

**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.**

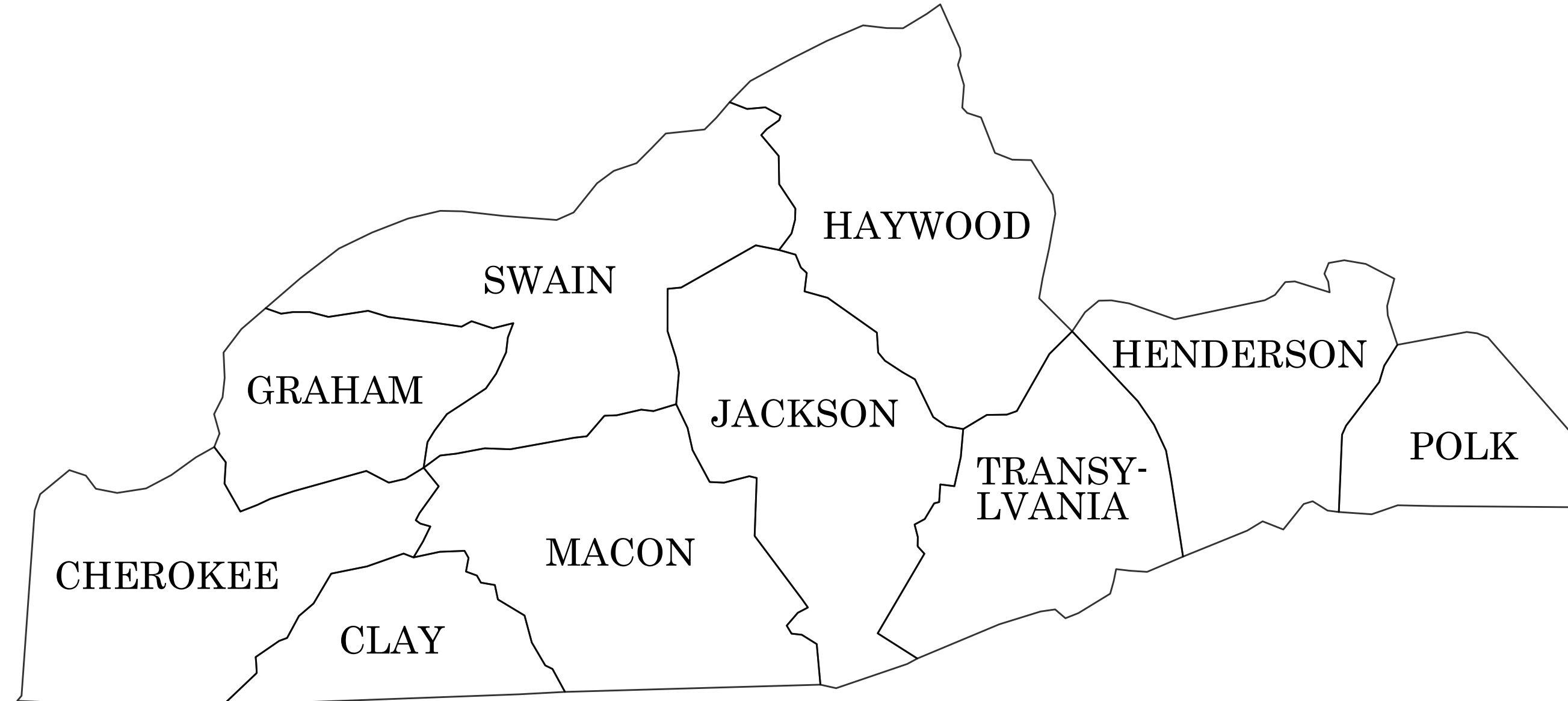
# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## DIVISION 14

LOCATION: *VARIOUS LOCATIONS  
ACROSS DIVISION 14*

TYPE OF WORK: *IDI/Q ON-CALL PATCHING,  
AND PAVING*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN12207738	8	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
GMR14.HEN.1P			
GMR14.HEN.2P			
GMR14.POL.1P			
GMR14.POL.2P			
GMR14.TRA.1P			
GMR14.TRA.2P			
GMR14.HAY.1P			
GMR14.HAY.2P			
GMR14.JAC.1P			
GMR14.JAC.2P			
GMR14.SWA.1P			
GMR14.SWA.2P			
GMR14.CHE.1P			
GMR14.CHE.2P			
GMR14.CLA.1P			
GMR14.CLA.2U			
GMR14.GRA.1P			
GMR14.GRA.2P			
GMR14.MAC.1P			
GMR14.MAC.2P			



**CONTRACT: DN12207738**

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION  
**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

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

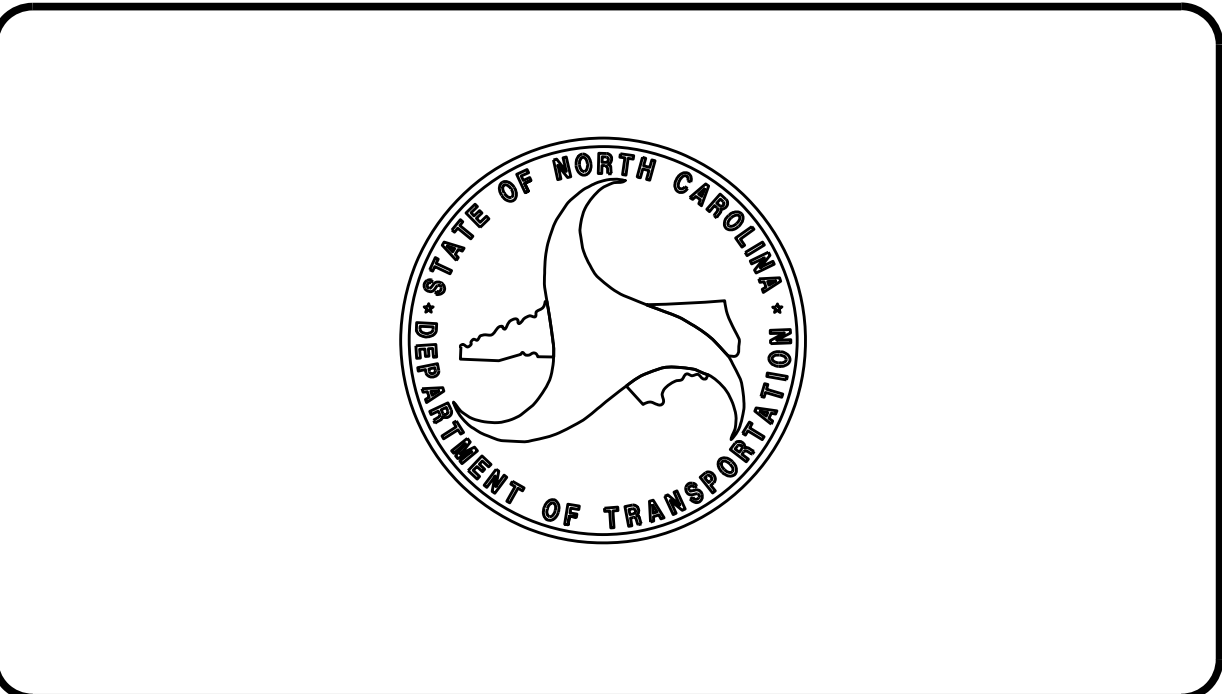
---

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A	WILLIAM WEDDLE P.E. <small>PROJECT ENGINEER</small>
LETTING DATE: 2/24/2026	JAMES HOLLINGSWORTH P.E. <small>PROJECT DESIGN ENGINEER</small>

*ROADWAY DESIGN ENGINEER*

SIGNATURE: \_\_\_\_\_ P.E.



## 2024 ROADWAY ENGLISH STANDARD DRAWINGS

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

STD.NO.	TITLE
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
610.01	Guide for Paving Shoulders Under Bridges - Method I
610.02	Guide for Paving Shoulders Under Bridges - Method II
610.03	Guide for Paving Shoulders Under Bridges - Method III
610.04	Guide for Paving Shoulders Under Bridges - Method IV
654.01	Pavement Repairs

DIVISION 17 - SIGNALS AND TRAFFIC MANAGEMENT SYSTEMS  
1725.01 Inductive Detection Loops

## INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS AND STANDARD DRAWINGS
2B-1 THRU 2B-6	ROADWAY DETAIL SHEETS

GENERAL NOTES: 2024 SPECIFICATIONS  
EFFECTIVE: 01-16-2024  
REVISED:

## GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

## SURFACING:

THE ROUGH GRADING AND STRUCTURES ON THIS PROJECT HAVE BEEN DONE OR ARE NOW BEING DONE UNDER A PREVIOUS CONTRACT. THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

## SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH **STD. NO. 225.04**. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

## SHOULDER CONSTRUCTION:

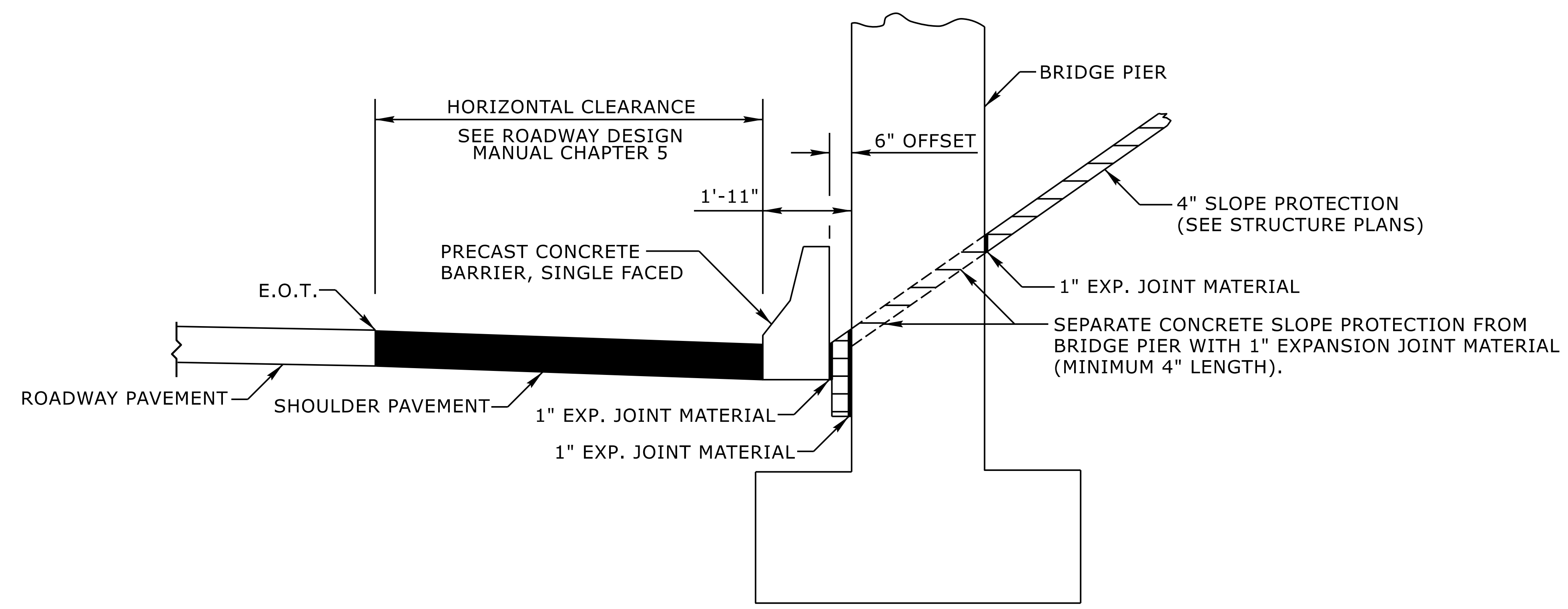
ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH

## SIDE ROADS:

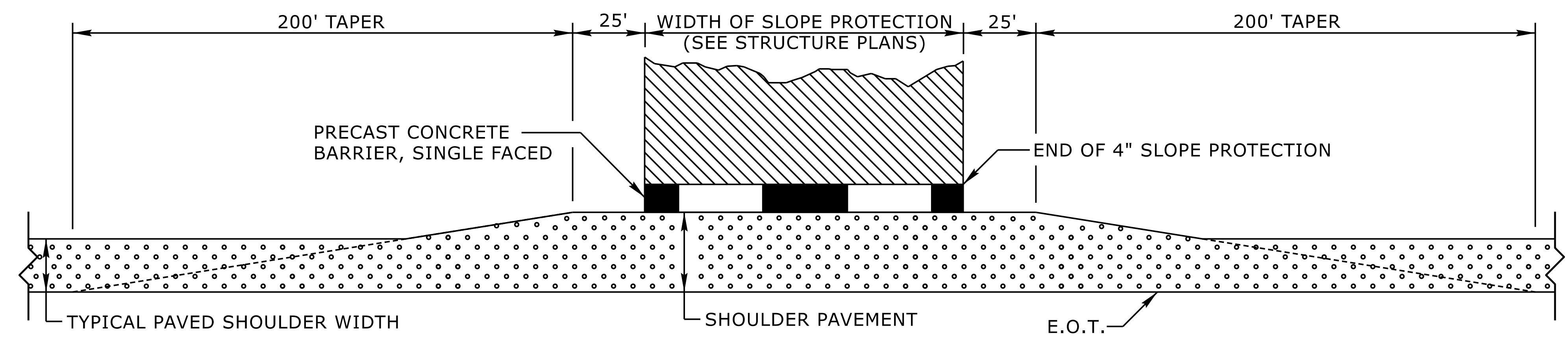
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

## DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.



**ELEVATION**

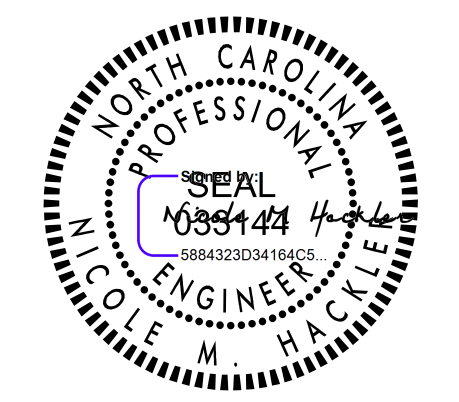


**PLAN**

- NOTES:
1. SHOULDER PAVEMENT SHOULD BE CONSTRUCTED AS SHOWN IN THE PLANS WITH THE SAME PAVEMENT DESIGN USED ON THE PAVED SHOULDER APPROACHING THE STRUCTURE UNDERPASS.
  2. SLOPE PROTECTION SHALL BE REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 462.

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUIDE FOR PAVING  
SHOULDERS UNDER BRIDGES**  
METHOD I



12/19/2025

SHEET 1 OF 1

**610D01**

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

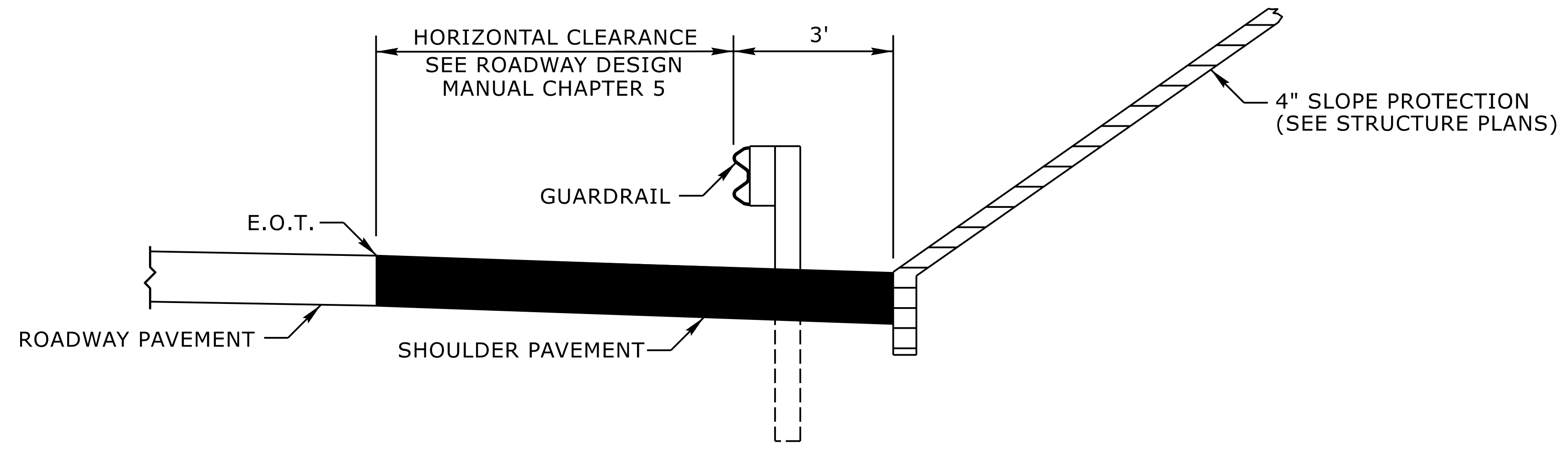
**SEE TITLE BLOCK**

ORIGINAL BY: L.SMITH DATE: 9-17-2025  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_

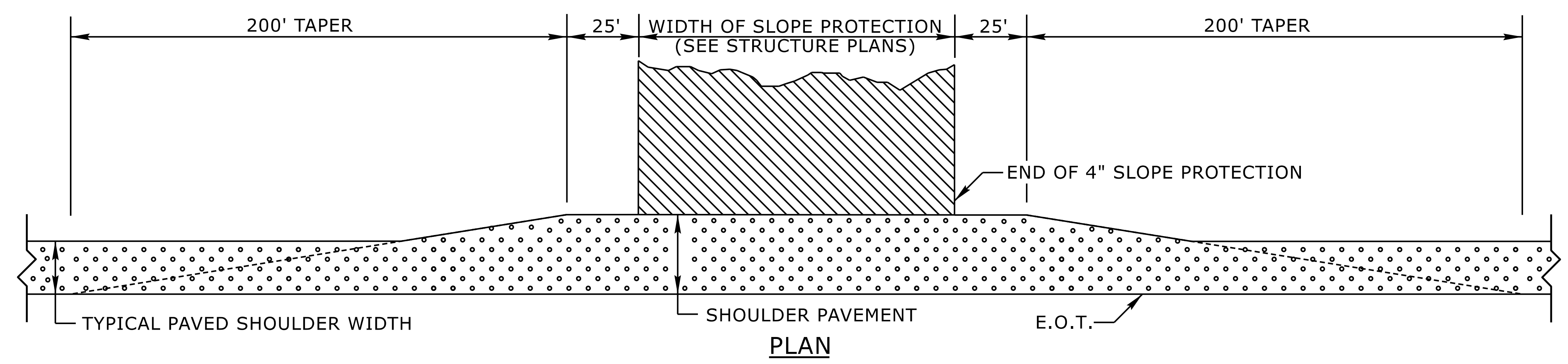
STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUIDE FOR PAVING  
SHOULDERS UNDER BRIDGES**  
METHOD II

SHEET 1 OF 1  
**610D02**



ELEVATION



PLAN

- NOTES:
1. SHOULDER PAVEMENT SHOULD BE CONSTRUCTED AS SHOWN IN THE PLANS WITH THE SAME PAVEMENT DESIGN USED ON THE PAVED SHOULDER APPROACHING THE STRUCTURE UNDERPASS.
  2. SLOPE PROTECTION SHALL BE REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 462.



12/19/2025

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

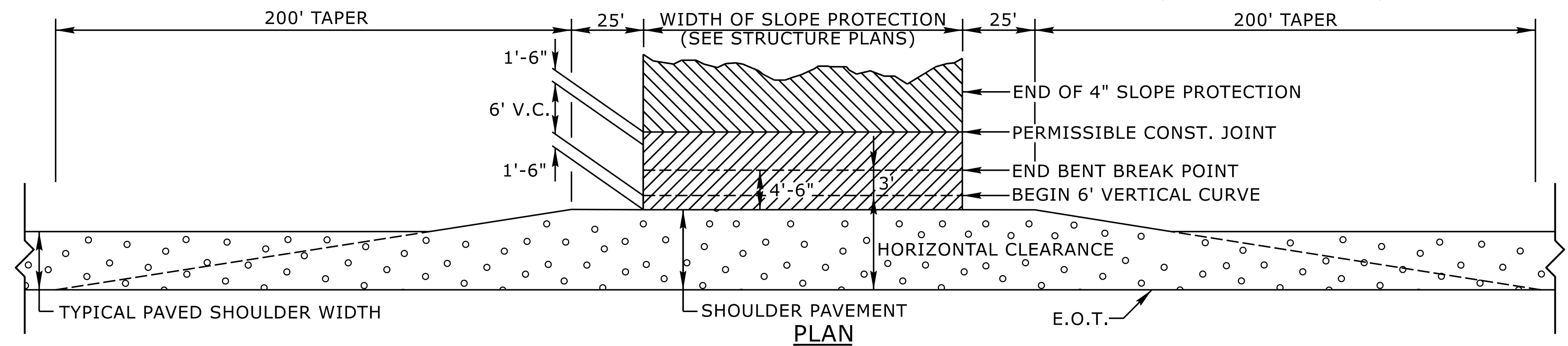
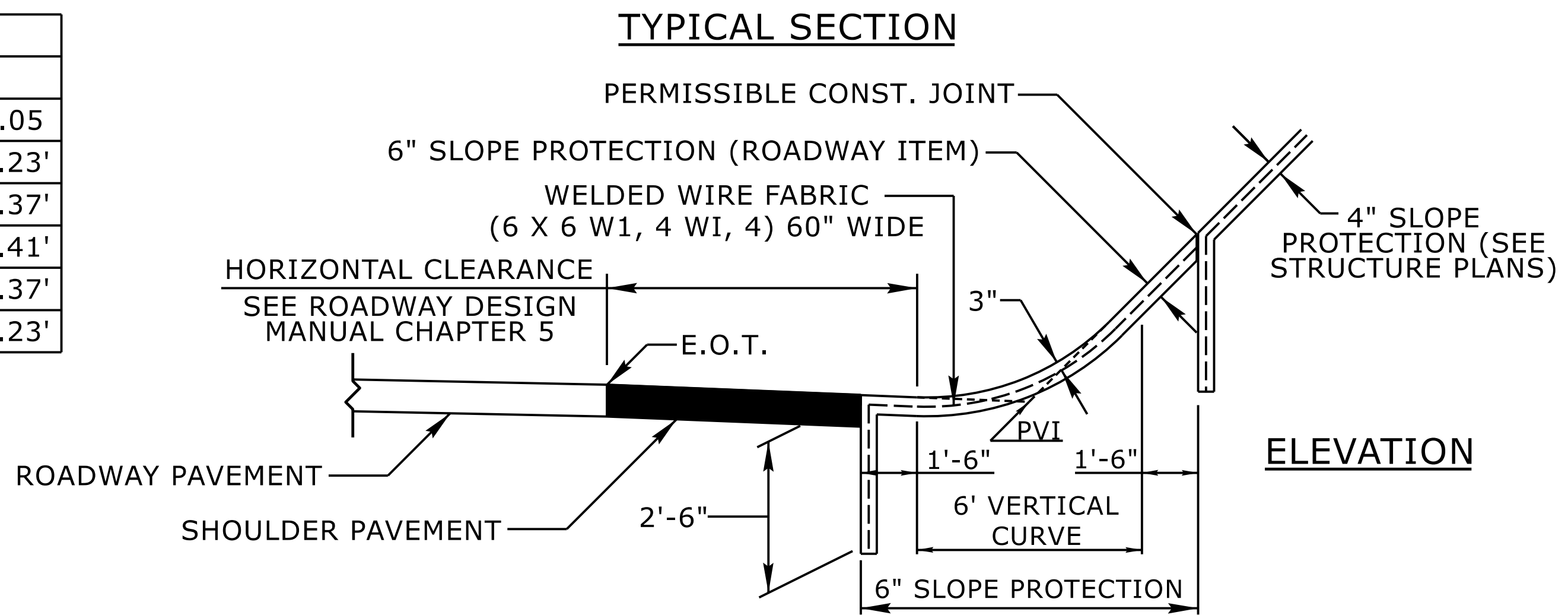
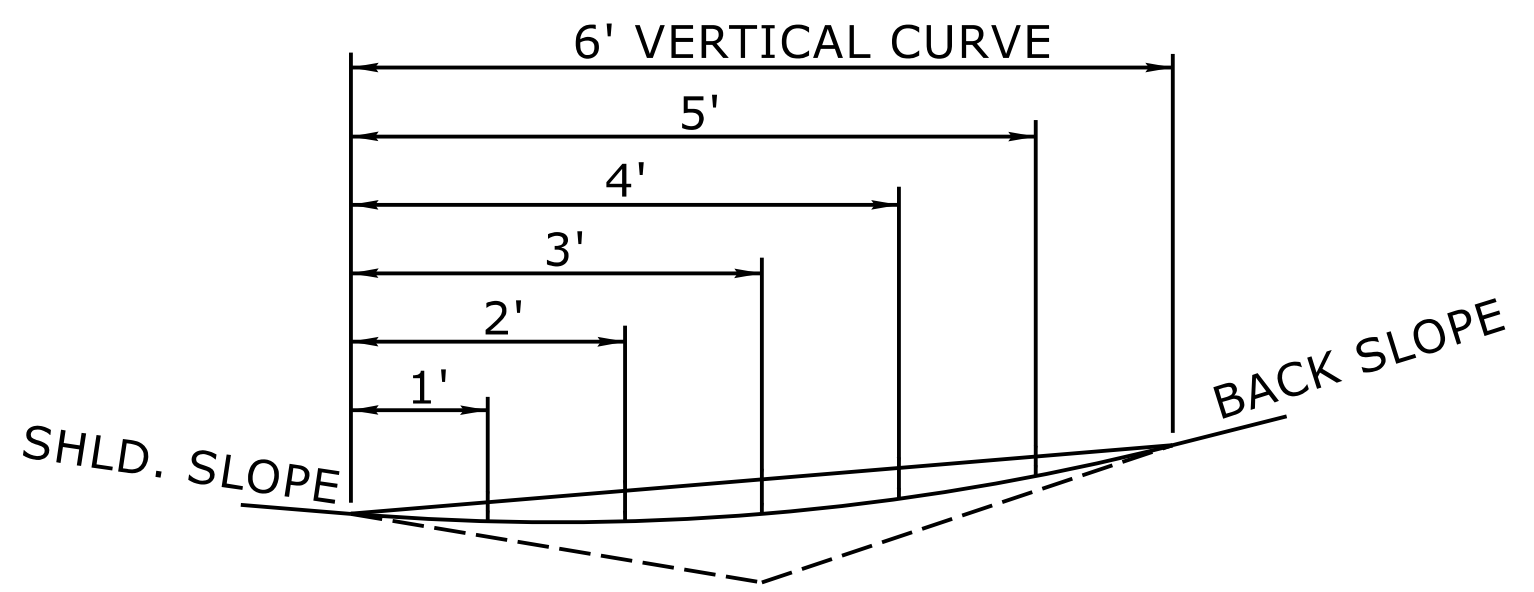
**SEE TITLE BLOCK**

ORIGINAL BY: L.SMITH DATE: 9-17-2025  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_

HORZ. DIM.	1½:1 BACK SLOPE									
	SHOULDER SLOPE									
	.04	.03	.02	.01	.00	-.01	-.02	-.03	-.04	-.05
1'	0.26'	0.27'	0.27'	0.27'	0.28'	0.28'	0.28'	0.29'	0.30'	0.31'
2'	0.42'	0.42'	0.43'	0.44'	0.44'	0.45'	0.46'	0.46'	0.47'	0.48'
3'	0.47'	0.48'	0.49'	0.49'	0.50'	0.51'	0.52'	0.52'	0.53'	0.54'
4'	0.42'	0.42'	0.43'	0.44'	0.44'	0.45'	0.46'	0.46'	0.47'	0.48'
5'	0.26'	0.27'	0.27'	0.27'	0.28'	0.28'	0.28'	0.29'	0.30'	0.31'

HORZ. DIM.	2:1 BACK SLOPE									
	SHOULDER SLOPE									
	.04	.03	.02	.01	.00	-.01	-.02	-.03	-.04	-.05
1'	0.19'	0.20'	0.20'	0.20'	0.21'	0.21'	0.22'	0.22'	0.23'	0.23'
2'	0.31'	0.31'	0.32'	0.33'	0.33'	0.34'	0.35'	0.35'	0.36'	0.37'
3'	0.35'	0.35'	0.36'	0.37'	0.38'	0.38'	0.39'	0.40'	0.41'	0.41'
4'	0.31'	0.31'	0.32'	0.33'	0.33'	0.34'	0.35'	0.35'	0.36'	0.37'
5'	0.19'	0.20'	0.20'	0.20'	0.21'	0.21'	0.22'	0.22'	0.23'	0.23'

**VERTICAL CURVE OFFSET**  
(FOR 6' V.C. AT BRIDGES)

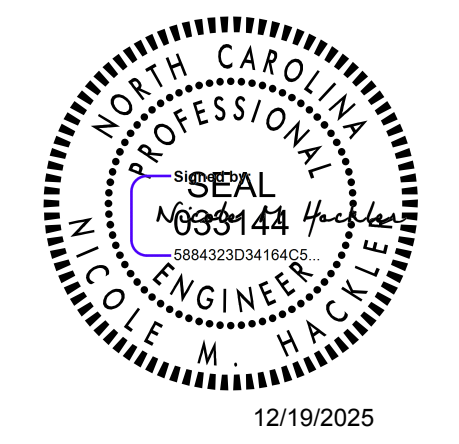


- NOTES:
- SHOULDER PAVEMENT SHOULD BE CONSTRUCTED AS SHOWN IN THE PLANS WITH THE SAME PAVEMENT DESIGN USED ON THE PAVED SHOULDER APPROACHING THE STRUCTURE UNDERPASS.
  - SLOPE PROTECTION SHALL BE REINFORCED CONCRETE IN ACCORDANCE WITH SECTION 462.
  - OFFSETS FOR 6' V.C. DENOTES FINISHED GRADE OF SLOPE PROTECTION.
  - THIS STANDARD IS TO BE USED WITH A NATURAL OR FALSE CUT ON THE APPROACHES (SEE ROADWAY STANDARD DRAWING 225.07).

STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUIDE FOR PAVING SHOULDERS UNDER BRIDGES**  
METHOD III

SHEET 1 OF 1  
**610D03**

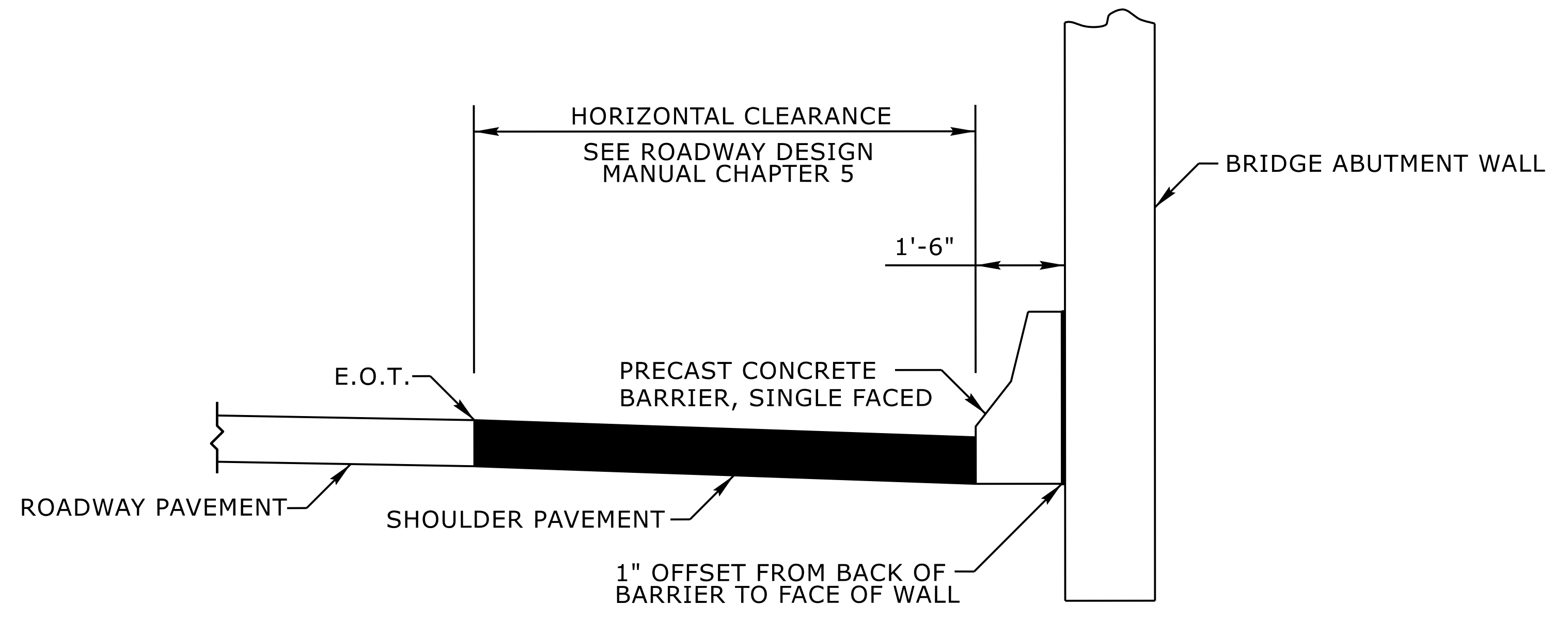


DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

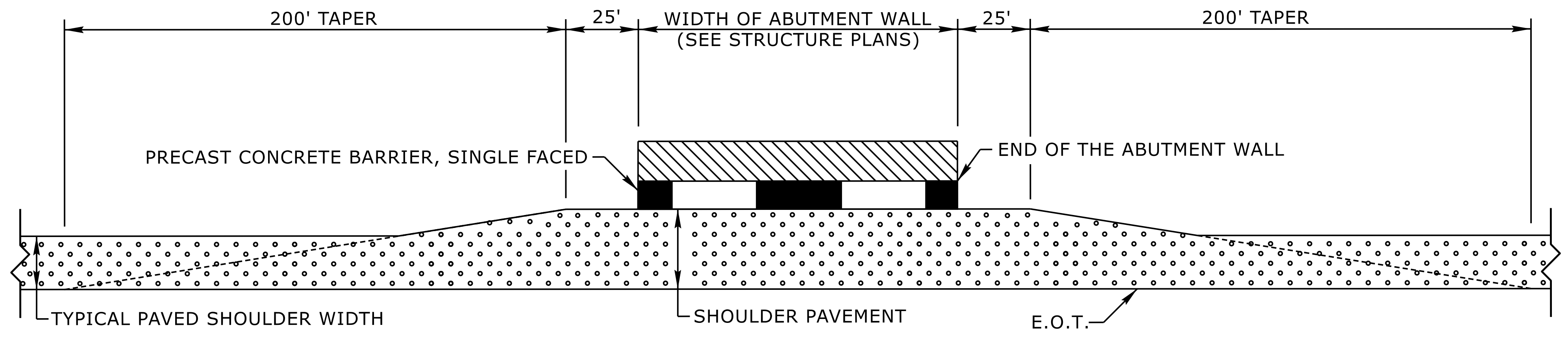
CONTRACTS STANDARDS AND DEVELOPMENT UNIT  
Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

ORIGINAL BY: L.SMITH DATE: 9-17-2025  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC.: \_\_\_\_\_



**ELEVATION**



**PLAN**

NOTE:  
1. SHOULDER PAVEMENT SHOULD BE CONSTRUCTED AS SHOWN IN THE PLANS WITH THE SAME PAVEMENT DESIGN USED ON THE PAVED SHOULDER APPROACHING THE STRUCTURE UNDERPASS.

STATE OF  
NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUIDE FOR PAVING  
SHOULDERS UNDER BRIDGES  
METHOD IV**

SHEET 1 OF 1  
**610D04**



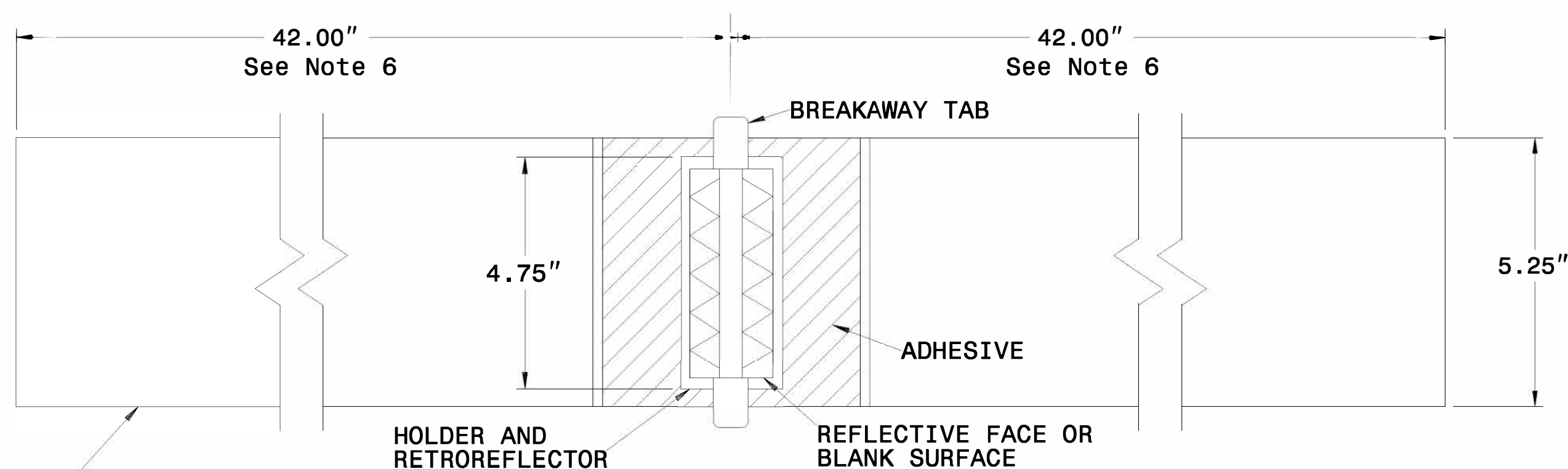
12/19/2025

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

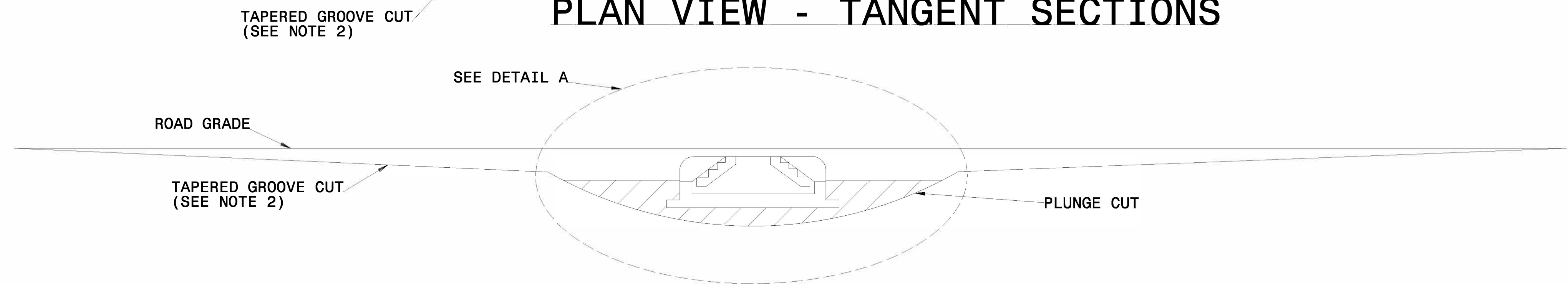
**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**SEE TITLE BLOCK**

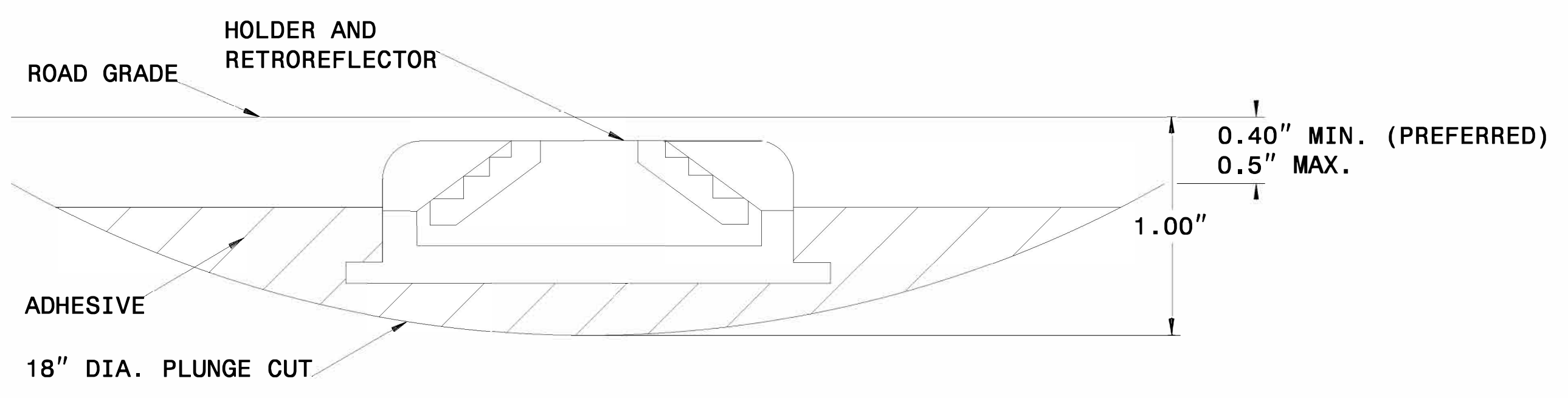
ORIGINAL BY: L.SMITH DATE: 9-17-2025  
MODIFIED BY: DATE: \_\_\_\_\_  
CHECKED BY: DATE: \_\_\_\_\_  
FILE SPEC: \_\_\_\_\_



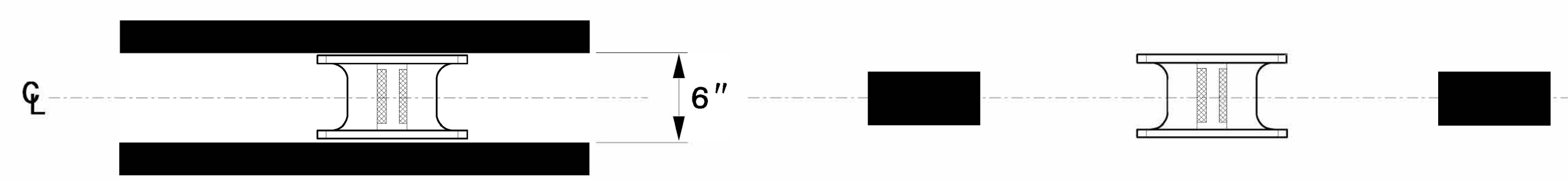
**PLAN VIEW - TANGENT SECTIONS**



**PROFILE VIEW**



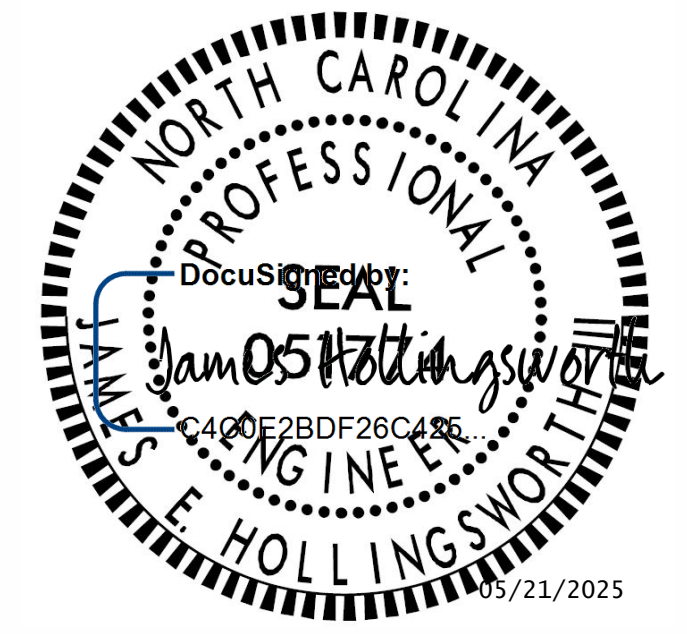
**DETAIL A**



**MARKER SPACING**

**NOTES:**

1. ALL GROOVE EDGES SHALL BE AT LEAST 2 INCHES FROM ANY SEAM OR PAVEMENT JOINT
2. GROOVE CUTS MAY BE TAPERED OR BEVELED. TAPERED CUTS SHALL START AT ROAD LEVEL ON EACH END AND TAPER AT A FIXED RATE AS SHOWN ON THE PROFILE VIEW. BEVELED GROOVE CUTS SHALL BE 0.5" MAXIMUM DEPTH (0.4" PREFERRED), AND SHALL BE 0.4" MINIMUM DEPTH AT BOTH ENDS OF THE PLUNGE CUT.
3. GROOVE AND PLUNGE CUT SHALL BE CLEAN AND DRY PRIOR TO PLACEMENT OF ADHESIVE.
4. THE EPOXY ADHESIVE SHALL BE THOROUGHLY MIXED UNTIL IT IS UNIFORM IN COLOR, AND APPLIED IN COLOR, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. MARKER SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS WITH THE BREAKWAY TABS RESTING ON THE PAVEMENT SURFACE. THE EPOXY SHALL BE FILLED TO THE LEVEL OF THE TOP OF THE MARKER HOLDER. EPOXY SHALL NOT TOUCH THE RETROREFLECTOR.
6. TOTAL GROOVE LENGTH MAY BE SHORTENED TO 54" ON SHARP CURVES IF APPROVED BY THE ENGINEER. GROOVES SHALL NOT OVERLAP WITH LOOP DETECTOR WIRES.

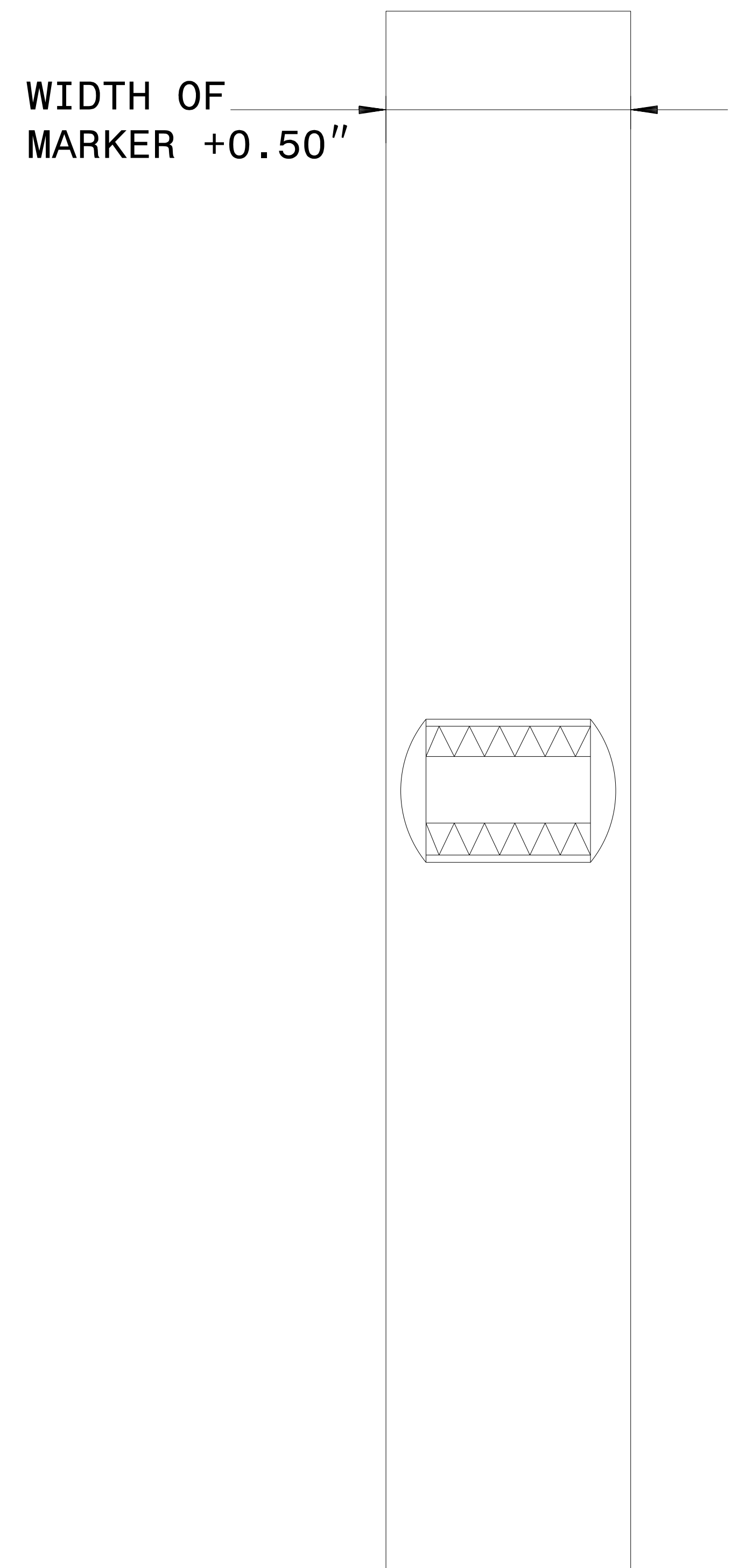


**CONTRACTS STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-8950 FAX 919-250-4119

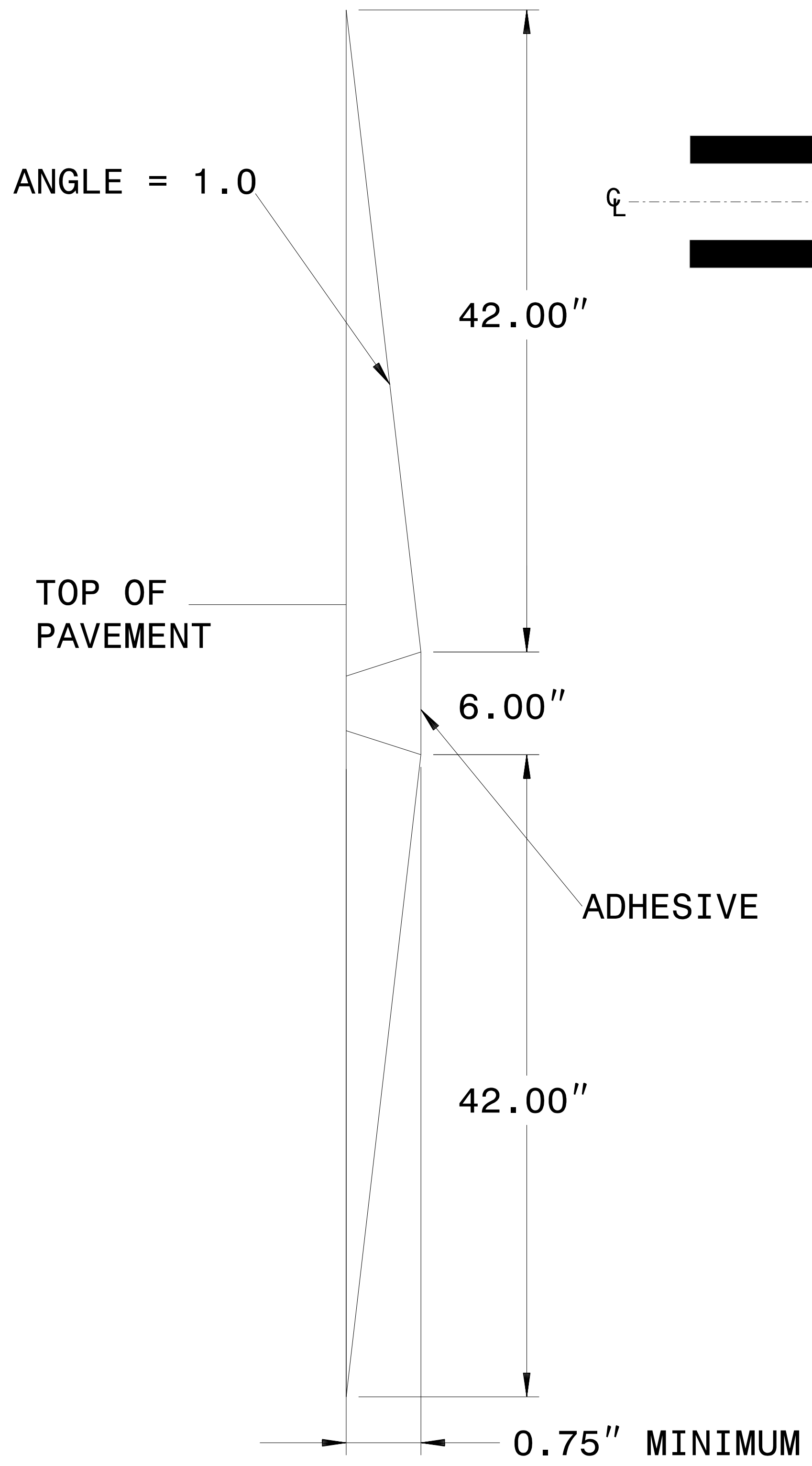
**DETAIL OF INLAID CRADLE MARKER**

ORIGINAL BY: rgwatson	DATE: 02-06-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

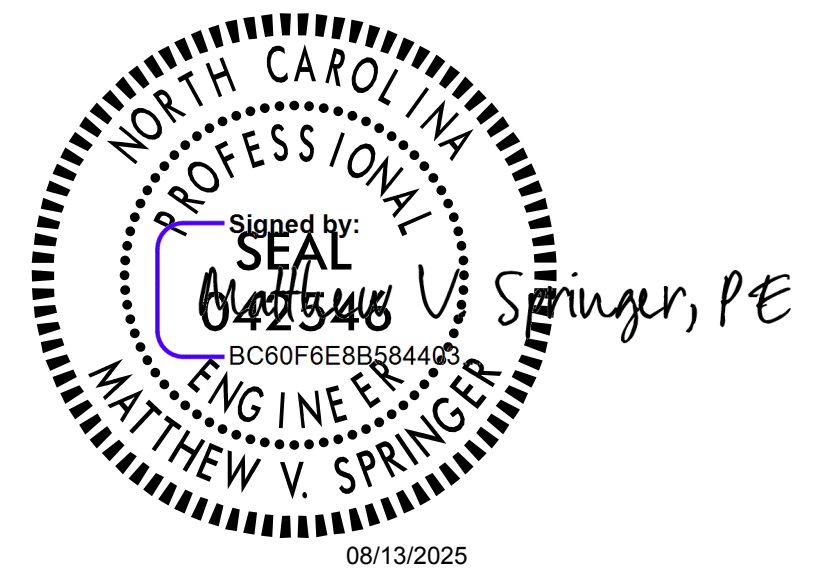
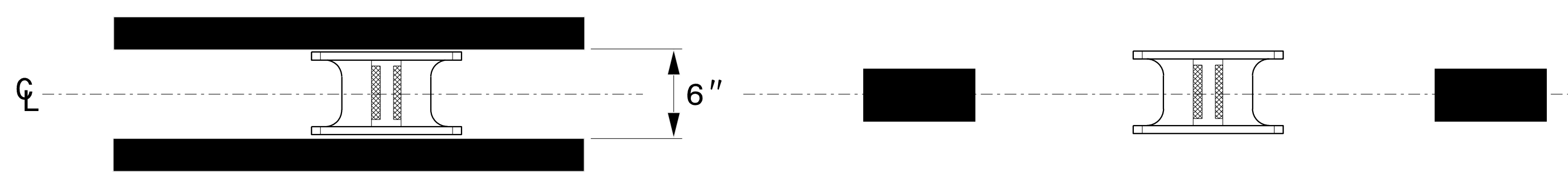
**PLAN VIEW**



**SECTION VIEW**



**MARKER SPACING**



**NOTES:**

1. THE PAVEMENT SHALL BE SAW CUT TO THE DIMENSIONS SHOWN.
2. THE SAW CUT AREA MUST BE DRY AND FREE OF DUST. DIRT OR ANY MATERIAL WHICH WILL ADVERSELY AFFECT THE BOND OF THE ADHESIVE.
3. INSTALL MARKERS WITH APPROVED ADHESIVE. ADHESIVE SHOULD NOT BE ALLOWED TO BUILD UP IN FRONT OF MARKER LENS.
4. THE MARKER AND THE ADHESIVE PAD SHALL NOT EXCEED THE TOP OF THE PAVEMENT SURFACE. DEPTH = 0.75" MINIMUM.
5. RECESSED MARKERS INSTALLED ON CONCRETE PAVEMENT SHOULD BE INSTALLED A MINIMUM OF 2" FROM THE PAVEMENT JOINT OR EDGE

**CONTRACTS STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-8950 FAX 919-250-4119

**DETAIL OF INLAID RAISED PAVEMENT MARKER**

ORIGINAL BY: rgwatson	DATE: 02-06-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	