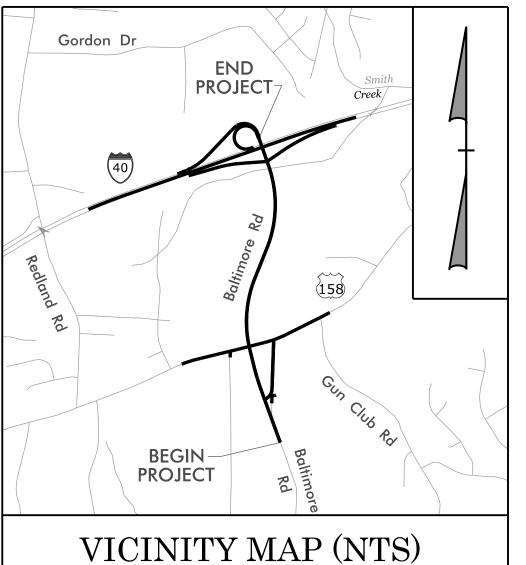


See Sheet 1A For Index of Sheets See Sheet 1B For Conventional Plan Sheet Symbols Gordon Dr END PROJECT₇



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

DAVIE COUNTY

LOCATION: EXTENSION OF SR 1630 (BALTIMORE ROAD) TO A NEW INTERCHANGE AT I-40

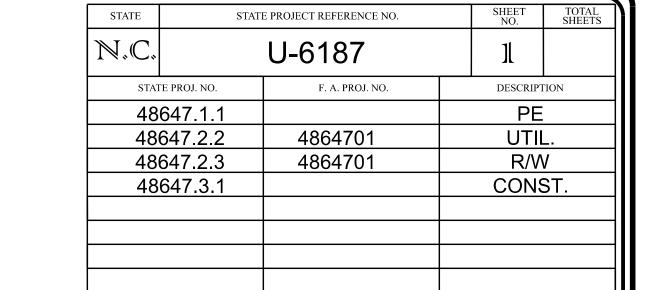
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES

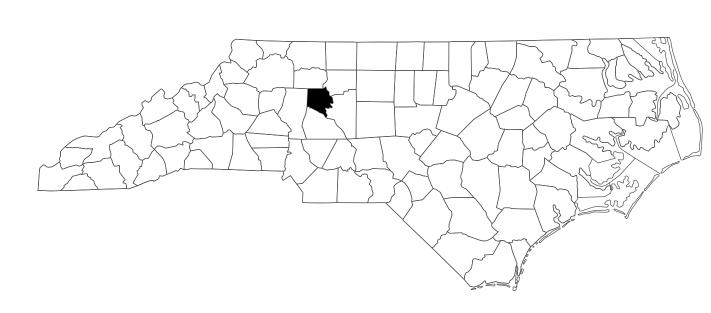
BEGIN CONSTRUCTION

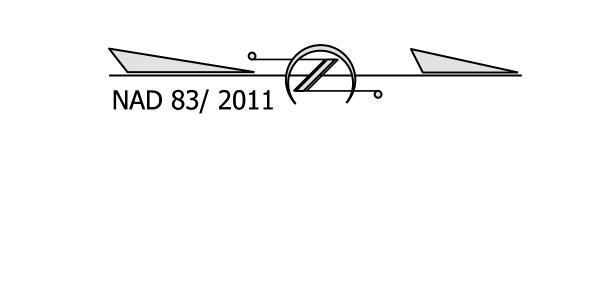
END CONSTRUCTION

-Y1- STA. 38+70.00

-Y2- STA. 19+93.85 LT







END TIP PROJECT U-6187 -L- STA. 72+80.54

END BRIDGE -L- STA. 72+07.84

PROPOSED BRIDGE

THIS IS A CONTROL OF ACCESS PROJECT WITH ACCESS TO I-40 BEING LIMITED TO INTERCHANGES.

-L- STA. 10+30.00

A DESIGN EXCEPTION HAS BEEN APPROVED FOR STOPPING SIGHT DISTANCE FOR A VERTICAL CREST CURVE ALONG -Y1- (US 158).

BEGIN TIP PROJECT U-6187

PROJECT LENGTHS FOR TIP PROJECT U-6187: LENGTH ROADWAY TIP PROJECT U-6187 = 1.141 MILES LENGTH STRUCTURES TIP PROJECT U-6187 = 0.043 MILES

PROJECT LENGTH

TOTAL LENGTH TIP PROJECT U-6187 = 1.184 MILES

BEGIN CONSTRUCTION

BEGIN CONSTRUCTION

-Y3- STA. 10+10.00

SR 1616

END CONSTRUCTION

-DRW1- STA. 10+85.00

-Y1- STA. 10+31.26

NCDOT Contact: RYAN C. NEWCOMB, PE VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606

★ DENOTES PROPOSED TRAFFIC SIGNAL

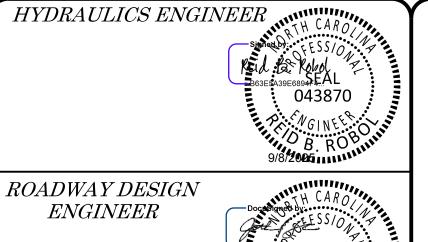
JOHN G. TOWNSEND, P.E. LETTING DATE: PROJECT DESIGN ENGINEER OCTOBER 21, 2025

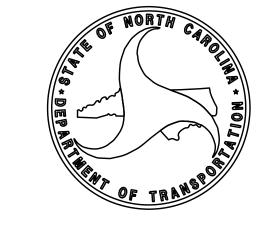
BEGIN BRIDGE

-L- STA. 69+83.09

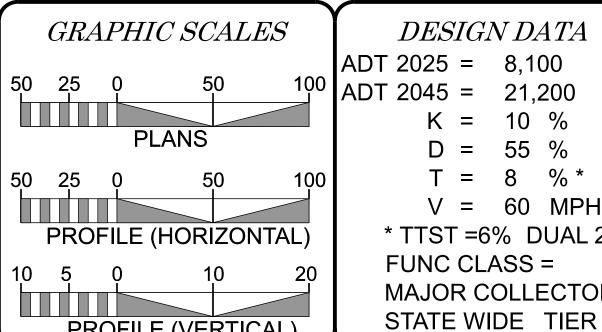
END CONSTRUCTION

-Y2- STA. 66+20.00 RT





DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROFILE (VERTICAL)

ADT 2045 = 21,200 D = 55 %8 % * V = 60 MPH* TTST =6% DUAL 2% FUNC CLASS = MAJOR COLLECTOR

Prepared in the Office of: 2024 STANDARD SPECIFICATIONS RIGHT OF WAY DATE. JONATHAN P. SOIKA, P.E. MAY 31, 2024

SIGN-1 THRU SIGN-17

UC-1 THRU UC-11

UO-1 THRU UO-6

X-1

X-2 THRU X-203

X-1A

C1-1 THRU C1-5

C2-1 THRU C2-6

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SHEET

TITLE SHEET

INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS

CONVENTIONAL SYMBOLS

PAVEMENT SCHEDULE AND TYPICAL SECTIONS

NOISE WALL ENVELOPE DETAILS

ROADWAY DETAILS SPECIAL DETAILS DRAINAGE DETAILS

GEOTECHNICAL DETAILS

ROADWAY SUMMARIES DRAINAGE SUMMARIES

GEOTECHNICAL SUMMARIES

PARCEL INDEX SHEET PLAN AND PROFILE SHEET

SURVEY CONTROL, EXIST. CENTERLINES, EASEMENTS & PROP. TIES

TRAFFIC MANAGEMENT PLANS

PAVEMENT MARKING PLANS

SIGNAL PLANS

EROSION CONTROL PLANS ONSITE MITIGATION PLANS

SIGNING PLANS

UTILITY CONSTRUCTION PLANS

UTILITIES BY OTHERS PLANS

CROSS SECTION INDEX CROSS SECTION SUMMARY

CROSS SECTIONS S-1 THRU S-35 STRUCTURE PLANS **CULVERT1 PLANS**

CULVERT2 PLANS W-1 THRU W-3 NOISE WALL PLANS

2024 ROADWAY ENGLISH STANDARD DRAWINGS

TITLE

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:

DIVISION 2 - EARTHWORK 200.03 Method of Clearing - Method III 225.01 Guide for Grading Subgrade - Interstate and Freeway
225.02 Guide for Grading Subgrade - Secondary and Local
225.03 Deceleration and Acceleration Lanes 225.04 Method of Obtaining Superelevation - Two Lane Pavement 225.05 Method of Obtaining Superelevation - Divided Highways
225.09 Guide for Shoulder and Ditch Transition at Grade Separations

240.01 Guide for Berm Ditch Construction **DIVISION 3 - PIPE CULVERTS** 310.10 Driveway Pipe Construction DIVISION 4 - MAJOR STRUCTURES

STD.NO.

423.01 Bridge Approach Fills - Type 1 Approach Fill for Bridge Abutment 423.02 Bridge Approach Fills - Type 1A Alternate Approach Fill for Integral Bridge Abutment DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

560.01 Method of Shoulder Construction - High Side of Superelevated Curve - Method I 560.02 Method of Shoulder Construction - High Side of Superelevated Curve - Method II DIVISION 6 - ASPHALT BASES AND PAVEMENTS

610.03 Guide for Paving Shoulders Under Bridges - Method III

654.01 Pavement Repairs

665.01 Asphalt Shoulders - Milled Rumble Strips 665.02 Limits for Asphalt Shoulders - Milled Rumble Strips DIVISION 8 - INCIDENTALS

806.01 Concrete Right-of-Way Marker 806.03 Concrete Contol of Access Marker 815.02 Subsurface Drain

816.01 Concrete Pads - for Shoulder Drain Installation 816.02 Aggregate Shoulder Drain

816.04 Markers for Drainage Structure and Concrete Pad 838.01 Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew 838.11 Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew

838.21 Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew 838.45 Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40

838.51 Reinforced Brick Endwall - for Single 54" Pipe 90 Skew
838.75 Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70

838.80 Precast Endwalls - 12" thru 72" Pipe 90 Skew

840.00 Concrete Base Pad for Drainage Structures 840.01 Brick Catch Basin - 12" thru 54" Pipe 840.02 Concrete Catch Basin - 12" thru 54" Pipe

840.03 Frame, Grates and Hood - for Use on Standard Catch Basin

840.14 Concrete Drop Inlet - 12" thru 30" Pipe 840.15 Brick Drop Inlet - 12" thru 30" Pipe

840.16 Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15

840.18 Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe 840.20 Frames and Wide Slot Flat Grates

840.22 Frames and Wide Slot Sag Grates 840.24 Frames and Narrow Slot Sag Grates

840.27 Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe

840.29 Frames and Narrow Slot Flat Grates 840.31 Concrete Junction Box - 12" thru 66" Pipe 840.32 Brick Junction Box - 12" thru 66" Pipe

840.35 Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates

840.37 Steel Grate and Frame 840.45 Precast Drainage Structure

840.46 Traffic Bearing Precast Drainage Structure

840.54 Manhole Frame and Cover 840.66 Drainage Structure Steps

840.71 Concrete and Brick Pipe Plug 840.72 Pipe Collar

846.01 Concrete Curb, Gutter and Curb & Gutter 846.04 Drop Inlet Installation in Shoulder Berm Gutter

848 04 Street Turnout

850.01 Concrete Paved Ditches

850.10 Guide for Berm Drainage Outlet - 15" and 18" Pipe 850.11 Guide for Berm Drainage Outlet - 24" and 30" Pipe

852.01 Concrete Islands

852.06 Method for Placement of Drop Inlets in Concrete Islands

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

866.02 Woven Wire Fence - with Wood Post 876.01 Rip Rap in Channels and Ditches

876.02 Guide for Rip Rap at Pipe Outlets 876.04 Drainage Ditches with Class 'B' Rip Rap

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

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.

REVISED:

U-6187

FINAL

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 AND 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. 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 STD. NO. 560.01 AND 560.02.

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.

BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN **ACCORDANCE WITH SECTION 104-7.**

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

SHOULDER DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 816.02 AND DETAILS IN PLANS AT LOCATIONS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE: DUKE ENERGY, PIEDMONT NATURAL GAS, CHARTER, AND YADTEL

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

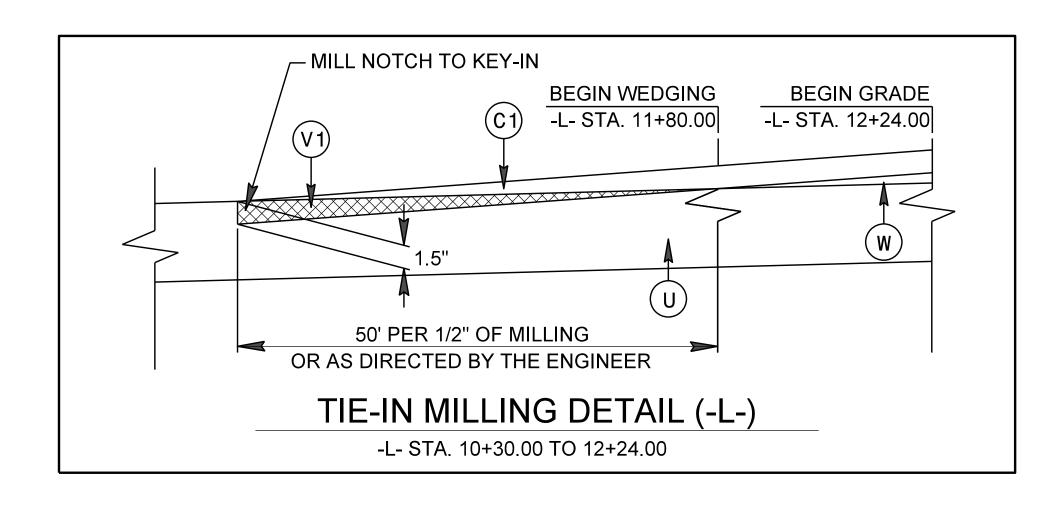
RIGHT-OF-WAY MARKERS:

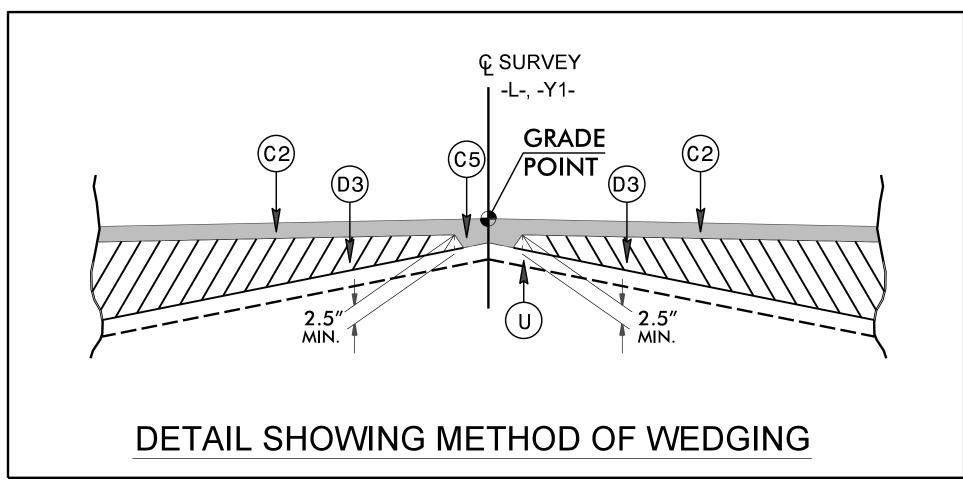
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

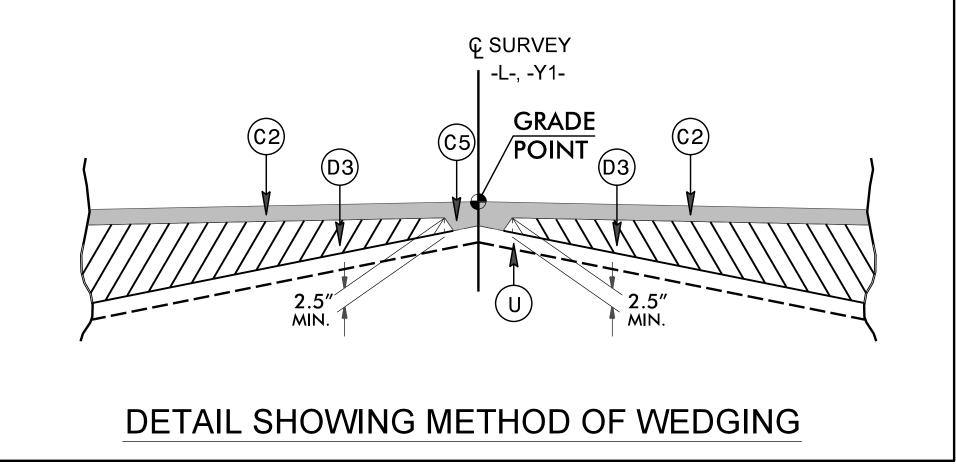
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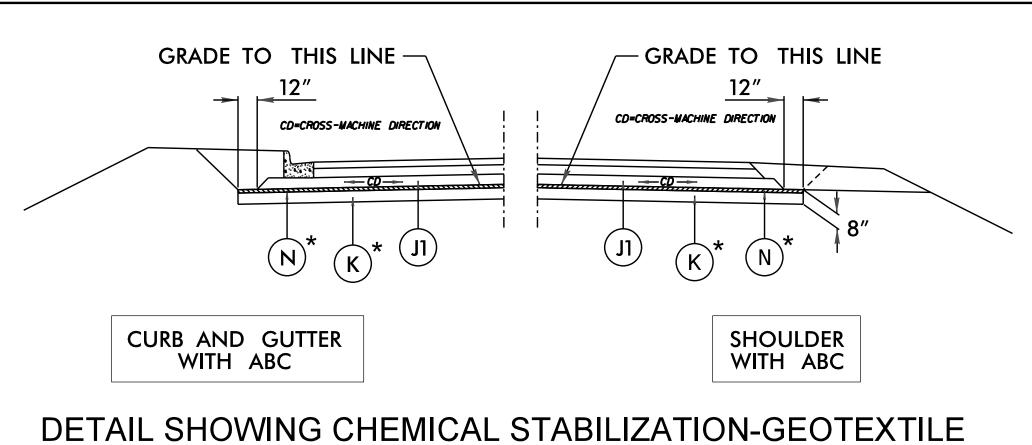
	FINAL PAVEMENT SCHEDULE
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C4	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
C6	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 3.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. APPROX. 11" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
J1	PROP. 6" AGGREGATE BASE COURSE
K	PROP. 8" LIME SUBGRADE STABILIZATION (METHOD-SLURRY) AT A RATE OF 24 LBS. PER SQ. YD. AS DIRECTED BY THE ENGINEER (50% OF PROJECT) OR
	PROP. 7" CEMENT SUBGRADE STABILIZATION AT A RATE OF 56 LBS. PER SQ. YD. AS DIRECTED BY THE ENGINEER (50% OF PROJECT).
N	GEOTEXTILE FOR SUBGRADE STABLIZATION
Р	PRIME COAT AT AN AVERAGE RATE OF 0.35 GAL. PER SQ. YD.
R1	2' - 6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R3	SHOULDER BERM GUTTER
Т	EARTH MATERIAL
U	EXISTING PAVEMENT
V1	INCIDENTAL MILLING
V2	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)
Υ	MILLED RUMBLE STRIPS (SEE RSD NOS. 665.01 AND 665.02)
NOTE: '	

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE









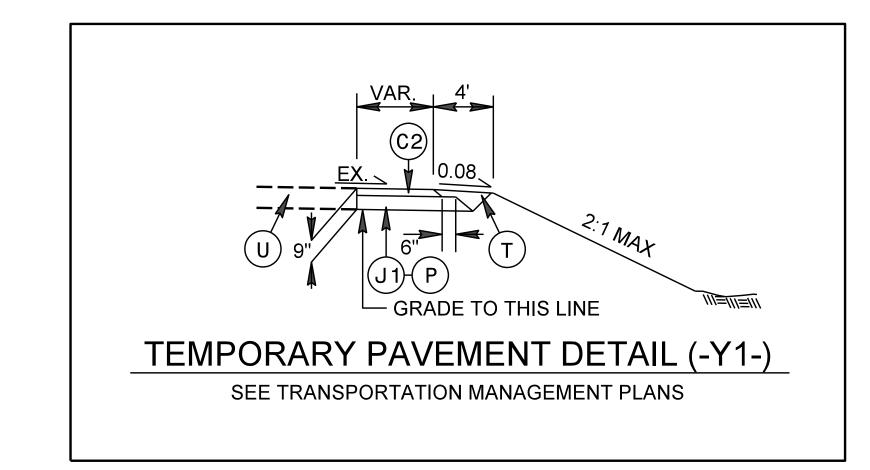
FOR SUBGRADE STABILIZATION FOR PAVEMENT WITH ABC

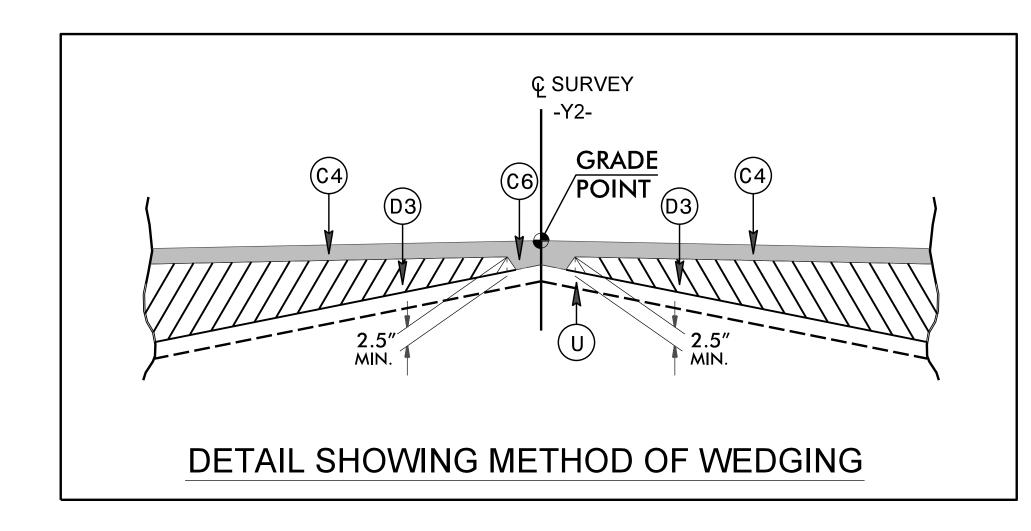
TO BE USED IN CONJUCTION WITH TYPICAL SECTION NOS. 2, 3, 6, 7, AND 8A

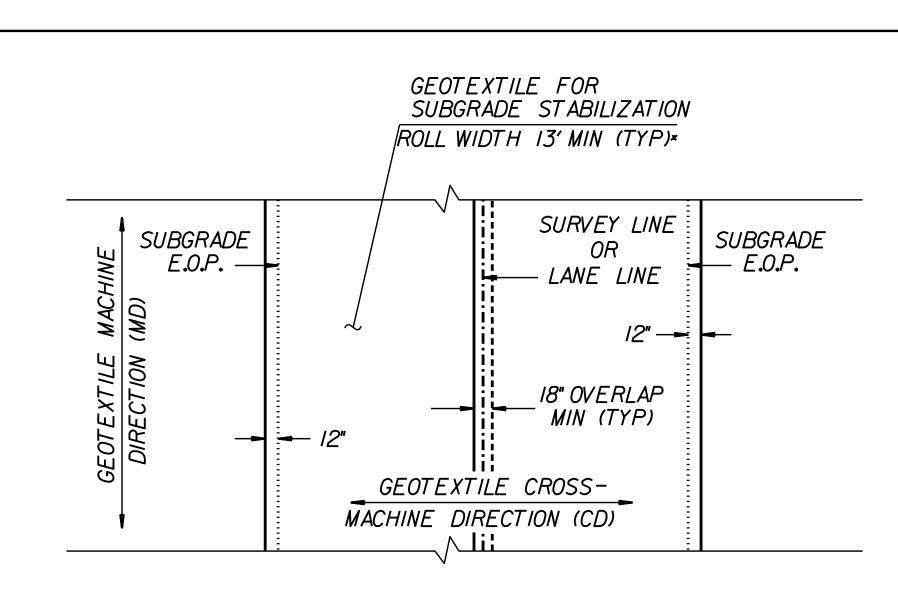
APPLY (N) (GEOTEXTILE FOR SUBGRADE STABILIZATION) ALONG THE FOLLOWING SEGMENTS:

-L- FROM STA. 15+75.00 TO 24+75.00 -L- FROM STA. 61+25.00 TO 69+74.00 -RPB- FROM STA. 10+00.00 TO 13+75.00 -RPD- FROM STA. 10+00.00 TO 25+67.00 -RPD- FROM STA. 10+12.00 TO 13+50.00

APPLY (CHEMICAL SUBGRADE STABILIZATION) AS SHOWN ON TYPICAL SECTIONS.
NOTE THERE IS NO CHEMICAL SUBGRADE STABILIZATION ALONG -Y4- (TS NO. 8A).



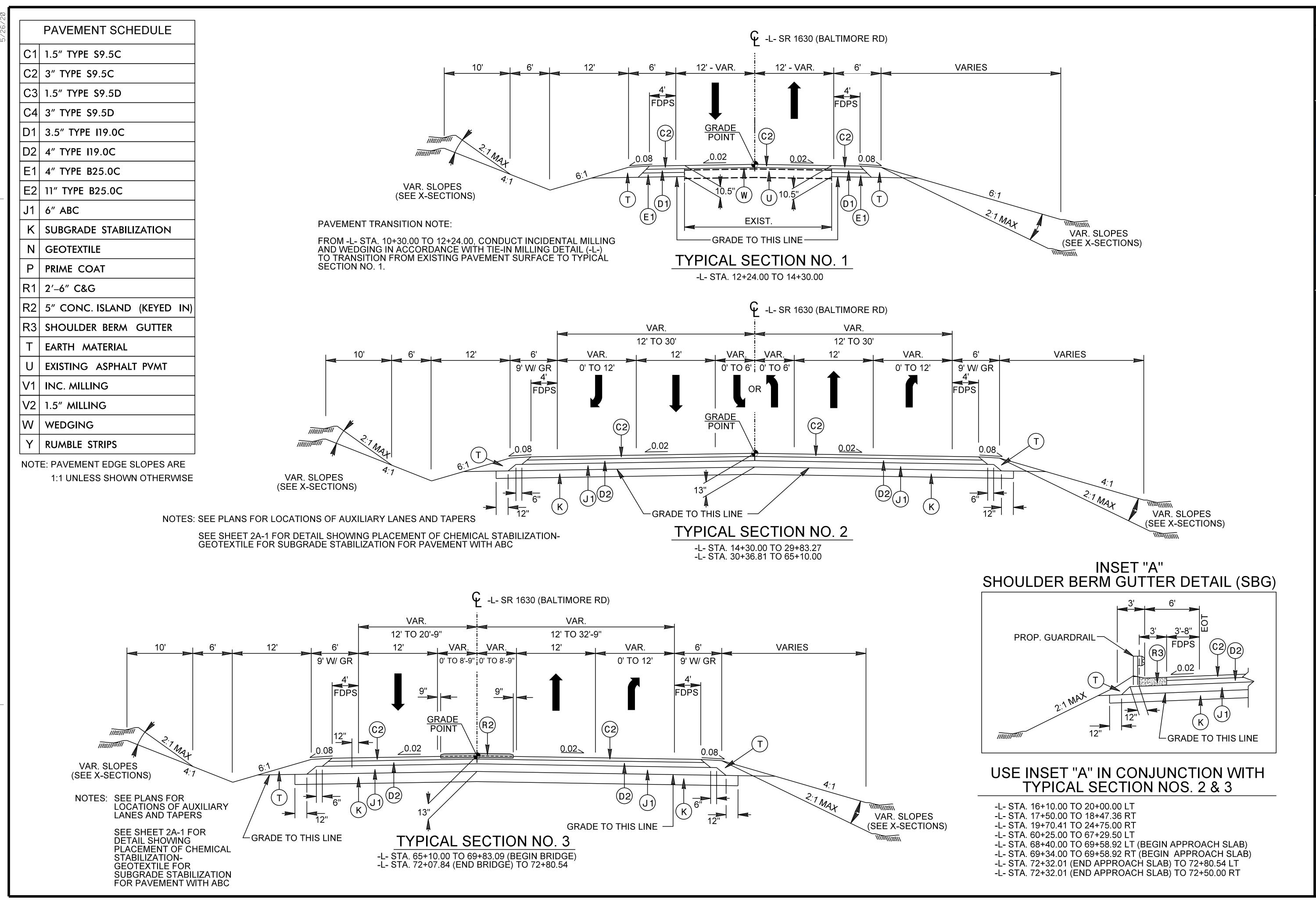




GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT (PLAN VIEW)

(100% COVERAGE REQUIRED)

*INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES



NORTH CAROLINA PARTMENT OF TRANSPORTATI

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

033822

PAVEMENT DESIGN ENGINEER

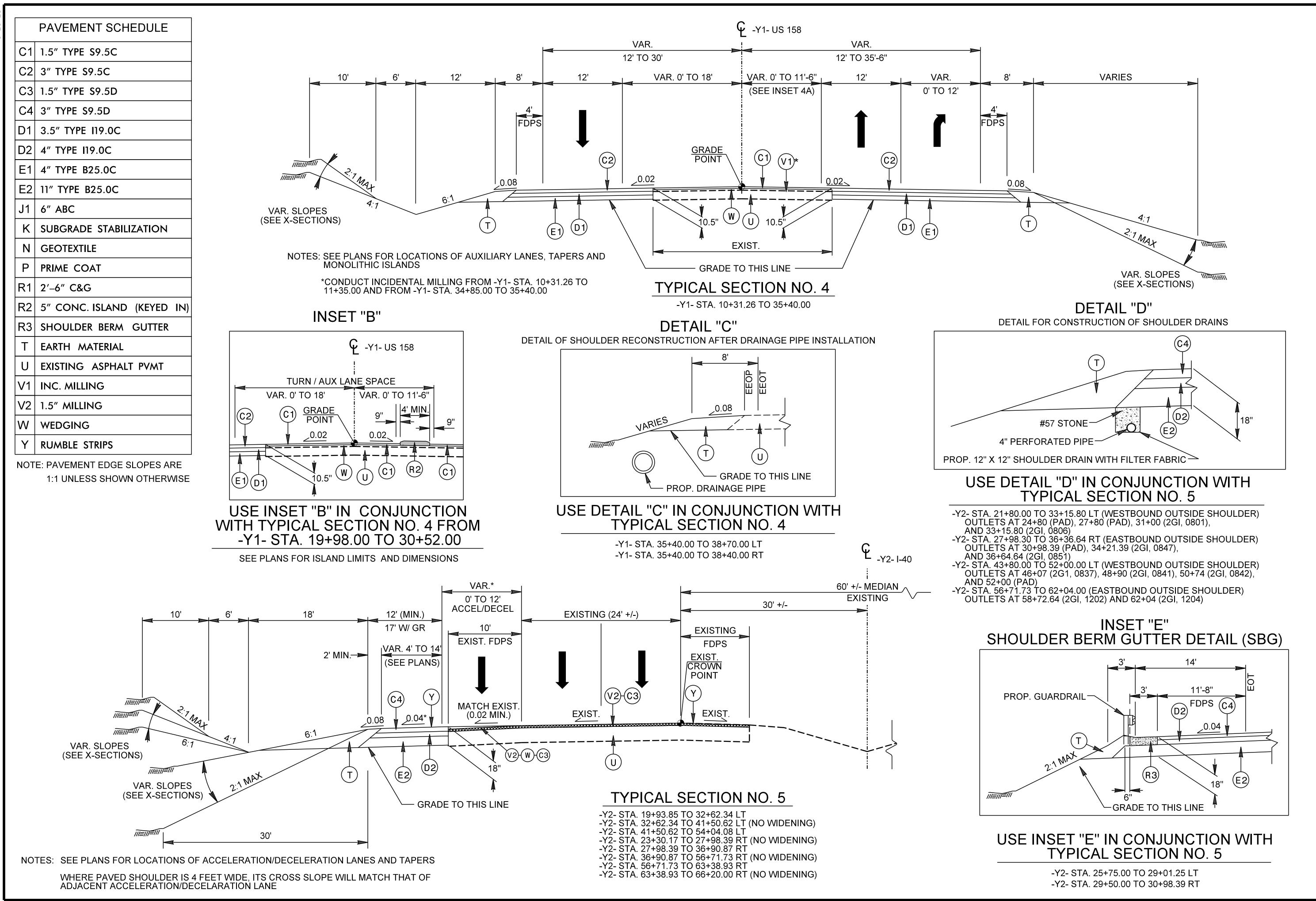
59DCBCASEAL

044590

PREPARED BY

Raleigh, NC 27606

DOCUMENT NOT CONSIDERED FI NLESS ALL SIGNATURES COMPLE



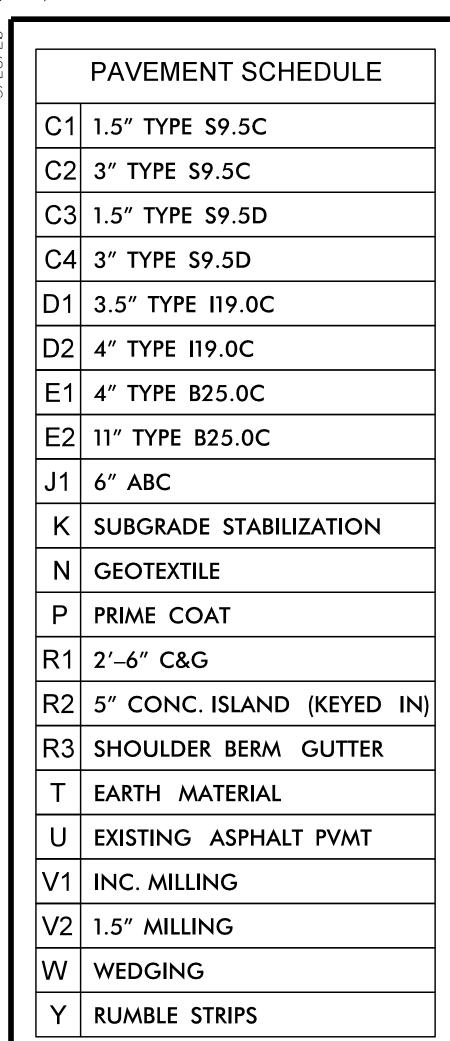
PARTMENT OF TRANSPORTAT

ROADWAY DESIGN ENGINEER

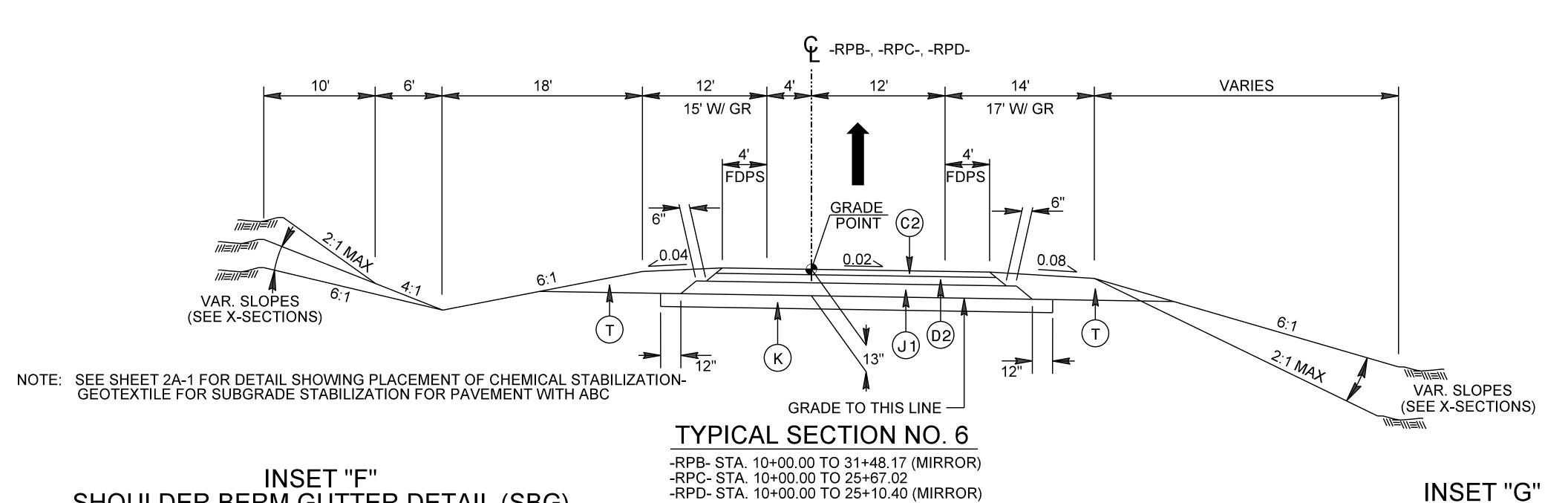
098FFE3SEAL 033822

Vicio Warno Catalogo SEAL 044590

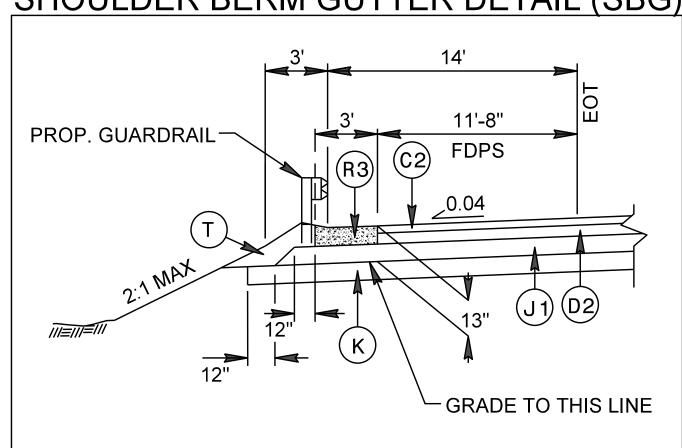




NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



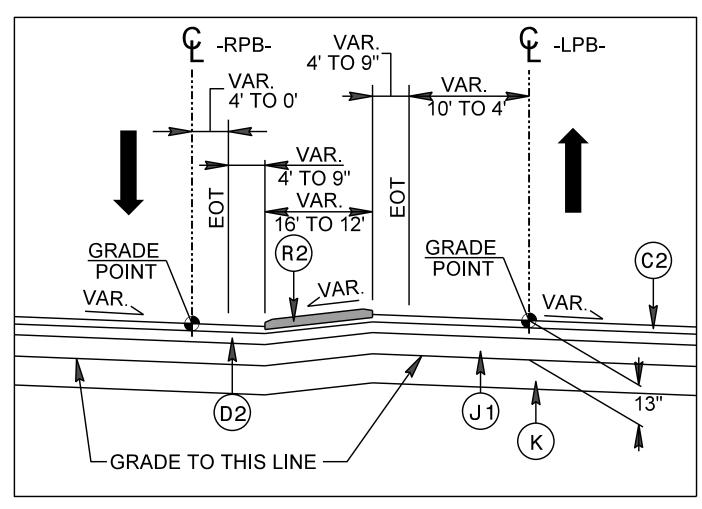
INSET "F" SHOULDER BERM GUTTER DETAIL (SBG)



USE INSET "F" IN CONJUNCTION WITH TYPICAL SECTION NO. 6

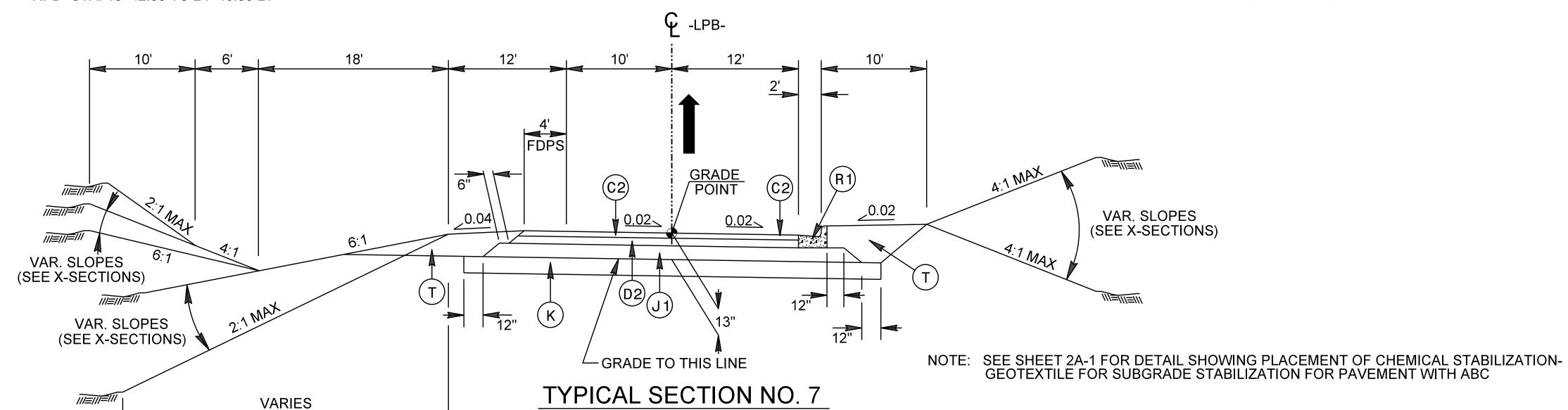
-RPB- STA. 10+00.00 TO 13+00.00 LT -RPC- STA. 10+00.00 TO 25+81.38 RT -RPD- STA. 18+42.00 TO 24+46.00 LT

INSET "G"



USE INSET "G" IN CONJUNCTION WITH TYPICAL SECTION NOS. 6 & 7

-LPB- STA. 19+45.41 TO 22+68.93 -RPB- STA. 27+99.88 TO 31+48.17



-LPB- STA. 10+00.00 TO 22+68.93

NORTH CAROLINA PARTMENT OF TRANSPORTATION

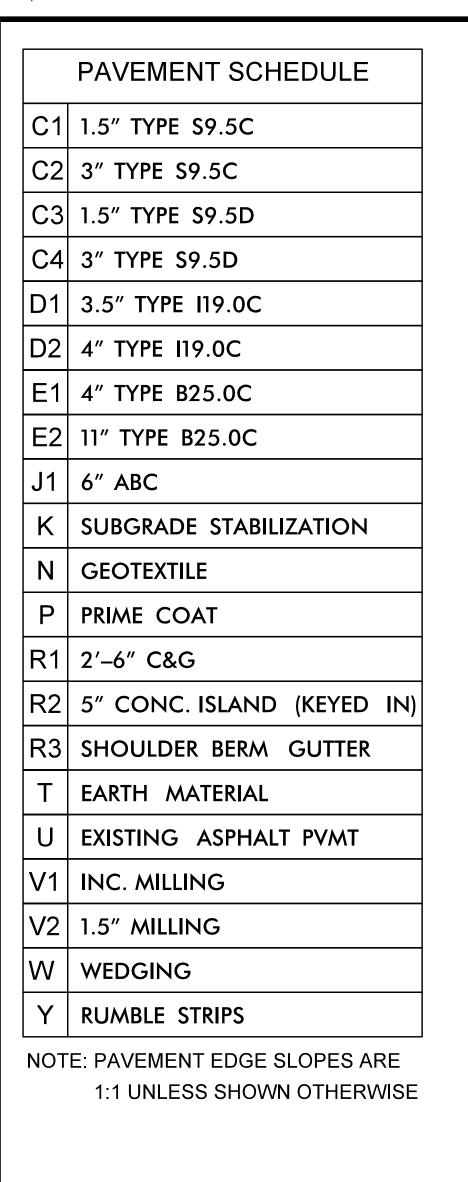
ROADWAY DESIGN UNIT

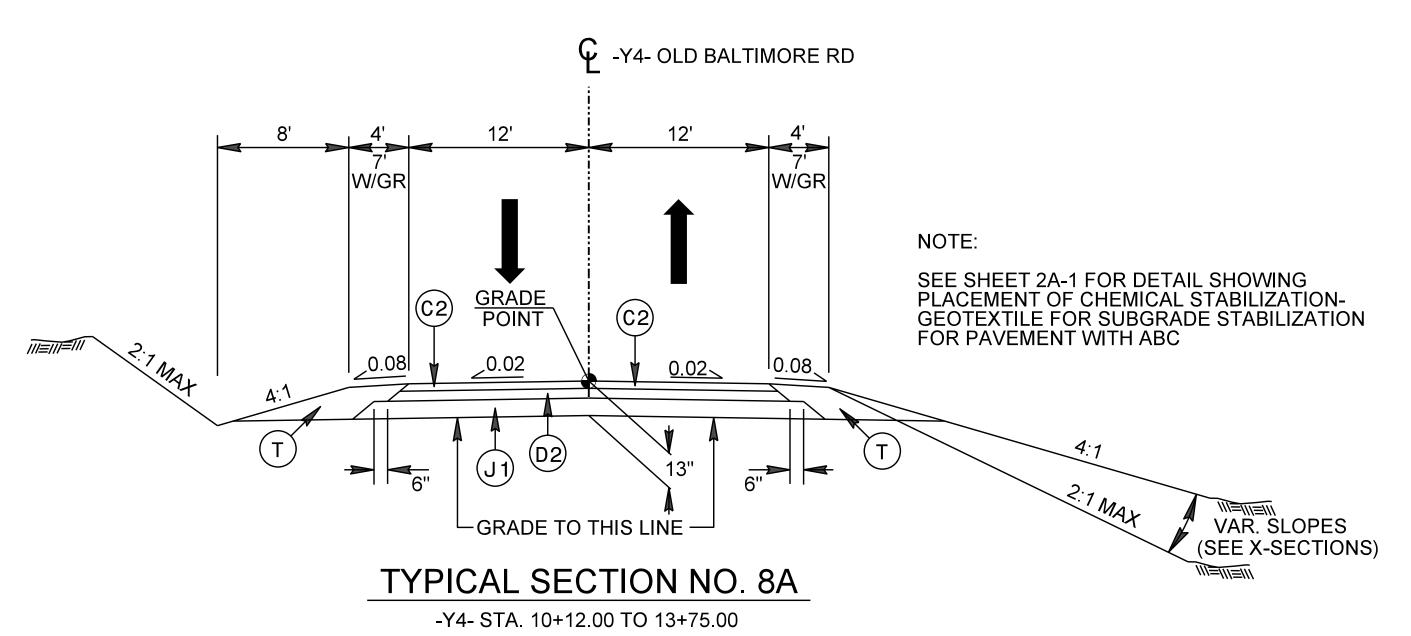


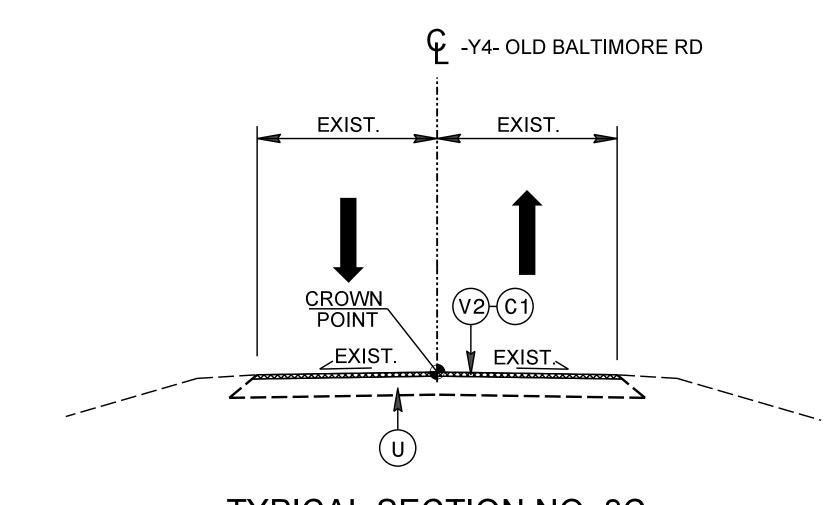
PAVEMENT DESIGN ENGINEER











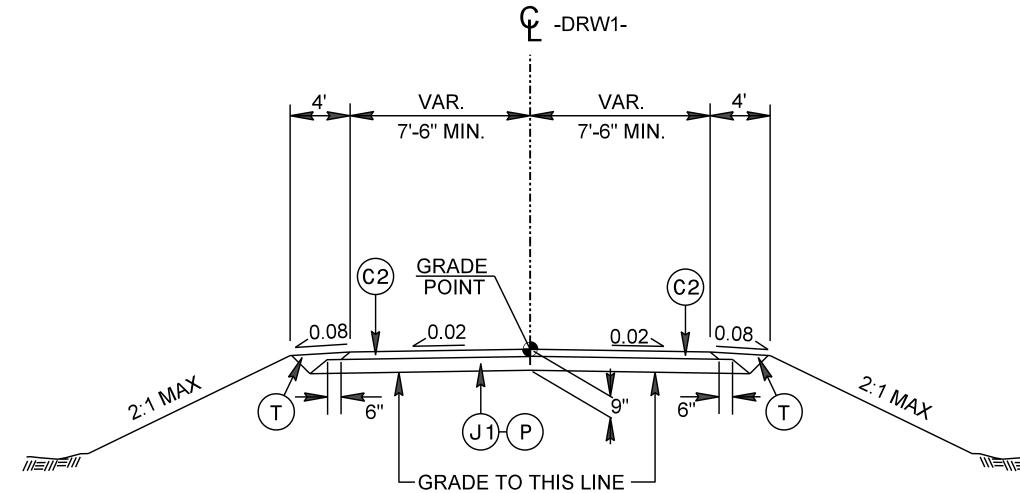
ROADWAY DESIGN ENGINEER

033822

Vrigo Waryon Sepocac SEAL 044590

PREPARED BY

-Y4- STA. 15+20.00 TO 20+50.00



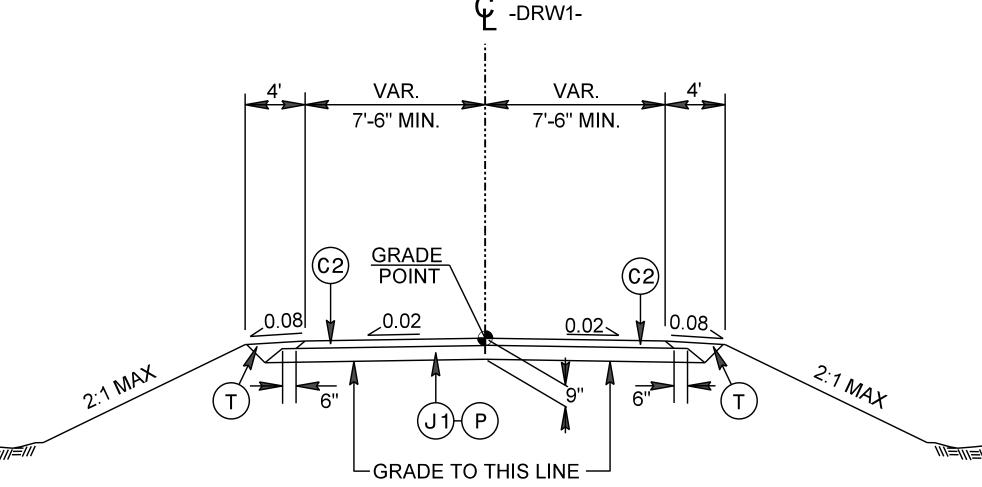
TYPICAL SECTION NO. 8C

INSET "I" SHOULDER BERM GUTTER DETAIL (SBG) -GRADE TO THIS LINE

USE INSET "I" IN CONJUNCTION WITH TYPICAL SECTION NO. 8B

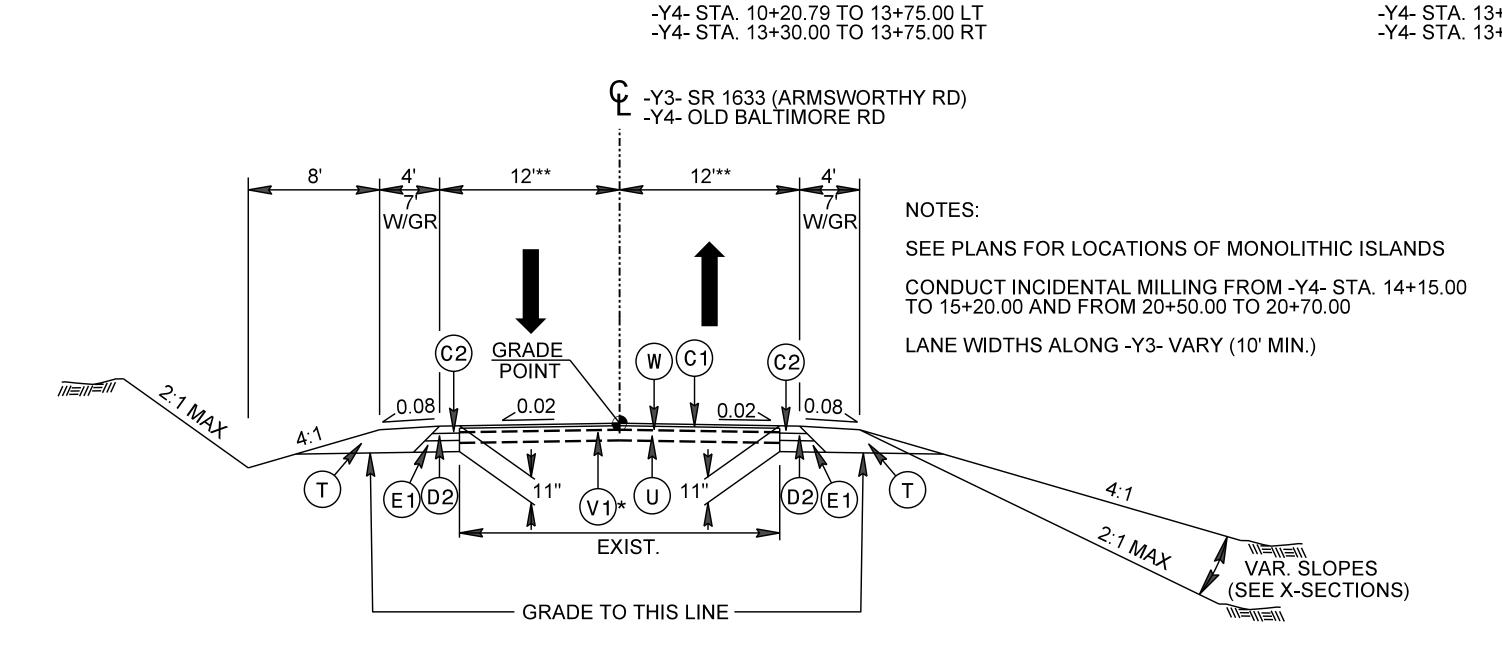
PROP. GUARDRAIL

-Y4- STA. 13+75.00 TO 14+75.00 LT -Y4- STA. 13+75.00 TO 14+50.00 RT



TYPICAL SECTION NO. 9

-DRW1- STA. 10+12.00 TO 10+85.00



TYPICAL SECTION NO. 8B

-Y3- STA. 10+10.00 TO 11+26.4 -Y4- STA. 13+75.00 TO 15+20.00 -Y4- STA. 20+50.00 TO 22+23.69

INSET "H"

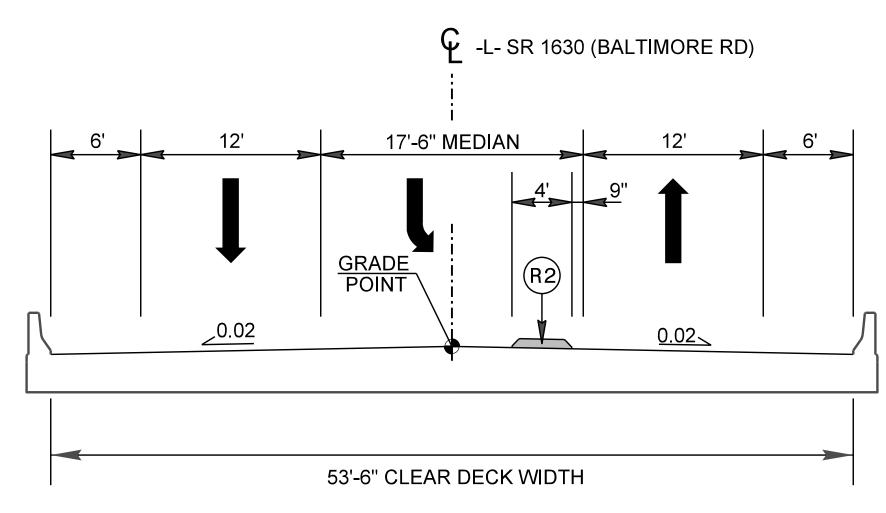
SHOULDER BERM GUTTER DETAIL (SBG)

USE INSET "H" IN CONJUNCTION WITH

TYPICAL SECTION NO. 8A

GRADE TO THIS LINE

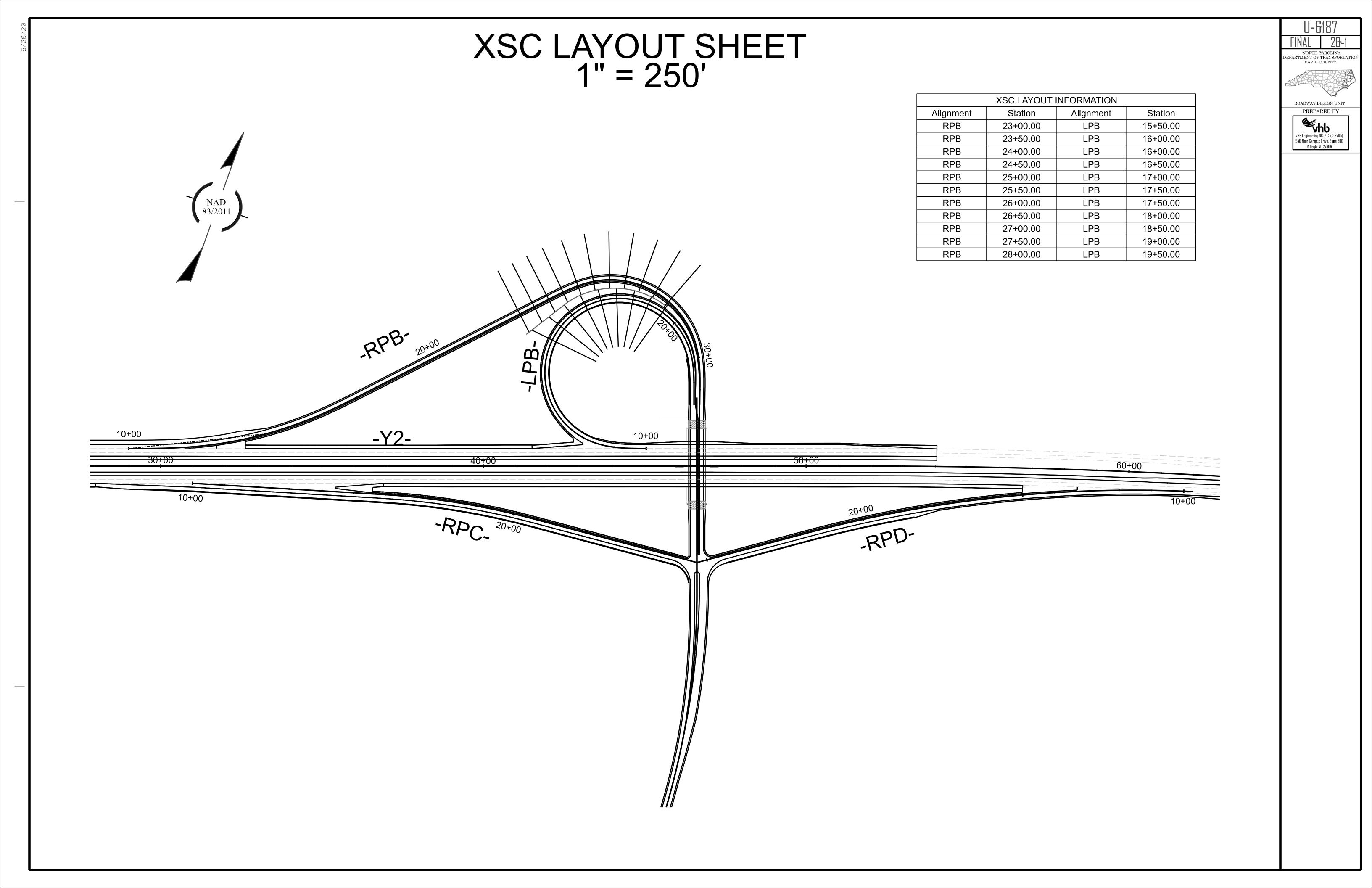
PROP. GUARDRAIL

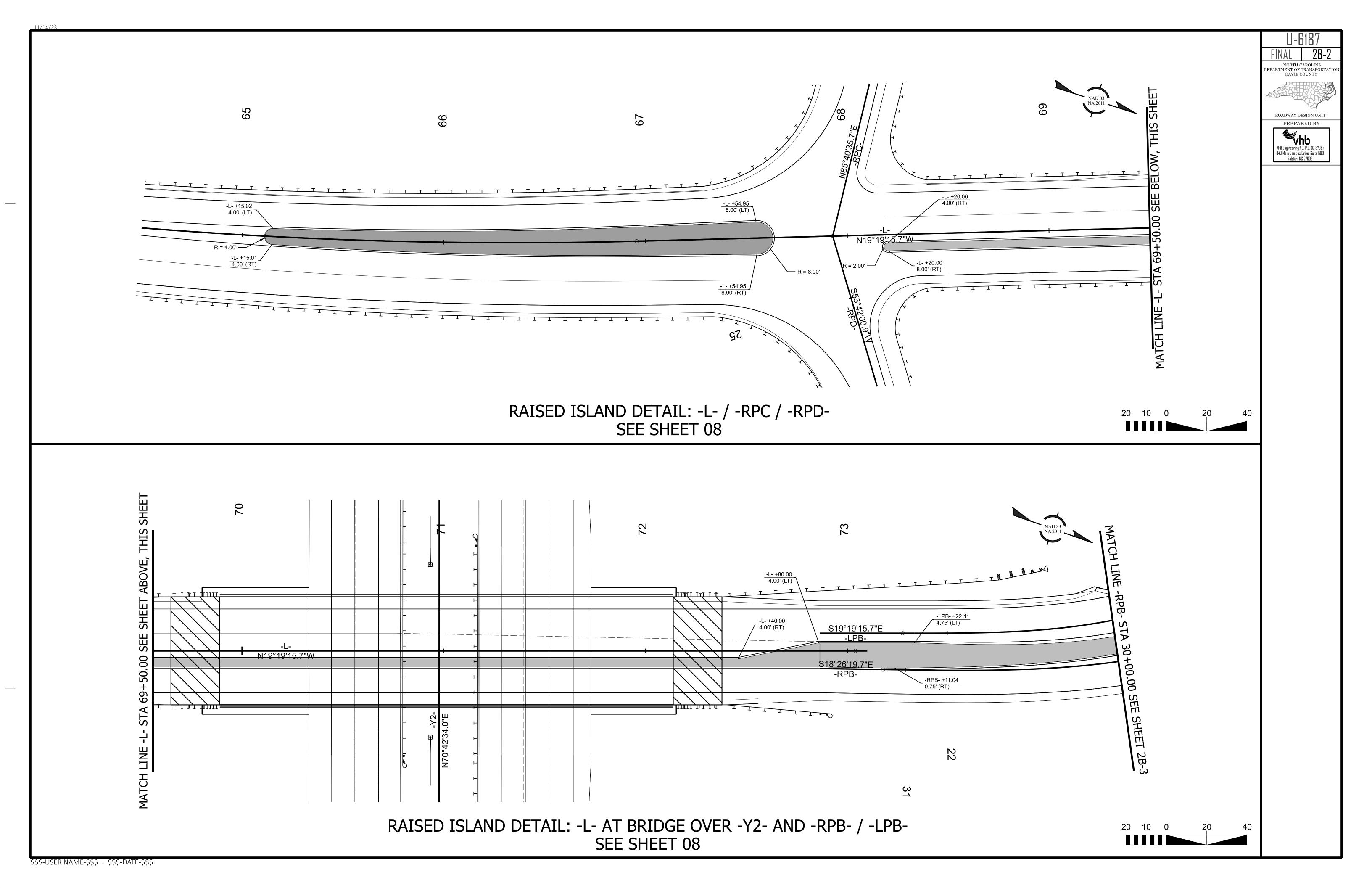


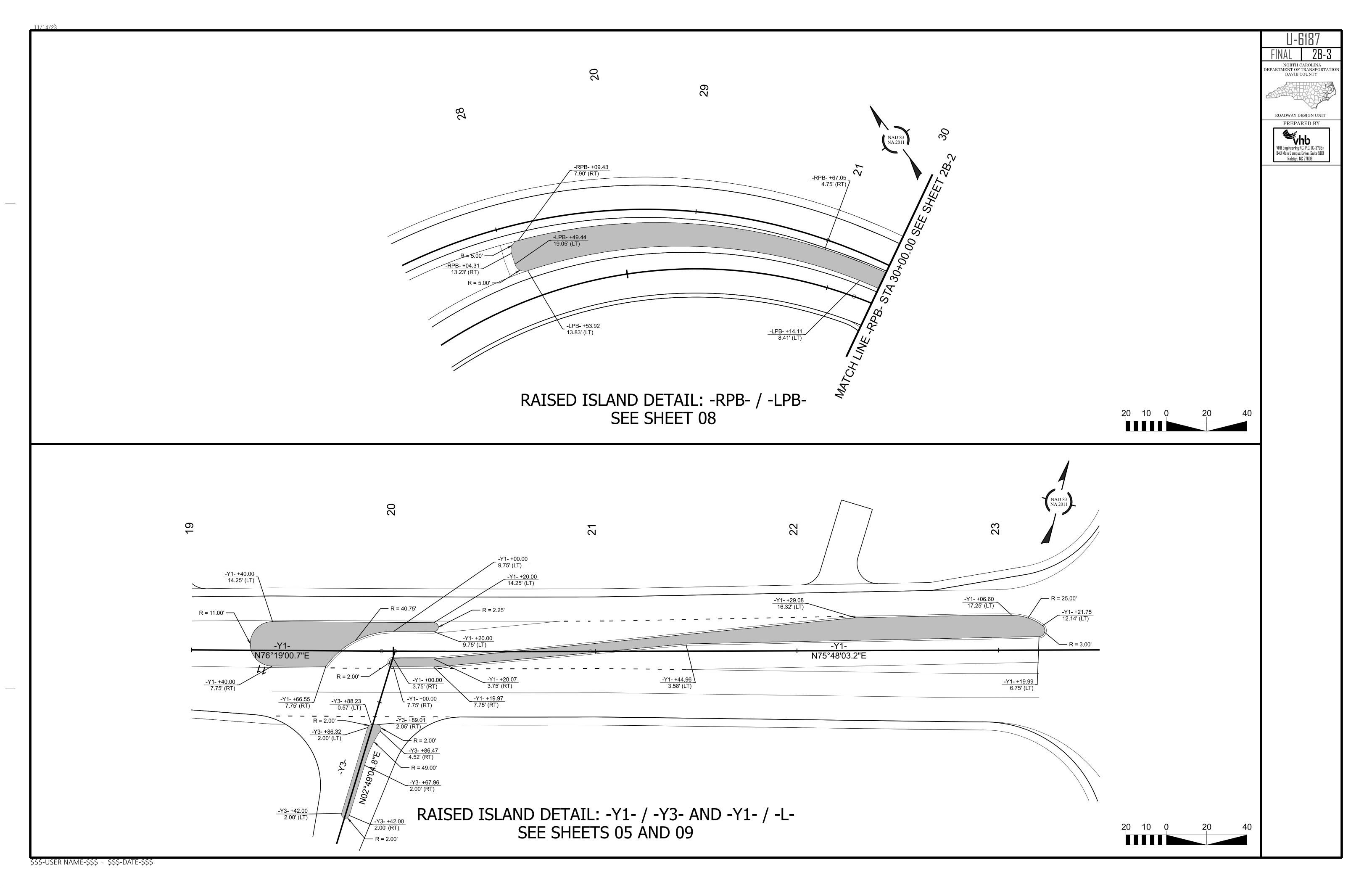
TYPICAL SECTION ON STRUCTURE

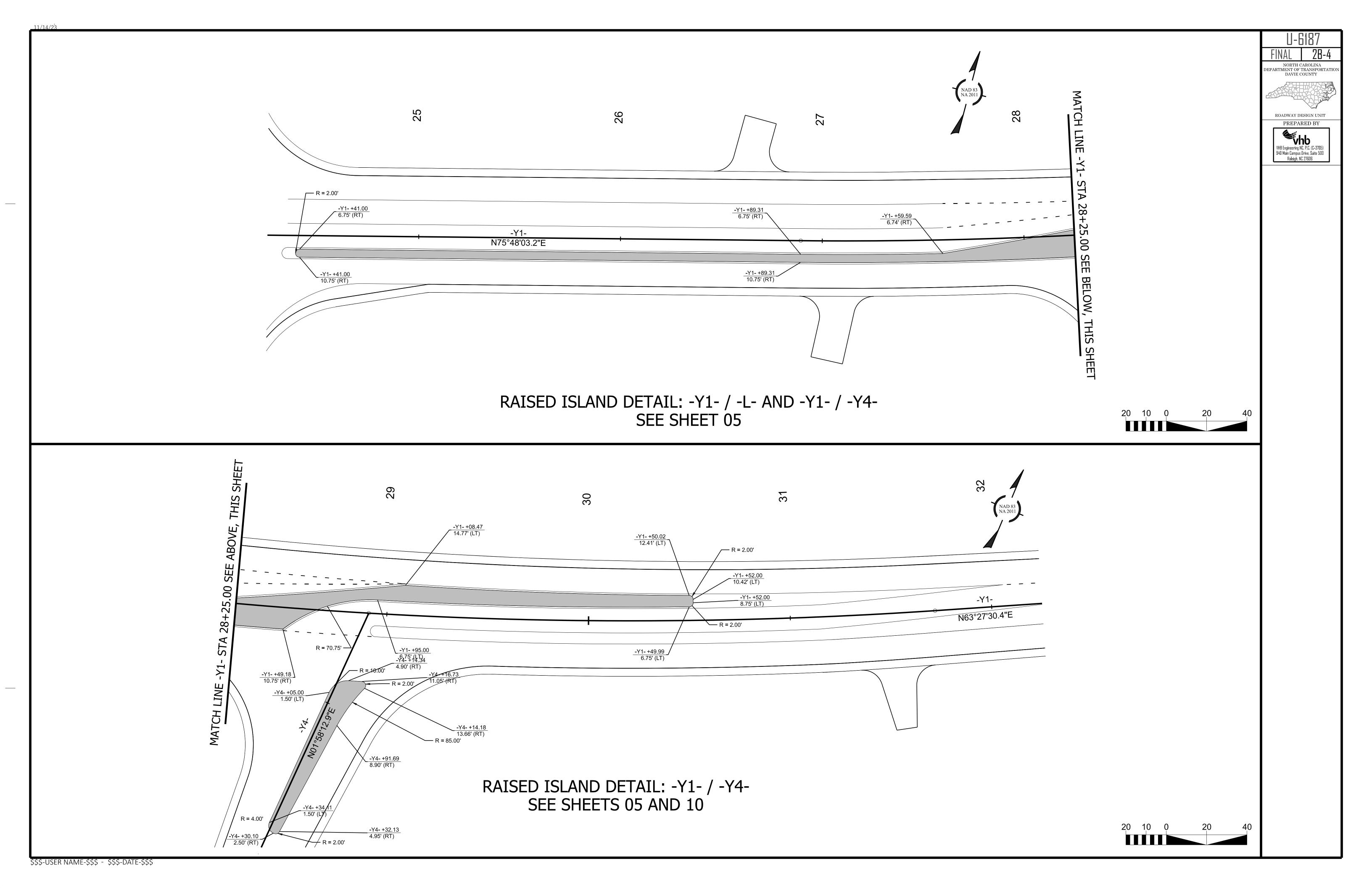
-L- STA. 69+83.09 TO 72+07.84

NOTE: SEE STRUCTURE PLANS FOR STRUCTURE CONSTRUCTION DETAILS.

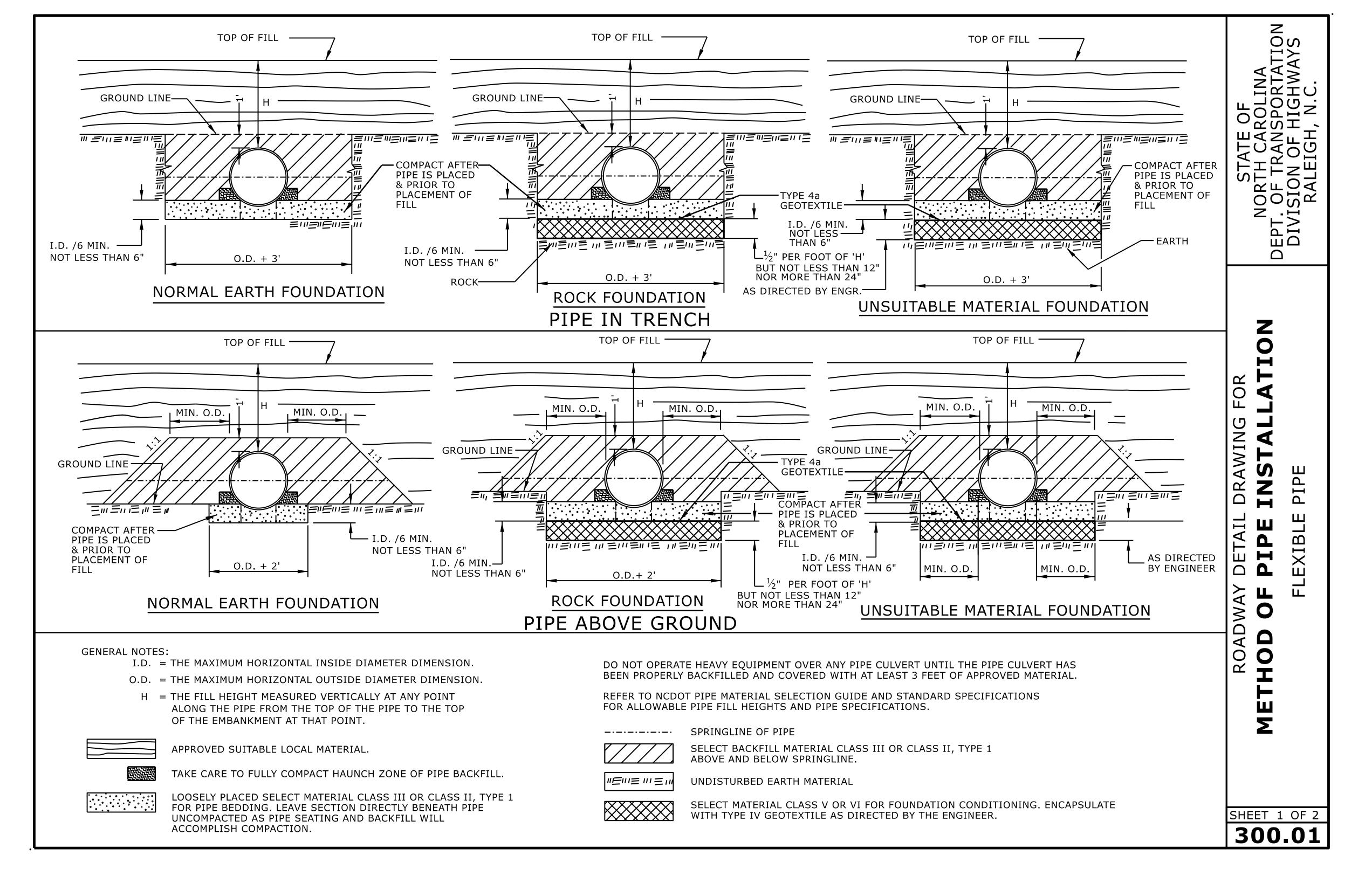








PROJECT REFERENCE NO. SHEET NO. 2C-1 U-6187

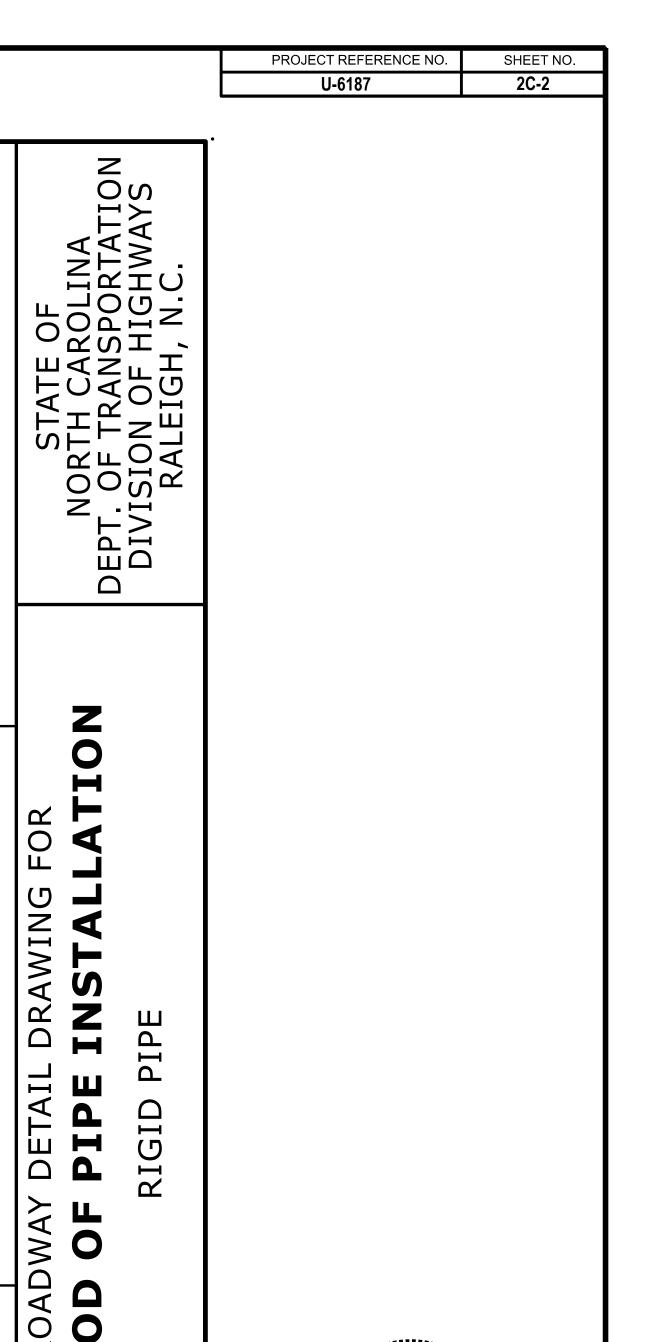


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CHECKED BY:		DATE:	
FILE SPEC.:		_	



GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

MIN. O.D.

::<u>|="="="="="</u>

└── I.D. /6 MIN.

NOT LESS THAN 6"

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

O.D. + 2'

NORMAL EARTH FOUNDATION

TOP OF FILL

O.D. + 3'

NORMAL EARTH FOUNDATION

TOP OF FILL —

MIN. O.D.

GROUND LINE—

I.D. /6 MIN. —

GROUND LINE -

COMPACT AFTER

PIPE IS PLACED

PLACEMENT OF

& PRIOR TO

FILL

NOT LESS THAN 6"



TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1
FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE
UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL
ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

GROUND LINE—

三川三 三川 三川三川三 COMPACT AFTER - デ

I.D. /6 MIN. —

NOT LESS THAN 6"

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

----- SPRINGLINE OF PIPE

MIN. O.D.

TOP OF FILL -

リミルミルミ ルミハミハミ ハミハニハ

O.D. + 3'

ROCK FOUNDATION

PIPE IN TRENCH

MIN. O.D.

TOP OF FILL -

O.D. + 2'

ROCK FOUNDATION

PIPE ABOVE GROUND

GROUND LINE—

" = '' = '' = '' =

-COMPACT AFTER— PIPE IS PLACED

I.D. /6 MIN. —

NOT LESS THAN 6"

ROCK-

GROUND LINE-

I.D. /6 MIN.─

NOT LESS THAN 6"

& PRIOR TO PLACEMENT OF

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

TOP OF FILL —

小巨叫三叫三 小三叫三川三 小三叭

MIN. O.D.

MIN. O.D.

O.D. + 3'

UNSUITABLE MATERIAL FOUNDATION

TOP OF FILL —

UNSUITABLE MATERIAL FOUNDATION

MIN. O.D.

MIN. O.D.

COMPACT AFTER

PIPE IS PLACED

PLACEMENT OF

AS DIRECTED

BY ENGINEER

& PRIOR TO

GROUND LINE—

GEOTEXTILE

THAN 6"

AS DIRECTED BY ENGR.

TYPE 4a

GEOTEXTILE-

PIPE IS PLACED

& PRIOR TO PLACEMENT OF

BUT NOT LESS THAN 12" NOR MORE THAN 24"

 $-rac{1}{2}$ " PER FOOT OF 'H'

BUT NOT LESS THAN 12" NOR MORE THAN 24"

I.D. /6 MIN. NOT LESS —

CARO

Micole Hackler

58843 3D34 164C SEAL

ONGINE

SHEET 2 OF 2

300.01

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PROJECT REFERENCE NO. SHEET NO. U-6187 2C-3 DETAIL

28' MIN. STRUCTURE **ANCHOR UNIT** 50:1 OR FLATTER FLARE RATE GUARDRAIL END UNIT TAPER TYPE TL-3 or TL-2 PARALLEL TO (50:1 TAPER) 2'-LANE SHOULDER LINE — EDGE OF LANE -EDGE OF LANE SHOULDER LINE —— STRUCTURE ANCHOR UNIT 50:1 OR FLATTER **GUARDRAIL END UNIT** TYPE TL-3 or TL-2 (50:1 TAPER) PARALLEL TO FLARE RATE TAPER LANE 28' MIN. USE FLARE RATE AS THE CONTROL IF THE "N₁" DISTANCE IS NOT OBTAINED. ("N₁" IS BASED ON SHOULDER WIDTHS IN THE ROADWAY DESIGN MANUAL) SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS FOR POSTED SPEEDS ≥ 45MPH USE GREU TYPE TL-3 FOR POSTED SPEEDS < 45MPH USE GREU TYPE TL-2 GUARDRAIL LENGTH OF NEED (X) IS CALCULATED BASED ON THE AASHTO ROADSIDE DESIGN GUIDE.

LENGTHS AND OFFSETS FOR PROPOSED GUARDRAIL AT TWO LANE - TWO WAY LOCATIONS

58843\$3033164CSEAL

2 033144

2 NGINE

8/20/2025

SHEET 4 OF 15

862D01

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U-6187 2C-4

EDGE OF LANE

NORMAL DITCH SLOPE

STATE

NORMAL DITCH SLOPE

FILL SECTION

CUT SECTION

CUT SECTION

CUT SECTION

CUT SECTION

CUT SECTION

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

WARRANT POINT

LENGTH OF NEED

PAY LIMITS GUARDRAIL END UNIT TYPE TL-3 or TL-2

SO:1 TAPER

SHOULDER LINE

EDGE OF LANE

28'-0" MIN.

3'-0" 25'-0"

MIN.

22'-0"

Augustian Street Stree

FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3 FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2





SHEET 6 OF 15 862D01

ROADWAY **GUARDF**

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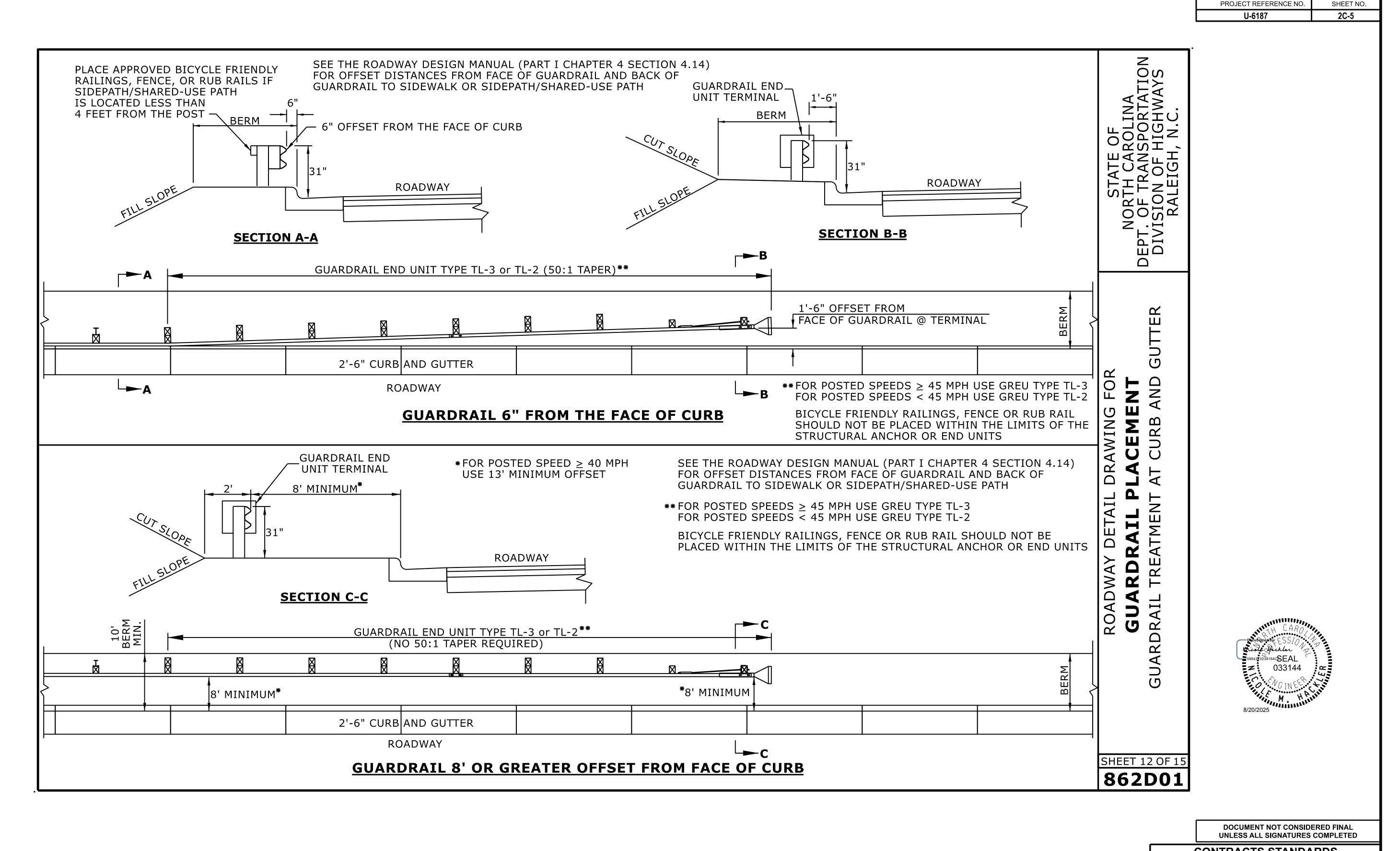
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U-6187

Docusign Envelope ID: 84EDD841-85BB-4DE3-81A8-8FEB0E4BAA76

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C. **DRAWING NOT TO SCALE** PAY LIMITS PAY LIMITS NOTE: STANDARD GUARDRAIL TERMINAL SECTION, TYPE BURIED IN CUT (BIC) 1. SEE DETAIL SHEET 2 OF 2 FOR OTHER DETAILS. LENGTH OF NEED 2. STEEL POSTS SHOWN. SEE DETAIL B-SEE DETAIL A 3. TYPICAL POST SPACING IS 6'-3" UNLESS OTHERWISE NOTED. 75' DITCH BOTTOM ackslash FIELD BEND - EDGE OF SHOULDER POST OFFSETS **D ◄** FROM EDGE OF SHOULDER DISTANCE **PLAN** 13'-11³⁄4" 10'-11" 4 8'-10¼" MID-SPAN SPLICE (TYP.) TOP OF CUT 10 69" 24 22 20 W6 x 9 OR W6 x 8.5 STEEL POST OFFSET BLOCK-SEE NOTE 3 12 GA. W-BEAM, 9'-41⁄2" SPAN **ELEVATION** END 5∕8" x 5" BOLT MIN. POST LENGTH RUBRAIL IS REQUIRED WASHER — PIPE SLEEVE SPACER 5⁄8" x 2" GUARDRAIL BOLT AND NUT-FIELD DRILL 3/4" DIA. HOLE IN POST — 12 GA. W-BEAM, 9'-4½" SPAN BURIED RDI WAY **DETAIL B DETAIL A** ROAD WOOD BLOCK— WOOD BLOCK-— WOOD BLOCK SHOULDER SHOULDER VARIES SHOULDER VARIES SHOULDER RUBRAIL (TYP.) MAXIMUM HEIGHT AT TOP OF RAIL = 46" -STEEL POST STEEL POST AND BLOCK DETAIL STEEL POST-STEEL POST-V DITCH (TYP.) STEEL POST SHEET 14 OF 15 **SECTION B-B SECTION C-C SECTION A-A SECTION D-D** 862D01

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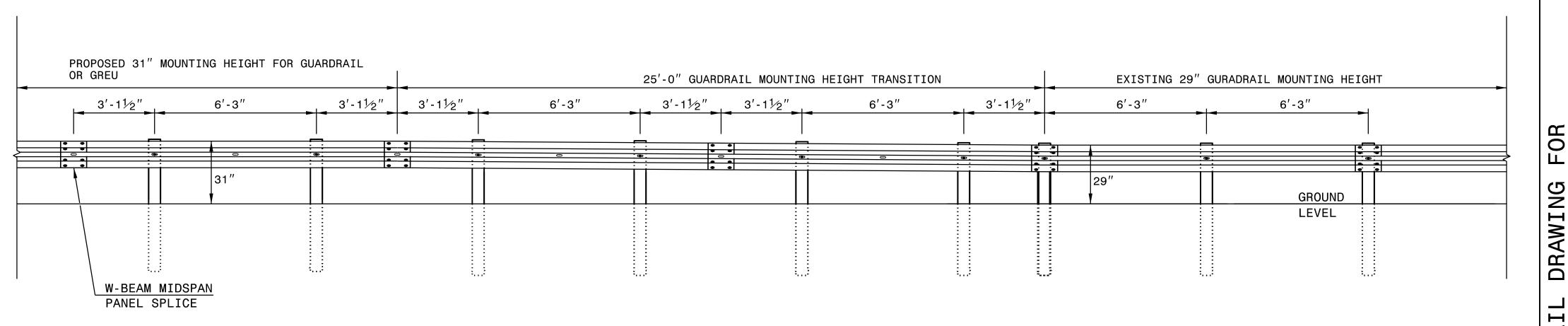
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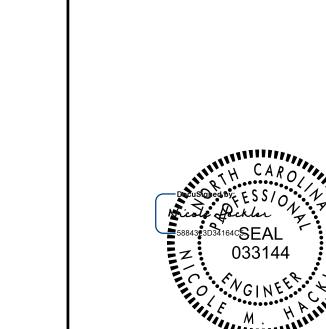
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NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 29", USE AN ADDITIONAL 12'-6" LONG SECTION OF GUARDRAIL, FOR EVERY 1" OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 31" GUARDRAIL.



ELEVATION VIEW

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



SHEET 5 OF 9 862D02

NOI

DE

ROADWAY

GUARDRA

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AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

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MODIFIED BY:
CHECKED BY:
FILE SPEC.: __ DATE: ____02-25 __ DATE: ___ __DATE: ____

PROJECT REFERENCE NO. SHEET NO. U-6187 2C-8

SHEET 1 OF 2 840D35 DIVISION OF HIGHWAYS FOR PIPES UP TO 54" DEPT, OF TRANSPORTATION TRAFFIC BEARING GRATED INLET ENGLISH DETAIL DRAWING FOR

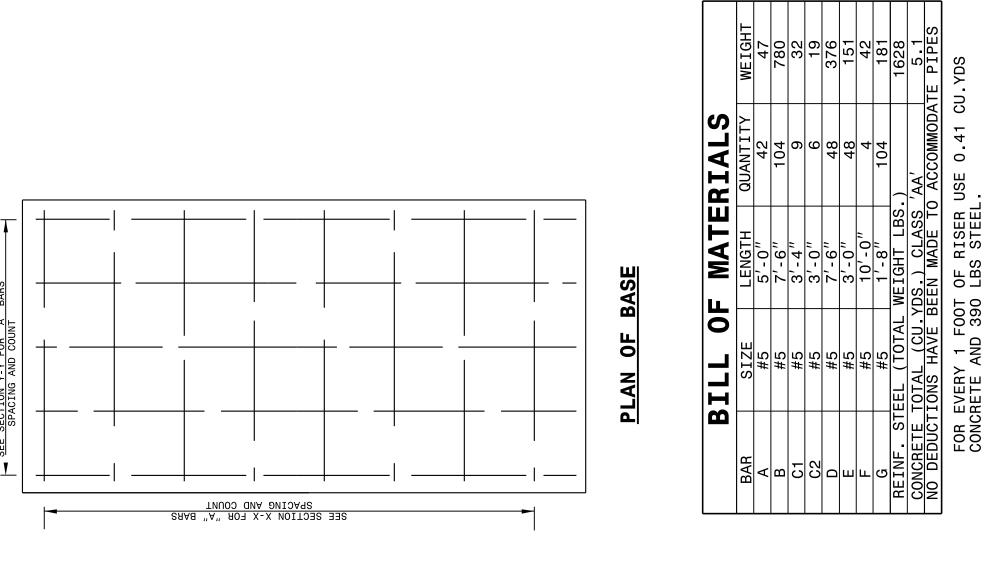
ENGLISH DETAIL DRAWING FOR

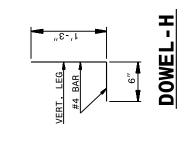
TRAFFIC BEARING GRATED INLET

FOR PIPES UP TO 54"

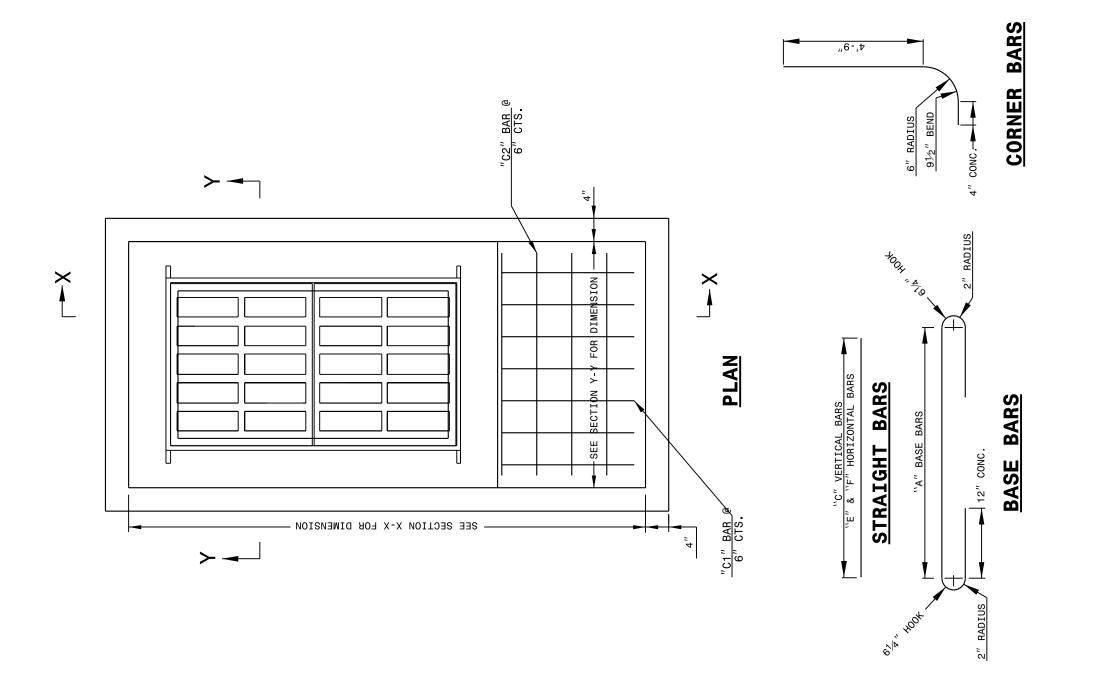
RALEIGH, N.C. DIVISION OF HIGHWAYS DEPT, OF TRANSPORTATION

FOR PIPES UP TO 54" TRAFFIC BEARING GRATED INLET ENGLISH DETAIL DRAWING FOR





SHEET 2 OF 2 840D35



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

ENGLISH DETAIL DRAWING FOR TRAFFIC BEARING GRATED INLET FOR PIPES UP TO 54"

SHEET 2 OF 2 840D35



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

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ORIGINAL BY: K. KEMPF DATE: 03-03-2015

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CHECKED BY: DATE:
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STATE OF NORTH CAROLINA

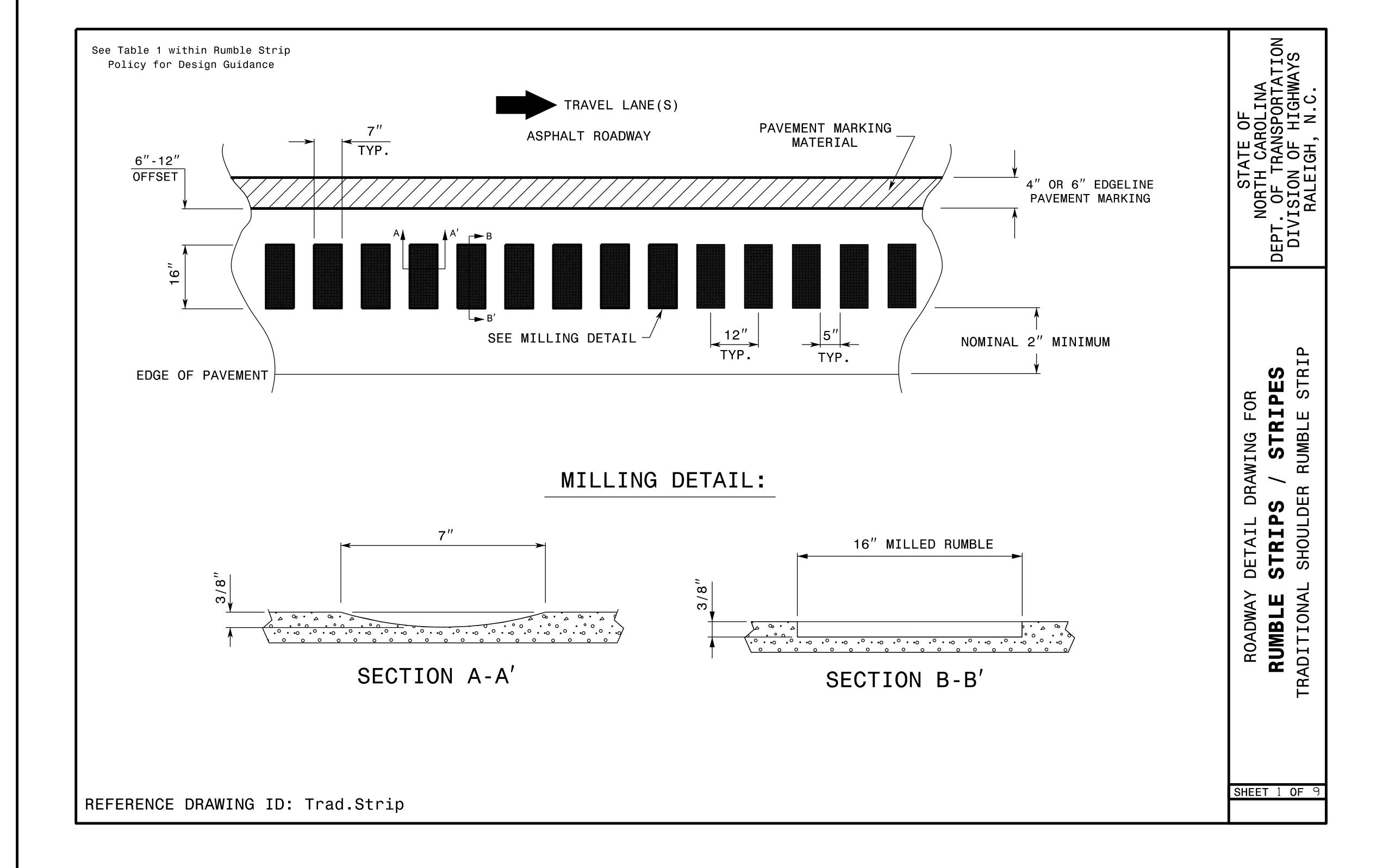
DEPT. OF TRANSPORTATION

DIVISION OF HIGHWAYS RALEIGH, N.C.

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PROJECT REFERENCE NO. SHEET NO.

U-6817 2C-9





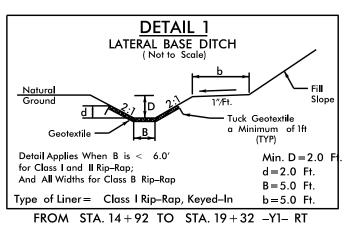
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AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

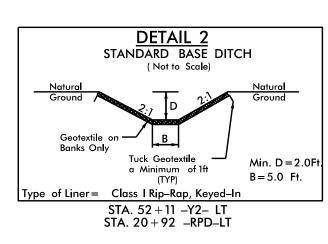
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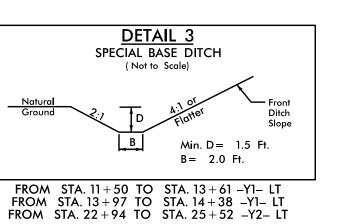
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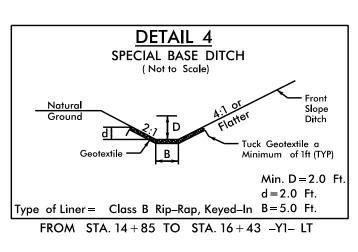
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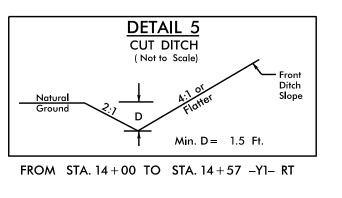
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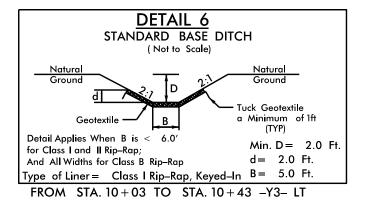


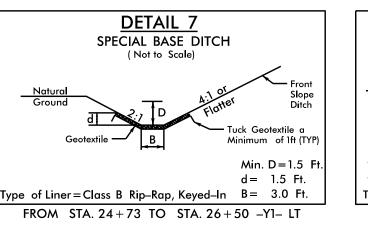


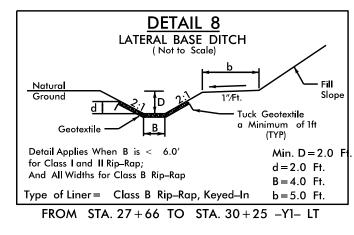


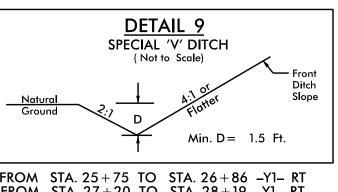




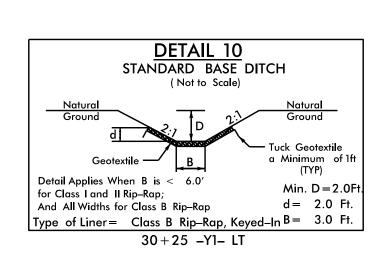


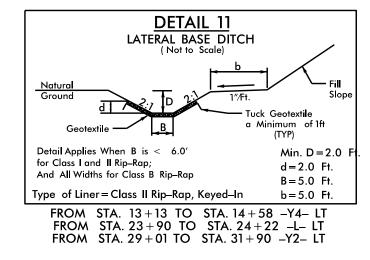


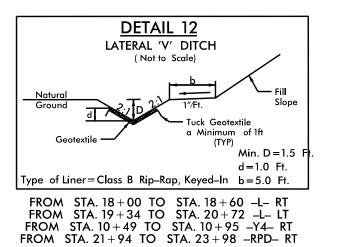


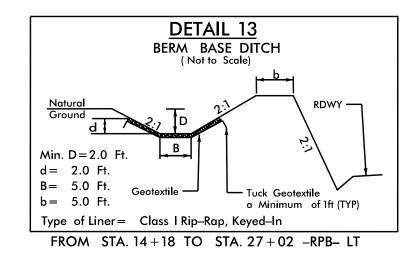


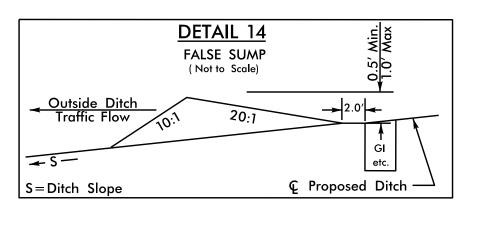


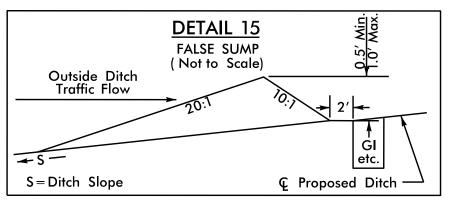


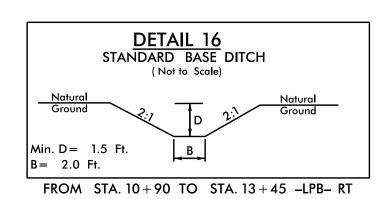


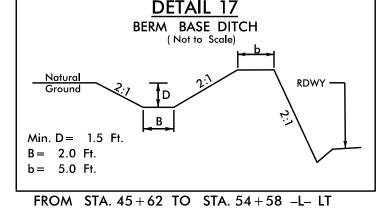




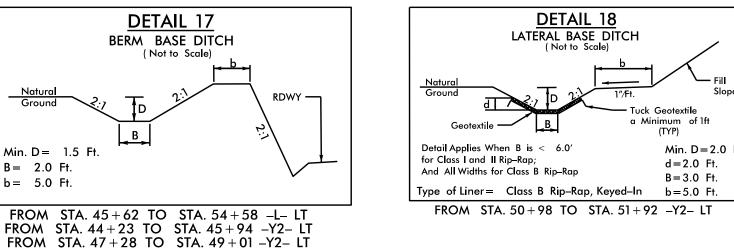


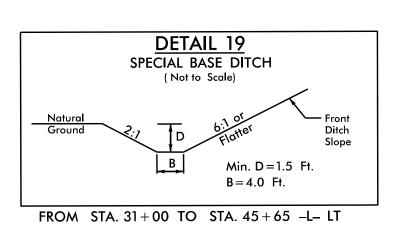


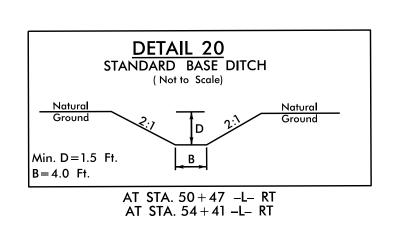


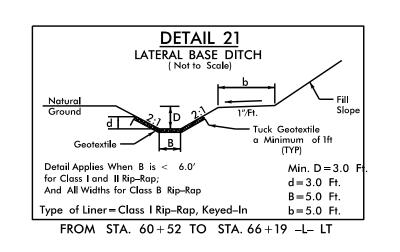


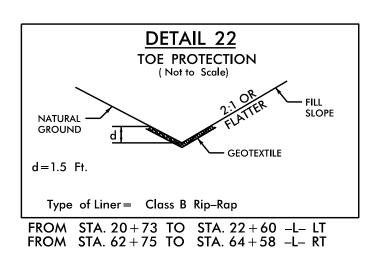
DETAIL 24

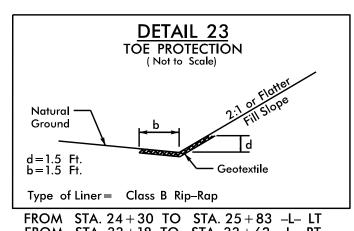


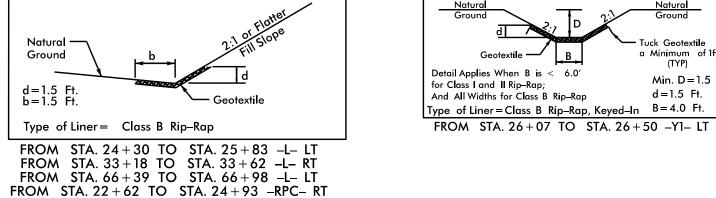


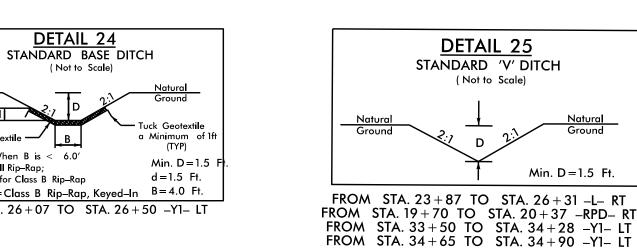


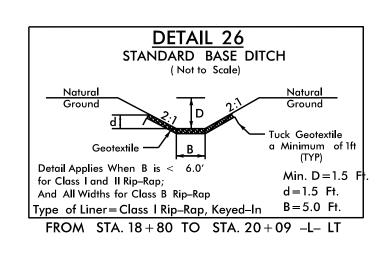


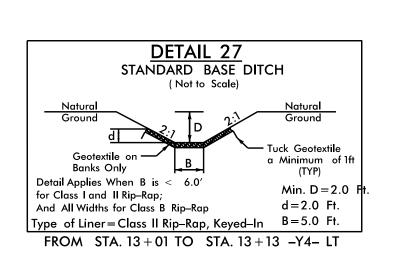


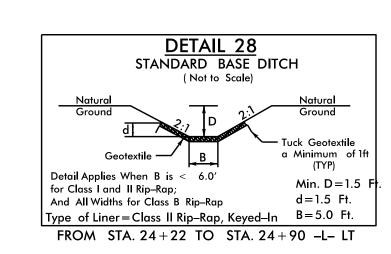


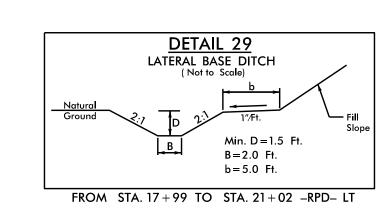


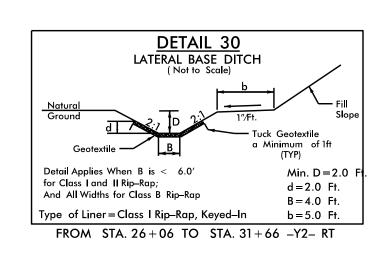


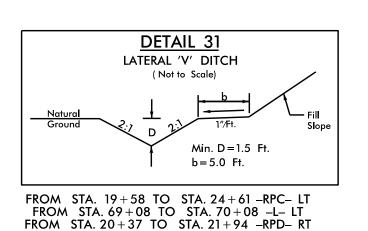


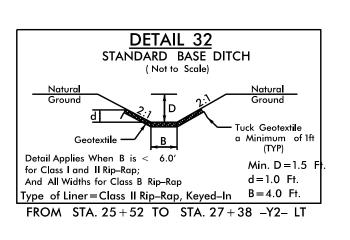




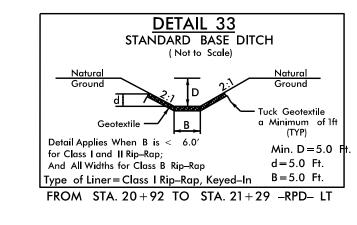


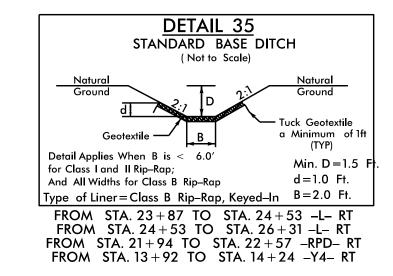


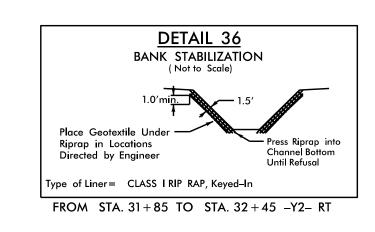


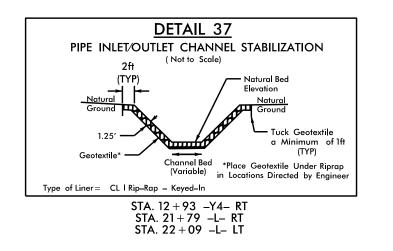


FROM STA. 35+28 TO STA. 37+35 -Y1- LT



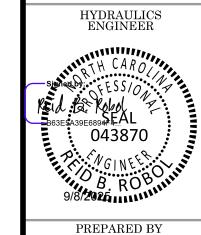


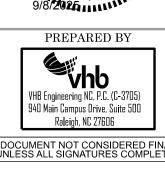


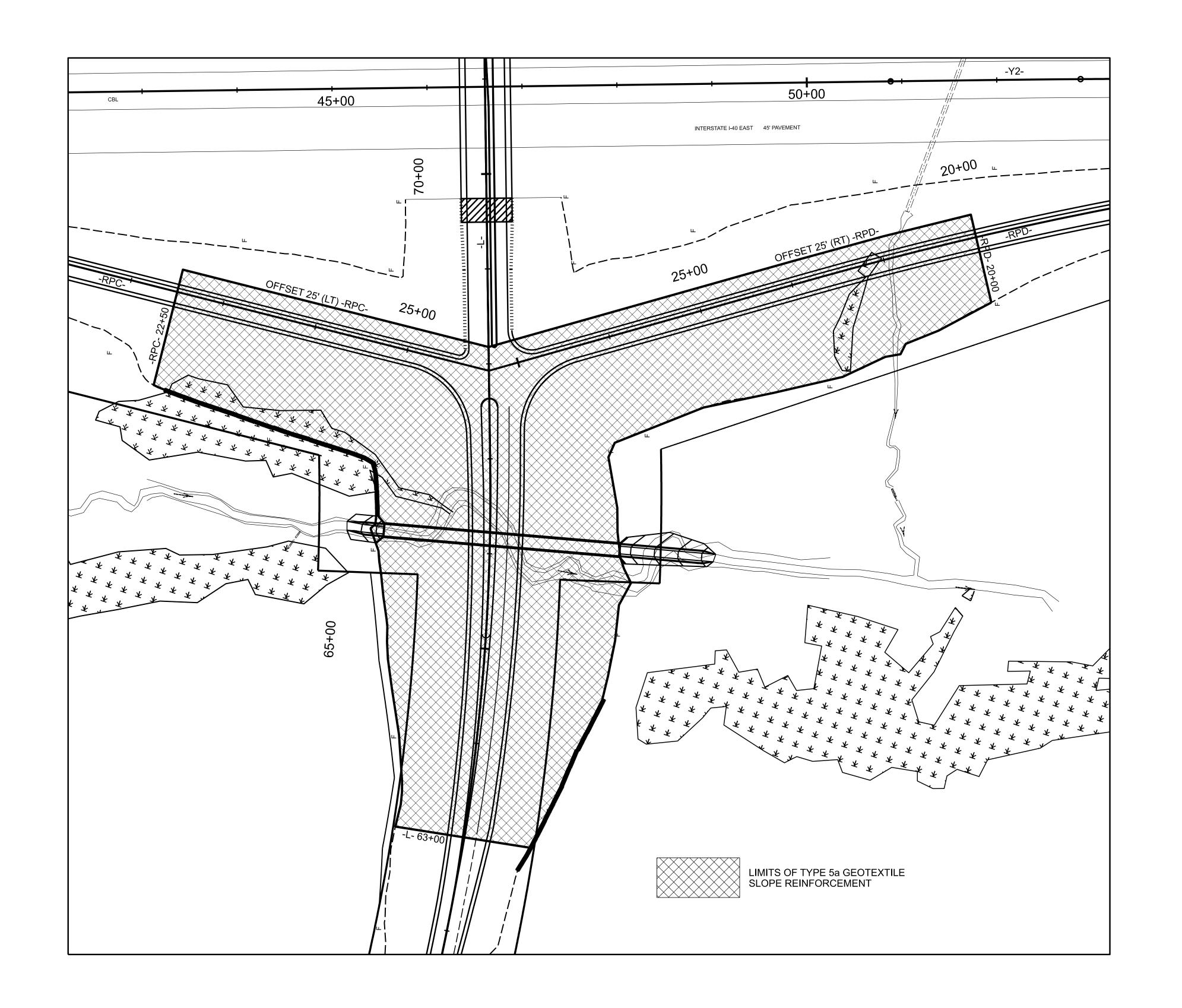


NORTH CAROLINA PARTMENT OF TRANSPORTATIO

ROADWAY DESIGN UNIT







PROJECT REFERENCE NO. SHEET NO.

U-6187

GEOTECHNICAL ENGINEER

SEAL Ø28893

Ø

UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA NOLLA

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL Engineering unit GEOTEXTILE FOR EMBANKMENT STABILIZATION PLAN VIEW

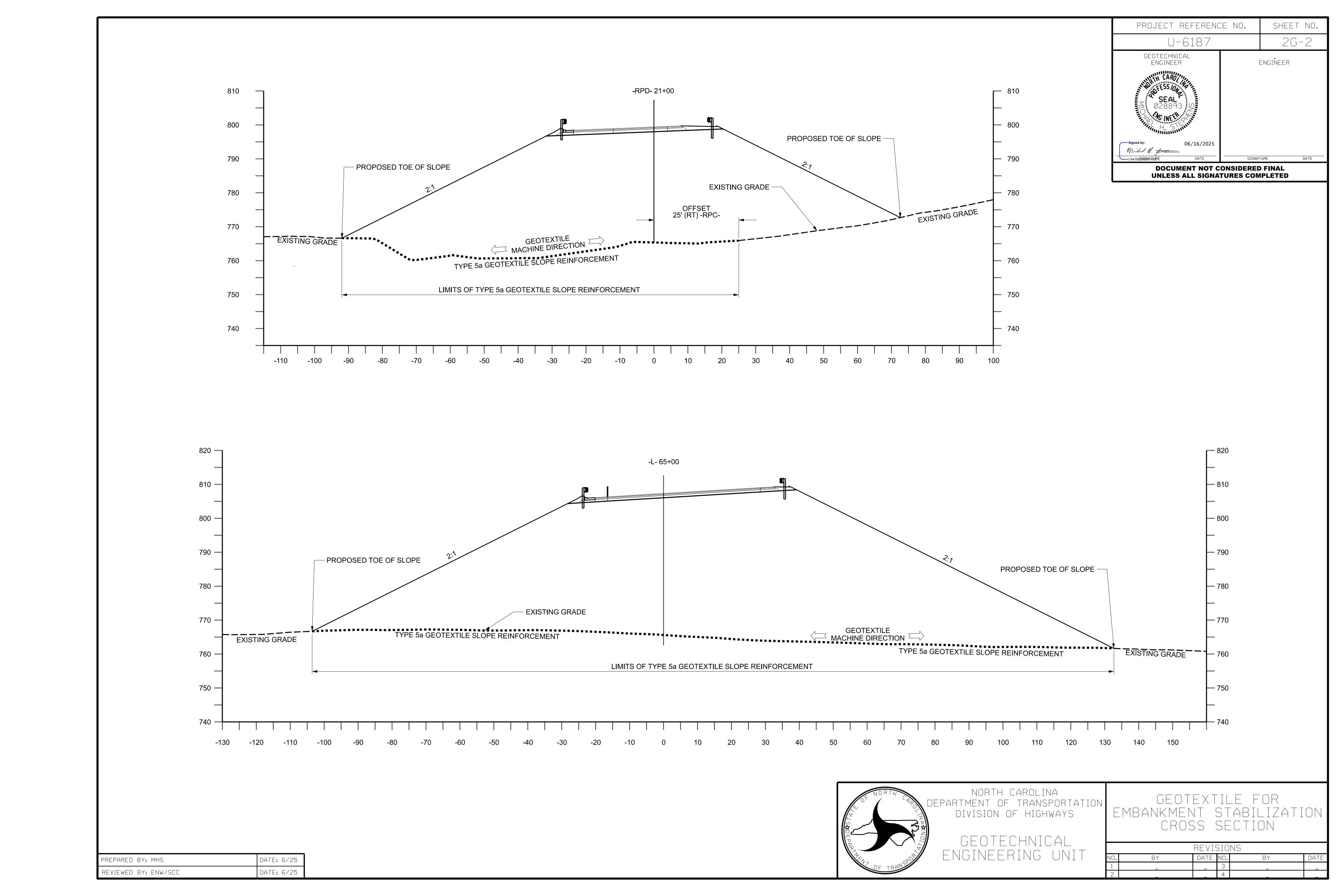
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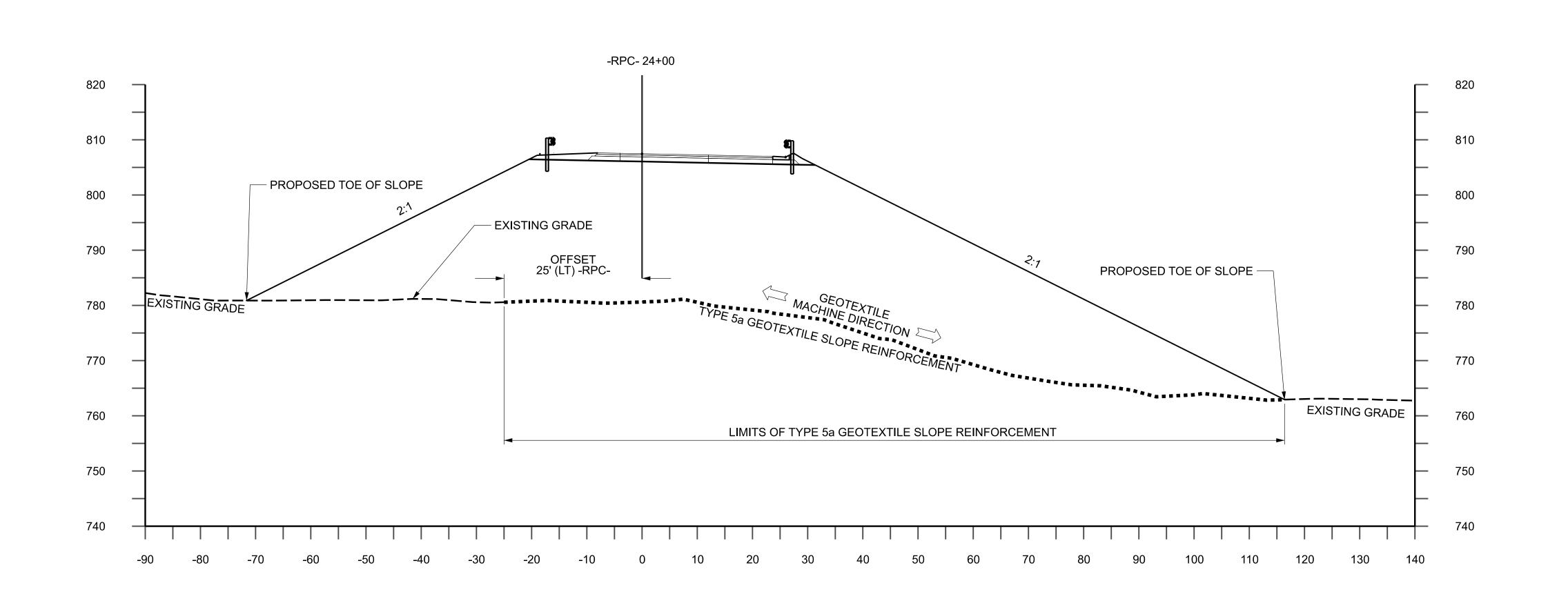
PREPARED BY: MHS

DATE: 6/25

REVIEWED BY: ENW/SCC

DATE: 6/25





PROJECT REFERENCE NO. SHEET NO. 2G-3 GEOTECHNICAL ENGINEER ENGINEER mild de fre DOCUMENT NOT CONSIDERED FINAL **UNLESS ALL SIGNATURES COMPLETED**

ESTIMATED REINFORCED **EMBANKMENT** QUANTITY MATERIAL TYPE

22,540 SY

NOTES

1. FOR EMBANKMENT STABILIZATION, SEE GEOTEXTILE FOR EMBANKMENT STABILIZATION SPECIAL PROVISION.

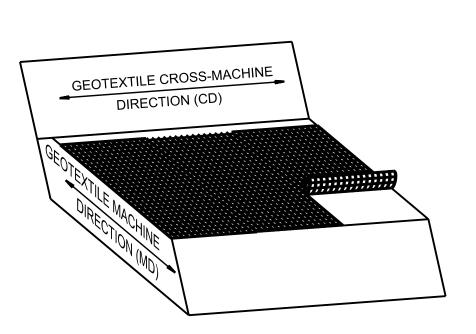
TYPE 5a GEOTEXTILE

2. PLACE ALL GEOTEXTILE WITH THE MACHINE DIRECTION PERPENDICULAR TO THE SLOPE FACE.

3. THE CONTRACTOR TO SUBMIT DETAIL OF FABRIC LAYOUT IN TRANSITION ZONES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION. IT WILL BE NECESSARY TO PROVIDE SIGNIFICANT FABRIC OVERLAP IN TRANSITION ZONES.

	<u> </u>			(TILE FOR (MENT STABILIZATION (TYP)
18" OVERLAP				
MIN (TYP) —		<u> </u>	5' OVERLAP MIN (TYP)*	
<	\	ROLL WIDTH	<u> </u>	
	İ	į	SHOULDER BREAK	
			POINT	
			i	
		l i	i	
		i	TOE OF	
			SLOPE	
POII OVE	NT, INST	ΓALL GEOTEXTILE FU	THE SHOULDER BRE JLL LENGTH, NO RECTION. SEE SECT	

GEOTEXTILE OVERLAP DETAIL (PLAN VIEW)



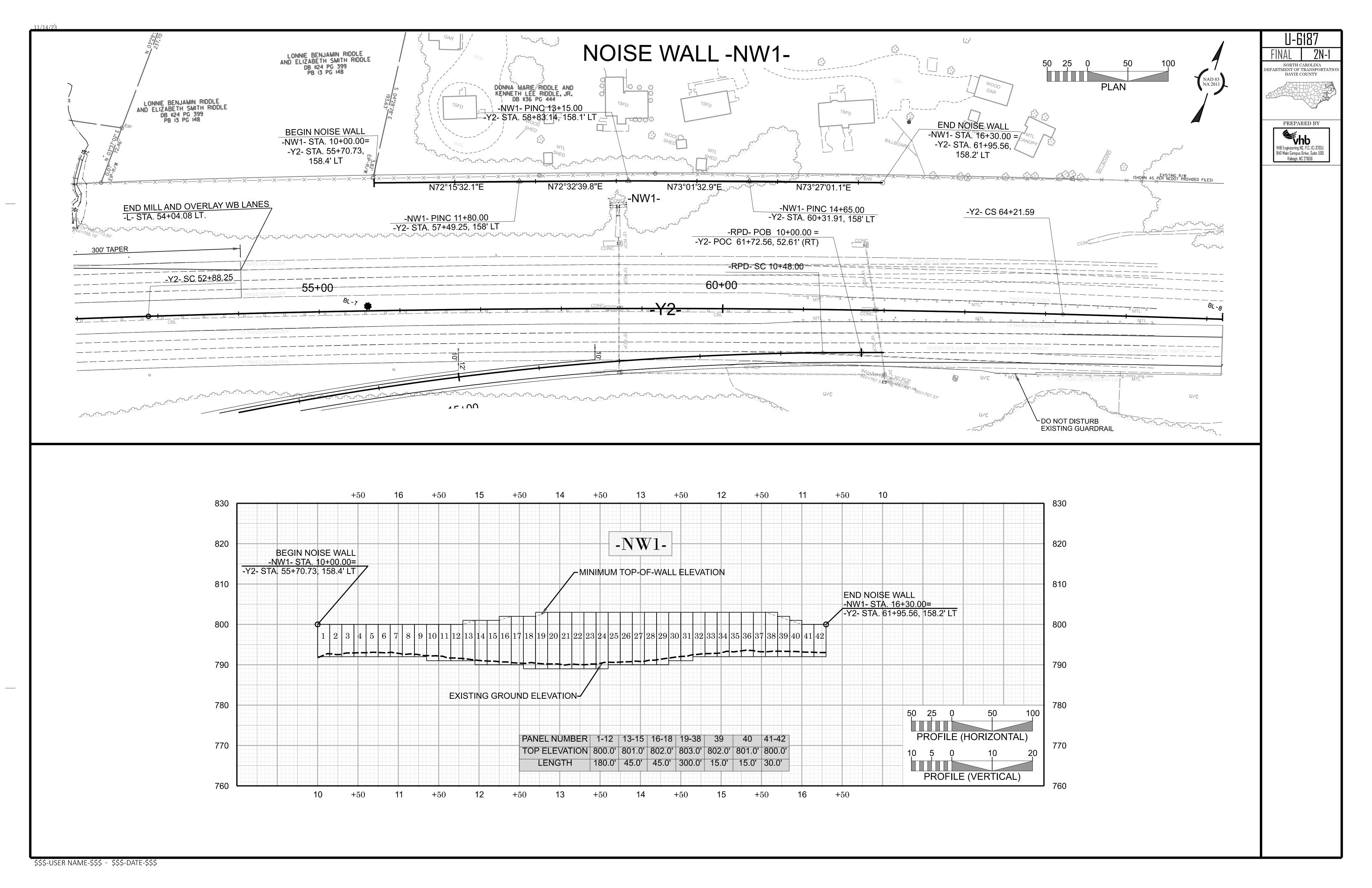
GEOTEXTILE PLACEMENT DETAIL (PLAN VIEW)

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

GEOTECHNICAL ENGINEERING UNIT CROSS SECTION, NOTES, AND DETAILS

	REVISIONS											
O.	ВҮ	DATE	NO.	BY	DATE							
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PREPARED BY: MHS DATE: 6/25 DATE: 6/25 REVIEWED BY: ENW/SCC



SUMMARY OF EARTHWORK

Volumes in Cubic Yards

STATION STATION		UNCLASS. EXCAVATION	UNDERCUT	EMBANK. +%	BORROW	WASTE
L 72+00.00	73+04.01	1,771		1,044		727
LPB 10+00.00	22+00.00	58,022		17		58,005
RPB 10+00.00	31+00.00	99,286	1,640	2,935		97,991
Y2 19+93.85 LT	50+00.00 LT	9,015		2,860		6,155
Y2 50+00.00 LT	54+50.00 LT	1,113		151		962
	SUBTOTAL	169,207	1,640	7,007		163,840
L 30+36.81	70+00.00	68,729	2,880	182,850	127,024	15,783
RPC 10+00.00	24+50.00	586		45,883	45,356	59
RPD 10+00.00	24+00.00	4,725	2,090	67,318	63,066	2,563
Y1 10+31.26 LT	35+50.00 LT	2,738		2,475	11	274
Y2 23+30.17 RT	50+00.00 RT	509		1,731	1,273	51
Y2 50+00.00 RT	65+50.00 RT	425		495	112	42
	SUBTOTAL	77,712	4,970	300,752	236,842	18,772
L 12+24.00 LT	20+00.00 LT	1,941		31,929	30,182	194
L 12+24.00 RT	20+00.00 RT	24		11,416	11,394	2
L 20+00.00	30+00.00	54		7,688	7,639	5
Y1 10+31.26 RT	35+50.00 RT	801		3,196	2,475	80
Y3 10+10.00	11+00.00	2		188	187	1
Y4 10+12.00	15+50.00	25		7,098	7,075	2
Y4 20+50.00	22+50.00	126		339	226	13
DRW1 10+12.00	11+00.00	7		463	457	1
	SUBTOTAL	2,980		62,317	59,635	298
TC	DTAL	249,899	6,610	370,076	296,477	182,910
MATERIAL FOR SHOULDER C	ONSTRUCTION			10,350	10,350	
LOSS DUE TO CLEARING & GR	RUBBING	-32,500			32,500	
ADDITIONAL UNDERCUT (CO	NTINGENCY)		2,000			2,000
WASTE IN LIEU OF BORROW					-145,278	-145,278
PROJEC	CT TOTAL	217,399	8,610	380,426	194,049	39,632
				,		,
EST. 5% TO REPLACE TOP SOI	L ON BORROW PIT				9,702	
GRANI	D TOTAL	217,399	8,610	380,426	203,751	39,632
S	AY	228,500	9,000		214,000	
		220,000	,,,,,,		21.,000	

NOTE: QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL USE METHODS INCLUDING BUT NOT LIMITED TO RECROSS-SECTIONING, TRUCK MEASUREMENTS, AND AERIAL SURVEYS TO COMPUTE FINAL QUANTITIES WHICH THE CONTRACTOR WILL BE PAID.

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGNER. THESE QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEER.

NOTE: EMBANKMENT QUANTITIES DOES NOT INCLUDE BACKFILL FOR UNDERCUT.

EST. DDE = **18,950 CY**

EST. 10% OF THE UNCLASSIFIED EXCAVATION AS ADDITIONAL UNSUITABLE WASTE PER GEOTECH RECOMMENDATION

EST. 8,220 CY OF SELECT GRANULAR MATERIAL TO REPLACE UNDERCUT PER GEOTECH RECOMMENDATION

UNCLASSIFIED EXCAVATION NOT SUITABLE FOR THE TOP 3 FT OF EMBANKMENT OR BACKFILL PER GEOTECH RECOMMENDATION:

-Y1- 10+31.26 to 15+25.00 (530 CY), -Y1- 16+25.00 to 23+25.00 (1,320 CY), -Y2- 19+93.85 to 25+25.00 (1,720 CY), -Y2- 45+25.00 to 50+75.00 (7,010 CY), -Y2- 61+75.00 to 62+25.00 (20 CY)

EST. 40% OF THE UNCLASSIFIED EXCAVATION AS CONTINGENCY NOT SUITABLE FOR THE TOP 3 FT OF EMBANKMENT OR BACKFILL PER GEOTECH RECOMMENDATION

U-6187

NORTH CAROLINA DEPARTMENT OF TRANSPORTATIO DAVIE COUNTY





"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL

GUARDRAIL SUMMARY

G = GATING IMPACT ATTENUATOR TYPE 350 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

PE 350

PE 350

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIE COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN UNIT	
PREPARED BY	
VHB Engineering NC, P.C. (C-3705) 940 Main Campus Drive, Suite 500 Raleigh, NC 27606	

					LENGTH (LF)	WARRANT	POINT			FLARE L	ENGTH	V	v			ANCHO	RS			PACT NUATOR				
SURVEY LINE	BEG. STA.	END STA.	LOCATION	STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	APPROACH END	TRAILING END	APPROACH END	TRAILING END	B-77	GREU, TL-3	GREU, TL-2	CAT-1	AT-1	G	NG	SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	STUCKPILE	REMARKS
-L-	15+95.00	26+15.00	LT	1,025.00			23+25.00	17+00.00	6'	9'	50'	50'	1'	1'		2									
-L-	15+85.00	18+82.00	RT	262.50			18+25.00		6'	9'	50'		1'			1									
-L-	19+38.00	25+51.00	RT	593.75				24+25.00	6'	9'		50'		1'		1									
-L-	59+05.00	67+85.00	LT	825.00	87.50			60+75.00	6'	9'		50'		1'		1									
-L-	59+60.00	67+88.00	RT	775.00	87.50		62+50.00		6'	9'	50'		1'			1									
-L-	68+23.00	69+74.00	LT	135.375	37.50		BRIDGE	22:22	6'	9'					1		1							-	
-L-	68+24.00	69+74.00	RT	135.375	37.50			BRIDGE	6'	9'					1										
-L-/-LPB-	72+09.00	21+53.00	LT	185.375			55:56=	BRIDGE	VARIES	VARIES	162.5'	62.5	11'	41	1		1 1							-	
-L-	72+09.00	72+86.00	RT	91.625			BRIDGE		VARIES	VARIES		62.5'		4'	1		<u> </u>	1 1						_	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	10:24.00	45.40.00	1.7	427.50	75.00		14:25.00		a I	71	251		41											1	
-Y4-	10+24.00	15+10.00	LT	437.50	75.00		14+25.00		4'	/'	25'	251	T'	11			1							-	
-Y4-	10+15.00	11+34.00	RT	87.50	75.00			14.00.00	4'	7'	251	25'	11	11			1 1								
-Y4-	11+78.00	15+03.00	RT RT	337.50			29+25.00	14+80.00	4 14'	17'	25' 76.7'	25'	T	Δ		1	2						840		
-Y2-/-RPC- -RPC-	26+61.00 19+50.00	25+13.00 25+30.00	IT.	1,950.00 587.50			19+50.00		12'	15'	50'		0.8'			1	+						040	+	
-Y2-/-RPB-		13+50.00	I T	706.25			19+30.00	25+75.00	14'	17'	50'		1'			1		1					914		
-Y2-	43+02.00		RT	418.75			MED. STRUCTURE		12'	EXIST.	30	50'	<u>+</u>	1'		1	+	1					914		
-Y2-	46+04.00		LT	418.75			MED. STRUCTURE		12'	EXIST.		50'		1'		1		1							
-RPD-	18+25.00	25+10.00	IT	618.75			WILD. STRUCTURE	18+25.00	14'	17'		30					+	1							
-RPD-	17+75.00	24+74.00	RT	706.25				17+75.00	12'	15'							1	1							
5	2,1,0,00	2117 1100		10,297.75	400.00			27170.00							4	11	5	6					1754		
				,																					
	NS FOR ANCH		1.7/54														1								
T	YPE	QTY	LT/EA																					-	
	E D 33		22.075	04.50																				+	
	E B-77	4	22.875	-91.50 550.00											-		1							1	
	U, TL-3	11	50.00	-550.00													1								
	U, TL-2	5	25.00	-125.00 -37.50		<u> </u>											1							1	<u> </u>
^C /	AT-1	В	6.25	-37.30													1								<u> </u>
																	1							-	t
		PRO.	JECT TOTAL	9.493.75	400.00												1						1754.00		
				-,											1		1	+						1	
 			SAY	9,500.00	400.00										1		1	+ +					1,755.00		
				•													1						,		
	ADDITIO	NAL GUARDI	RAIL POSTS	10 EACH	per RDM												1								

SUMMARY OF WOVEN WIRE FENCE

	LT.	Α	В	С	D	E	F
STATION TO STATION	OR	FABRIC	END	CORNER	LINE	4"	5"
	RT.	L.F.	BRACE	BRACE	BRACE	POSTS	POSTS
-L- 24+13.00 TO -Y1- 22+75.00	LT	565.53	2	2	1	33	13
-L- 24+08.00 TO -Y1- 24+76.00	RT	558.13	2	2	1	33	13
-Y1- 22+80.00 TO -L- 36+55.00	LT	625.47	2	2	1	38	13
-Y1- 24+78.00 TO -L- 36+55.00	RT	563.19	2	2	1	33	13
-L- 57+92.00 TO 67+07.42	RT	1,100.11	1	6	4	61	32
-L- 57+92.00 TO 67+06.41	LT	916.86	1	6	3	50	29
-RPD- 16+53.00 TO 23+80.00	LT	815.54	1	5	3	44	26
-RPC- 15+69.00 TO 24+37.00	RT	848.37	1	1	3	53	14
-RPB- 13+79.00 TO -Y2- 47+77.00	LT	2,062.78	2	4	7	127	37
-Y2- 30+51.81 TO -RPC- 12+48.59	RT	321.97	2	3	1	14	16
-Y2- 27+84.34 TO -RPB- 13+79.00	LT	526.75	1	4	1	28	17
TOTAL		8,904.70				514	223
SAY		8,910				515	223

SUMMARY OF CABLE GUIDERAIL

LINE	BEG STATION	END STATION	LOC.	SINGLE FACED LENGTH (LF)	DOUBLE FACED LENGTH (LF)	INTERMEDIATE ANCHORS (EA)	TERMINAL ANCHORS (EA)	REMOVE AND RESET EX. GUIDERAIL (LF)
Y2	45+94.33	47+27.83	MED.				2	133.50
			TOTAL				2	133.50
			SAY				2	135
DDITION	IAL GUIDERAIL POSTS = SAY	5 FA						

SUMMARY OF REMOVAL EXISTING ASPHALT PAVEMENT

LINE	STATION	STATION	LOCATION	SQUARE YARDS
-L-/-Y4-	15+72.13	11+34.80	MED	565.90
-L-	14+98.09	15+46.62	RT	28.53
			TOTAL	594.43
			SAY	600

SUMMARY OF SHOULDER BERM GUTTER

LINE	STATION	STATION	SIDE	LENGTH (LF)
-L-	16+10.00	20+00.00	LT	390.00
-L-	17+50.00	18+47.36	RT	97.36
-L-	19+70.41	24+75.00	RT	504.54
-L-	60+25.00	67+29.49	LT	704.49
-L-	68+40.00	69+58.92	LT	118.92
-L-	69+34.00	69+58.92	RT	24.92
-L-/-LPB- (LT/RT)	72+32.01	21+29.33	LT	188.13
-L-	72+32.01	72+50.00	RT	17.99
-Y2-/-RPB-	25+75.00	13+00.00	LT	622.39
-Y4-	10+20.79	14+75.00	LT	464.39
-Y4-	13+30.00	14+50.00	RT	120.00
-Y2-/-RPC-	29+50.00	25+81.38	RT	1,747.04
-RPD-	18+42.00	24+46.00	LT	604.00
			TOTAL	5,604.17
			SAY	5,610

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS**

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

See "S	Standard	l Specifications F	or Roads and Structures, Section	on 300-5".		IST OF PIPES, I	ENDWALLS, ET	C. (FOR	PIPES 48	B INCHE	S & 1	UNDER							
LINE &	UCTURE NUMBER		Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC	C)	C. S. PIPE	R. C. PIPE CLASS IV	K, GRADE B K, GRADE B CK, GRADE B CK, GRADE B K, GRADE B	838.11 E) WALLS	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY		CONCRETE TRANSITIONAL SECTION	15 3. 840.16 R STD. 840.26 R STD. 840.27 D STD. 840.27	TH GRATE STD. 840.20 2 GRATES STD. 840.20 SRATE STD. 840.22	GRATES STD. 840.24 GRATE STD. 840.24 GRATE STD. 840.29 2 GRATES STD. 840.29	32 STD. 840.36	7 45	50.10 (SY) 50.11 (SY) . "B" STD. 840.72	IPE PLUG STD. 840.71	C.A.A. CORRUGATED ALUMINIUM ALLOY C.B. CATCH BASIN C.S. CORRUGATED STEEL D.I. DROP INLET G.D.I. GRATED DROP INLET H.D.P.E. HIGH DENSITY POLYETHY LENE J.B. JUNCTION BOX
SIZE Ü	STR	ATION	12 15 18 24 30 36 42 48	A A B C C		12 15 18 24 30 36 42 48	EL PIPE 0.25" EL PIPE 0.375 EL PIPE 0.375 EL PIPE 0.375 EL PIPE 0.50"	ENDWALLS D. 838.01 OR STD. LESS NOTED OTHERWIS EINFORCED ENDV	A B STD. 840.0)R STD. 852.(GRATES STI GRATES STI STD. 840.17 O STD. 840.18 O) FRAME WI) FRAME W/	FRAME W/ G FRAME W/ 2 FRAME W/ () FRAME W/ ()	OR STD. 840.32 .34 .35 EL GRATES STD.	COVER STE COVER STE SIPE ELBOW	PIPE ELBOW D. 840.41 TLET STD. 8: TLET STD. 9: TLET STD.	IND BRICK P	M.H. MANHOLE N.S. NARROW SLOT P.V.C. POLYVINYL CHLORIDE R.C. REINFORCED CONCRETE
THICKNESS OR GAUGE	FROM	TOP ELEVATI INVERT ELEV INVERT ELEV	DO NOT USE RC	ž ž ž ž ž	970. 970. 970. 970.		18" WELDED STEE IN SOIL 18" WELDED STEE NOT IN SOIL 24" WELDED STEE IN SOIL 24" WELDED STEE NOT IN SOIL 30" WELDED STEE IN SOIL 30" WELDED STEE NOT IN SOIL 30" WELDED STEE	CA CA EV	0' THRU 5' 11.1 'S' THRU 10' 11.1 'S' THRU 10' 11.1 'AND ABOV 11.1 C.B. STD. 840.01 C	GRATE TYPE	D.I. STD. 852.04 C	D.I. STD. 840.14 C D.I. FRAME AND G.D.I. TYPE "A" S G.D.I. TYPE "B" S	G.D.I. (W.S. FLAT G.D.I. (W.S. FLAT G.D.I. (W.S. SAG)	G.D.I. (N.S. SAG) G.D.I. (N.S. SAG) G.D.I. (N.S. FLAT G.D.I. (N.S. FLAT	J.B. STD. 840.31 (T.B.J.B. STD. 840) (T.B.D.I. STD. 840) (T.B.D.I. FOR STE	M.H. SID. 840.51, M.H. FRAME AND 15" SIDE DRAIN I	30" SIDE DRAIN B SPRING BOX STI BERM DITCH OU SERM DITCH OU SERM DITCH OU	CONCRETE A	T.B.D.I. TRAFFIC BEARING DROP INLET T.B.J.B. TRAFFIC BEARING JUNCTION BOX W.S. WIDE SLOT
L 12+41 28 RT			40																
L 15+40 4 LT L 18+40 17 RT	0403 0404	840.2 838.1 845.0				100			1						1				
210.40	0406 0405	841.5 830.2	40 X													2			
Y4 10+95 52 RT	0107	827.3							1			1		1					
Y4 11+49 68 RT	0407 0408	824.0 823.8 831.1				72			1 26										
Y4 11+49 68 RT	0408 0410	823.5 823.4				44			1 2.0										
L 19+20 26 LT	0409	843.4							1					1	1				
	0409 0411					40													
Y4 11+82 47 RT	0410 0413	829.4 823.4 823.4 820.4				52		++	1 1.0		$\vdash \vdash \vdash$	1 1 1	+ + + +						
L 19+58 26 LT	0411	842.8							1				+++	1 1	1				
	0411 0412		60													2			
Y4 12+26 43 RT		823.9				70			1			1 1 1	+						
L 20+64 10 LT	0413 0416 0414 0420					200		4.500											
Y4 13+30 15 LT		828.0							1					1	1				
	0419 0433					32													
L 21+55 20 RT	0421 0428	837.8 833.8 833.8 833.2				06			1					1	1				
Y4 14+24 14 RT		827.0				90			1				+++	1	1				
	0424 0423	823.5 812.0	32 X													2			
	0425 0422					148													
Y4 14+24 14 LT	0426 0427	827.0 823.5 811.6	40						1					1	1	2			
L 22+55 21 RT	0428	836.4	140 X						1					1	1	2			
	0428 0429	833.2 831.9				64													
L 23+20 22 RT		835.9							1					1	1				
L 23+91 24 LT	0429 0432 0431 0432					68 96		6.000											
L 23+91 23 RT		835.6						0.000	1 5.0 2.2					1	1				See Special Detial 2C-8
	0432 0430					44													
Y4 13+30 15 RT	0433	828.0							1					1 1	1 1				
L 24+05 24 RT	0433 0424	824.7 823.5 835.6 835.6				90			1		$\vdash \vdash \vdash$		+++		1				
	0501 0432					12													
L 24+35 26 RT	0502	835.6							1					1	1				
V4 20 00 40 1.T	0502 0501	831.6 831.5				28													
	0507 0508 0509	847.2 842.3	40			12							+++						
Y1 23+12 55 LT		849.1							1 1.8						1	1			
	0509 0511	842.3 841.2				164													
Y1 23+10 8 LT	0510	849.8				40		\vdash	1		1	1 1 1	+++						
Y1 14+66 8 RT	0510 0509	846.3 845.4 843.3 845.4				40			1		1	1 1	+ + + +						
	0512 0513					108													
Y1 26+06 10 RT	0513	840.5							1 2.7		1	1 1							
V1 27 167 0 DT	0513 0523					88		\vdash	1		1	1 1	+++						
Y1 27+67 9 RT	0514 0514 0516	836.9 833.3 831.5				80						<u> </u>							
Y1 27+89 54 RT	0515	831.8							1 0.3			1 1	++++	1					
	0515 0518					152													
Y1 28+46 9 RT	0516	835.1							1		1	1 1							
	SHEE	T TOTALS (48" or Less)	252			944 308 176 148 200 140		11 2	24 13 2		5	7 7 3		1 1 14	1 13	1 8			1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DAVIE COUNTY



11/14/23

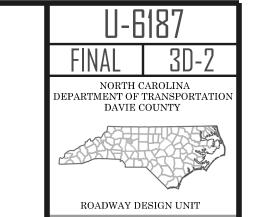
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.

See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCH	H H N N N N N N N N N N N N N N N N N N
	C.B. CATCH BASIN D. 840.22 S 20.053 C.S. CORRUGATED STEEL
Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) Side Drain Pipe C. S. PIPE R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE R. C. PIPE R. C. PIPE R. C. PIPE CLASS IV R. C. PIPE R. C	
LINE & L S S S S S S S S S S S S S S S S S S	
STATION	
SIZE O 0 0 0 0 0 0 0 0 0	OR STD. STD. STD. STD. STD. STD. STD. STD.
SET ON STEEL	THE PARTICIPAL SALES OF SALES
A THRW SOLE STD. 840.0	STD
0516 0517 831.5 829.4 52 52 52 52 52 52 52 52 52 52 52 52 52	
Y1 28+97 8 LT 0517 833.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Y1 29+40 50 RT 0518 829.7 1 1	
0518 1002 825.6 825.2 88	
Y1 29+52 8 LT 0519 832.2 1 1 1 0519 0520 828.7 822.2 60	
Y1 26+50 76 LT 0521 0522 828.7 825.3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Y1 27+20 53 RT 0524 40 40	
L 34+76 68 LT 0526 0525 840.0 835.7 840.0 835.7 840.0 835.7	
L 39+76 63 LT 0601 0602 844.8 842.5 104 104 104 104 104 105 105 105 105 105 105 105 105 105 105	
0603 0604 858.5 844.6 40 X	
L 50+47 30 LT 0604 847.8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0604 0605 844.6 843.9 60	
L 50+47 30 RT 0605 849.7 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 0.8 1 1 1 0.8 1 1 1 0.8 1 1 1 0.8 1 1 1 0.8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
L 54+41 98 LT 0701	
0701 0702 853.9 829.0 68 X	
L 54+41 30 LT 0702 832.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
L 54+41 30 RT 0703 834.0 834.0 1 1.5	
0703 0704 827.5 827.2	
L 61+00 33 RT 0705 809.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0705 0706 805.9 805.6 48	
L 61+00 17 LT 0706 809.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
RPB 12+00 25 LT 0801 798.1 1 1 1 1 1 1 1	
0801 0803 794.8 792.8 84	
RPB 12+88 25 LT 0803 796.1	
RPB 14+30 70 LT 0805 52 52 X X 52 52 X X 52 52 52 52 52 52 52 53 52 52 52 52 52 52 52 52 52 52 52 52 52	
0805 0806 791.7 786.3 28 X	
RPB 14+30	
RPB 16+25 44 LT 0807 787.0 128 128 1 128 1 1 5.0 0.5	
RPB 16+25	
RPB 16+25 34 RT 0808 789.7 1 1 5.0 2.9	
0808 0807 776.8 776.5 80	
RPB 17+57 34 RT 0809 788.5 1 1 5.0 1.2 1 1 5.0 1.2 1 1 5.0 1.2 1 1 1 5.0 1.2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
RPB 20+76 94 LT 0810 132 1 132 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0810 0811 805.7 786.5 52 X	
RPB 20+75	
RPB 20+76 34 RT 0812 792.1 1 5.0 3.4	
0812 0809 778.7 777.3 316 316	
RPB 22+97 64 RT 0813 784.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0813 0812 781.2 780.5 220	
RPB 24+75	
LPB 16+87 39 LT 0815 795.0 791.4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0815 0813 791.4 781.2 184 184	
LPB 12+81 88 LT 0816 788.8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
0816 0817 785.6 783.0	

 SHEET TOTALS (48" or Less)
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 172
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 52
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 8
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 22
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 18
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 10
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 62





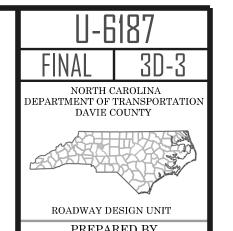
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

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See "Standard Specifications For Roads and Structures, Section 300-5".

Sed	e "Standard	l Speci	ficati	ons F	or Ro	ads	and	d Str	uctur	∌s, S €	₃ctior	า 300)-5".				\boldsymbol{L}	IST	01	∇P_{i}	<i>IPI</i>	ES,	E N	V D V	WA	LL	S, I	ΕT	<i>C</i> .	(F0)R	PI	PE.	S 4	8 IN	<i>NCI</i>	HE,	S d	$\boldsymbol{\mathcal{U}}$	INI	DE .	R)																						
	CTURE NUMBER							(RCP,	Side Dr CSP, CAA	ain Pipe P, HDPE, c	or PVC)				C. S.	PIPE			I (₹. C. PIF	PE V		HICK, GRADE B	HICK, GRADE B	THICK, GRADE B	THICK, GRADE B	HICK, GRADE B	HICK, GRADE B	-S TD. 838.11	WISE)		FOR DE STRUC NO TOTAL FOR	CTURES OTE: . LIN. FT R PAY	SE S	A	VIE, GRA ND HOO TD. 840	OD	CONCRETE TRANSITIONAL	SECTION	840.16	STD. 840.26 STD. 840.27	STD. 840.28 GRATE STD. 840.20	GRATES STD. 840.20	ATE STD. 840.22 RATES STD. 840.22	ATE STD. 840.24 RATES STD. 840.24	SATE STD. 840.29 SRATES STD. 840.29		D. 840.36	TD. 840. 54			.10 (SY) .11 (SY)		B" STD. 840.72	E PLUG STD. 840.71	E PLUG 31 D. 070	C. C. D. G. H.	C.B. C.S. D.I. G.D.I. H.D.P.E.	CATO CORF DROF GRAT HIGH	CH BASII RUGATE PINLET TED DRO I DENSIT	N D STEEL DP INLET Y POLY			
SIZE	OFFSET	ATION	EVATION	EVATION	12 12	15 18	8 24	30	36 42 4	18	CSP (SP	CAAP	D dd	ر ا	18 2				18	24 30	36	42 4	EEL PIPE 0.25" T	TEEL PIPE 0.25" T	TEEL PIPE 0.375"	TEEL PIPE 0.375"	TEEL PIPE 0.50" T	TEEL PIPE 0.50" T	ENDWALI STD. 838.01 OR S	(UNLESS NOTED OTHER		SHA A + (1	ANTITY ALL BE 1.3 X B) A	OVE Ф				4 OR STD. 852.06	05 4 OR STD. 840.15	ID GRATES STD.	"STD. 840.17 OR	" STD. 840.19 OR	FLAT) FRAME WITH	G) FRAME W/ GR G) FRAME W/ 2 G	G) FRAME W/ GR G) FRAME W/ 2 G	. FLAT) FRAME W/ GRATE S . FLAT) FRAME W/ 2 GRATE 840.31 OR STD. 840.32	340.34	40.35 TEEL GRATES ST	51, STD. 840.52, C ND COVER STD.	N PIPE ELBOW N PIPE ELBOW	N PIPE ELBOW STD. 840.41	OUTLET STD. 850 OUTLET STD. 850	EFILL	E COLLARS CL. "	= AND BRICK PIP	AND DRICH.	M N. P. R.	R.C.	MANH NARF POLY REINF	ROW SLO VINY LO ORCED	OT CHLORIE CONCRE	RETE		
THICKNESS OR GAUGE	FROM		T INVERT EL	T INVERT EL							USE USE	NOT USE	NOT USE	DO NOT USE F	920.	670.	620.						18" WELDED ST	18" WELDED ST	24" WELDED ST	24" WELDED ST	30" WELDED ST	30" WELDED ST NOT IN SOIL	CY	С	Y E	WITHOU 5'	5. IHKU	10.	E E	GRATE TYPE		D.I. STD. 852.0		D.I. FRAME AND	G.D.I. TYPE "A	G.D.I. TYPE "D	(W.S.	G.D.I. (W.S. SA G.D.I. (W.S. SA	G.D.I. (N.S. SA G.D.I. (N.S. SA	N N Ω Ω Ω Ω Ω Ω Ω Ω	B. S.	T.B.D.I. STD. 8 T.B.D.I. FOR S	M.H. STD. 840. M.H. FRAME A	15" SIDE DRAI 18" SIDE DRAI	30" SIDE DRAIN PIP SPRING BOX STD. 8	BERM DITCH (CONCRETI	ς concreti	CONCRETE A	PIPE REV	Г.В.J.В.		FIC BEA		OROP INL		
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	0827A 0821		793.0	789.9						$\frac{1}{1}$								10	4													1		1	1	1																	$\frac{1}{2}$		<u> </u>								 	
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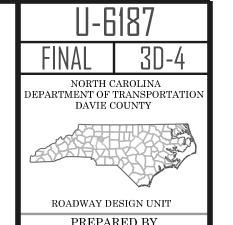
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS**

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			<u>α</u>																							В						QUAN	NTITIES DRAINAGE				ETE	ONAL			20	840.20	0.22	0.24	29									0.71		C.A.A. C.B.	. CORRUGA		MINIUM ALI	LLOY	
			UMBEI								Side D	rain Pin	.e								R C	. PIPE		ADEB	ADE B	RADE	RADE	ADE B	ADE B	_	ω		JCTURES		EDA M	ME, GRATI	oncr	NSITI		40.26		STD.8	D. 840.22 STD. 840.3	840.2 TD. 84	D. 840.2 STD. 8		23	40.52					40.72	TD. 84		C.S. D.I.		SATED STEE	1		
			JREN						(E, or PVC	C)			C. S.	PIPE			CLA	ASS IV		X 88	K, GR	CK, G	CK, G	K, GR	K, GR	. 838.1 sE)	WALL	TOTAL I	IOTE: L LIN. FT. R PAY		AN	ND HOOD	ES, O	TR/	.16	D. 840	D. 840 D. 840 RATE	ATES	E STD	E STD.	re ste ates (840.36	51 L		\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \	(SY)		STD.8	LUG S		G.D.I.	GRATED	DROP INLET			
LINE &		<u>.</u>	RUCTI				<u>س</u>																	I SH	일 물	5" THI	5" THI	" THIC	THIC	A STD.) END	QUAN	ANTITY	0.02	ST	TD. 840.03	90	8	.15 D. 840	OR ST	OR STI	/ 2 GR	GRAT 2 GRA	GRATI 2 GRA	GRAT 2 GR/).32	[] []	OR .		1010	350.15			OIPE P		J.B.	E HIGH DET JUNCTION	N BOX	Y ETHY LEN	:NE	
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SIZE		}		NOI N	/ATIO	/ATIO	UIREI	13 16	24	30 30	42	40	ر ا ۾ ا	ď AP	HDPE		3 18 2	30	30 12	13	10 24	30	70 42	Ia	: ॒ _	E PP	EL PIP	EL PIP	F	FD. 838	REINFO	A	A В Щ	OR ST			OR STD.		OR ST	STD.8	STD. 8 STD. 8 T) FR#	T) FR/) FRA		ш іш	OR S1).35 EEL GI	ישול, D COV	PIPE	PIPE E D. 840]] 		COLLA	AND B	AL	P.V.C. R.C.	POLYVIN' REINFORC				
THICKNESS				LEVAT	T ELE	T ELEV	M REG						USE RO	SE CA	ISE HE	SE PV								DSTEEL	1 0		ᄓ	D STE	D STEE	S		10,	1 10' ABO	40.01	(GRATE	52.04	852.05	40.14 E AND	Щ. А.	E "B" S E "D" S S. FLAT		s. sAG	SAG	FLAT)	840.31 TD. 84	'D. 84u OR STE	840.v.	RAIN	OX ST	5 당	ABLE	RETE	RETE,	 		I. TRAFFIC E B. TRAFFIC E	BEARING DI	DROP INLET		
OR GAUGE			∑	TOPE	NVER	NVER	D INIM						1212	z z	1 Z 1 Z	: 12 1	.079 .079	. 070.	.07						IL VEL DE	OT IN SOI	OIL VELDE IN SOI	VEL DE	VELDE IN SO			THRU	THRU	STD. 8		TYPE	STD. 8	STD.	STD.8 FRAM		.I. TYPE .I. TYPE .I. (W.S.	- -	H. (W.S	S.N) -: S.N) -: N.S)	I. (N.S	STD.	D.I. v. D.I. FC	ישול. FRAI!	SIDE L	SIDE L	ERM DIT	FLOW	CONC	CONC			WIDESLO		SHOTION I	IDOX	
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L 65+18	2		0877 08		801.8	760.0		100	10		++		X	+	+	++											-					++					+	+							1		'	++	2	++	+										-
L 65+18	;	3 RT		807.6																												1 0.	0.7				1	1	1 1																						
			0878 08	77	801.9	801.8														24																																									
																																															$\overline{}$	$\overline{}$													

 SHEET TOTALS (48" or Less)
 144 100
 144 100
 144 100
 28 1216 472
 36 60
 58 58 54 54
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 54 54
 55 32 30
 3 3 3 16
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 2 6 2
 5 6 2
 6 2
 0





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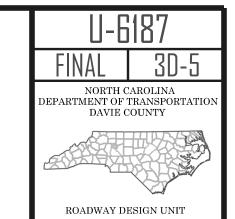
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

	L_{I}	IST OF PIPES, ENDWALLS, ETC. (FO	OR PIPES 48 INCHES & UND	OER)	
RUCTURE NUMBER	Side Drain Pipe (RCP, CSP, CAAP, HDPE, or PVC) C. S. PIPE	PD PA	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: FOR PAY QUANTITY SHALL BE 10.15 10.	0.18 OR STD. 840.27 0.19 OR STD. 840.27 0.19 OR STD. 840.27 0.19 OR STD. 840.20 ME WITH GRATE STD. 840.20 E W/ GRATE STD. 840.22 E W/ GRATE STD. 840.24 E W/ 2 GRATES STD. 840.24 ME W/ 2 GRATES STD. 840.24 ME W/ 2 GRATES STD. 840.29 ME W/ 2 GRATES STD. 840.29 AE W/ 2 GRATES STD. 840.29 S. 840.32 ATES STD. 840.53 SR STD. 840.54 BOW BOW	C.A.A. CORRUGATED ALUMINIUM ALLOY C.B. CATCH BASIN C.S. CORRUGATED STEEL D.I. DROP INLET G.D.I. GRATED DROP INLET H.D.P.E. HIGH DENSITY POLYETHY LENE J.B. JUNCTION BOX
SIZE STATION SIZE	0 12 15 18 24 30 36 42 48 15 18 24 30 36	15 18 24 30 36 45 48 PE 0.33 50 10 10 10 10 10 10 10 10 10 10 10 10 10	A + (1'3 X B)	840.18 840.18 840.18 AME W AME W/ AME	ELBOW H.M. S.N. BRICK F. BRICK F
THICKNESS OR GANGE TOP ELEVATION TOP ELEVATION TOP ELEVATION THINNERS ELEVATION	DO NOT USE RCP DO NOT USE RCP DO NOT USE PPP DO NOT USE PPP DO NOT USE PPP DO NOT USE PVC .079 .079 .079	18" WELDED STEEL PI IN SOIL 18" WELDED STEEL PI NOT IN SOIL 24" WELDED STEEL PI NOT IN SOIL 24" WELDED STEEL PI NOT IN SOIL 30" WELDED STEEL PI IN SOIL 30" WELDED STEEL PI NOT IN SOIL 30" WELDED STEEL PI NOT IN SOIL	C.B. STD. 852.04 OR STD. STD. 852.05 D.I. STD. 840.14 OR STD. 870.14 OR STD. 870	G.D.I. TYPE "B" STD. 840.19 OR G.D.I. TYPE "D" STD. 840.19 OR G.D.I. (W.S. FLAT) FRAME WITH G.D.I. (W.S. SAG) FRAME WI GR G.D.I. (W.S. SAG) FRAME WI GR G.D.I. (W.S. SAG) FRAME WI GR G.D.I. (N.S. FLAT) FRAME WI GR G.D.I. (N.S. SAG) FRAM	SEMARKS 9.8 SIDE DRAIN PIPE FILL P.V.C. POLYVIN'L CHLORIDE R.C. REINFORCED CONCRETE T.B.J.B. TRAFFIC BEARING JUNCTION BOX W.S. WIDE SLOT
L 63+98 20 LT 0879 805.7			1	1 1 1	
L 63+50 19 LT 0880 805.8 0880 0879 802.4 801.8 802.4 801.8 805.8 802.6 802.4		116 44	1	1 1	
RPD 21+58 4 LT 0884 0885 769.5 763.4 Y1 10+98 34 LT 0901	32	204			
Y1 13+51 63 LT 0902 Y1 14+38 61 LT 0903	48 48				
Y1 14+57	36	112 2.800			
Y1 18+76			1 1.8 1 1 1		
Y1 30+26 71 RT 1003 831.9 823.8 822.8		28 28	1 2.9	1 1	
Y1 31+28 43 RT 1004 831.1	28		1 1.6 1 1 1		
Y1 31+73 43 RT 1005 830.7	104		1 1.0 1 1		
Y1 33+50 45 LT 1007 830.0 1007 1006 826.5 826.0	48		1 1 1		
Y1 34+14 32 RT 1008 833.0	68		1 0.5 1 1 1		
Y1 34+65 45 LT 1009 831.4 827.5 825.2 1009 1009 1007 827.9 826.5	116		1 1 1		
Y1 35+28	64		1 1 1		
Y1 36+14 30 RT 1011 837.5			1 1 1		
Y1 37+61 31 LT 1012 840.9 1012 1016 837.4 835.5	32		1 1 1		
Y1 38+23	208		1 1 1		
Y1 38+55 29 LT 1014 842.3			1 1 1		
Y1 30+26 8 LT 1015 831.5 837.4	92		1 3.7 1 1 1 1		
1015 1001 822.8 821.7 Y1 37+35 45 LT 1016 839.0		30 30	1 1 1		
Y2 25+36 85 LT 1101 835.5 828.8 805.7	208				0.4465
Y2 21+46 0 1103 805.7 804.5 Y2 21+46 0 1103 817.7					0.4465
Y2 21+54 0 1104 817.4 817.4 PRD 13:04 13:04 770.3					0.4465
RPD 13+01 13 LT 1201 770.3 1201 1202 770.3 770.1		32			0.4000
RPD 13+03 44 LT 1202 775.0 1202 1204 769.6 767.3	328		1 0.4		
Y2 62+02 80 RT 1203 775.2 1203 1204 767.4 767.3		12	1 2.8		
Y2 62+04 94 RT 1204 773.8 1204 1205 767.3 767.1	36		1 1.5		
Y2 58+73 80 RT Y1 26+98 32 RT					326 18-inches 91 12-inches
Y1 27+91 35 RT	772 28 648 546				27 15-inches

SHEET TOTALS (48" or Less) 772 28 648 516 19 192 268 112 58 58 3 19 16 1 13 13 2 2 2 2 2 2 2 2 444





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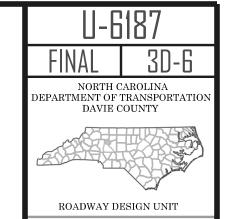
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

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See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

												Ll	ST	OF	PIF	PES,	ENI	DW ₂	ALL.	S , <i>E</i>	TC.	(FOI	R PI	PES	<i>48</i>	INCHE	S& UI	NDE	(R)											
																							QUA	ANTITIES DRAINAGE			N NAL		20	0.20	.24	0.29						17.1		C.A.A. CORRUGATED ALUMINIUM ALLOY
IBER																	8	DE B	DE B	E B				CUCTURES			SITIO CTIO		3 D. 840.	D. 84 40.22). 840	10.24 . 840.	0.84(g			.72	. 840		C.B. CATCH BASIN C.S. CORRUGATED STEEL
NO.						,	Side Drain F (RCP, CSP, CAAP, HI	Pipe			C. S. PIP	E		R. C	C. PIPE ASS IV		3RAE	3RAE GRA	GRA	3RAE	1.8	ILS		NOTE:		FRAME, GRATES,	CON TRAN SE	840.26	7 2 5	TD. 8	7D. 84 S STD S OTS	S ST	98.	. 840			0.840	S STD		D.I. DROPINLET
						((RCP, CSP, CAAP, H	DPE, Of PVC)						CLA	433 IV		CK, C	CK, C	≣CK,	ξ, ς, ς	938	USE)		AL LIN. FT. OR PAY		AND HOOD		10.16 TD. 8	o o %	M	TE ST ATES	RATE	840.	0.54		0 (SY 1 (SY	STD	PLUG		G.D.I. GRATED DROP INLET H.D.P.E. HIGH DENSITY POLYETHY LENE
LINE & H				พ														TT	5" TF	틸	ALLS 3 STI	HERW EN		JANTITY	05	STD. 840.03	.06	D. 84	OR SI	E W/ 2 GF W/ GRA1 W/ 2 GR/	GRATES 2 GRATE	2 GF	STD	2, OR D. 84		350.1	<u>م</u> :	JPE		J.B. JUNCTION BOX
STATION				SLOF					 			\dashv			T 1	 	0.25	0.25	0.37	0.50	NDW,	RCEI		IALL BE (1.3 X B)	. 840.		852	SST 0.17 (0.18 C	ME W/	S. SAG) FRAME W/ GR. S. SAG) FRAME W/ 2 G. S. FI AT) FRAME W/ GI	ME W/	GRATES	340.52, ER STD	BOW 15 PT	15 5 8 6	SS CI	ICK F		M.H. MANHOLE N.S. NARROW SLOT
SIZE	Z	NOI	NOI	일 12	15 1	18 24	30 36 42 48				5 18 24	30 36	12 15	18 24	30 3	36 42 4	8 BB 8	PIPE	PIPE		El El	SS NO		А В	STD		STD.	RATE D. 84(الثالنان) FRAME FRAME	RAMI RAMI	RAN	1 GR/	SID. 8	7E EL 7E EL 9E EL 840.4	H	LLAF	D BR		P.V.C. POLYVINYL CHLORIDE
	TIO!	EVA	EVA]					3CP	AAF HDPE	ရှု သြ									圓		STD.	REI		OVE	1 gr		4 OR 4 OR 4	ID GI	S S (FLAT) FE SAG) FR SAG) FR	G) FI G) FI AT) F	AT) F 31 OF	40.35 40.35 TEEL	- 물	N PIF N PIF STD.	OUT[H AN	VAL	R.C. REINFORCED CONCRETE
THICKNESS	LEV/			M RE				JSE F	JSE (JSE F	6 6	6 6 F					LS CI	::	:D S]	ເຂ ປ: ເຂ ປ:	اٍ		.C 5.	U 10'	340.0	GRATE	852.04 O	IE ANC	8. FL S. FL	S. S	S. SA S. SA	3. FL, 840.3	5. 8. 9. 9. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.	840.8 ME A	DRAI DRAI SOX \$	CH C	RETI	RETI	EMO	T.B.D.I. TRAFFIC BEARING DROP INLET T.B.J.B. TRAFFIC BEARING JUNCTION BOX
OR GAUGE ∑	OPE	VER	VER	NIM				101 L	NOT USE CAAP NOT USE HDPE) TOT () () () () () () () () () () () () ()	070. 079	.07						N SO ELDE	WELDE F IN SO		S N		불	THRI	15.	TYPE	STD. 8	₹ <u>۲</u> <u>}</u>	<u> </u>	<u> </u>). (N.S STD. 8	D.I. S. D.I. F.	SID.	SIDE I			ONC	PE F	W.S. WIDE SLOT
FRO L	2	FT.	≦ FT.					00 00									N 80		IN SO 24" W NOT I		S CY		6	ئہ 2 IN. FT. LIN. F1	-] S	E F G	C.B.	D.I. F G.D.I	G.D.I	G.D.I. G.D.I.	G.D.I	G.D.I	7. 1.B.C	E E	15" § 18" § 30" § SPRI	BER	-	CY	LIN. FT.	REMARKS
Y1 28+18 38 RT				"	$\dagger \dagger$												1 -			0 _ 0																			100	18-inches
Y1 29+20 42 RT																																							88	18-inches
Y1 30+11 41 RT																									1 1														14	15-inches
Y1 30+27 39 RT																																							104	18-inches
Y1 31+32 34 RT																									11														32	18-inches
Y1 31+66 33 RT																									1 1														236	12-inches
Y1 26+30 37 LT																									1 1														40	12-inches
Y1 24+78 25 LT	\top				$\dagger \dagger$	+						+	++				1 1				\top	1									++	+++	 	+					16	12-inches
Y1 21+97 28 LT	\top				$\dagger \dagger$	+					1	+	\dashv				1 1				\top	1								+	+			+			1		28	12-inches
Y1 20+43 27 LT	_				$\dagger \dagger$	+					1	+	++				1 +		+		\top	1							+++	+++	+	+++	 	+			1		35	15-inches
Y1 18+75 24 LT	_				† †						1						1 1				_	1								+		+++		+			1		19	15-inches
Y1 13+56 34 LT	\top				$\dagger \dagger$	++					1 1 1	+	+			+	1 +				\top	1									++	+++	 	+			1		26	15-inches
Y1 14+64 27 RT					$\dagger \dagger$	++						+	++				1 1		++		 									+++	++	+++	 	+					27	15-inches
Y1 33+07 38 LT	_			 	$\dagger \dagger$	++						+	++				1 +				\top	1			$\dagger \dagger$					+++	++	+++	+++	+			1		32	12-inches
L 12+37 23 RT	+				++	++						+	\dashv				+		+		+	+					 			+++	++	+++	+++	+			_		21	15-inches
Y1 33+42 33 LT					$\dagger \dagger$																				1 1														109	12-inches
Y1 34+54 31 LT					++												1 1								1 1														72	12-inches
Y1 34+69 41 LT					++																				+														20	12-inches
Y1 35+29 31 LT	+				++												+++								++														97	12-inches
Y1 34+69 51 LT					+																				+													0.029	9	12-inches
Y2 20+70 80 LT					++																				+													0.045		15-inches
Y2 29+36 0 RT					$\dagger \dagger$																				1 1												5			15-inches
Y2 33+18 114 RT					$\dagger \dagger$																				1 1											1 1	5			18-inches
Y2 44+71 79 LT					$\dagger \dagger$												1 1								† †							+++					1			15-inches
Y2 50+88 1 RT					++												1 1								1 1									+			6			24-inches
Y2 51+99 113 LT					++												1 1								1 1									+		15	58			54-inches
Y1 30+07 44 LT					++												1 1								1 1									+		1 1	0			24-inches
Y2 20+70 80 LT					$\dagger \dagger$												1 1								1 1									+		4	1			15-inches
DRW1 11+82 28 RT					++							$\dashv \dagger$					+ +								$\dagger \dagger$									+					23	15-inches
DRW2 10+21 0 CL					$\dagger \dagger$																				1 1														21	15-inches
					$\dagger \dagger$												1 1								1 1															
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	_				$\dagger \dagger$	++					1	 	\dashv				1 1				\top									\dashv			 	+					+ +	
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION **DIVISION OF HIGHWAYS**

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See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES	S. ENDWALLS, ETC	. (FOR PIPES 54 II	NCHES & GREATER)

			_	_											L	<u>IST (</u>	OF	PIP	PES,	EN	DW.	ALI	LS,	ET	C. (FOR	R P	<i>IPE</i>	<u>S 5</u>	4 I	VCI	HES	5&	GR	<u>REA</u>	TEI	R)								 								
LINE & STATION SIZE	OFFSET	STRUCTURE NUMBER	NOIL	EVATION	EVATION	QUIRED SLOPE	2 15 18	18 24	30 36	CI	C. PIPE LASS IV	, 	6 72	78 84	90	STRUCT	PIPE	PLATE	EEL PIPE 0.938" THICK, GRADE B	EEL PIPE 0.938" THICK, GRADE B	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	/ DRAINAGE STRUCTURE	FC S	QUANTITOR DRAIN STRUCTU NOTE: TOTAL LIN FOR PA QUANTIT SHALL E A + (1.3)	AGE RES . FT. . Y . Y		RAME, GI AND HO STD. 84	DOD	OR STD. 852.06 CONCRETE	2.B. STD. 840.0	H STD. (SPECIAL DETAIL) IDGE APPROACH D.I. STD. 840.13	OR STD. 82	0, 0,		AT) FRAME WITH GRATE STD. 840.20 AT) FRAME W/ 2 GRATES STD. 840.20	G) FRAME W/ GRATE STD. 840.22 G) FRAME W/ 2 GRATES STD. 840.22	S) FRAME W/ GRATE STD. 840.24	D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	STD. 840.30	GRATE FOR DRIVEWAY STD. 840.30 140.31 OR STD. 840.32	ES AND FRAMES S RATES STD. 840.36	WITH TWO GRATES STD. 840.37 LATE COVER MASONRY DRAINAGE	11, STD. 840.52, OR STD. 840.53 ND COVER STD. 840.54	FILL COLLARS CL. "B" STD. 840.72	. 840.7	AND BRICK PIPE PLUG STD. 840.71	VAL	C.B. C.S. D.I. G.D.I. H.D.P.E J.B. M.H. N.S. P.V.C. R.C.	CATCH E CORRUG DROP INI GRATED . HIGH DE JUNCTIO MANHOL NARROW POLYVIN REINFORG	ATED STEEL LET DROP INLET NSITY POLYE N BOX E / SLOT YL CHLORIDI CED CONCRE	ETHY LENE E TE	Y
THICKNESS OR GAUGE		FROM	그 TOP ELEVA	T INVERT ELE	J INVERT ELE	% MINIMUM RE													66" WELDED STE IN SOIL	66" WELDED STEE NOT IN SOIL			S MASONRY	G 0' THRU 5'	5' THRU	.zi 10' AND ABO 11'	C.B. STD. 840.01	GRA1	E	D.I. STD. 852.04	C.B. STD. 852.0 OPEN THROAT	C.B. MIN DEPTH CONCRETE BRIC	D. 840.14	TYPE "A'	G.D.I. IYPE "B"	G.D.I. (W.S. FLA	G.D.I. (W.S. SAC G.D.I. (W.S. SAC	G.D.I. (N.S. SAG	G.D.I. (N.S. FLA	DRIVEWAY D.I.	J.B. STD. 840.3	ANGLED VANE T.B.D.I. FOR ST	STEEL FRAME TEMP STEEL PI	M.H. STD. 840.5 M.H. FRAME AN	S FLOWABLE		S CONCRETE	Z PIPE REMOV	T.B.J.B	. TRAFFIC WIDE SLO	BEARING DROBER TO THE PROPERTY OF THE PROPERTY		x
Y4 12+95 Y4 13+00	43 RT	0416 0415	816.8	807.0 808.2	806.8						12																														1				2.58	5800							
Y4 13+00 Y2 51+60	47 LT	0418 0417		808.4							16								200	200		5.200																															
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	ī	SHEET PROJECT T									28									200		5																			1				3	3							

NORTH CAROLINA DEPARTMENT OF TRANSPORTATIO DAVIE COUNTY

