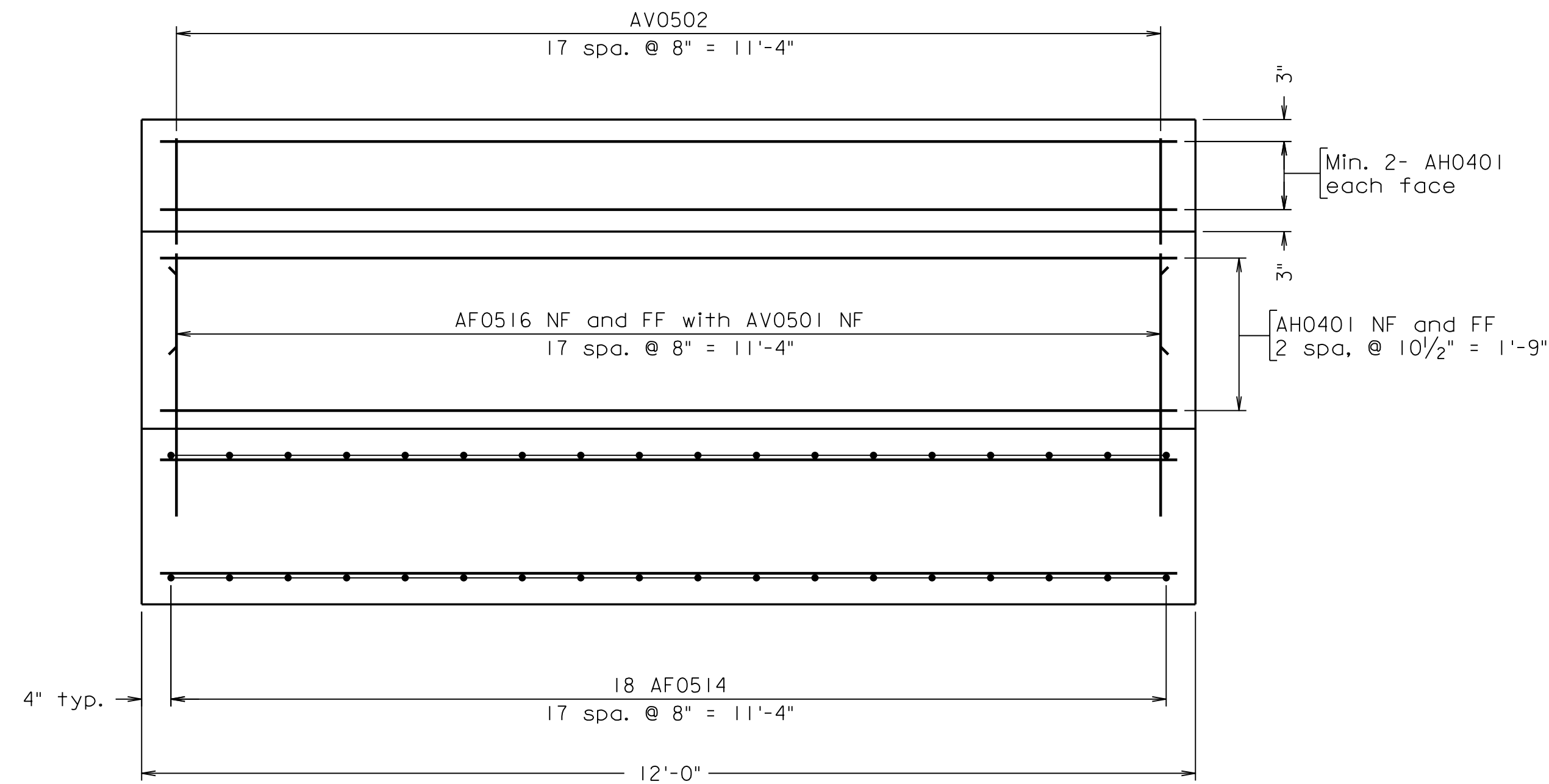
See sheet 8 for the specific piles that require the uplift anchors shown in the detail this sheet.

SUGGESTED SEQUENCE FOR PREBORED PILE INSTALLATION

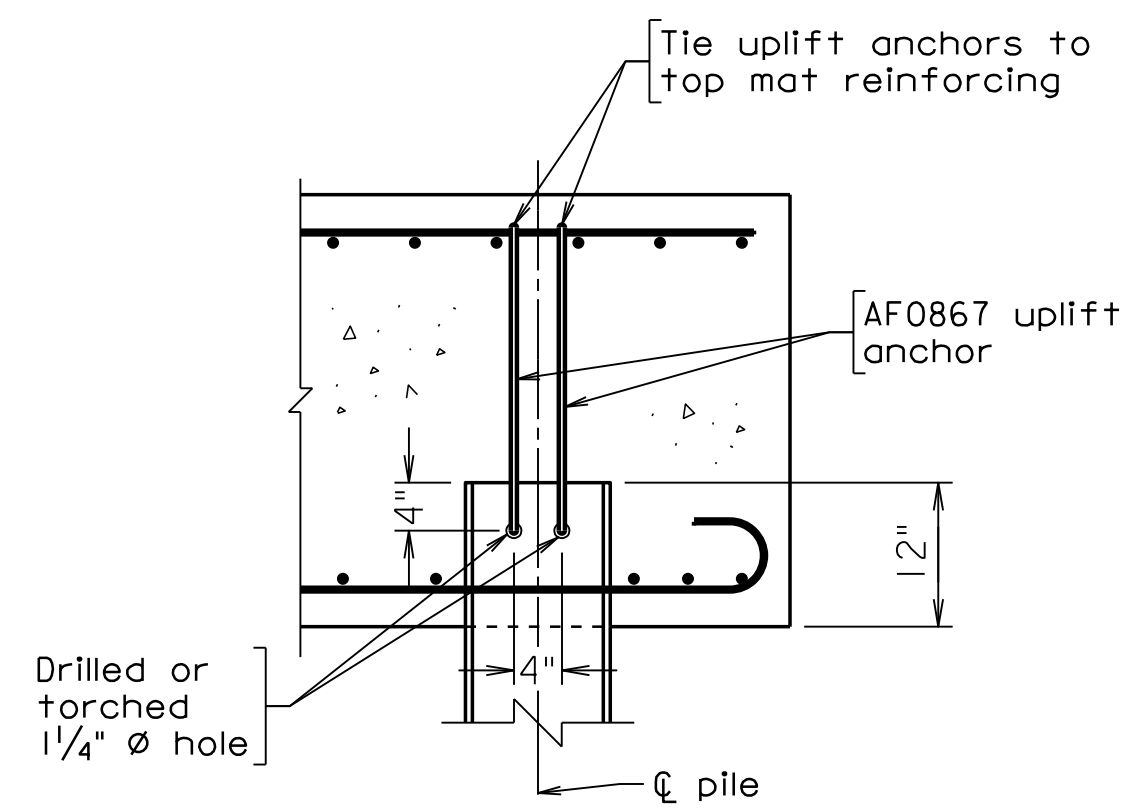
1. Excavate to the bottom of the footing elevation as depicted on the plans.
2. Prebore through overburden and IGM until the minimum pile tip elevation as depicted on the plans is achieved. Contractor shall provide temporary casing to stabilize the hole as needed.
3. Weld 12-inch square steel plate at the base of the pile. All costs associated with the square steel plate shall be considered in the pay item for Steel Piles 12".
4. Place pile in the prebored hole.
5. Fill prebored hole with Class T3 concrete from the bottom of the hole up to the bottom of the footing elevation. Contractor shall alternate placement of concrete between the two large openings between the flanges.



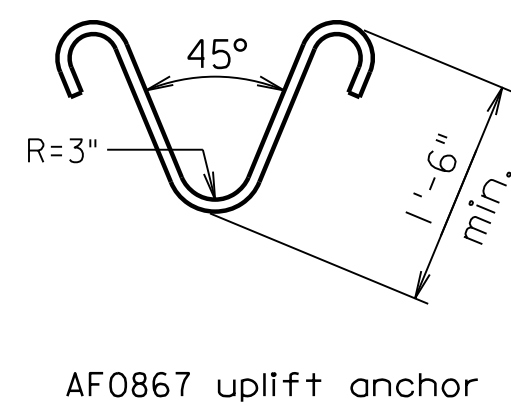
**RAMP ABUTMENT**  
Height of ramp bottom chord and deck, h, to be determined by the fabricator.



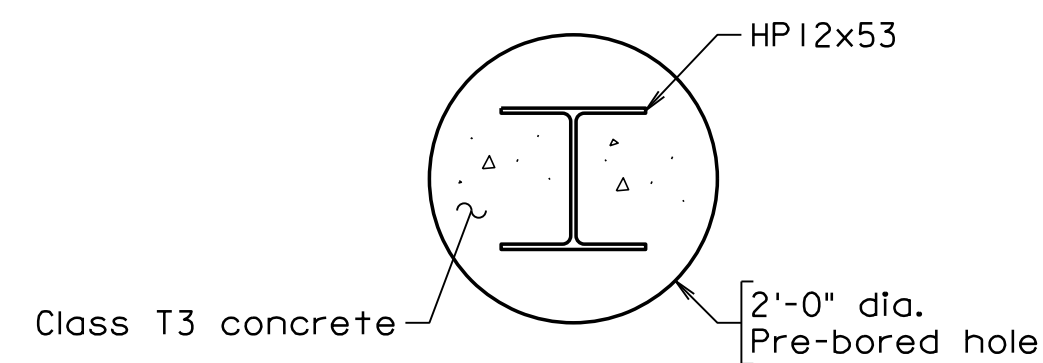
**RAMP ABUTMENT ELEVATION**



**PILE UPLIFT ANCHOR DETAIL**  
Not to scale

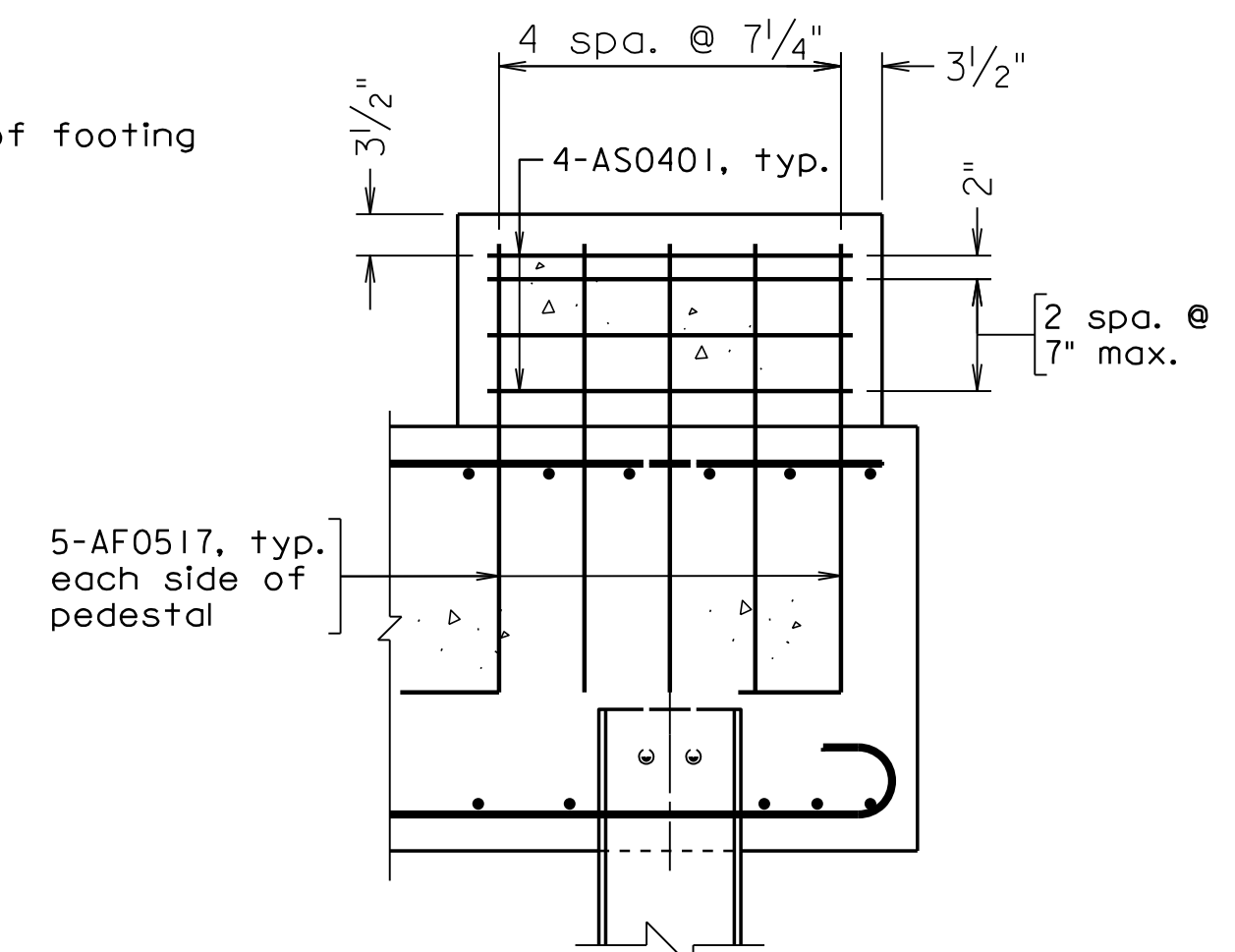


AF0867 uplift anchor



**ROCK SOCKET DETAIL**  
Not to scale

Footing concrete and reinforcing steel not shown for clarity.



**PEDESTAL DETAIL**  
Not to scale

PILE DATA TABLE				
Substructure Unit	Nominal Axial Resistance Measured During Driving (Tons/Pile)	Factored Axial Resistance (Tons/Pile)	Estimated Tip Elevation (Feet)	Minimum Tip Elevation (Feet)
East Ramp Frame A	84.0	54.6	49.0	49.0
East Ramp Frame B	93.2	60.6	32.0	32.0
Abutment B Tower	102.3	66.5	32.0	32.0

It is recommended that the piles be driven to refusal in IGM (i.e. to the estimated/minimum pile tip elevations as indicated in the table above). Settlement for piles tipping in IGM is expected to be less than 0.5 inches.

The Minimum Pile Tip Elevations presented in the table above are required to satisfy uplift, lateral resistance, and/or pile tip fixity requirements.

PILE DATA TABLE					
Substructure Unit	Socket Bearing Material	Socket Length (Feet) (c)	Class T3 Concrete Fill Maximum Elevation (Feet)	Factored Axial Resistance (Tons/Pile)	Minimum Tip Elevation (Feet)
West Ramp Frame A	IGM	15.0	71.0	54.6	42.0
West Ramp Frame B	IGM	17.0	71.0	60.6	42.0
Abutment A Tower	IGM	17.0	71.0	66.5	42.0

The Minimum Pile Tip Elevations presented in the table above are required to satisfy uplift, lateral resistance, and/or pile tip fixity requirements.

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
MISCELLANEOUS FOUNDATION DETAILS			
No.	Description	Date	Designed: SRC Drawn: SRC Checked: SRC
Revisions		March 2026	Plan No. Sheet No. 10 of 31

North Woodbridge\_10.dgn

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	11

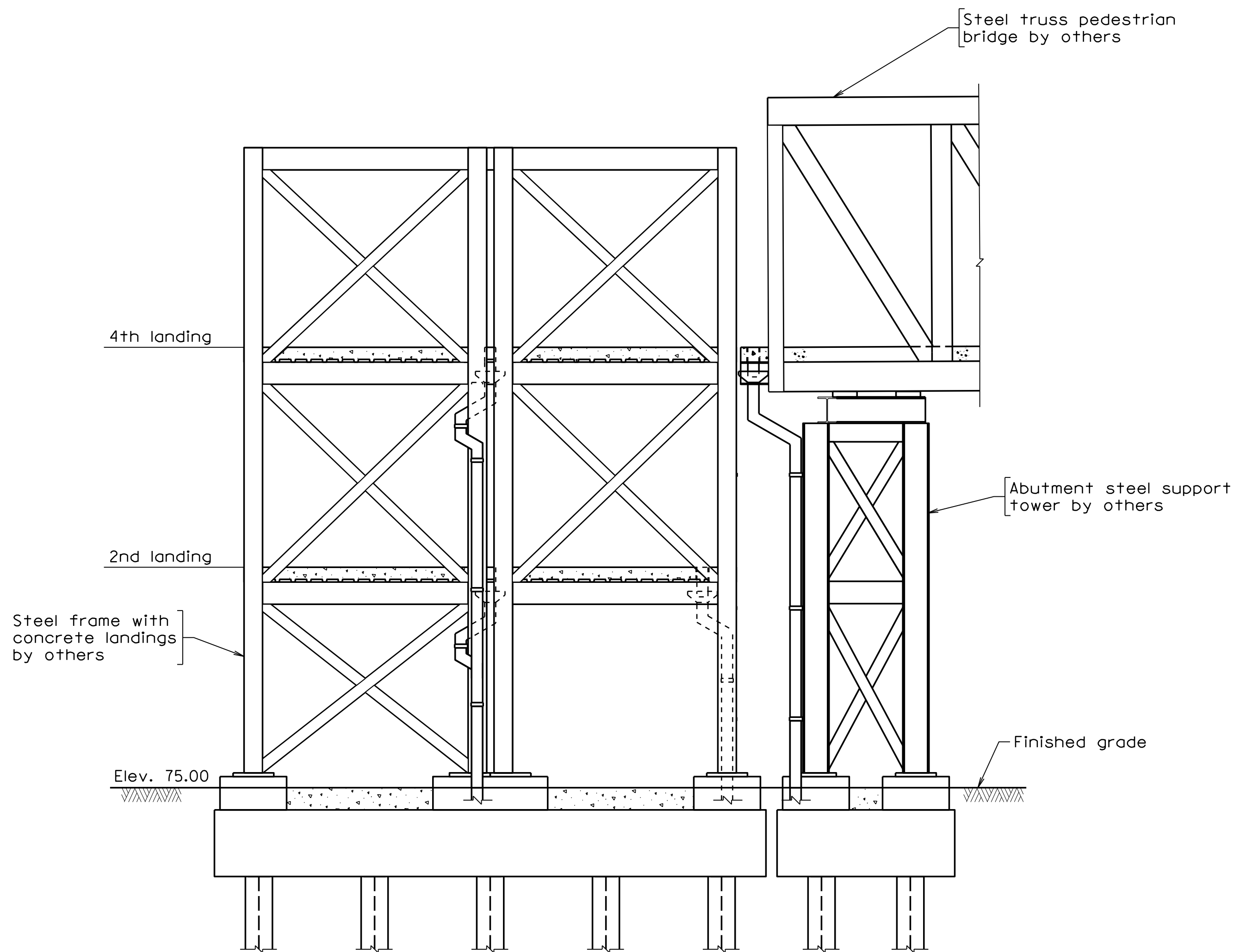
Notes:

For substructure layout, see sheet 3.

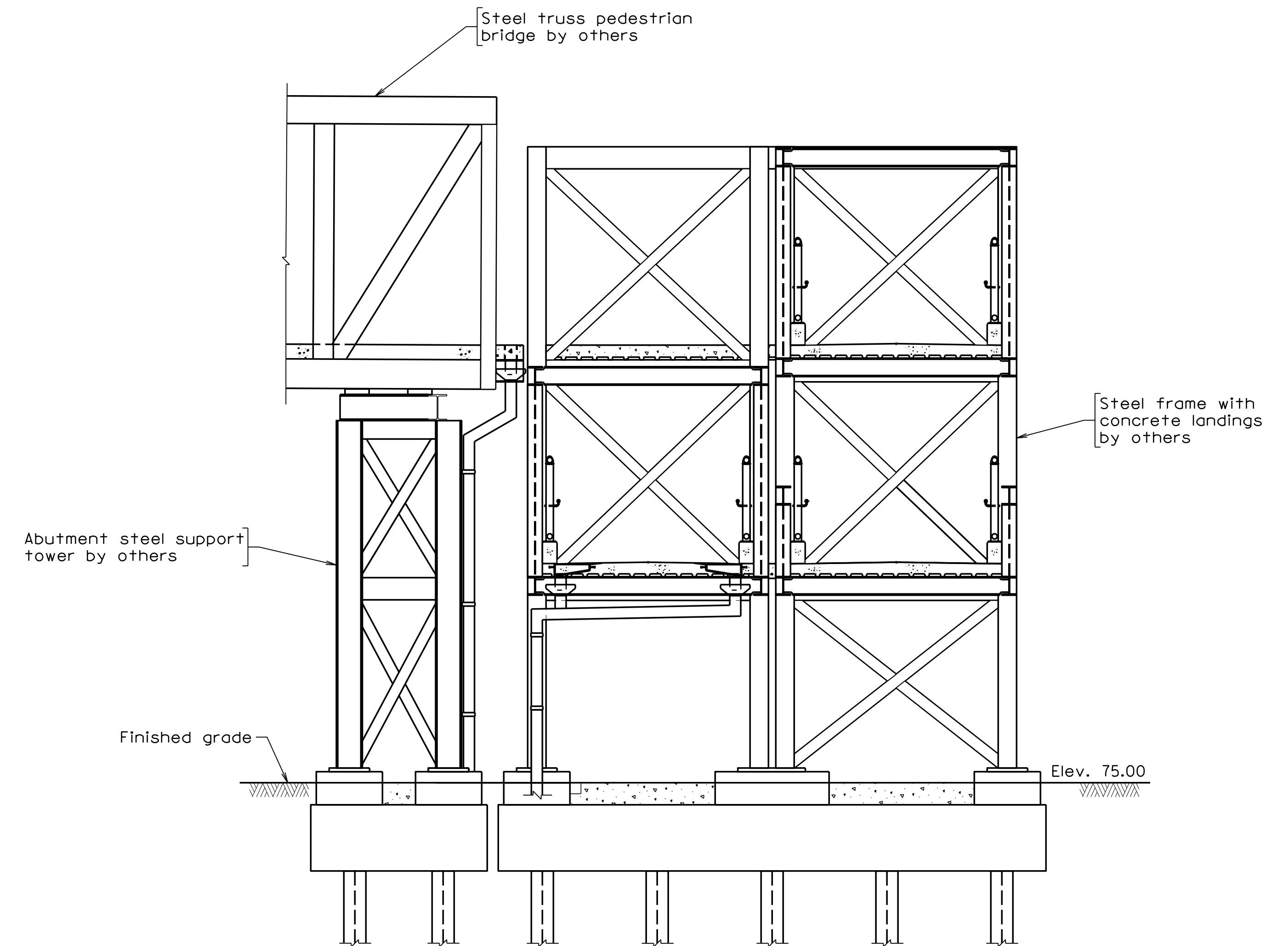
For footing details, see sheets 8 through 10.

For bridge and ramp transverse sections, see sheet 13.

For drainage details, see sheets 19 and 20.



**RAMP FRAME B AND ABUTMENT SUPPORT TOWER ELEVATION**  
 (East ramp shown, west ramp similar)  
 Note: Pedestrian fence and handrail not shown for clarity.



**RAMP FRAME B AND ABUTMENT SUPPORT TOWER ELEVATION**  
 (East ramp shown, west ramp similar)  
 Note: Pedestrian fence and handrail not shown for clarity.

North Woodbridge - 11.dgn

**PRELIMINARY PLANS**

**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>BRIDGE AND RAMP SUPPORT FRAME ELEVATIONS - I</b>			
No.	Description	Date	Designed: SRC Drawn: GAG Checked: JJE
Revisions		March 2026	Plan No. Sheet No. 11 of 31

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HERNDON, VA  
STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	12

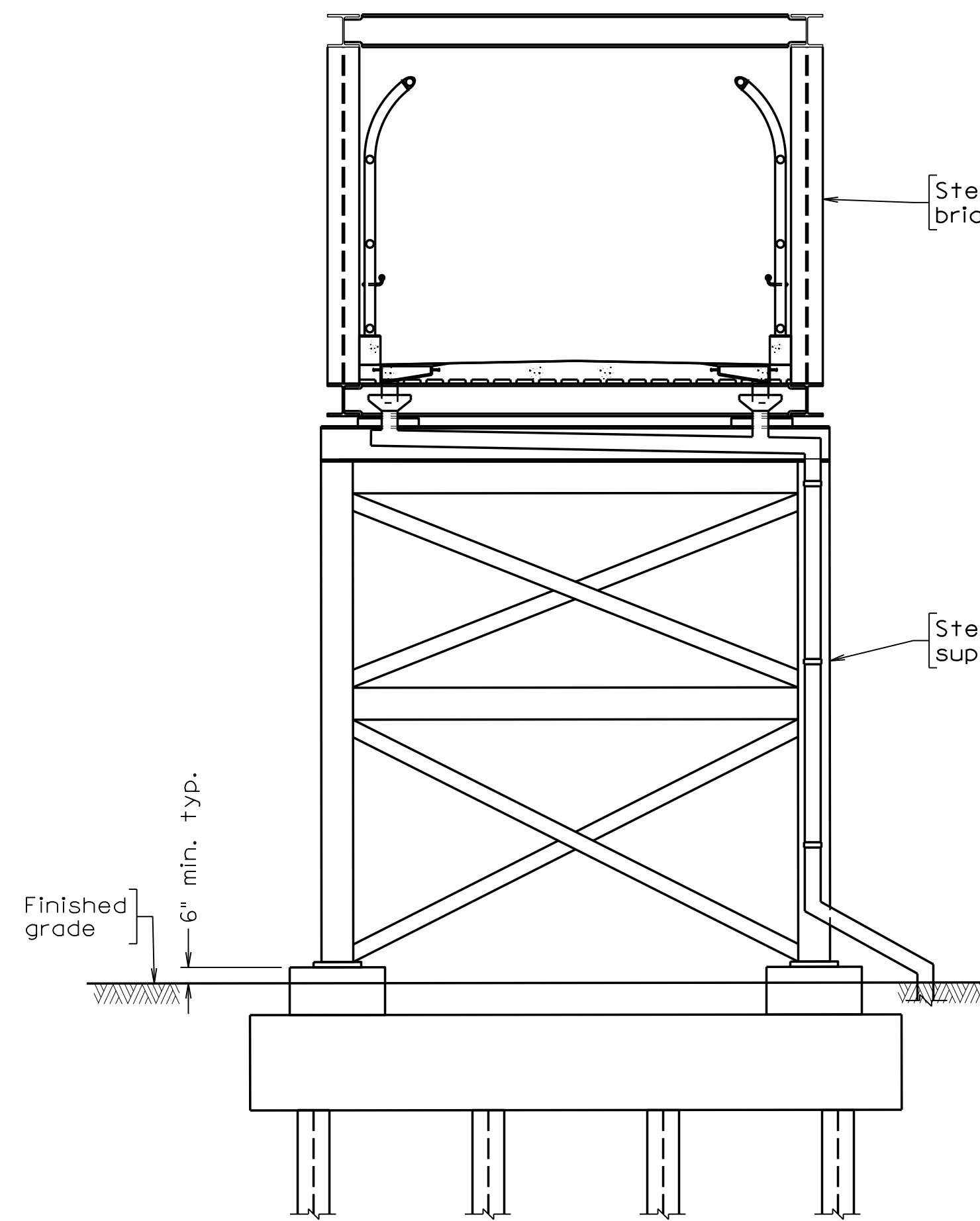
Notes:

For substructure layout, see sheet 3.

For footing details, see sheets 8 through 10.

For bridge and ramp transverse sections, see sheet 13.

For drainage details, see sheets 19 and 20.



Steel truss pedestrian bridge by others

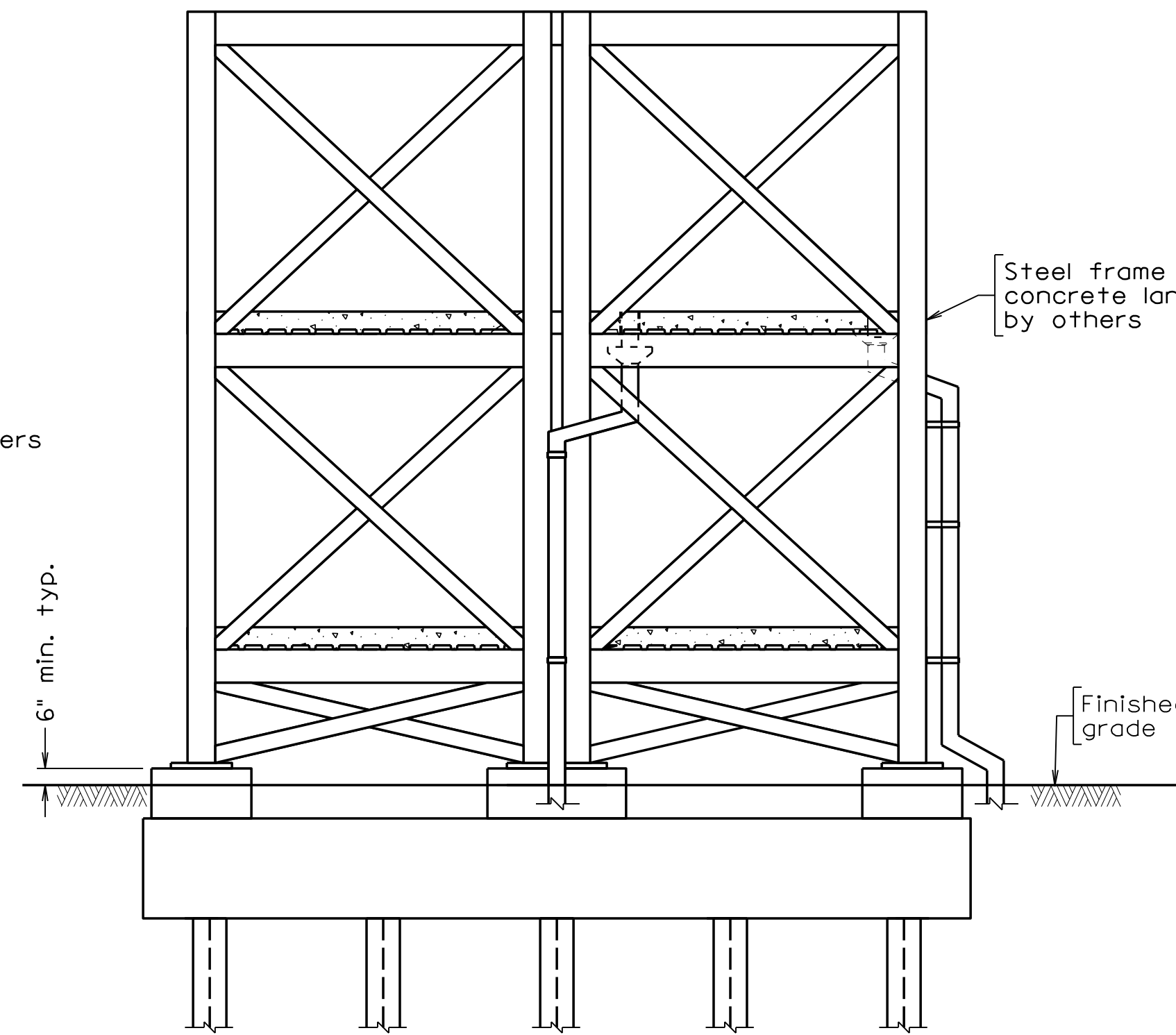
Steel frame bridge support tower by others

Finished grade  
6" min. typ.

6,7 (D) 112

**ABUTMENT SUPPORT TOWER ELEVATION**

(Abutment A tower shown, Abutment B tower is similar)



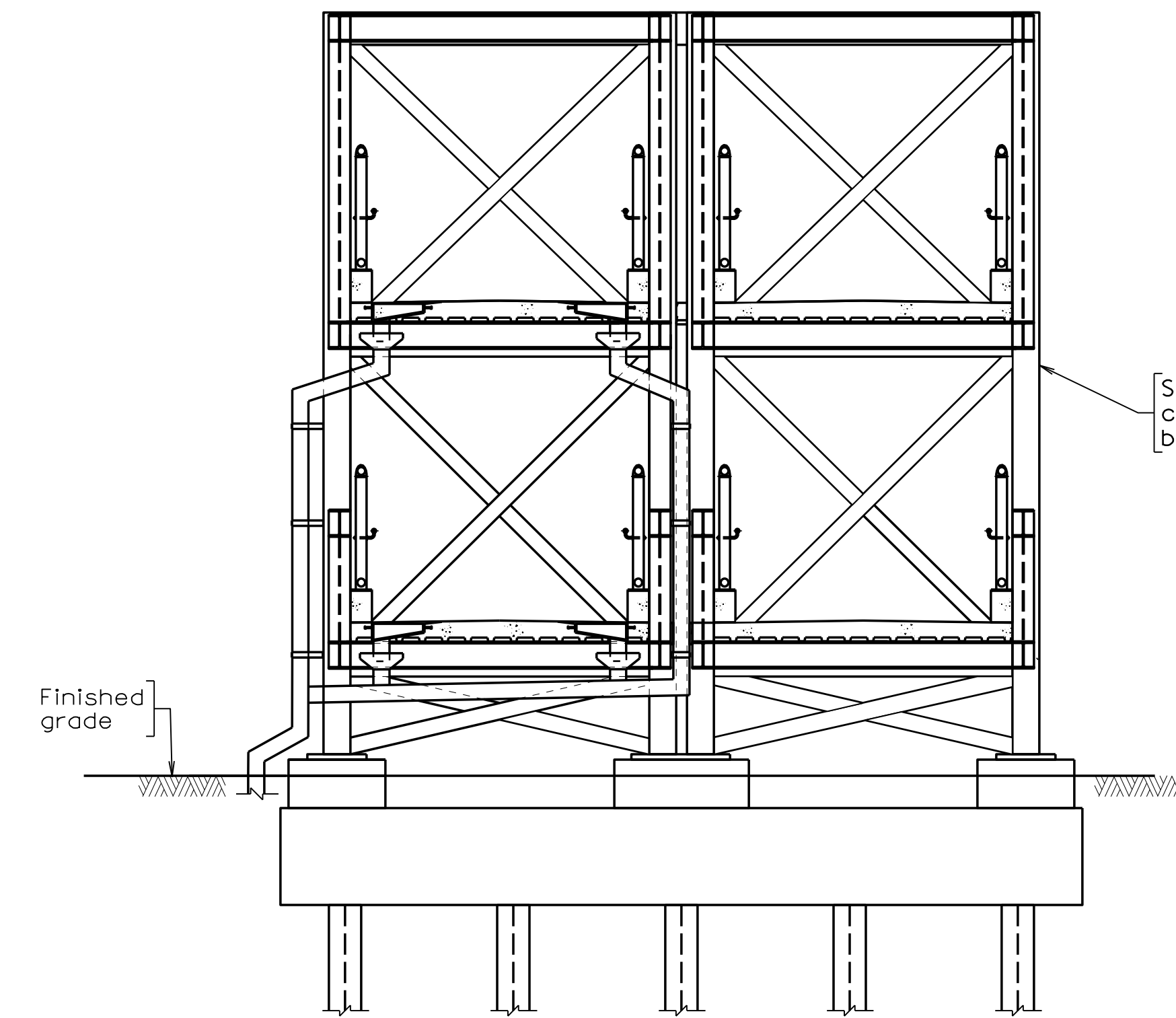
Steel frame with concrete landings by others

Finished grade  
6" min. typ.

6,7 (E) 112

**RAMP FRAME A ELEVATION**

(East ramp shown, west ramp elevation similar)



Steel frame with concrete landings by others

Finished grade

6,7 (F) 112

**RAMP FRAME A ELEVATION**

(East ramp shown, west ramp elevation similar)

North Woodbridge\_12.dgn

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>BRIDGE AND RAMP SUPPORT FRAME ELEVATIONS - 2</b>			
No.	Description	Date	Revisions
Designed: SRC	Date	Plan No.	Sheet No.
Drawn: GAF	March 2026		12 of 31
Checked: SJE			

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Scale: 3/8" = 1'-0"

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	13

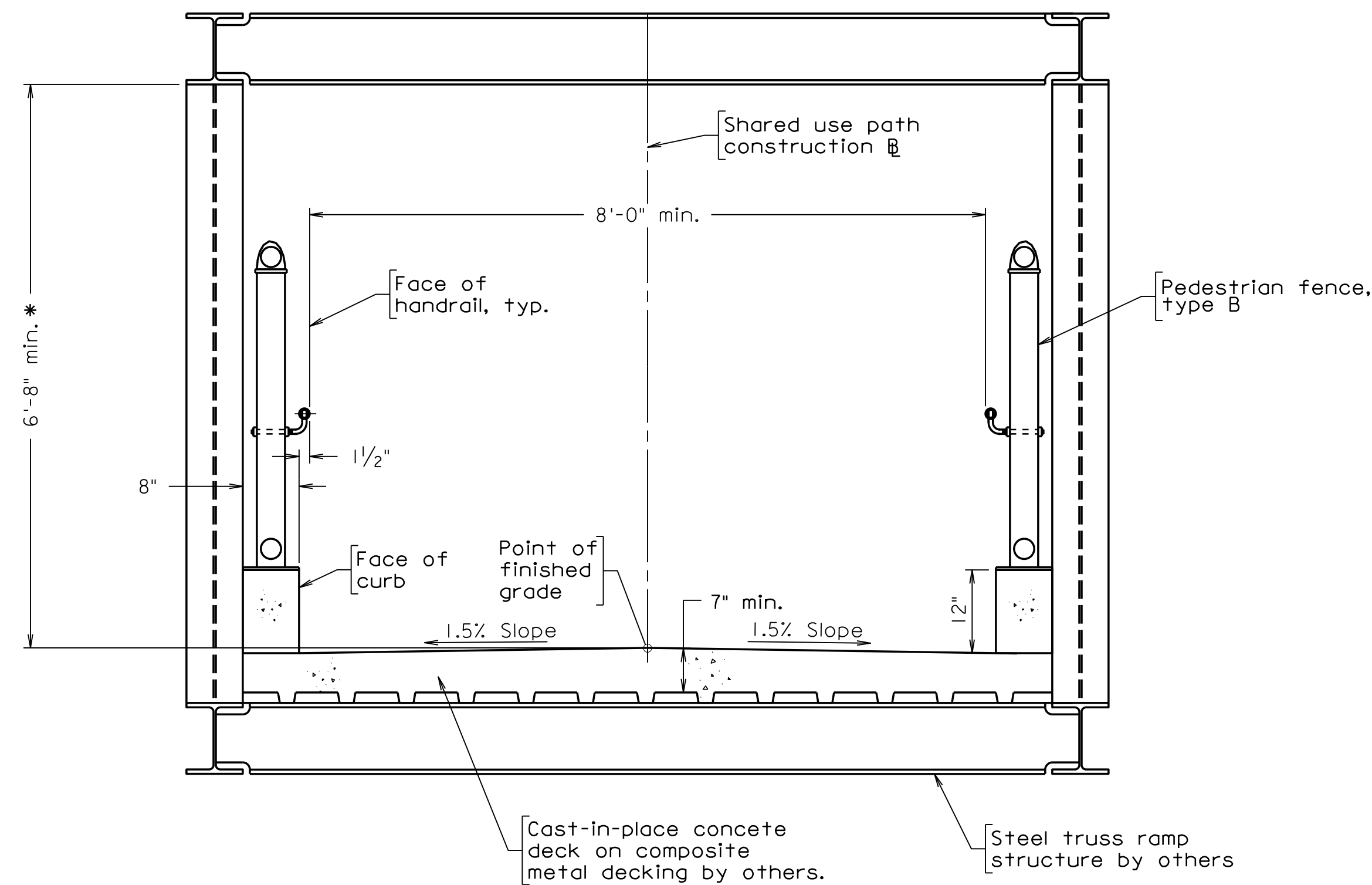
Notes:

For steel truss and support frame general notes, see sheet 15.

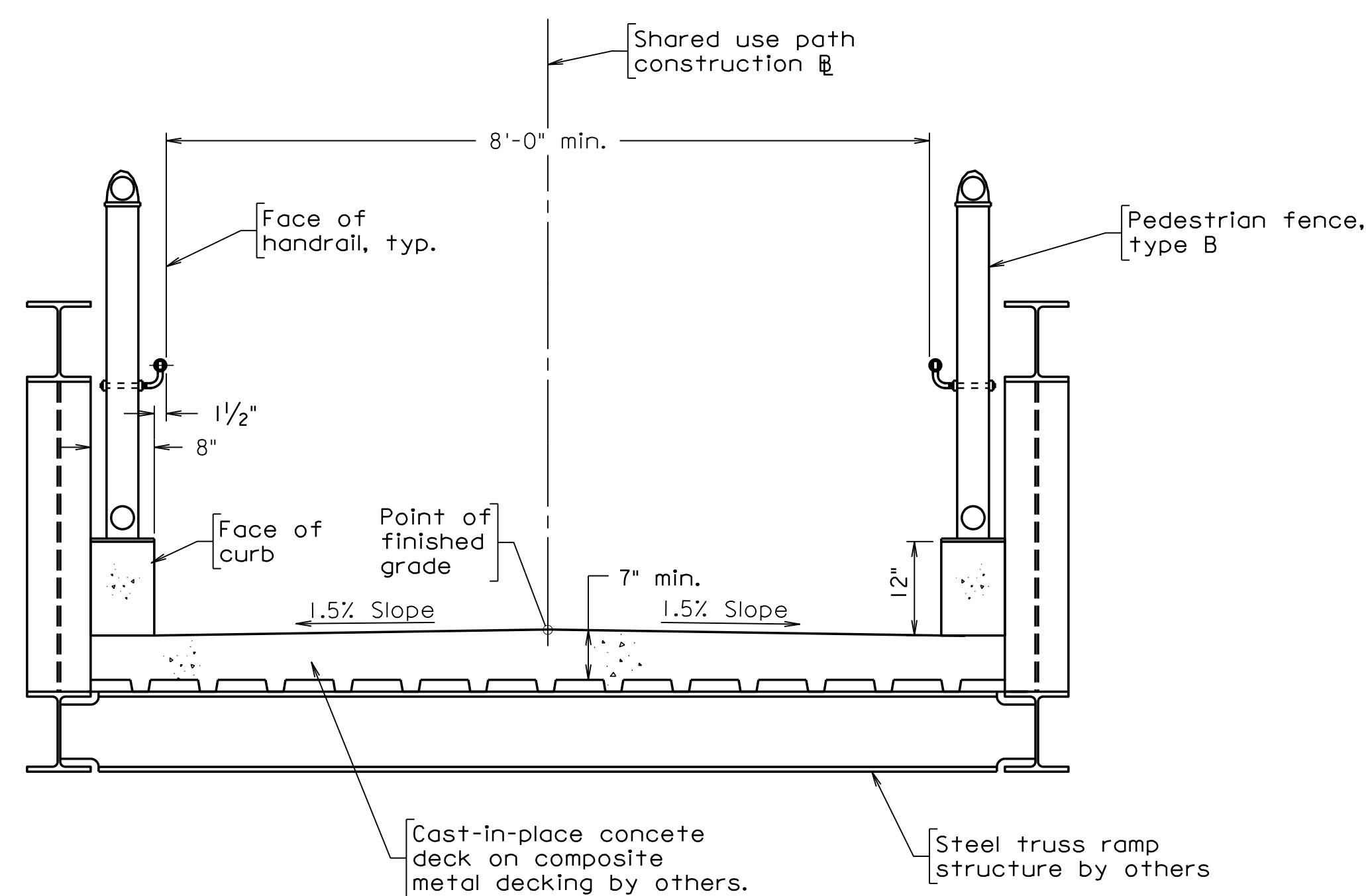
Reinforcing steel in deck slab may be shifted or cut as approved by the Engineer to clear the drainage inlet assemblies.

For pedestrian fence details, see sheets 21 and 22.

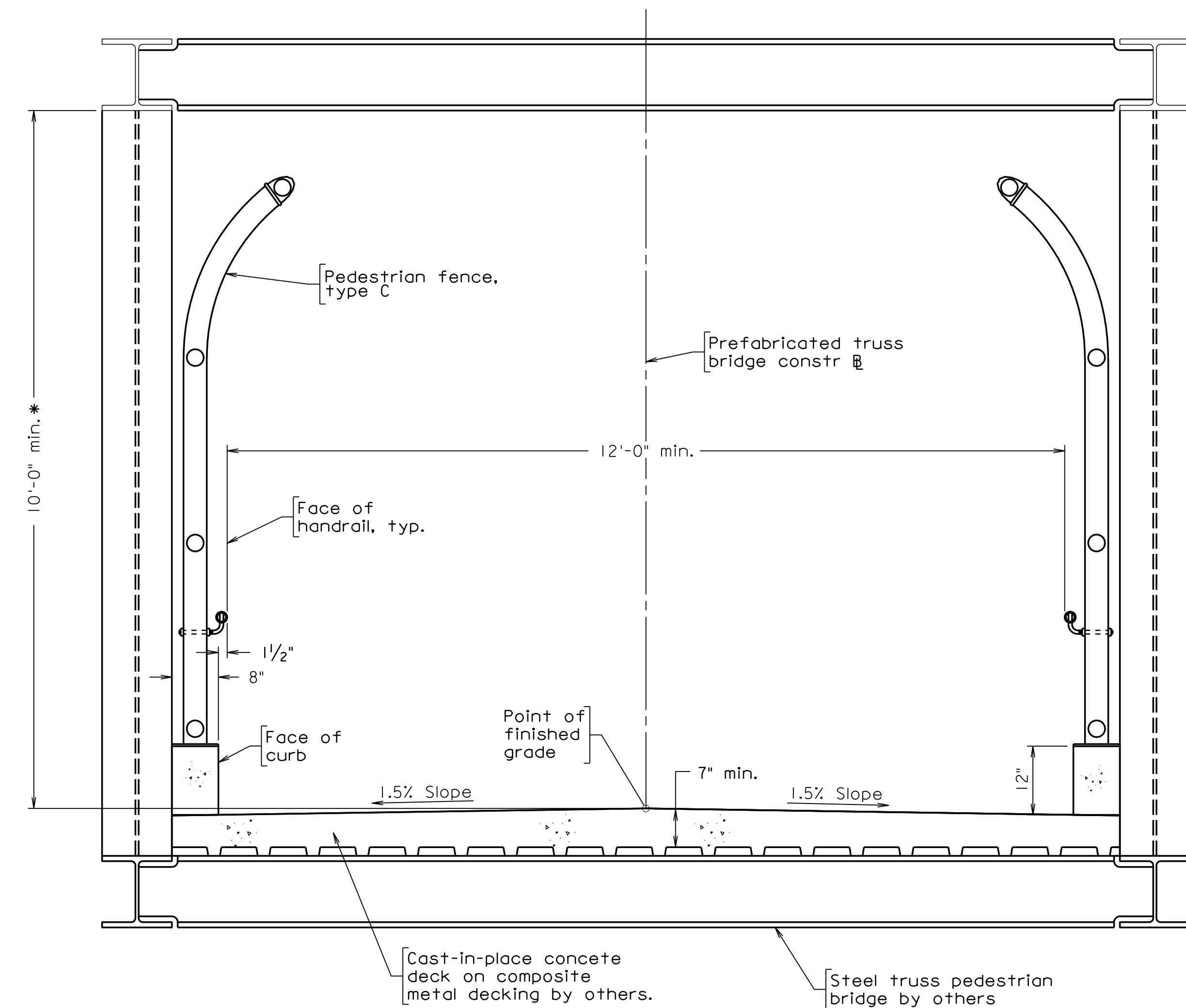
\* Minimum height shown shall be from the top of deck or landing to the bottom of the lowest drain pipes or truss bottom chord.



UPPER RAMP TRANSVERSE SECTION



LOWER RAMP TRANSVERSE SECTION



BRIDGE TRANSVERSE SECTION

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>BRIDGE AND RAMP TRANSVERSE SECTIONS</b>			
No.	Description	Date	Revisions
Designed: SRC	Drawn: GAF	Checked: JFE	Date: March 2026
			Plan No.
			Sheet No.
			13 of 31

North Woodbridge\_13.dgn

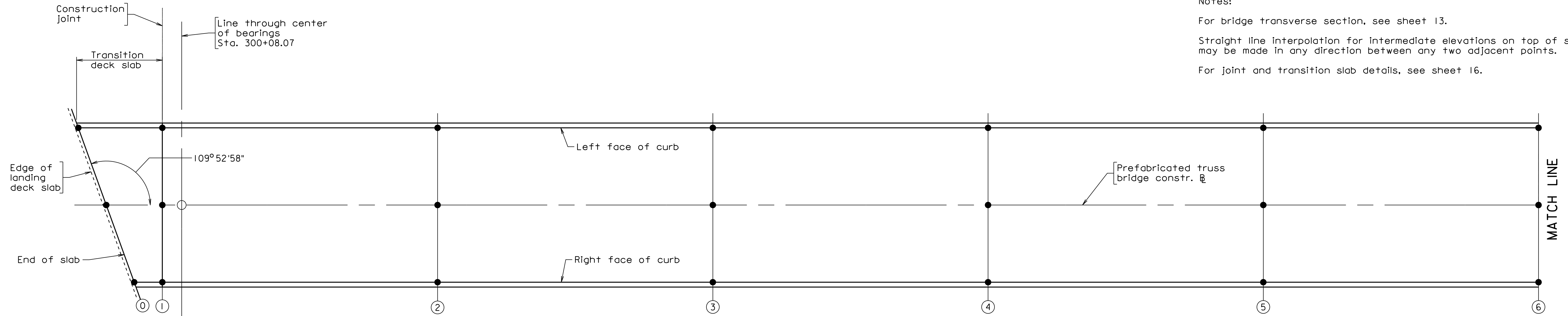
STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	14

Notes:

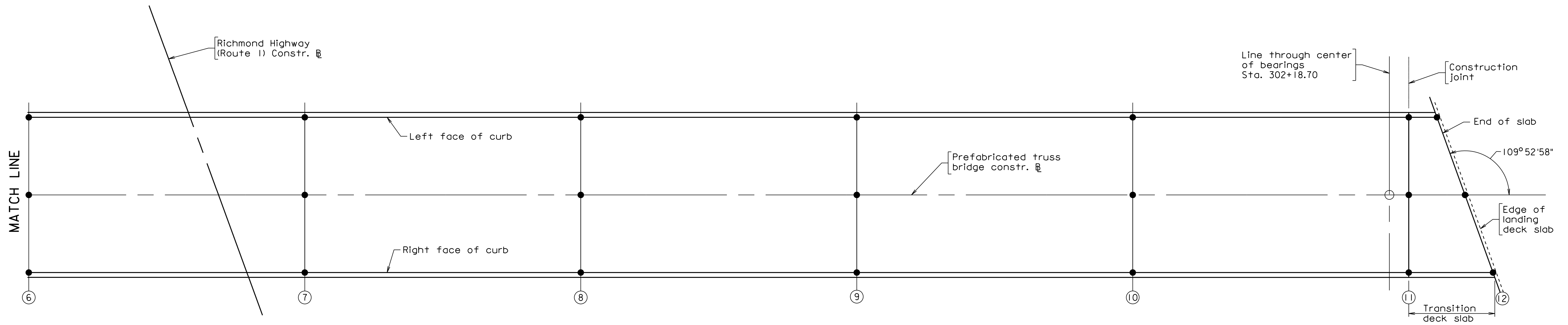
For bridge transverse section, see sheet 13.

Straight line interpolation for intermediate elevations on top of slab may be made in any direction between any two adjacent points.

For joint and transition slab details, see sheet 16.



ABUTMENT A



ABUTMENT B

**BRIDGE DECK SLAB PLAN AND ELEVATIONS**  
Elevations are at tenth points between deck construction joints.  
Handrail not shown for clarity.

Point	0	1	2	3	4	5	6	7	8	9	10	11	12
Left face of curb	93.94	93.97	94.08	94.18	94.29	94.40	94.50	94.40	94.29	94.18	94.08	93.97	93.96
Prefabricated truss bridge constr. B	94.04	94.06	94.18	94.28	94.38	94.49	94.60	94.57	94.38	94.28	94.17	94.06	94.04
Right face of curb	93.96	93.97	94.08	94.18	94.29	94.40	94.50	94.40	94.29	94.18	94.08	93.97	93.94

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>BRIDGE DECK SLAB PLAN AND ELEVATIONS</b>			
No.	Description	Date	Revisions
Designed: SRC	Drawn: GAF	Checked: SJE	Date: March 2026
			Plan No. 14 of 31

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STRUCTURAL ENGINEER

Scale: 1/4" = 1'-0"

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VA.	ROUTE	PROJECT	ROUTE	PROJECT
	—	—	0001	0001-076-634
				15

**PREFABRICATED STEEL TRUSSES AND STEEL SUPPORT TOWERS AND FRAMES:**

These plans are for the following structures and shall be considered the minimum standard for design and construction:

- A single span steel truss bridge with concrete deck, and abutment steel support towers.
- Single span steel ramp trusses with concrete decks, and steel ramp support frames with concrete decks.

The trusses shall be of the Pratt type. Truss panels layout shall be symmetric about midspan of each truss. The maximum number of panels per truss shall be sixteen (16).

All members of the trusses, towers, and frames shall be open steel sections, and connections shall be bolted. Welding of bracing members to the floor system shall not be permitted.

The steel trusses, towers, and frames shall be of painted weathering steel. See this sheet for painting color.

Design of the structures shall be for 90 psf pedestrian load and in accordance with:

- AASHTO LRFD Guide Specifications for Design of Pedestrian Bridges, 2nd Edition, 2009, 2015 Interims; and VDOT modifications.
- AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017; and VDOT modifications.

The bridge and ramp trusses shall have a vertical camber at mid-span equal to 100% of the full dead load deflection, including the cast-in-place concrete deck.

All design calculations, including concrete deck, shop fabrication drawings and erection procedures shall be signed and sealed by an Engineer licensed to practice in the Commonwealth of Virginia.

All design calculations, shop fabrication drawings and erection procedures shall be approved by the Engineer prior to fabrication and erection.

Prior to erection, the Contractor shall have a survey done of the substructure to ensure the alignment of the substructure, including steel support frames and towers, with the trusses.

**TRUSS, TOWER, AND FRAME REQUIREMENTS:**

**Trusses:**  
One simple span bridge truss, 210'-7<sup>5</sup>/<sub>8</sub>" from center of bearing-to-center of bearing, six simple span ramp trusses, with a total length not to exceed 71'-4" from face-to-face of steel frames, and two ramp trusses with a total length not to exceed 21'-7". The minimum clear height, from top of deck to bottom of steel member above or drainage system components shall be: 6'-8" on the ramps and landings, 10'-0" on the bridge. The clear distance between handrails on the bridge shall be 12'-0" and on the ramps shall be 8'-0".

**Towers and Frames:**  
Four frames comprising the ramp Frame A, four frames comprising the ramp Frame B, and two tower frames, one at each abutment. The frames dimensions shall not exceed the footing footprints shown in these plans.

The out-to-out dimensions of the truss shall be capable of being installed without any modifications to the footprint of the supporting substructure. The depth of the truss shall be no greater than 16 feet, when measured along the top of the truss superstructure to the bottom of the bearing.

The Contractor shall ensure the truss superstructure fits the substructure, considering, but not limited to, the footing details shown on sheets 8 through 10. Any modification of the substructure will require approval from the Engineer.

The Contractor shall be responsible for designing the substructure modifications (both structural and geometric) required for the superstructure the Contractor proposes. Plans reflecting any additional modifications shall be sealed by a Professional Engineer licensed to practice in the Commonwealth of Virginia and shall be approved by the Engineer prior to commencement of work at no additional cost to the City.

The Contractor shall arrange to have a representative of the bridge superstructure design company at the bridge site during erection to provide technical assistance in planning and erecting of the superstructure. This considers erection of the trusses, towers, and frames. Cost of the representative shall be included in the bid price for Prefabricated Bridge and Support Towers.

A structural steel erection plan shall be submitted for approval by the Engineer prior to any erection activities.

**STRUCTURAL STEEL:**

The Lump Sum bid price for Prefabricated Bridge and Support Towers shall include all components for the bridge truss, and bridge support towers, in place. This shall include: concrete decks and landings, with reinforcing, bearing assemblies, expansion devices, steel painting, concrete curbs, and all labor, tools, equipment, materials and incidentals necessary to complete the installation.

The Lump Sum bid prices for Prefabricated Ramps and Support Frames shall include all components for the ramp trusses, ramp support frames, in place. This shall include: concrete decks and landings, with reinforcing, bearing assemblies, concrete curbs, pedestrian fence with handrail, all steel painting and all labor, tools, equipment, materials and incidentals necessary to complete the installation.

The two bid prices for both the Prefabricated Bridge and Support Towers and the Prefabricated Ramps and Support Frames shall also include all costs associated with the submittals required for the work as described in the Plans.

The superstructure shall be fabricated and erected in accordance with Section 407 of the VDOT Specifications.

The shop drawings shall note the material specification and grade for all structural steel and hardware.

All structural steel shall be ASTM A709 Grade 50W and shall be painted.

Finish paint color shall be brown, Federal Standard Color No. 595-20059.

All truss members, including splice plates, floor beams and any other components designated as main load carrying members subject to calculated tension or stress reversal, shall meet the Zone 2 Charpy V Notch impact strength requirements as specified in Section 226 of the Specifications. Design/shop drawings shall clearly define those members or components requiring CVN testing.

Design/shop drawings shall clearly define those members or components considered fracture critical by AASHTO Guide Specifications for Fracture Critical Non-Redundant Steel Bridge Members.

Field splices of the truss and all floor beam connections shall be made using high strength bolts, and shall be designed as slip-critical connection with a Class C surface.

All fasteners, unless otherwise noted, shall be unpainted 7/8" diameter high strength bolts, ASTM F3125 Grade A325 Type 3 weathering steel, with one ASTM A563 Grade DH Type 3 weathering steel nut and one ASTM F436 Type 3 weathering steel hardened washer per bolt and manufactured in accordance with Section 226 of the Specifications. Bolts, nuts and washers shall be galvanized.

Fasteners shall be installed and tightened in accordance with Section 407 of the Specifications.

Floor beam spacing shall not exceed 12'-0".

**BRIDGE DECK:**

Concrete in bridge and ramp decks and in the frame landings shall be Low Shrinkage Class A4 modified in accordance with Section 217.12(a). Bridge and ramp concrete decks and concrete landings shall be a minimum of 7" thick, and be formed using corrugated steel decking. Steel decking shall meet the requirements of 90 psf pedestrian loading and Section 404.02 of the VDOT Specifications, and shall be installed in accordance with the Section 404.03 of the VDOT Specifications.

Deck design, including reinforcing, shall be the responsibility of the Contractor and shall be in accordance with AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017, and VDOT Modifications. All reinforcing steel shall be Corrosion Resistant Reinforcing (CRR), Class I, per Section 223 of the VDOT Specifications. Contractor shall submit deck slab design calculations and shop drawings to the Engineer for approval prior to construction.

**WELDING AND NON-DESTRUCTIVE TESTING:**

All fabrication, welding, non-destructive testing and visual testing, shall be in accordance with ANSI/AASHTO and AWS bridge welding code. Field welds on the galvanized corrugated bridge flooring (including plug welds), edge dams and splash guards, may be welded without removing the zinc coating. Welding shall be accomplished using electrodes and procedures acceptable to the Engineer.

**BRIDGE HANDRAIL:**

All posts and rails shall be welded or seamless steel galvanized pipe conforming to ASTM F1083, Schedule 40. Rods shall be ASTM A36 and shall be galvanized.

**BEARINGS AND ANCHOR BOLTS:**

Contractor shall be responsible for the design of bearing assemblies and anchor bolts in accordance with AASHTO LRFD Bridge Design Specifications 8th Edition, 2017; and VDOT Modifications for the bridge superstructure. Contractor shall submit bearing assembly and anchor bolt design calculations and shop drawings for approval prior to construction.

**DESIGN LOADS:**

Unfactored superstructure loads used to design the support towers, frames, and foundations are shown in the table below. All reactions are per truss bearing. Transverse and longitudinal reactions are normal to or parallel to Prefabricated Truss Bridge Constr. B, respectively. Vertical reactions are positive in the downward direction and negative for uplift.

UNFACTORED DESIGN LOADS (kips)			
Unfactored Load	Vertical Reaction	Transverse Reaction	Longitudinal Reaction
DC	129	-	-
PL	62	-	-
WS	+/- 28	24	-
WS <sub>UL-WW</sub>	-20	-	-
WS <sub>UL-LW</sub>	-8	15	-
TU	-	-	8

DC = Dead load from superstructure components and attachments (includes truss, concrete deck, pedestrian fence and railing).

PL = Pedestrian live load (90 psf).

WS = Wind load on superstructure.

WS<sub>UL-WW</sub> = Wind load superstructure due to uplift (20 psf).

WS<sub>UL-LW</sub> = Wind load superstructure on leeward bearing due to uplift (20 psf).

TU = Temperature load.

**PRELIMINARY PLANS**

**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
STEEL TRUSS AND SUPPORT FRAME GENERAL NOTES			
No.	Description	Date	Designed: SRC Drawn: ...GAE Checked: ...SJE
Revisions			Plan No.
			Sheet No.
			March 2026
			15 of 31

JOHNSON, MIRAMIRAN & THOMPSON HERNDON, VA STRUCTURAL ENGINEER
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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	16

Notes:

For drainage details, see sheets 19 and 20.

For the bridge transverse section, see sheet 13.

Structural steel for the joint assembly shown on this sheet shall be ASTM A36 and shall be fabricated in accordance with Section 407 of the Specifications and thermal spray coated in accordance with Section 411 of the Specifications.

Flathead screws shall be ASTM A276, Type 304 stainless steel.

Sealer shall be installed in one continuous piece except for sidewalk and barrier areas.

Joint width 'A' is the final joint width of the cured concrete when placed at 60°F. the width 'A' shall be increased or decreased for every 10°F temperature drop or rise respectively by  $t$ . When formed, joint width 'A' shall be reduced by the amount  $\Delta$  to compensate for the opening of the joint caused by the deflection of the beam when the deck concrete is placed. If the joint is formed so that the form material will not move and the joint will not open as the deck concrete is placed, then adjustment  $\Delta$  shall not be made.

$$\text{Fixed Bearing: } \Delta = \frac{4d}{L} \Delta's$$

$$\text{Expansion Bearing: } \Delta = \frac{d}{L} \Delta's$$

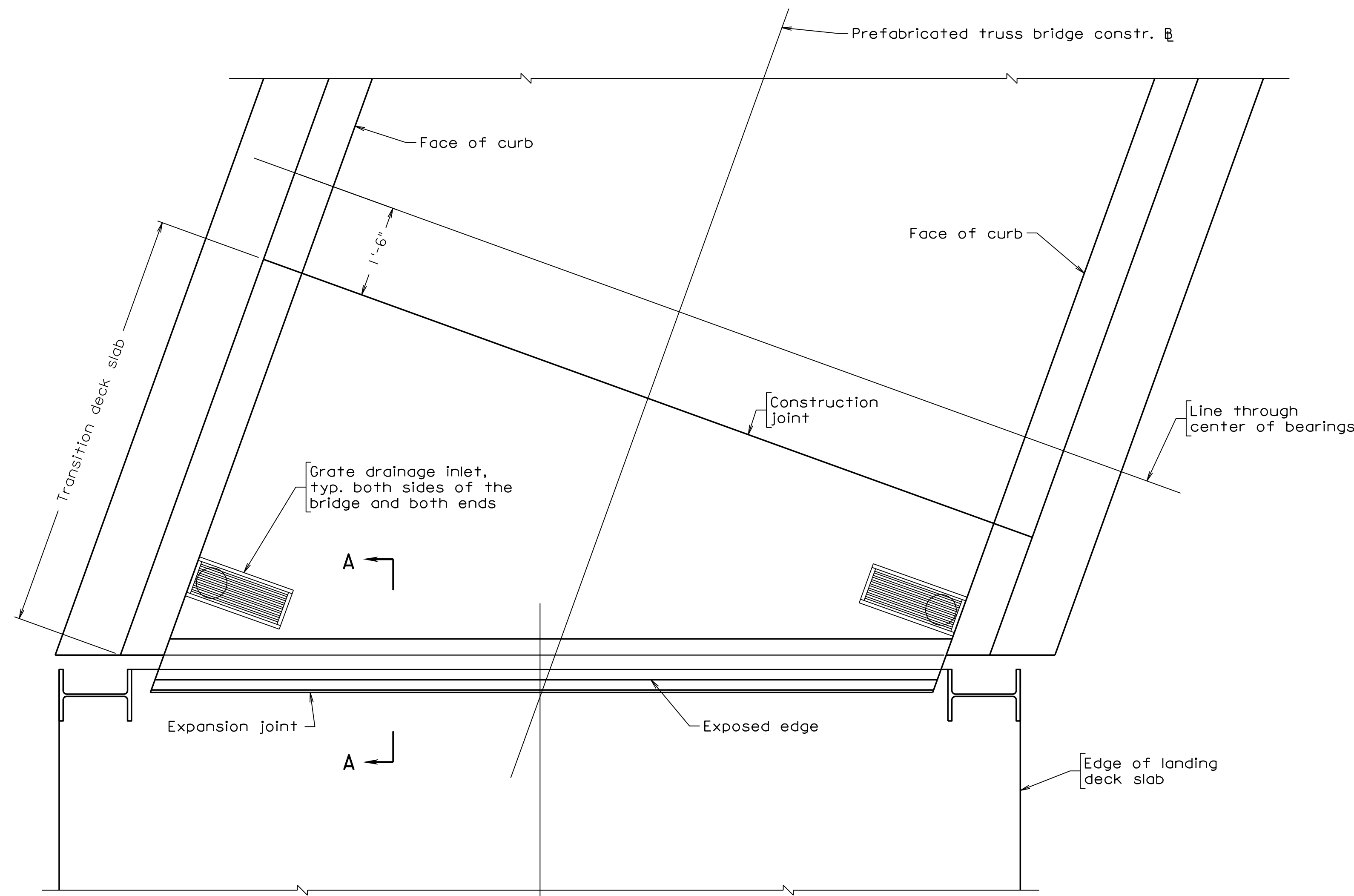
$d$  = Total rotation depth from top of slab to point of rotation on bearing.

$\Delta's$  = Deflection of beam at midspan from dead load of concrete deck slab and bolsters. (See Dead Load Deflection Diagram.)

$L$  = Length of span.

$\Delta$  = Compensation for joint opening due to deflection of bridge during placement of concrete deck slab and bolsters for the last span placed adjacent to the joint.

All the dimensions are in the same units.



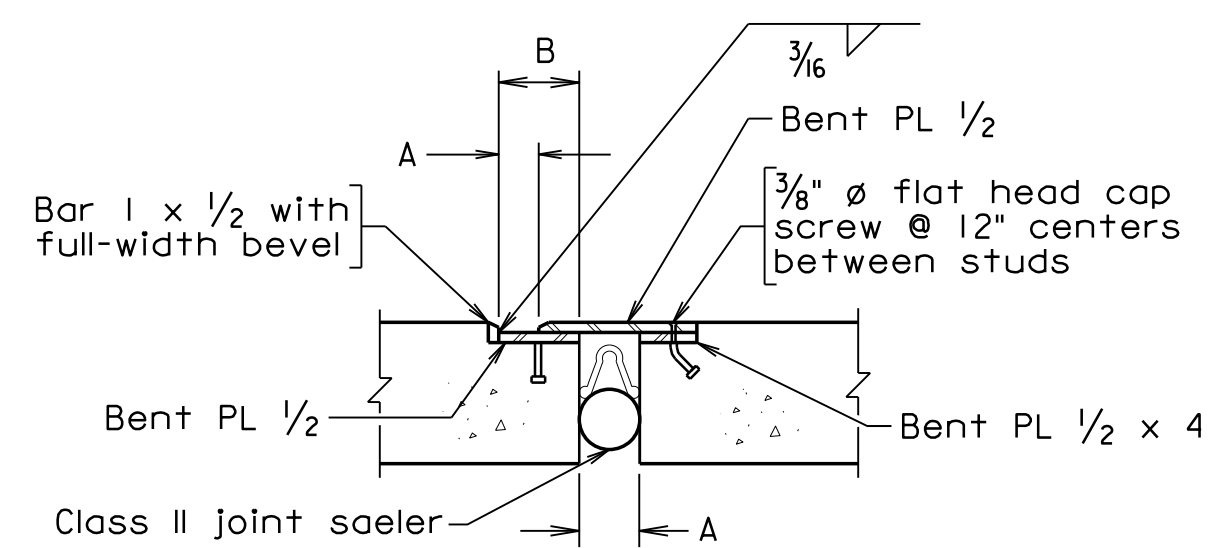
**END OF DECK PARTIAL PLAN**

Steel truss elements, fence, and handrails not shown for clarity.  
Scale: 3/4" = 1'-0"

**Expansion Joint Dimensions**

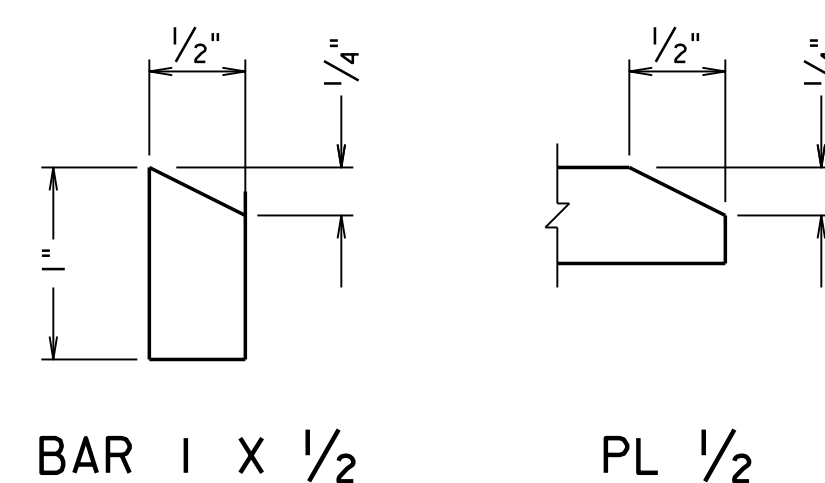
Temp.	A	B
120°F	1"	2"
100°F	1 1/2"	2 1/2"
80°F	2"	3"
60°F	2 1/4"	3 1/4"
40°F	2 1/2"	3 1/2"
20°F	3"	4"
0°F	3 1/2"	4 1/2"

Make linear interpolation for temperatures between those in the table.



**SECTION A-A - EXPANSION JOINT**

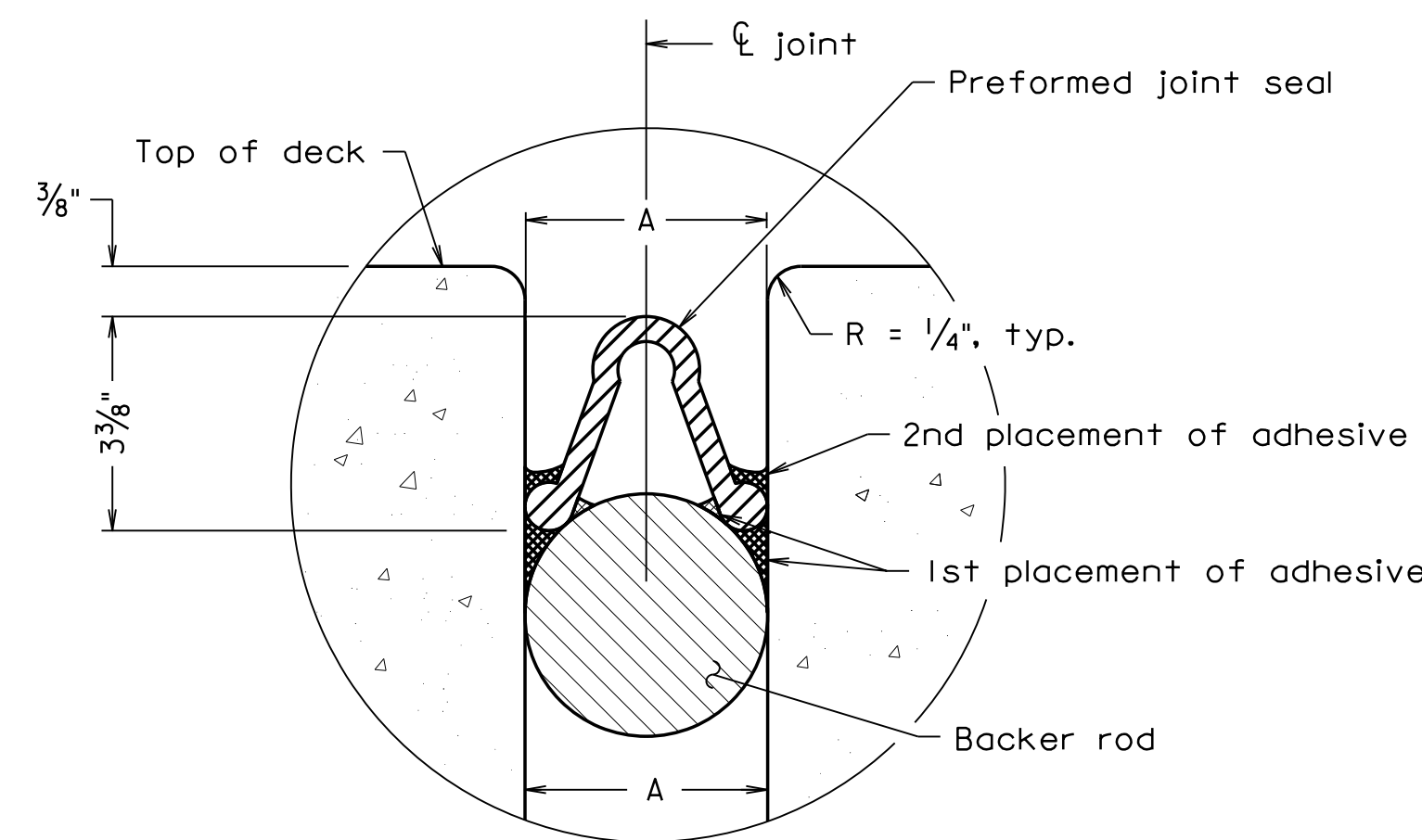
Not to scale.



**BAR 1 X 1/2 PL 1/2**

**BEVEL DETAILS**

Not to scale.



**CLASS II ADHESIVE JOINT SEALER DETAIL**

Not to scale.

**PRELIMINARY PLANS**

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

			COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
			STRUCTURE AND BRIDGE DIVISION			
			<b>JOINT AND TRANSITION SLAB DETAILS</b>			
No.	Description	Date	Designed: SRC	Date	Plan No.	Sheet No.
			Drawn: GAF	March 2026		16 of 31
			Checked: JLF			
Revisions						

North Woodbridge\_16.dgn

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	17

Notes:

Plan dimensions shown are measured in the respective horizontal and vertical planes.

The Contractor shall determine all dimensions and details necessary for installation.

All concrete shall be Class A4.

All chamfers for concrete shall be 3/4".

All reinforcing steel shall be Corrosion Resistant Reinforcing Steel, Class I except as indicated in the reinforcing steel schedule.

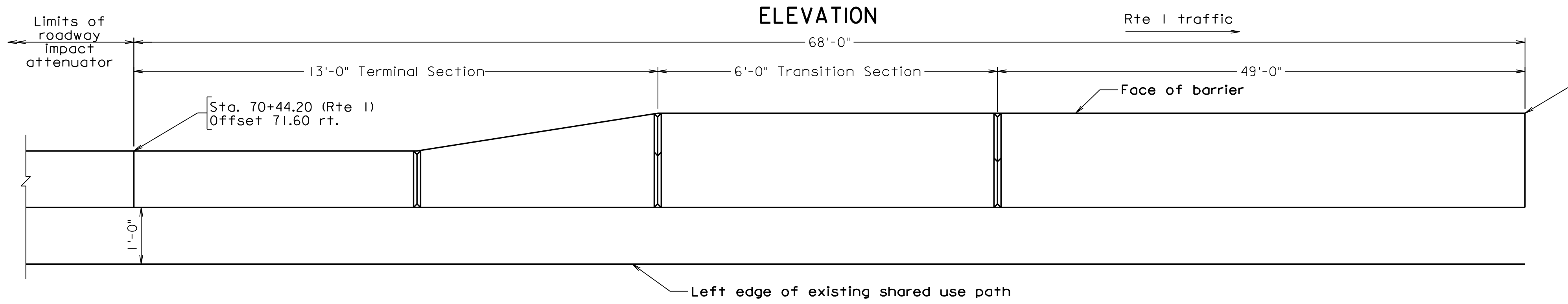
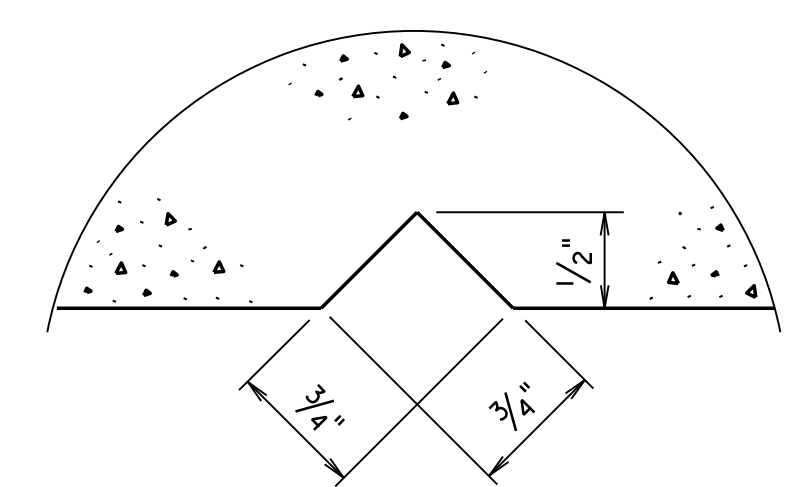
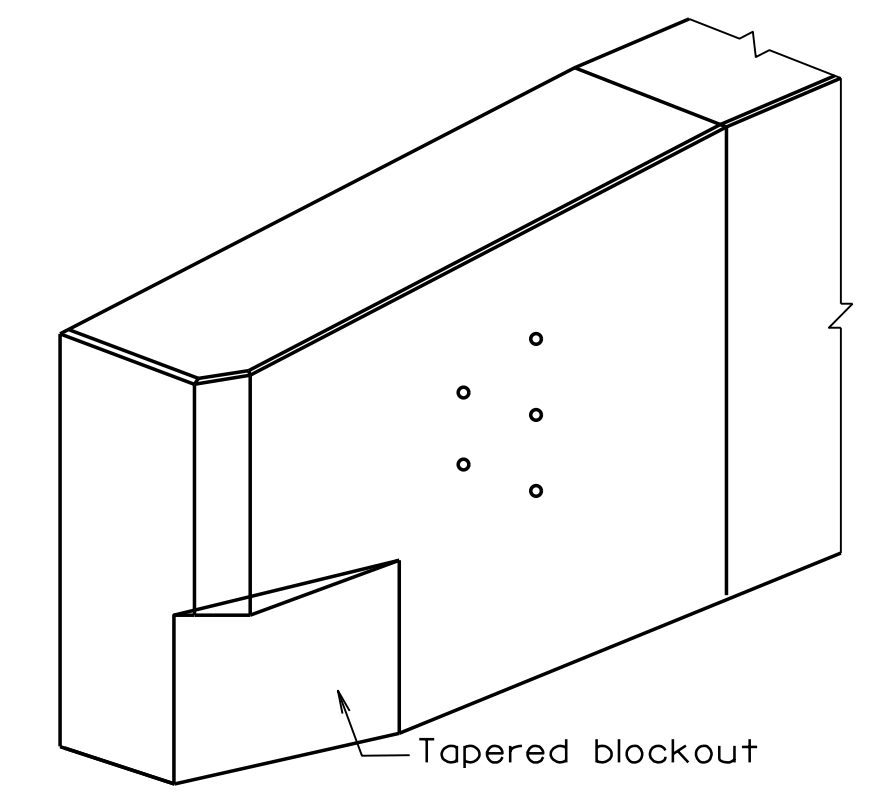
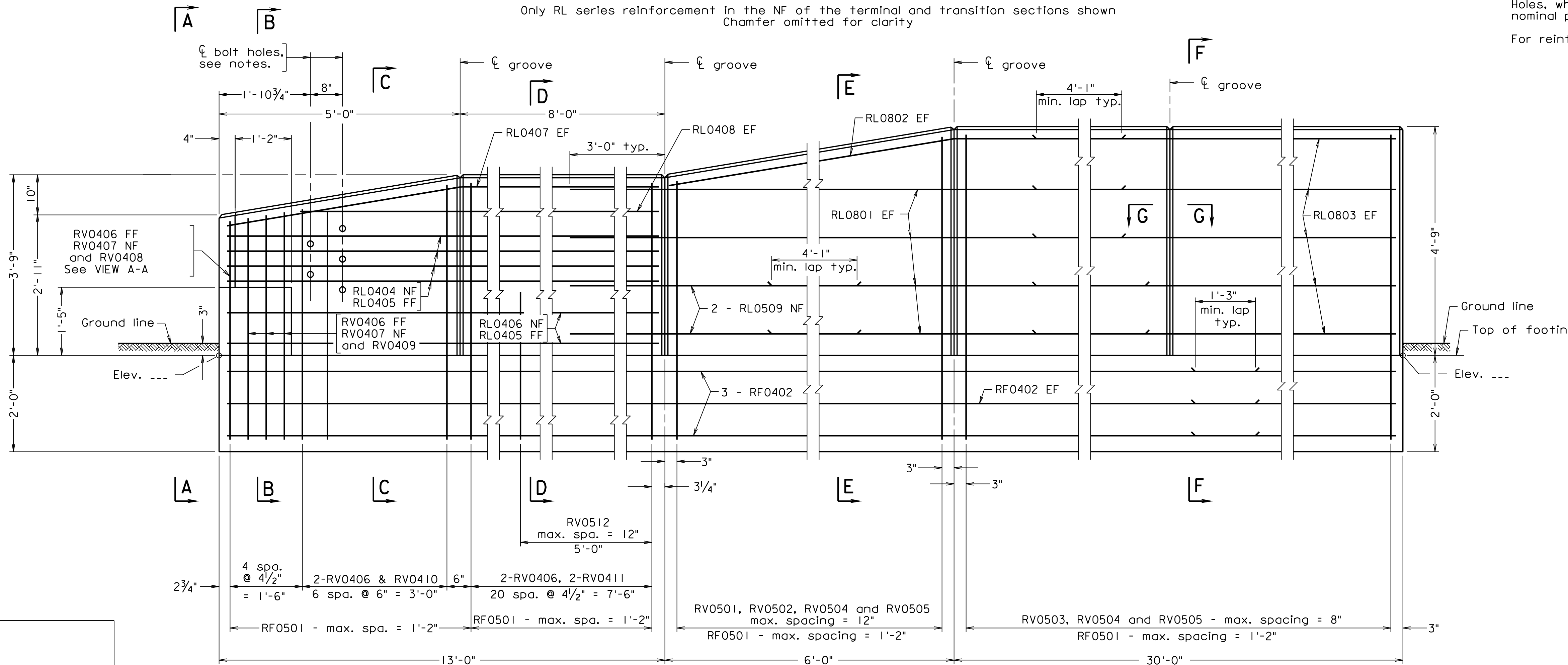
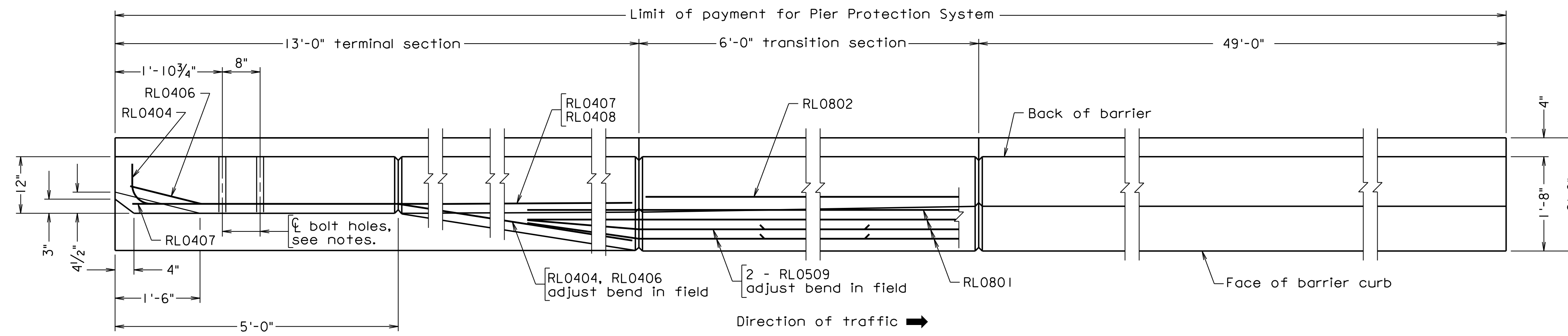
Spacing of grooves shall be approximately 8'-0".

Barrier delineator size, color and spacing shall be in accordance with the Specifications.

Terminal sections are detailed to take guardrail attachment GR-F0A-5.

Holes, where shown, shall be formed with sleeves of 1/4" diameter nominal pipe.

For reinforcing steel schedule and details not shown, see sheet 18.



Sta. 70+92.76 (Rte 1)  
Offset 71.80 rt.

**PRELIMINARY PLANS**  
THESE PLANS NOT TO BE USED FOR CONSTRUCTION

**BRIDGE AND RAMP SUPPORT FRAME ELEVATIONS - 2**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>PIER PROTECTION SYSTEM</b> 54" HIGH (BPPS-1A)			
No.	Description	Date	Designed: SRC Drawn: GAC Checked: JJE
	Revisions	March 2026	Plan No. 17 of 31

North Woodbridge-17.dgn

BPPS-1A 10-31-2025

JOHNSON, MIRIRAN & THOMPSON  
HERNDON, VA  
STRUCTURAL ENGINEER

Sealed and Signed by:  
Junyi Meng  
Lic. No. 033572  
On the date of  
October 31, 2025

A copy of the original  
sealed and signed  
drawing is on file in the  
Central Office.

VDOT S&B DIVISION  
RICHMOND, VA  
STRUCTURAL ENGINEER

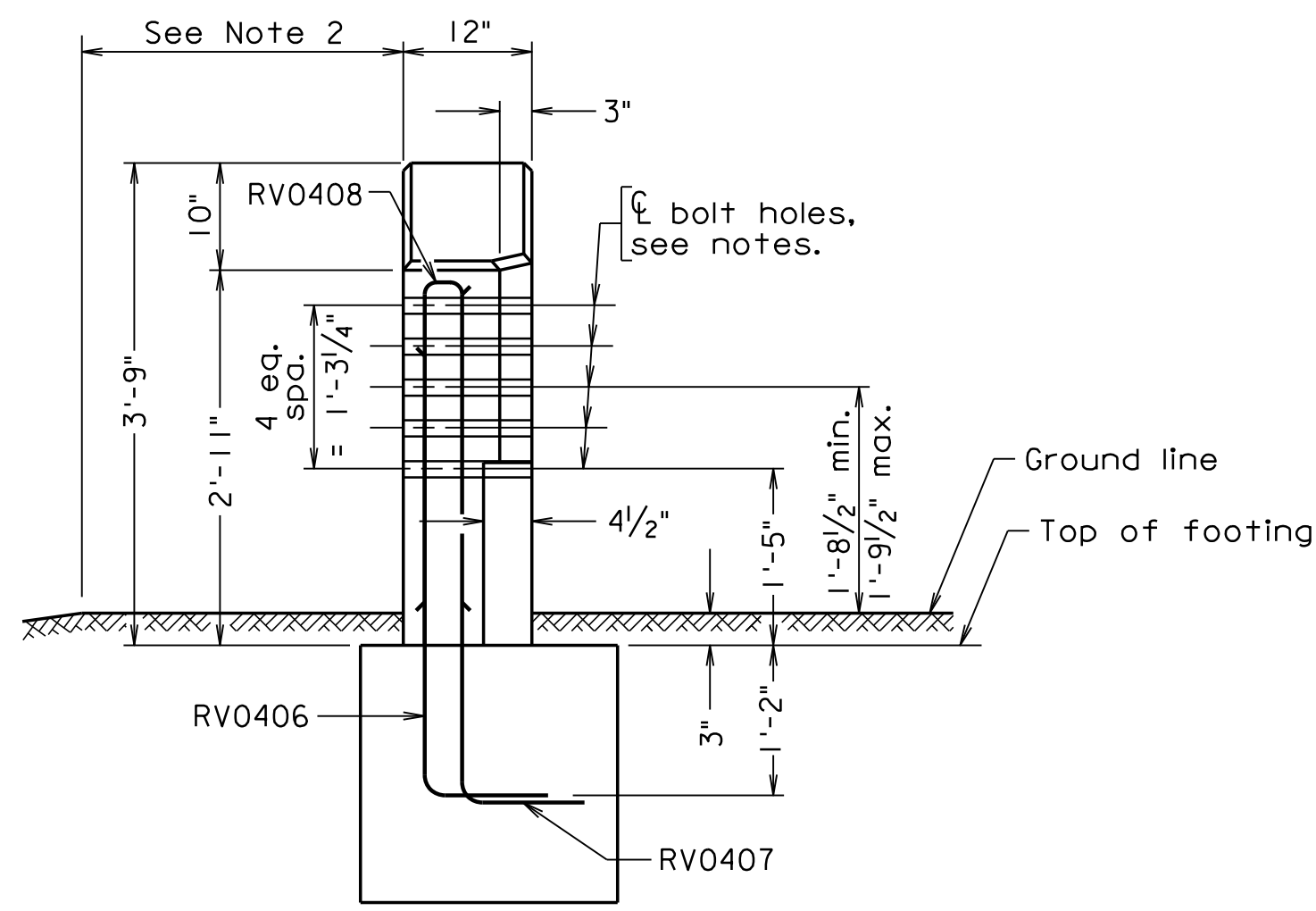
Scale: 3/4" = 1'-0" unless otherwise shown

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	18

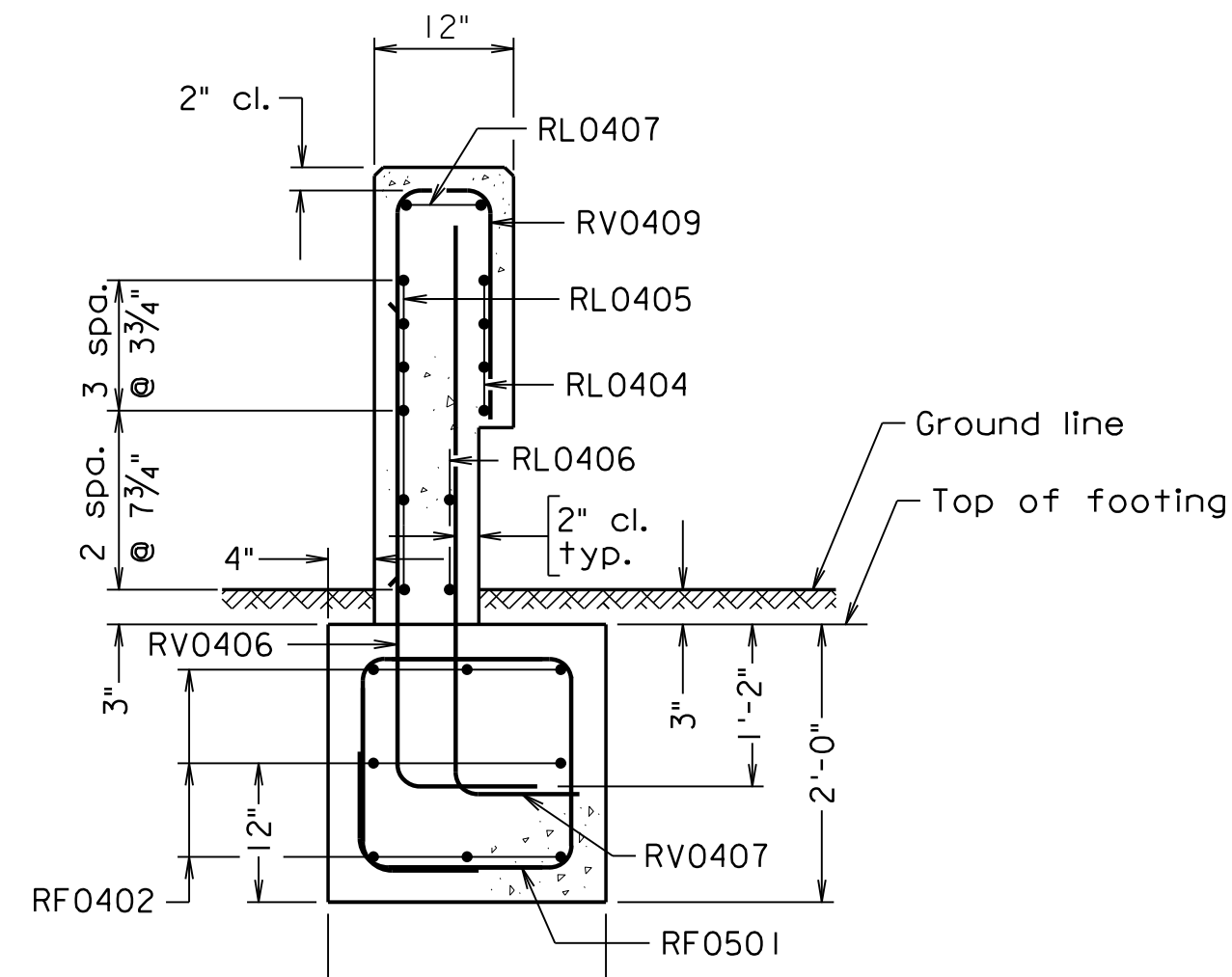
Notes:

1. Footing dimensions and RF series bars are typical in all sections, but only labeled in SECTION B-B.
2. 2'-6" min. from the break line of embankment unless footing adjacent to a permanent structure.



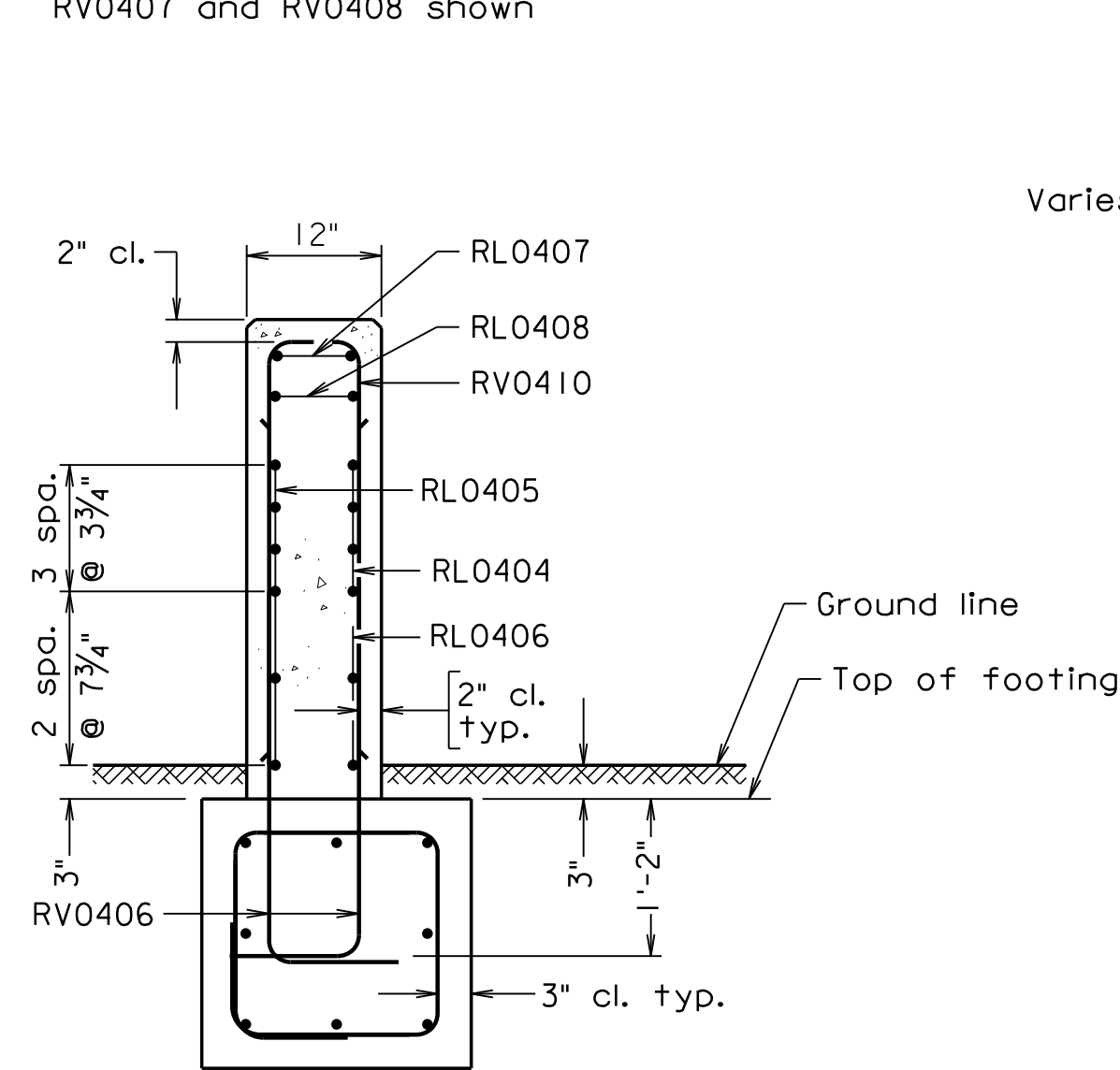
VIEW A-A

For clarity, only bars RV0406, RV0407 and RV0408 shown

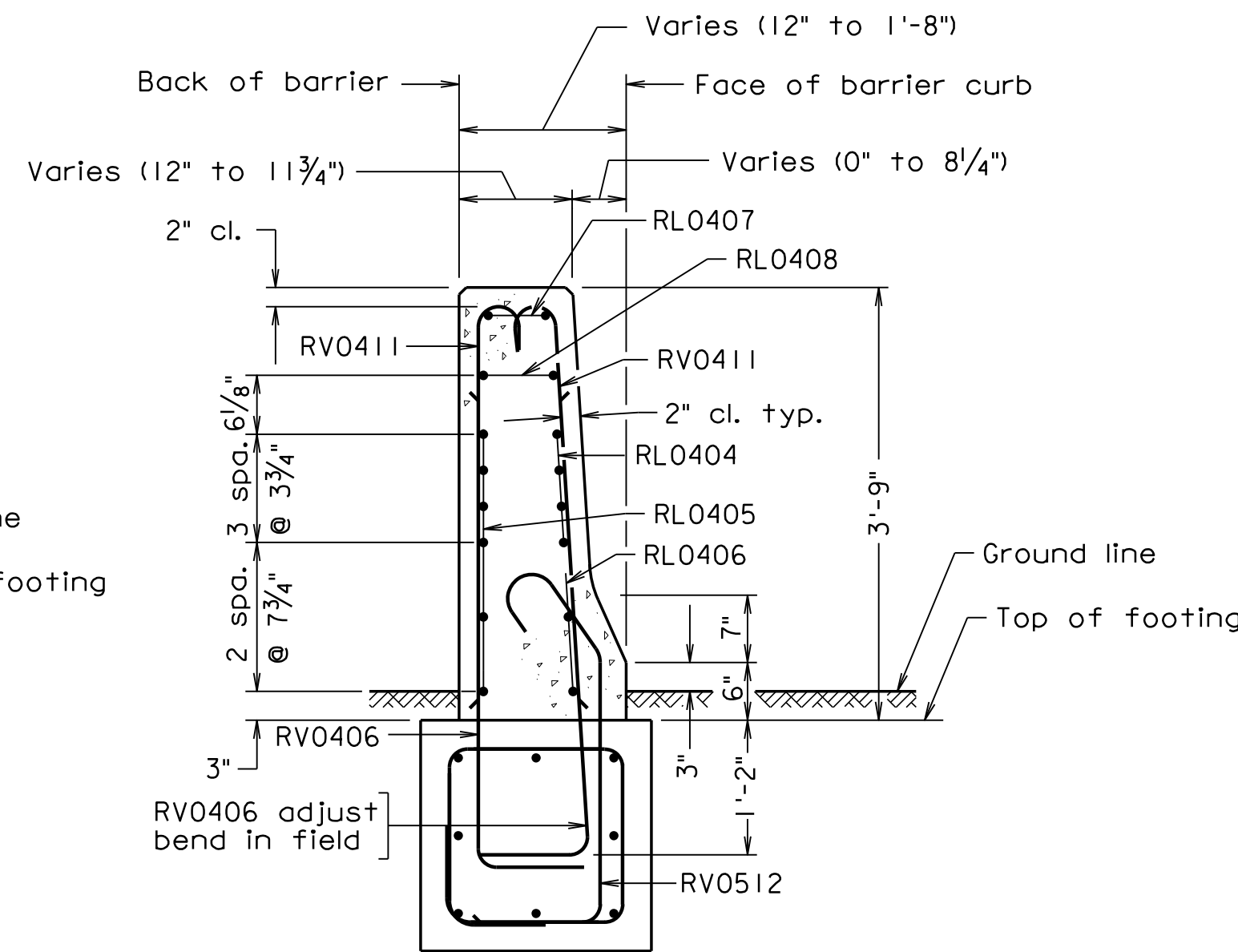


SECTION B-B

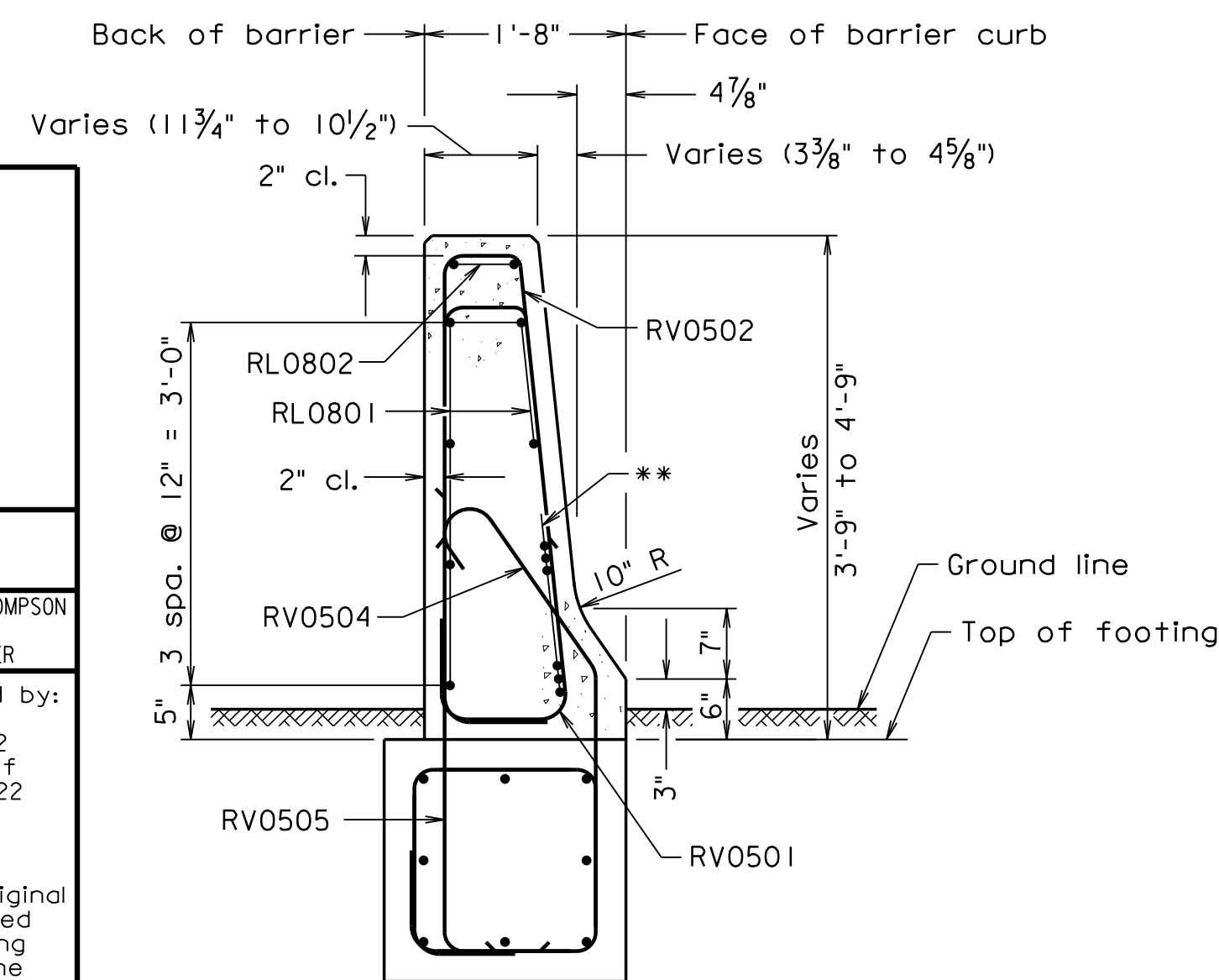
Bolt holes not shown



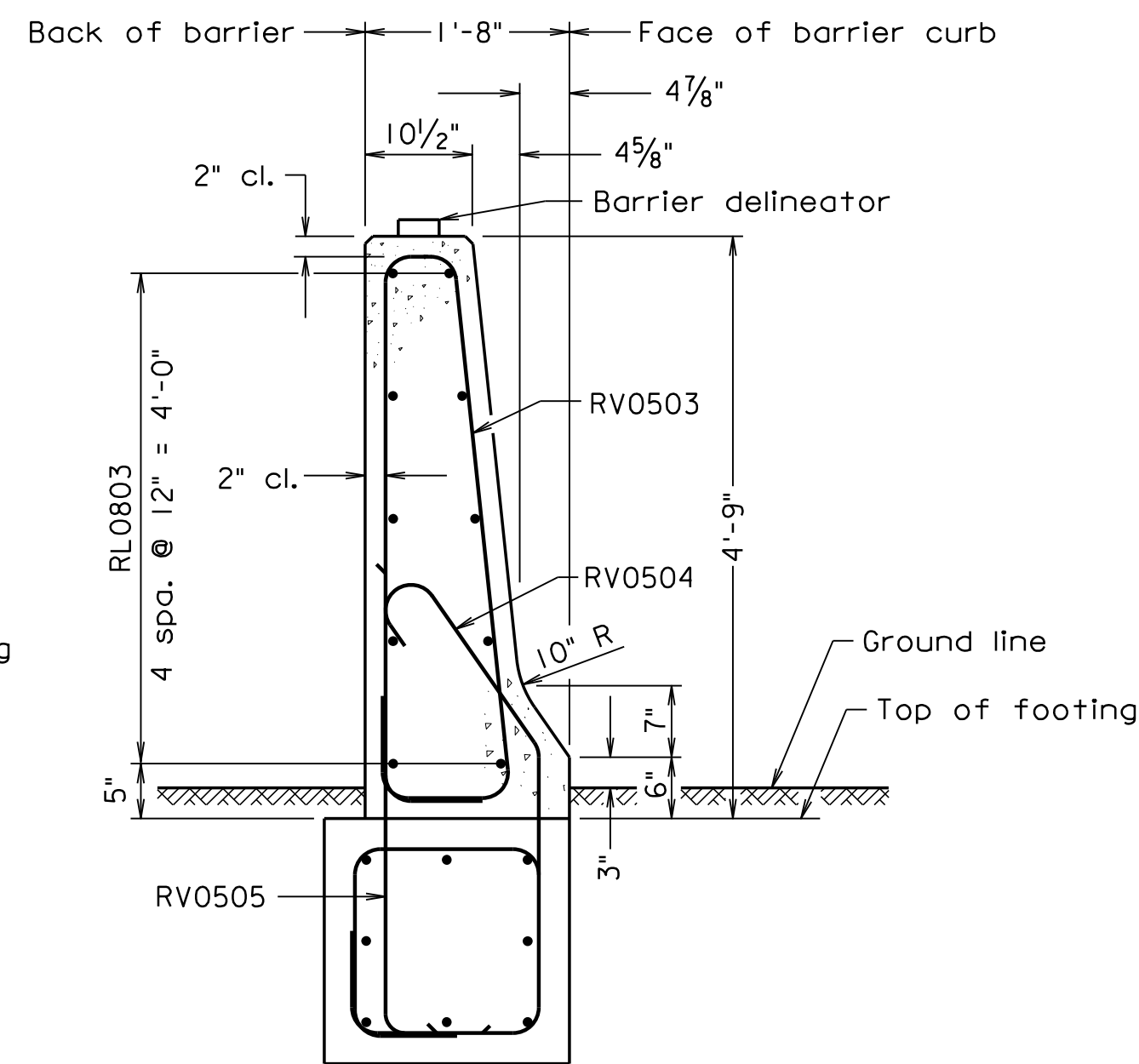
SECTION C-C



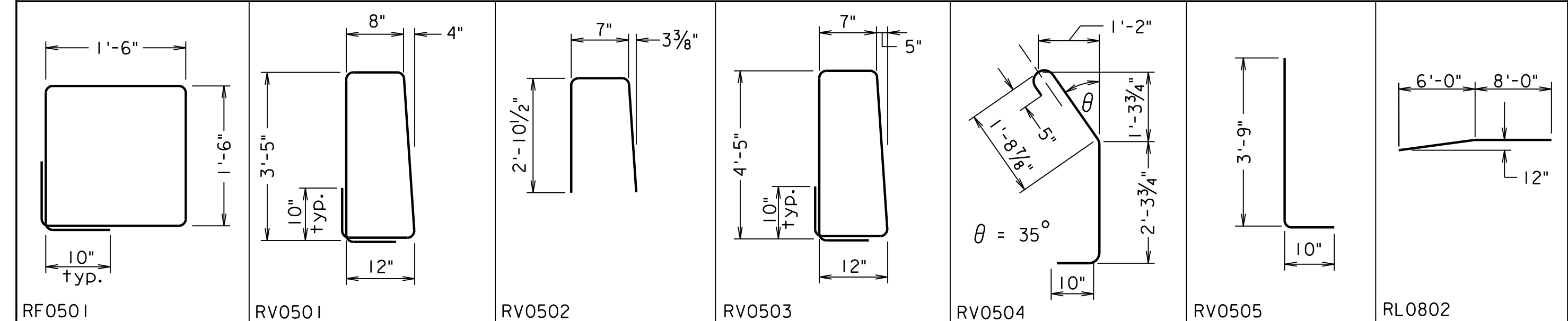
SECTION D-D



SECTION E-E



REINFORCING STEEL SCHEDULE



Mark	No.	Size	Pin $\phi$	Length	Location
RV0501	#5	3 3/4"		9'-7"	Barrier
RV0502	#5	3 3/4"		6'-2"	Barrier
RV0503	#5	3 3/4"		11'-6"	Barrier
RV0504	#5	3 3/4"		5'-4"	Barrier/footing
RV0505	#5	3 3/4"		4'-6"	Barrier/footing
RV0406	#4	3"		3'-8"	Terminal wall/footing
RV0407	#4	3"		4'-4"	Terminal wall/footing
RV0408	#4	2"		5'-8"	Terminal wall
RV0409	#4	3"		from 4'-7" to 4'-10"	Terminal wall
RV0410	#4	3"		from 6'-7" to 7'-7"	Terminal wall
RV0411	#4	3"		4'-1"	Terminal wall
RV0512	#5	3 3/4"		4'-7"	Terminal wall/footing
RL0801	#8			17'-0"	Barrier/Terminal wall
RL0802	#8	6"		14'-1"	Barrier
RL0803	#8				Barrier
RL0404	#4	6"		13'-0"	Terminal wall
RL0405	#4			12'-8"	Terminal wall
RL0406	#4	3"		12'-8"	Terminal wall
RL0407	#4	3"		12'-9"	Terminal wall
RL0408	#4			11'-5"	Terminal wall
RL0509	#5	3 3/4"		8'-0"	Barrier/Terminal wall
*RF0501	#5	3 3/4"		7'-1"	Footing
*RF0402	#4				Footing

Dimensions in bending diagram are out-to-out of bars.

\*All RF series bars shall be ASTM A615, Grade 60.

PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
PIER PROTECTION SYSTEM 54" HIGH (BPPS-2A)			
No.	Description	Date	Designed: SRS Drawn: GAC Checked: SJE
	Revisions		Date: March 2026
			Plan No. Sheet No. 18 of 31

Scale: 3/4" = 1'-0" unless otherwise shown

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10-31-2022

BPPS-2A

JOHNSON, MIRIRAN & THOMPSON  
HERNDON, VA  
STRUCTURAL ENGINEER

Sealed and Signed by:  
Junyi Meng  
Lic. No. 033572  
On the date of  
October 24, 2022

A copy of the original  
sealed and signed  
drawing is on file in the  
Central Office.

VDOT S&B DIVISION  
RICHMOND, VA  
STRUCTURAL ENGINEER

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	19

Notes:

Steel pipe for collector downspout pipes shall be ASTM A53 Schedule 40 black seamless steel pipe. Steel plates, bars, and rods shall be ASTM A36, and be hot dipped galvanized. All bolts shall be ASTM A325, Type 1.

Welded frame, grate and downspout pipe assembly to include all steel plates, bar studs, bolts and nuts shall be hot dipped galvanized after fabrication.

For ramp deck landings and bridge deck elevations, see sheets 6, 7 and 14.

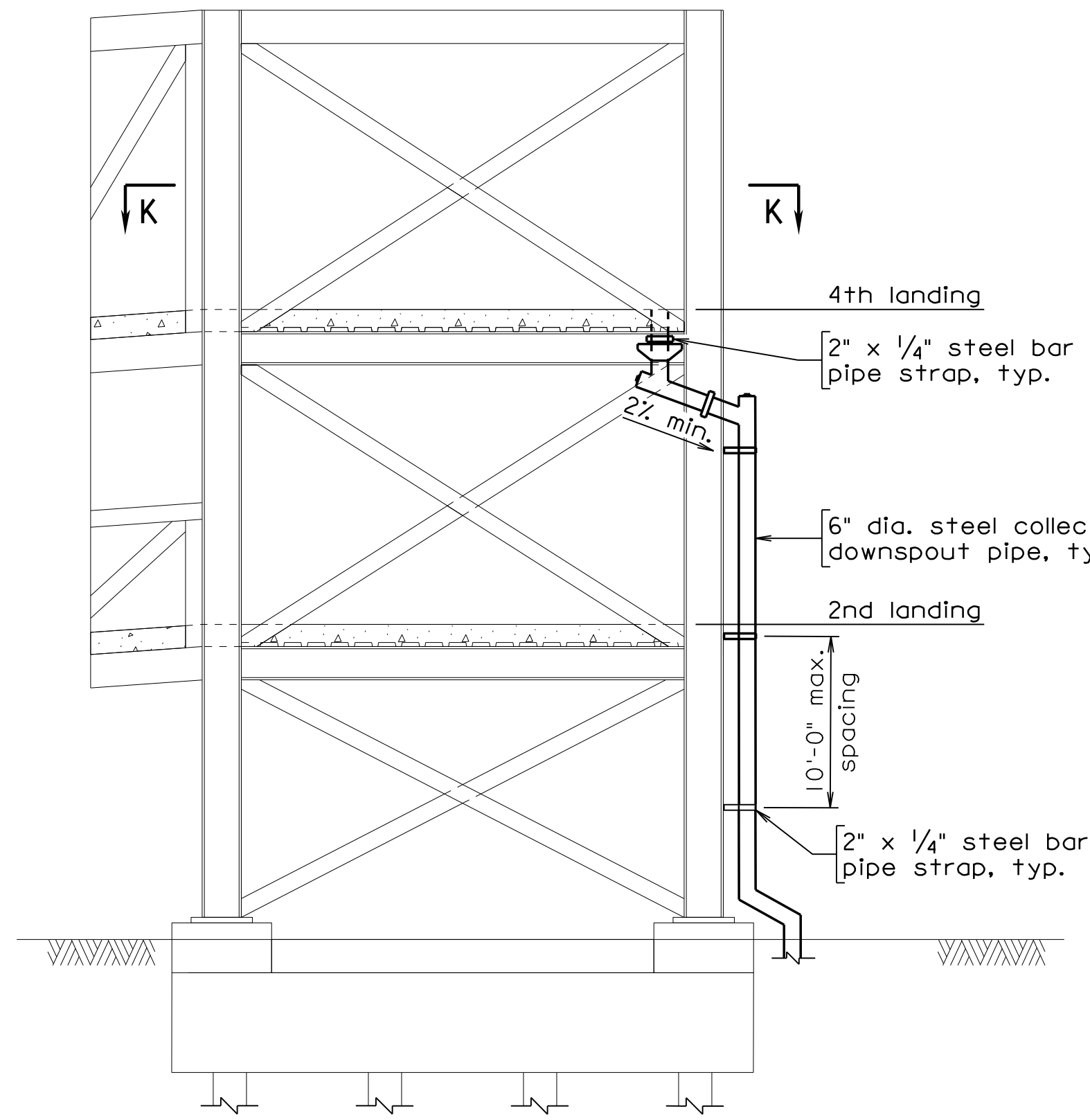
For locations of grate drainage inlets, see sheets 6, 7 and 14.

For bridge and ramp transverse sections, see sheet 13.

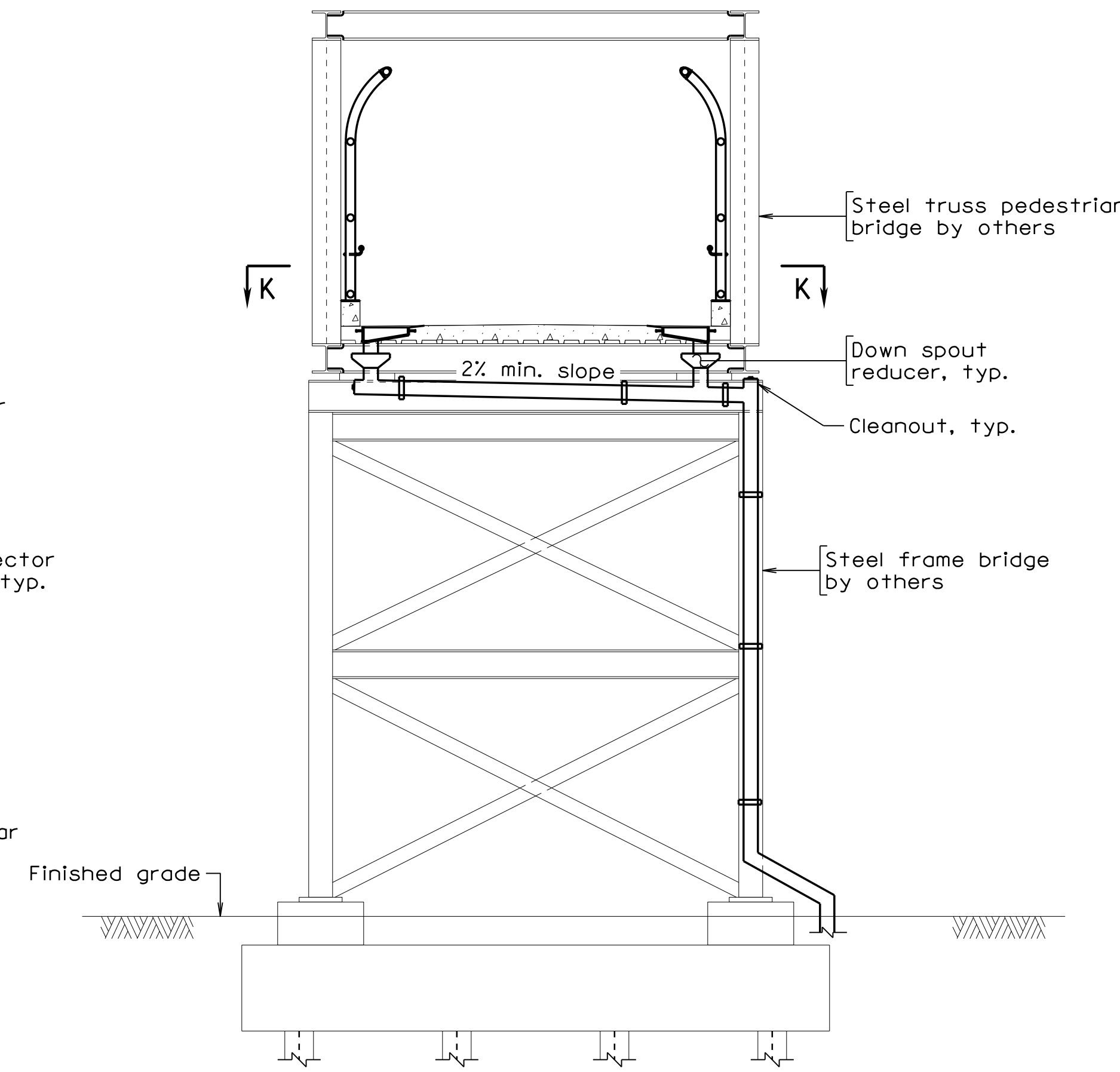
For additional drainage assembly details, see sheet 20.

For outfall locations of drainage pipes, see roadway plans.

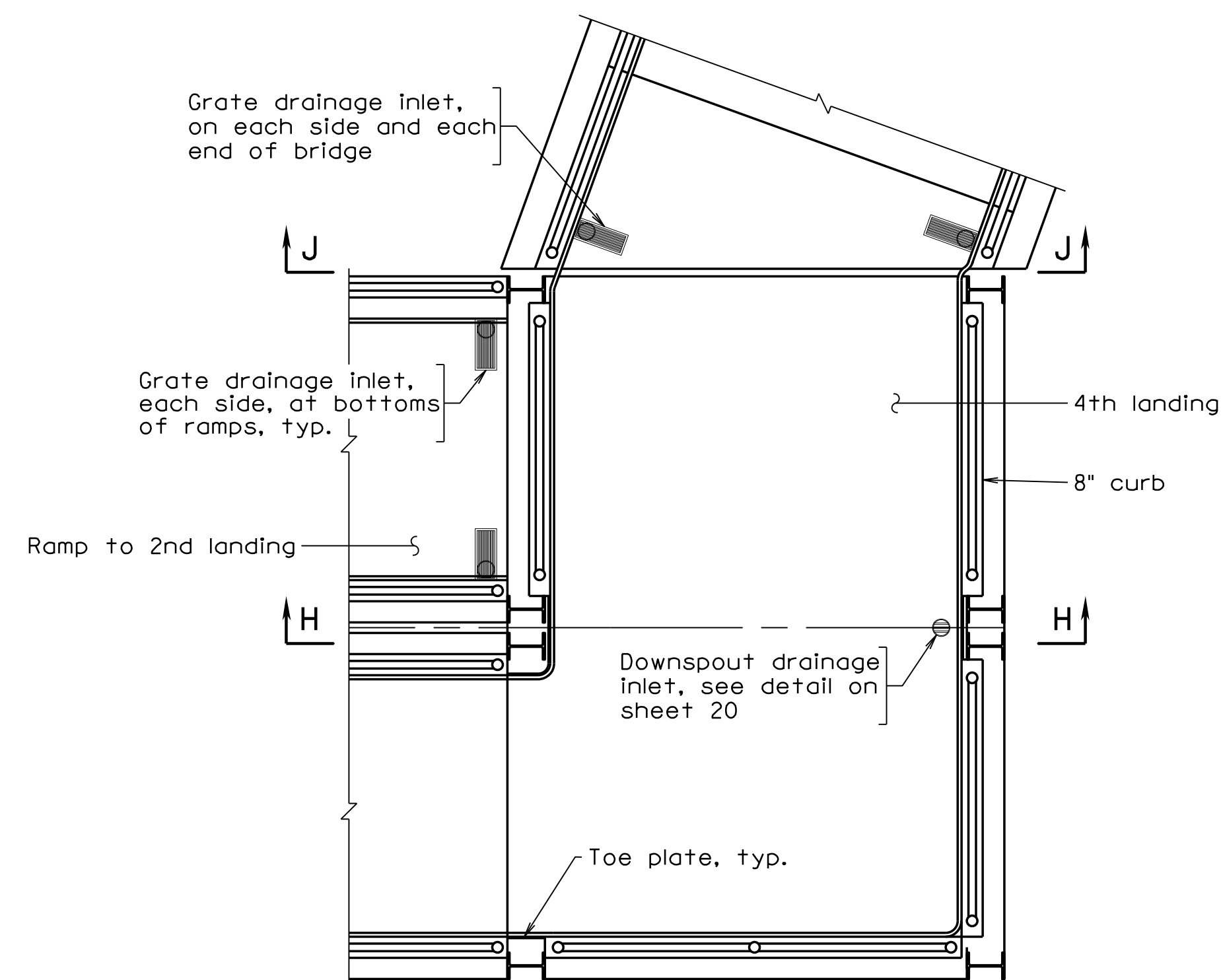
Costs for furnishing and installing the deck slab drainage system shown shall be included as a lump sum bid item as shown on the Estimated Quantities Sheet.



SECTION H-H - FRAME B  
Scale: 1/4" = 1'-0"



SECTION J-J - ABUTMENT TOWER  
Scale: 1/4" = 1'-0"



VIEW K-K - PARTIAL PLAN  
Scale: 1/4" = 1'-0"

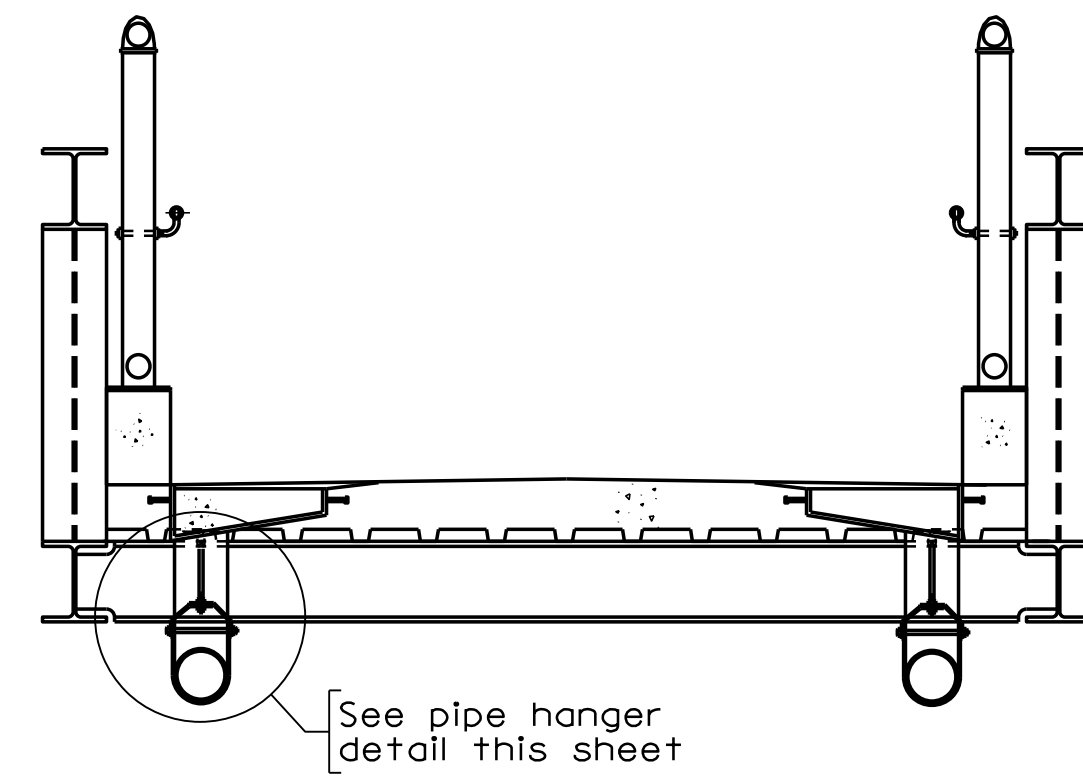
**PRELIMINARY PLANS**  
**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>DRAINAGE ASSEMBLY DETAILS - I</b>			
No.	Description	Date	Sheet No.
	Revisions	March 2026	19 of 31

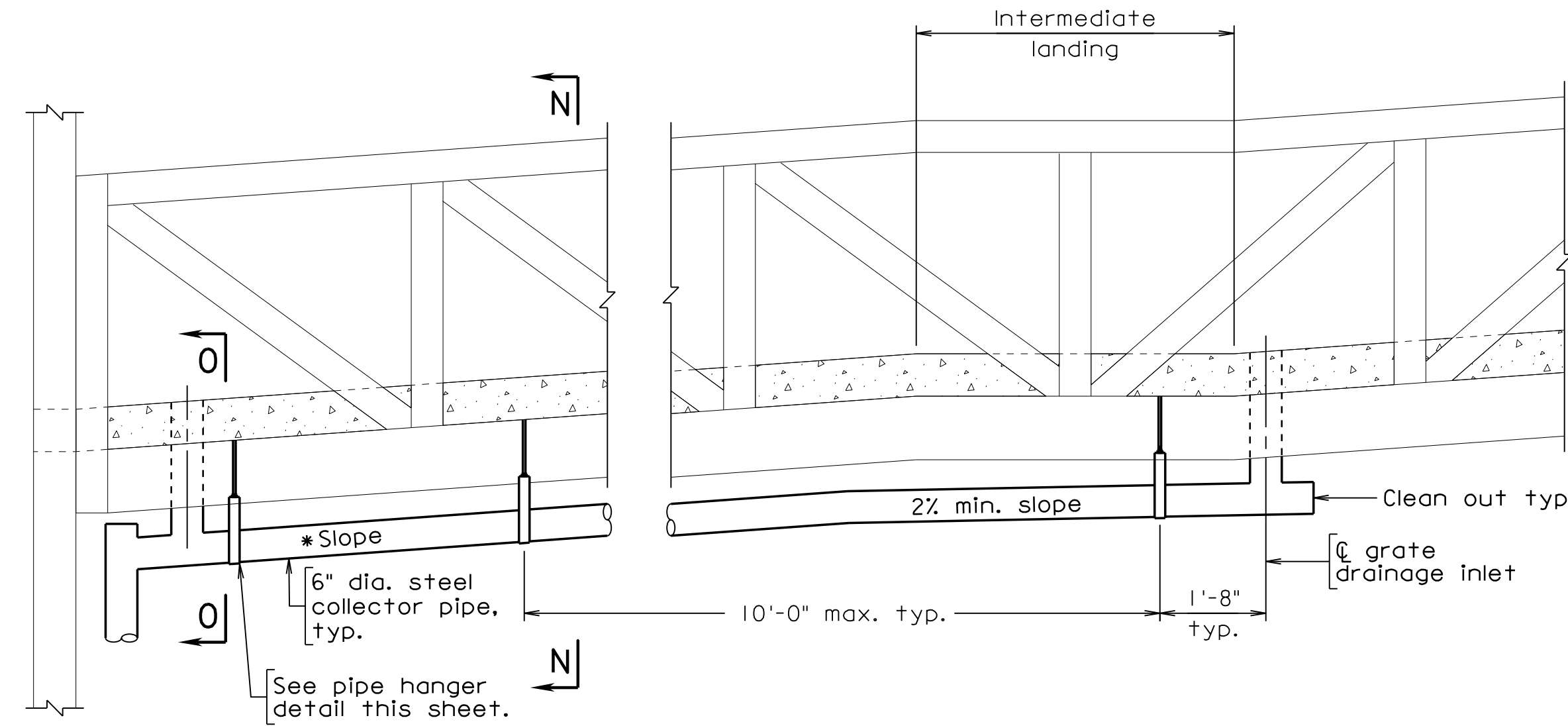
North Woodbridge.dgn

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	20

Notes:  
 For additional drainage assembly details, see sheet 19.  
 • Drain pipe slopes shall be a minimum of 2%, except below the sloped portion of the ramps, which shall match the ramp slope.

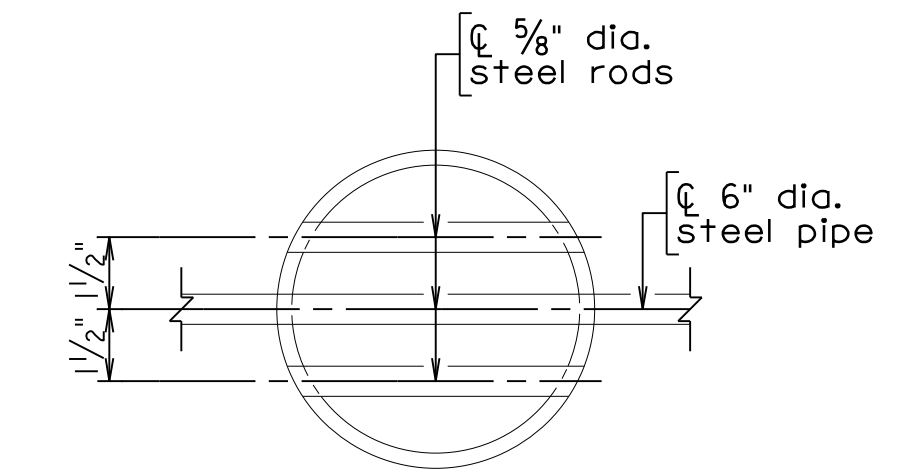


**SECTION N-N**  
 Scale: 1" = 1'-0"

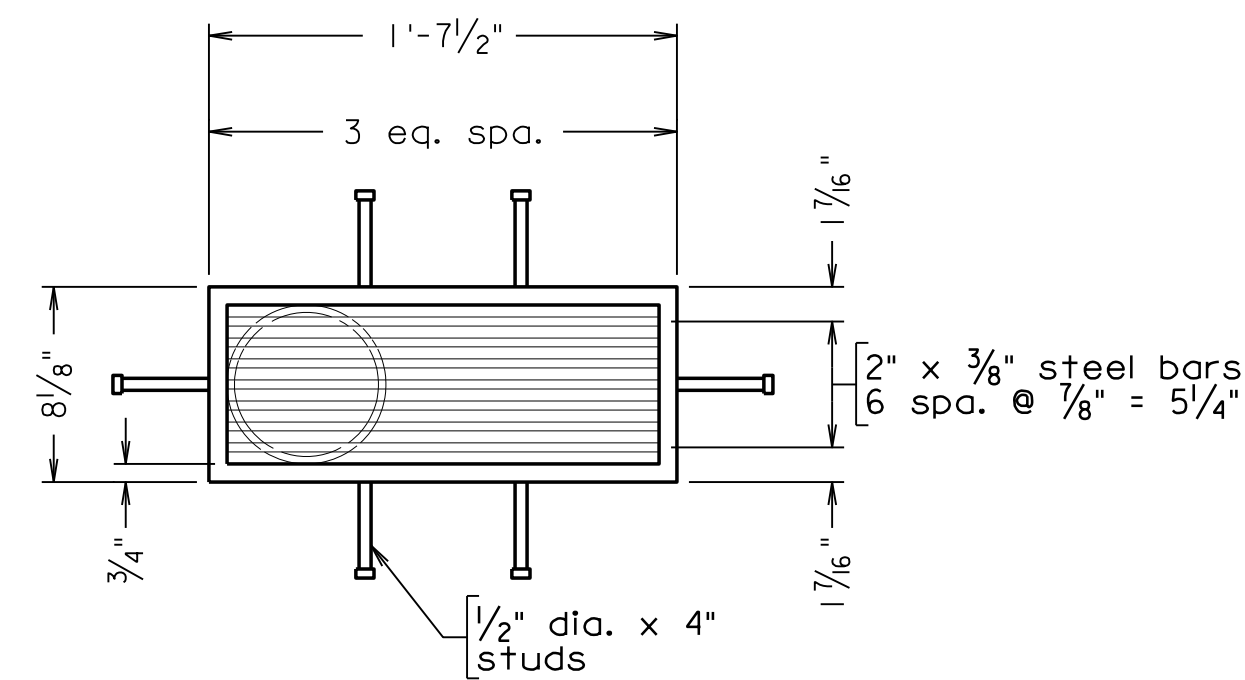


**RAMP PARTIAL ELEVATION**

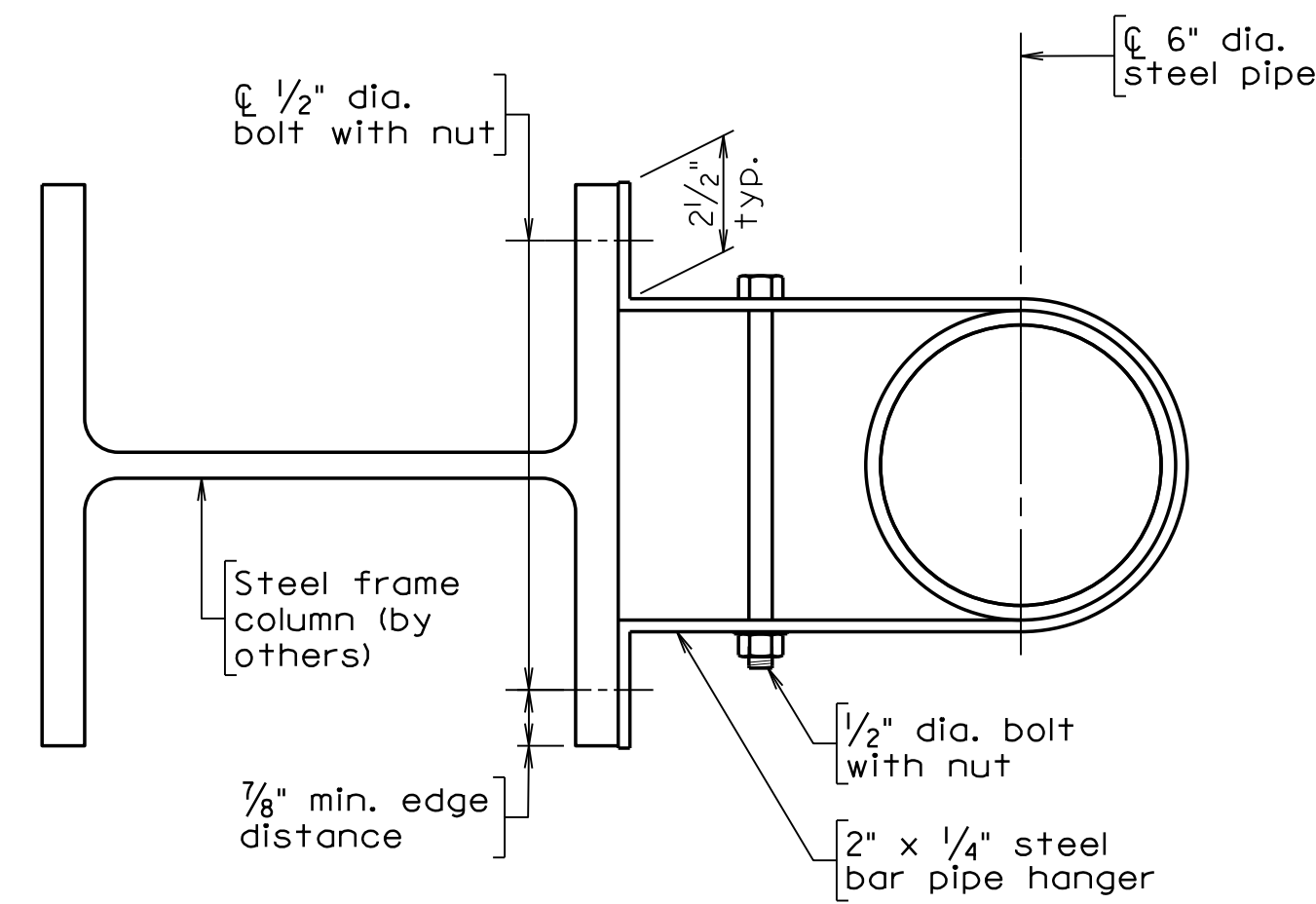
Pedestrian fence and handrail not shown for clarity.  
 Scale: 1" = 1'-0"



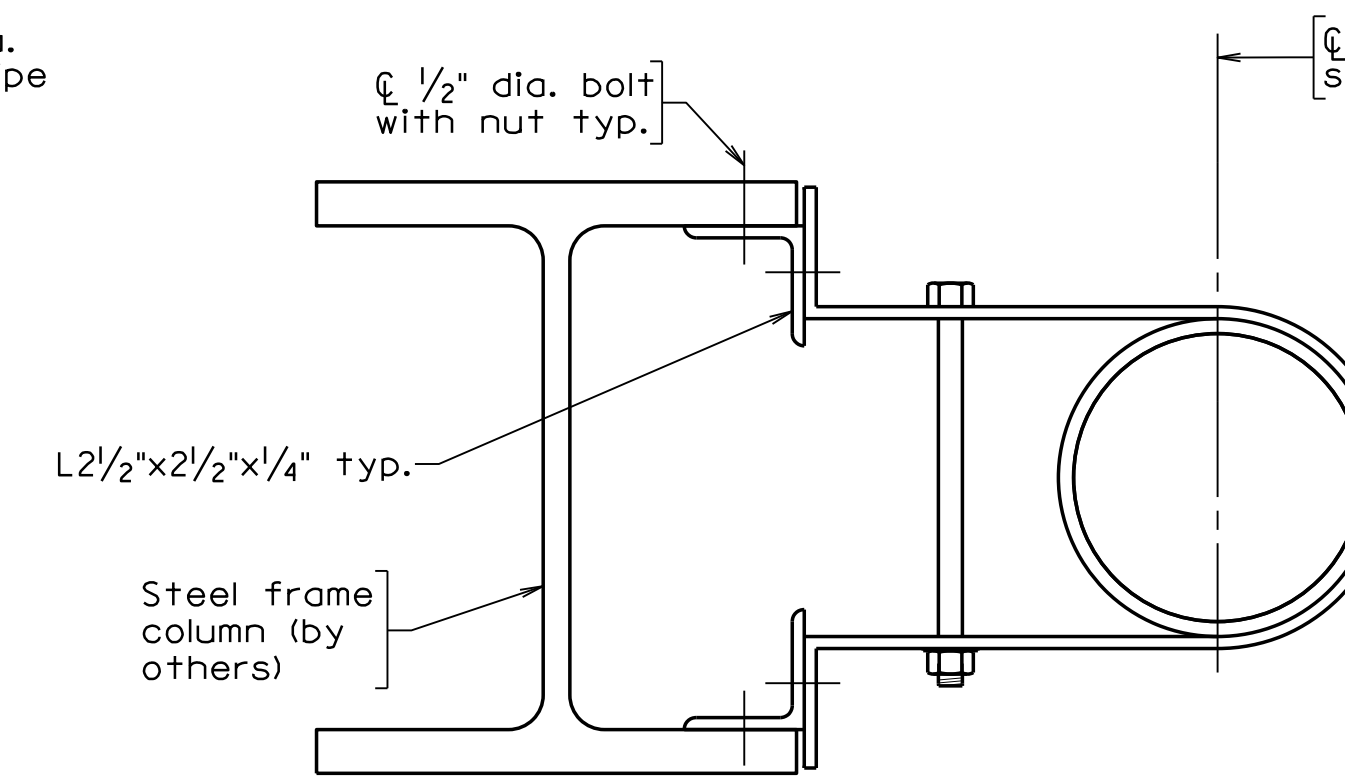
**DOWNSPOUT DRAINAGE INLET OPENING DETAIL**  
 Scale: 3" = 1'-0"



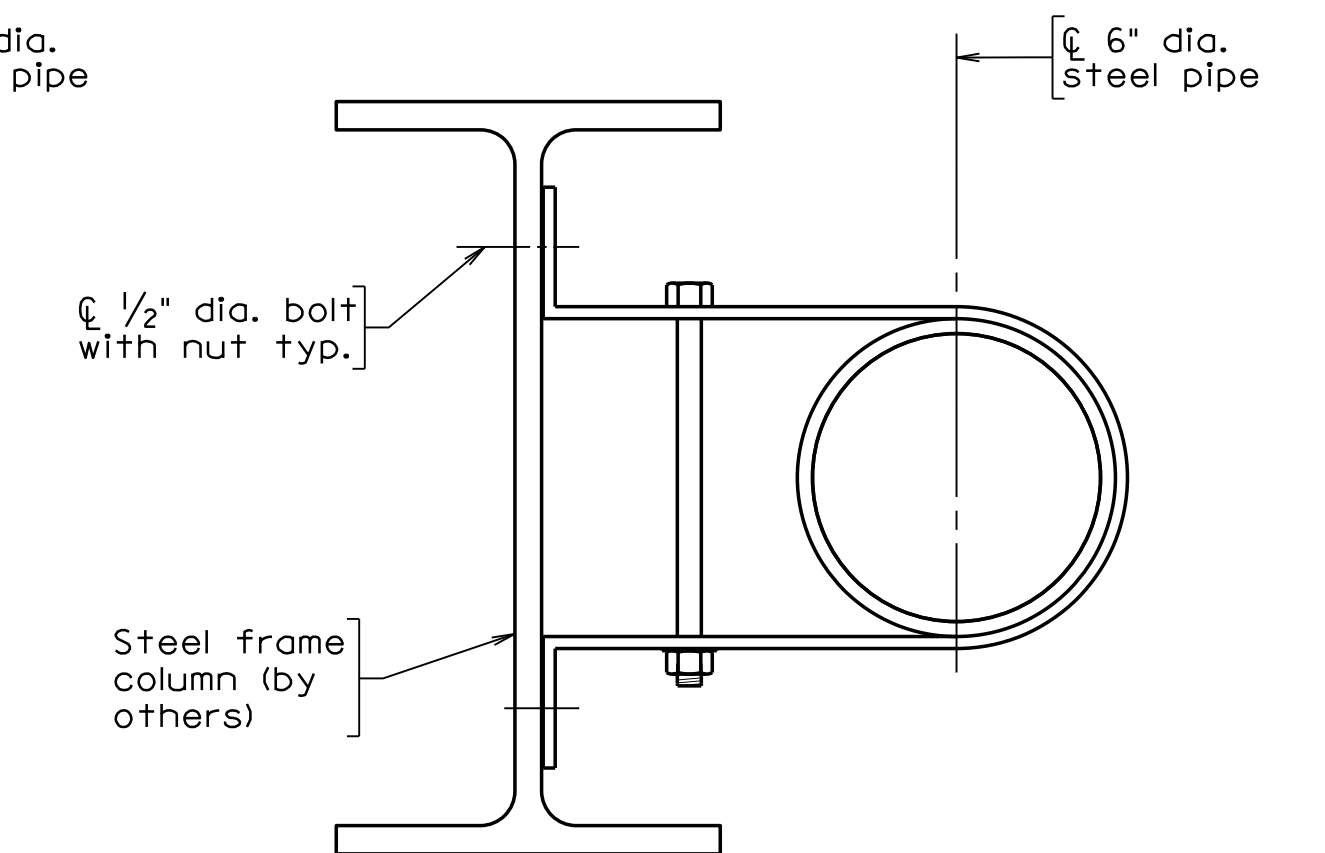
**GRATE DRAINAGE INLET OPENING DETAIL**  
 Scale: 1 1/2" = 1'-0"



**PIPE STRAP CONNECTION TO COLUMN FLANGE**  
 Scale: 3" = 1'-0"



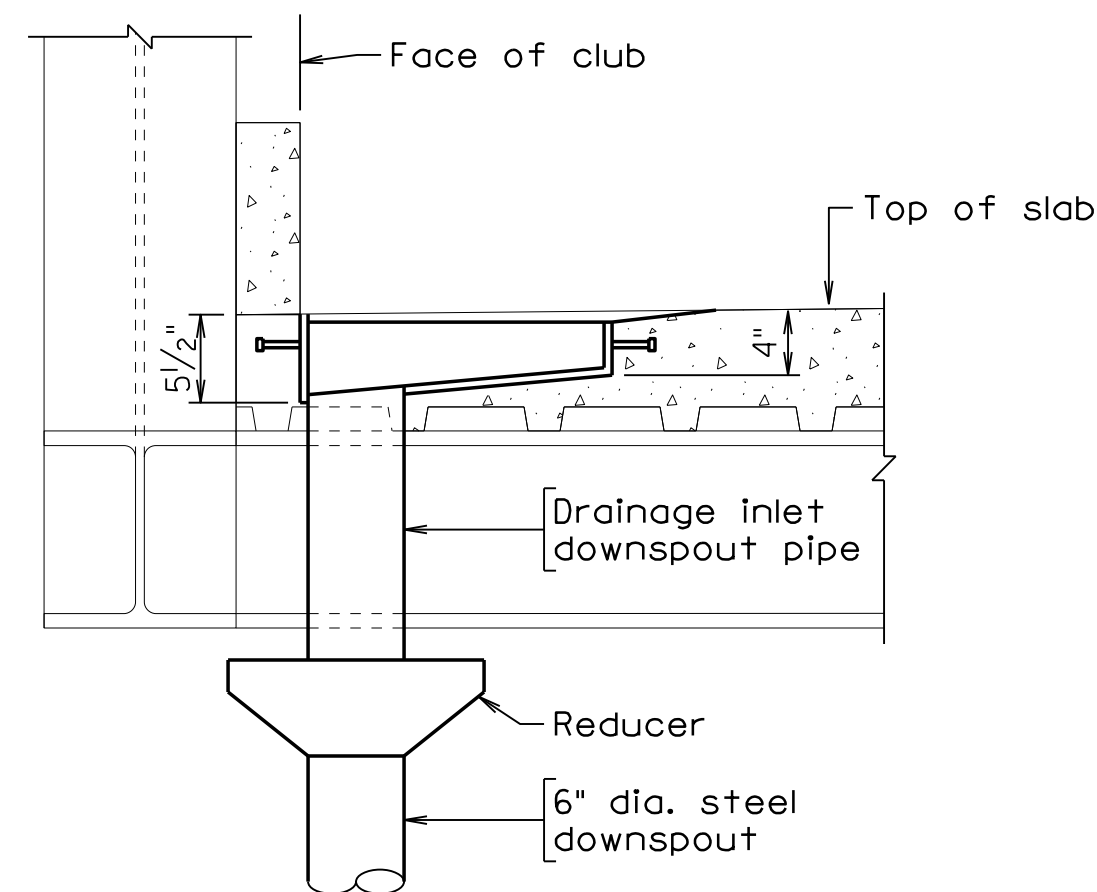
**OPTION 1**



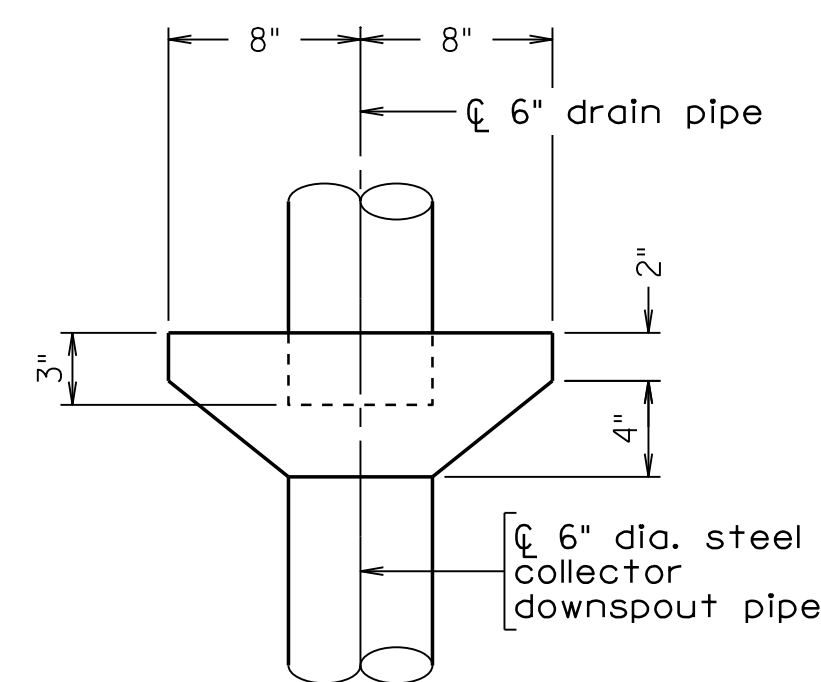
**OPTION 2**

**PIPE STRAP CONNECTION ON WEB SIDE**

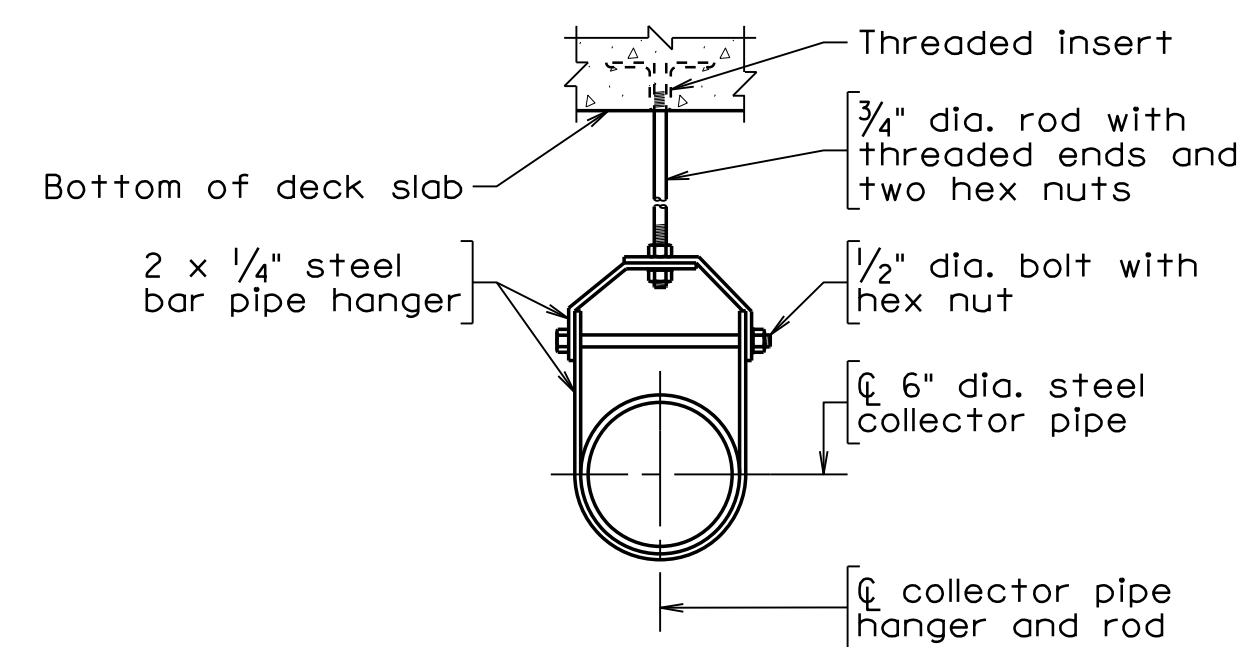
For details not shown, see PIPE STRAP CONNECTION TO COLUMN FLANGE detail.  
 Scale: 3" = 1'-0"



**SECTION O-O**  
 Scale: 1" = 1'-0"



**ELEVATION DOWNSPOUT REDUCER DETAIL**  
 Scale: 1 1/2" = 1'-0"



**PIPE HANGER DETAIL**  
 Scale: 1 1/2" = 1'-0"

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>DRAINAGE ASSEMBLY DETAILS - 2</b>			
No.	Description	Date	Designed: SRC Drawn: SRC Checked: SRC
	Revisions		Date: March 2026 Plan No.: Sheet No.: 20 of 31

North Woodbridge\_20.dgn

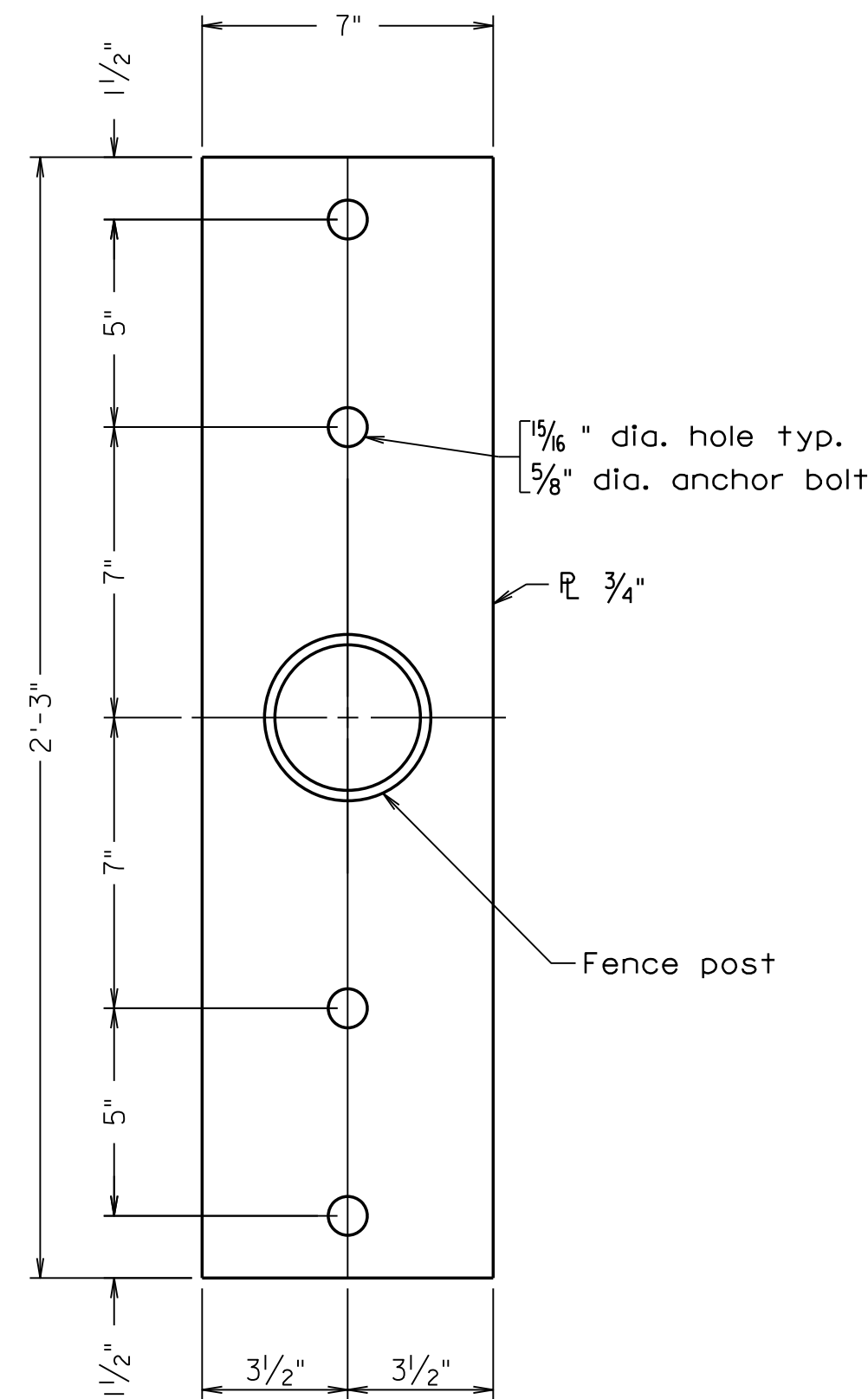


STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT		ROUTE	NO.
VA.	—	—	0001	22
			0001-076-634	

Notes:

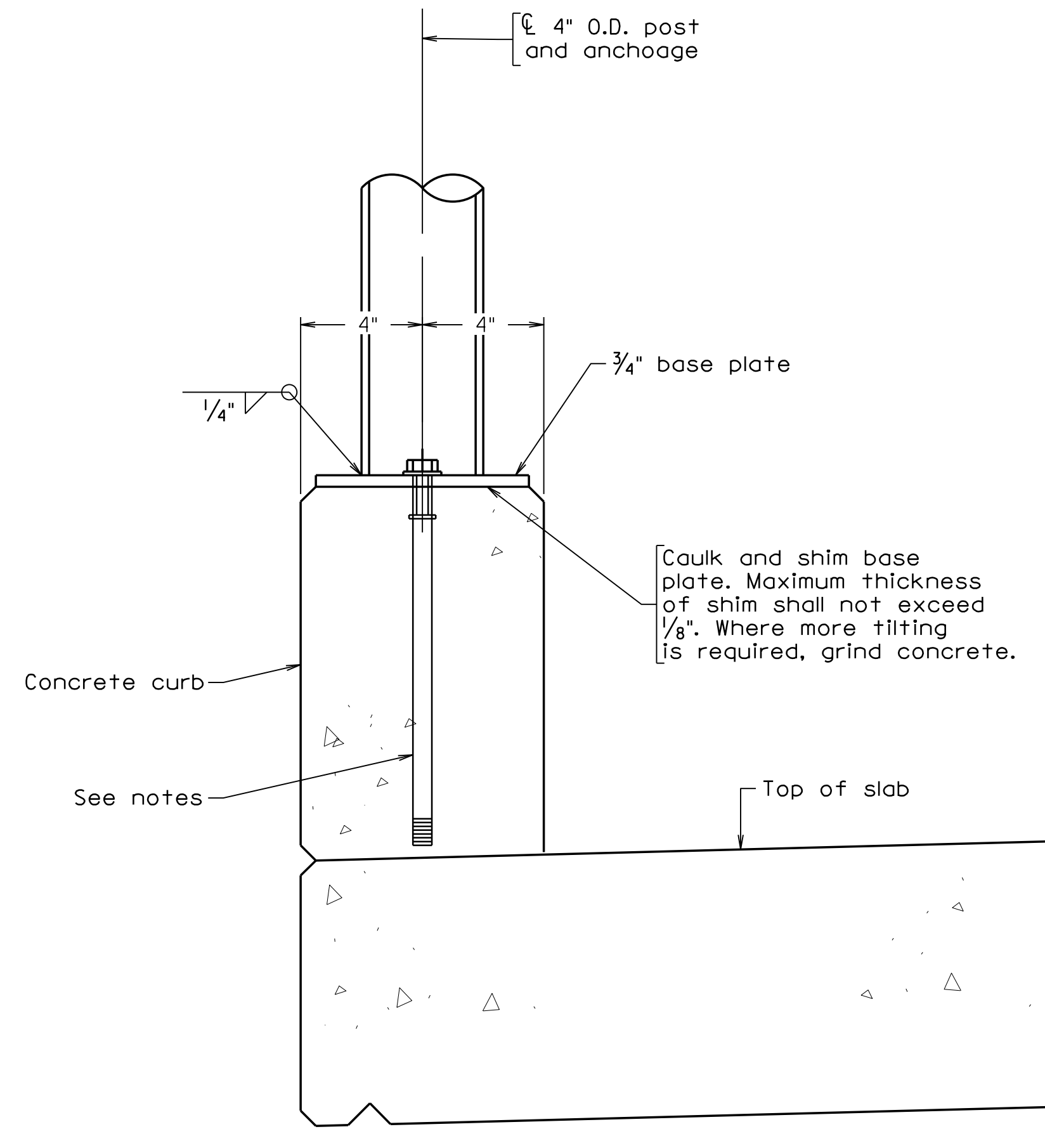
For additional pedestrian fence details, see sheet 21.

Shims for fence anchorage shall be ASTM A709, Grade 36.



**BASE PLATE DETAIL**

Scale: 3" = 1'-0"



**ANCHOR BOLT DETAIL**

Truss elements not shown for clarity.  
Scale: 3" = 1'-0"

Notes:

1. Threaded insert and anchor bolts shall be from VDOT's approved products list.
2. Threaded inserts, when embedded as shown, shall develop 8 kips in tension. Install per manufacturer's recommendations, but 6" minimum.

North Woodbridge\_22.dgn

**PRELIMINARY PLANS**

**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
<b>PEDESTRIAN FENCE WITH HANDRAIL - 2</b>			
No.	Description	Date	Revisions
	Designed: SRC.....	Date	Plan No.
	Drawn: ...GAC.....	March 2026	Sheet No.
	Checked: ...E.....		22 of 31

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HERNDON, VA  
STRUCTURAL ENGINEER

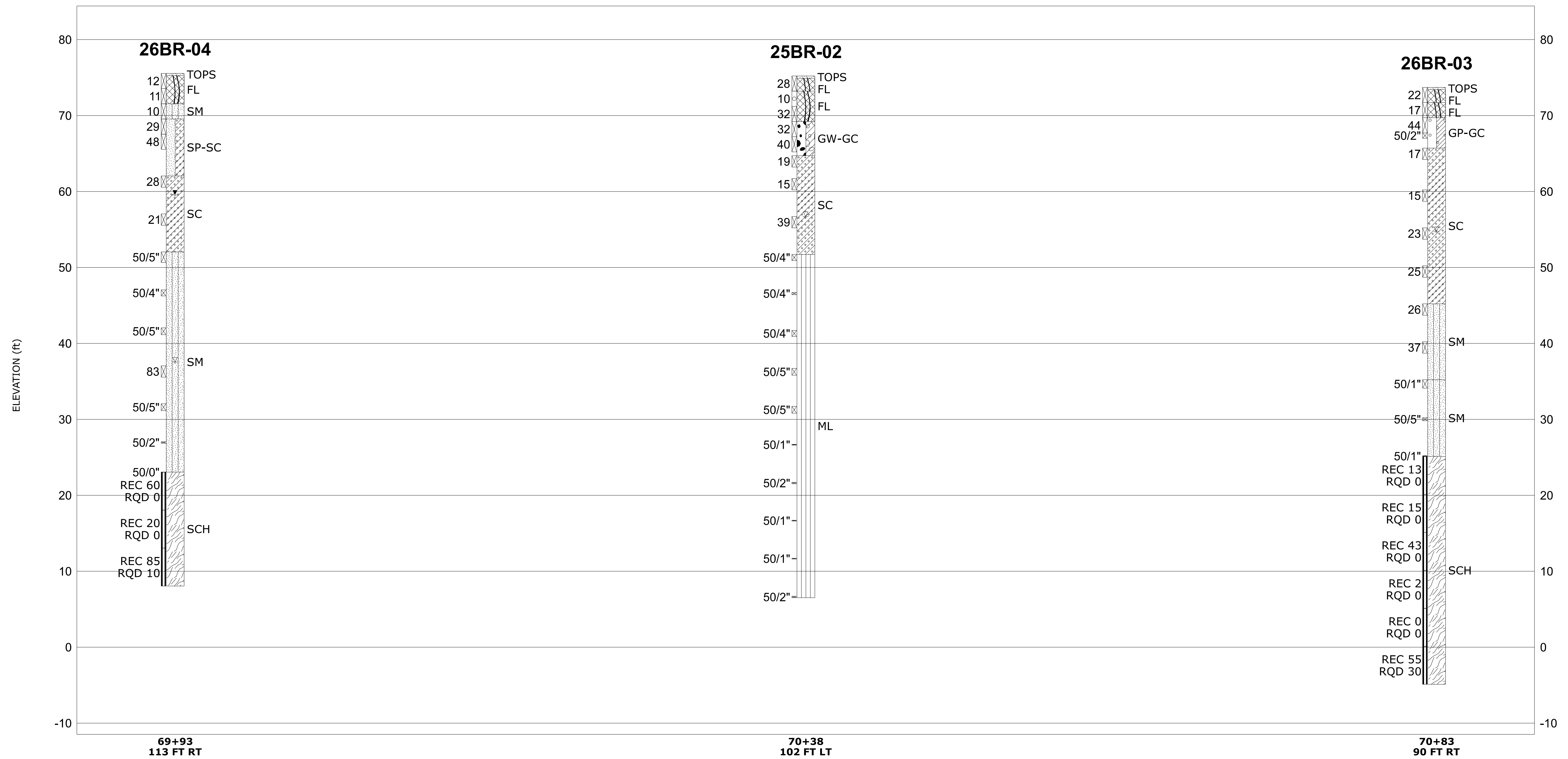
Scale: As shown.

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STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	24

### East Ramp



### FENCE DIAGRAM

Notes: See borehole logs for complete data  
See Material and Sample Symbols List

#### PRELIMINARY PLANS

THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY FENCE DIAGRAM - I			
No.	Description	Date	Designed: ASG..... Drawn: ...GAE..... Checked: ...E.....
Revisions			Date: March 2026 Plan No.: Sheet No.: 24 of 31

The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the Department in establishing design controls for the project. The Department has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The Department does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the Department does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

The boring logs are made available to bidders in order that they may have access to subsurface data identical to that which is possessed by the Department, and are not intended as a substitute for personal investigation, interpretation and judgment by the bidders.

TERRACON  
ASHBURN, VA  
GEOTECHNICAL ENGINEER

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	25

### West Ramp



### FENCE DIAGRAM

Notes: See borehole logs for complete data  
See Material and Sample Symbols List

**PRELIMINARY PLANS**  
**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

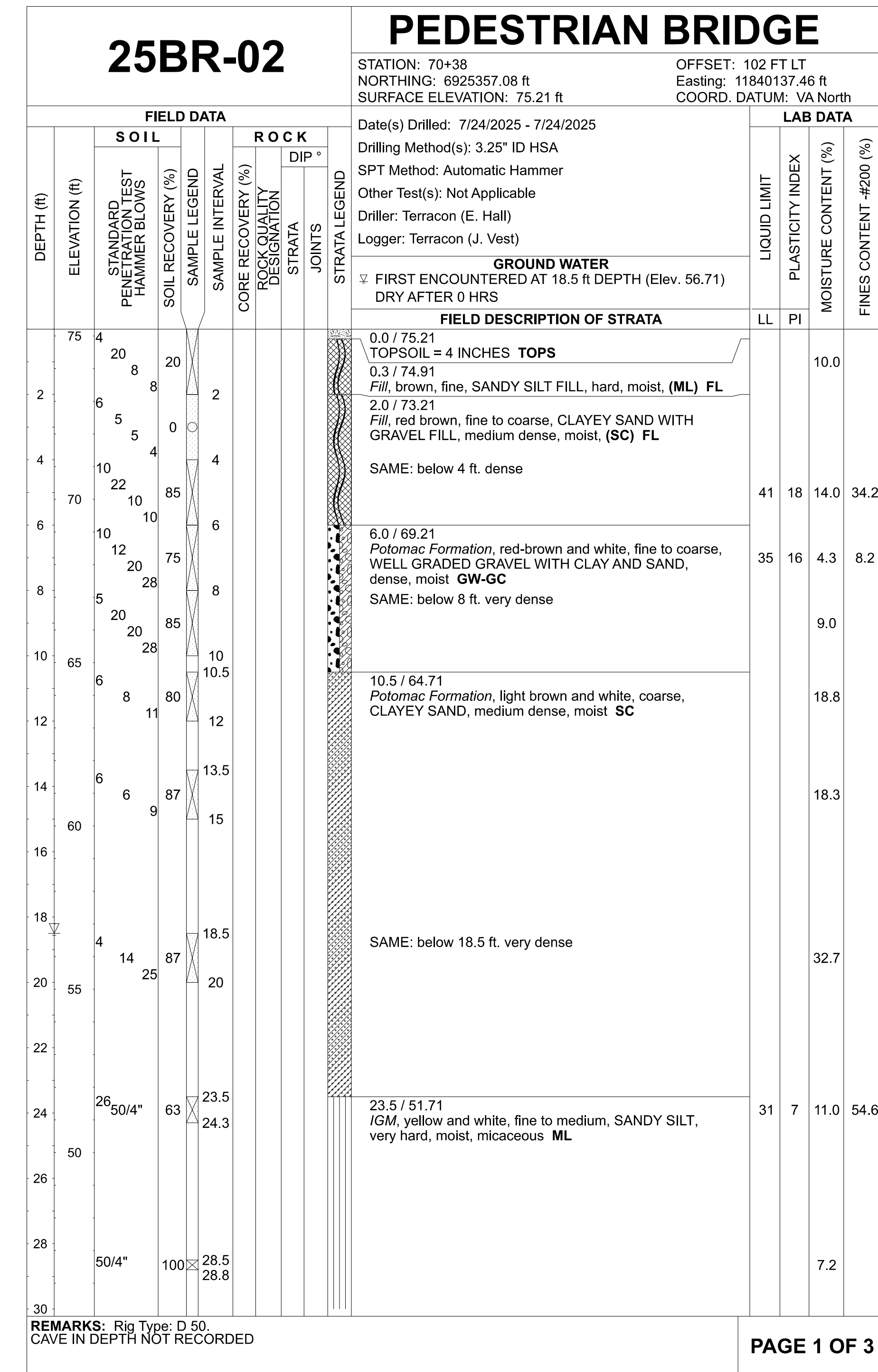
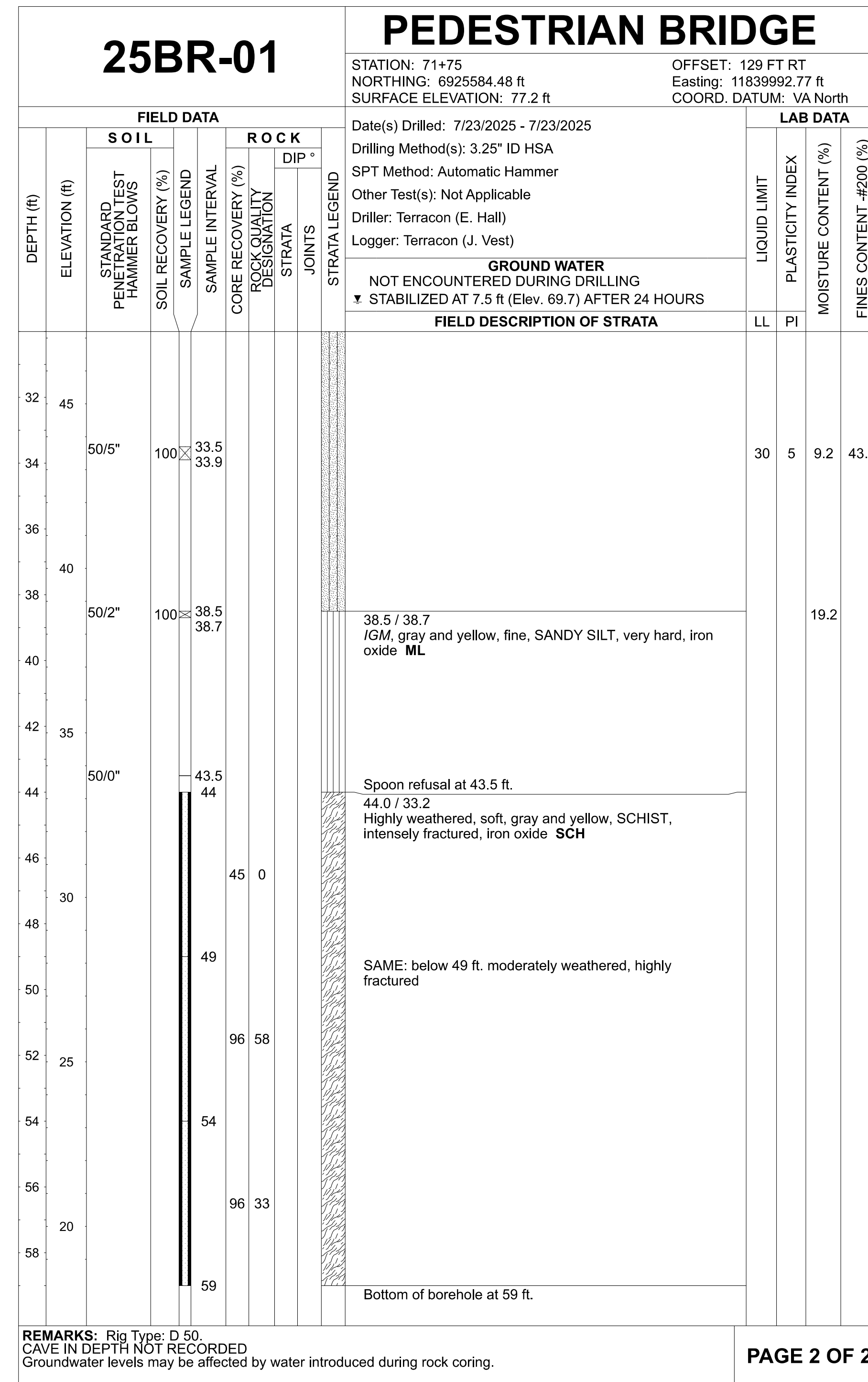
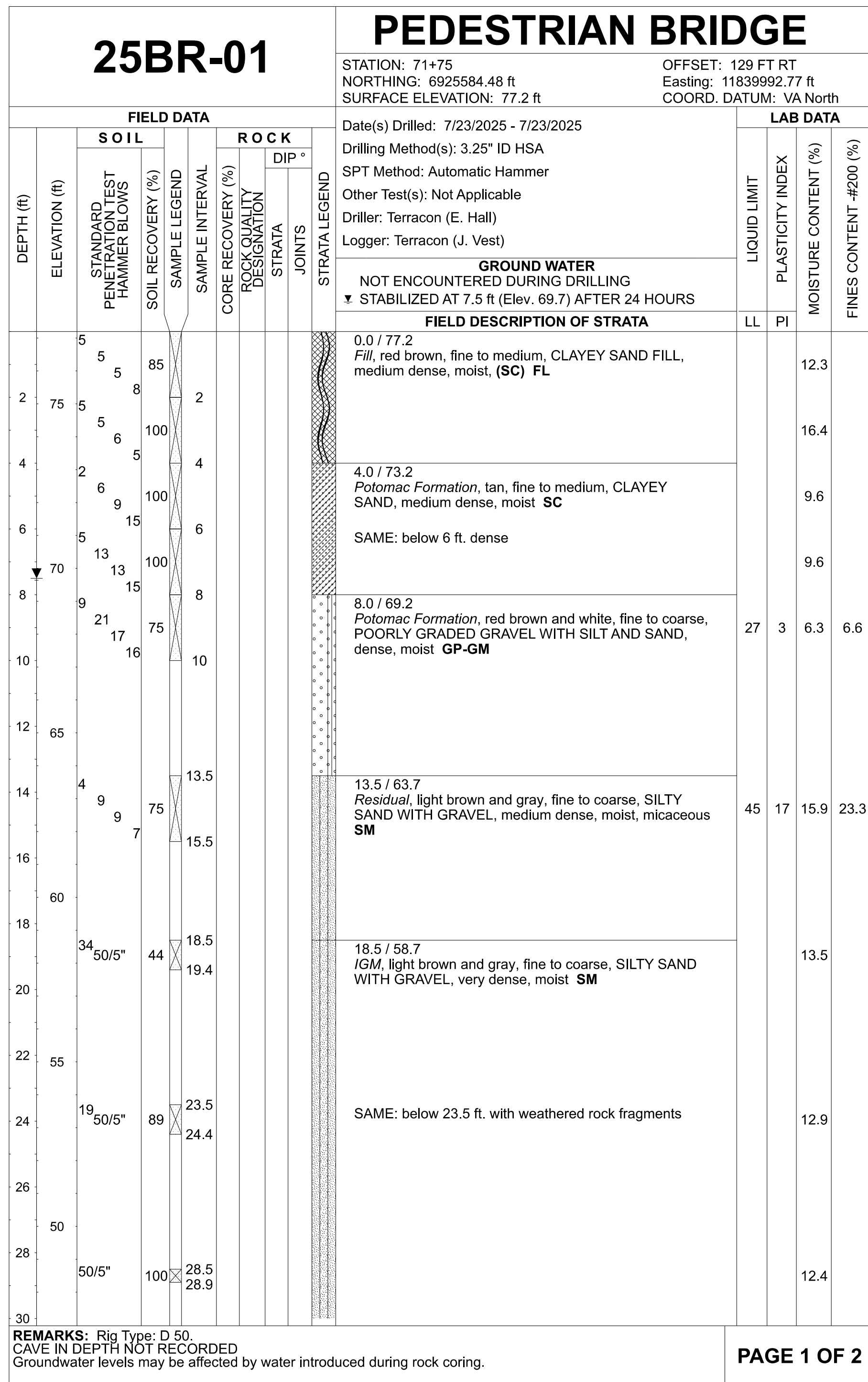
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COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY FENCE DIAGRAM - 2			
No.	Description	Date	Revisions
Designed: ASG	Drawn: GAE	Checked: SJE	Date: March 2026
			Plan No.
			Sheet No.
			25 of 31

North Woodbridge\_25.dgn



North Woodbridge\_26.dgn

The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the Department in establishing design controls for the project. The Department has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The Department does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the Department does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

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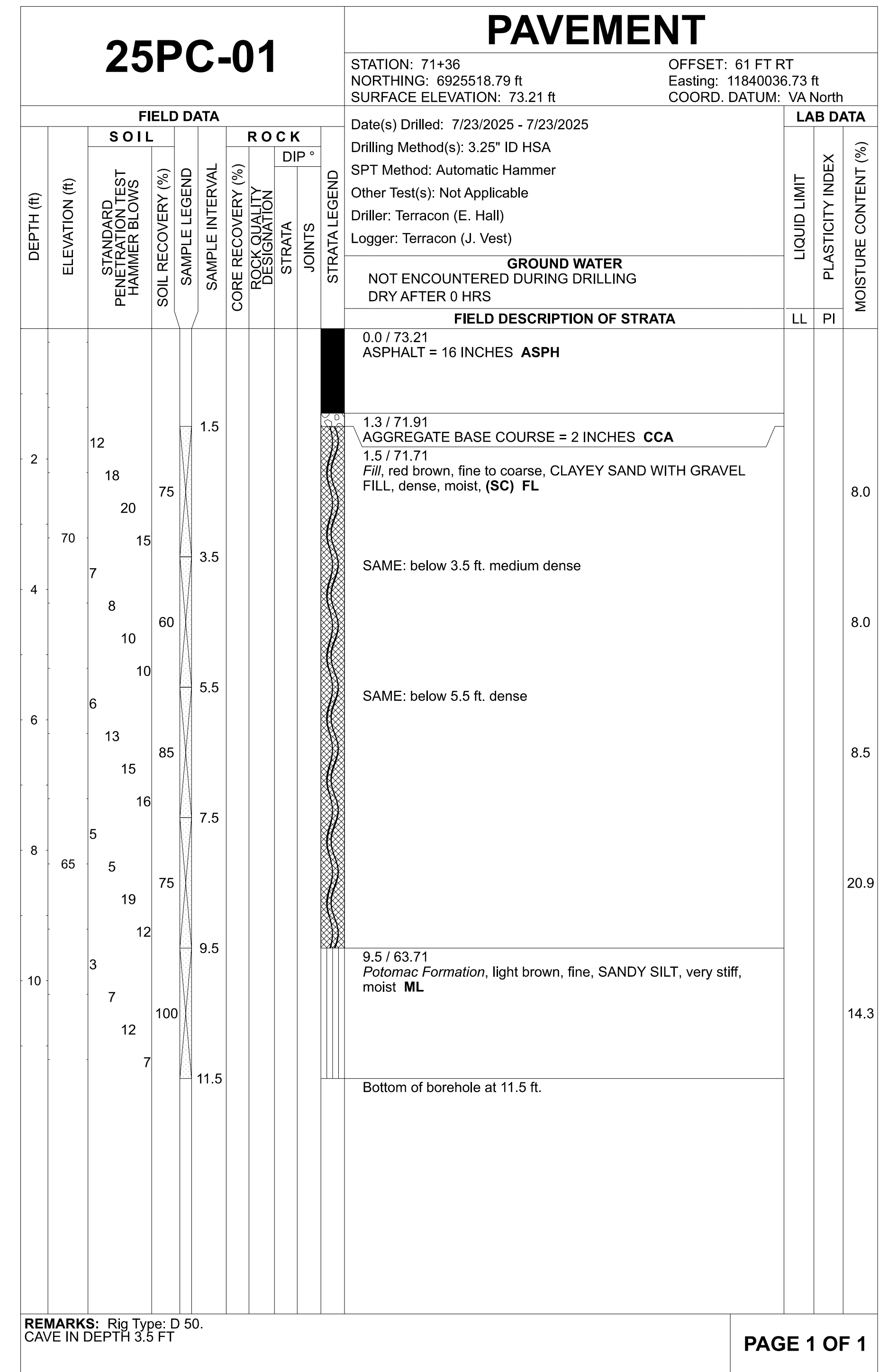
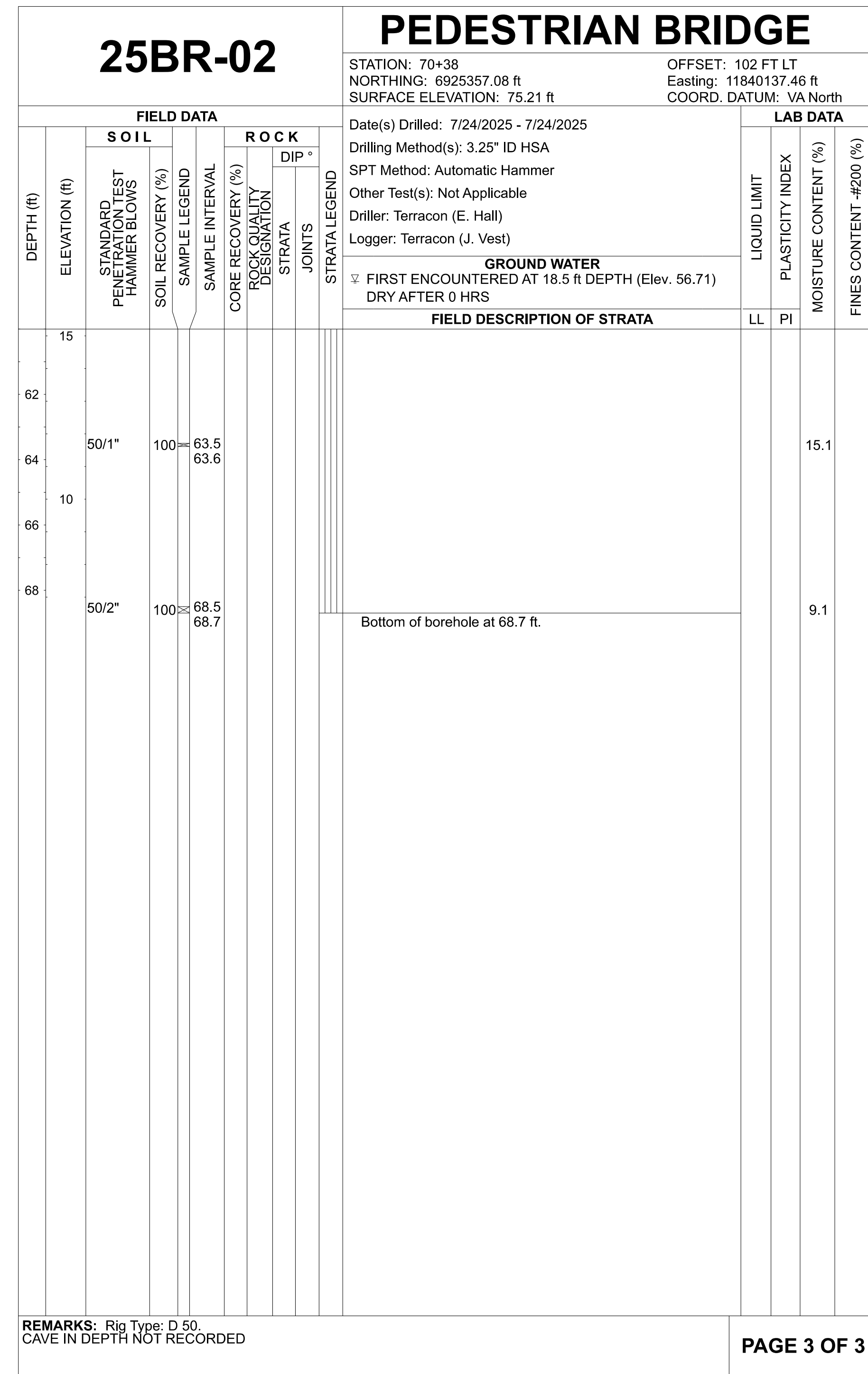
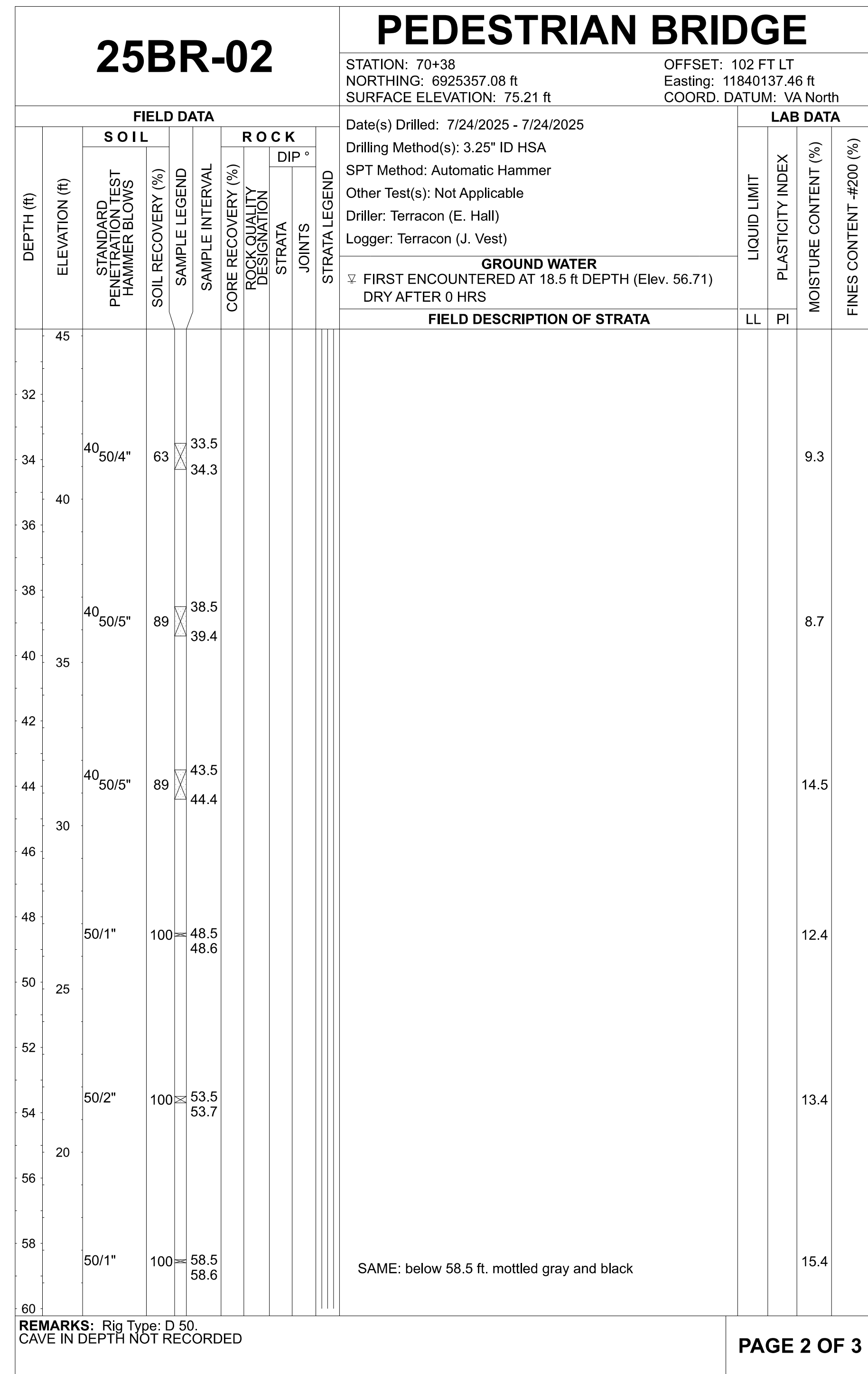
TERRACON  
 ASHBURN, VA  
 GEOTECHNICAL ENGINEER

Notes: See Material and Sample Symbols List

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY BORING LOGS - I			
No.	Description	Date	Designed: ASG..... Drawn: GAF..... Checked: JLF.....
Revisions		March 2026	Plan No. Sheet No. 26 of 31

STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	27



North: Woodbridge\_27.dgn

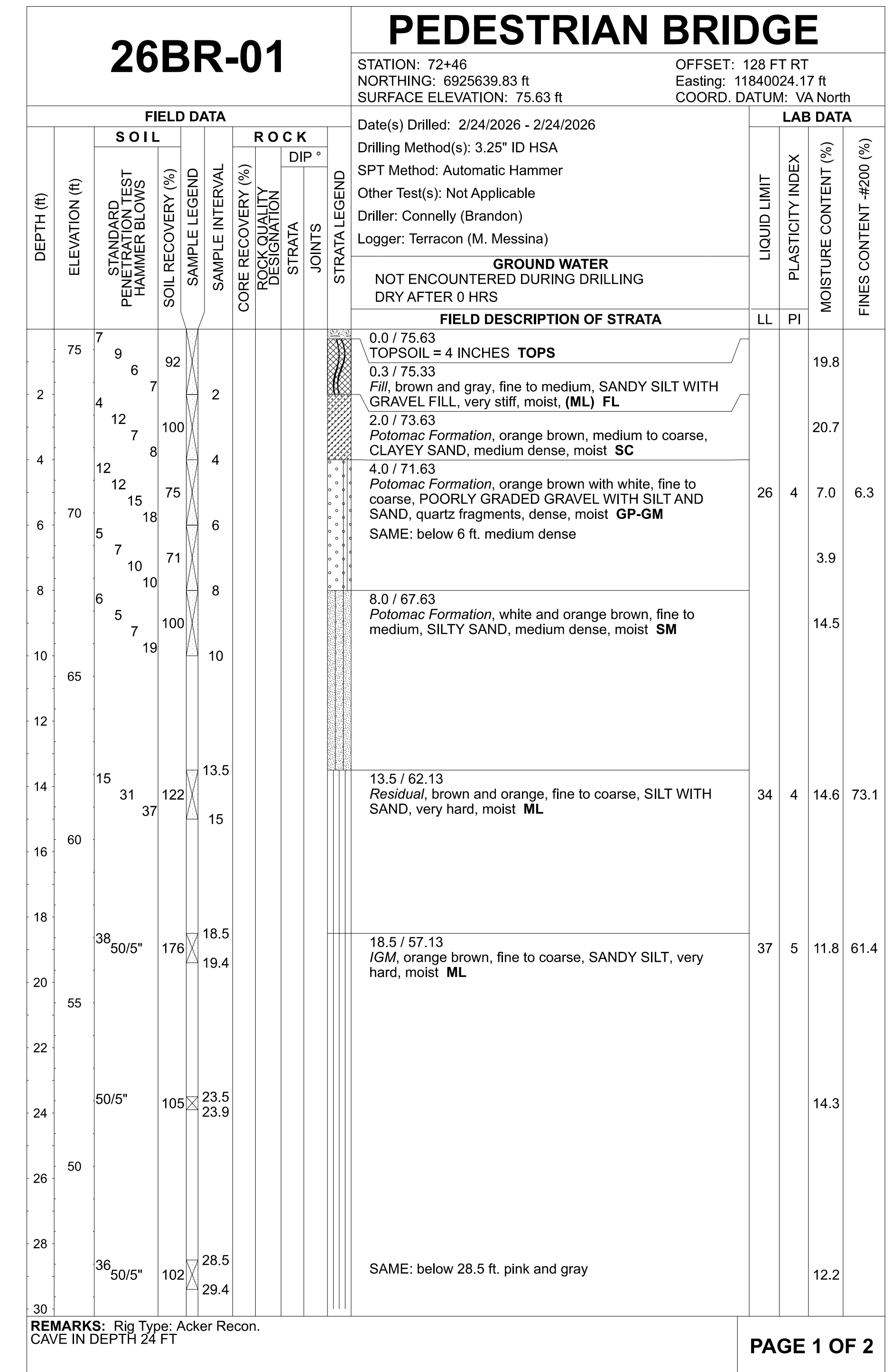
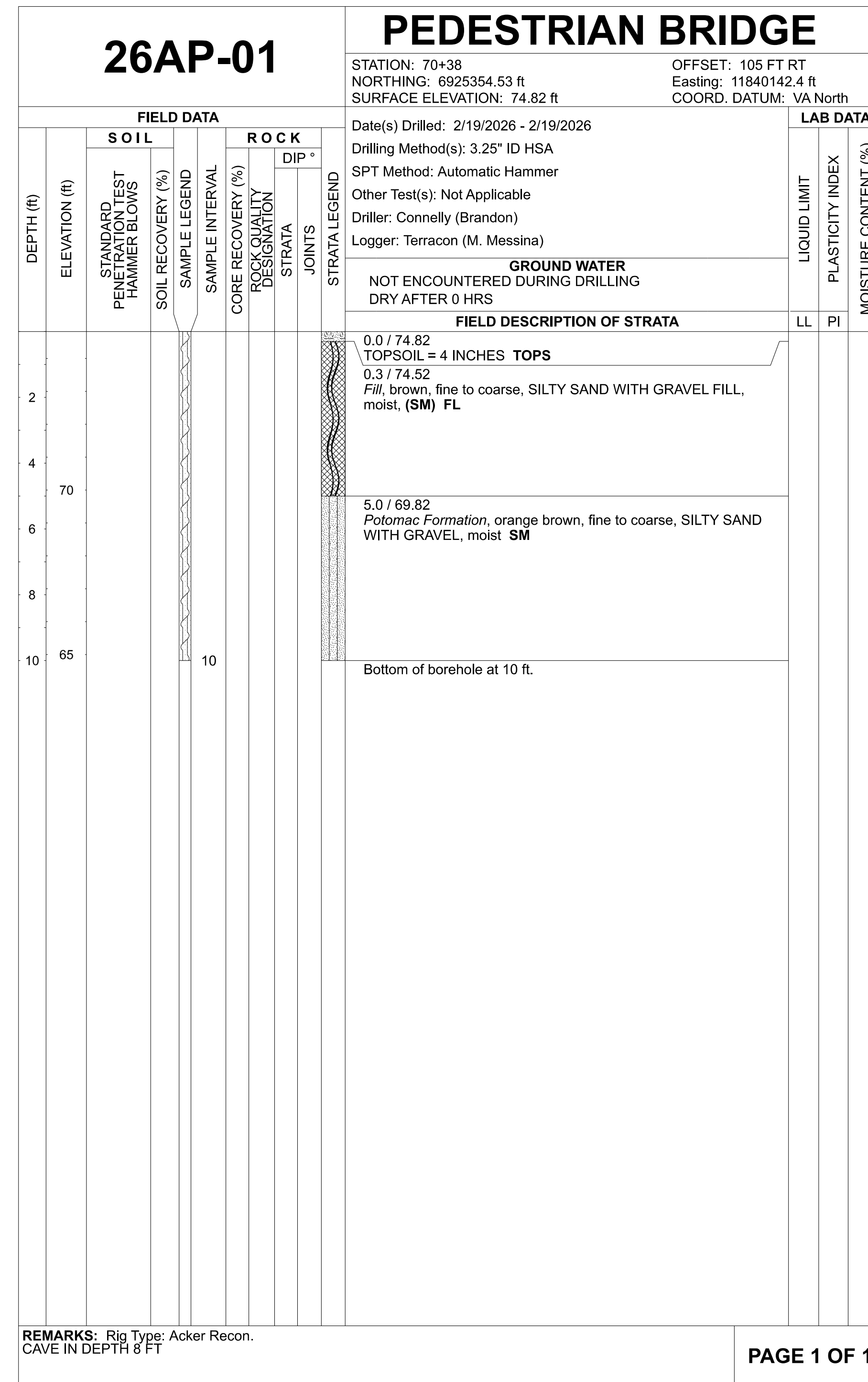
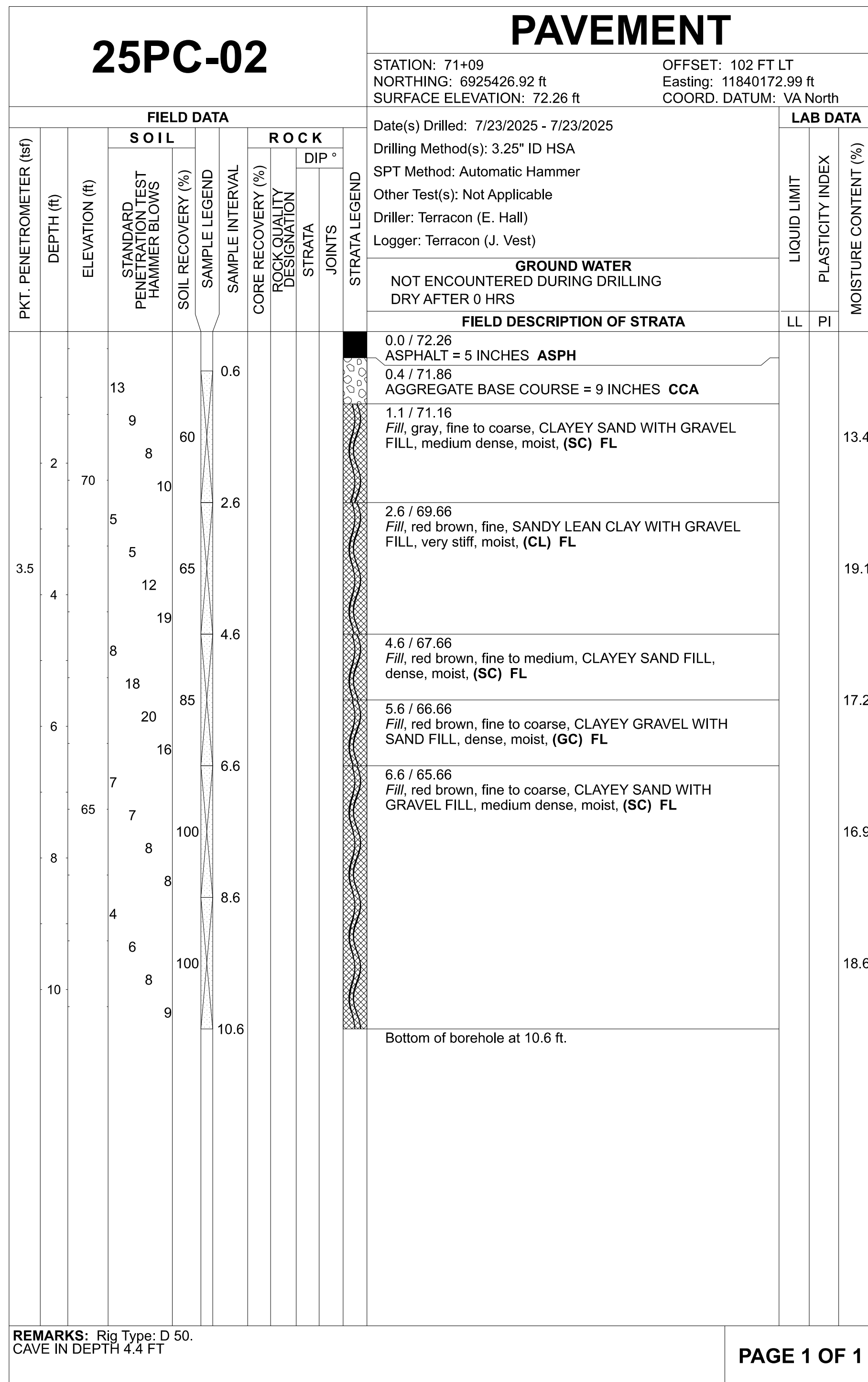
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Notes: See Material and Sample Symbols List

**PRELIMINARY PLANS**  
 THESE PLANS NOT TO BE USED FOR CONSTRUCTION

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY BORING LOGS - 2			
No.	Description	Date	
Revisions			
Designed: ASG	Date	Plan No.	Sheet No.
Drawn: GAE	March 2026		27 of 31
Checked: SJE			



North Woodbridge\_28.dgn

Notes: See Material and Sample Symbols List

**PRELIMINARY PLANS**  
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The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the Department in establishing design controls for the project. The Department has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The Department does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the Department does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

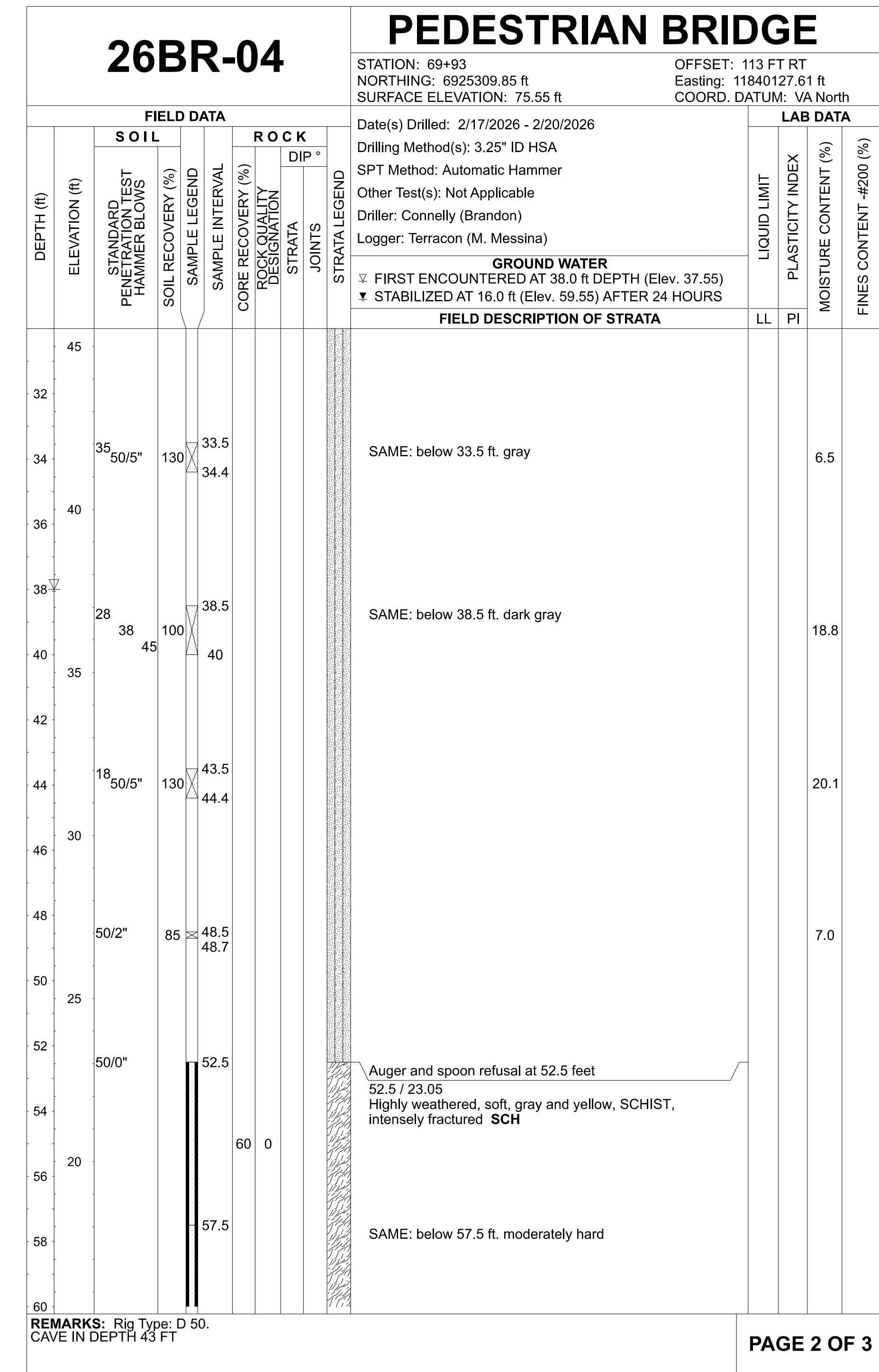
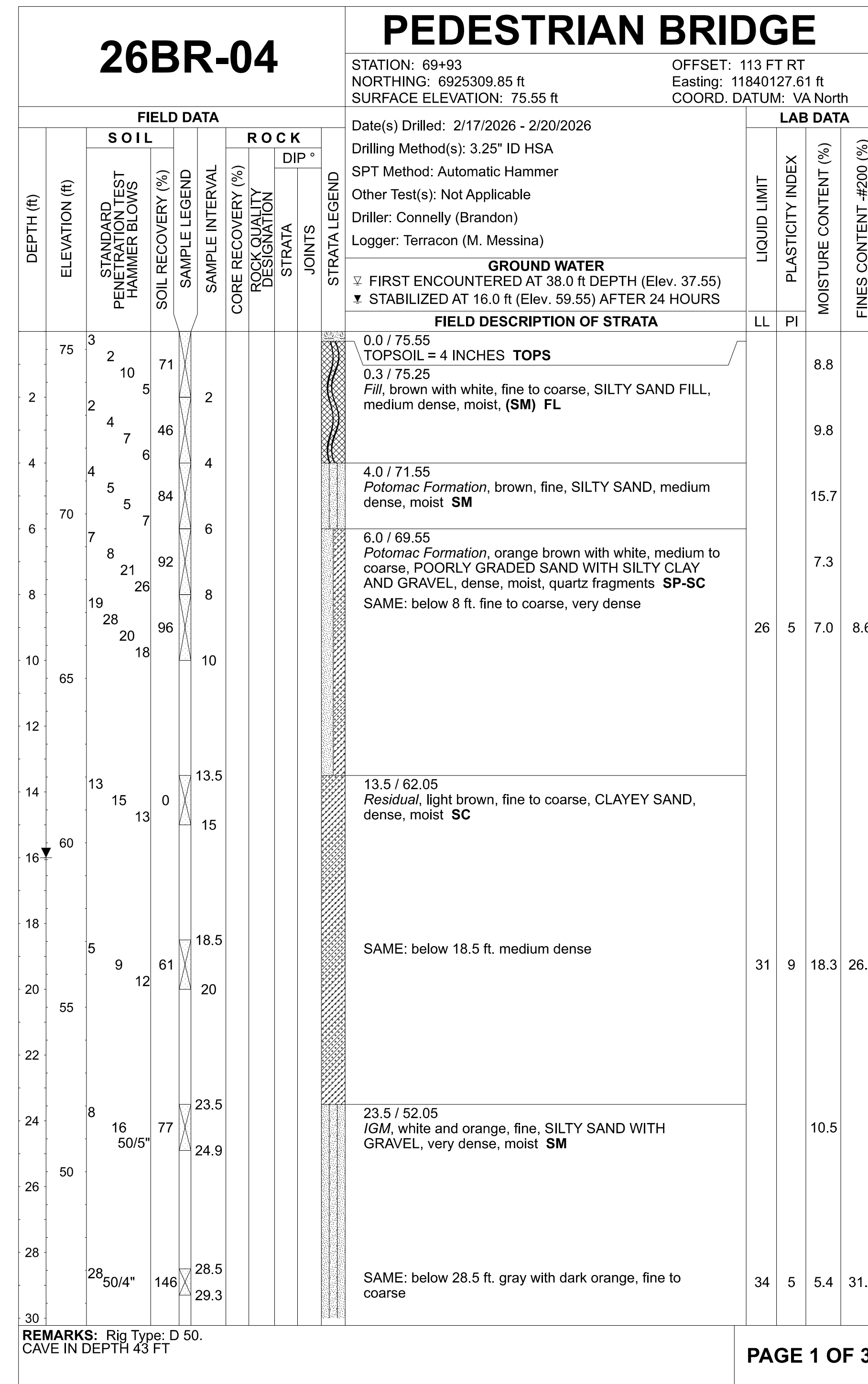
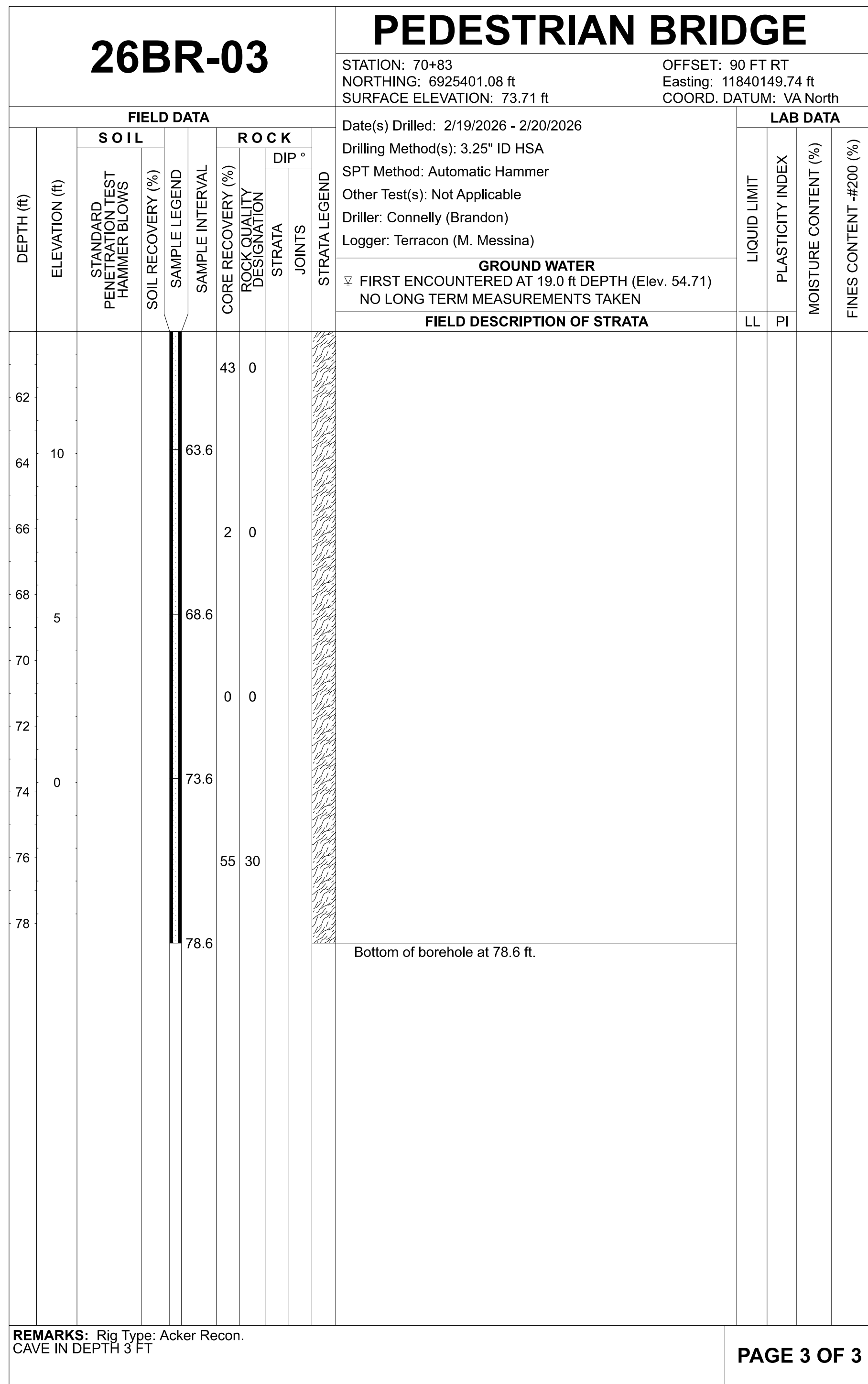
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TERRACON  
ASHBURN, VA  
GEOTECHNICAL ENGINEER

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY BORING LOGS - 3			
No.	Description	Date	Sheet No.
	Revisions	Designed: ASG..... Drawn: GAG..... Checked: SJE.....	Date: March 2026 Plan No.: 28 of 31



STATE	FEDERAL AID		STATE	SHEET
ROUTE	PROJECT	ROUTE	PROJECT	NO.
VA.		0001	0001-076-634	30



North Woodbridge\_30.dgn

The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the Department in establishing design controls for the project. The Department has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The Department does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the Department does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

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Notes: See Material and Sample Symbols List

**PRELIMINARY PLANS**  
**THESE PLANS NOT TO BE USED FOR CONSTRUCTION**

COMMONWEALTH OF VIRGINIA DEPARTMENT OF TRANSPORTATION			
STRUCTURE AND BRIDGE DIVISION			
ENGINEERING GEOLOGY BORING LOGS - 5			
No.	Description	Date	Revisions
Designed: ASG	Date	Plan No.	Sheet No.
Drawn: GAE	March 2026		30 of 31
Checked: SJE			

