

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

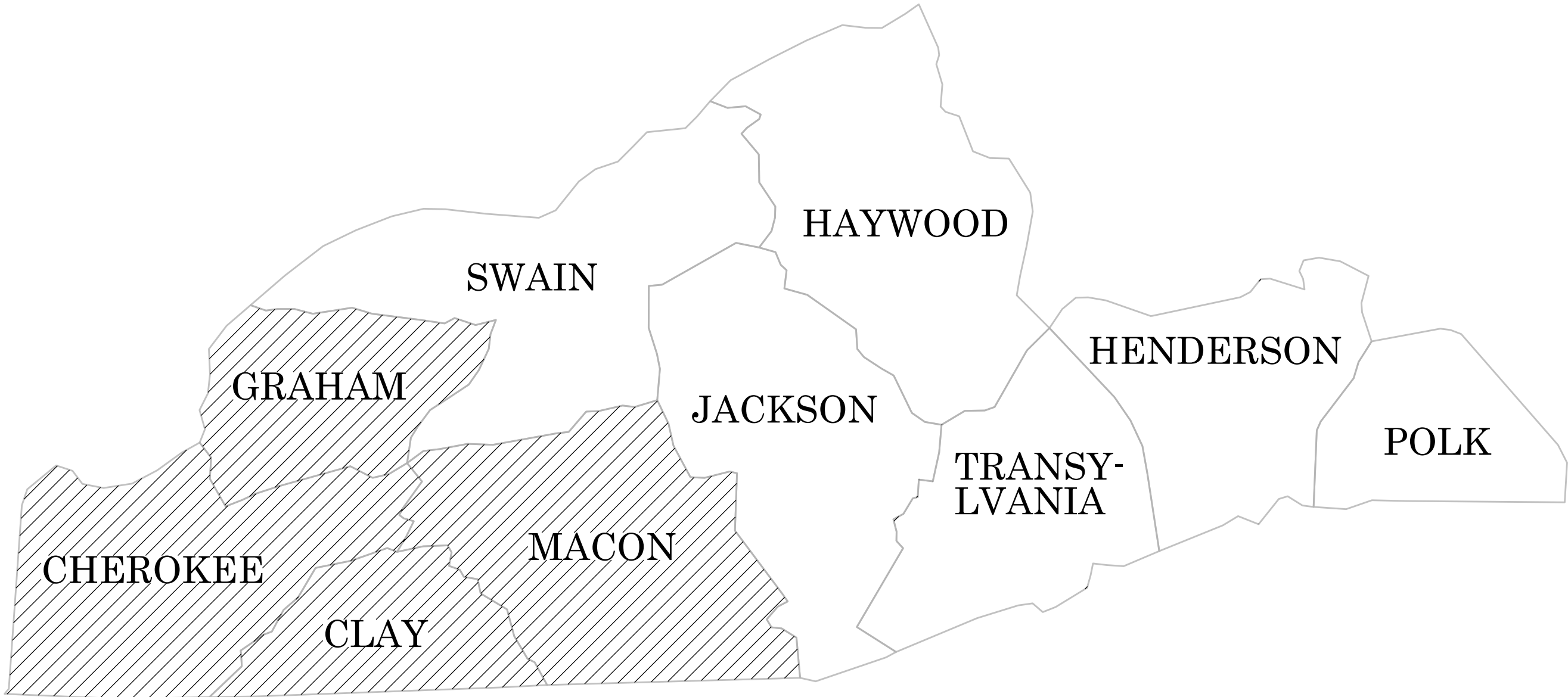
CONTRACT: DN12177668

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ID/IQ GUARDRAIL DISTRICT 3

LOCATION: *VARIOUS ROUTES ACROSS CHEROKEE, CLAY,
GRAHAM, AND MACON COUNTY*

TYPE OF WORK: *ID/IQ GUARDRAIL*



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN12177668	1	5
STATE PROJ. NO.		F.A. PROJ. NO.	DESCRIPTION
GMR14.CHE.1P			CONSTRUCTION
GMR14.CHE.2P			CONSTRUCTION
GMR14.CLA.1P			CONSTRUCTION
GMR14.CLA.2U			CONSTRUCTION
GMR14.GRA.1P			CONSTRUCTION
GMR14.GRA.2P			CONSTRUCTION
GMR14.MAC.2P			CONSTRUCTION
GMR14.MAC.2P			CONSTRUCTION

Prepared in the Office of:
DIVISION OF HIGHWAYS
253 WEBSTER RD., SYLVA NC, 28779

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
JULY 8TH, 2025

JAMES HOLLINGSWORTH, PE
PROJECT ENGINEER

JAMES HOLLINGSWORTH, PE
PROJECT DESIGN ENGINEER



09/08/09

CONTRACT: DN12177668

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN12177668	1-A	5
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
GMR14.CHE.1P	N/A	CONSTRUCTION	
GMR14.CHE.2P		CONSTRUCTION	
GMR14.CLA.1P		CONSTRUCTION	
GMR14.CLA.2P		CONSTRUCTION	
GMR14.GRA.1P		CONSTRUCTION	
GMR14.GRA.2P		CONSTRUCTION	
GMR14.MAC.2P		CONSTRUCTION	
GMR14.MAC.2P		CONSTRUCTION	

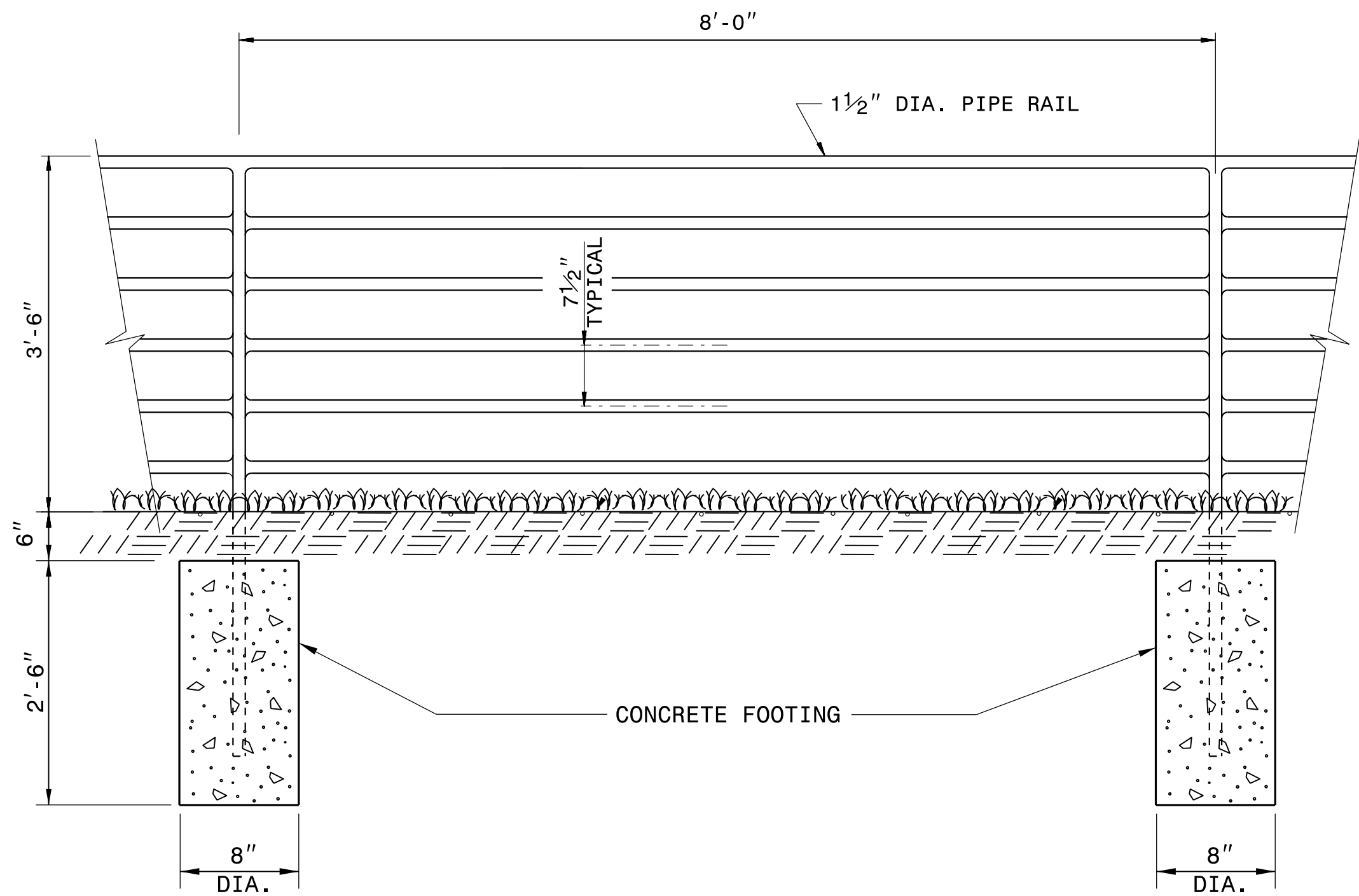
INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, AND STANDARD DRAWINGS
2-2B	ROADWAY DETIALS

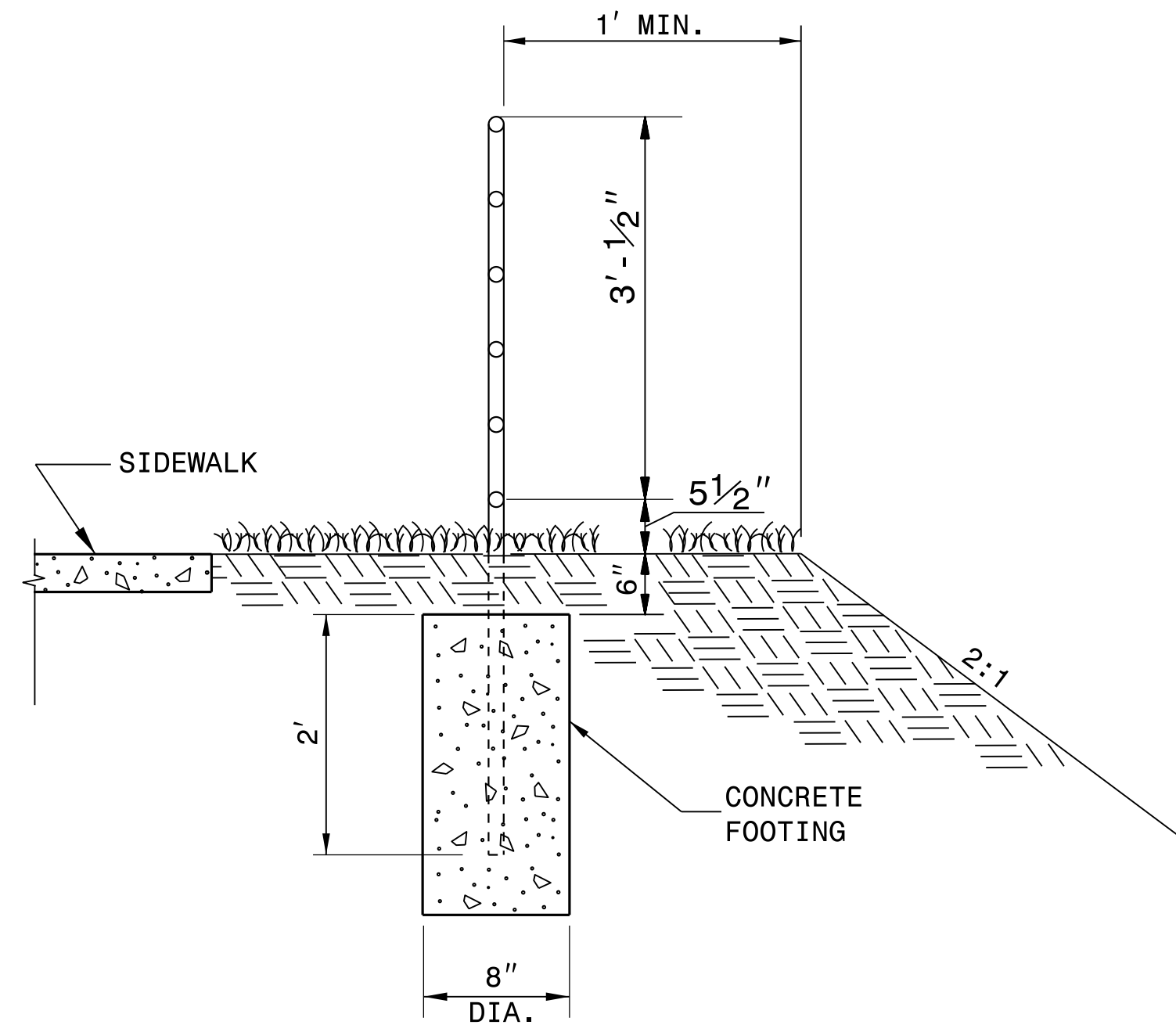
2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit – N. C. Department of Transportation – Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 12, and 14 of 15)
862.02	Guardrail Installation
862.03	Structure Anchor Units (Use Detail in Lieu of Standard for Sheet 8 of 9)
862.04	Anchoring End of Guardrail – for B-77 and B-83 Anchor Units
865.01	Cable Guiderail



ELEVATION



SECTION VIEW

NOTES:

CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1 1/2" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.

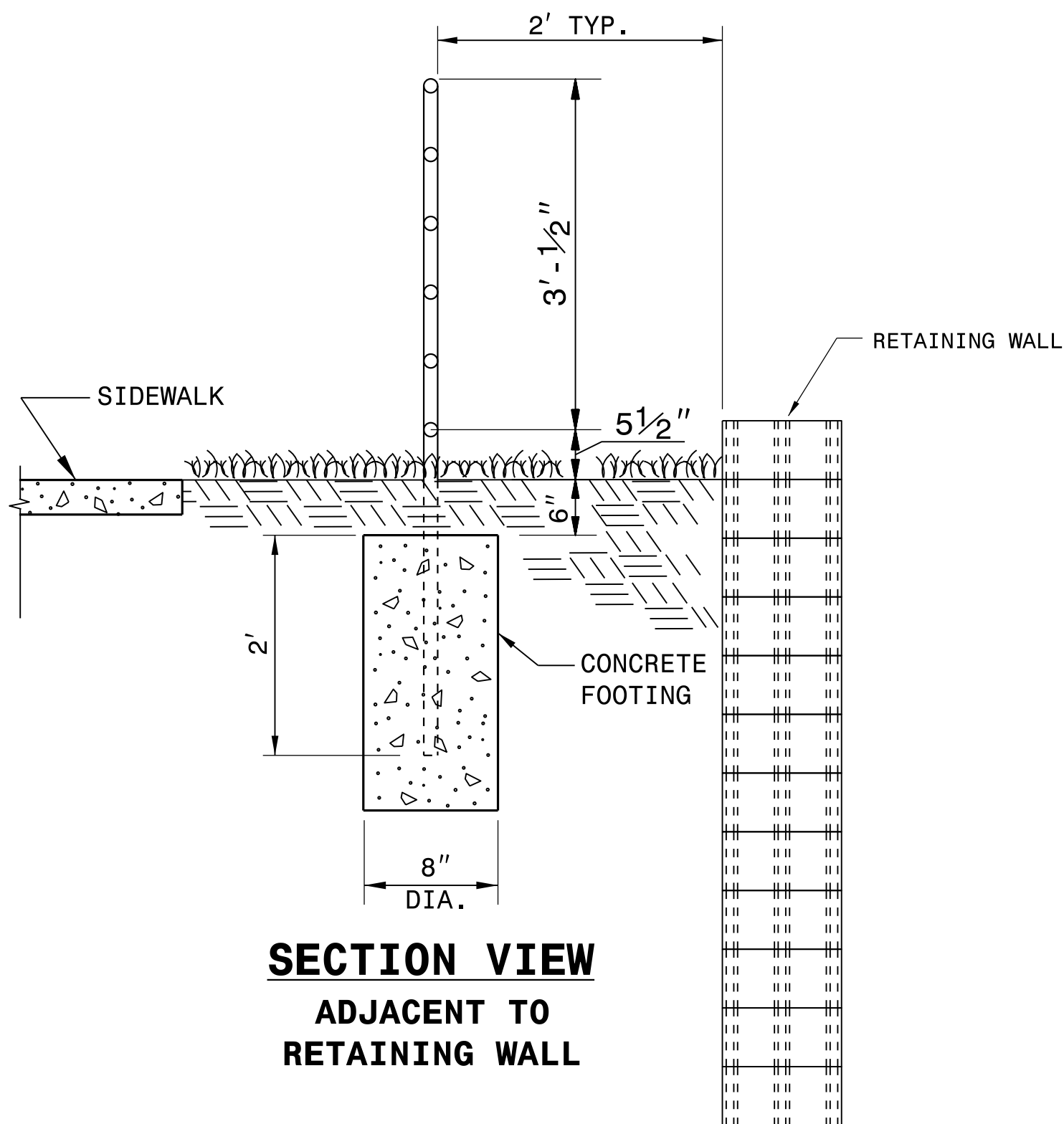
REPAIR GALVANIZING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 1076.

PAINT, IF REQUIRED BY THE ENGINEER, IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTION 1080.

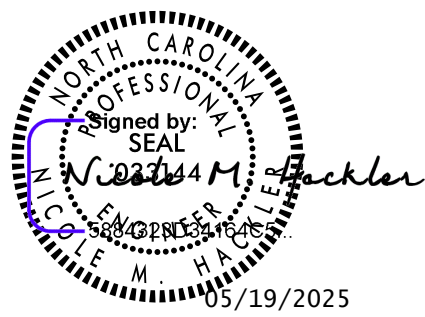
WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.

USE CLASS 'B' CONCRETE FOR HANDRAIL FOOTINGS.

PLACEMENT OF HANDRAIL IN RELATION TO RETAINING WALL AND SIDEWALK MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.

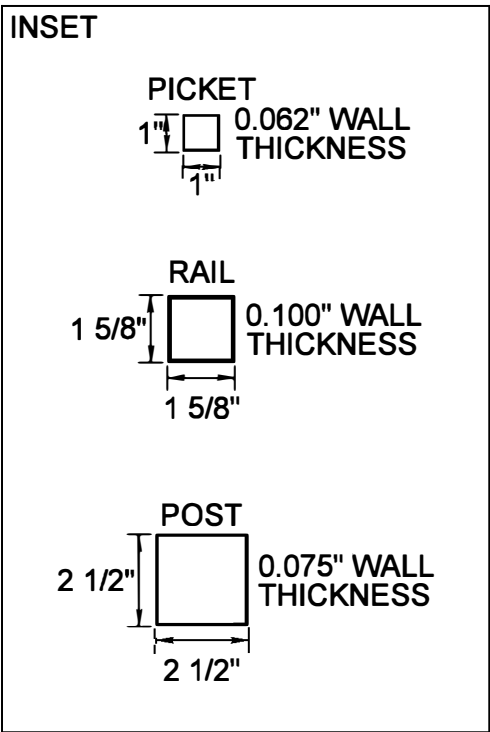
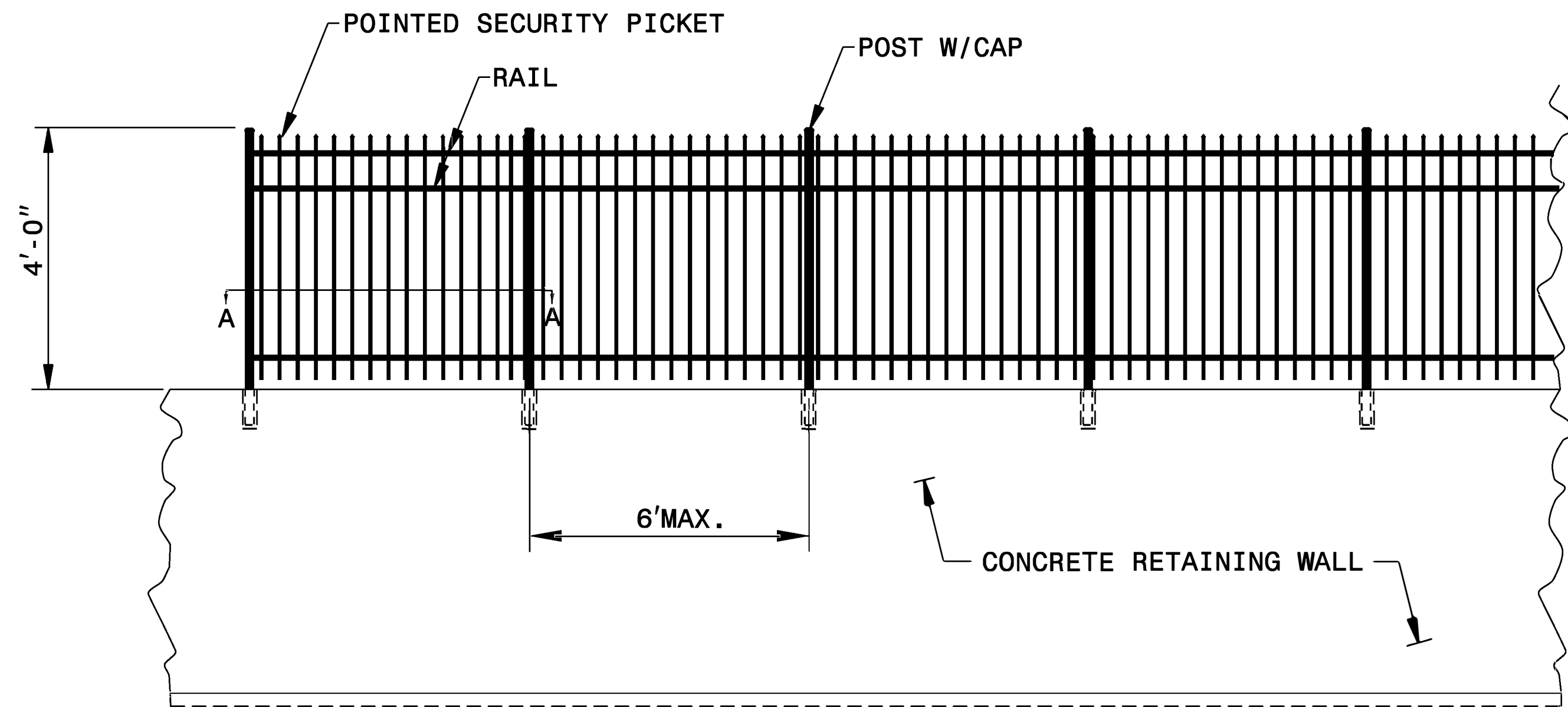


SECTION VIEW
ADJACENT TO
RETAINING WALL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
PEDESTRIAN SAFETY RAIL	
ORIGINAL BY:	DATE:
MODIFIED BY: K.A. KEMPF	DATE: 7-20-23
CHECKED BY:	DATE:
FILE SPEC.: details\kempf\english\safety rails 2024.dgn	



MATERIAL THICKNESS

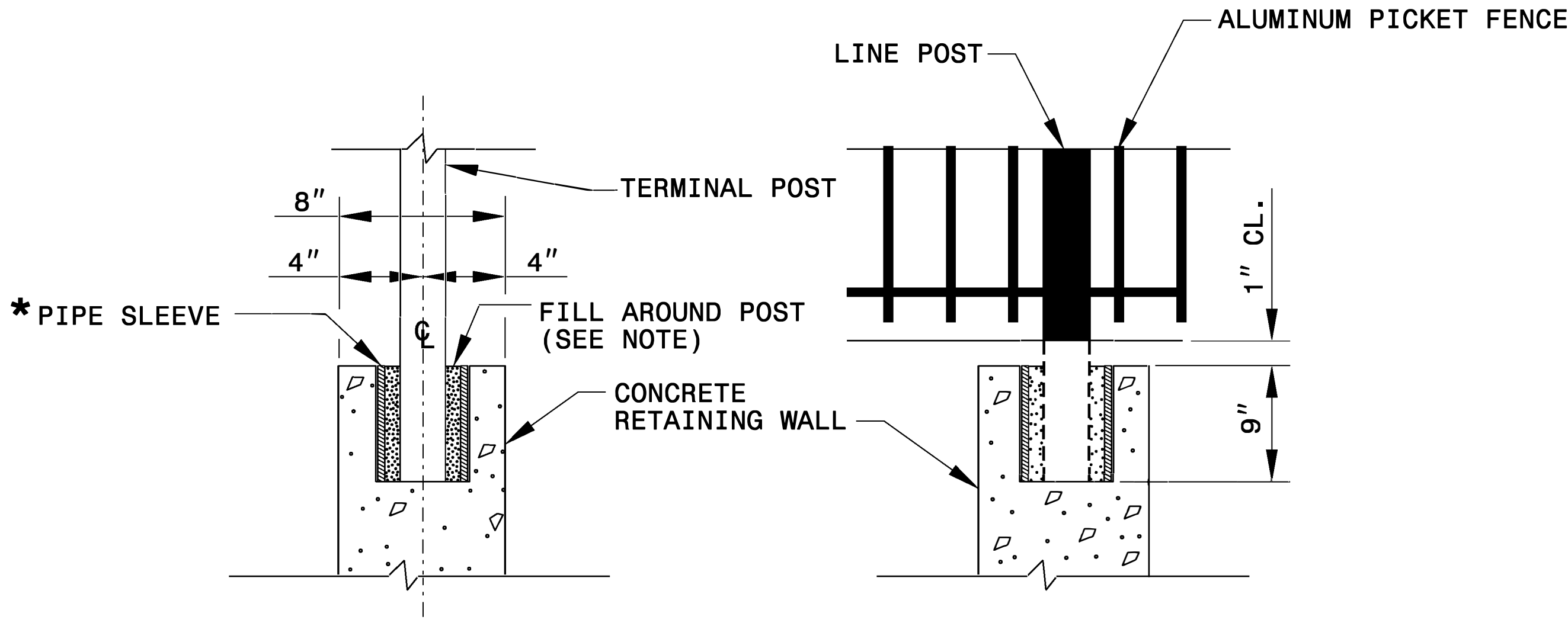
RETAINING WALL MOUNTED ALUMINUM PICKET FENCE

NOTE:

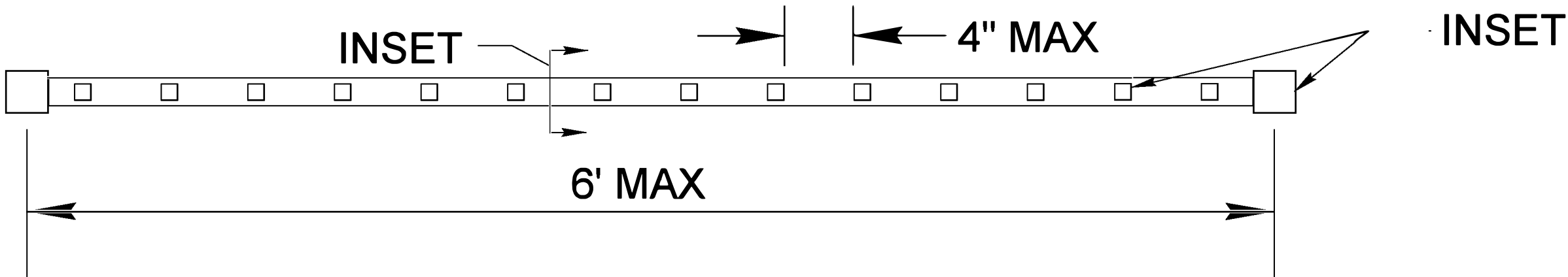
PLACEMENT OF PIPE SLEEVES SHALL CORRESPOND TO LINE POST AND TERMINAL POST AS SHOWN.

*PIPE SLEEVES SHALL BE INSTALLED IN THE CONCRETE RETAINING WALL WITH ALUMINUM ALLOY POST AS INDICATED.

FILL SPACE BETWEEN POST AND PIPE MATERIAL ACCORDING TO FENCE INSTALLATION SPECIFICATIONS OR MATERIAL APPROVED BY ENGINEER.



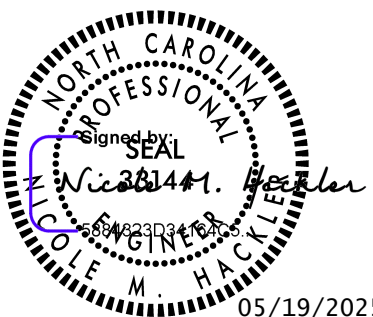
POST EMBEDMENT IN RETAINING WALL



SECTION A-A

NOTES:

- 1) SUBMIT ALTERNATE FENCE MATERIAL TO ENGINEER FOR APPROVAL.
- 2) SUBMIT ANY VARIATIONS IN FENCE DIMENSIONS TO ENGINEER FOR APPROVAL.
- 3) POST MAY BE DRIVEN IF IT CAUSES NO STRUCTURAL DAMAGE. (SEE MANUFACTURERS RECOMMENDATIONS)
- 4) THE FENCE WILL BE BLACK POWDER COATED.



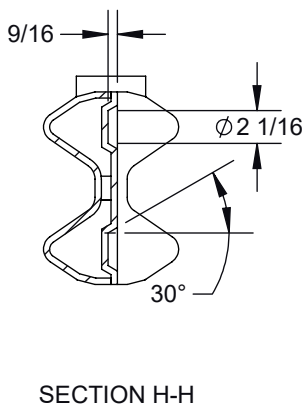
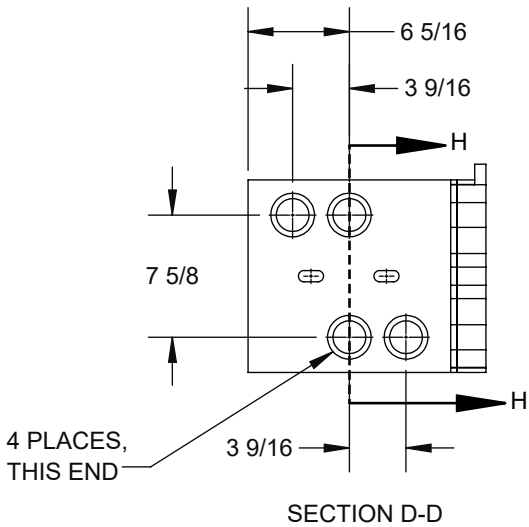
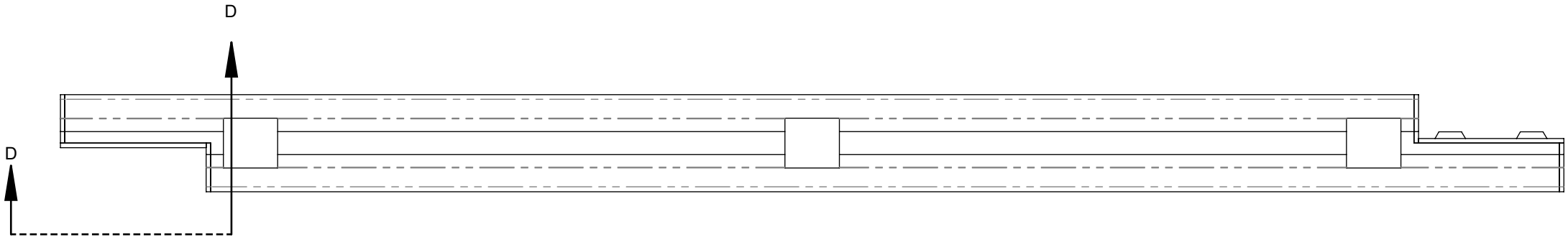
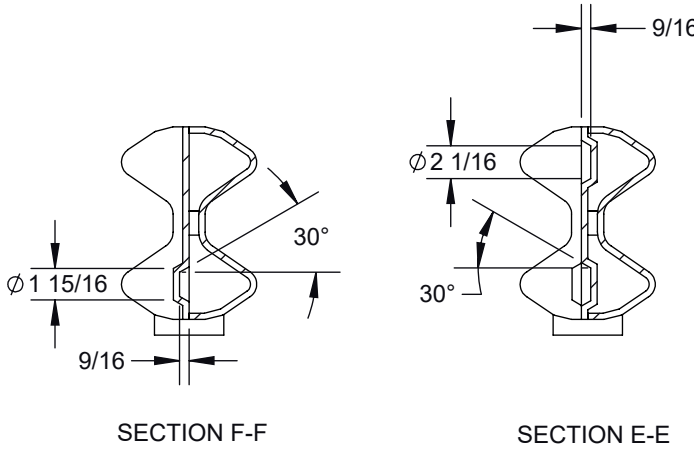
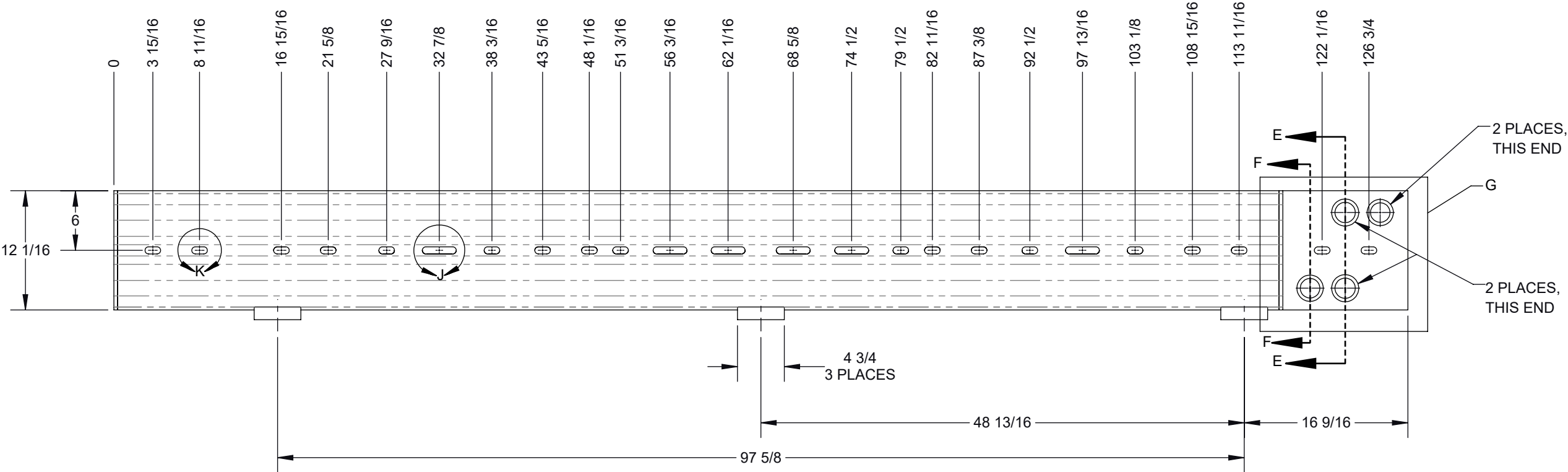
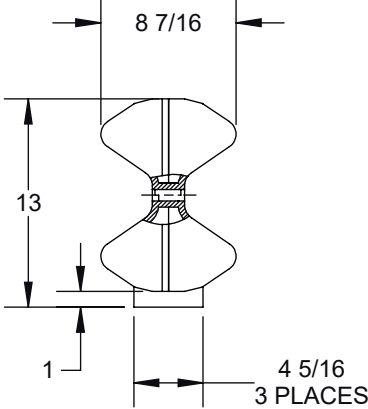
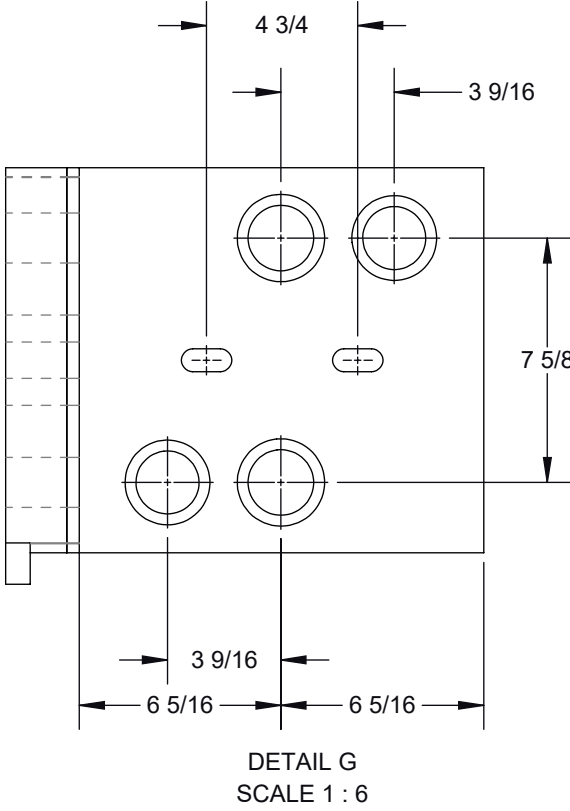
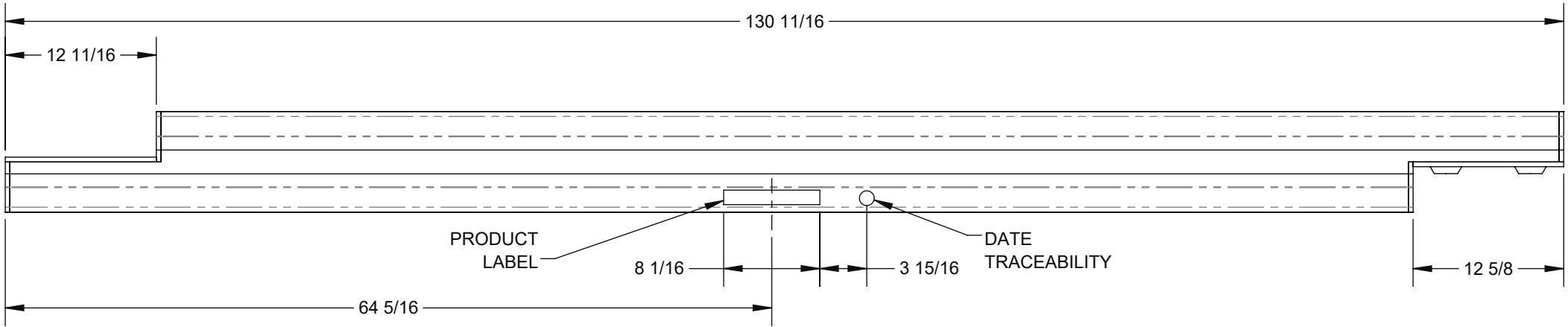
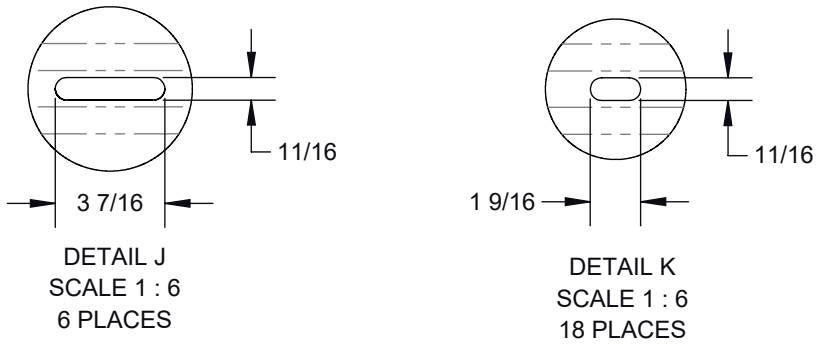
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS & DEVELOPMENT UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

RETAINING WALL ALUMINUM PICKET FENCE

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 09-16-11
CHECKED BY: _____ DATE: _____
FILE SPEC.: details/english/misc/aluminumfenceretwall.dgn

NOTES:
1. SNOLINE PRODUCT.

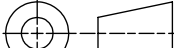


WEIGHT: 33.07# ± 1.1#
THICKNESS: .197"

05/21/25	REDRAWN IN SOLIDWORKS	N/A	JA	
09/08/14	(C) ADDED FOOT HEIGHT QUOTA	N/A		RBC
05/07/14	(B) MODIFIED WEIGHT FROM 20KG TO 15KG	N/A		RBC
	(B) TOLERANCE FROM ±3 TO ±.5			
07/25/13	(A) INITIAL RELEASE	N/A		RBC
REV DATE	REVISION	ECN	BY	APP

THE INFORMATION CONTAINED IN THIS DOCUMENT IS LINDSAY PROPRIETARY INFORMATION AND SHALL NOT BE REPRODUCED OR USED FOR ANY PURPOSE NOR DISCLOSED TO THIRD PARTIES WITHOUT THE WRITTEN APPROVAL OF LINDSAY.



WATERMARK Work In Progress		PART NUMBER DR46003		SHEET 1 OF 1	
DO NOT SCALE DRAWING					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		<div>QR CODE</div>		DESCRIPTION PROTECTION DR46	
				MATERIAL POLYETHYLENE	
TOLERANCE: X/X = ±1/16 X.XX = ±.03 X.XXX = ±0.010 X° = ±1/2° REMOVE ALL BURRS AND SHARP CORNERS		<div><div></div><div>THIRD ANGLE PROJECTION</div></div>		FINISH --	
SCALE 1:12		REV:C			