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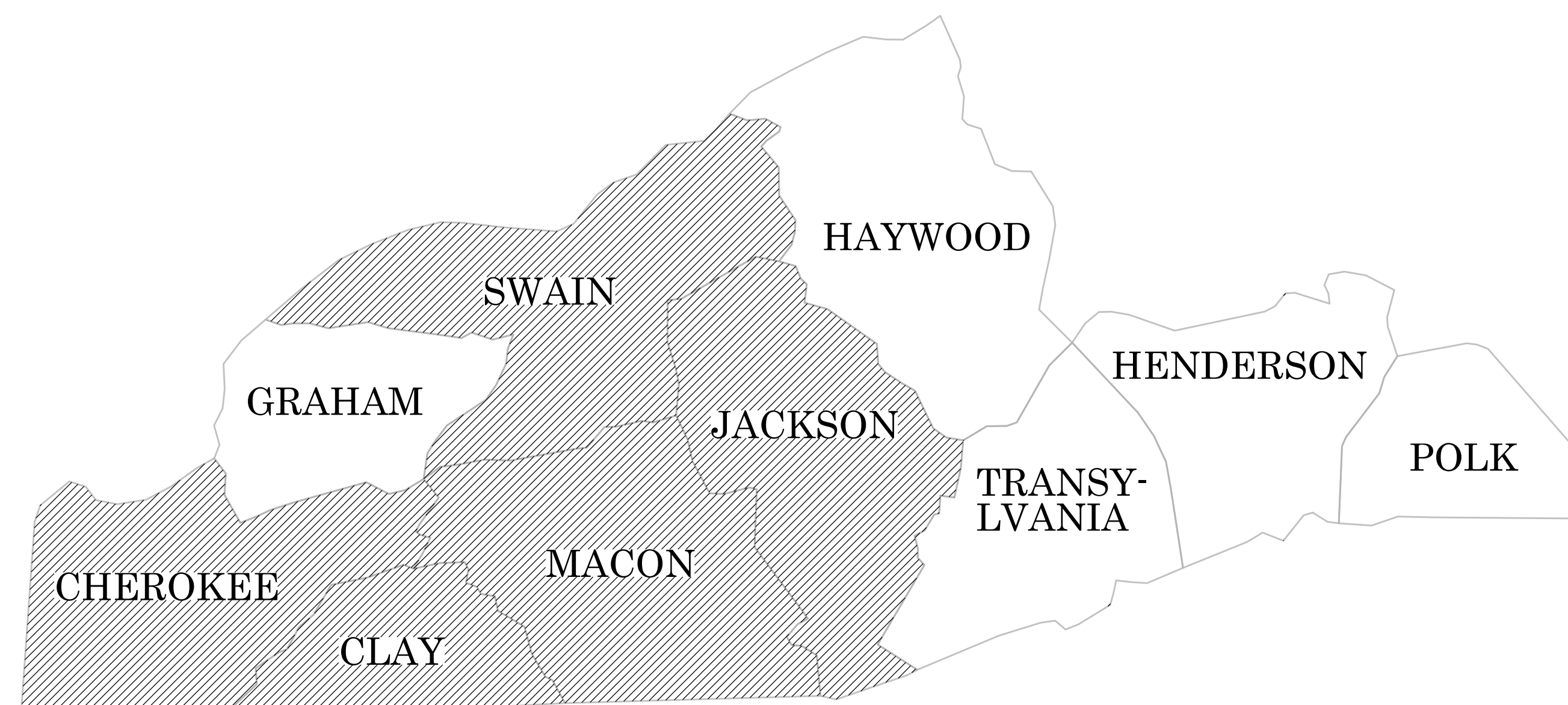
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DIVISION 14 GUARDRAIL END-UNITS

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

TYPE OF WORK: *UPGRADE GUARDRAIL END-UNITS*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	1	22
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	



CONTRACT: DN01102

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

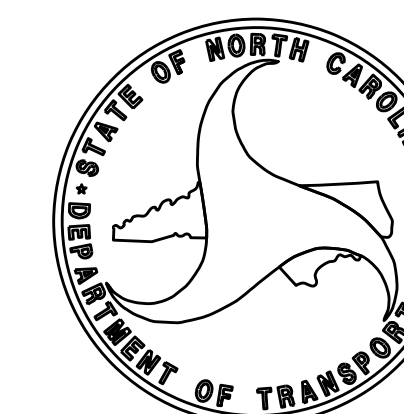
2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
AUGUST 26, 2025

JAMES HOLLINGSWORTH, PE
PROJECT ENGINEER

JAMES HOLLINGSWORTH, PE
PROJECT DESIGN ENGINEER



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	1-A	21
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, AND STANDARD DRAWINGS
2-7	DRAWING DETAILS: DETAILS IN LIEU OF
8-11	JACKSON & SWAIN COUNTY
12-16	MACON COUNTY
17-18	CHEROKEE COUNTY
19-21	CLAY COUNTY

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
DIVISION 11 – WORK ZONE TRAFFIC CONTROL	
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES

GUARDRAIL TO BE INSTALLED OR ADJUSTED ACCORDINGLY IN THE FIELD AS DIRECTED BY THE ENGINEER.

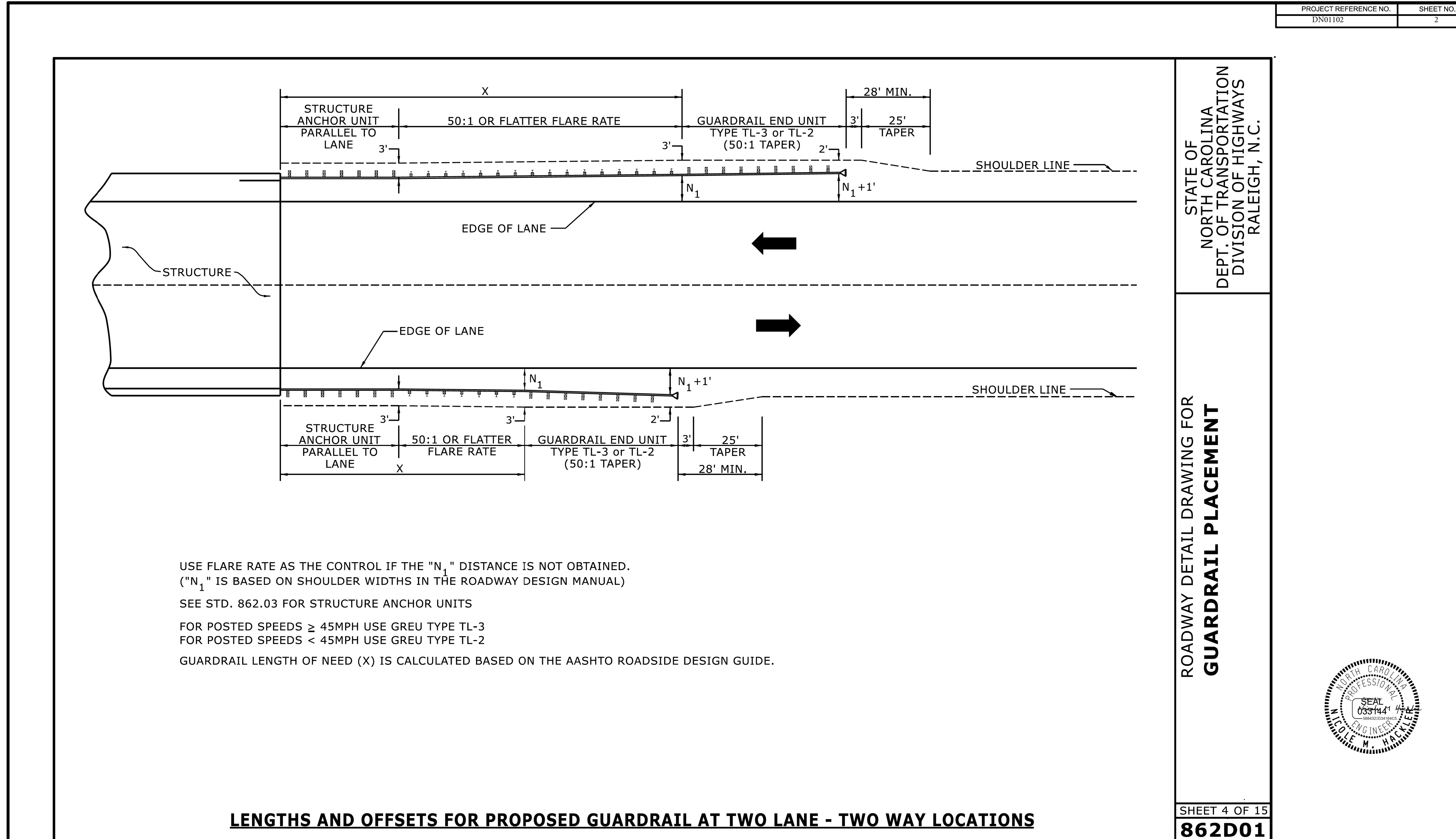
CONTRACT: DN01102

09/08/09

DRAWING DETAIL: GUARDRAIL PLACEMENT 862D0104

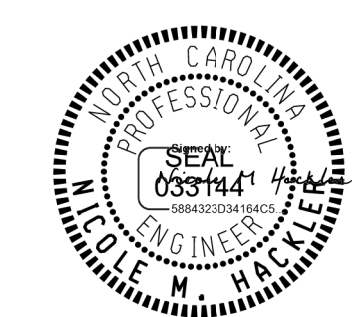
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	2	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

CONTRACT: DN01102



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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT



SHEET 4 OF 15
862D01

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 AND DEVELOPMENT UNIT**
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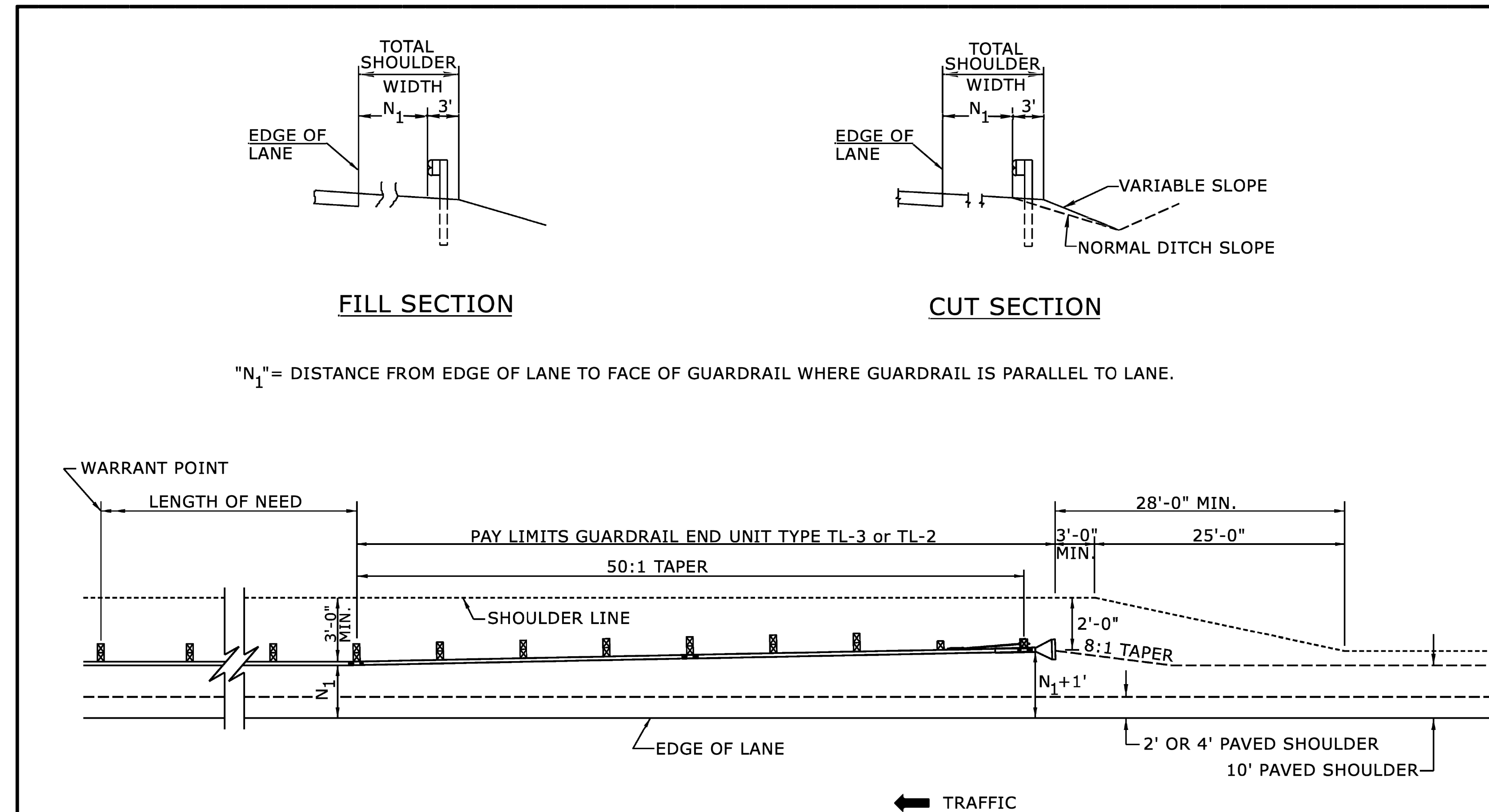
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 MODIFIED BY: DATE: _____
 CHECKED BY: DATE: _____
 FILE SPEC.: _____

DRAWING DETAIL: GUARDRAIL PLACEMENT

862D0106

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	3	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

PROJECT REFERENCE NO.	SHEET NO.
DN01102	3



FILL SECTION

CUT SECTION

"N₁" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT



SHEET 6 OF 15
862D01

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MODIFIED BY: DATE: _____
CHECKED BY: DATE: _____
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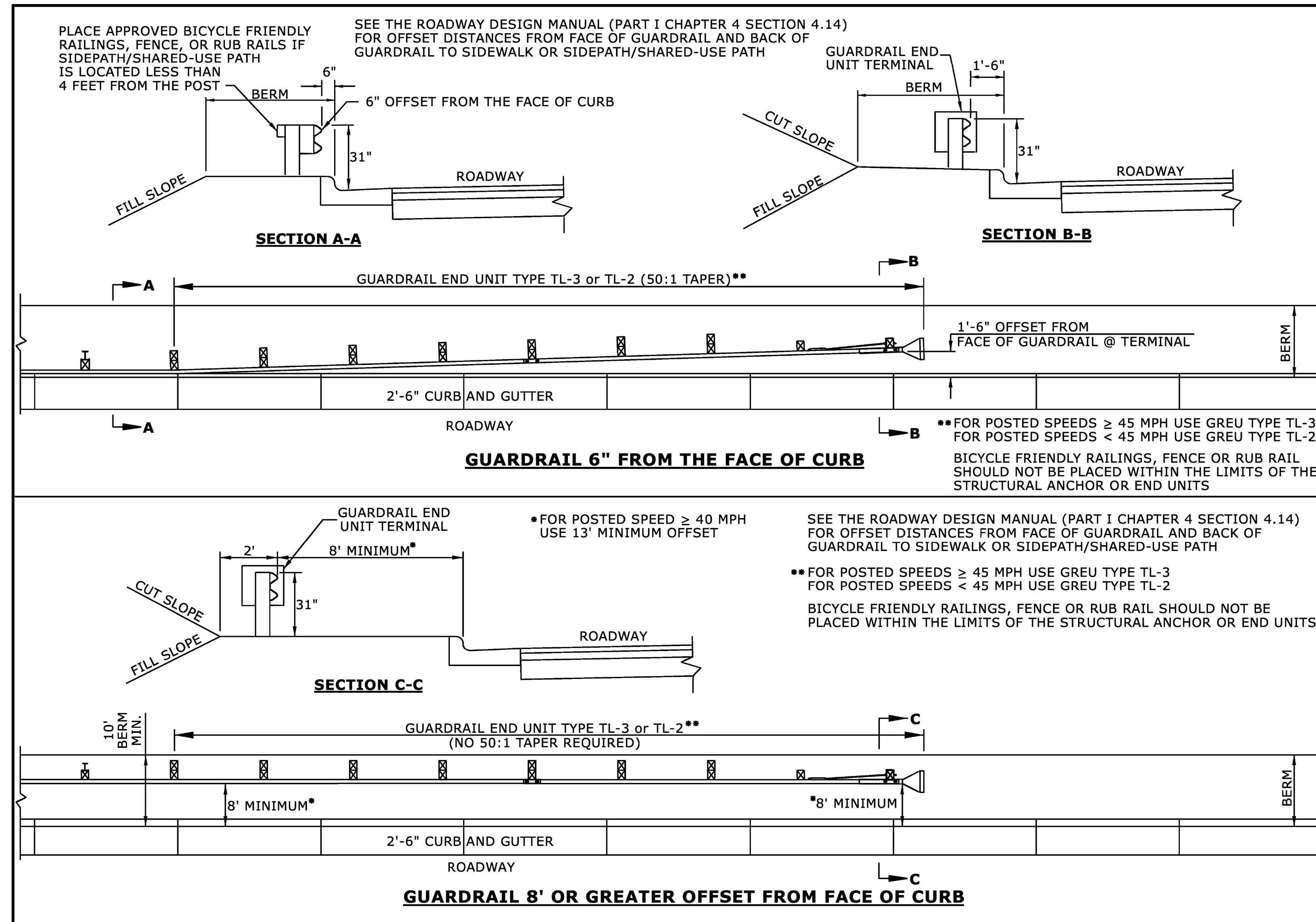
CONTRACT: DN01102

09/08/09

DRAWING DETAIL: GUARDRAIL TREATMENT AT CURB AND GUTTER 862D0112

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	4	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

PROJECT REFERENCE NO.	SHEET NO.
DN01102	4



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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
GUARDRAIL TREATMENT AT CURB AND GUTTER



SHEET 12 OF 15
862D01

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 MODIFIED BY: DATE: _____
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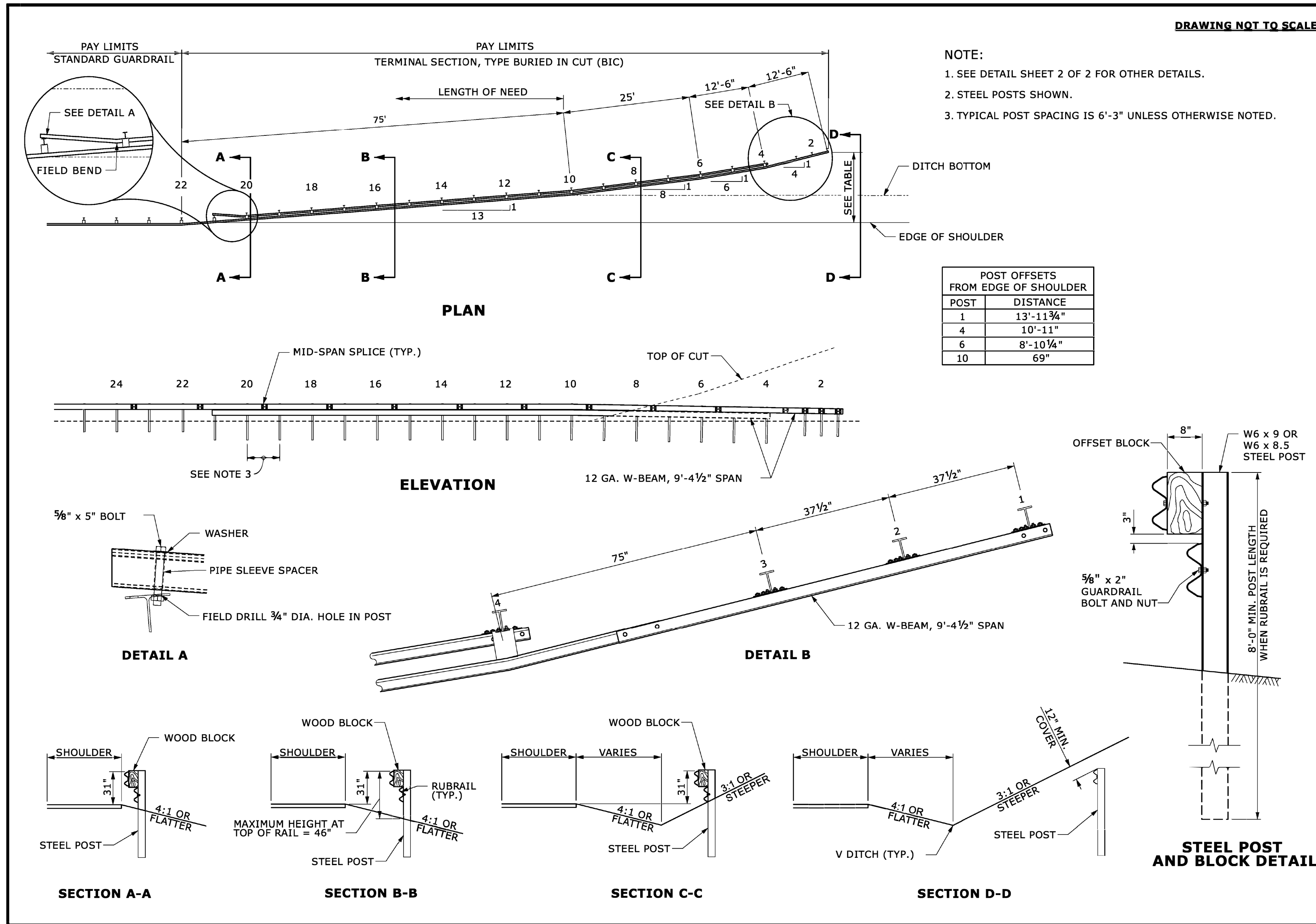
CONTRACT: DN01102

09/08/09

DRAWING DETAIL: GUARDRAIL PLACEMENT FOR BURIED IN CUT END UNIT 862D0114

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	5	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

PROJECT REFERENCE NO. DN01102	SHEET NO. 5
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
 BURIED IN CUT END UNIT

SHEET 14 OF 15
862D01



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 MODIFIED BY: DATE: _____
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 FILE SPEC: _____

CONTRACT: DN01102

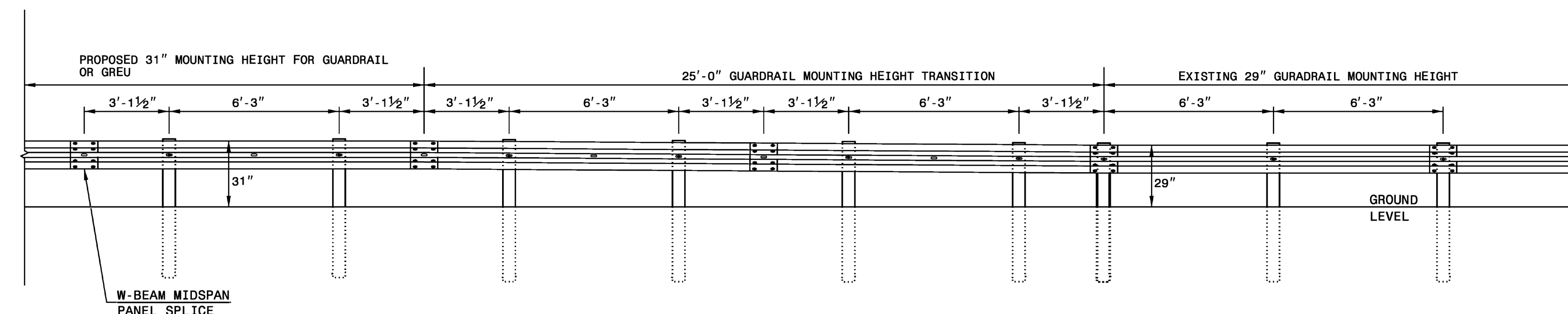
09/08/09

DRAWING DETAIL: GUARDRAIL INSTALLATION 862D0205

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	6	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

PROJECT REFERENCE NO.	SHEET NO.
DN01102	6

NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 29", USE AN ADDITIONAL 12'-6" LONG SECTION OF GUARDRAIL, FOR EVERY 1" OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 31" GUARDRAIL.



ELEVATION VIEW

TRANSITION FROM 29" TO 31" W-BEAM GUARDRAIL MOUNTING HEIGHT

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

**ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION**



**SHEET 5 OF 9
862D02**

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AND DEVELOPMENT UNIT**
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ORIGINAL BY: K. Aldridge	DATE: 02-25
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

CONTRACT: DN01102

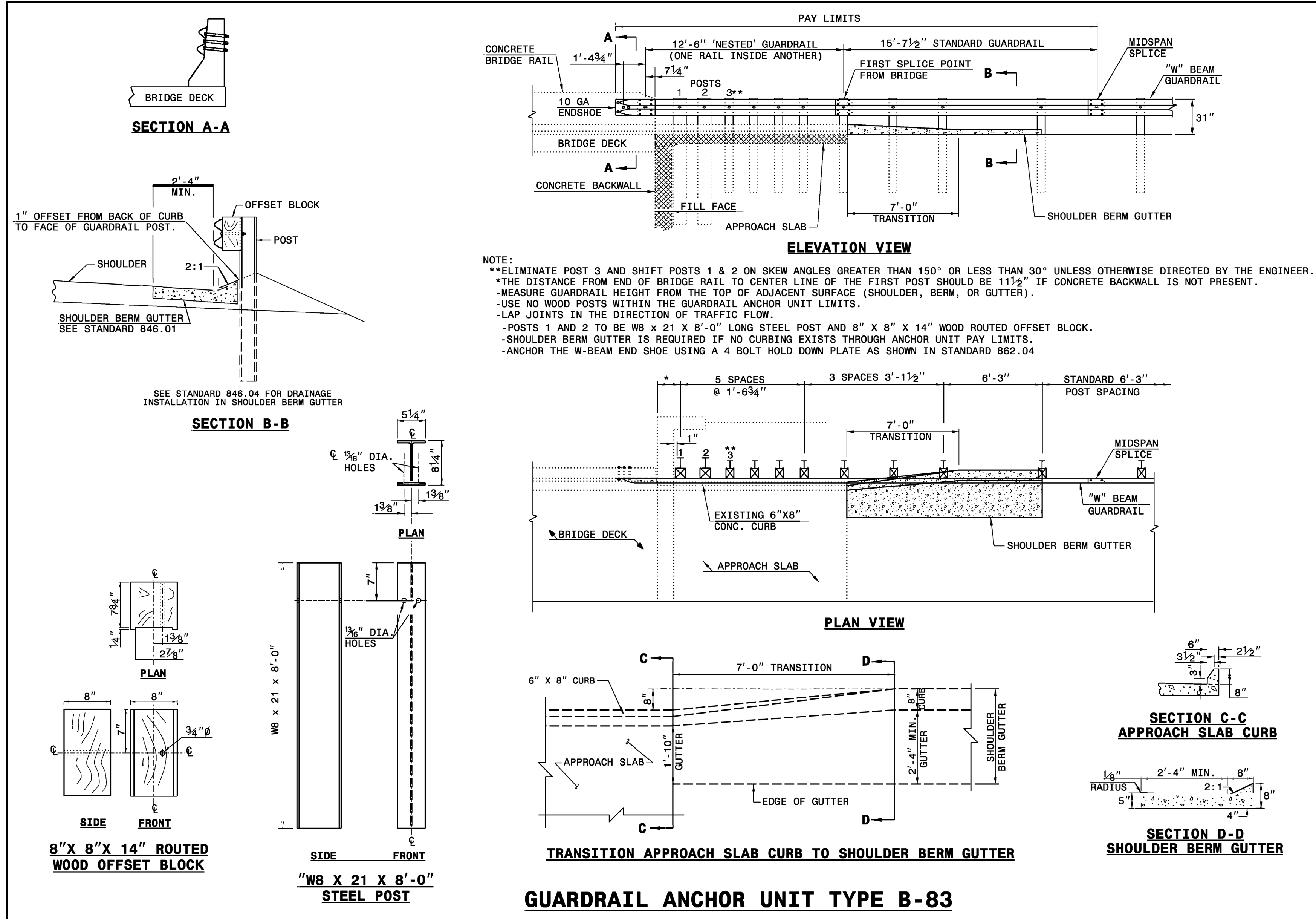
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DRAWING DETAIL: STRUCTURE ANCHOR UNITS

862D0306

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	7	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	
50986.3.12	5098609	CONSTRUCTION	
50986.3.13	5098611	CONSTRUCTION	
50986.3.14	5098613	CONSTRUCTION	

PROJECT REFERENCE NO.	SHEET NO.
DN01102	7



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

ROADWAY DETAIL DRAWING FOR
STRUCTURE ANCHOR UNITS
 GUARDRAIL ANCHOR UNIT TYPE B-83



SHEET 6 OF 9
862D03

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ORIGINAL BY: K. Aldridge	DATE: 06-02-2025
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC:	

CONTRACT: DN01102

09/08/09

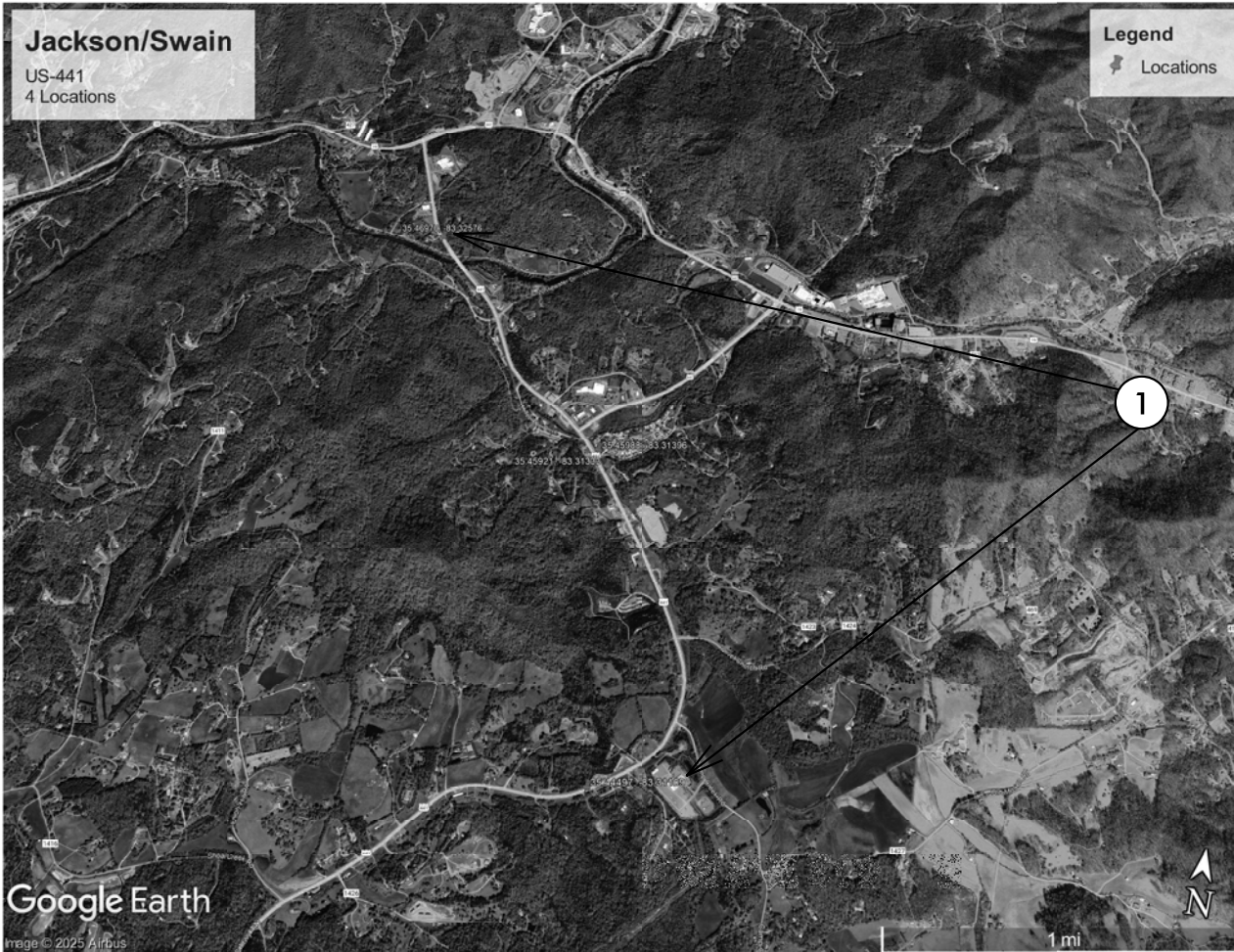
JACKSON/SWAIN COUNTY

US-441



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	8	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	

CONTRACT: DN01102 TIP PROJECT: HS-2414J



MAP 1



START



END

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	10	22
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50986.3.11	5098610	CONSTRUCTION	



SWAIN COUNTY

US-19

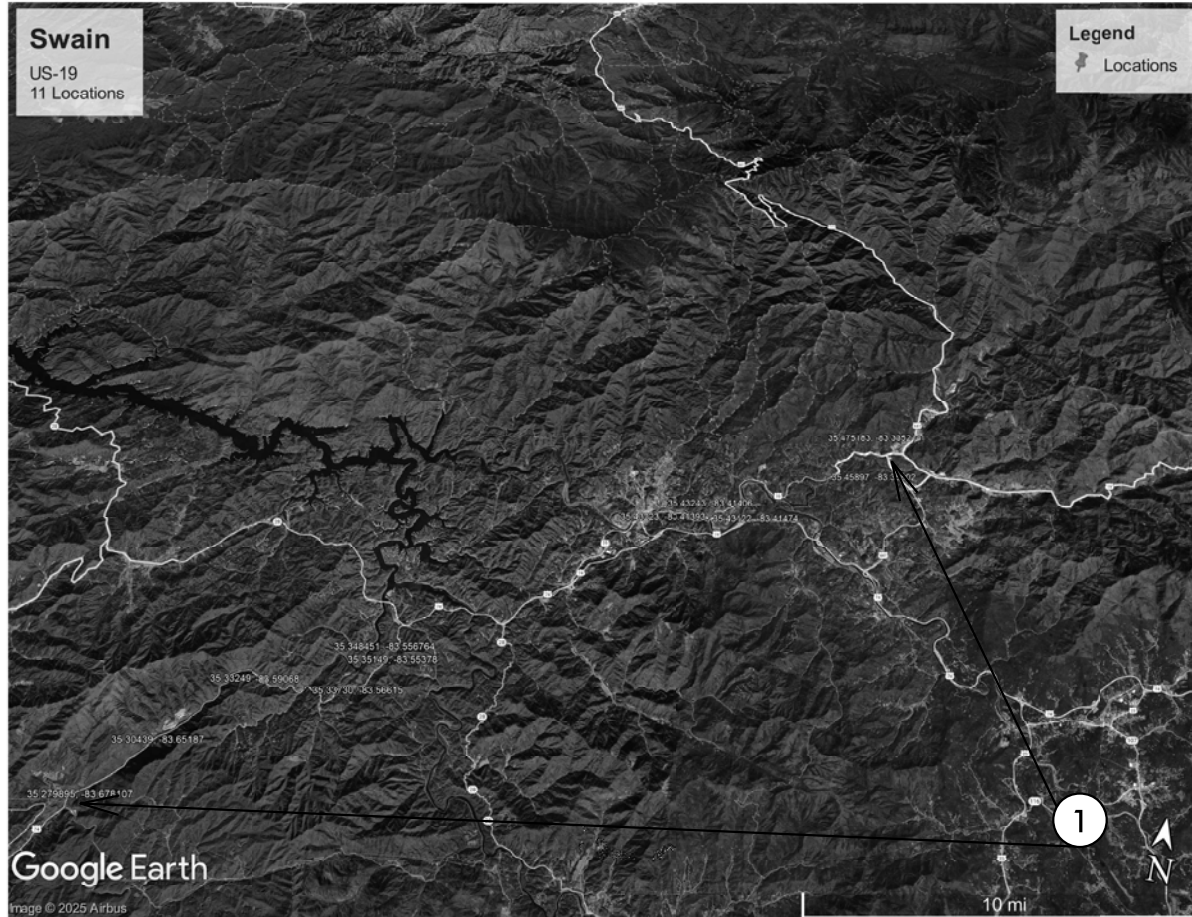
MAP 2



START



END



TIP PROJECT: HS-2414J

CONTRACT: DN01102

09/28/25

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	12	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.12	5098609	CONSTRUCTION	

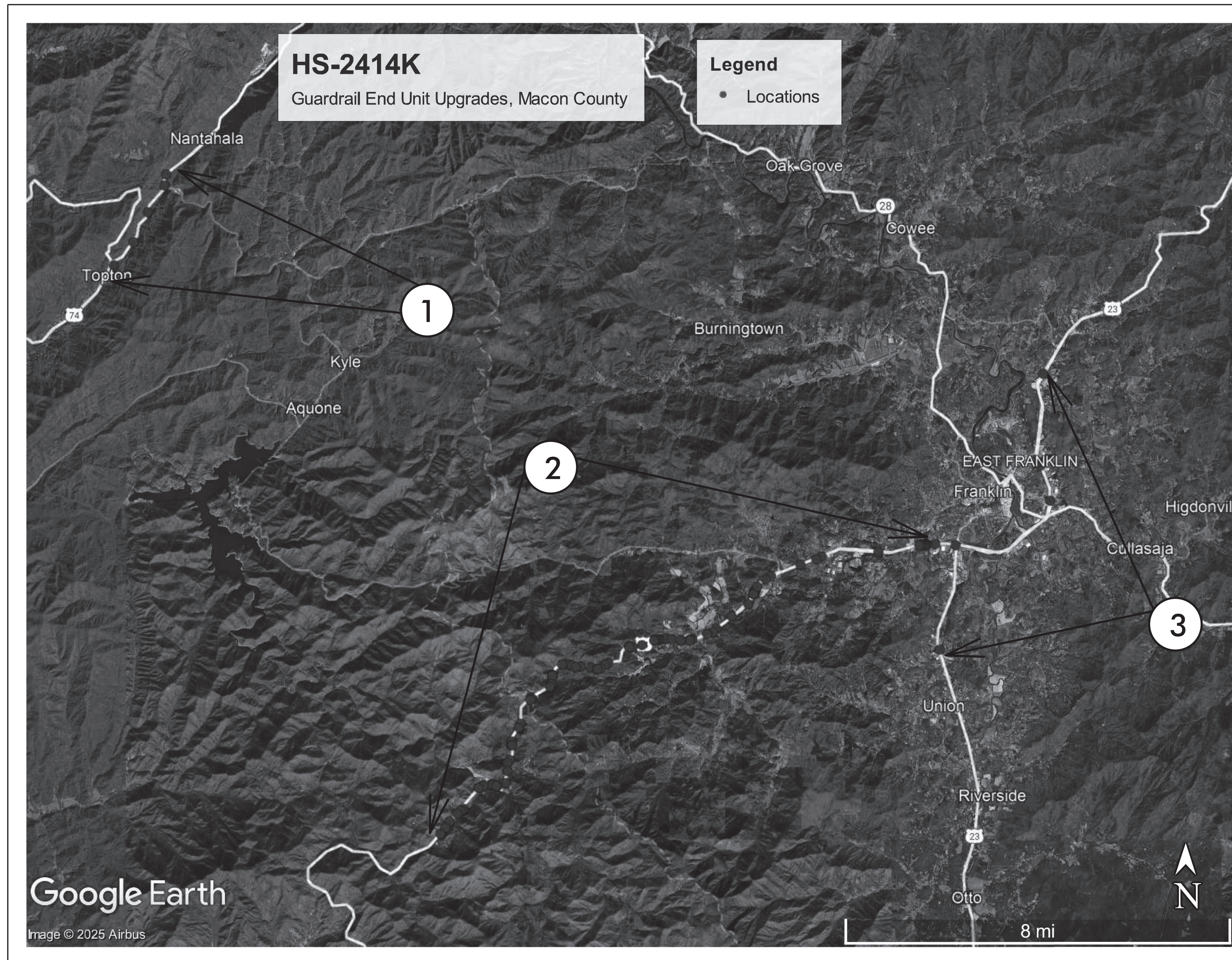


MACON COUNTY

US-19/74, US-64, US-23

TIP PROJECT: HS-2414K

CONTRACT: DN01102



HS-2414K
Guardrail End Unit Upgrades, Macon County

Legend
• Locations

1. US-19/74



START



END

2. US-64



START



END

3. US-23



START



END

09/08/2025

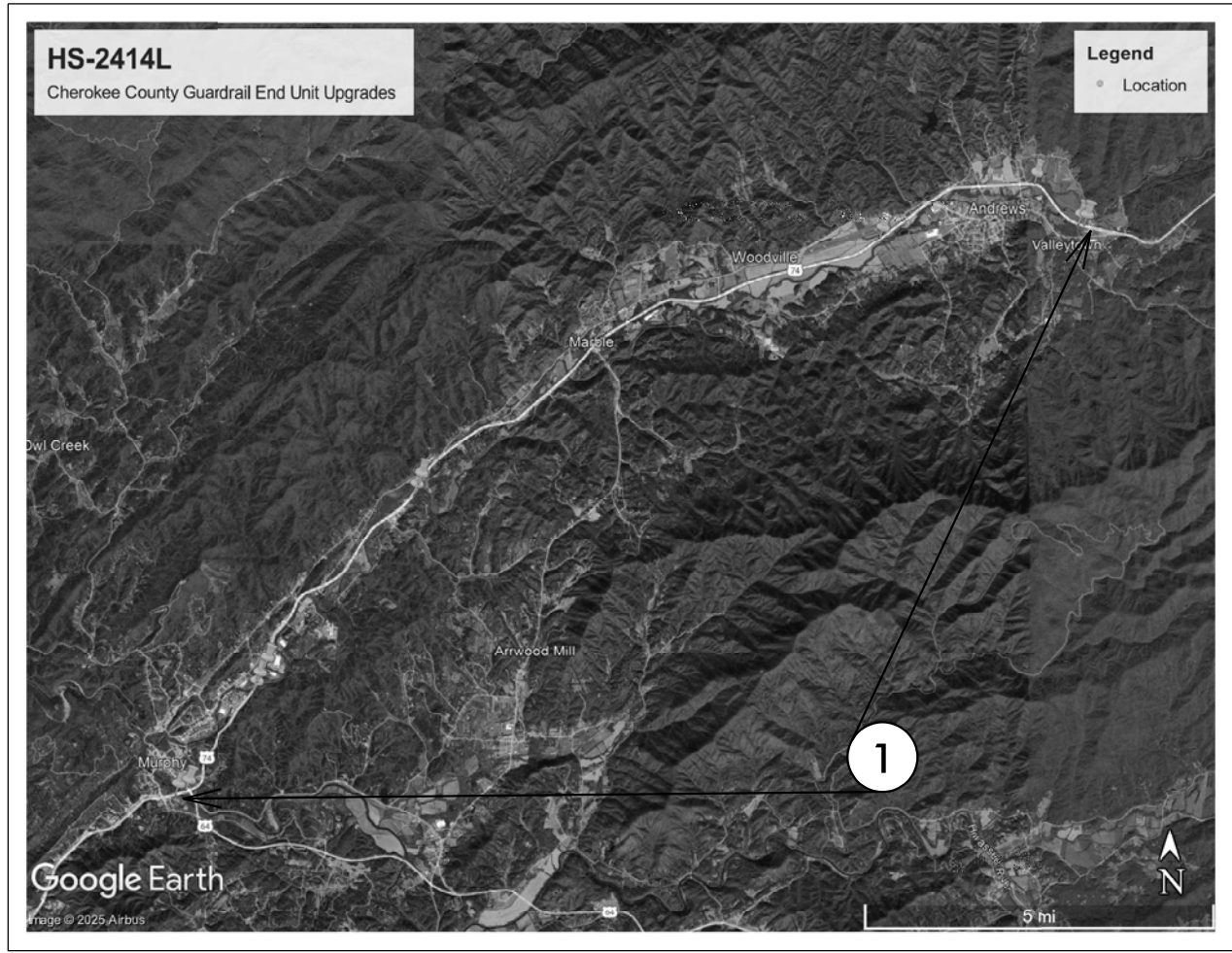
TIP PROJECT: HS-2414L

CONTRACT: DN01102

CHEROKEE COUNTY

US-19

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	17	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3.13	5098611	CONSTRUCTION	



MAP 1



START



END

09/28/2025

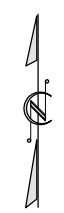
TIP PROJECT: HS-2414M

CONTRACT: DN01102

CLAY COUNTY

US-64

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	DN01102	19	22
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50986.3,14	5098613	CONSTRUCTION	



MAP 1



START



END

