

**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.**

09.08/2019

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

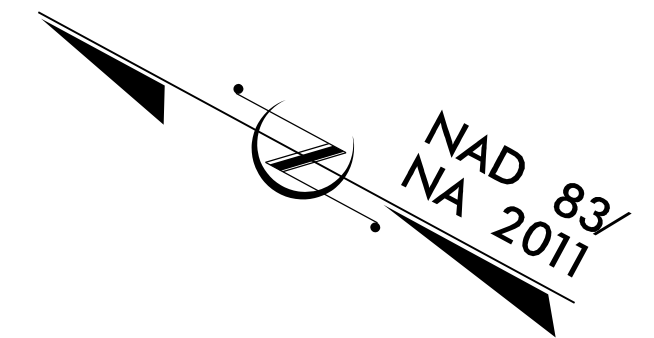
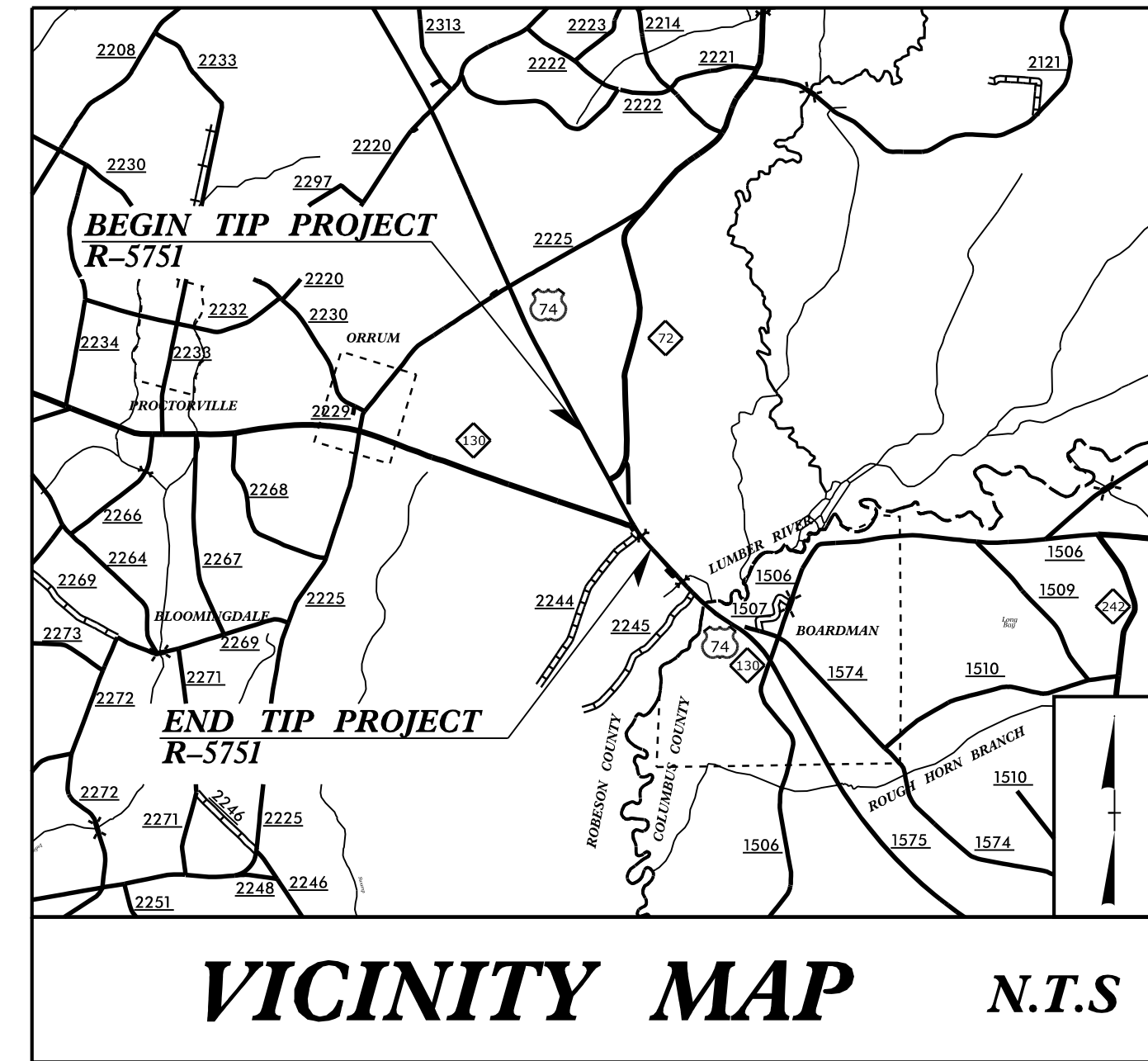
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | R-5751 | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 53087.1.1 | NHP-0074(203) | PE | |
| 53087.2.1 | N/A | ROW, UTIL | |
| 53087.3.1 | N/A | CONST. | |

ROBESON COUNTY

LOCATION: US 74 AT NC 72 /NC 130. CONVERT
AT-GRADE INTERSECTION TO INTERCHANGE.

TYPE OF WORK: DRAINAGE, GRADING, PAVING, AND STRUCTURE



TIP PROJECT: R-5751

CONTRACT: C204772

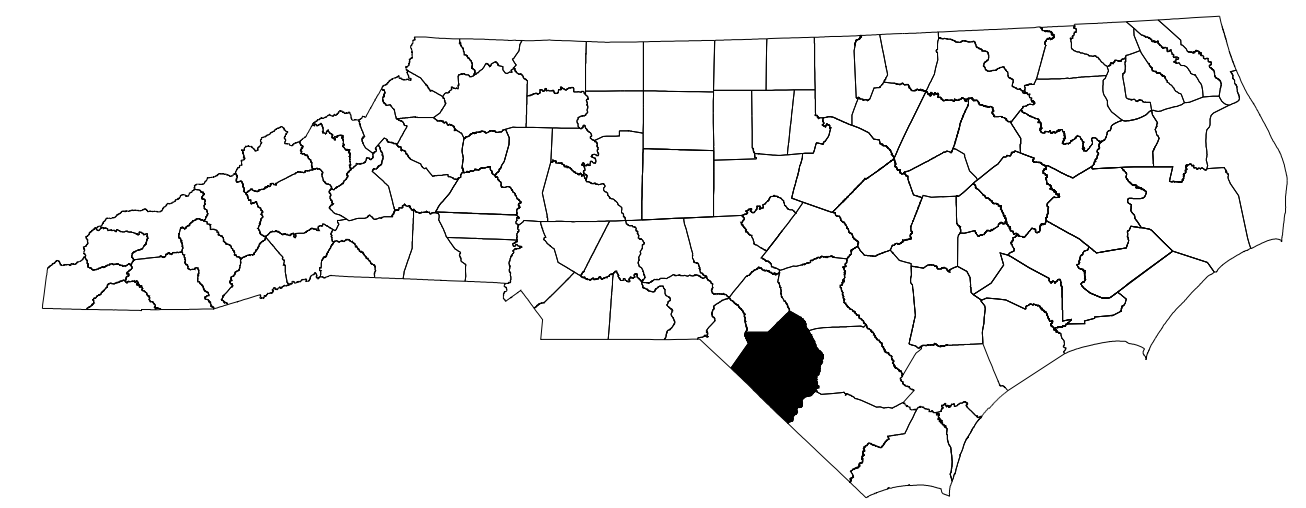
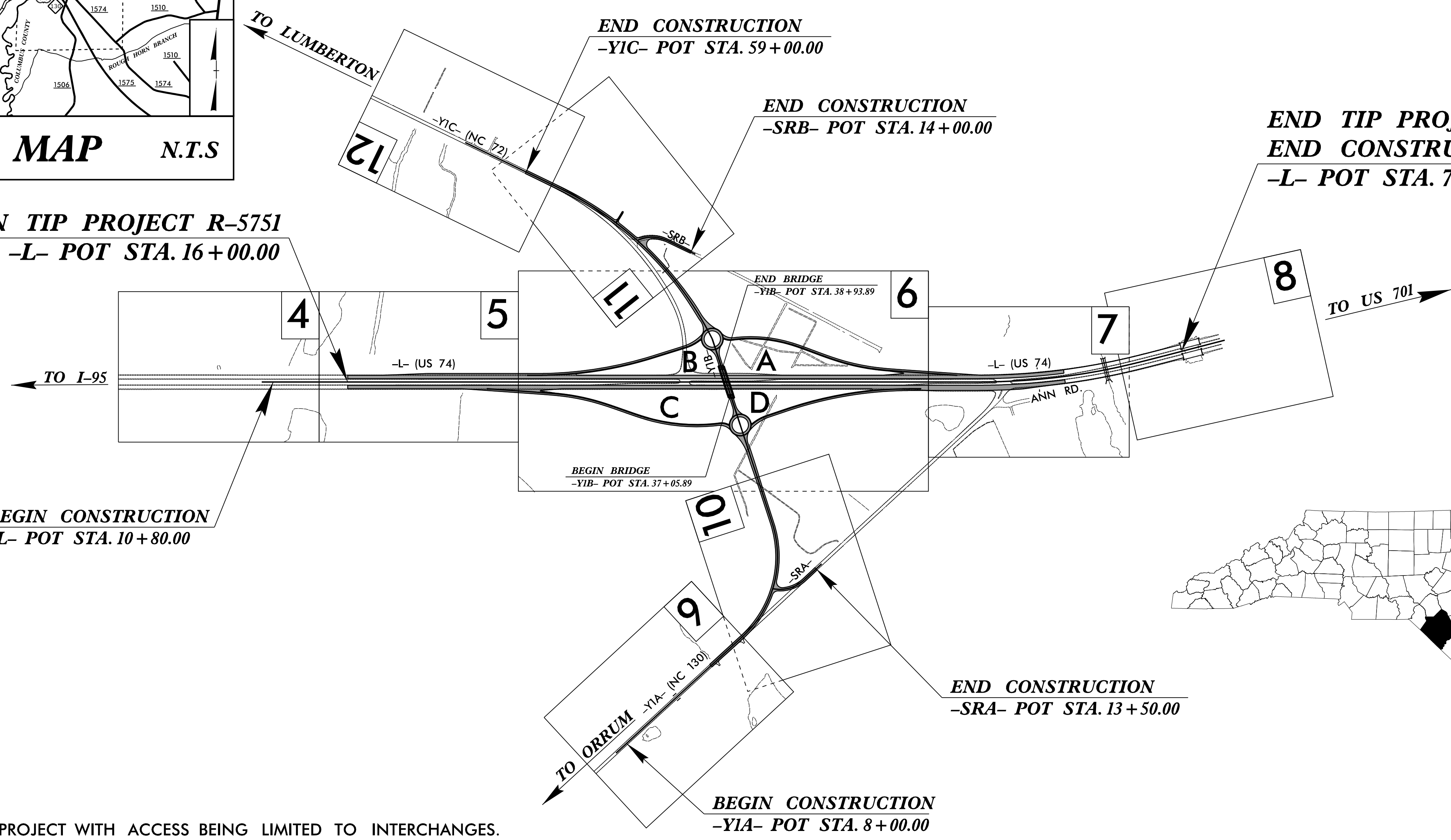
BEGIN TIP PROJECT R-5751
-L- POT STA. 16+00.00

BEGIN CONSTRUCTION
-L- POT STA. 10+80.00

END CONSTRUCTION
-YIC- POT STA. 59+00.00

END CONSTRUCTION
-SRB- POT STA. 14+00.00

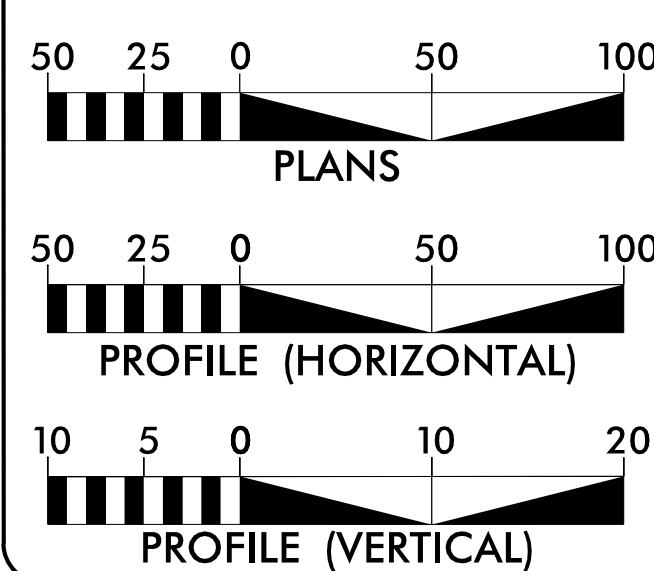
END TIP PROJECT R-5751
END CONSTRUCTION
-L- POT STA. 74+36.00



THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2023 = 20,800
ADT 2043 = 30,500
K = 8 %
D = 55 %
T = 19 % *
V = 75 MPH
*(TTST=12% + DUAL=7%)
FUNC CLASS =
FUTURE INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

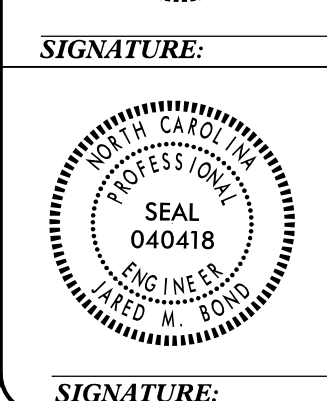
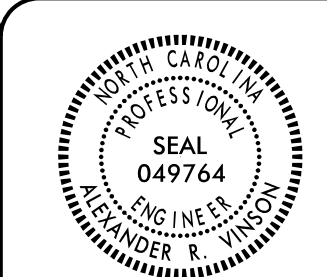
LENGTH ROADWAY TIP PROJECT R-5751 = 1.105 MILES
TOTAL LENGTH TIP PROJECT R-5751 = 1.105 MILES

PREPARED IN THE OFFICE OF:
RS&H
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

2018 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
JUNE 23, 2021
LETTING DATE:
FEBRUARY 21, 2023

PREPARED FOR:
DIVISION OF HIGHWAYS
DIVISION 6
558 Gillespie St.
Fayetteville, NC 28301
910-364-0603

JARED BOND, PE
PROJECT ENGINEER
SEAN KORTOVICH, PE
PROJECT DESIGN ENGINEER
ALEX HENDERSON
NCDOT CONTACT

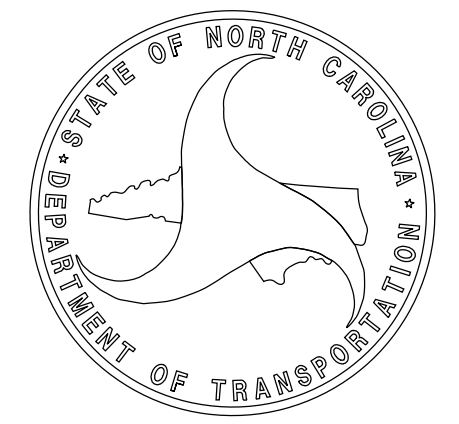


HYDRAULICS
ENGINEER

P.E.

ROADWAY DESIGN
ENGINEER

P.E.



03-JAN-2023 12:24
R:\Roadway\Proj\NR5751_L_Rdy_1.tsh.dgn
\$\$\$\$\$SERVNAME\$\$\$\$\$

| | |
|--|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| R-5751 | 1A |
| ROADWAY DESIGN ENGINEER | |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

INDEX OF SHEETS

| SHEET NUMBER | SHEET |
|----------------------|---|
| 1 | TITLE SHEET |
| 1A | INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS |
| 1B | CONVENTIONAL SYMBOLS |
| 2A-1 THRU 2A-6 | PAVEMENT SCHEDULE, WEDGING & MILLING DETAILS, AND TYPICAL SECTIONS |
| 2B-1 THRU 2B-2 | GORE DETAILS |
| 2B-3 | SHEARPOINT DIAGRAM |
| 2B-4 THRU 2B-5 | ROUNDBABOUT DETAILS |
| 2C-1 | MEDIAN HAZARD PIER PROTECTION DETAIL |
| 2C-2 | NOT USED |
| 2C-3 | GUARDRAIL IMPACT ATTENUATOR DETAIL |
| 2C-4 | B-77 ANCHOR UNIT DETAIL |
| 2C-5 | GUARDRAIL INSTALLATION DETAIL |
| 2C-6 | CABLE GUIDERAIL IMPACT ATTENUATOR DETAIL |
| 2C-7 | COAL COMBUSTION PRODUCT PLACEMENT DETAIL |
| 2C-8 | 2 FT. 9 IN. CURB AND GUTTER DETAIL |
| 2C-9 | 2 FT. 9 IN. CURB AND GUTTER TO SHOULDER BERM GUTTER TRANSITION DETAIL |
| 2C-10 | 2 FT. 9 IN. CURB AND GUTTER TO APPROACH SLAB TRANSITION DETAIL |
| 2C-11 | GUARDRAIL PLACEMENT 25'-0" CLEAR SPAN |
| 2C-12 | ROCK PLATING |
| 2D-1 THRU 2D-2 | INTERCHANGE GRADING DETAILS |
| 2D-3 THRU 2D-4 | DRAINAGE DETAILS |
| 2G-1 | TEMPORARY SHORING DETAIL |
| 3B-1 | SUMMARIES OF EARTHWORK ASPHALT PAVEMENT REMOVAL, CABLE GUIDERAIL, SHOULDER BERM GUTTER, 47" WOVEN WIRE FENCE, AND GUARDRAIL |
| 3D-1 THRU 3D-4 | SUMMARY OF DRAINAGE |
| 3G-1 | SUMMARIES OF SUBSURFACE DRAINAGE, AGGREGATE SUBGRADE/STABILIZATION, ROCK PLATING, AND BRIDGE WAITING PERIODS |
| 3P-1 | PARCEL INDEX SHEET |
| 4 THRU 12 | PLAN SHEETS |
| 13 THRU 25 | PROFILE SHEETS |
| RW02C-1 THRU RW02C-9 | SURVEY CONTROL SHEETS |
| RW02D-1 | PROPOSED ALIGNMENT CONTROL SHEET |
| RW03E-1 | RIGHT OF WAY CONTROL SHEET |
| RW04 THRU RW12 | RIGHT OF WAY PLAN SHEETS |
| TMP-1 THRU TMP-29 | TRANSPORTATION MANAGEMENT PLANS |
| PMP-1 THRU PMP-9 | PAVEMENT MARKING PLANS |
| EC-1 THRU EC-21 | EROSION CONTROL PLANS |
| SIGN-1 THRU SIGN 10 | SIGNING PLANS |
| UO-1 THRU UO-7 | UTILITIES BY OTHERS PLANS |
| X-1A | CROSS-SECTION SHEET INDEX |
| X-1B THRU X-1C | CROSS-SECTION SUMMARY SHEETS |
| X-1 THRU X-67 | CROSS-SECTIONS |
| S1-1 THRU S1-28 | STRUCTURE PLANS |
| SN | STANDARD NOTES |

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS EFFECTIVE: 01-16-2018 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.

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. NOS. 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. NOS. 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.

SUBSURFACE DRAINS: SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 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.

TEMPORARY SHORING: SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

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 Robeson County Public Utilities, Town of Fairmont Water and Sewer, AT&T, MCNC, Brunswick EMC, and Spectrum

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 OTHERS.

STANDARD DRAWINGS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2018 REV.

The following Roadway Standards as appearing in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO. TITLE

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 Super-elevation - Two Lane Pavement

225.05 Method of Obtaining Super-elevation - Divided Highways

225.06 Method of Grading Sight Distance at Intersections

225.07 Grading for False Cut at Grade Separations

225.09 Guide for Shoulder and Ditch Transition at Grade Separations

275.01 Rock Paving (Use Special Detail)

DIVISION 3 - PIPE CULVERTS

300.01 Method of Pipe Installation

DIVISION 4 - MAJOR STRUCTURES

422.01 Bridge Approach Fills - Type I Standard Approach Fill

422.03 Reinforced Bridge Approach Fills - Type A Alternate Approach Fill for Integral Abutment

DIVISION 5 - SUBGRADE, BASES AND SHOULDERS

560.01 Method of Shoulder Construction - High Side of Super-elevated Curve - Method I

560.02 Method of Shoulder Construction - High Side of Super-elevated Curve - Method II

DIVISION 6 - ASPHALT BASES AND PAVEMENTS

610.03 Guide for Paving Shoulders Under Bridges - Method III

665.01 Asphalt Shoulders - Milled Rumble Strips

DIVISION 8 - INCIDENTALS

815.02 Subsurface Drain

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

838.34 Reinforced Concrete Endwall - for Double and Triple 66" Pipes 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

838.64 Reinforced Brick Endwall - for Double and Triple 66" Pipes 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

840.14 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

840.17 Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe

840.18 Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe

840.19 Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe

840.20 Frames and Wide Slot Flat Grates

840.22 Frames and Wide Slot Sag Grates

840.26 Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe

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

840.28 Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe

840.31 Concrete Junction Box - 12" thru 66" Pipe

840.32 Brick Junction Box - 12" thru 66" Pipe

840.36 Traffic Bearing Grated Drop Inlet - for Steel (840.37) 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

846.01 Concrete Curb, Gutter and Curb & Gutter

852.01 Concrete Islands

852.06 Method for Placement of Drop Inlets in Concrete Islands

857.01 Precast Reinforced Concrete Barrier - 41" Single Faced

862.01 Guardrail Placement

862.02 Guardrail Installation

862.03 Structure Anchor Units

862.04 Anchoring End of Guardrail - B-77 and B-83 Anchor Units

865.01 Cable Guiderail

866.02 Woven Wire Fence - with Wood Post

876.02 Guide for Rip Rap at Pipe Outlets

876.04 Drainage Ditches with Class 'B' Rip Rap

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

| | |
|---------------------------------------|-----------|
| State Line | ----- |
| County Line | ----- |
| Township Line | ----- |
| City Line | ----- |
| Reservation Line | ----- |
| Property Line | ----- |
| Existing Iron Pin (EIP) | ○ |
| Computed Property Corner | × |
| Existing Concrete Monument (ECM) | □ |
| Parcel/Sequence Number | (123) |
| Existing Fence Line | -x-x-x- |
| Proposed Woven Wire Fence | ○ |
| Proposed Chain Link Fence | □ |
| Proposed Barbed Wire Fence | ◇ |
| Existing Wetland Boundary | WLB |
| Proposed Wetland Boundary | WLB |
| Existing Endangered Animal Boundary | EAB |
| Existing Endangered Plant Boundary | EPB |
| Existing Historic Property Boundary | HPB |
| Known Contamination Area: Soil | ~s~s~s~s~ |
| Potential Contamination Area: Soil | ~s~s~s~s~ |
| Known Contamination Area: Water | ~w~w~w~w~ |
| Potential Contamination Area: Water | ~w~w~w~w~ |
| Contaminated Site: Known or Potential | ☠ ? |

BUILDINGS AND OTHER CULTURE:

| | |
|-------------------------------|---|
| Gas Pump Vent or U/G Tank Cap | ○ |
| Sign | ○ |
| Well | ○ |
| Small Mine | × |
| Foundation | □ |
| Area Outline | □ |
| Cemetery | + |
| Building | □ |
| School | □ |
| Church | □ |
| Dam | — |

HYDROLOGY:

| | |
|------------------------------------|-------|
| Stream or Body of Water | ----- |
| Hydro, Pool or Reservoir | ----- |
| Jurisdictional Stream | JS |
| Buffer Zone 1 | BZ 1 |
| Buffer Zone 2 | BZ 2 |
| Flow Arrow | ← |
| Disappearing Stream | → |
| Spring | ○ |
| Wetland | WLB |
| Proposed Lateral, Tail, Head Ditch | ----- |
| False Sump | ▽ |

RAILROADS:

| | |
|--------------------|-------|
| Standard Gauge | ----- |
| RR Signal Milepost | ○ |
| Switch | □ |
| RR Abandoned | ----- |
| RR Dismantled | ----- |

RIGHT OF WAY & PROJECT CONTROL:

| | |
|--|-------|
| Primary Horiz Control Point | ○ |
| Primary Horiz and Vert Control Point | ○ |
| Secondary Horiz and Vert Control Point | ◇ |
| Vertical Benchmark | ⊠ |
| Existing Right of Way Monument | △ |
| Proposed Right of Way Monument (Rebar and Cap) | ▲ |
| Proposed Right of Way Monument (Concrete) | ▲ |
| Existing Permanent Easement Monument | ◇ |
| Proposed Permanent Easement Monument (Rebar and Cap) | ◇ |
| Existing C/A Monument | ▲ |
| Proposed C/A Monument (Rebar and Cap) | ▲ |
| Proposed C/A Monument (Concrete) | ▲ |
| Existing Right of Way Line | ----- |
| Proposed Right of Way Line | ----- |
| Existing Control of Access Line | ----- |
| Proposed Control of Access Line | ----- |
| Proposed ROW and CA Line | ----- |
| Existing Easement Line | ----- |
| Proposed Temporary Construction Easement | E |
| Proposed Temporary Drainage Easement | TDE |
| Proposed Permanent Drainage Easement | PDE |
| Proposed Permanent Drainage/Utility Easement | DUE |
| Proposed Permanent Utility Easement | PUE |
| Proposed Temporary Utility Easement | TUE |
| Proposed Aerial Utility Easement | AUE |

ROADS AND RELATED FEATURES:

| | |
|----------------------------|-------|
| Existing Edge of Pavement | ----- |
| Existing Curb | ----- |
| Proposed Slope Stakes Cut | C |
| Proposed Slope Stakes Fill | F |
| Proposed Curb Ramp | CR |
| Existing Metal Guardrail | T |
| Proposed Guardrail | T |
| Existing Cable Guiderail | □ |
| Proposed Cable Guiderail | □ |
| Equality Symbol | ⊕ |
| Pavement Removal | ⊗ |
| VEGETATION: | |
| Single Tree | ○ |
| Single Shrub | ○ |
| Hedge | ----- |

| | |
|------------|-------|
| Woods Line | ----- |
| Orchard | ○ |
| Vineyard | □ |

EXISTING STRUCTURES:

| | |
|--|---------|
| MAJOR: | |
| Bridge, Tunnel or Box Culvert | CONC |
| Bridge Wing Wall, Head Wall and End Wall | CONC WW |
| MINOR: | |
| Head and End Wall | CONC HW |
| Pipe Culvert | ----- |
| Footbridge | ----- |
| Drainage Box: Catch Basin, DI or JB | CB |
| Paved Ditch Gutter | ----- |
| Storm Sewer Manhole | ○ |
| Storm Sewer | S |

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A,B,C or D (Accuracy)

| | |
|---|----|
| POWER: | |
| Existing Power Pole | ● |
| Proposed Power Pole | ○ |
| Existing Joint Use Pole | ● |
| Proposed Joint Use Pole | ○ |
| Power Manhole | ⊕ |
| Power Line Tower | ⊠ |
| Power Transformer | ⊠ |
| U/G Power Cable Hand Hole | PH |
| H-Frame Pole | ● |
| U/G Power Line Test Hole (SUE - LOS A)* | ⊕ |
| U/G Power Line (SUE - LOS B)* | P |
| U/G Power Line (SUE - LOS C)* | P |
| U/G Power Line (SUE - LOS D)* | P |

TELEPHONE:

| | |
|--|------|
| Existing Telephone Pole | ● |
| Proposed Telephone Pole | ○ |
| Telephone Manhole | ⊕ |
| Telephone Pedestal | ⊠ |
| Telephone Cell Tower | ⊠ |
| U/G Telephone Cable Hand Hole | PH |
| U/G Telephone Test Hole (SUE - LOS A)* | ⊕ |
| U/G Telephone Cable (SUE - LOS B)* | T |
| U/G Telephone Cable (SUE - LOS C)* | T |
| U/G Telephone Cable (SUE - LOS D)* | T |
| U/G Telephone Conduit (SUE - LOS B)* | TC |
| U/G Telephone Conduit (SUE - LOS C)* | TC |
| U/G Telephone Conduit (SUE - LOS D)* | TC |
| U/G Fiber Optics Cable (SUE - LOS B)* | T FO |
| U/G Fiber Optics Cable (SUE - LOS C)* | T FO |
| U/G Fiber Optics Cable (SUE - LOS D)* | T FO |

WATER:

| | |
|---|-----------|
| Water Manhole | ⊕ |
| Water Meter | ○ |
| Water Valve | ⊗ |
| Water Hydrant | ⊕ |
| U/G Water Line Test Hole (SUE - LOS A)* | ⊕ |
| U/G Water Line (SUE - LOS B)* | P |
| U/G Water Line (SUE - LOS C)* | P |
| U/G Water Line (SUE - LOS D)* | P |
| Above Ground Water Line | A/G Water |
| TV: | |
| TV Pedestal | ⊠ |
| TV Tower | ⊗ |
| U/G TV Cable Hand Hole | PH |
| U/G TV Test Hole (SUE - LOS A)* | ⊕ |
| U/G TV Cable (SUE - LOS B)* | TV |
| U/G TV Cable (SUE - LOS C)* | TV |
| U/G TV Cable (SUE - LOS D)* | TV |
| U/G Fiber Optic Cable (SUE - LOS B)* | TV FO |
| U/G Fiber Optic Cable (SUE - LOS C)* | TV FO |
| U/G Fiber Optic Cable (SUE - LOS D)* | TV FO |

GAS:

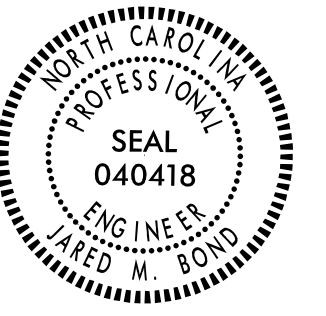
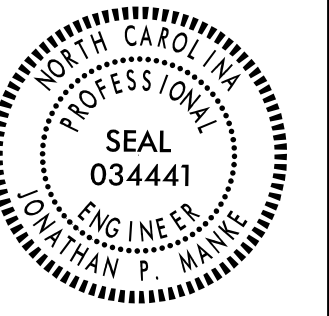
| | |
|---------------------------------------|---------|
| Gas Valve | ◇ |
| Gas Meter | ⊕ |
| U/G Gas Line Test Hole (SUE - LOS A)* | ⊕ |
| U/G Gas Line (SUE - LOS B)* | G |
| U/G Gas Line (SUE - LOS C)* | G |
| U/G Gas Line (SUE - LOS D)* | G |
| Above Ground Gas Line | A/G Gas |

SANITARY SEWER:

| | |
|---|--------------------|
| Sanitary Sewer Manhole | ⊕ |
| Sanitary Sewer Cleanout | ⊕ |
| U/G Sanitary Sewer Line | SS |
| Above Ground Sanitary Sewer | A/G Sanitary Sewer |
| SS Force Main Line Test Hole (SUE - LOS A)* | ⊕ |
| SS Force Main Line (SUE - LOS B)* | FSS |
| SS Force Main Line (SUE - LOS C)* | FSS |
| SS Force Main Line (SUE - LOS D)* | FSS |

MISCELLANEOUS:

| | |
|---|--------|
| Utility Pole | ● |
| Utility Pole with Base | □ |
| Utility Located Object | ○ |
| Utility Traffic Signal Box | ⊠ |
| Utility Unknown U/G Line (SUE - LOS B)* | UTL |
| U/G Tank; Water, Gas, Oil | UST |
| Underground Storage Tank, Approx. Loc. | UST |
| A/G Tank; Water, Gas, Oil | UST |
| Geoenvironmental Boring | ⊕ |
| Abandoned According to Utility Records | AATUR |
| End of Information | E.O.I. |

| | |
|--|---|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2A-1 |
| ROADWAY DESIGN ENGINEER  | PAVEMENT DESIGN ENGINEER  |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

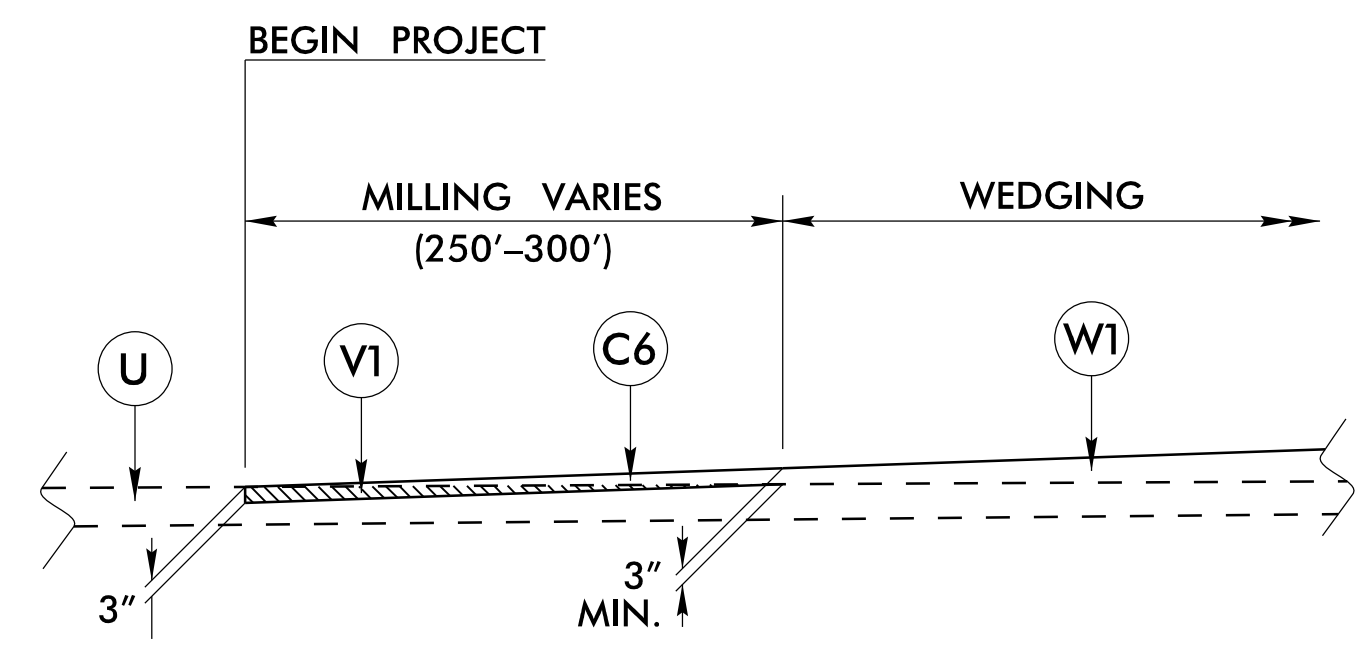
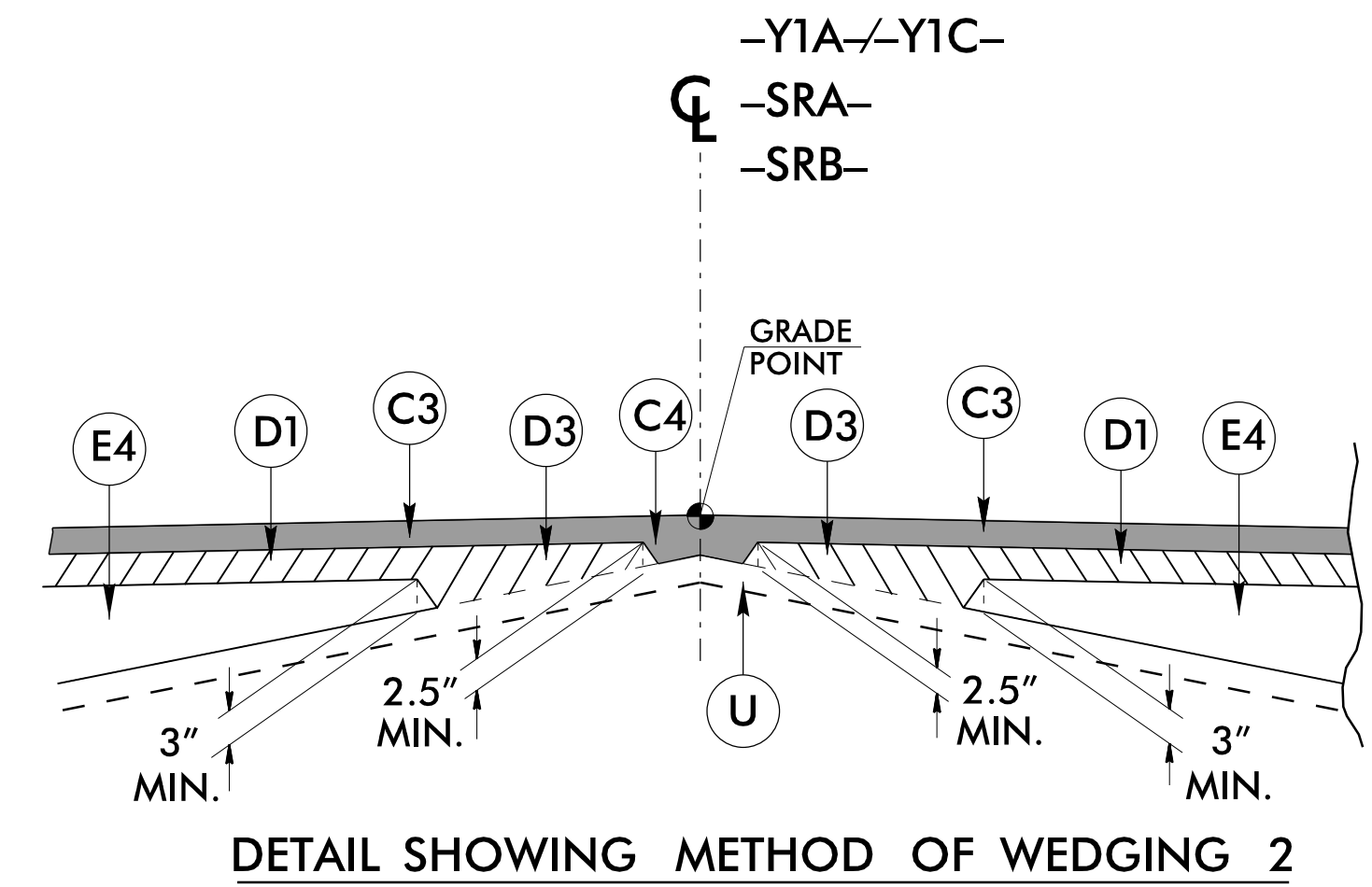
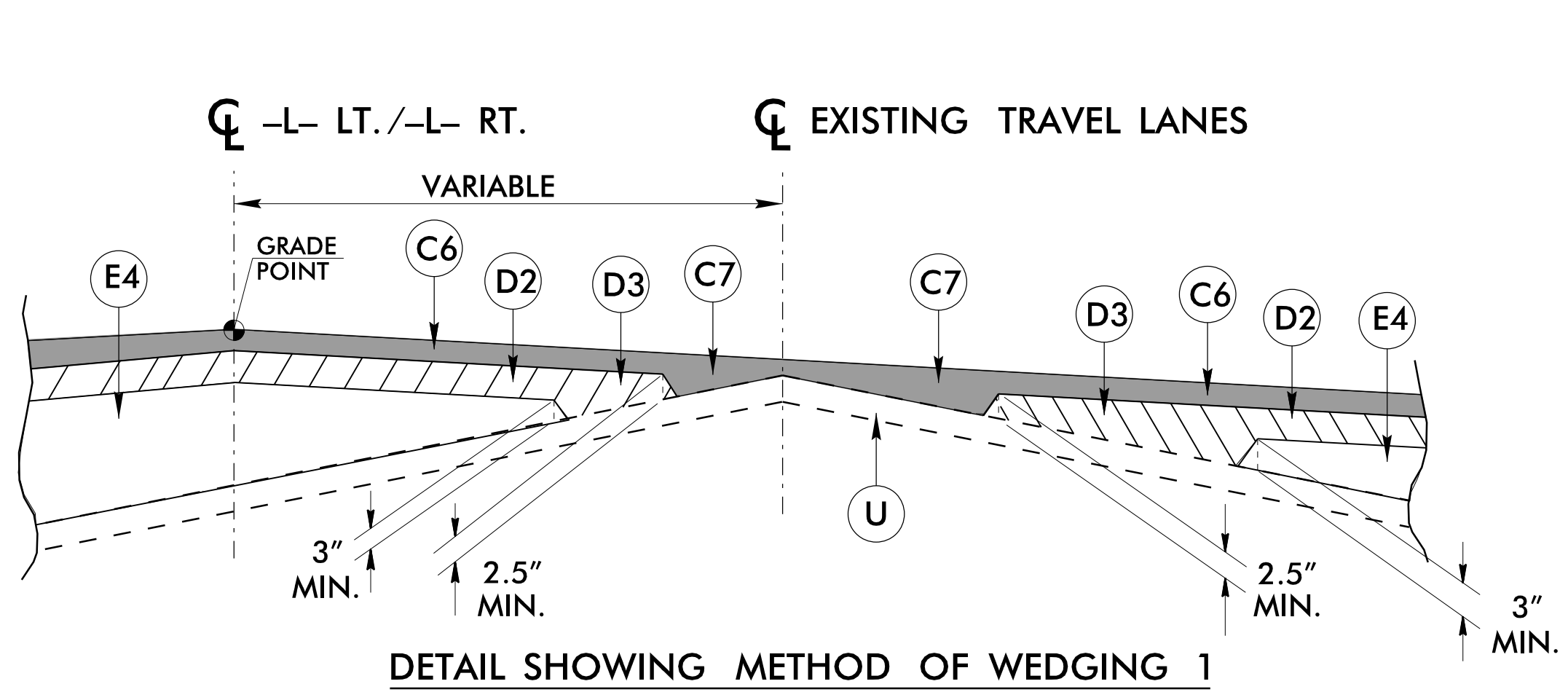
FINAL PAVEMENT SCHEDULE

| | | | |
|--|--|----|---|
| A1 | 12" JOINTED CONCRETE TRUCK APRON | J2 | PROP. 8" AGGREGATE BASE COURSE |
| C1 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. | P | PRIME COAT AT AN AVERAGE RATE OF 0.35 GAL. PER SQ. YARD |
| C2 | PROP. APPROX. 2.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | R1 | 1'-6" CURB AND GUTTER |
| C3 | PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | R2 | 2'-9" CURB AND GUTTER |
| C4 | PROP. VAR. ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1.0" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.0" IN DEPTH OR GREATER THAN 1.5" IN DEPTH. | R3 | 9" X 18" CURB |
| C5 | PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. | R4 | 3" CONCRETE COVER |
| C6 | PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | R5 | PRECAST CONCRETE BARRIER, SINGLE FACED |
| C7 | PROP. VAR. ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1.0" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2.0" IN DEPTH. | R6 | SHOULDER BERM GUTTER |
| D1 | PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. | R7 | 4" CONCRETE COVER |
| D2 | PROP. APPROX. 4.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. | T1 | EARTH MATERIAL |
| D3 | PROP. VAR. 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. | T2 | SHOULDER RECONSTRUCTION W/ AGGREGATE SHOULDER BORROW |
| E1 | PROP. APPROX. 3.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. | U | EXISTING PAVEMENT |
| E2 | PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. | V1 | INCIDENTAL MILLING (0 TO 3.0") |
| E3 | PROP. APPROX. 7.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | V2 | MILLING EXISTING PAVEMENT (1.5") |
| E4 | PROP. VAR. ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1.0" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3.0" IN DEPTH OR GREATER THAN 5.5" IN DEPTH. | W1 | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 1) |
| J1 | PROP. 6" AGGREGATE BASE COURSE | W2 | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 2) |
| NOTE: PAVEMENT EDGES ARE 1:1 UNLESS SHOWN OTHERWISE. | | Y | RUMBLE STRIPS |

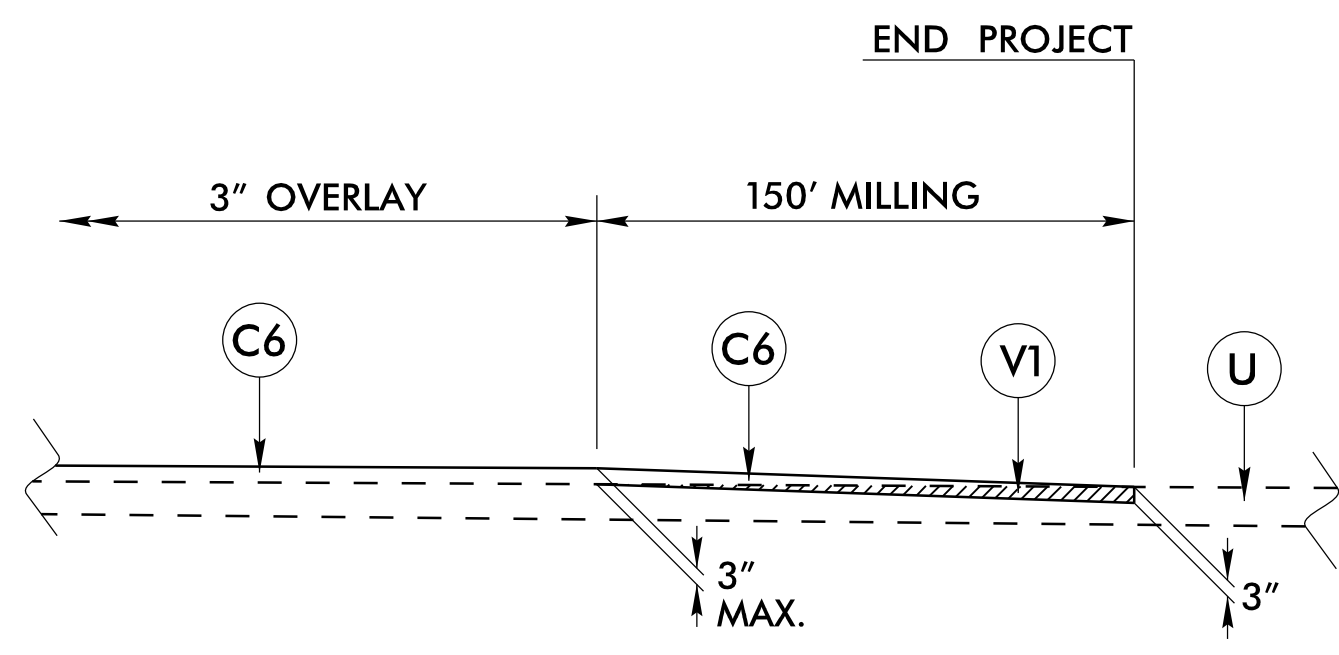
6/2/99

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

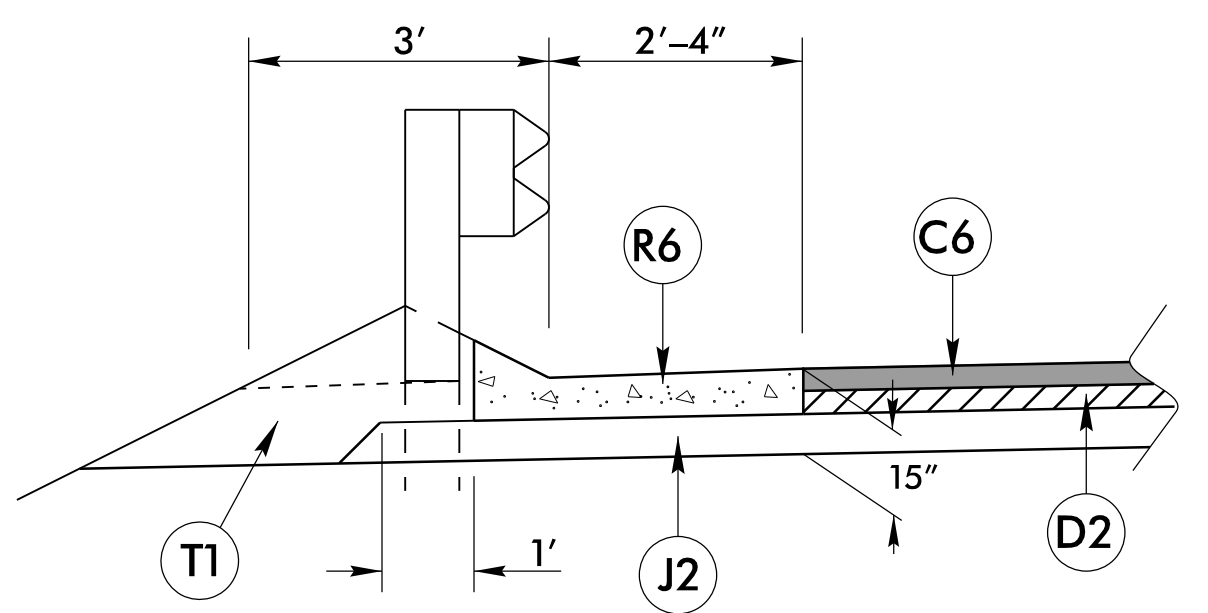


USE DETAIL
-L- STA. 16+00.00 TO -L- STA. 19+00.00 LT.
-L- STA. 16+00.00 TO -L- STA. 18+50.00 RT.



USE DETAIL
-L- STA. 72+86.00 TO -L- STA. 74+36.00


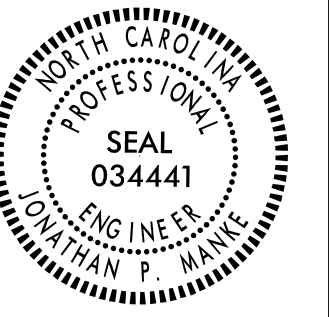
| | | |
|----|-----------------|-----------|
| C3 | 3.0" | S9.5B |
| C4 | VAR. | S9.5B |
| C6 | 3.0" | S9.5C |
| C7 | VAR. | S9.5C |
| D1 | 2.5" | I19.0C |
| D2 | 4.0" | I19.0C |
| D3 | VAR. | I19.0C |
| E4 | VAR. | B25.0C |
| J2 | 8" | AGG. BASE |
| R6 | SBG | |
| T1 | EARTH MATERIAL | |
| U | EXIST. PAVEMENT | |
| V1 | INCIDENTAL MILL | |
| W1 | WEDGING | |



-Y1RPA- STA. 18+75.00 TO -Y1RPA- STA. 20+36.31 RT.
-Y1RPB- STA. 10+00.00 TO -Y1RPB- STA. 22+00.00 LT.
-Y1RPC- STA. 13+50.00 TO -Y1RPC- STA. 19+79.08 RT.
-Y1RPD- STA. 18+50.00 TO -Y1RPD- STA. 21+62.00 LT.

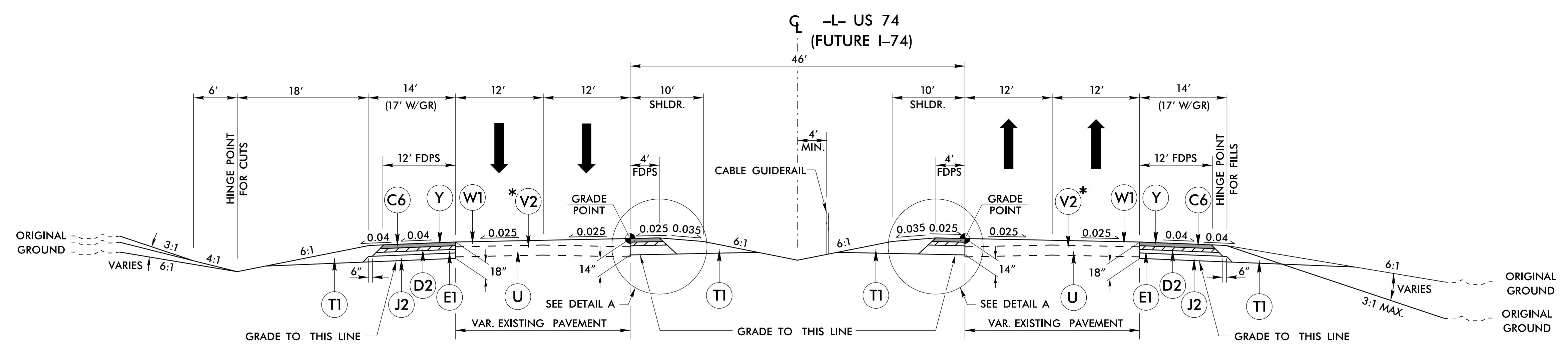
07 JAN 2003 15:24 R:\RAN\0606\05751.Rd\j_tjp.dgn

6/2/99

| | |
|--|---|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2A-3 |
| ROADWAY DESIGN ENGINEER  | PAVEMENT DESIGN ENGINEER  |

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

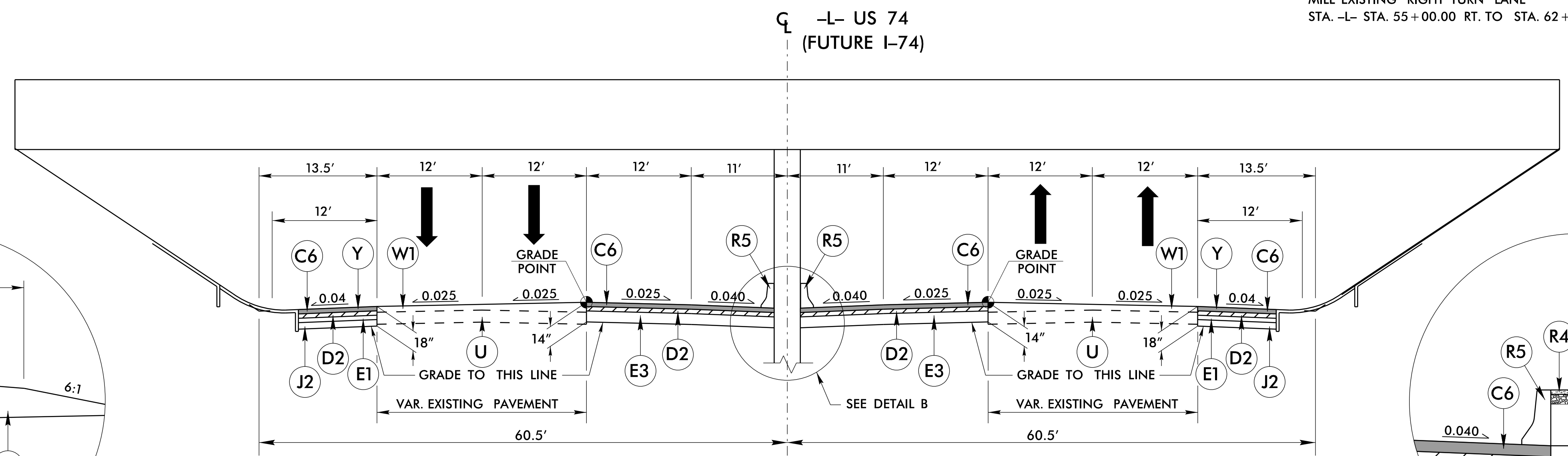


TYPICAL SECTION NO. 1
 -L- STA. 16+00.00 TO -L- STA. 42+18.97
 -L- STA. 42+61.03 TO -L- STA. 66+00.00

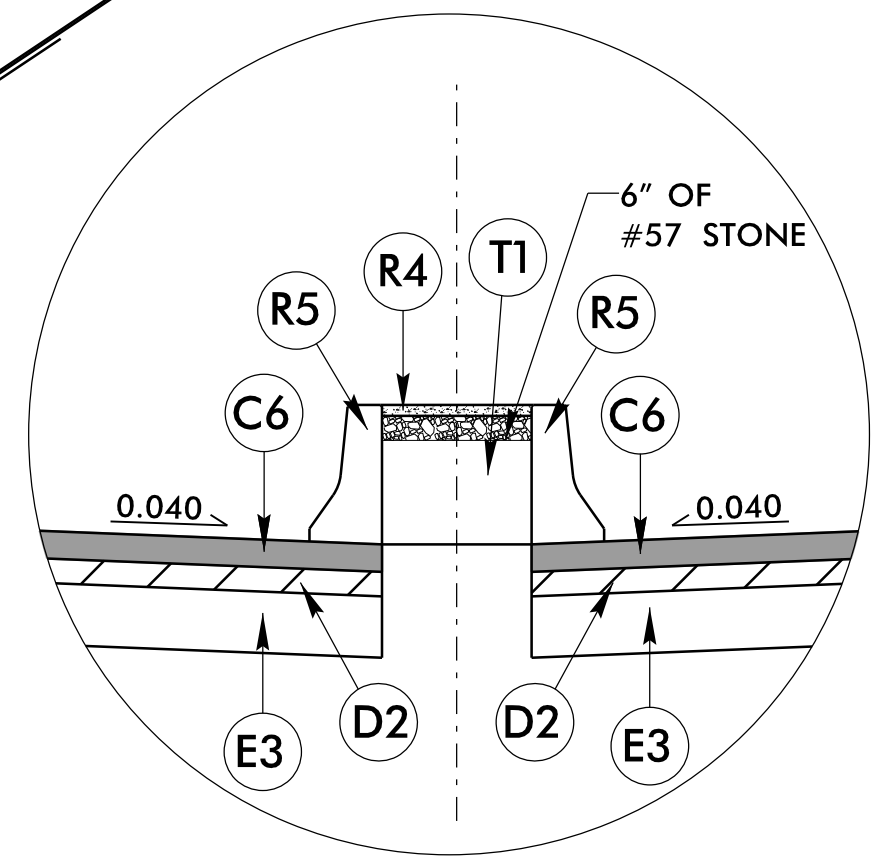
* NOTE:
 MILL EXISTING OUTSIDE TRAVEL LANE
 STA. -L- 53+00.00 RT. TO -L- STA. 55+00.00 RT.
 STA. -L- 56+00.00 LT. TO -L- STA. 59+00.00 LT.

 MILL EXISTING RIGHT TURN LANE
 STA. -L- STA. 55+00.00 RT. TO STA. 62+50.00 RT.

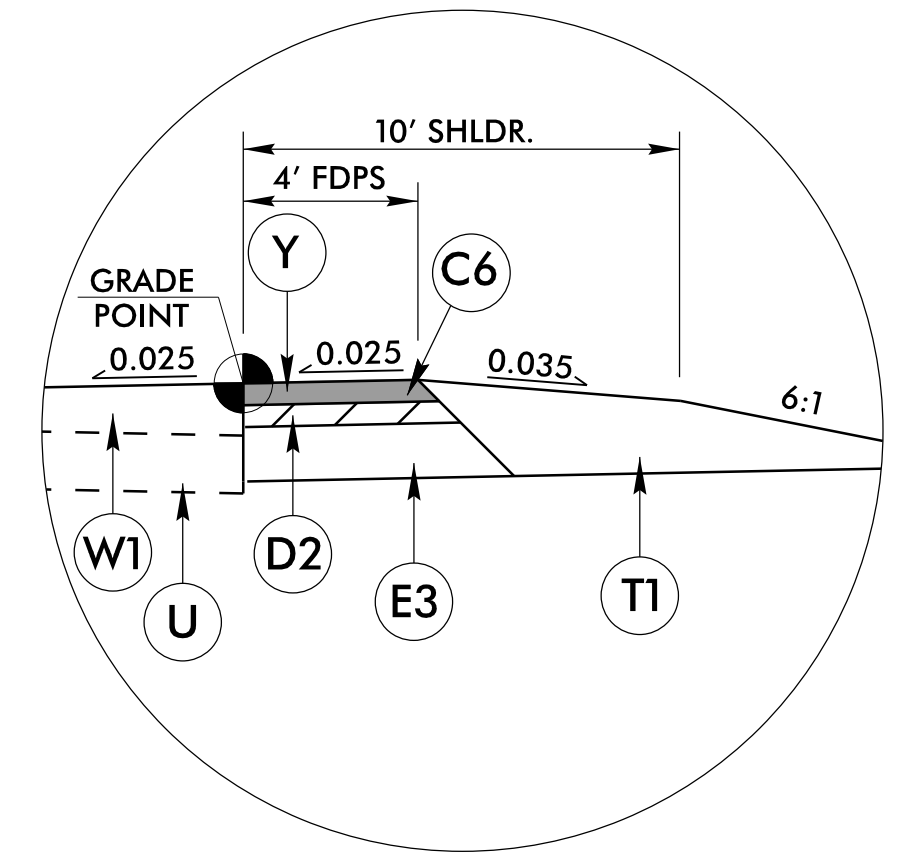
| | |
|----|-----------------|
| C6 | 3.0" S9.5C |
| D2 | 4.0" I19.0C |
| E1 | 3.0" B25.0C |
| E3 | 7.0" B25.0C |
| J2 | 8" AGG. BASE |
| R4 | 3" CONC. COVER |
| R5 | CONC. BARRIER |
| T1 | EARTH MATERIAL |
| U | EXIST. PAVEMENT |
| V2 | 1.5" MILLING |
| W1 | WEDGING |
| Y | RUMBLE STRIPS |



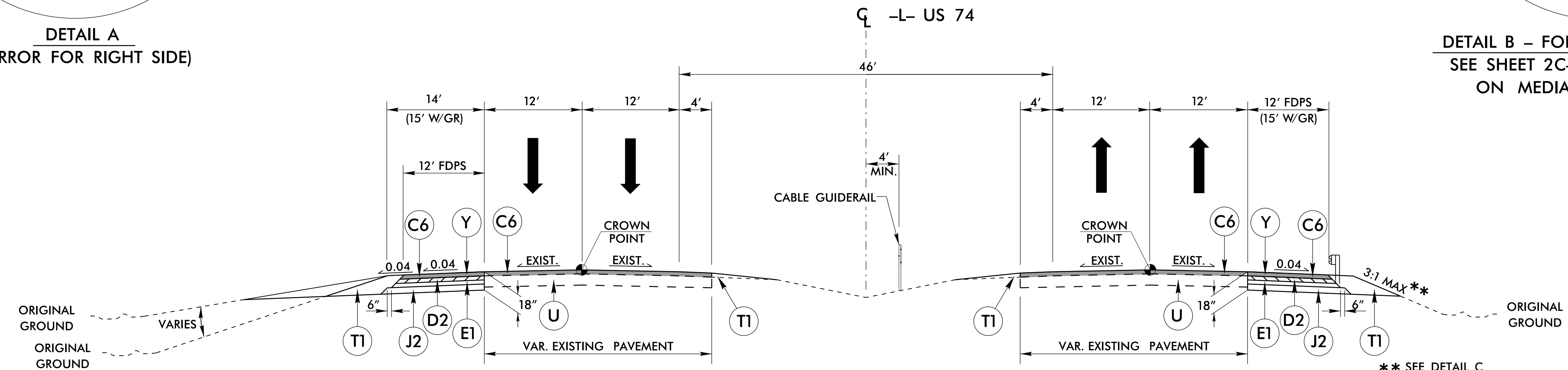
TYPICAL SECTION ON ROADWAY UNDER STRUCTURE
 -L- STA. 42+18.97 TO -L- STA. 42+61.03



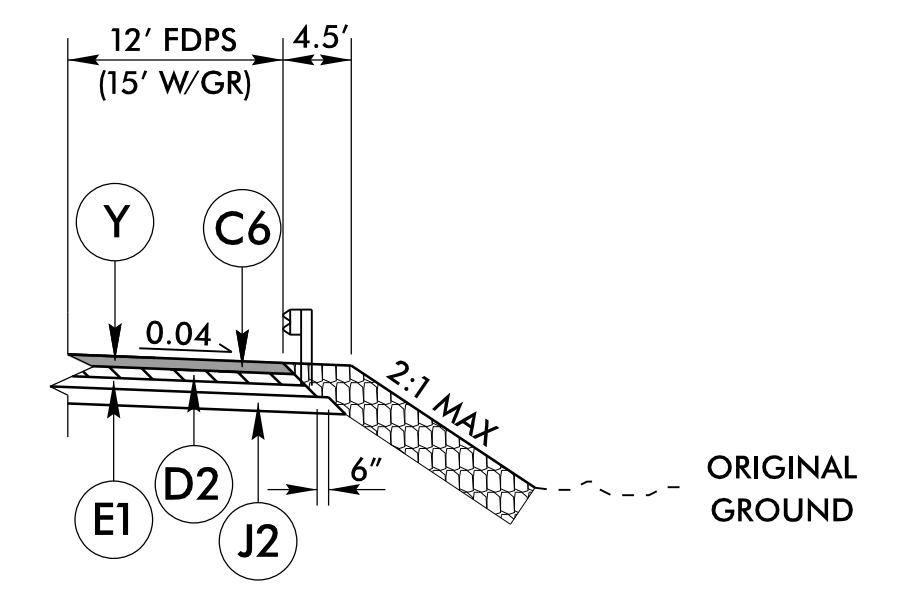
DETAIL B - FOR AREAS WITHOUT COLUMNS
 SEE SHEET 2C-1 FOR MORE INFORMATION
 ON MEDIAN HAZARD PROTECTION



DETAIL A
 (MIRROR FOR RIGHT SIDE)



TYPICAL SECTION NO. 2
 -L- STA. 66+00.00 TO -L- STA. 74+36.00



DETAIL C - ROCK PLATING
 -L- STA. 68+60.00 TO -L- STA. 69+25.00 RT.

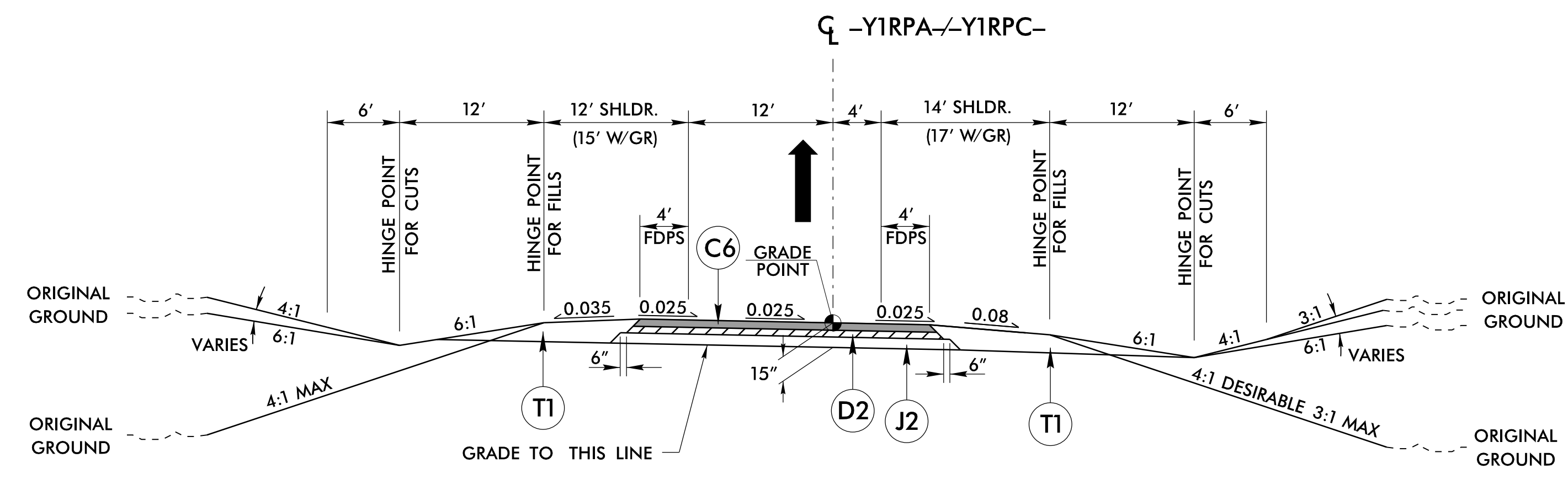
07 JAN 2007 15:24
R:\RAN\0606\05751.Rd\j_tup.dgn

6/2/99

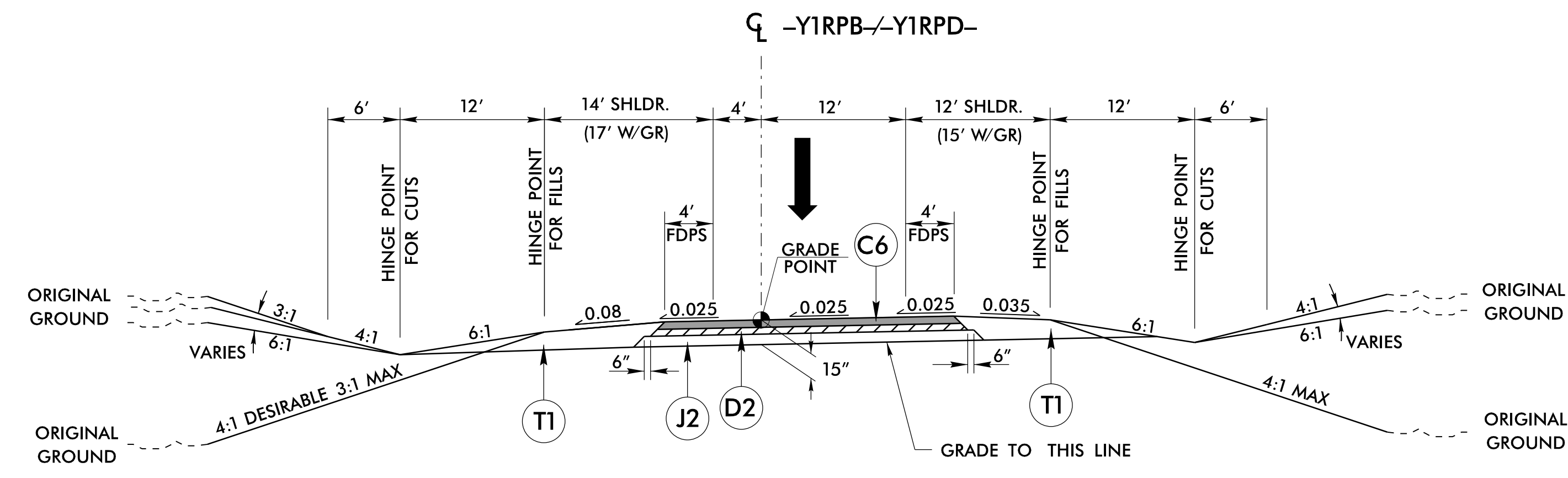
| | |
|--|--------------------------|
| PROJECT REFERENCE NO. <i>R-5751</i> | SHEET NO. <i>2A-4</i> |
| ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER |
| | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

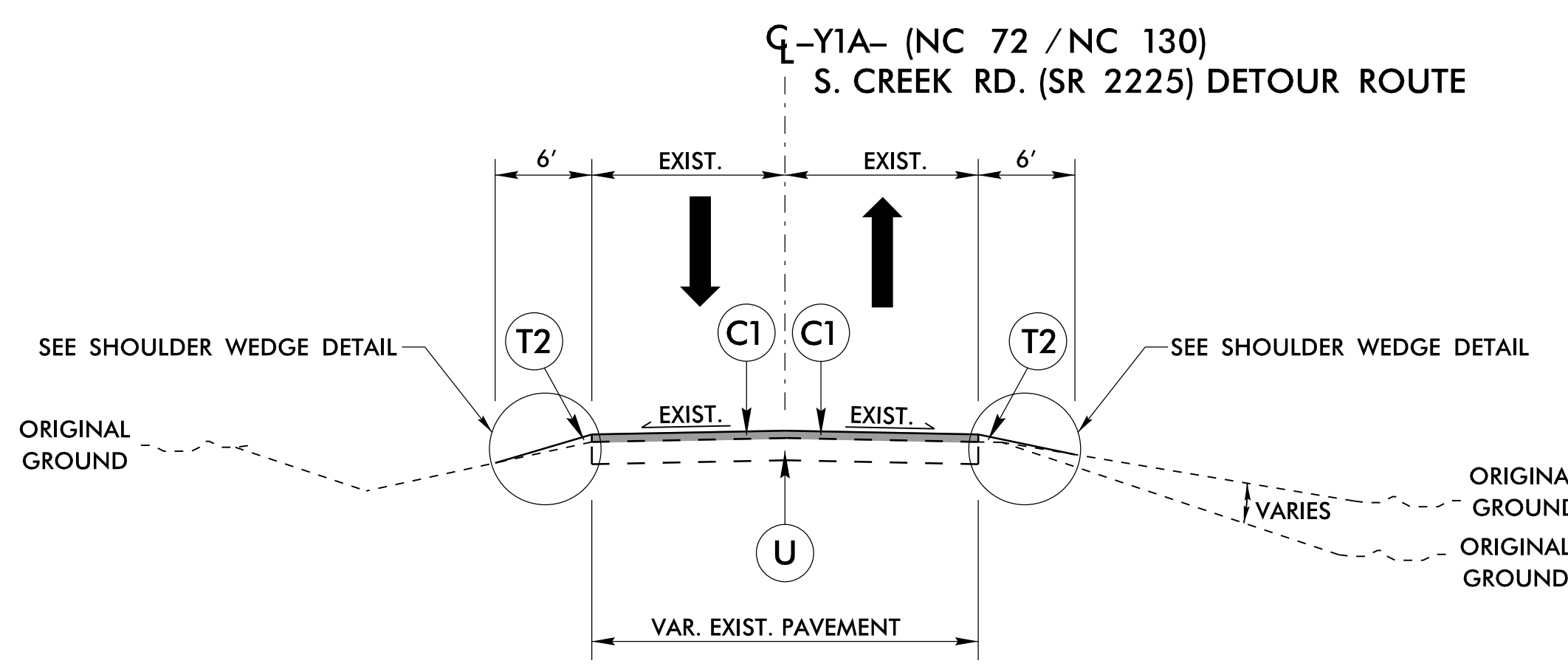


TYPICAL SECTION NO. 3
 -Y1RPA- STA. 14 + 88.82 TO -Y1RPA- STA. 26 + 67.80
 -Y1RPC- STA. 14 + 84.76 TO -Y1RPC- STA. 27 + 26.17

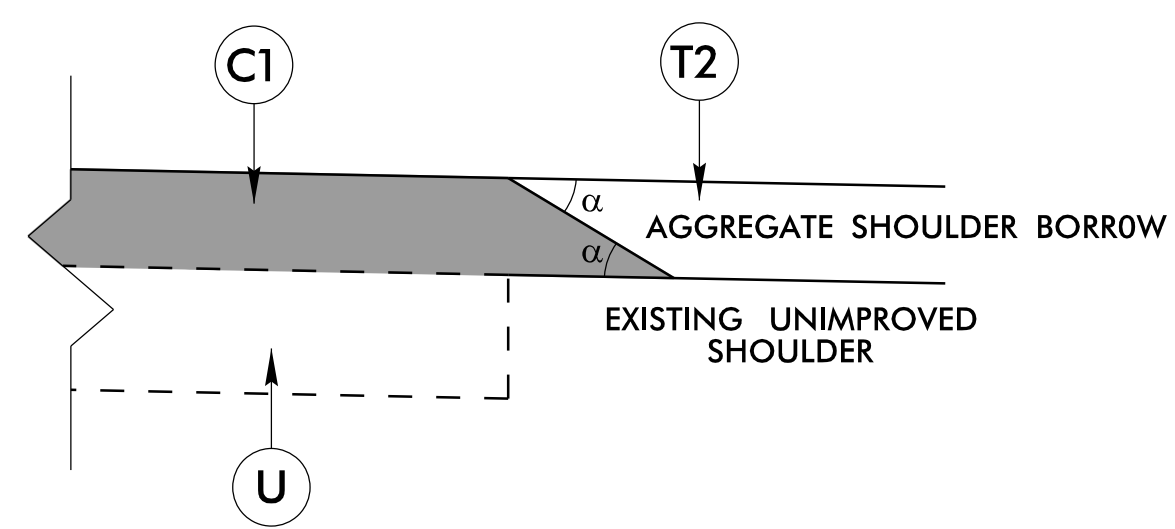


TYPICAL SECTION NO. 4
 -Y1RPB- STA. 14 + 84.29 TO -Y1RPB- STA. 22 + 58.29
 -Y1RPD- STA. 14 + 84.29 TO -Y1RPD- STA. 22 + 29.76

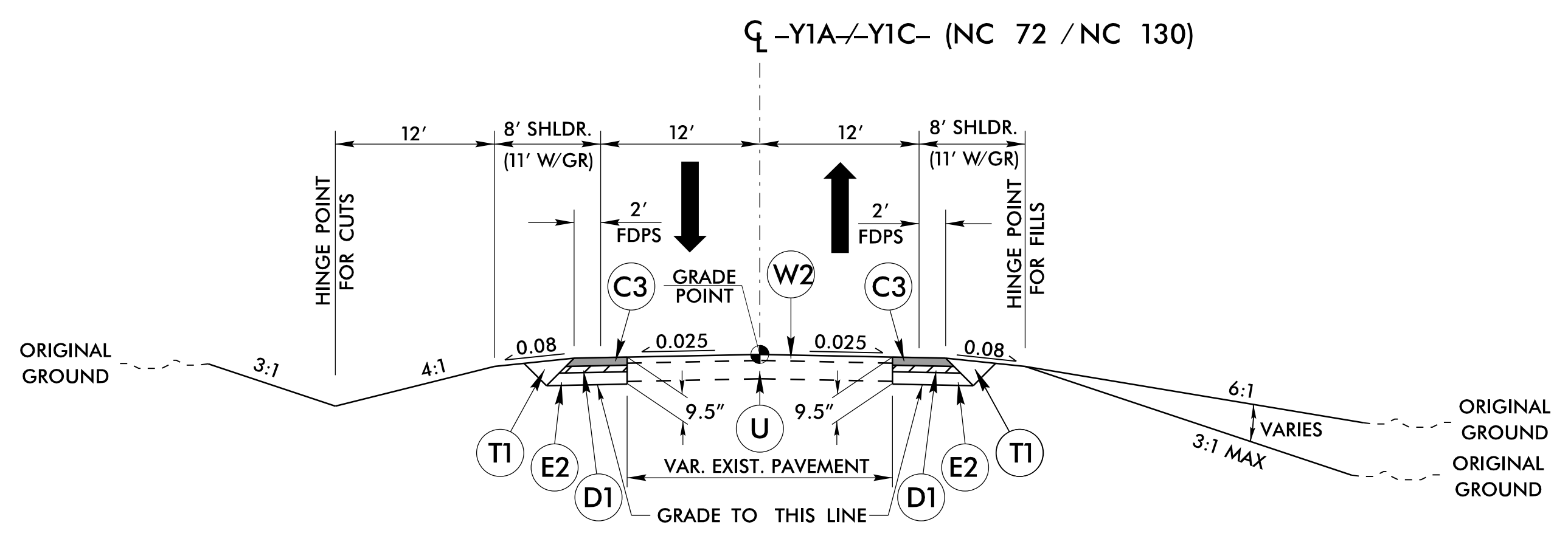
| | |
|----|------------------------|
| C1 | 1.5" S9.5B |
| C3 | 3.0" S9.5B |
| C6 | 3.0" S9.5C |
| D1 | 2.5" I19.0C |
| D2 | 4.0" I19.0C |
| E2 | 4.0" B25.0C |
| J2 | 8" AGG. BASE |
| T1 | EARTH MATERIAL |
| T2 | SHLDR. RECONST. W/ ASB |
| U | EXIST. PAVEMENT |
| W2 | WEDGING |



TYPICAL SECTION NO. 5
 -Y1A- STA. 8 + 00.00 TO -Y1A- STA. 16 + 00.00
 SEE TMP-2A FOR DETOUR ROUTE




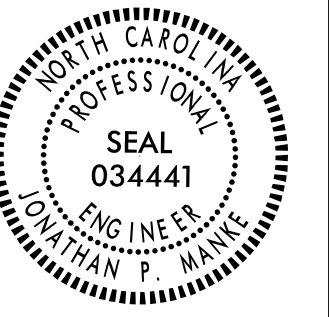
SHOULDER WEDGE DETAIL
 SHOULDER WEDGE ANGLE (α) = 30°



TYPICAL SECTION NO. 6
 -Y1A- STA. 16 + 00.00 TO -Y1A- STA. 18 + 50.00
 -Y1C- STA. 53 + 50.00 TO -Y1C- STA. 59 + 00.00

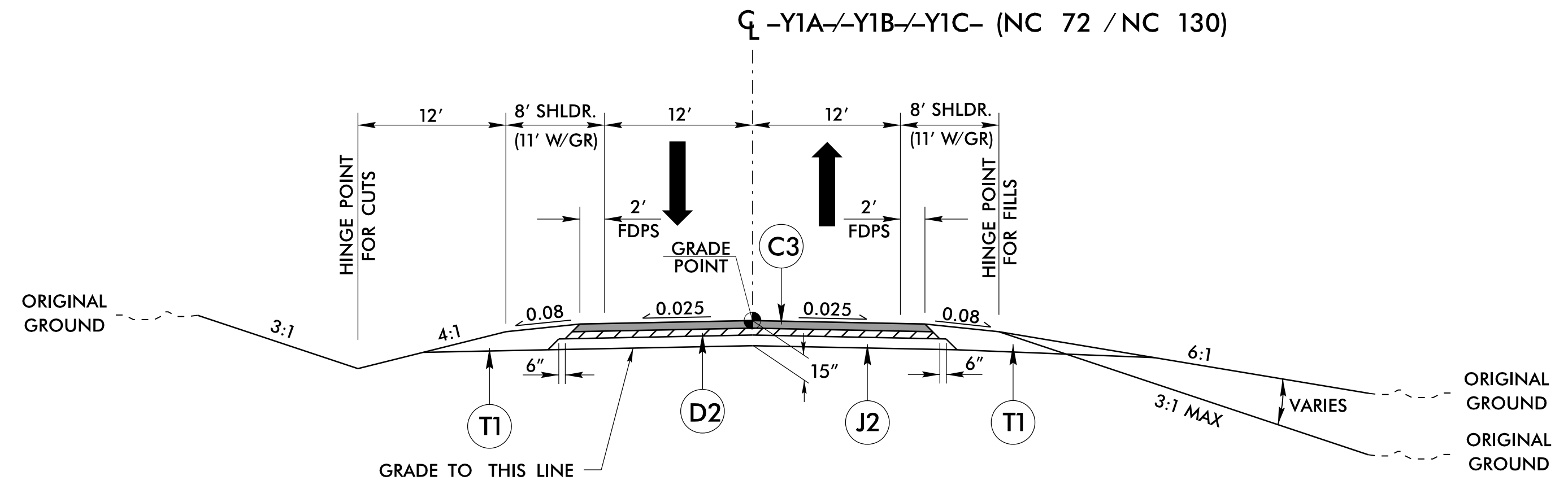
07 JAN 2007 15:24
R:\RAN\060606\05751.Rd\J...tjip.dgn

6/2/99

| | |
|---|---|
| PROJECT REFERENCE NO. <i>R-5751</i> | SHEET NO. <i>2A-5</i> |
| ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER |
|  |  |

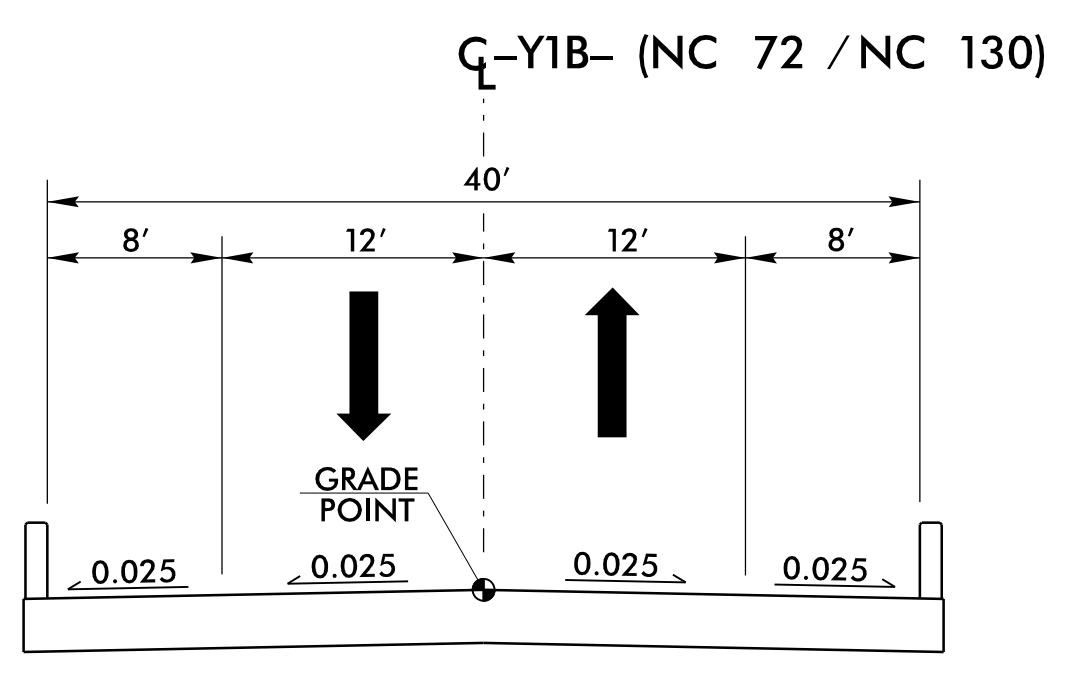
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

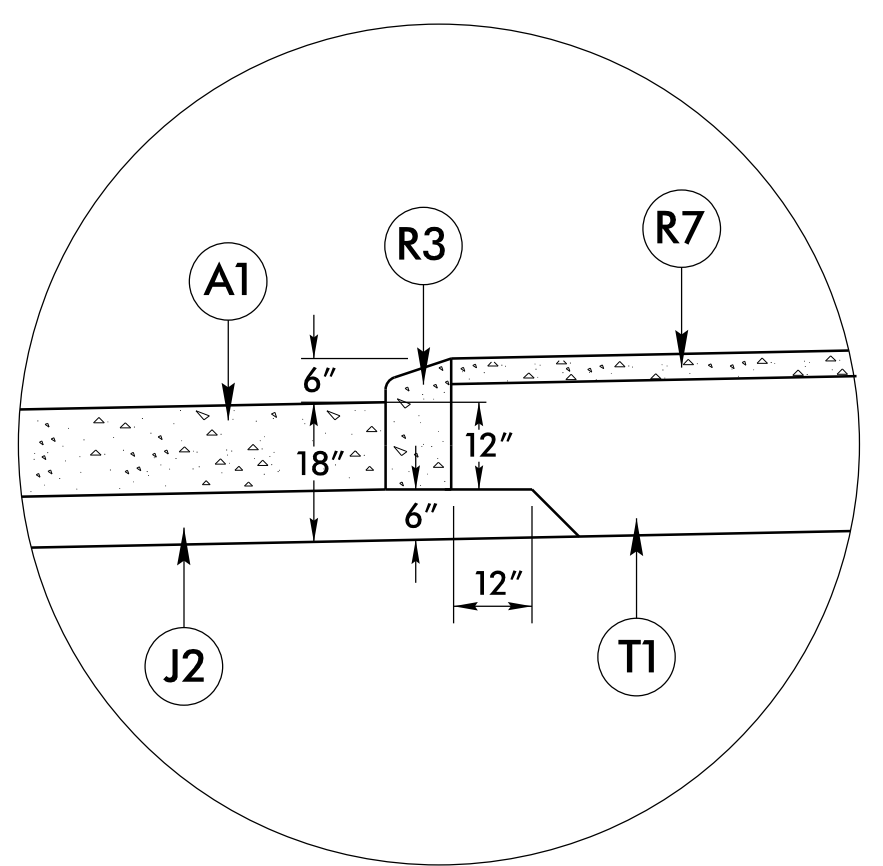


TYPICAL SECTION NO. 7
 -Y1A- STA. 18+50.00 TO -Y1A- STA. 34+09.45
 -Y1B- STA. 35+59.45 TO -Y1B- STA. 37+05.89 (BEGIN BRIDGE)
 -Y1B- STA. 38+93.89 (END BRIDGE) TO -Y1B- STA. 40+40.33
 -Y1C- STA. 41+90.33 TO -Y1C- STA. 53+50.00

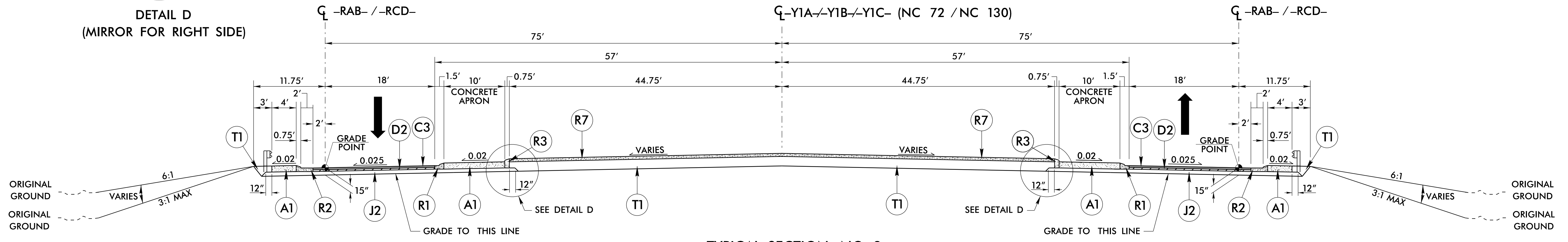
| | |
|----|-----------------|
| A1 | 12" TRUCK APRON |
| C3 | 3.0" S9.5B |
| D2 | 4.0" I19.0C |
| J2 | 8" AGG. BASE |
| R1 | 1'-6" C. & G. |
| R2 | 2'-9" C. & G. |
| R3 | 9" X 18" CURB |
| R7 | 4" CONC. COVER |
| T1 | EARTH MATERIAL |



TYPICAL SECTION ON STRUCTURE
 -Y1B- STA. 37+05.89 (BEGIN BRIDGE) TO -Y1B- STA. 38+93.89 (END BRIDGE)



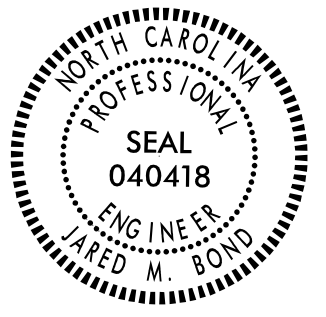
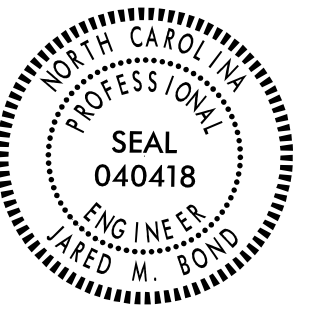

DETAIL D
 (MIRROR FOR RIGHT SIDE)



TYPICAL SECTION NO. 8
 -RAB- STA. 10+00.00 TO -RAB- STA. 14+71.22
 -RCD- STA. 10+00.00 TO -RCD- STA. 14+71.23

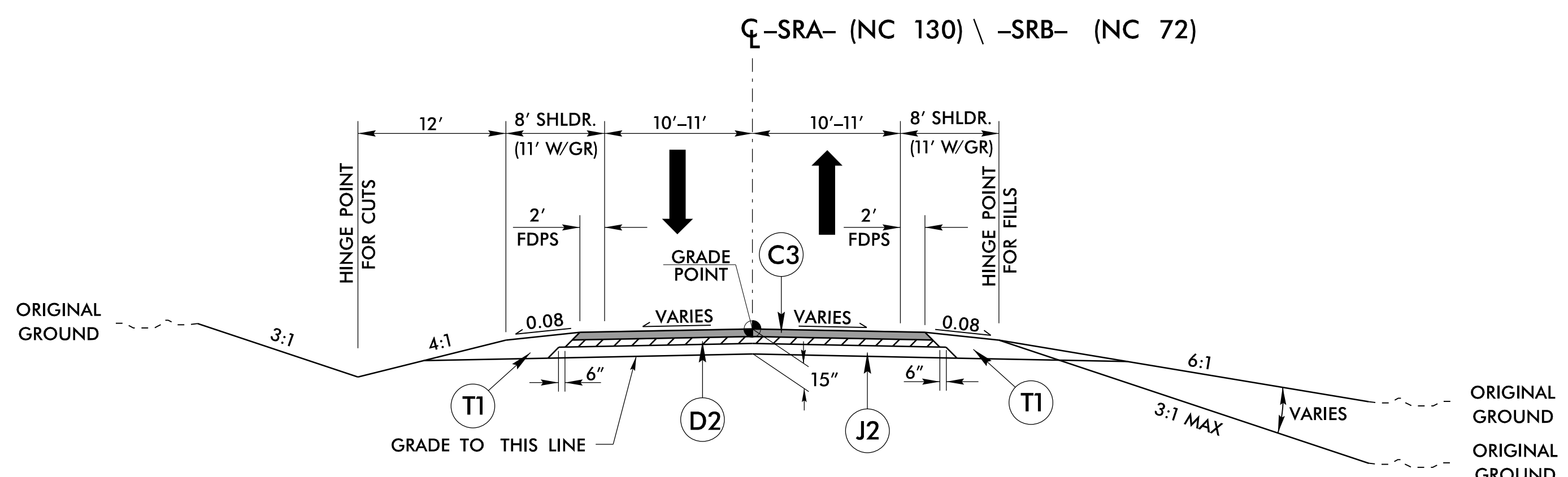
07-JAN-2007 15:24
 R:\RAN\p0751.Rd\j_tup.dgn

6/2/99

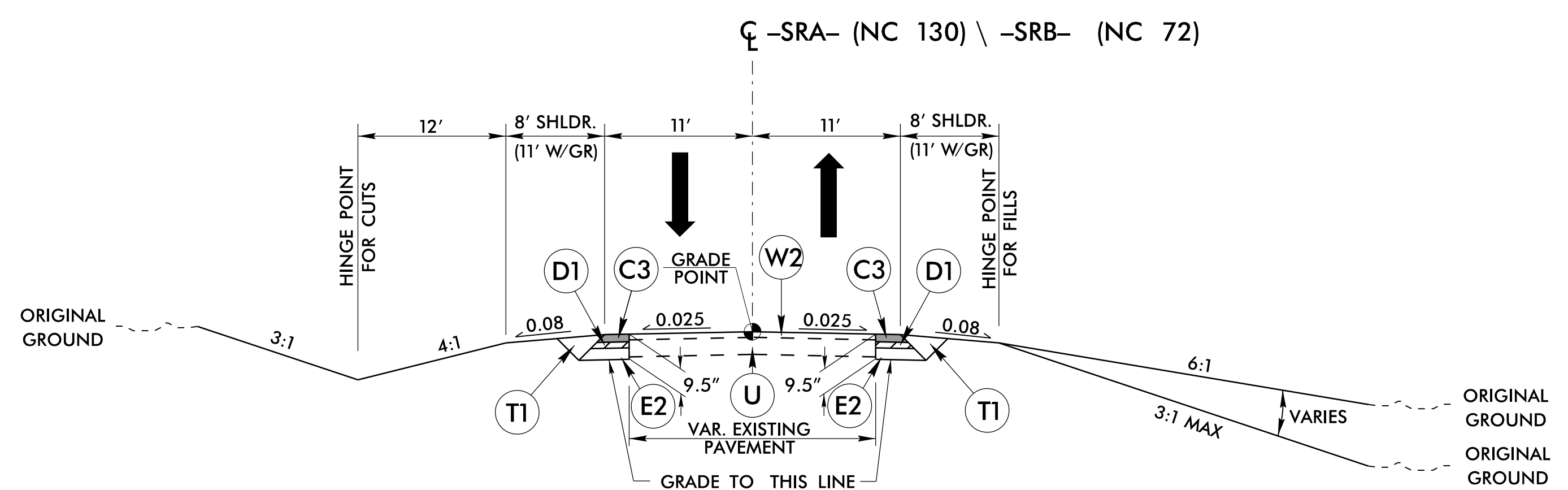
| | | |
|---|---|---|
| PROJECT REFERENCE NO. <i>R-5751</i> | | SHEET NO. <i>2A-6</i> |
| TEMPORARY PAVEMENT DESIGN ENGINEER | ROADWAY DESIGN ENGINEER | PAVEMENT DESIGN ENGINEER |
|  |  |  |

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

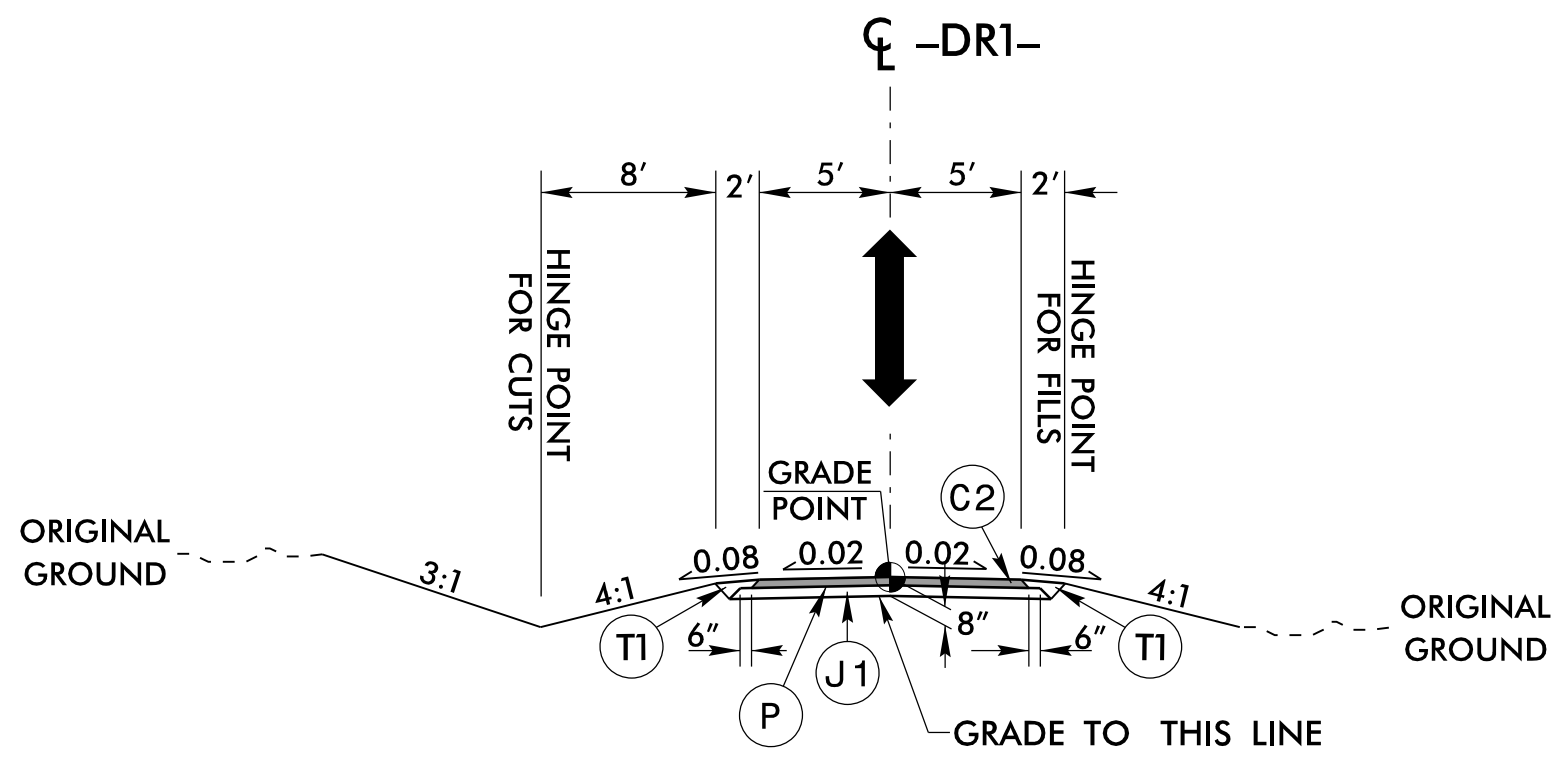
RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493



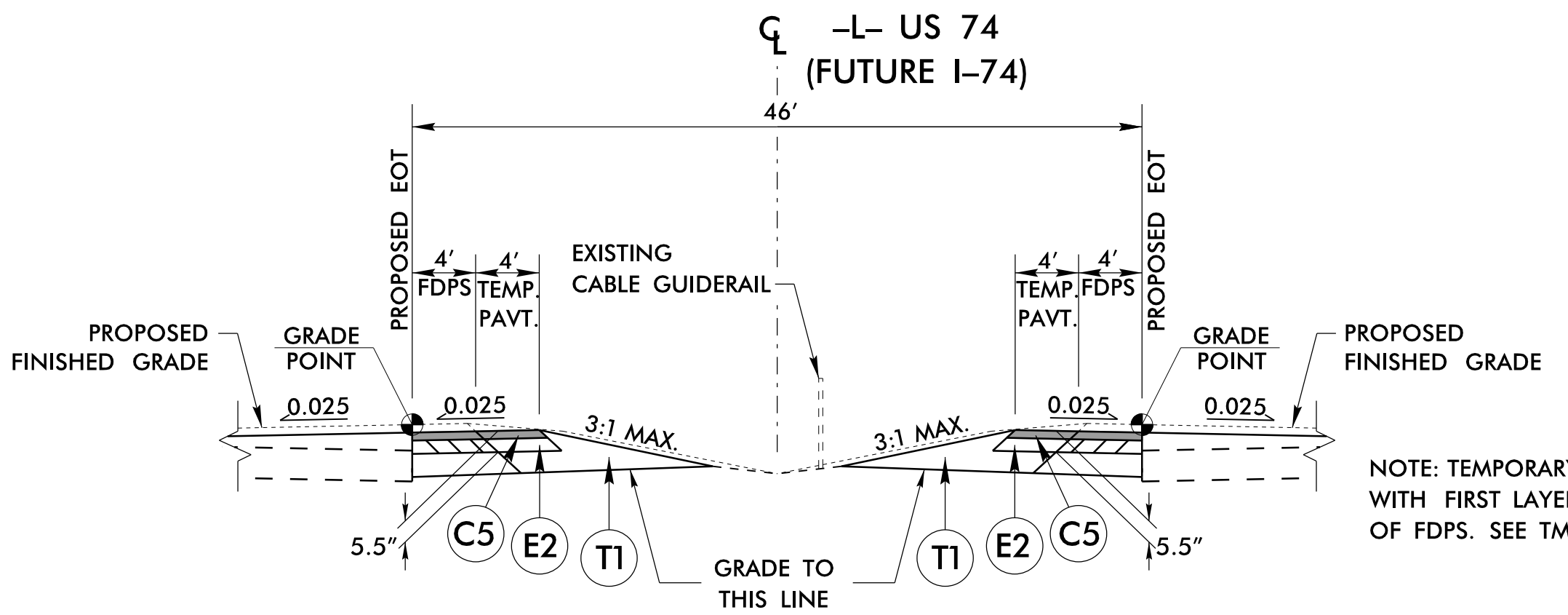
TYPICAL SECTION NO. 9
-SRA- STA. 10+12.09 TO -SRA- STA. 12+20.00
-SRB- STA. 10+13.23 TO -SRB- STA. 11+80.00



TYPICAL SECTION NO. 10
-SRA- STA. 12+20.00 TO -SRA- STA. 13+50.00
-SRB- STA. 11+80.00 TO -SRB- STA. 14+00.00



TYPICAL SECTION NO. 11
-DRI- STA. 10+12.01 TO STA. 10+90.00



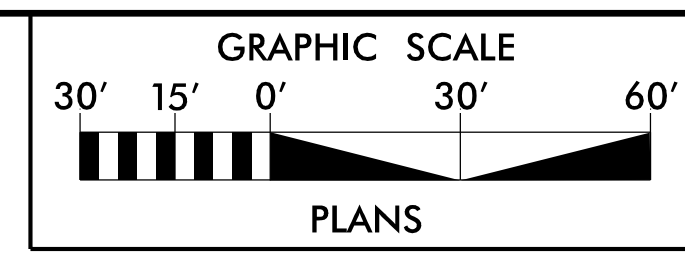
TYPICAL SECTION NO. 12 - TEMPORARY PAVEMENT
-L- STA. 13+50.00 TO -L- STA. 39+08.75 MED. LT. -L- STA. 11+80.00 TO -L- STA. 39+10.45 MED. RT.
-L- STA. 44+29.23 TO -L- STA. 61+00.78 MED. LT. -L- STA. 39+85.10 TO -L- STA. 55+54.54 MED. RT.
-L- STA. 62+36.39 TO -L- STA. 73+05.63 MED. LT. -L- STA. 62+37.57 TO -L- STA. 73+05.63 MED. RT.

| | |
|----|-----------------|
| C2 | 2.0" S9.5B |
| C3 | 3.0" S9.5B |
| C5 | 1.5" S9.5C |
| D1 | 2.5" I19.0C |
| D2 | 4.0" I19.0C |
| E2 | 4.0" B25.0C |
| P | PRIME COAT |
| J1 | 6" AGG. BASE |
| J2 | 8" AGG. BASE |
| T1 | EARTH MATERIAL |
| U | EXIST. PAVEMENT |
| W2 | WEDGING |

NOTE: TEMPORARY PAVEMENT ALIGNS WITH FIRST LAYER OF SURFACE COURSE OF FDPS. SEE TMP FOR MORE DETAILS.

07 JAN 2003 15:24
R:\RAN\06\05751\RD\j_tjip.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

5/14/99

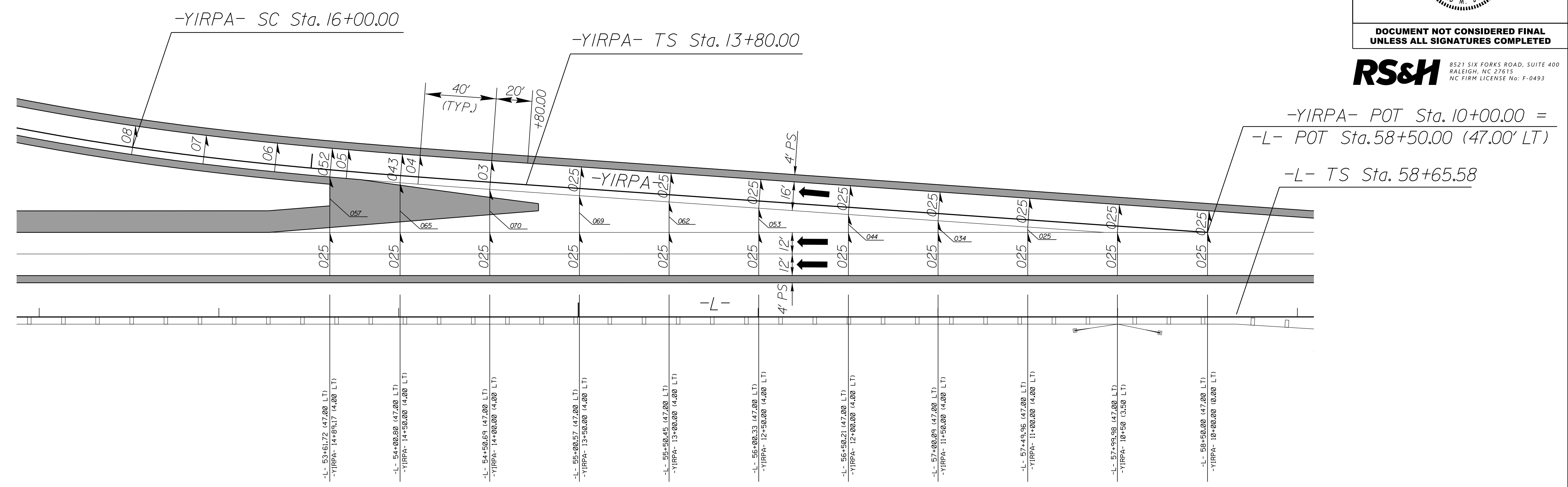


| | |
|--|-------------------|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2B-1 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No. F-0493

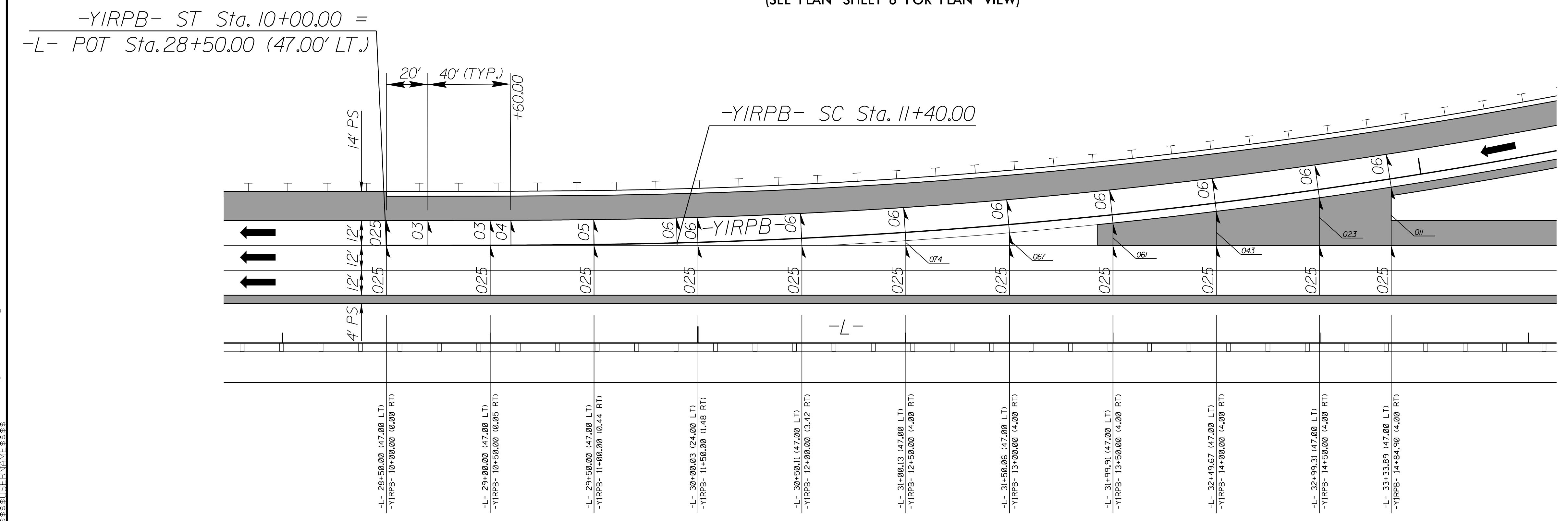
-YIRPA- & -L- GORE DETAIL

(SEE PLAN SHEET 6 FOR PLAN VIEW)



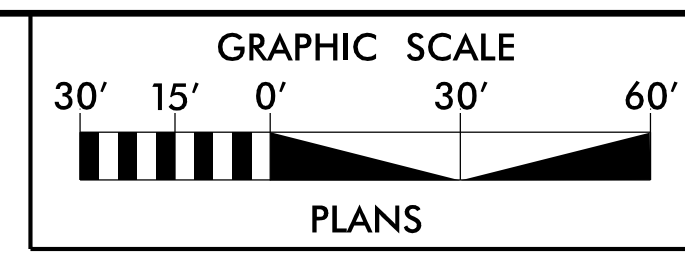
-YIRPB- & -L- GORE DETAIL

(SEE PLAN SHEET 6 FOR PLAN VIEW)



05-OCT-2022 10:41 AM R:\5751_Rdwy_det_2B_1.dgn

5/14/99

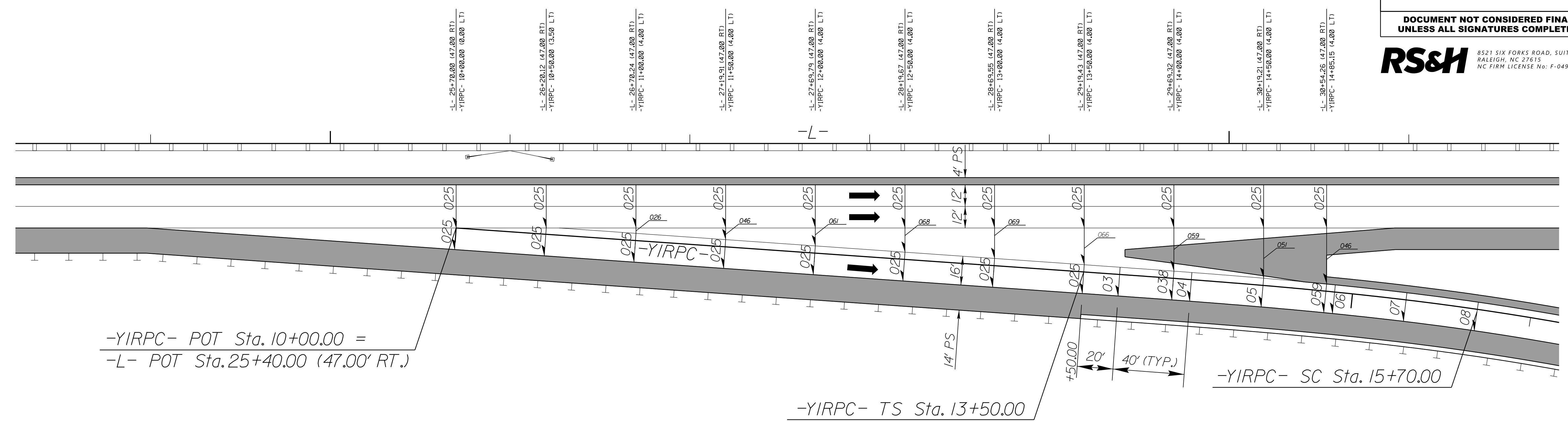


| | |
|--|-------------------|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2B-2 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

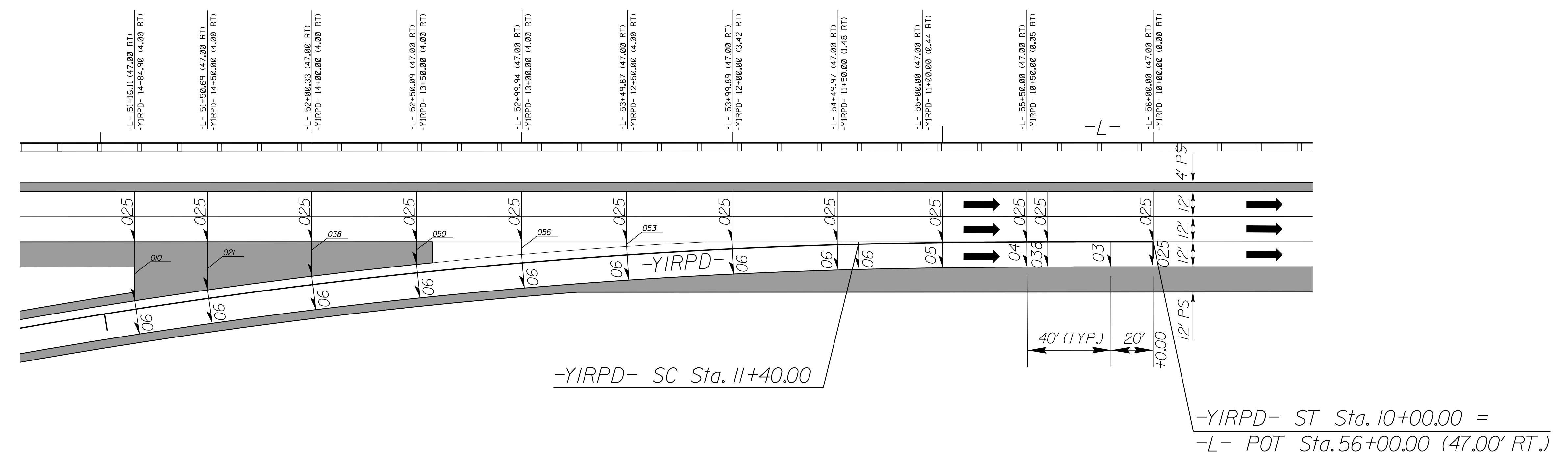
-YIRPC- & -L- GORE DETAIL

(SEE PLAN SHEET 6 FOR PLAN VIEW)




-YIRPD- & -L- GORE DETAIL

(SEE PLAN SHEET 6 FOR PLAN VIEW)



05-OCT-2022 10:41 AM
F:\5751\5751_Rdy_det_2B_2.dgn
33380381

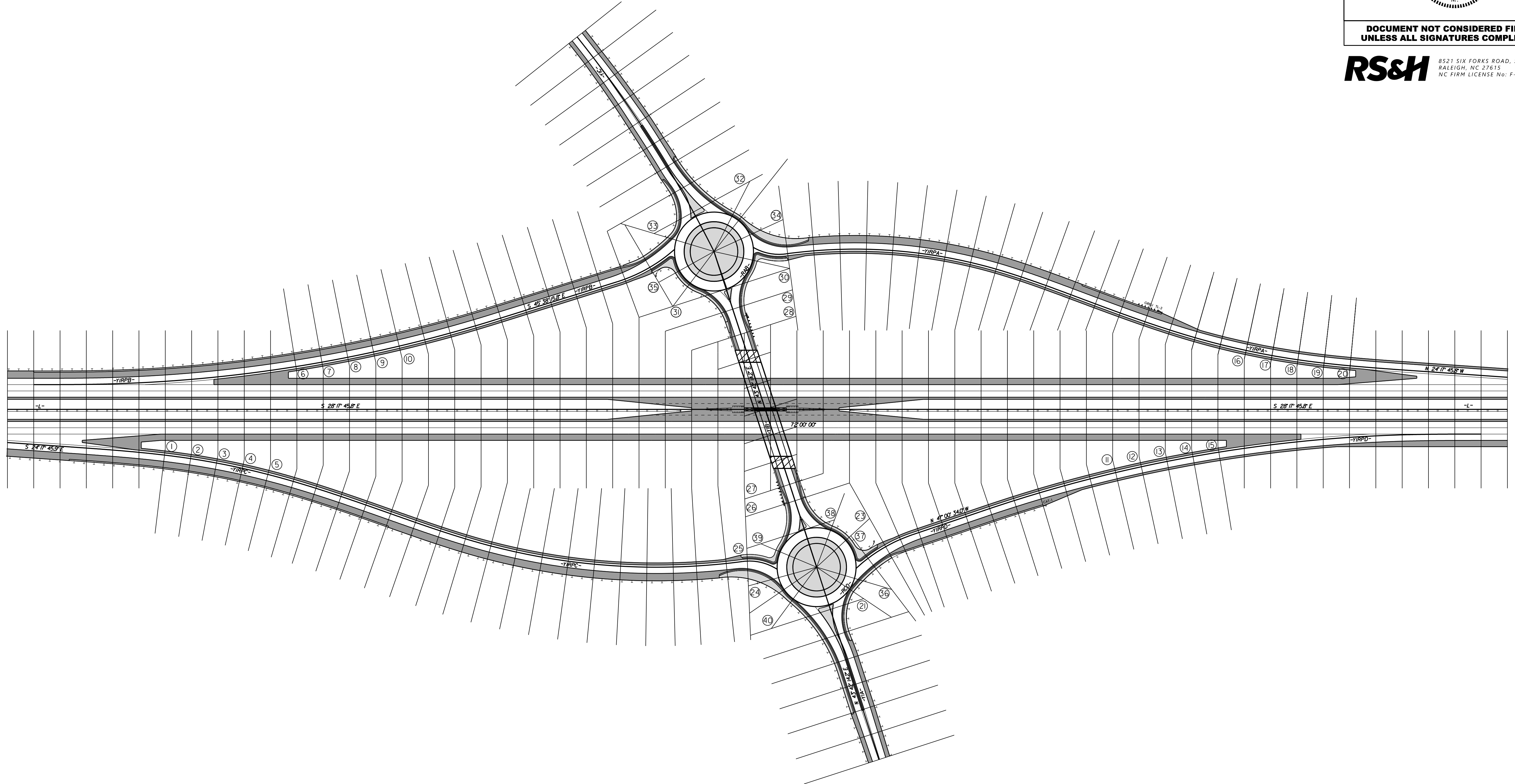
SHEAR POINT DIAGRAM

| | |
|---|-------------------|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2B-3 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | |
|  | |

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

NAD 83/NA 2011



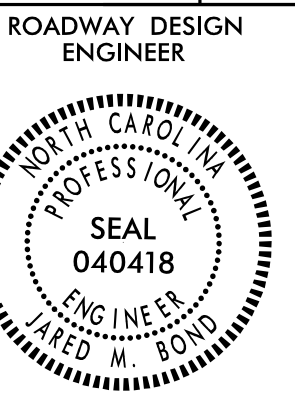
REVISIONS

8/17/99
05-OCT-2022 10:41
R:\Roadway\Projects\R5751_Rdy_spd_2B_3.dgn
SUSHERNAME

6/2/09

ROUNDBABOUT -RAB- DETAIL

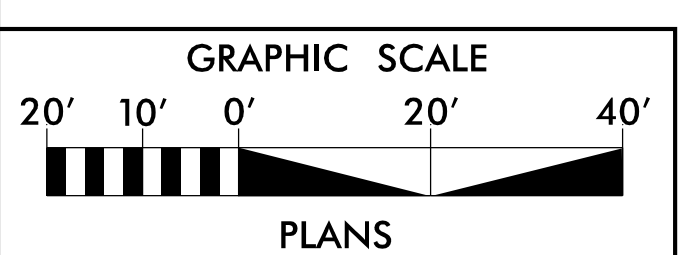
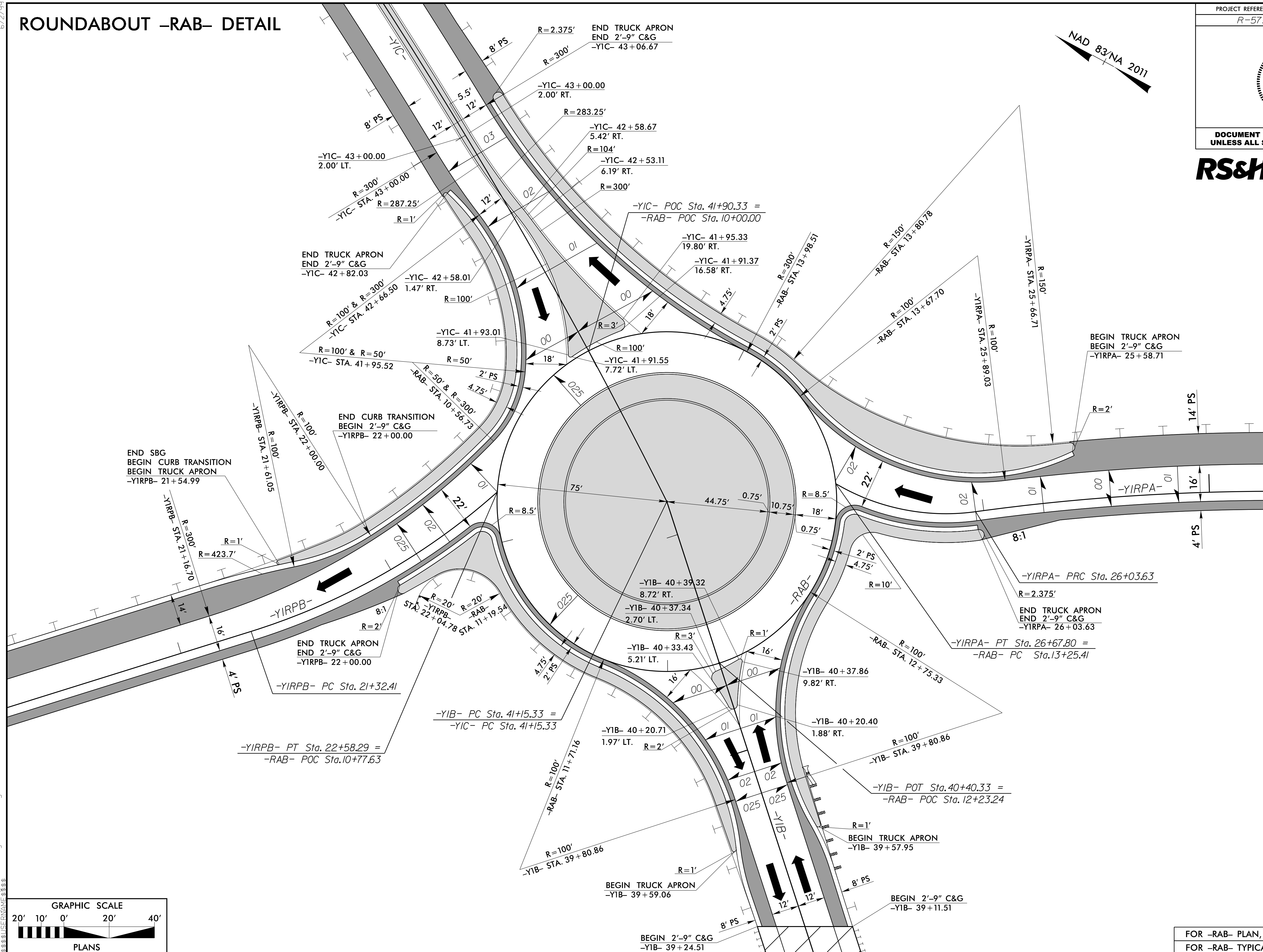
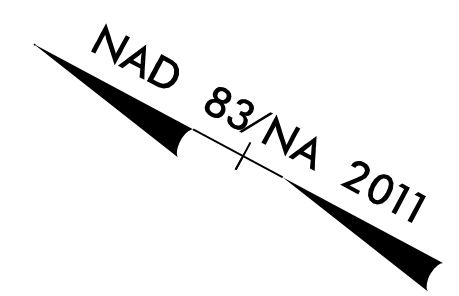
PROJECT REFERENCE NO. SHEET NO.
R-5751 2B-4



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H

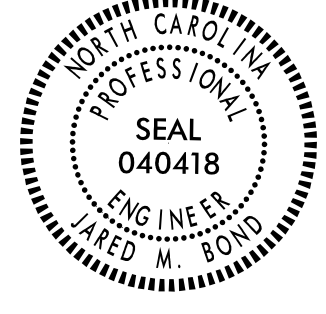
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE NO: F-0493



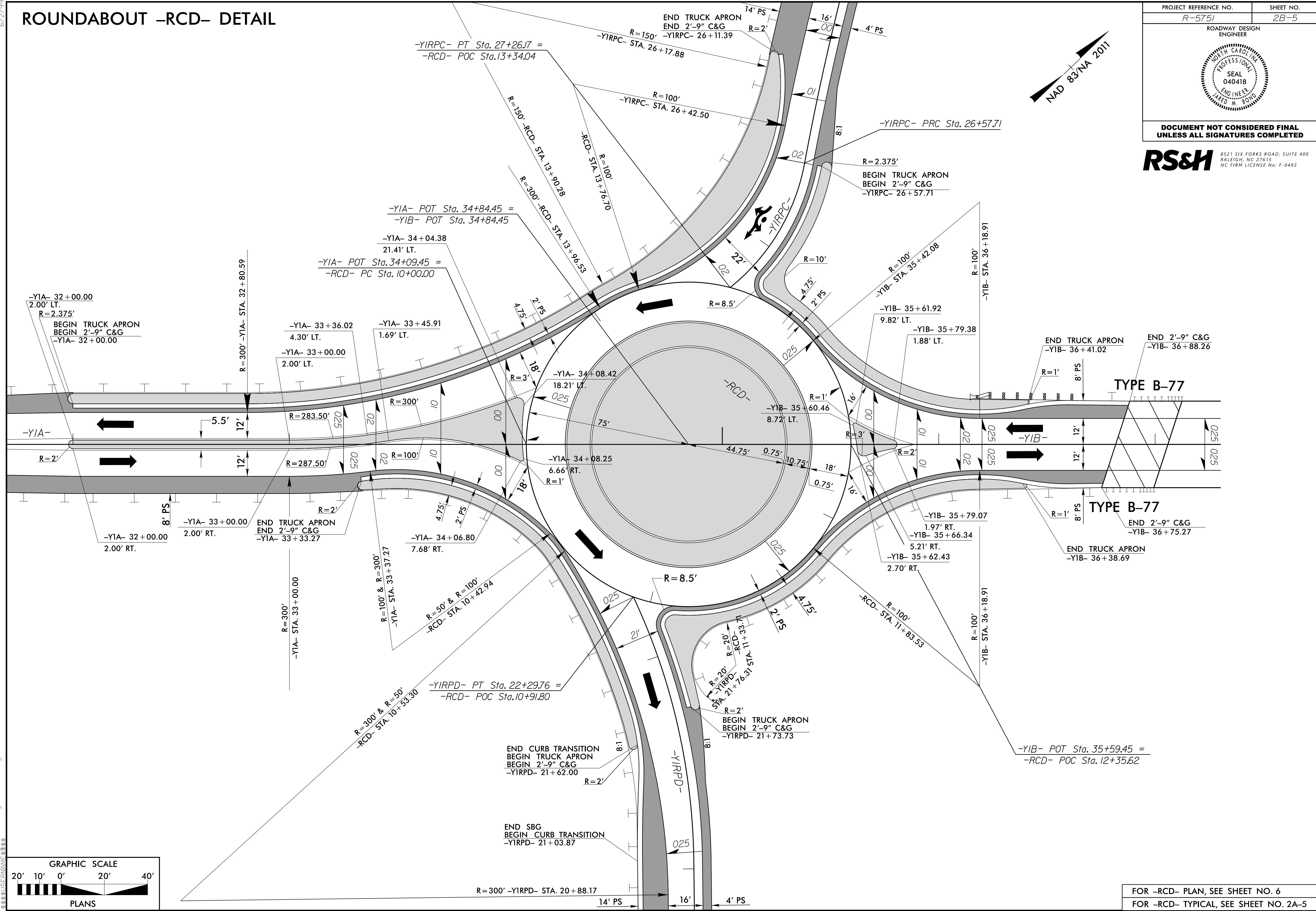
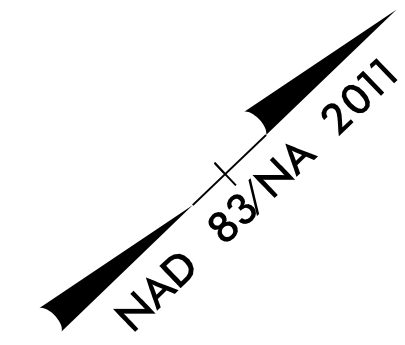
FOR -RAB- PLAN, SEE SHEET NO. 6
FOR -RAB- TYPICAL, SEE SHEET NO. 2A-5

05-OCT-2022 0:41 p05751_RdY_det_2B-4.dgn

ROUNDBABOUT -RCD- DETAIL

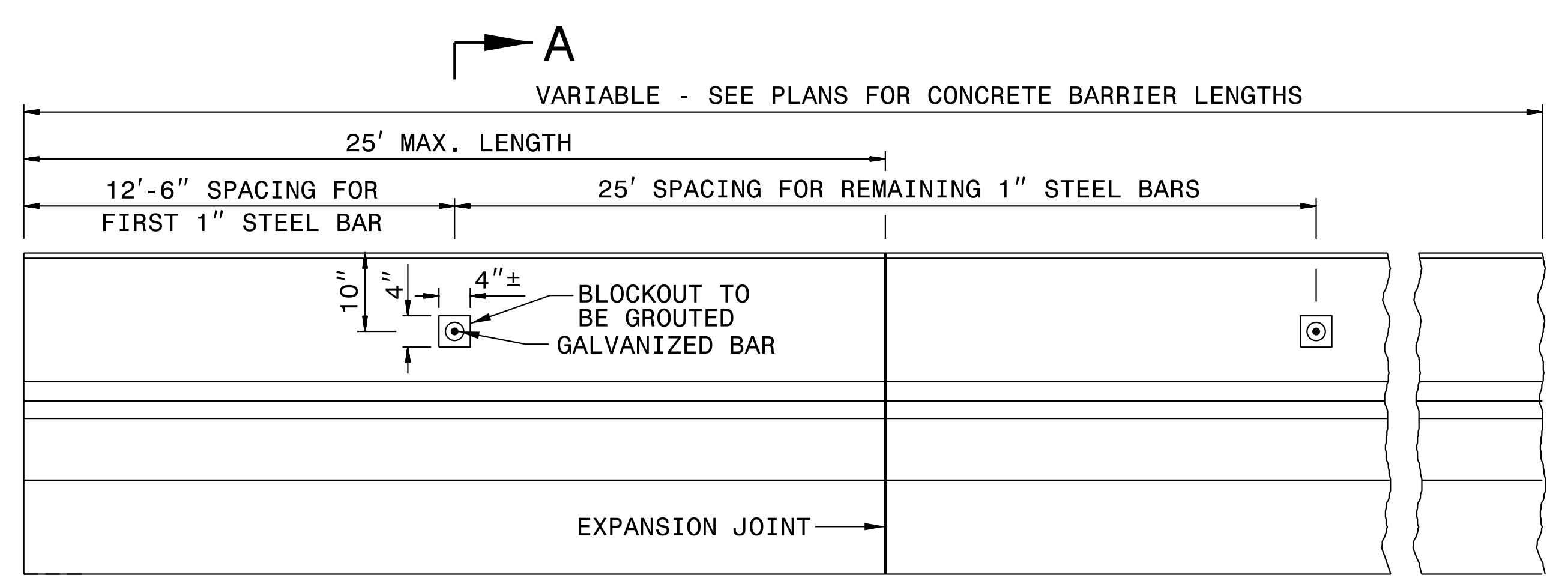
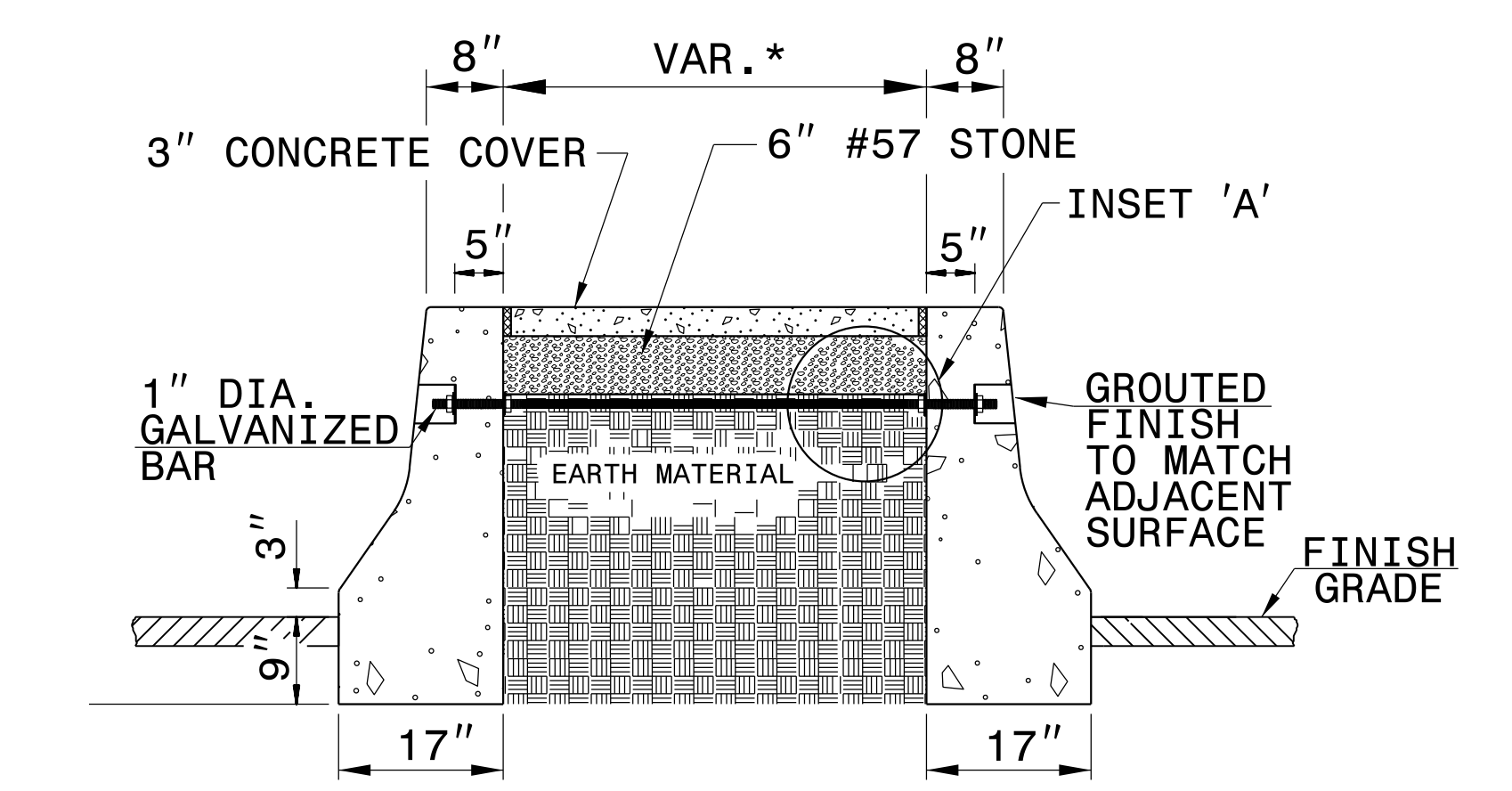
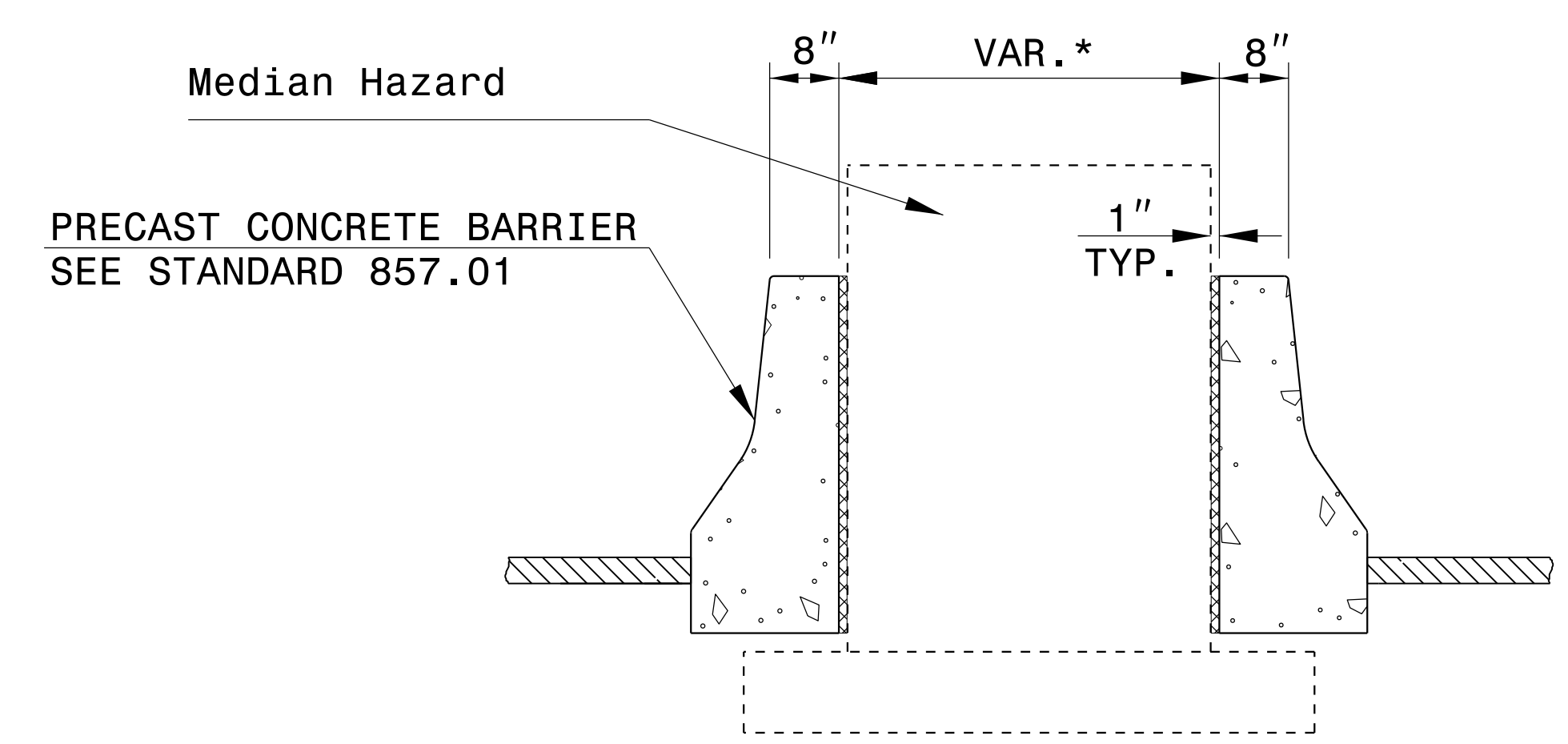
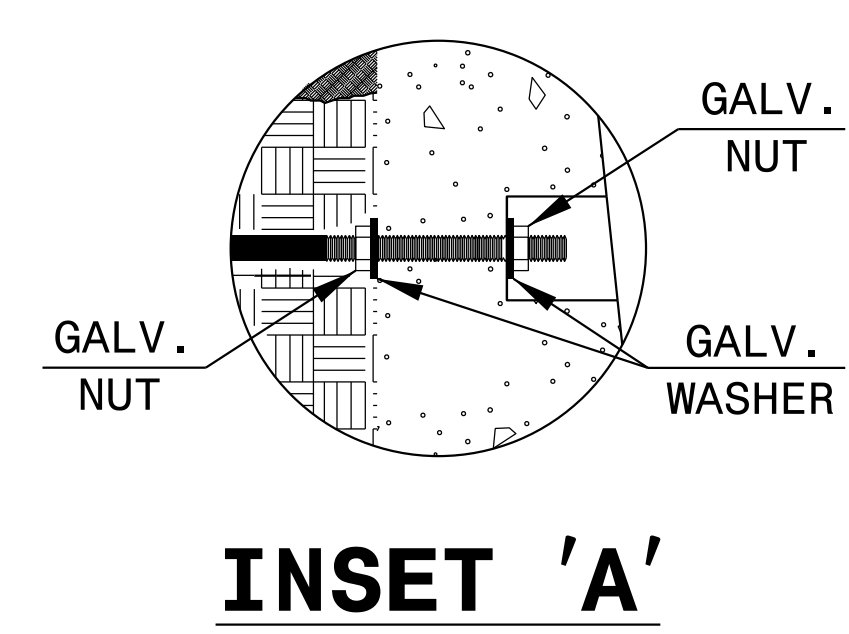
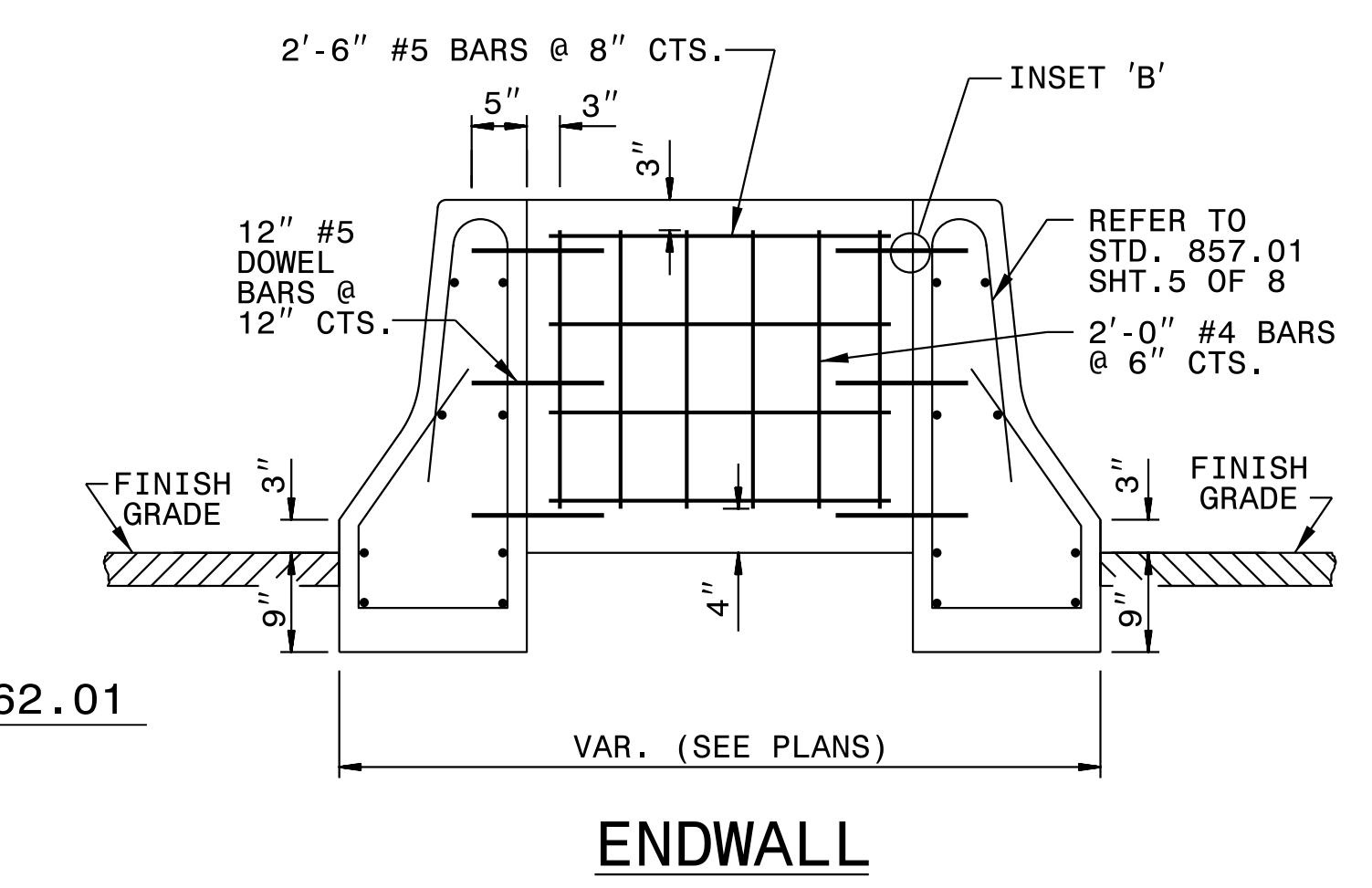
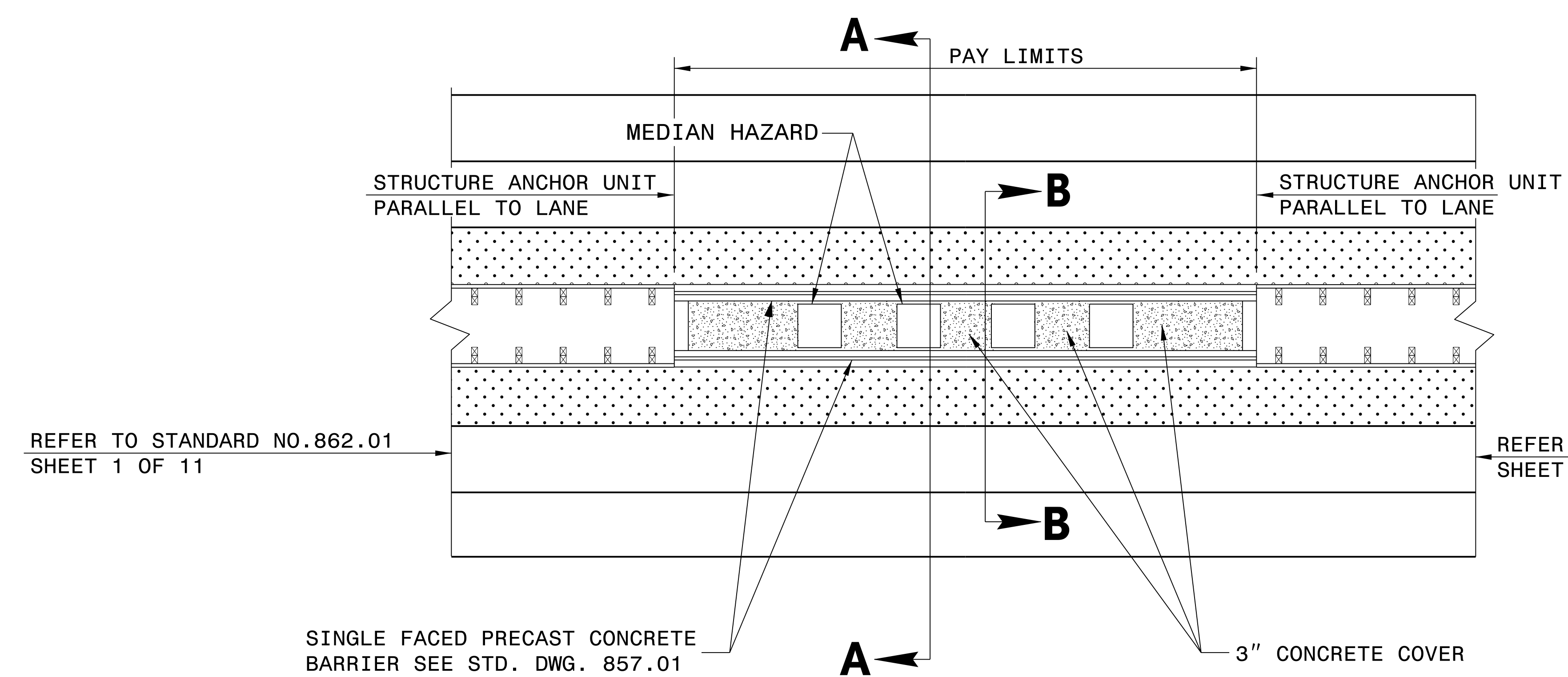
| | |
|---|-------------------|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2B-5 |
| ROADWAY DESIGN ENGINEER | |
|  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493



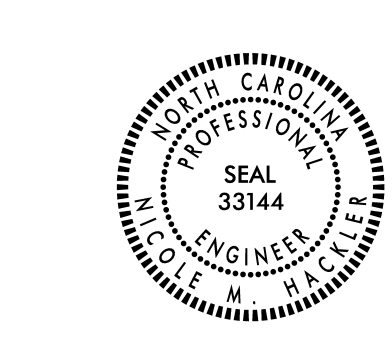
05-OCT-2022 09:41 p05751_Rdy_det_2B-5.dgn
 6/2/99

FOR -RCD- PLAN, SEE SHEET NO. 6
FOR -RCD- TYPICAL, SEE SHEET NO. 2A-5



GENERAL NOTES:

- *THIS DIMENSION MAY VARY DEPENDING ON THE WIDTH OF THE PIER.
- INSET FIRST 1" DIA. GALVANIZED BAR 12'-6" AND SPACE THE REMAINING 1" BARS AT 25'-0".
- USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081-1, TYPE 3A OF THE STANDARD SPECIFICATIONS.
- USE CLASS B CONCRETE FOR THE CONCRETE COVER
- SEAL ALL EXPANSION JOINTS WITH JOINT FILLER (SEE SECTION 1028 OF THE SPECIFICATIONS).
- PLACE A 1" BAR BETWEEN EACH SET OF PIERS



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

DETAIL OF MEDIAN HAZARD PROTECTION

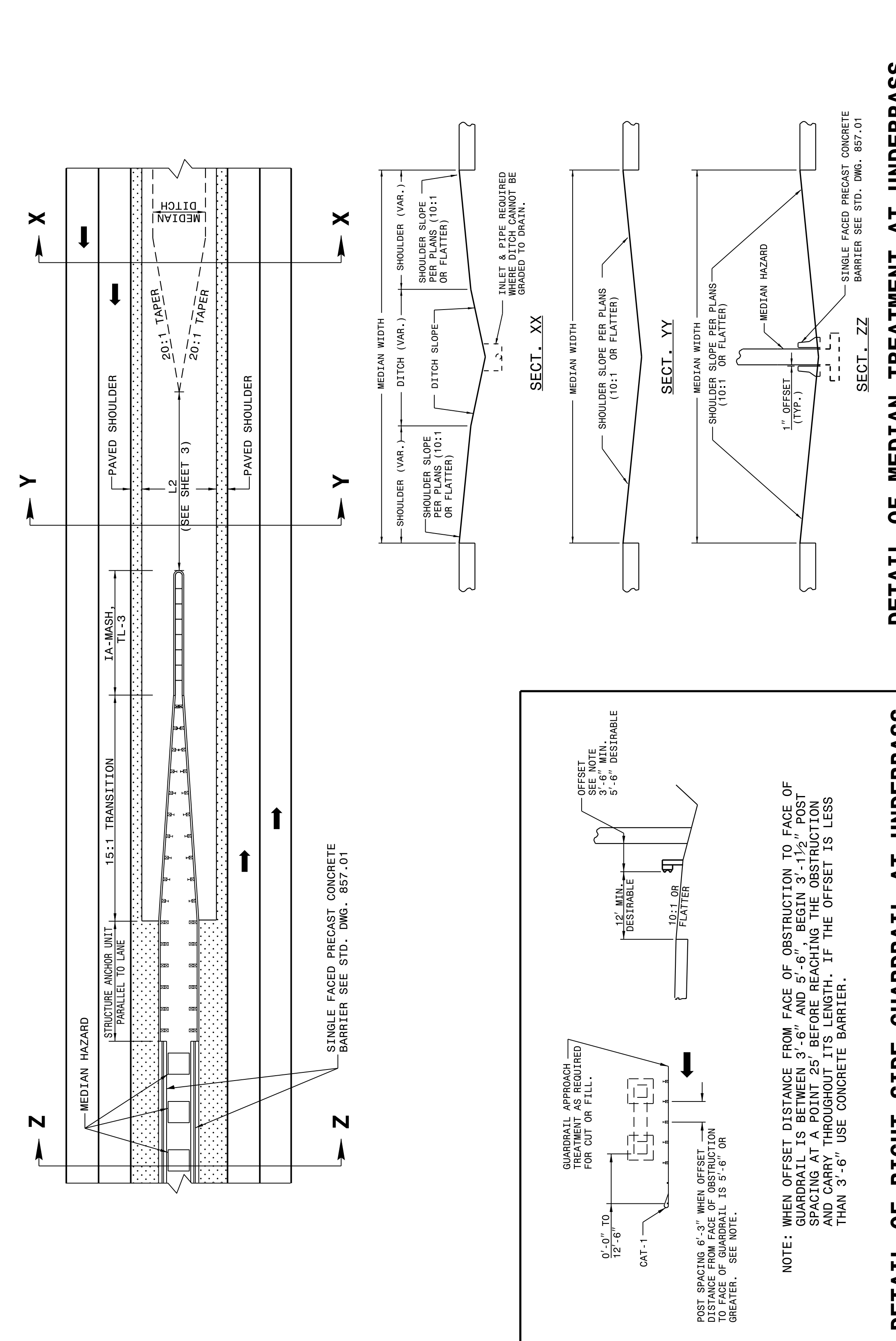
ORIGINAL BY: T.S. Spell DATE: 2-4-10
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC. :howerton\Barrier Cover for Median Hazard Protection

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 1 OF 11
862D01



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

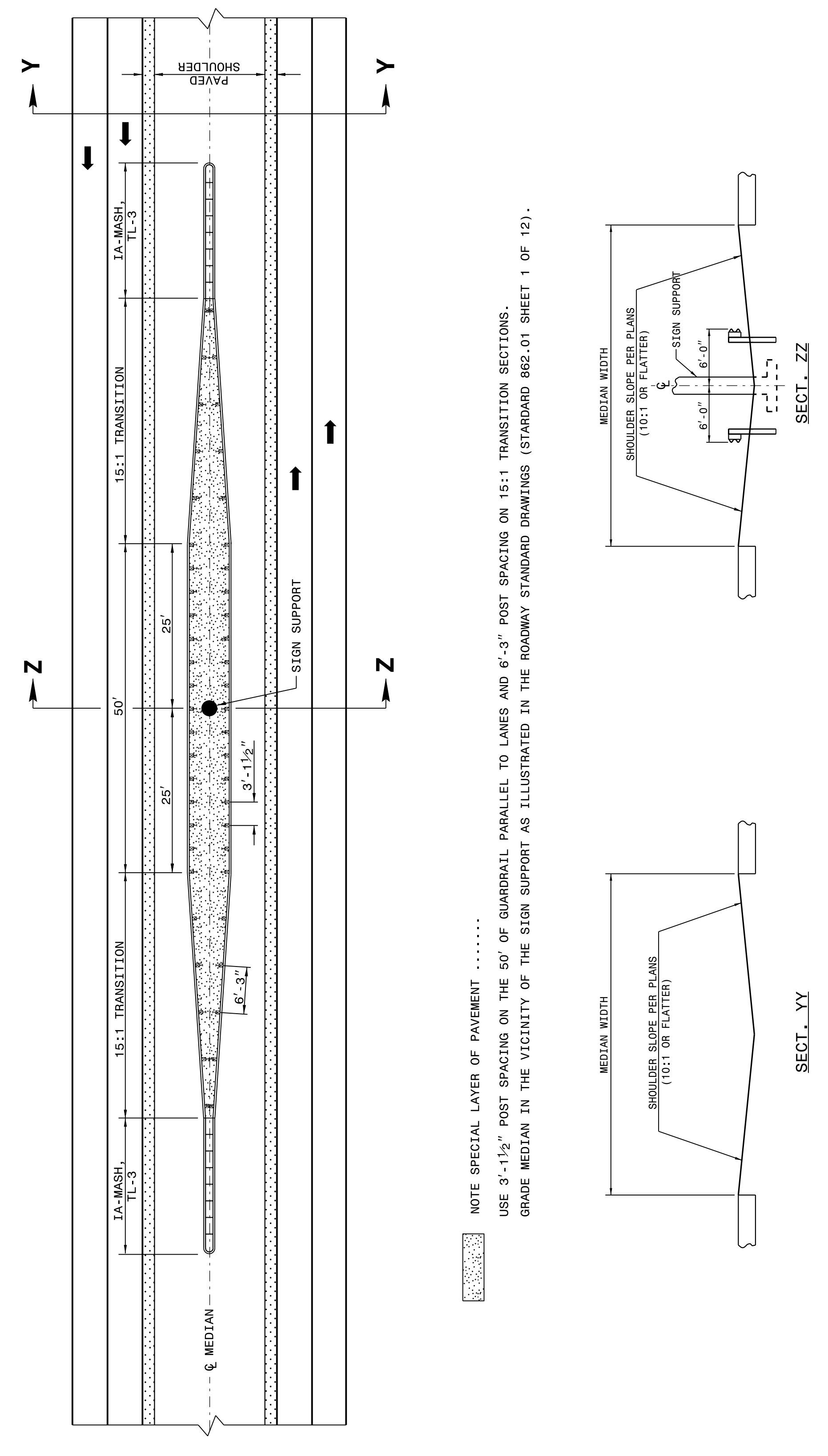
ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 1 OF 11
862D01

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 2 OF 11
862D01



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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 2 OF 11
862D01



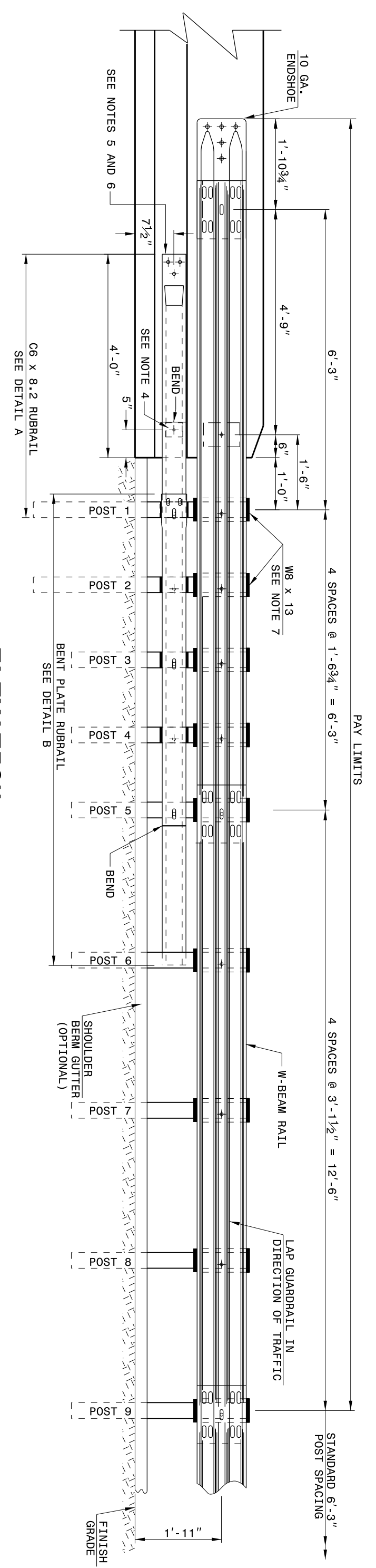
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

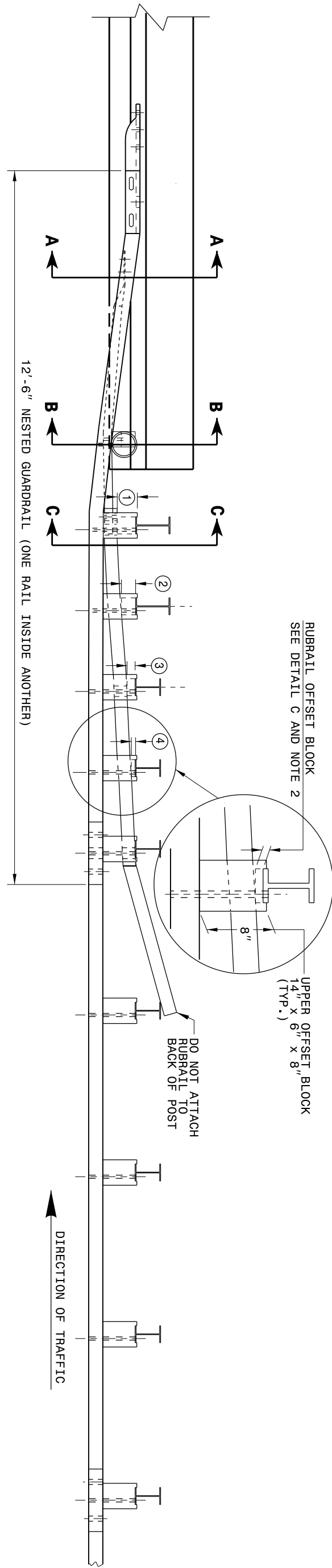
ORIGINAL BY: J. HOWERTON DATE: 08-23-18
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC.: DATE:

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



ELEVATION

- GENERAL NOTES:
- POSTS 1 THROUGH 5 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKS AND/OR RUBRAIL.
 - RUBRAIL BLOCKS LOCATED ON POSTS 1 THROUGH 4, SECURE RUBRAIL AND BLOCKS TO POSTS 1 AND 3. RUBRAIL IS SECURED TO POST 5 WITH A 5/8" x 4 1/2" BUTTWEAD BOLT. RUBRAIL IS FLARED TO BACK OF POST 6 AND NOT SECURED.
 - STEEL SPACER TUBE IS A SCHEDULE 40 GALVANIZED PIPE 6" INSIDE DIAMETER x 9' LONG. ATTACH TUBE TO GUARDRAIL ONLY WITH 3/8" DIA. BOLTS. ANCHOR TUBE TO RUBRAIL BLOCKS WITH 3/8" x 3" LAG BOLTS WITH FLAT WASHER.
 - SEE DETAIL A FOR SLOPED RUBRAIL BLOCKS AND ANCHOR TUBE TO RAIL ELEMENT ONLY. USE 3/8" x 3" LAG BOLT WITH FLAT WASHER.
 - SHOP FABRICATE THE C6 x 8.2 RUBRAIL END TO BE CONSISTENT WITH THE SLOPE OF THE F SHAPE AND ATTACH FLUSH WITH THE SLOPED TOE OF THE BARRIER OR BRIDGE RAIL.
 - ANCHORAGE:
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR RUBRAIL USING THREE 5/8" x 6" CHEMICALLY ANCHORED ANCHORS. SEE DETAIL C AND NOTE 2.
 - AT EXISTING BRIDGE RAIL AND NEW OR EXISTING BARRIERS, ANCHOR THE W-BEAM END SHOE USING A 4 BOLT HOLD DOWN PLATE (SEE STD. DWG. 862.004).
 - INSTALL THE W-BEAM END SHOE BEHIND THE NESTED W-BEAM ELEMENTS.
 - POSTS 1 AND 2 ARE W8 x 13, 7'-6" LONG. ALL OTHER POSTS IN THE ANCHOR UNIT ARE W8 x 8.5.



PLAN

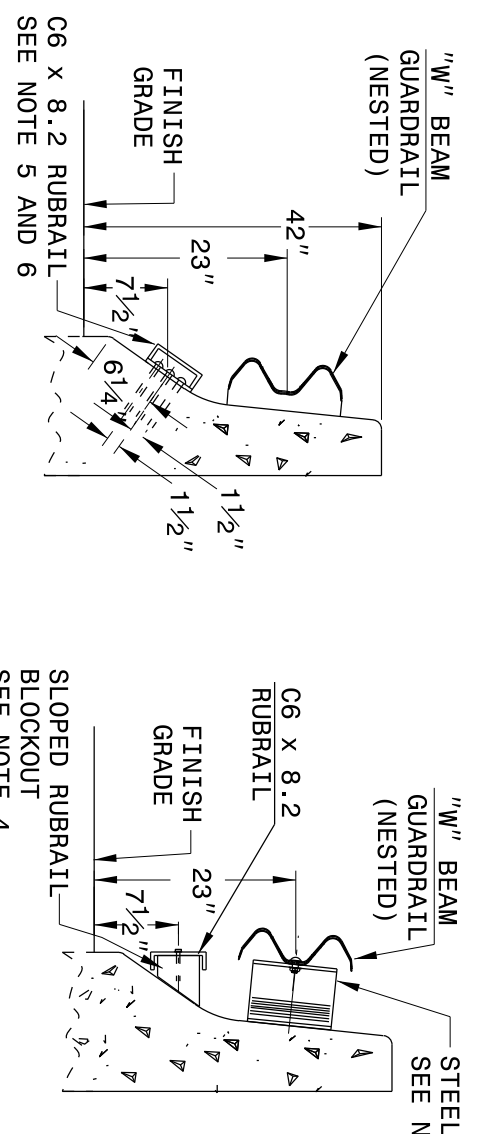
ENGLISH DETAIL DRAWING FOR
GUARDRAIL ANCHOR UNIT
FOR F-SHAPE BARRIER

SHEET 4 OF 7
862D03

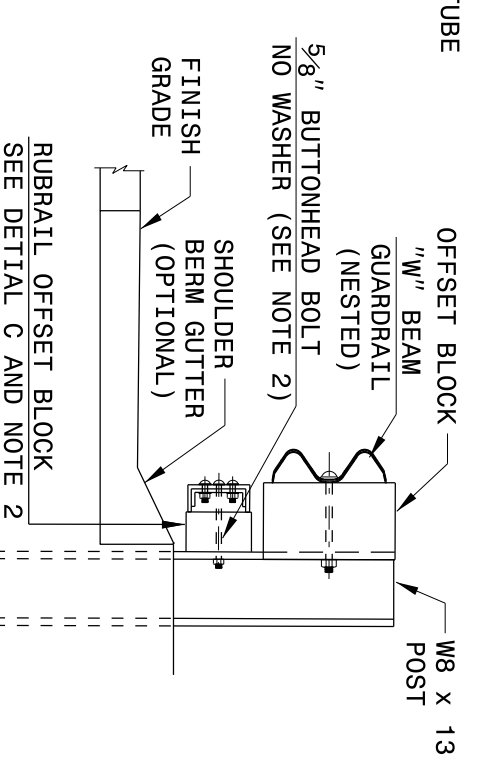
ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

SHEET 4 OF 7
862D03

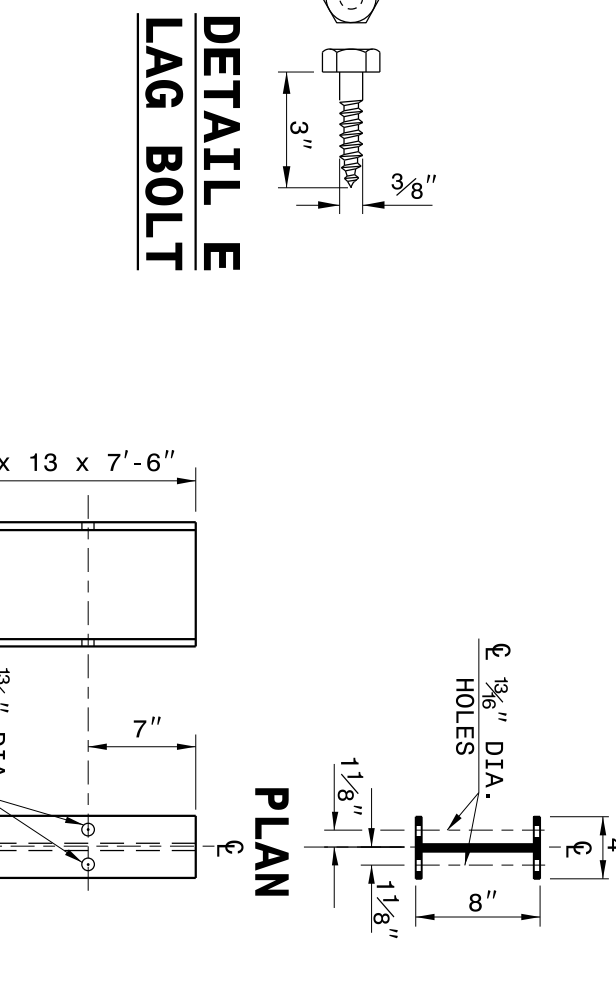
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.



SECTION A-A



SECTION B-B

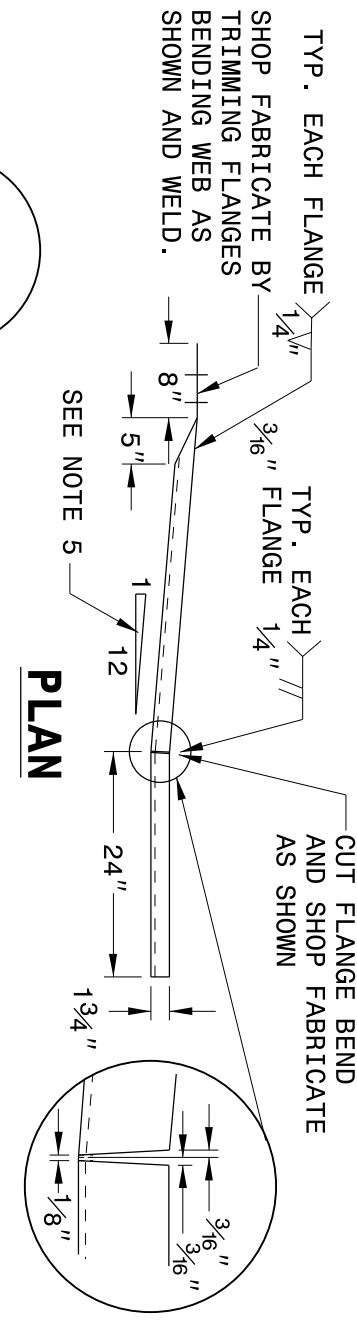


SECTION C-C

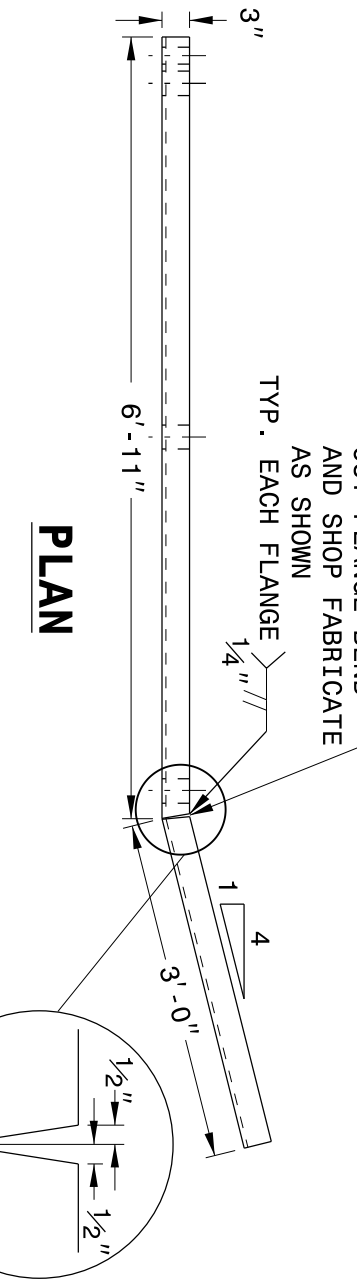
| RUBRAIL BLOCKS 7" HIGH x 4" WIDE | POST | THICKNESS | BOLT LENGTH |
|----------------------------------|------|-----------|-------------|
| 1 | 1 | 4 1/4" | 9" |
| 2 | 2 | 3 1/4" | 5" |
| 3 | 3 | 2" | 6" |
| 4 | 4 | 1" | 3" |

* BOLTS FOR POSTS 2 AND 4 ARE USED TO ATTACH BLOCK TO POST.
* RUBRAIL NOT ATTACHED TO BLOCK.

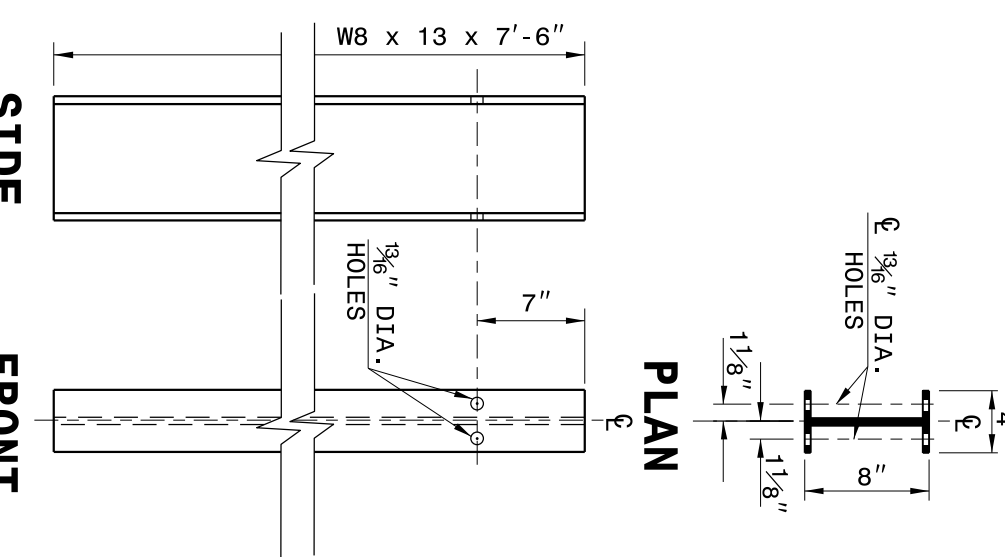
DETAIL C
RUBRAIL BLOCKOUT



DETAIL D
SLOPED RUBRAIL BLOCKOUT

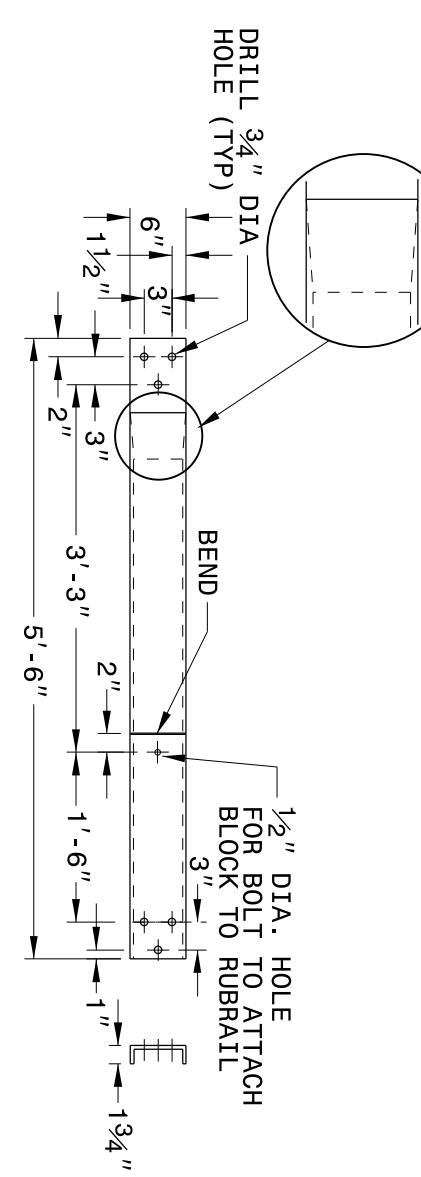


DETAIL F
STEEL POST
W8 X 13 X 7'-6"

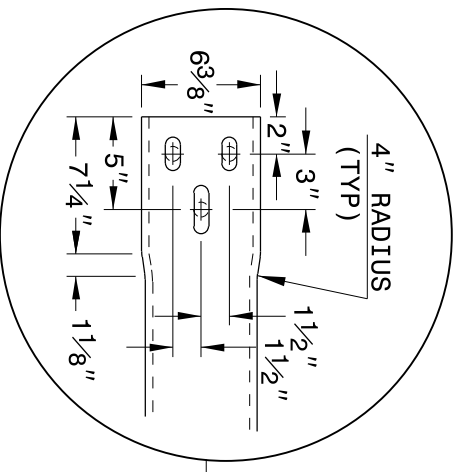


STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

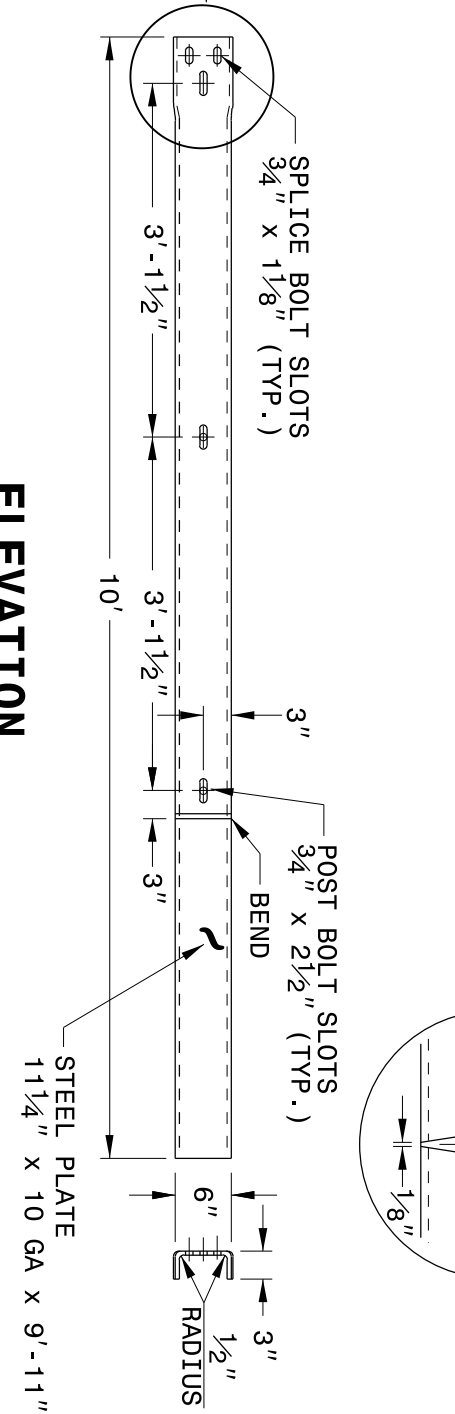
ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
FOR F-SHAPE BARRIER



ELEVATION
DETAIL A
C6 x 8.2 RUBRAIL



ELEVATION
DETAIL B
BENT PLATE RUBRAIL



ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

SHEET 5 OF 7
862D03

GUARDRAIL ANCHOR UNIT TYPE B-77

SHEET 5 OF 7
862D03



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

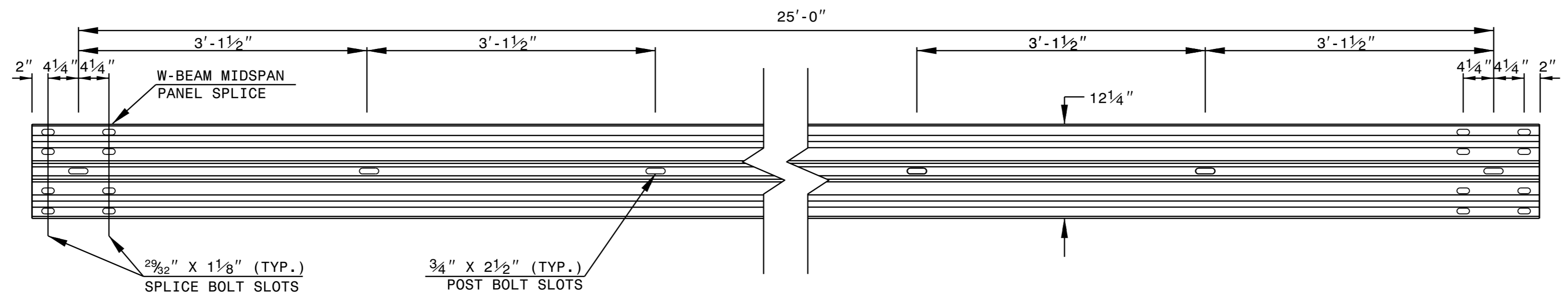
ORIGINAL BY: J. HOWERTON DATE: 06-22-12
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

\$\$\$\$\$USER\$\$\$\$\$
\$\$\$\$\$DATE\$\$\$\$\$
\$\$\$\$\$TIME\$\$\$\$\$

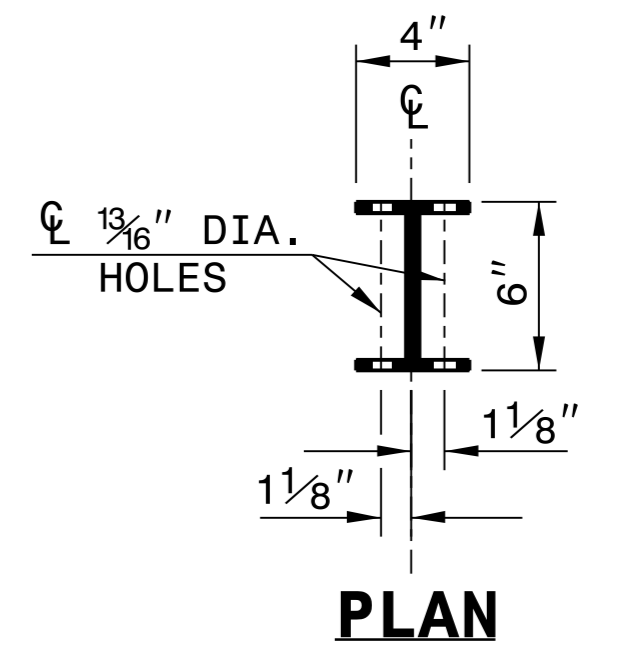
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

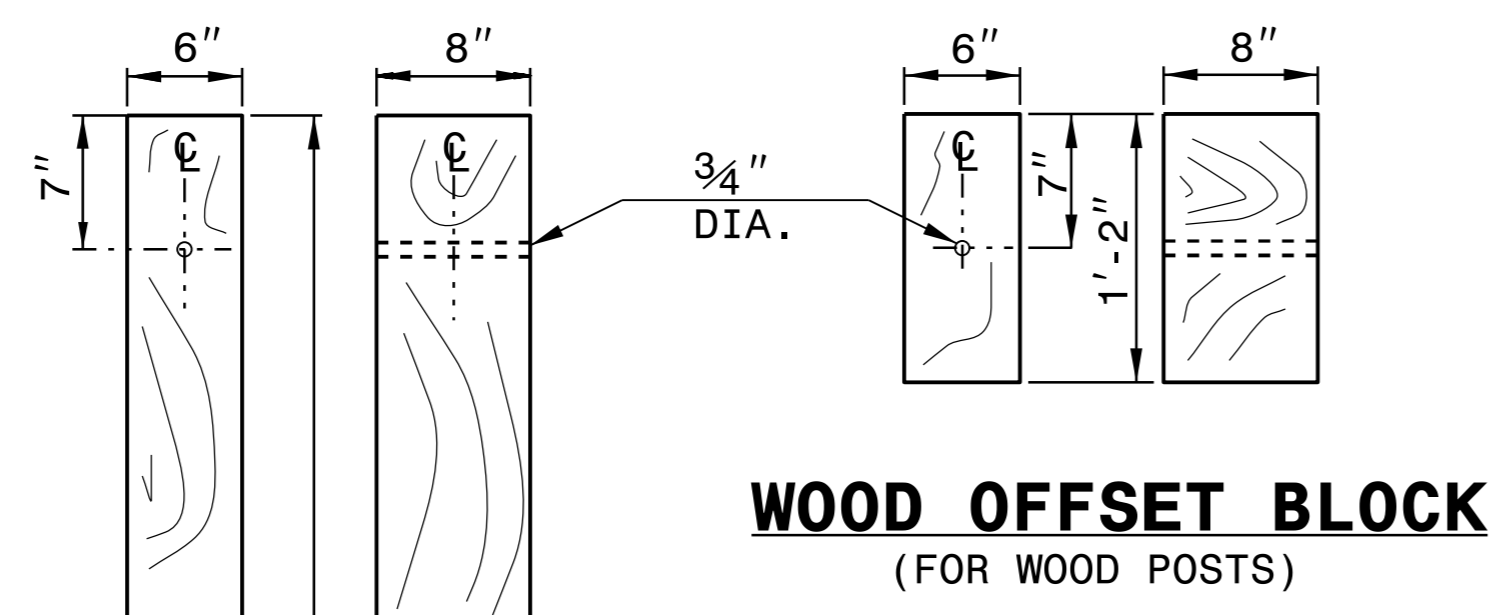
SHEET 6 OF 8
862D02



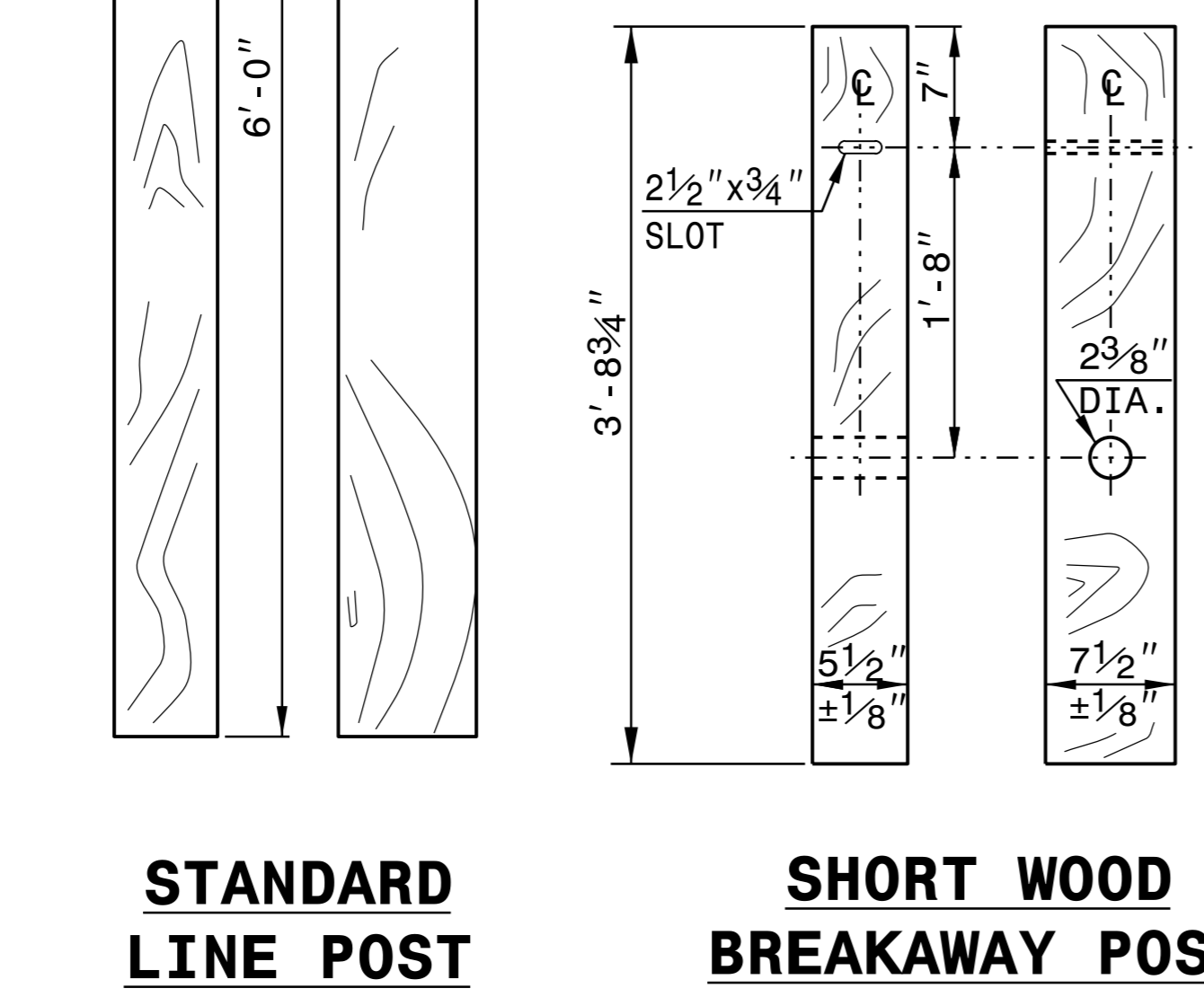
STANDARD W-BEAM GUARDRAIL



PLAN

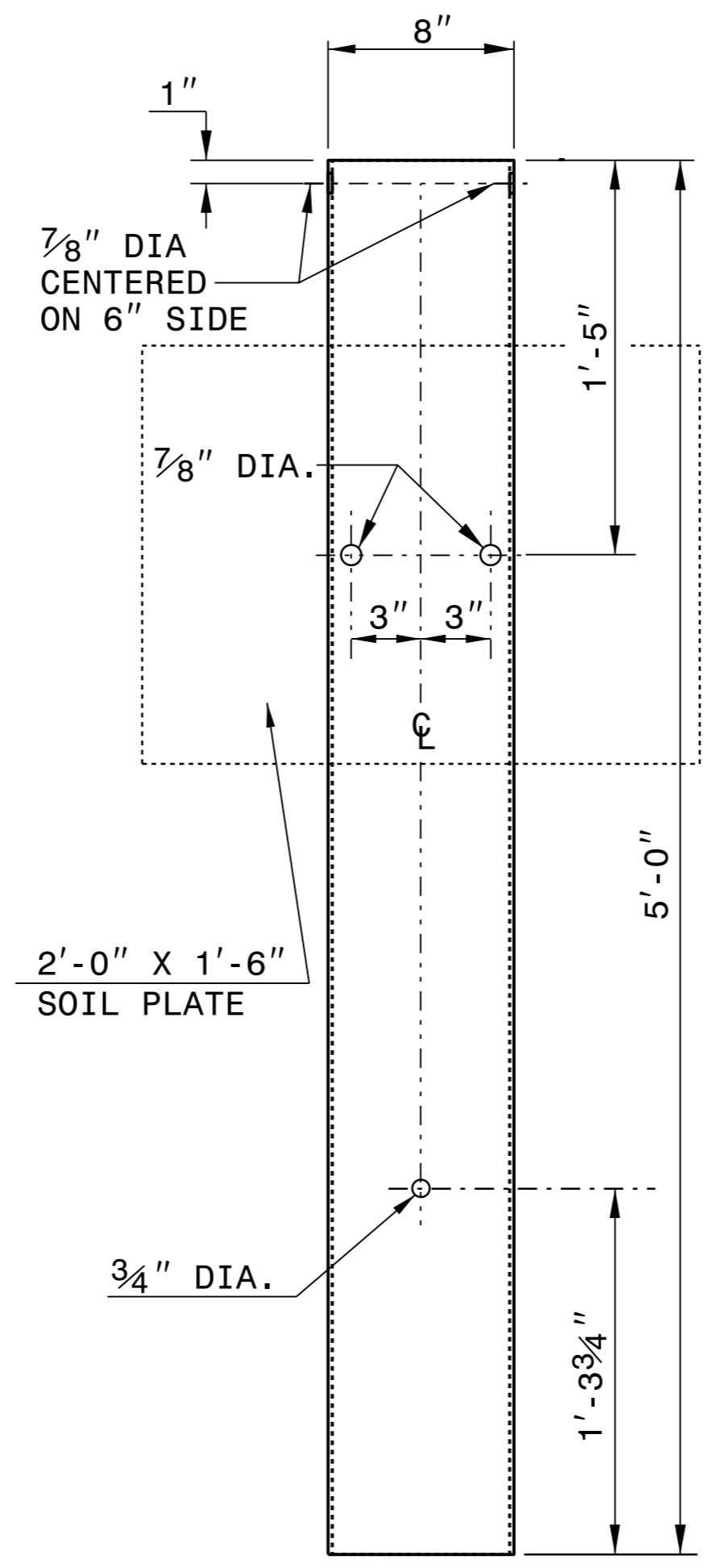


WOOD OFFSET BLOCK
(FOR WOOD POSTS)

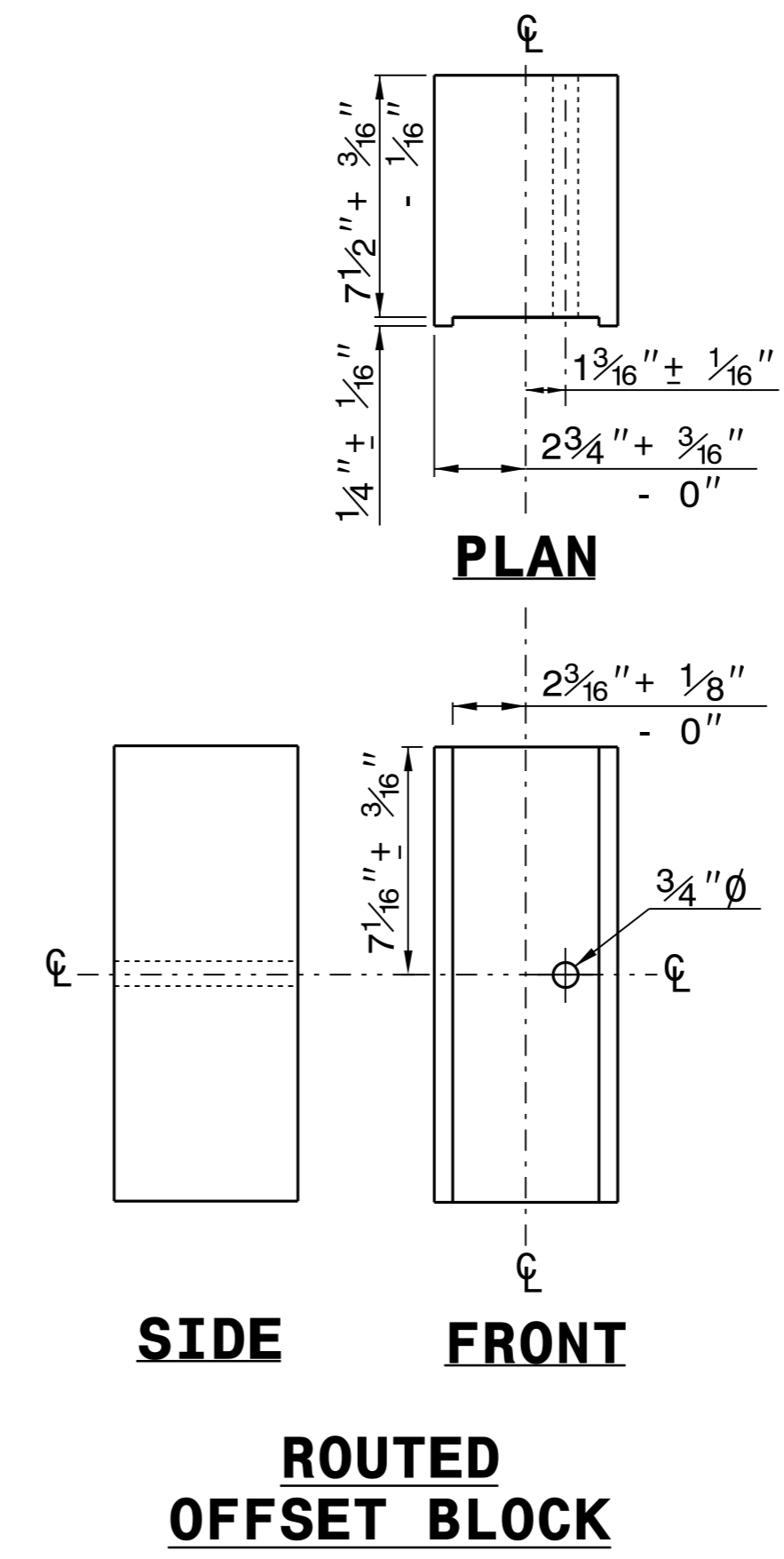


STANDARD LINE POST

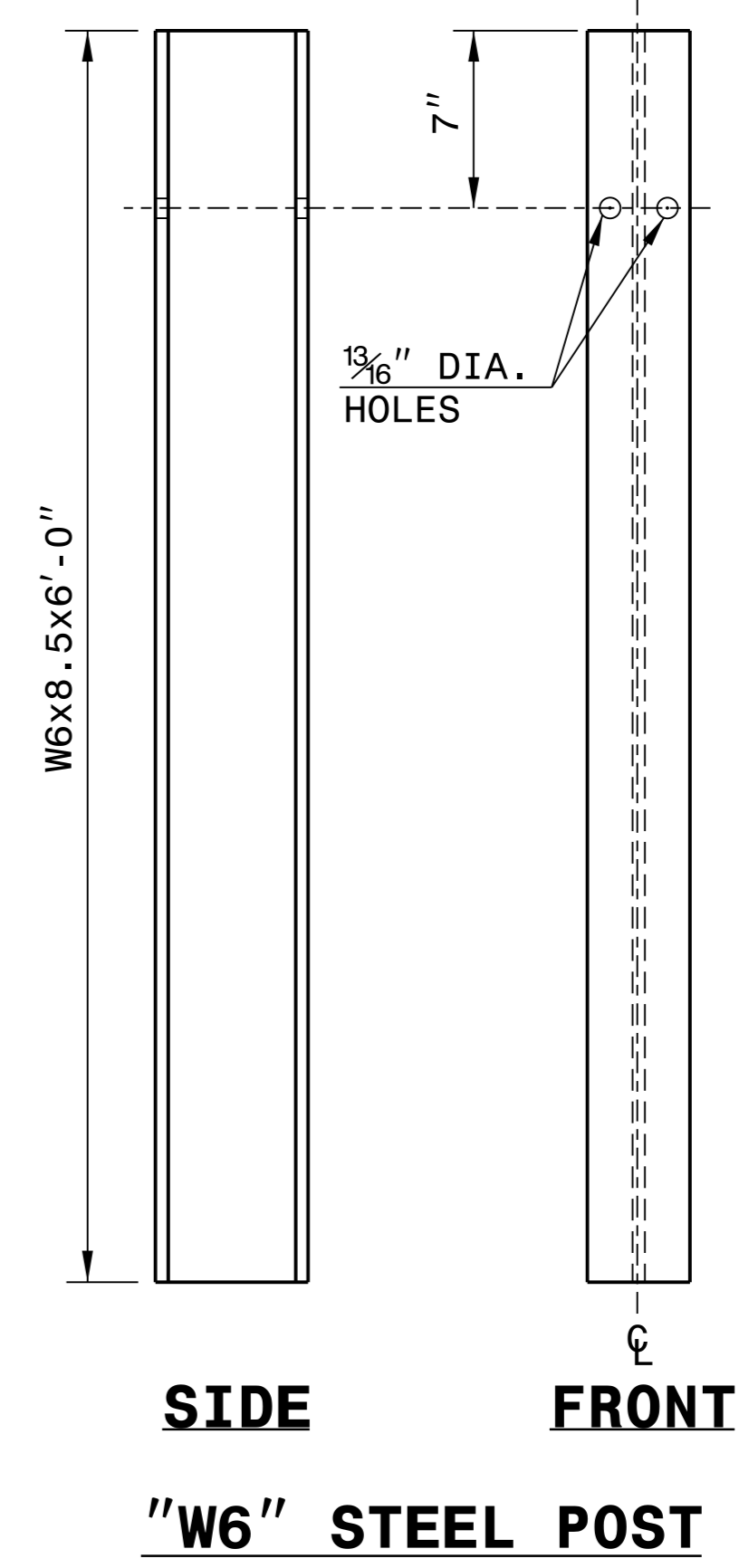
SHORT WOOD BREAKAWAY POST



STEEL TUBE
TS 6"x8"x0.1875"



ROUTED OFFSET BLOCK



"W6" STEEL POST

SYSTEM PARTS

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 6 OF 8
862D02



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

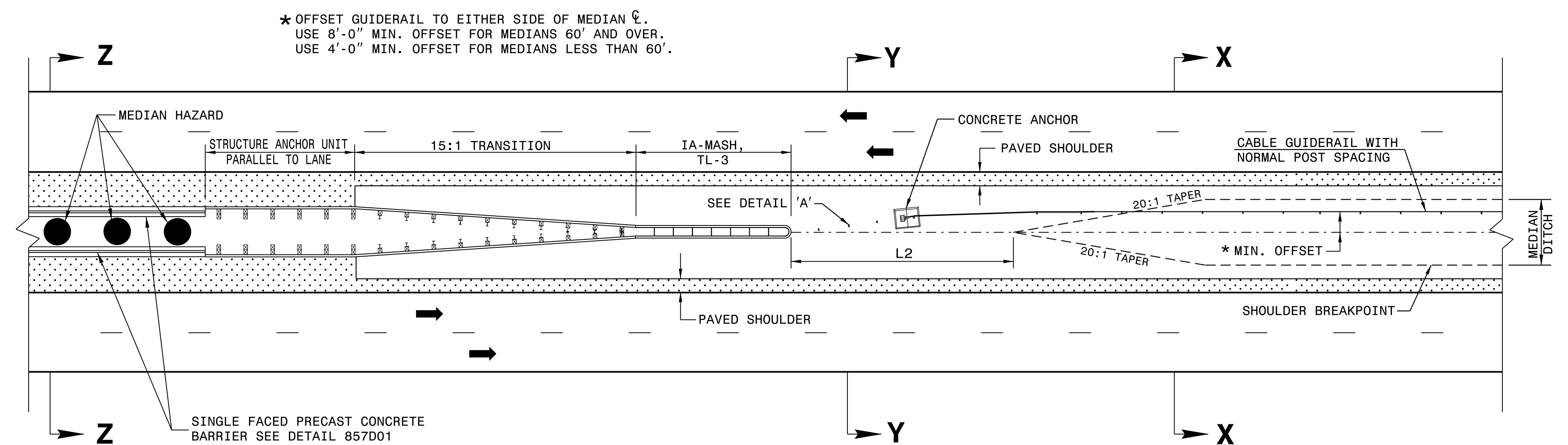
SEE TITLE BLOCK

| | |
|--------------------------|----------------|
| ORIGINAL BY: J. HOWERTON | DATE: 3-7-2018 |
| MODIFIED BY: | DATE: |
| CHECKED BY: | DATE: |
| FILE SPEC.: | |

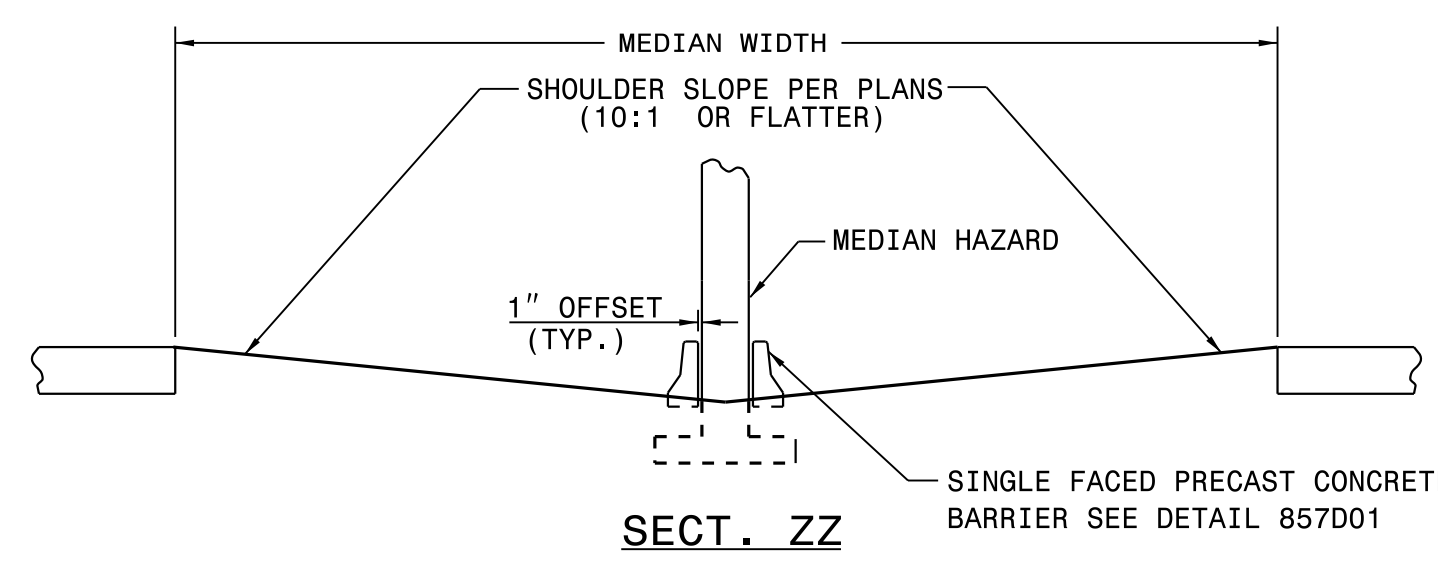
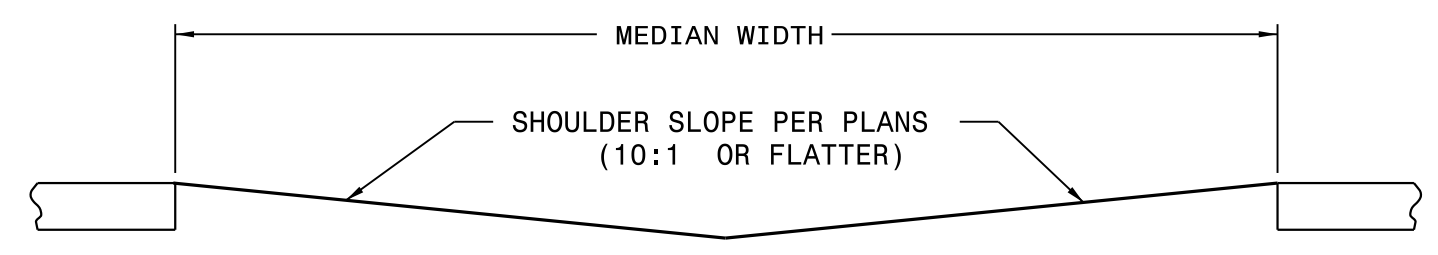
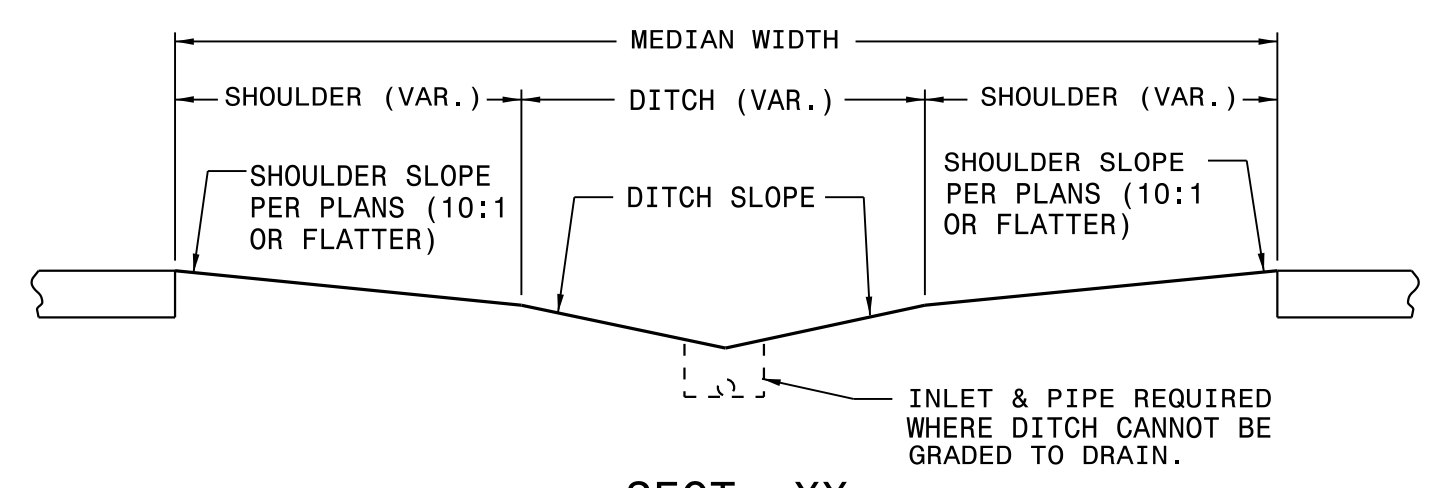
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CABLE GUIDERAIL
MEDIAN HAZARD GUIDERAIL LAYOUT

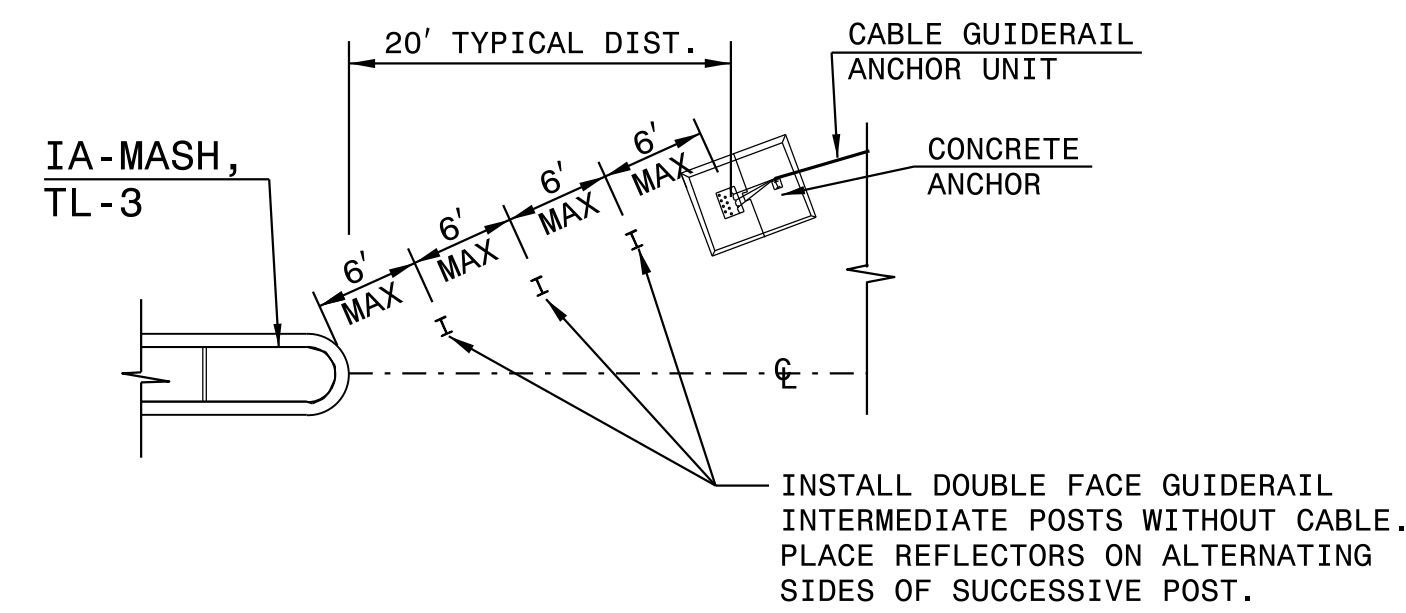
SHEET 1 OF 12
865D01



* OFFSET GUIDERAIL TO EITHER SIDE OF MEDIAN C.
USE 8'-0" MIN. OFFSET FOR MEDIANS 60' AND OVER.
USE 4'-0" MIN. OFFSET FOR MEDIANS LESS THAN 60'.



| LIMITS OF -L2- | |
|----------------|----------------|
| MEDIAN WIDTH | -L2- DIMENSION |
| 30' | 80.0' |
| 36' | 60.0' |
| 40' & ABOVE | 40.0' |



NOTE: POSTS WILL ONLY BE PLACED IN ONE OF THE TWO OPENINGS AT EACH MEDIAN HAZARD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

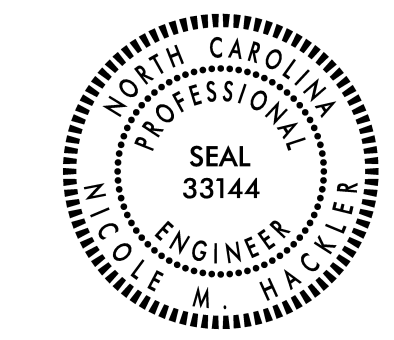
DETAIL 'A'

DETAIL OF TREATMENT AT MEDIAN HAZARDS

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

ROADWAY DETAIL DRAWING FOR
CABLE GUIDERAIL
MEDIAN HAZARD GUIDERAIL LAYOUT

SHEET 1 OF 12
865D01



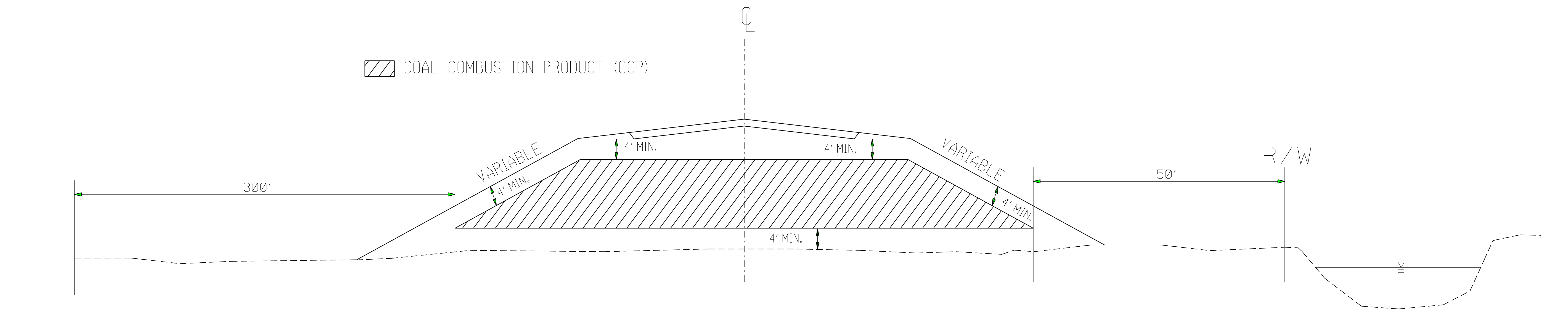
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

| | |
|--------------------------|----------------|
| ORIGINAL BY: J. HOWERTON | DATE: 08-23-18 |
| MODIFIED BY: _____ | DATE: _____ |
| CHECKED BY: _____ | DATE: _____ |
| FILE SPEC.: _____ | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

COAL COMBUSTION PRODUCT PLACEMENT



PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

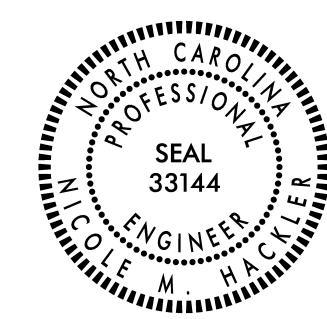
PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

PERENNIAL STREAM, OTHER SURFACE WATER BODY OR *WETLAND

*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)



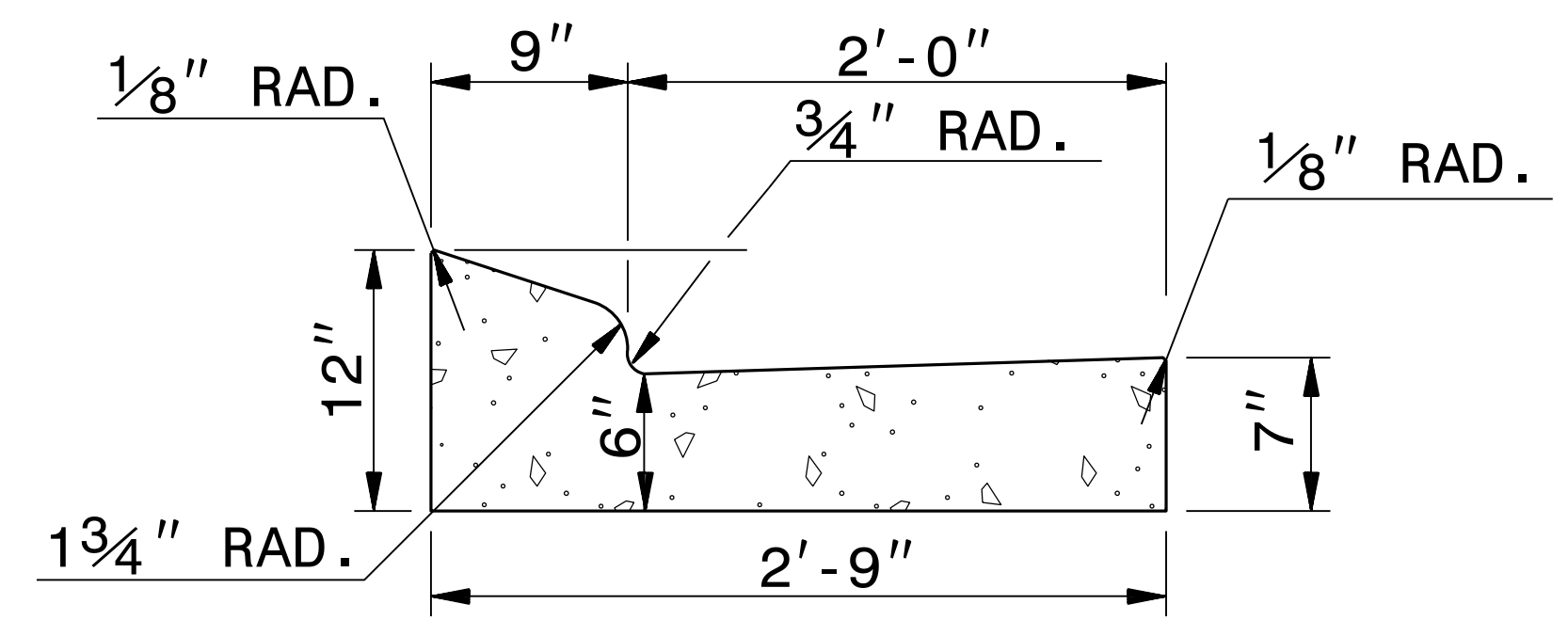
| | |
|--|---------------|
| CONTRACT STANDARDS AND DEVELOPMENT UNIT | |
| Office 919-707-6950 FAX 919-250-4119 | |
| COAL COMBUSTION PRODUCT PLACEMENT DETAIL | |
| ORIGINAL BY: J.S.H. | DATE: 3/16/15 |
| MODIFIED BY: | DATE: |
| CHECKED BY: | DATE: |
| FILE SPEC.: joel/coal combustion material detail.dgn | |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

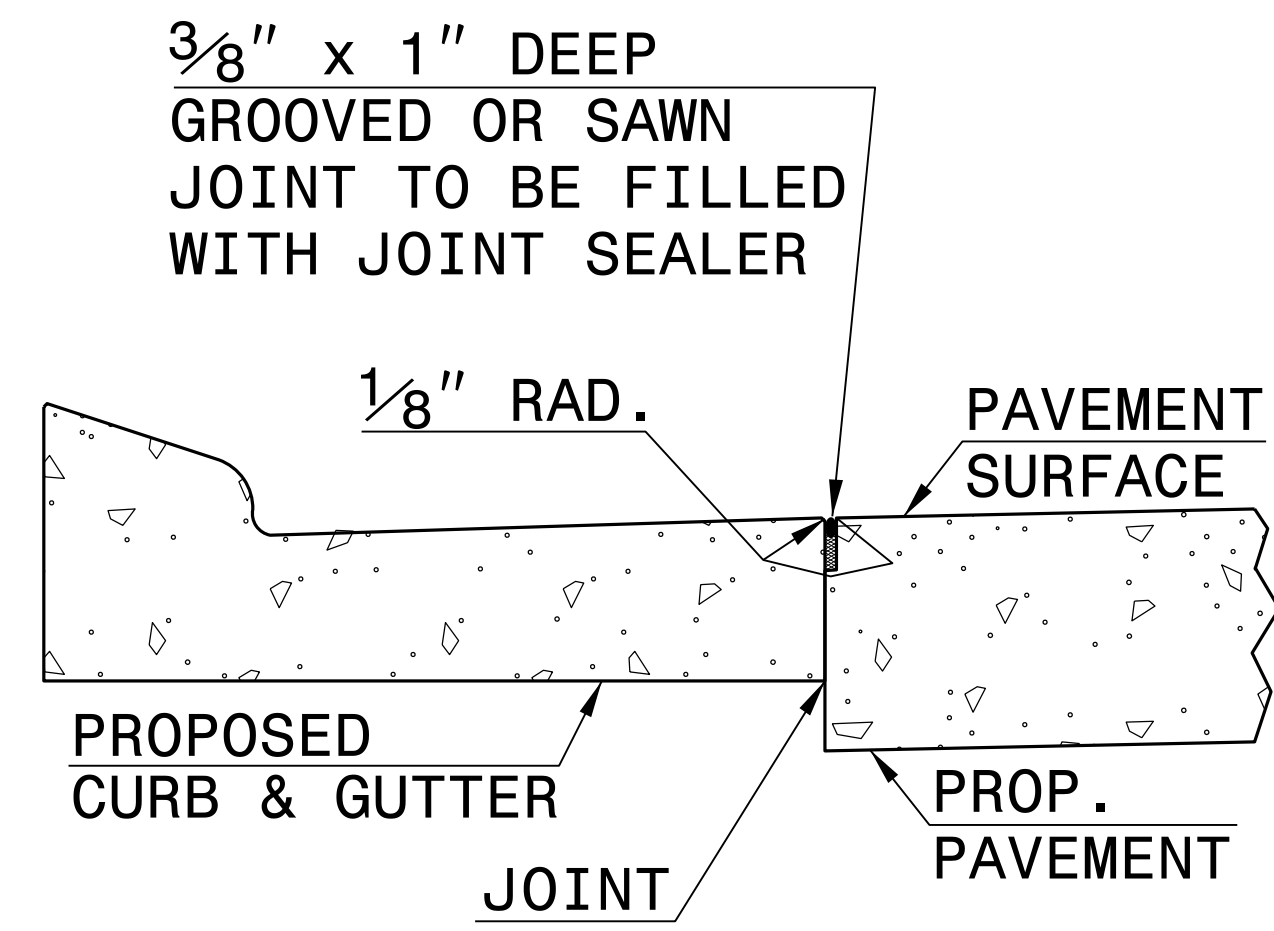
ENGLISH DETAIL DRAWING FOR
2'-9" CONCRETE CURB & GUTTER

- GENERAL NOTES:
- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
 - JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
 - CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. MAKE NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
 - FILL ALL CONSTRUCTION JOINTS WITH JOINT FILLER AND SEALER.
 - SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.
 - SEE RDWY. STD. DWG. NO. 846.01, SHEET 2 OF 3 FOR PLACEMENT IN SUPERELEVATIONS. (USE 2'-6" CURB AND GUTTER RATES)

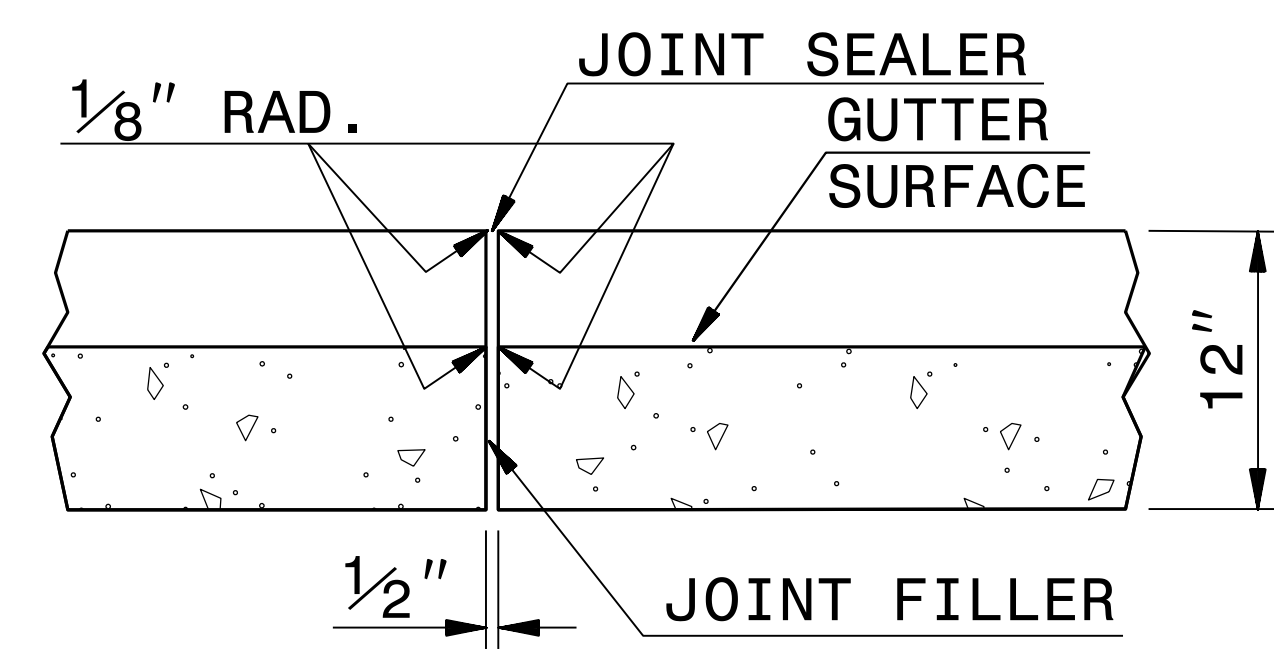


2'-9" CURB AND GUTTER

SECTION VIEW OF CURB AND GUTTER



LONGITUDINAL JOINT



TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

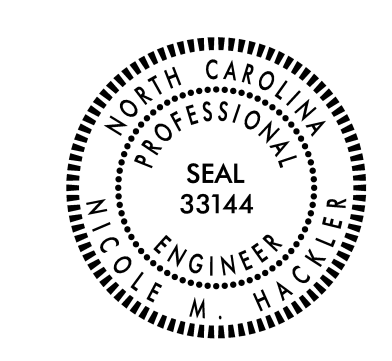
SECTION VIEW OF JOINTS

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

ENGLISH DETAIL DRAWING FOR
2'-9" CONCRETE CURB & GUTTER

SHEET 1 OF 1
846D01

SHEET 1 OF 1
846D01

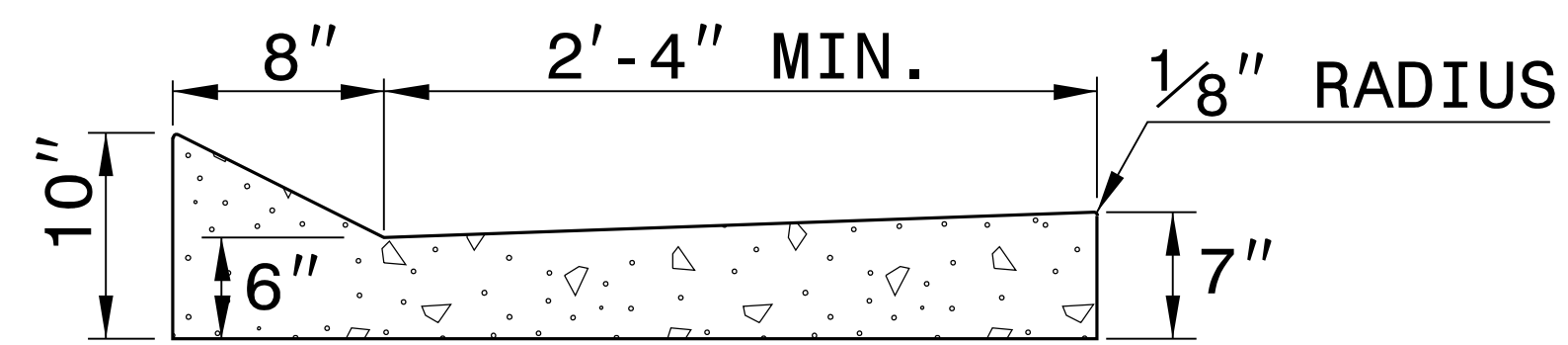


DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

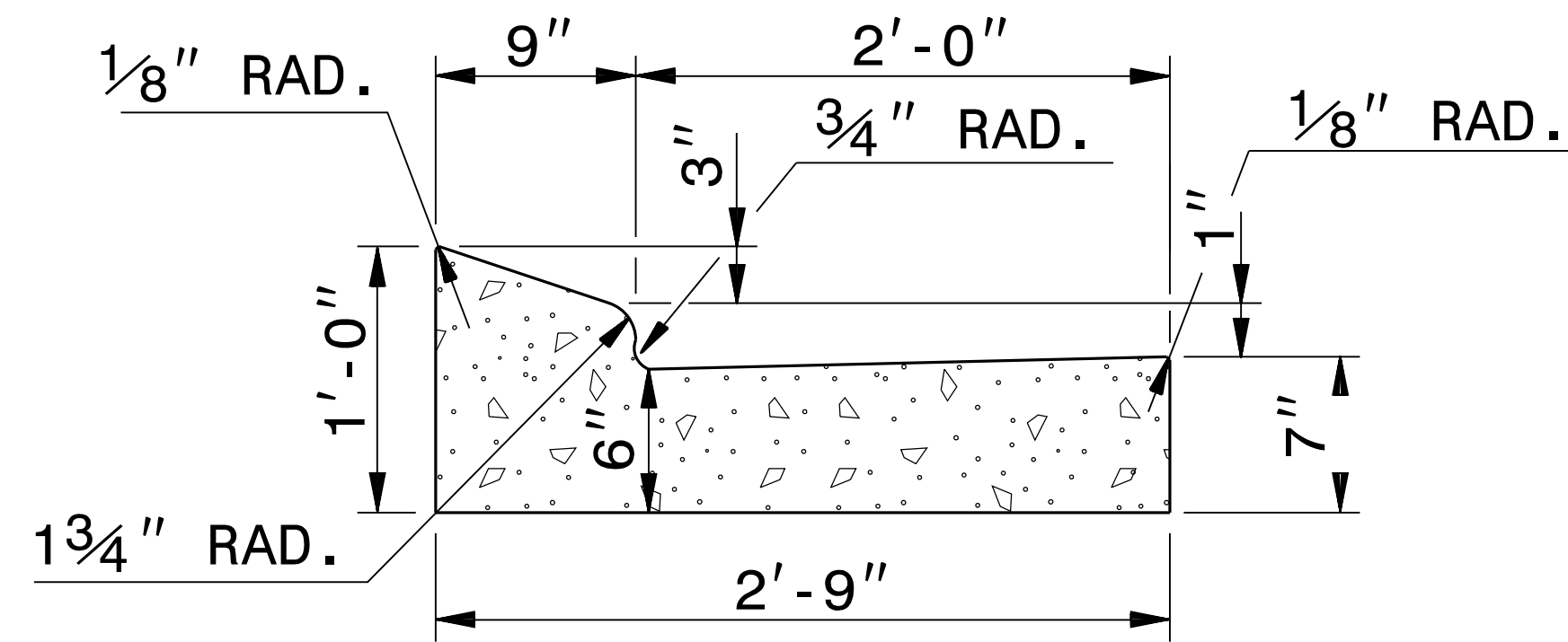
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: STD. 846.01 DATE: _____
 MODIFIED BY: E.E. WARD DATE: 8-15-00
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: /usr/details/stand/c&g2'-9".dgn

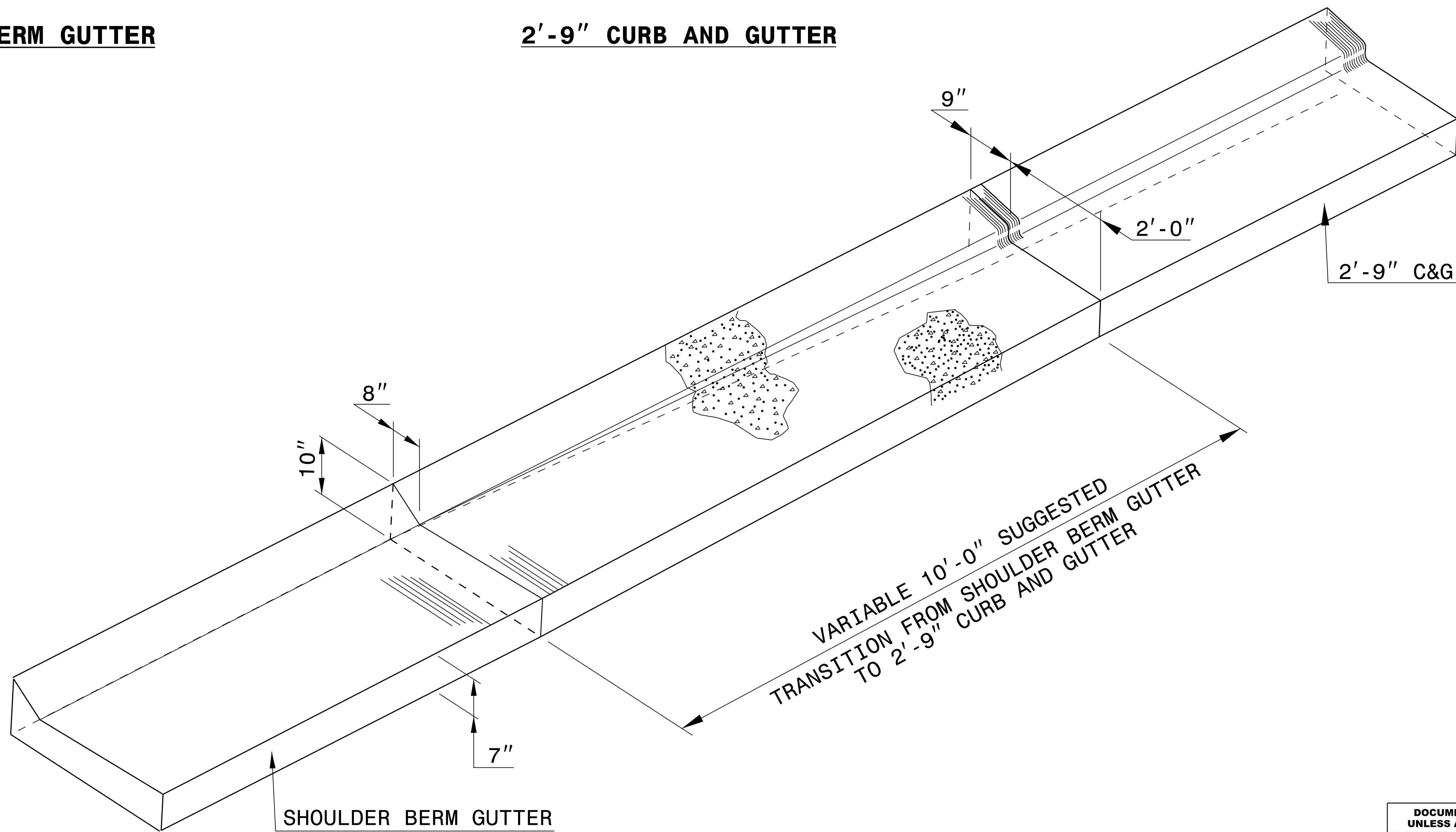


SHOULDER BERM GUTTER



2'-9" CURB AND GUTTER

*NOTE: SEE STD. DWG. 846.01 FOR GENERAL NOTES



ISOMETRIC VIEW OF TRANSITION



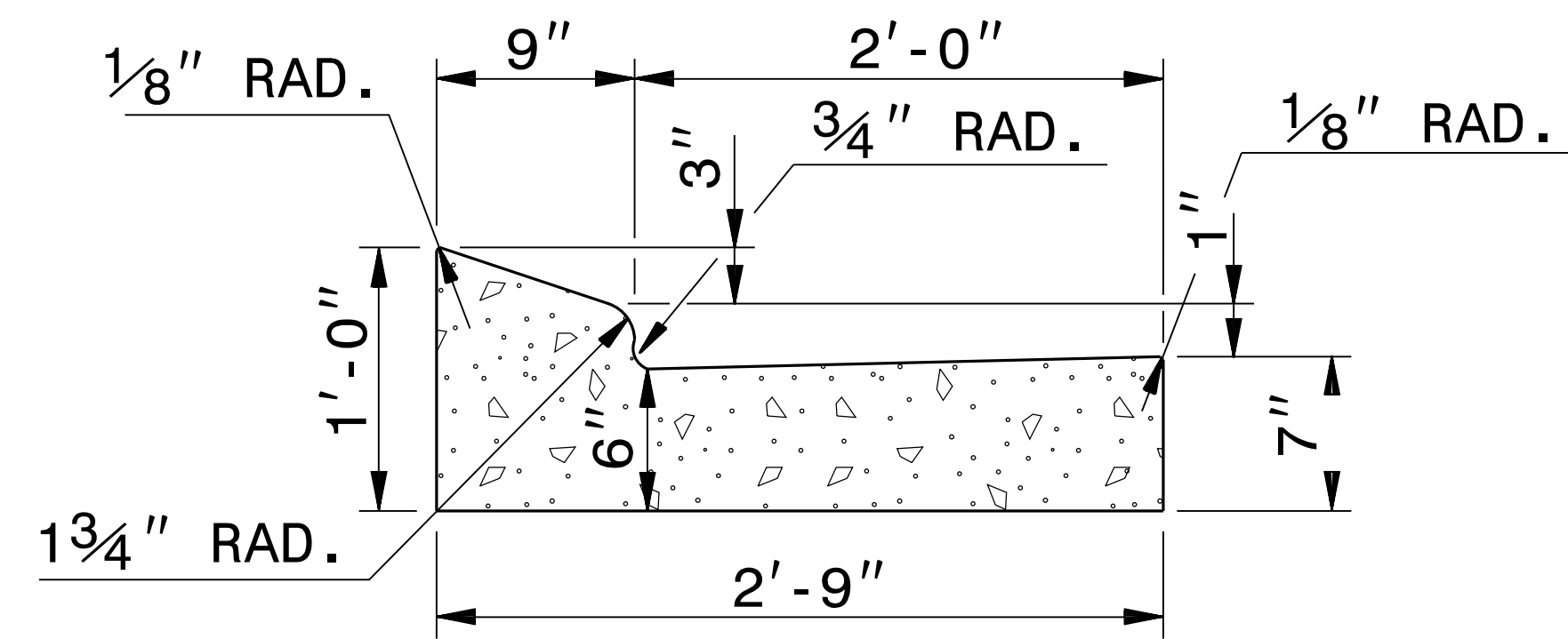
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

**DETAIL OF SHOULDER BERM GUTTER
TO 2'-9" CURB & GUTTER
TRANSITION SECTION**

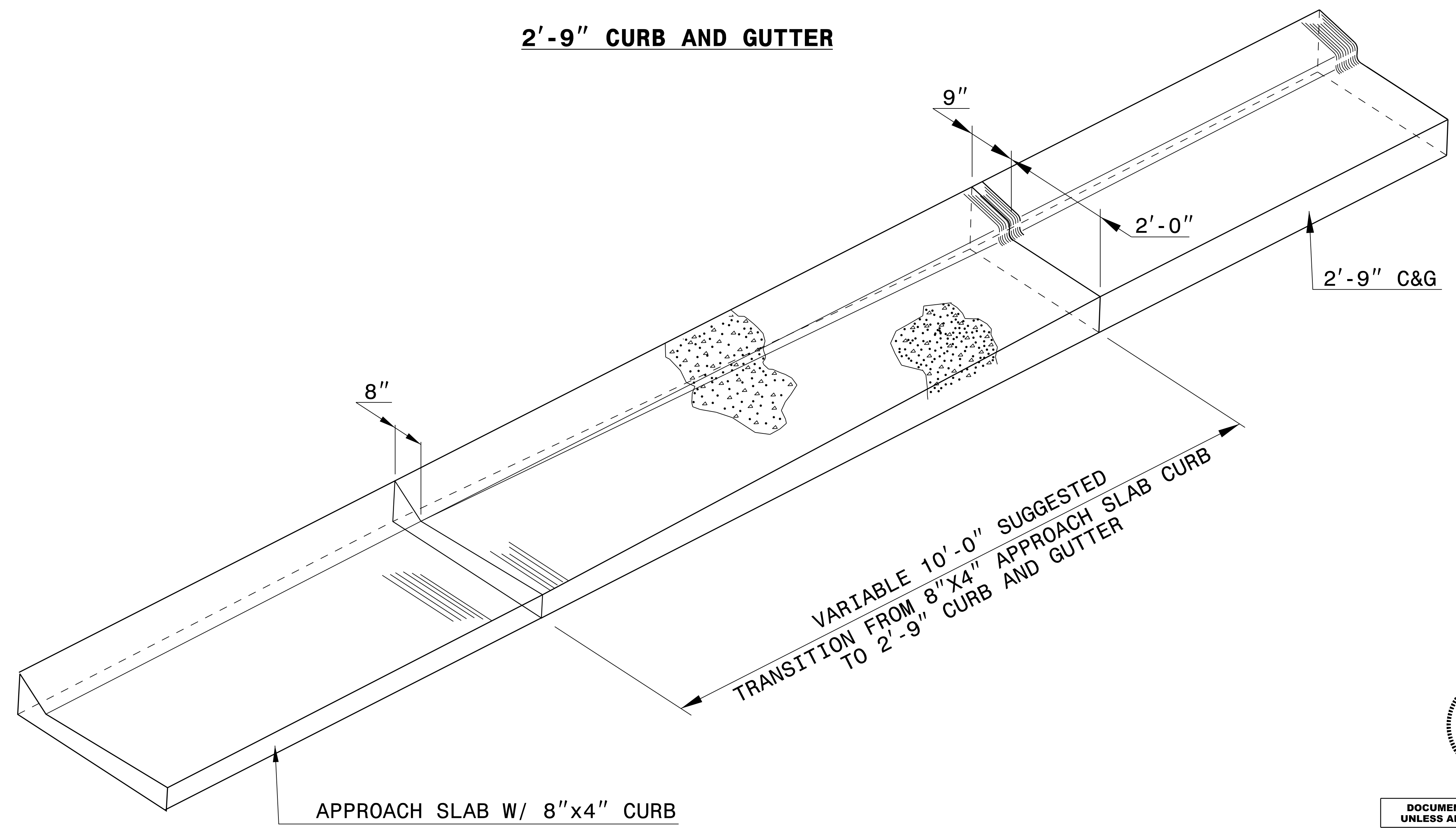
| | |
|--------------------|-------------|
| ORIGINAL BY: _____ | DATE: _____ |
| MODIFIED BY: _____ | DATE: _____ |
| CHECKED BY: _____ | DATE: _____ |
| FILE SPEC.: _____ | |

09-JUN-2022 16:46 C:\Users\jbond\OneDrive\Desktop\c&g transition sections.dgn \$\$\$USERNAME\$\$\$



*NOTE: SEE STD. DWG. 846.01
FOR GENERAL NOTES

2'-9" CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITION



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

**DETAIL OF 2'-9" CURB & GUTTER
TO 8"x4" APPROACH SLAB CURB
TRANSITION SECTION**

| | |
|--------------------|-------------|
| ORIGINAL BY: _____ | DATE: _____ |
| MODIFIED BY: _____ | DATE: _____ |
| CHECKED BY: _____ | DATE: _____ |
| FILE SPEC.: _____ | |

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

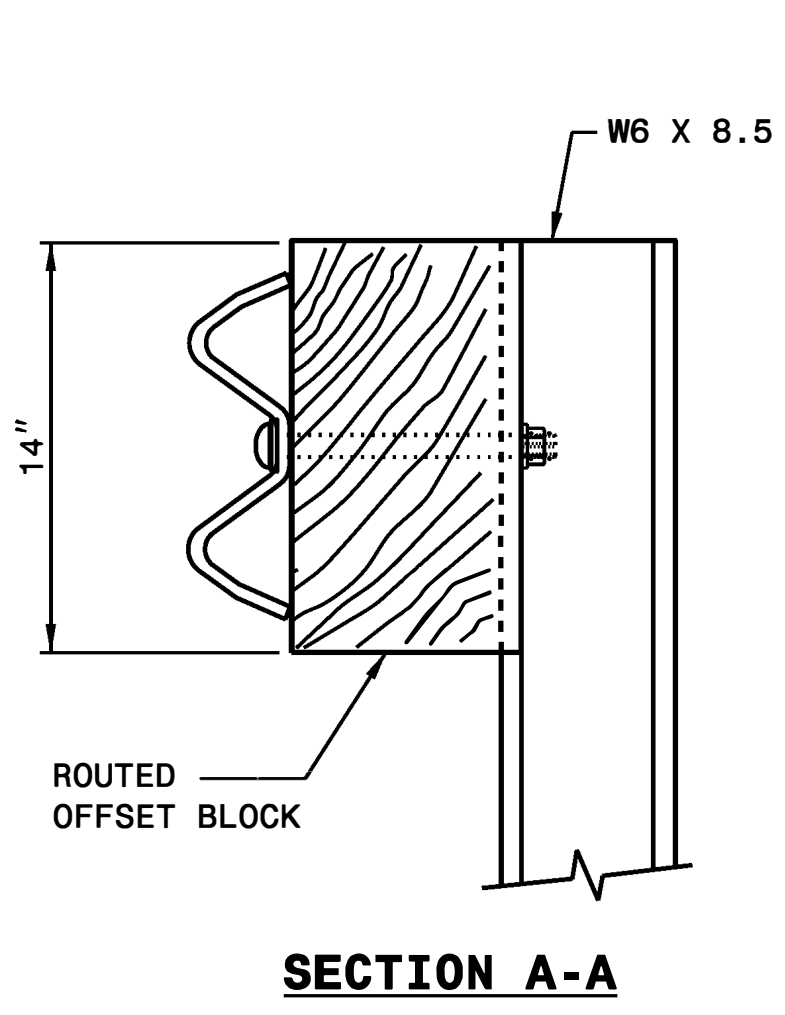
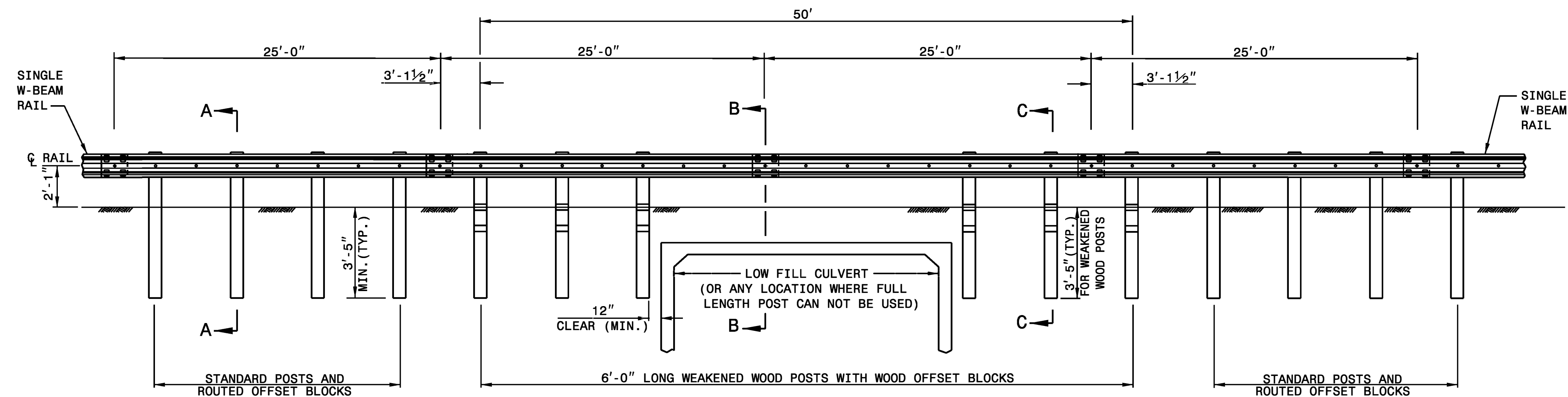
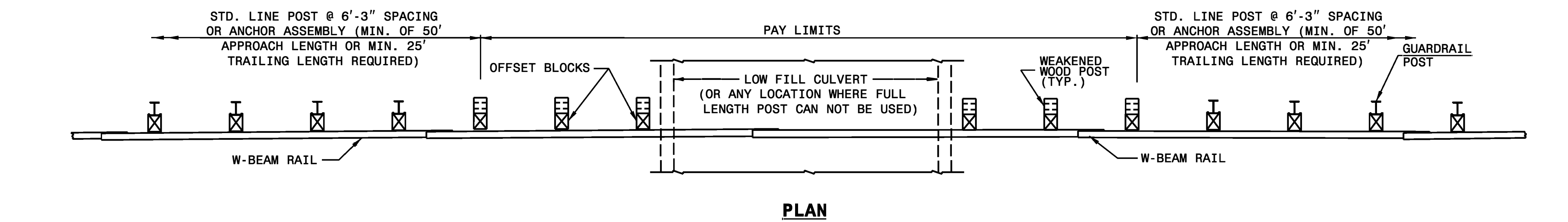
SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

SHEET - OF -
862D01

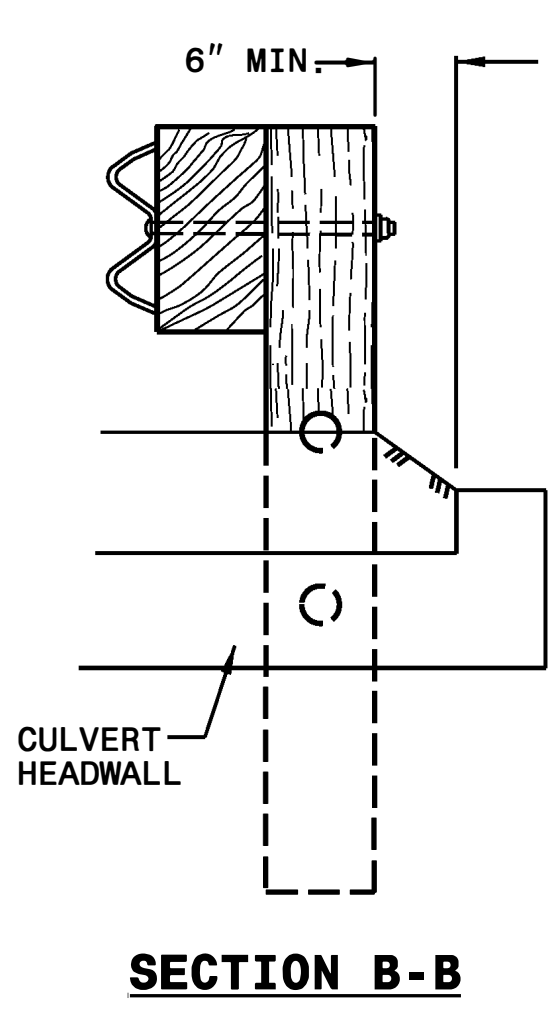
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

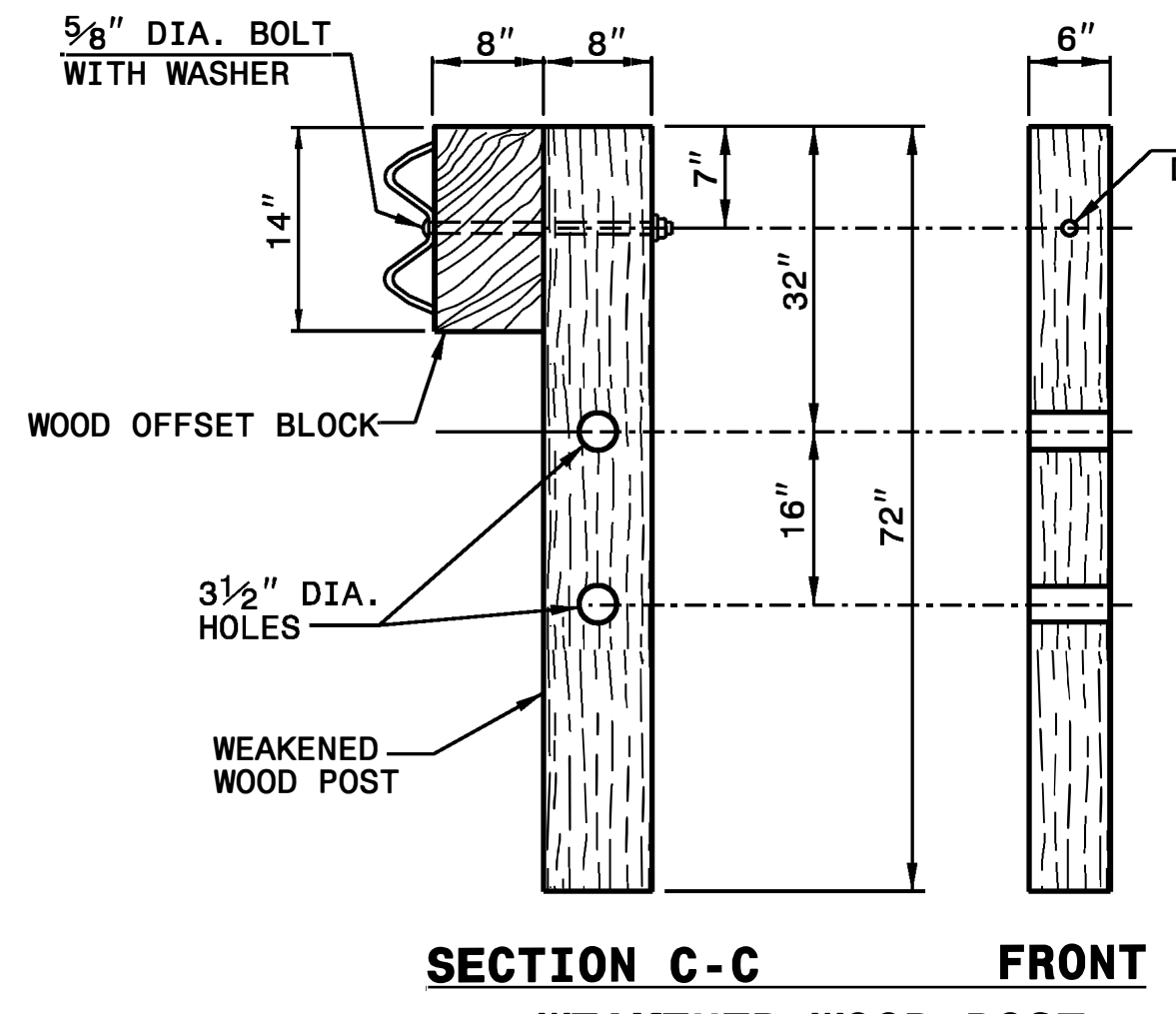
SHEET - OF -
862D01



SECTION A-A

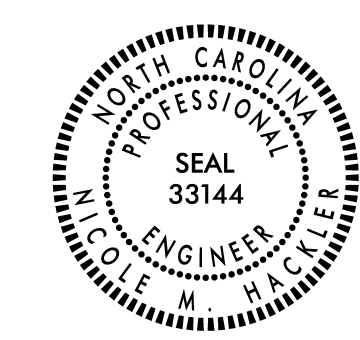


SECTION B-B



SECTION C-C FRONT
WEAKENED WOOD POST

- GENERAL NOTES:
 1. LAP RAIL IN THE DIRECTION OF TRAFFIC FLOW.
 2. SEE ROADWAY PLANS FOR LOCATIONS AND CONTINUATION OF RAIL OR END SECTIONS.
 3. MINIMUM DISTANCE OF 5 FEET BEHIND THE GUARDRAIL SHOULD BE CLEAR OF ANY FIXED-OBJECT HAZARDS THAT COULD SNAG AN IMPACTING VEHICLE.



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

25'-0" CLEAR SPAN GUARDRAIL PLACEMENT

ORIGINAL BY: _____ DATE: _____
 MODIFIED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: _____

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

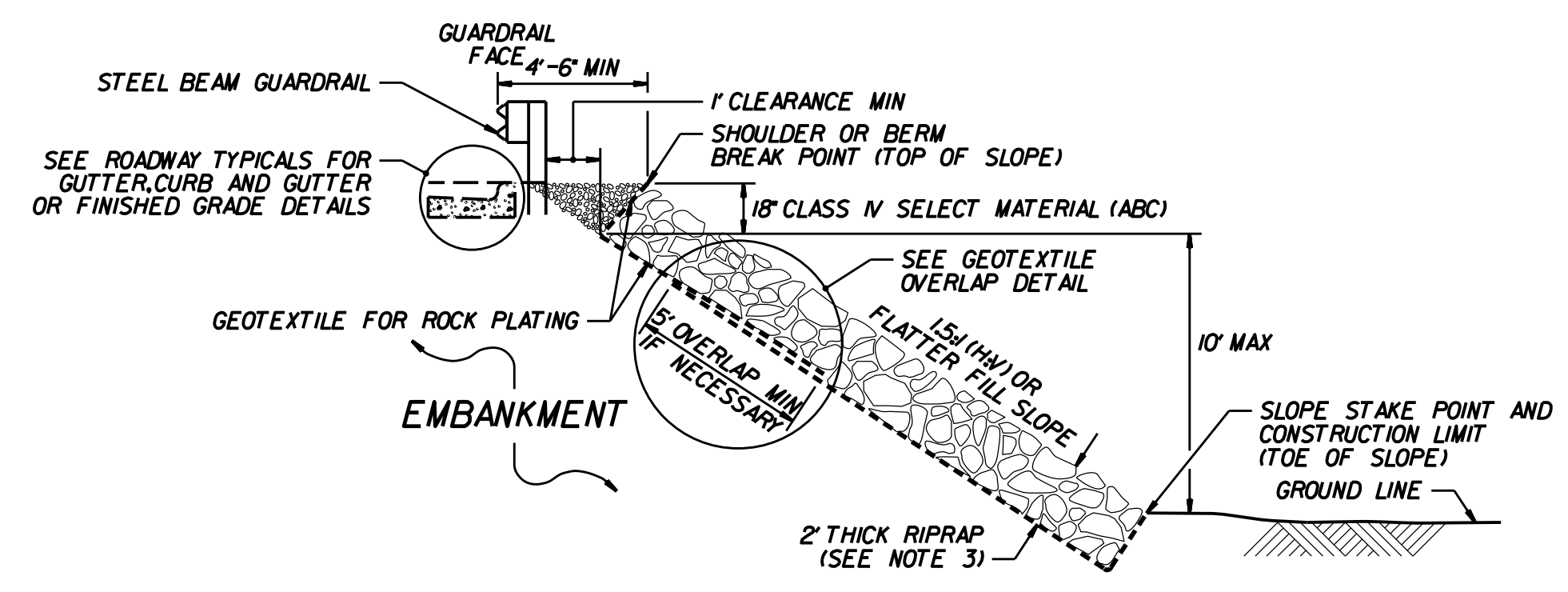
ROADWAY DETAIL DRAWING FOR
ROCK PLATING

SHEET 1 OF 1
275D01

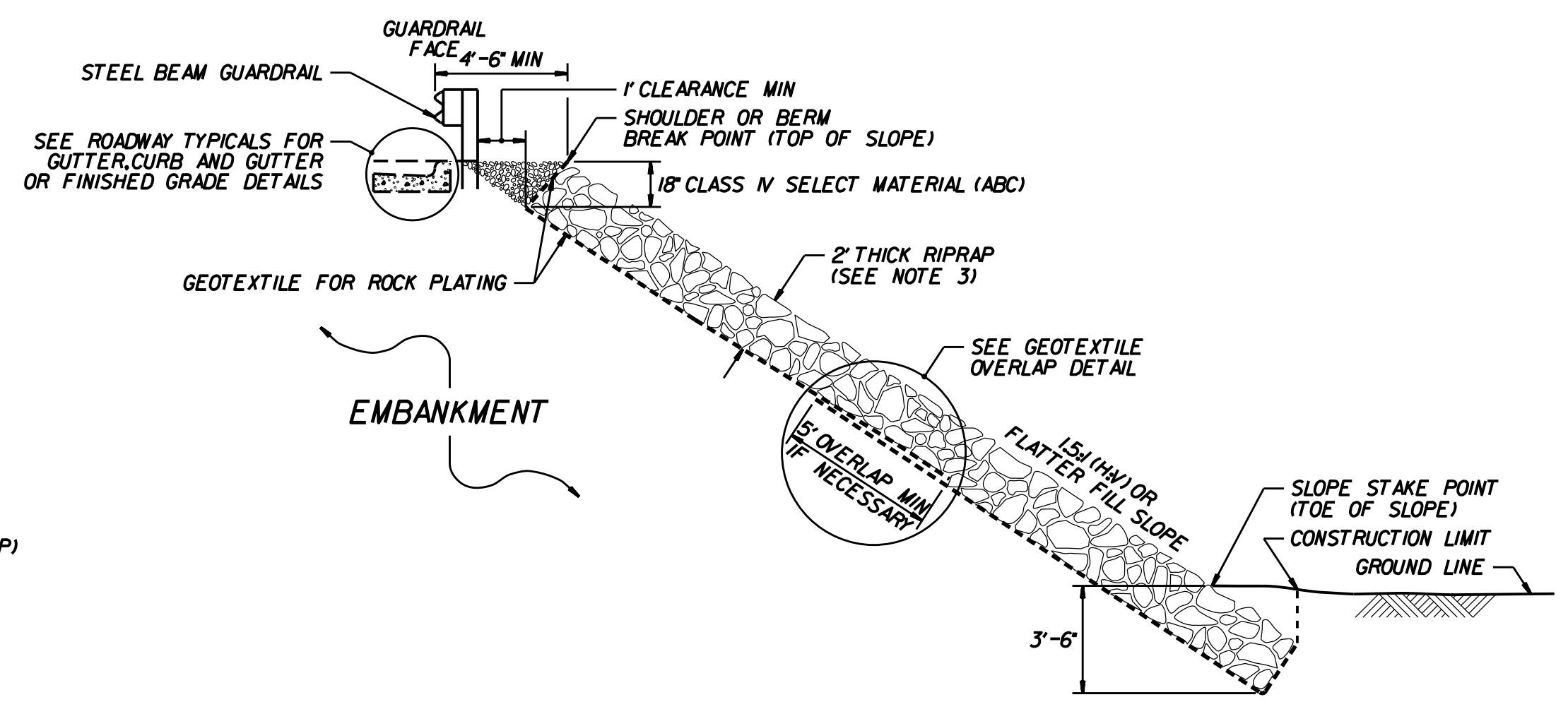
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
ROCK PLATING

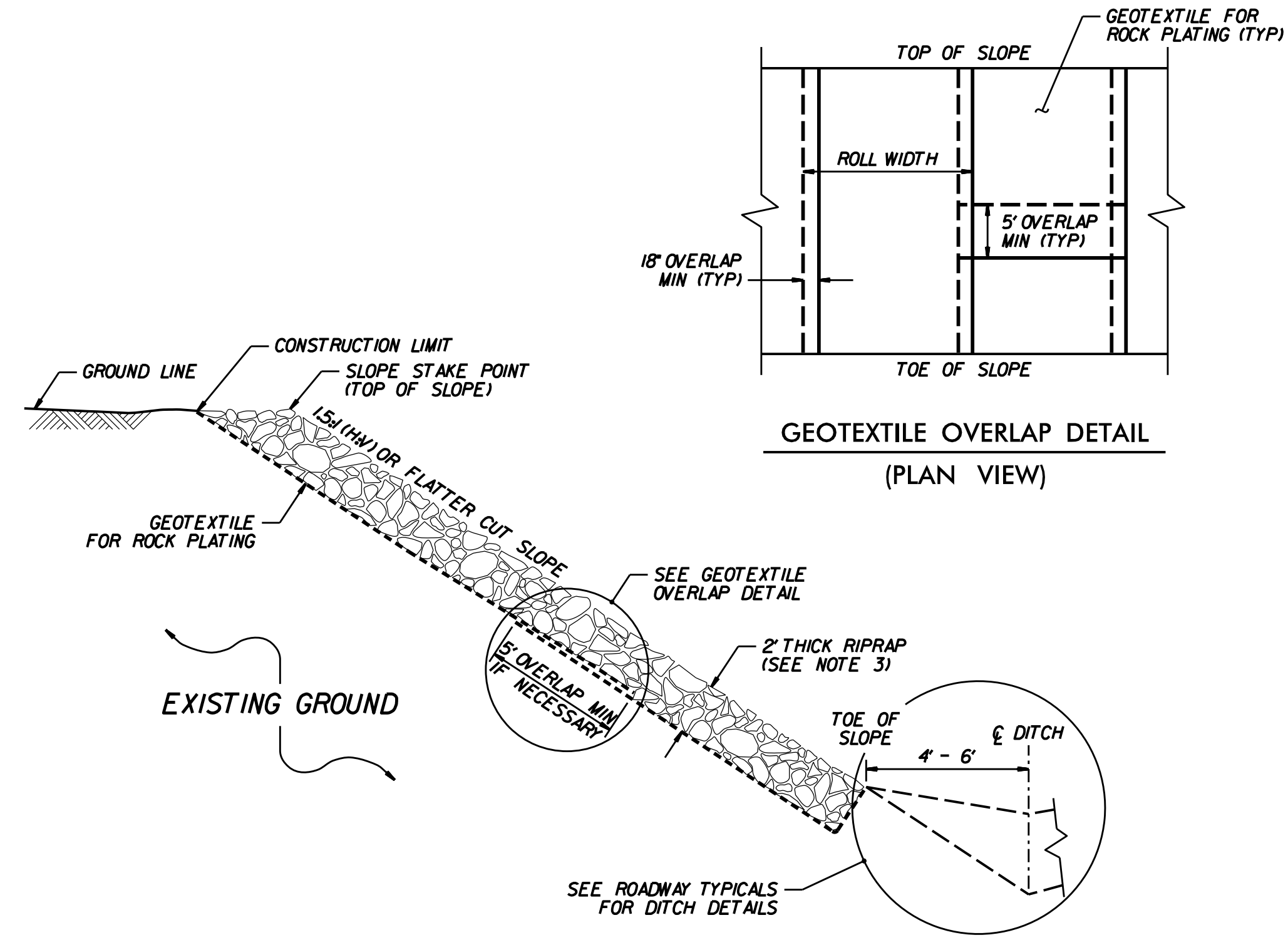
SHEET 1 OF 1
275D01



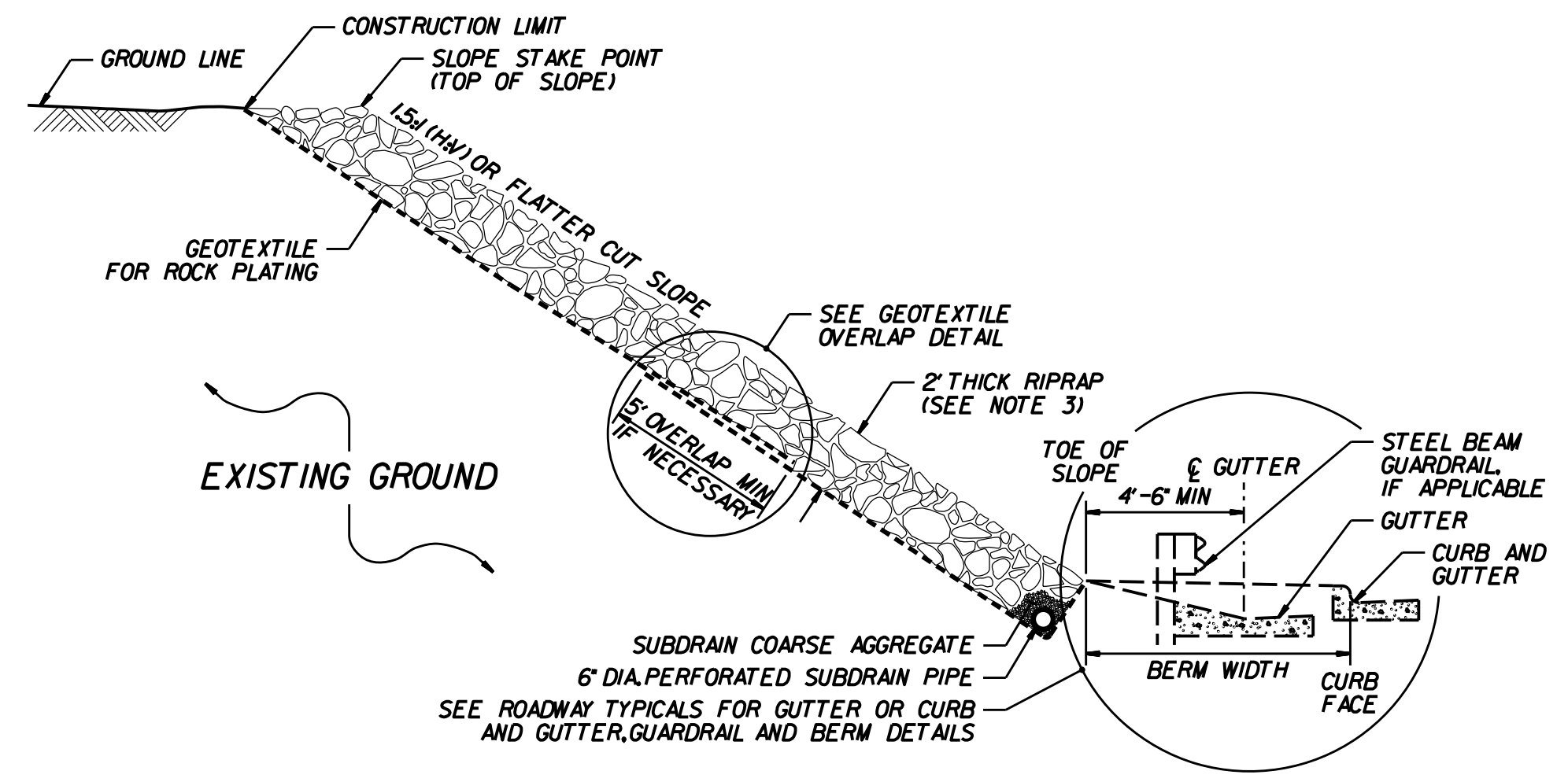
ROCK PLATING DETAIL NO. 1 - TYPICAL SECTION



ROCK PLATING DETAIL NO. 2 - TYPICAL SECTION



ROCK PLATING DETAIL NO. 3 - TYPICAL SECTION



ROCK PLATING DETAIL NO. 4 - TYPICAL SECTION

- NOTES:**
- SEE ROADWAY PLANS AND SUMMARY SHEETS FOR ROCK PLATING LOCATIONS.
 - FOR ROCK PLATING, SEE SECTION 275 OF THE STANDARD SPECIFICATIONS.
 - USE CLASS I, 2 OR B RIPRAP UNLESS REQUIRED OTHERWISE IN THE ROADWAY SUMMARY SHEETS.



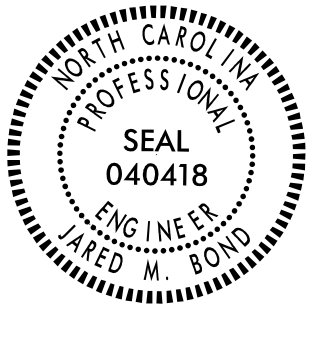
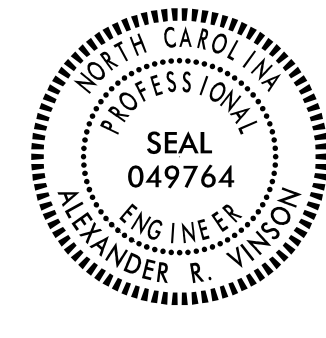
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6900 FAX 919-250-4119

SEE TITLE BLOCK

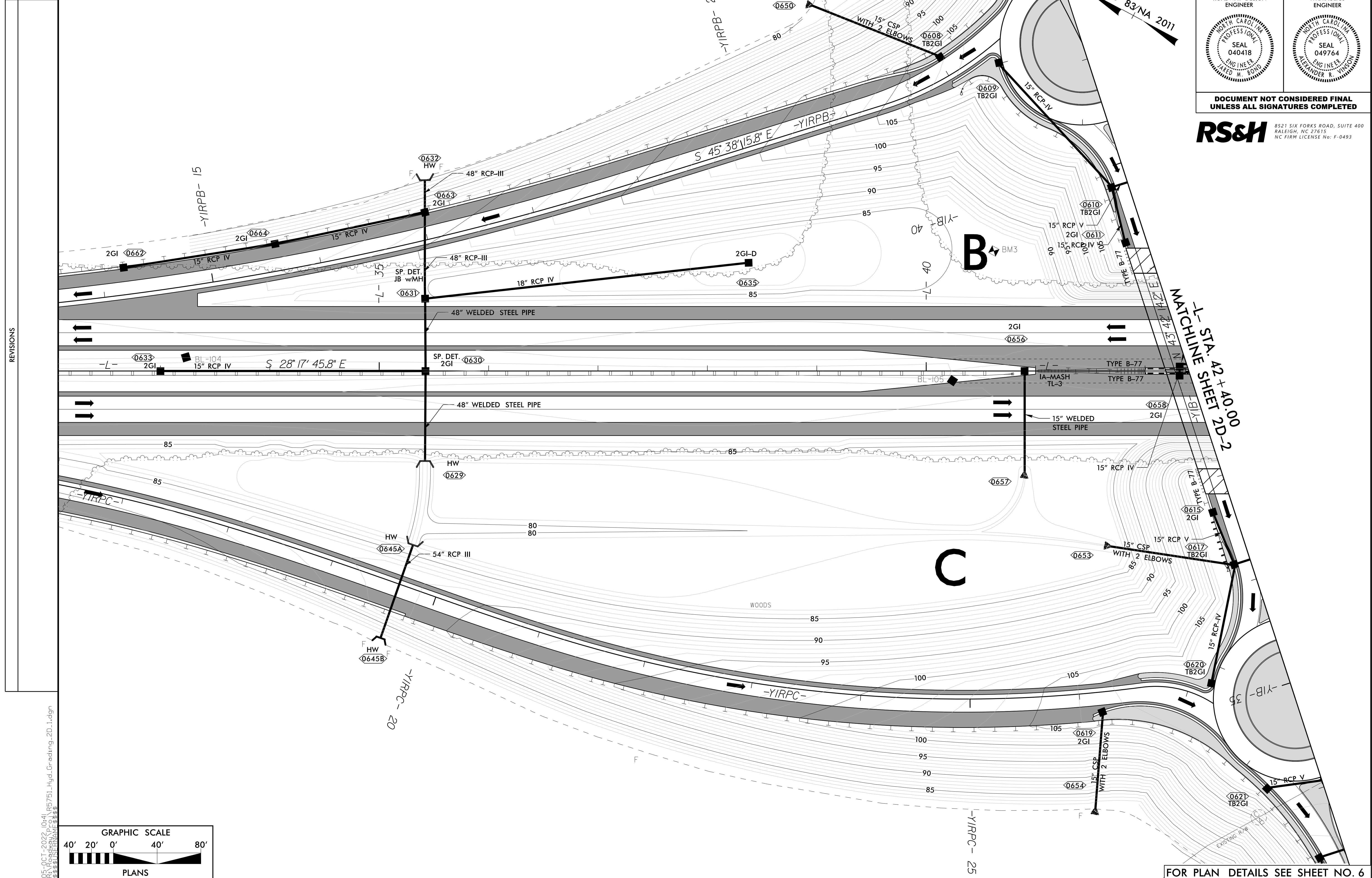
ORIGINAL BY: S. HIDDEN DATE: 03-11-22
 MODIFIED BY: DATE: _____
 CHECKED BY: DATE: _____
 FILE SPEC.: _____

INTERCHANGE GRADING DETAIL

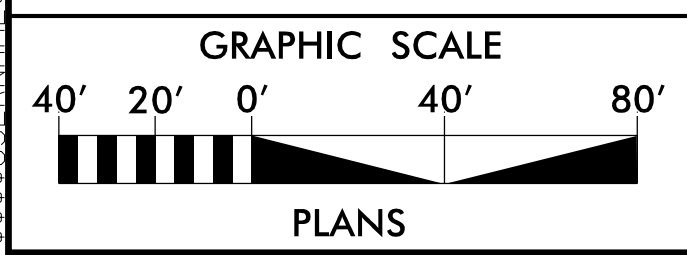
| | |
|--|--|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2D-1 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER  | HYDRAULICS ENGINEER  |

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493




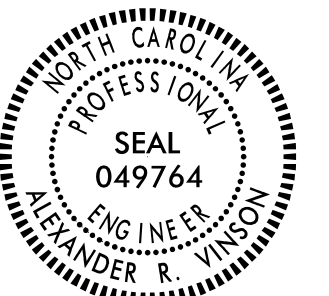
REVISIONS



FOR PLAN DETAILS SEE SHEET NO. 6

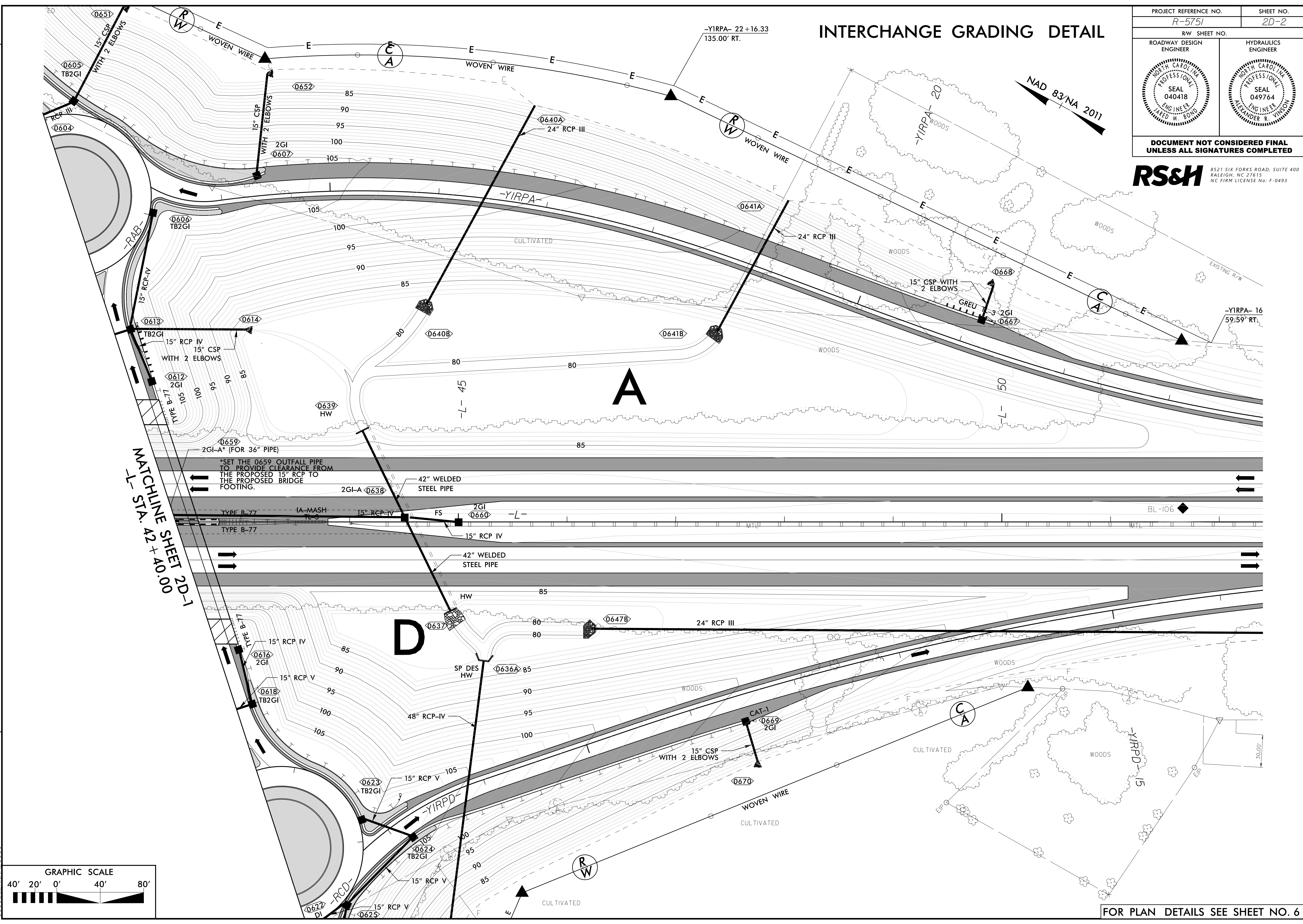
8/17/99
 05-OCT-2022 10:41
 R:\Roadway\Projects\R5751_Hyd_Grading_2D_1.dgn
 JARED M. BOND

INTERCHANGE GRADING DETAIL

| | |
|---|---|
| PROJECT REFERENCE NO. R-5751 | SHEET NO. 2D-2 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
|  |  |

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

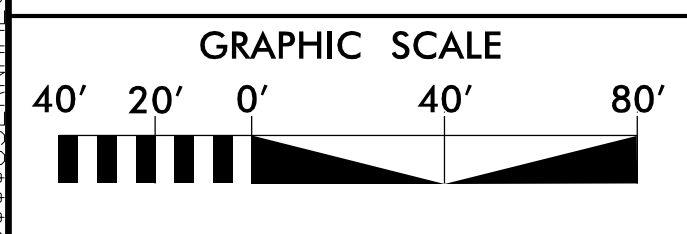
RS&H
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE NO: F-0493



REVISIONS

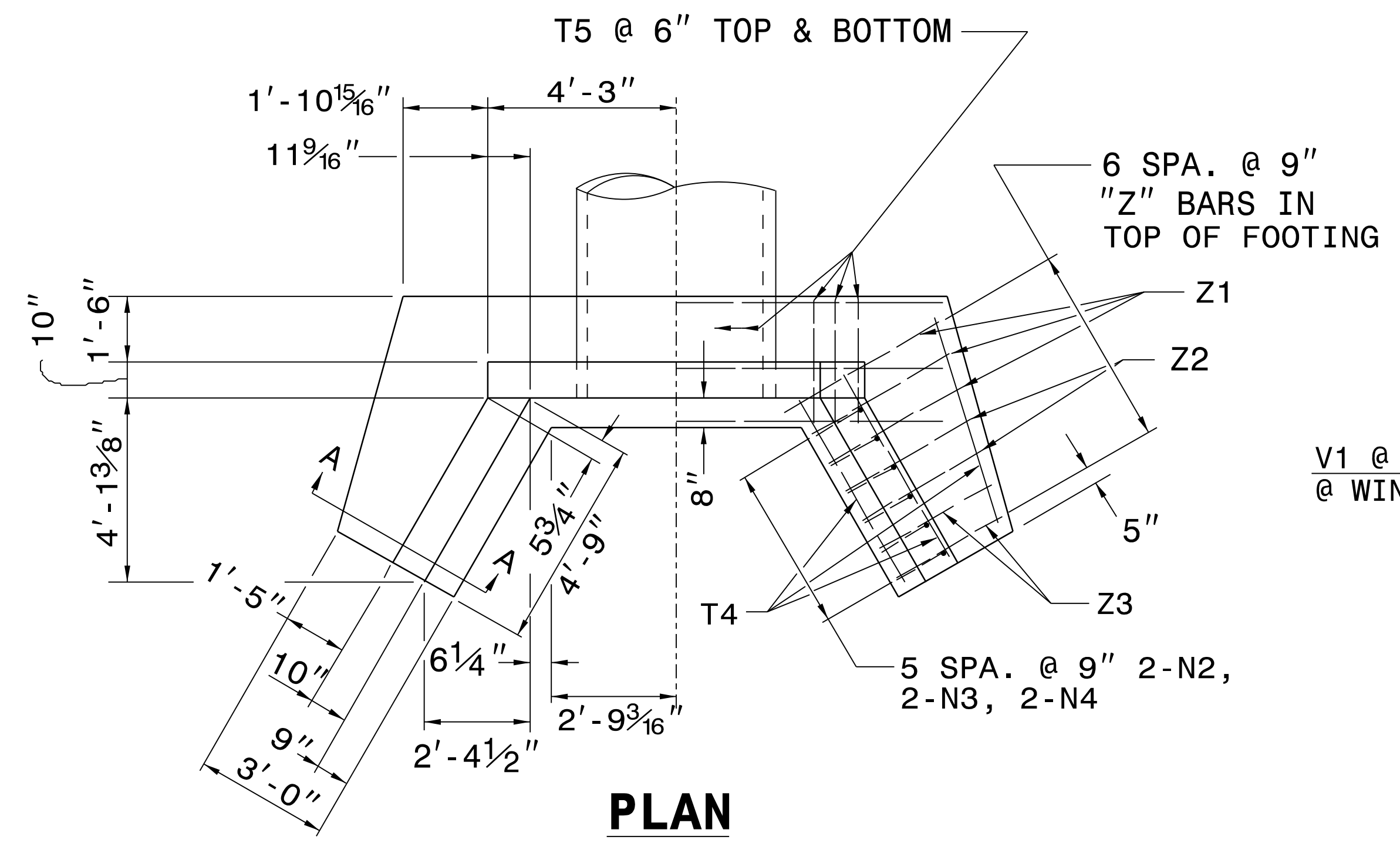
MACHINE SHEET 2D-1
-L- STA. 42 + 40.00

*SET THE 0659 OUTFALL PIPE TO PROVIDE CLEARANCE FROM THE PROPOSED 15" RCP TO THE PROPOSED BRIDGE FOOTING.

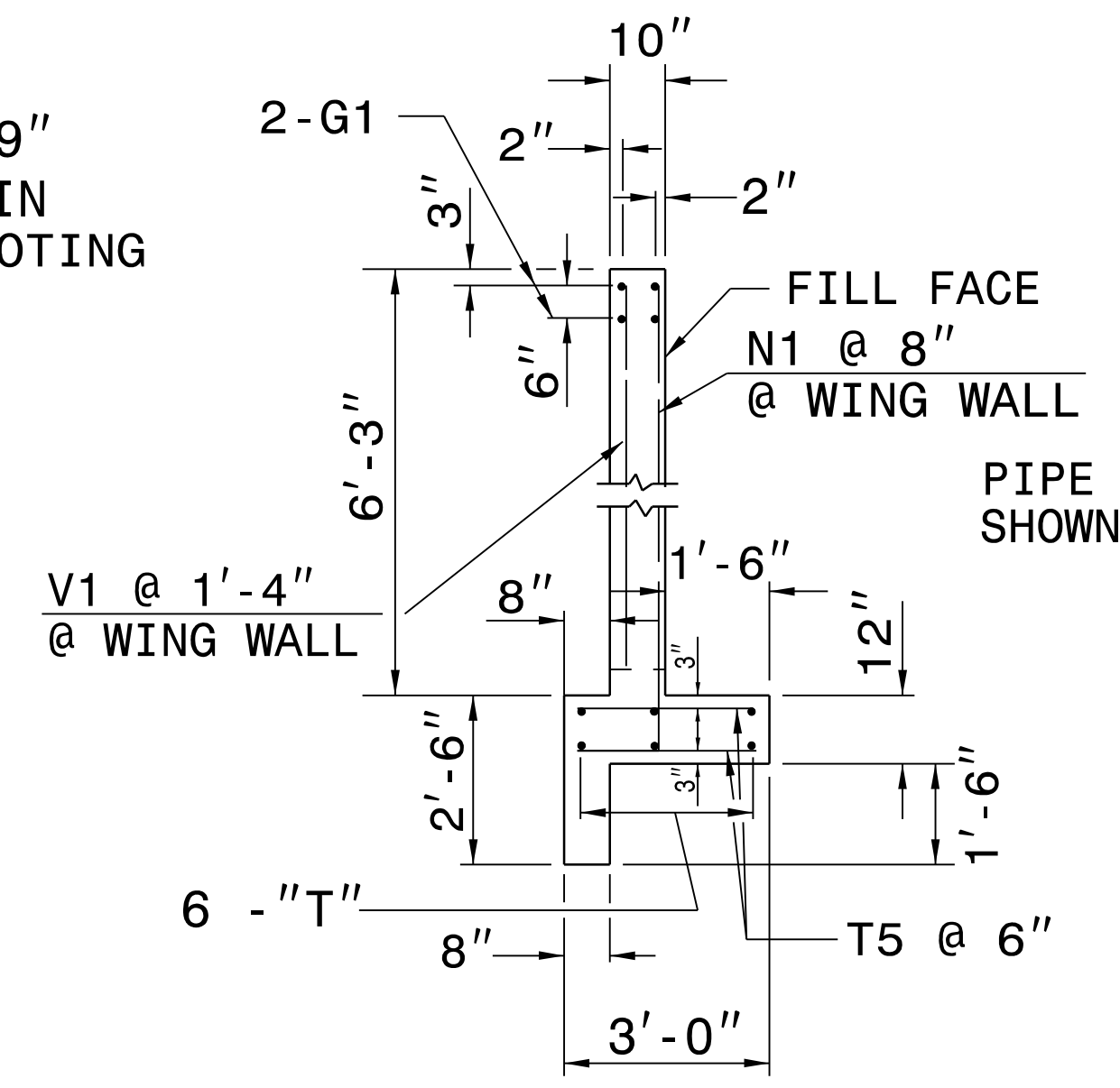


05-OCT-2022 10:41
R:\Roadway\Projects\R5751_Hyd_Gr\edmg_2D_2.dgn
ALEXANDER R. BOND

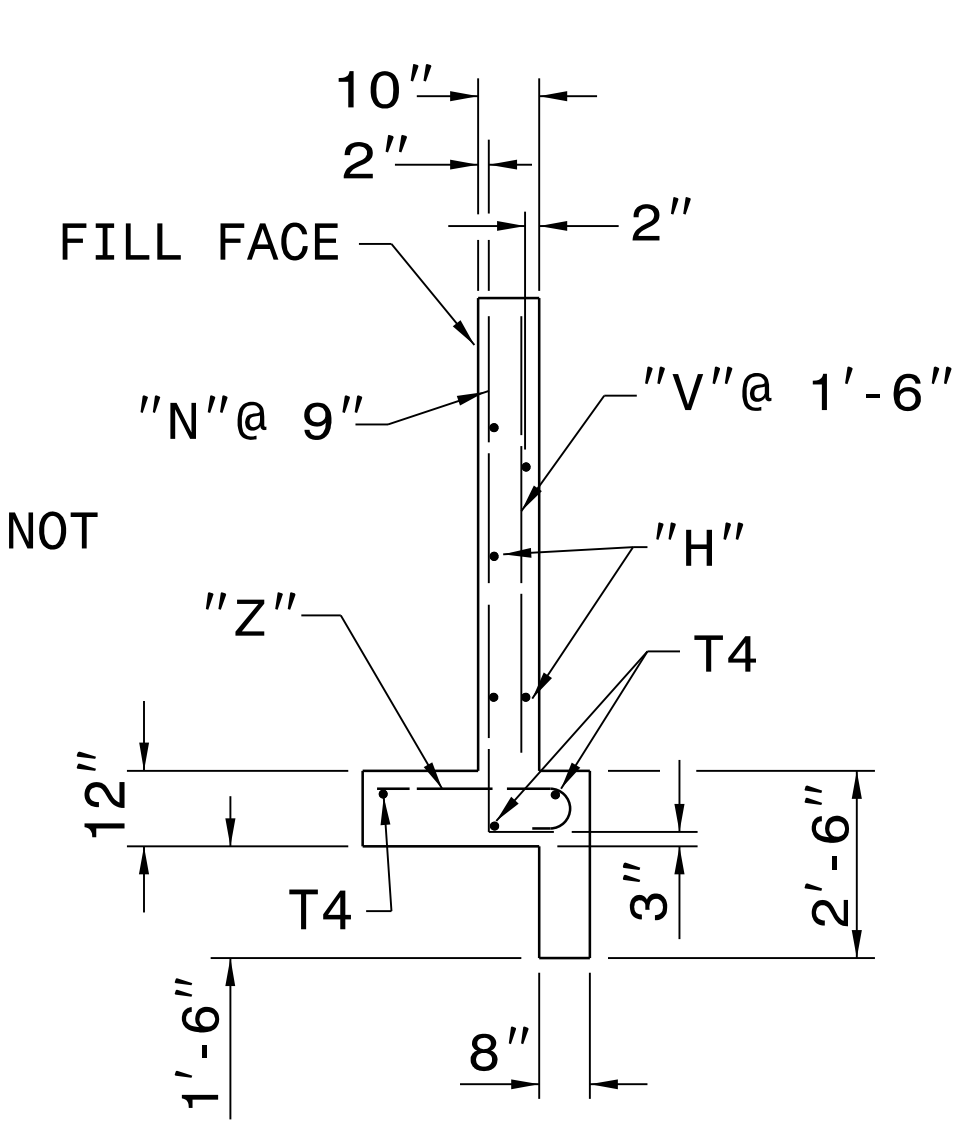
FOR PLAN DETAILS SEE SHEET NO. 6



PLAN

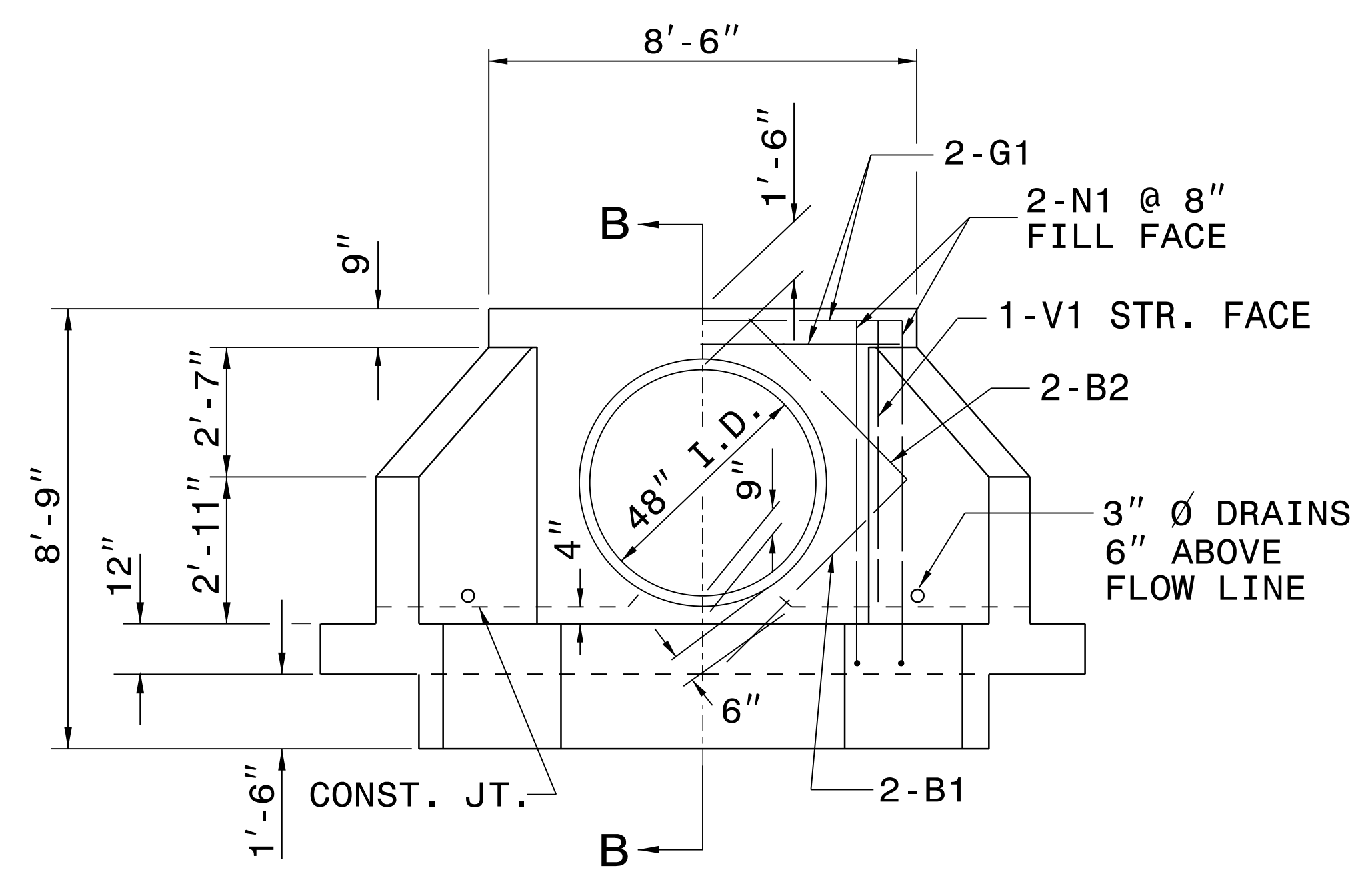


SECTION - BB

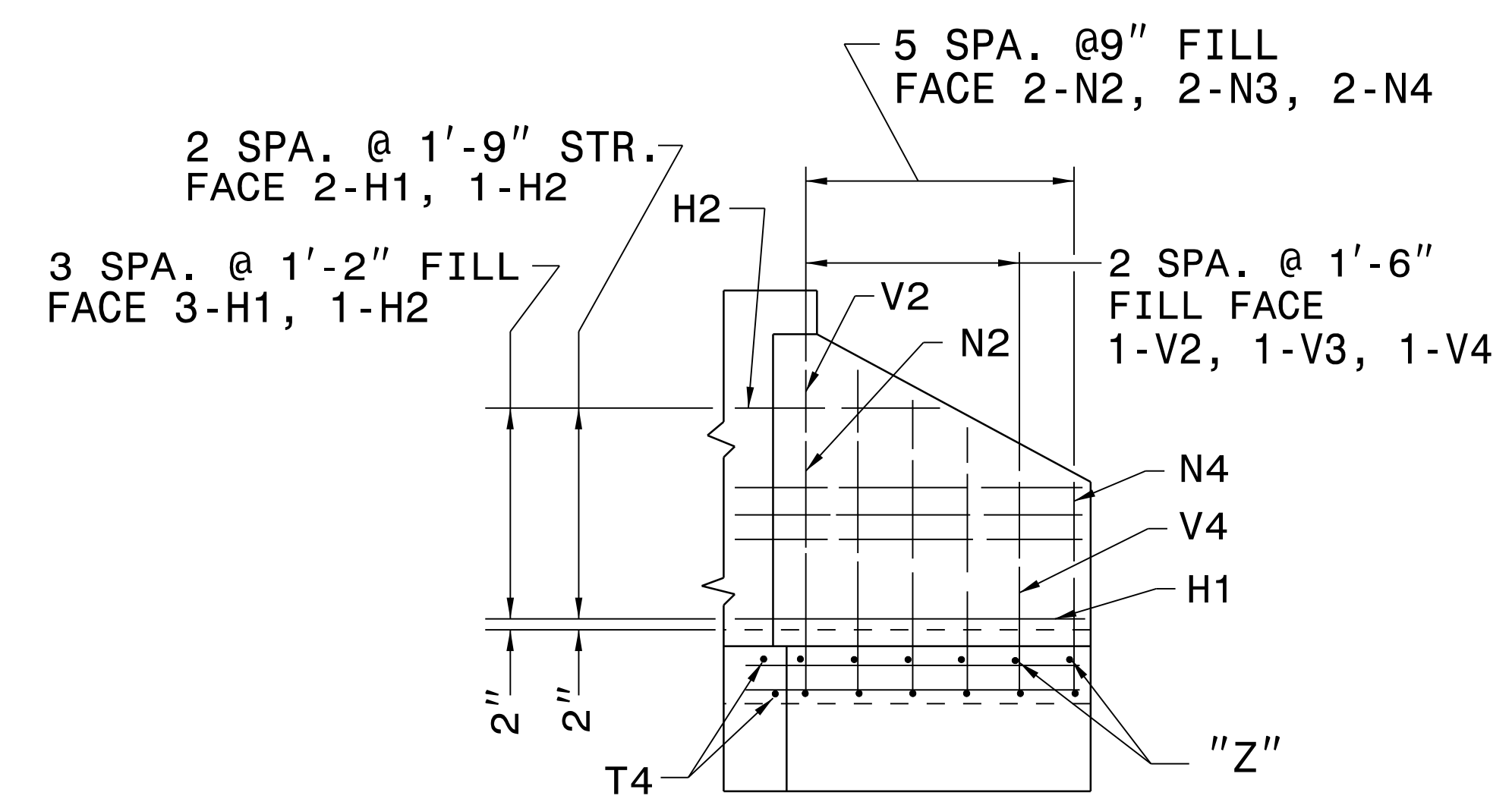


SECTION - AA

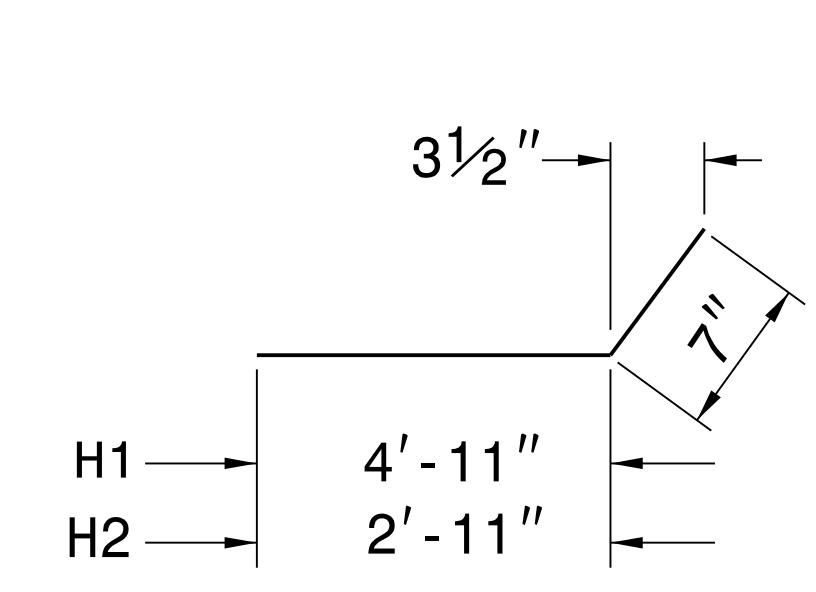
SEE STD. DWG. 838.45 FOR GENERAL NOTES.



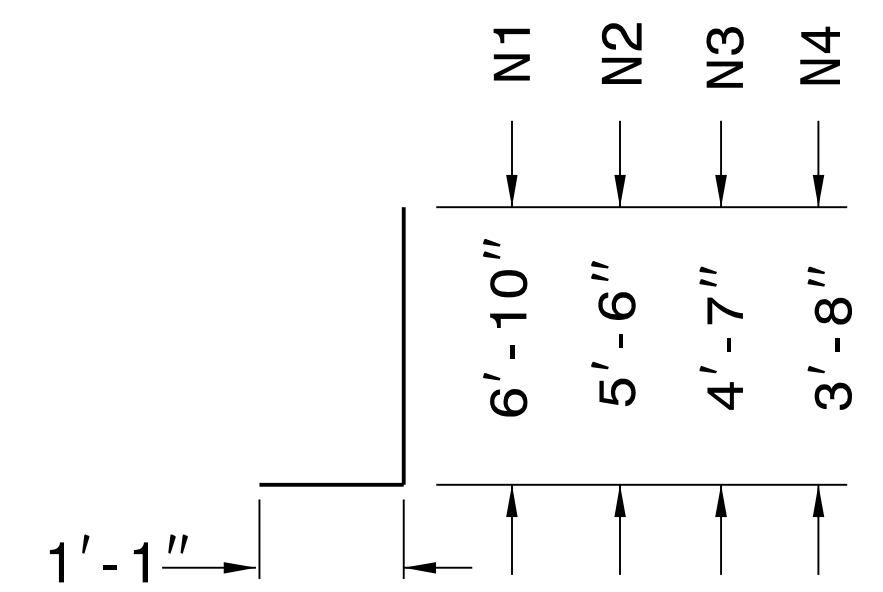
ELEVATION



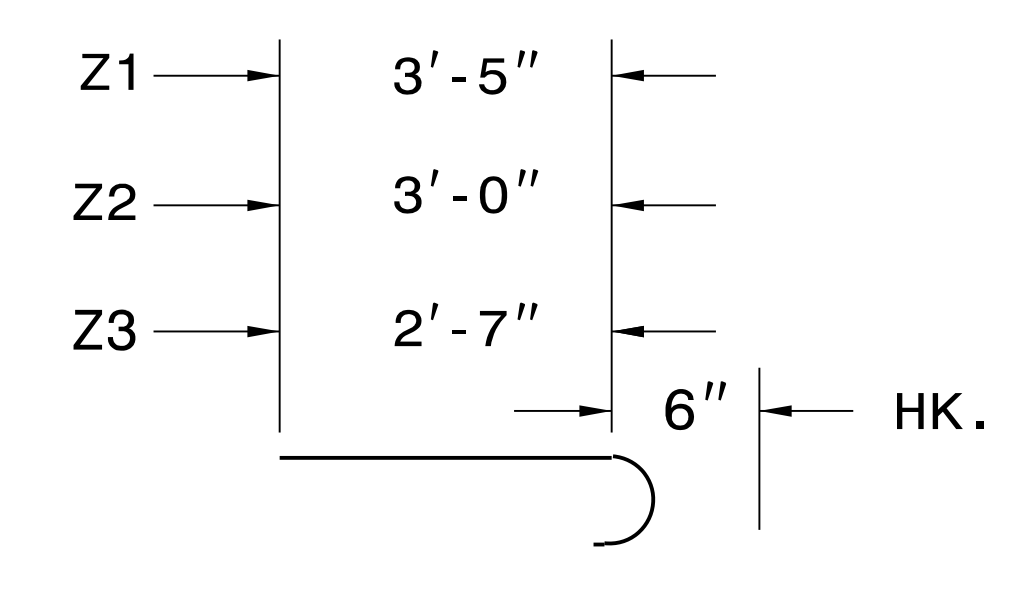
WING ELEVATION



"H" BARS



"N" BARS



"Z" BARS

"H", "N", & "Z" BAR DIMENSIONS ARE OUT TO OUT.

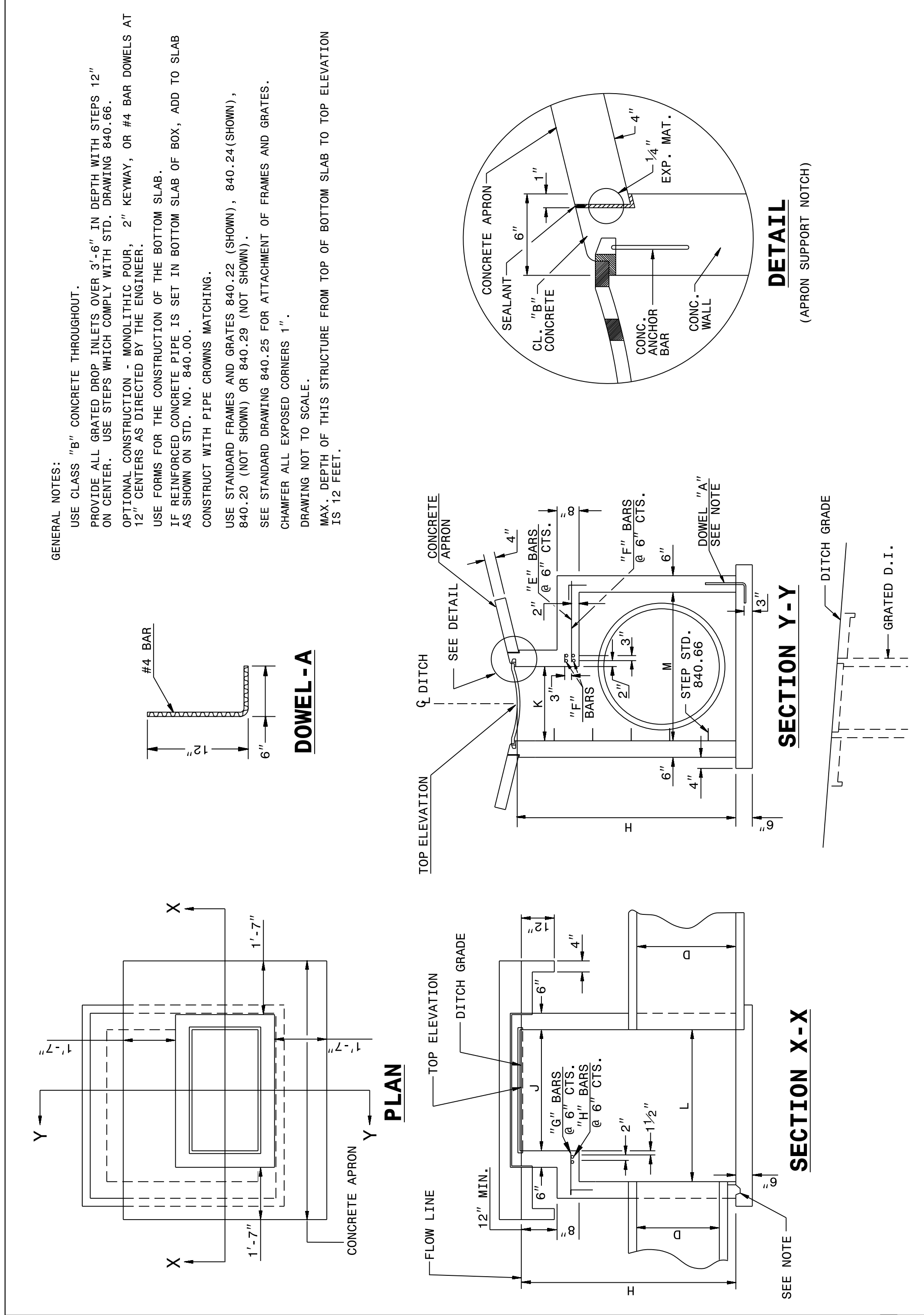
| BILL OF MATERIAL FOR ENDWALL | | | | |
|------------------------------|------|---------|--------|--------|
| REINF. STEEL | | | 1 PIPE | |
| BAR | SIZE | LENGTH | NO. | WEIGHT |
| B1 | #4 | 5'-6" | 4 | 15 |
| B2 | #4 | 4'-6" | 4 | 12 |
| G1 | #7 | 8'-2" | 4 | 66 |
| H1 | #4 | 5'-6" | 10 | 37 |
| H2 | #4 | 3'-6" | 4 | 9 |
| N1 | #4 | 7'-11" | 4 | 21 |
| N2 | #4 | 6'-7" | 4 | 18 |
| N3 | #4 | 5'-8" | 4 | 15 |
| N4 | #4 | 4'-9" | 4 | 13 |
| T1 | #4 | 11'-10" | 6 | 47 |
| T4 | #4 | 5'-3" | 6 | 21 |
| T5 | #4 | 2'-6" | 34 | 57 |
| V1 | #4 | 5'-9" | 2 | 8 |
| V2 | #4 | 4'-10" | 2 | 6 |
| V3 | #4 | 3'-11" | 2 | 5 |
| V4 | #4 | 3'-1" | 2 | 4 |
| Z1 | #4 | 3'-11" | 6 | 16 |
| Z2 | #4 | 3'-6" | 4 | 9 |
| Z3 | #4 | 3'-1" | 4 | 8 |
| REINF. STEEL LBS. | | | X | 387 |
| CON./R.C. CU. YDS | | | | 5.1 |

24-MAY-2022 13:46 \\Transportation\PI\030036026-R-5751 US 74_NC 72_NC_130_Final_Design\Design\Drainage\Detail_Sheets\08382101_MOD\FIELD_R-5751.dgn

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

ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 1 OF 2 840d17



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

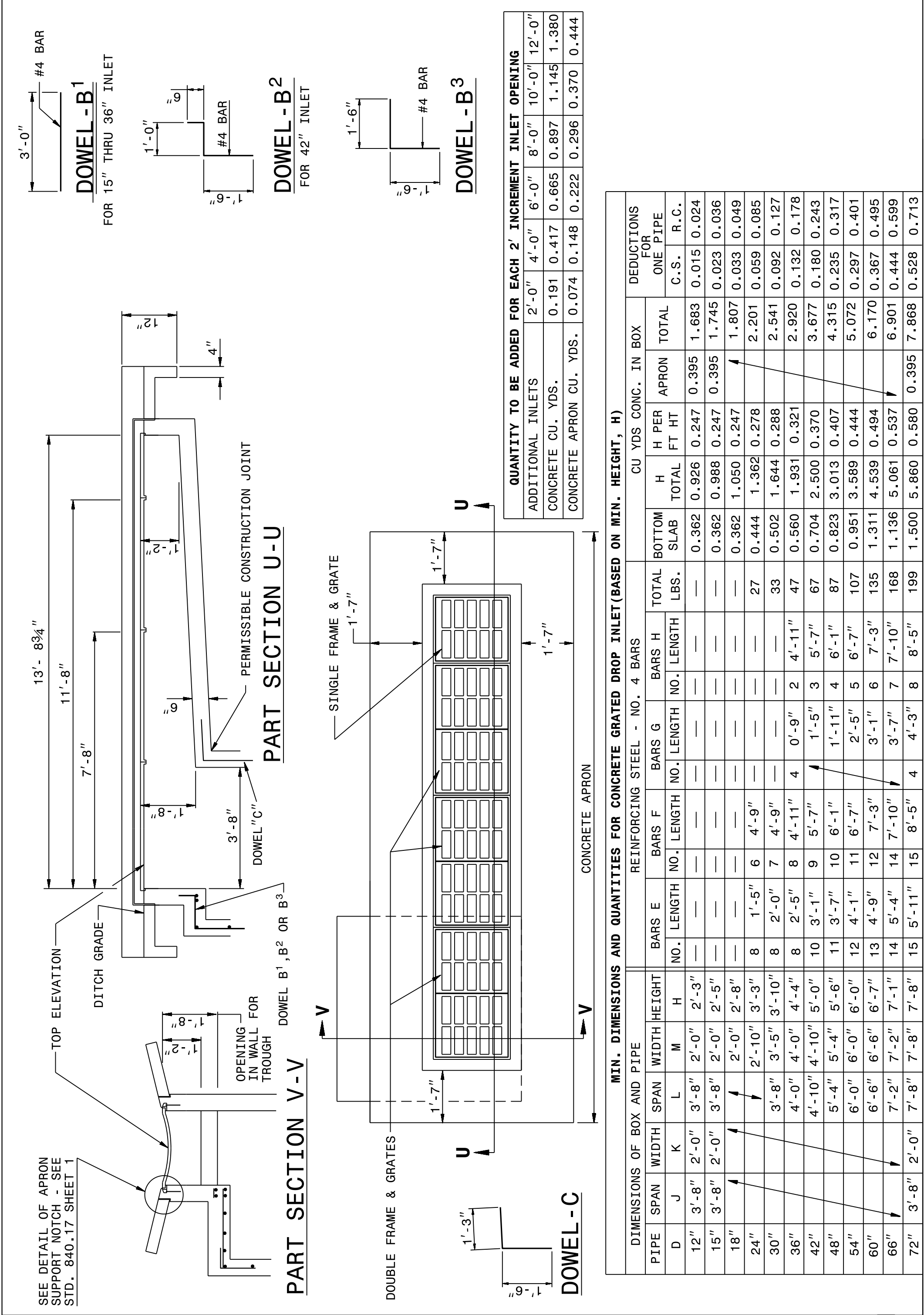
ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 1 OF 2 840d17

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

ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 2 OF 2 840d17



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

ENGLISH DETAIL DRAWING FOR CONCRETE GRATED DROP INLET TYPE 'A' MINIMUM DEPTH 12" THRU 72" PIPE

SHEET 2 OF 2 840d17



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: J. Howerton DATE: 1/22/14
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC.: jhowerton\minimum_depth_type A.dgn

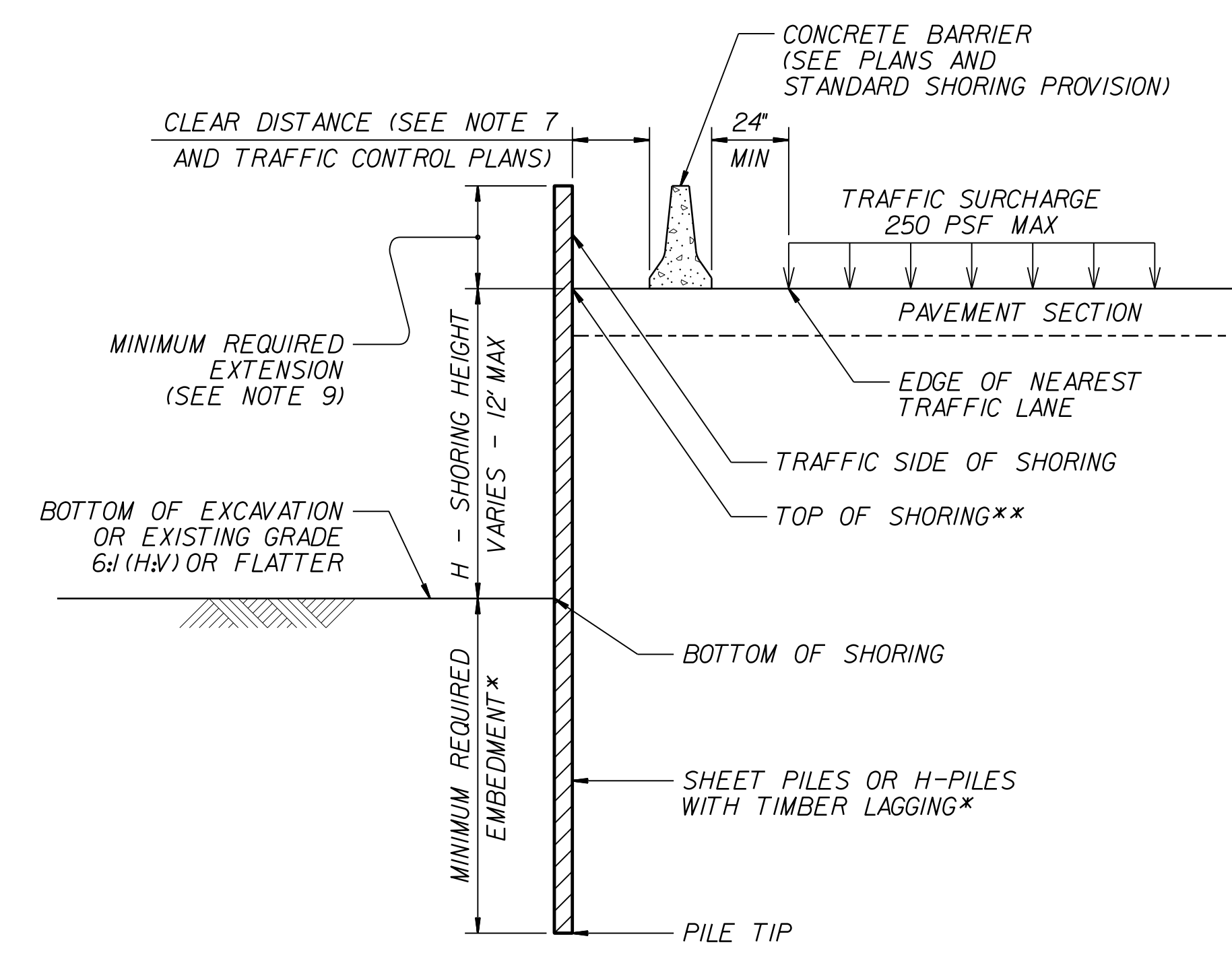
| GROUNDWATER CONDITION (SEE NOTE 6) | H SHORING HEIGHT (FT) | SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT | | | | | SURCHARGE CASE WITH TRAFFIC IMPACT | | | | |
|--|-----------------------|--|--|--|----------|------|------------------------------------|--|--|----------|------|
| | | SHEET PILES | | H-PILES WITH TIMBER LAGGING | | | SHEET PILES | | H-PILES WITH TIMBER LAGGING | | |
| | | MINIMUM REQUIRED EMBEDMENT (FT) | MINIMUM REQUIRED SECTION MODULUS (IN ³ /FT) | MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10) | | | MINIMUM REQUIRED EMBEDMENT (FT) | MINIMUM REQUIRED SECTION MODULUS (IN ³ /FT) | MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10) | | |
| | | | HP 10x42 | HP 12x53 | HP 14x73 | | | HP 10x42 | HP 12x53 | HP 14x73 | |
| GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP | < 6 | 11.5 | 4.5 | 11.5 | 11.5 | 11.5 | 16.0 | 12.0 | 13.0 | 13.0 | 13.0 |
| | 7 | 13.0 | 7.0 | 13.0 | 13.0 | 13.0 | 17.0 | 14.5 | 14.5 | 14.5 | 14.5 |
| | 8 | 15.0 | 10.0 | -- | 15.0 | 15.0 | 18.0 | 17.0 | -- | 15.5 | 15.5 |
| | 9 | 17.0 | 14.0 | -- | 17.0 | 17.0 | 19.0 | 20.0 | -- | 17.0 | 17.0 |
| | 10 | 18.5 | 19.5 | -- | -- | 18.5 | 20.0 | 23.5 | -- | -- | 18.5 |
| | 11 | 20.5 | 26.0 | -- | -- | -- | 21.0 | 28.0 | -- | -- | 20.0 |
| 12 | 22.5 | 33.0 | -- | -- | -- | 22.0 | 33.0 | -- | -- | 21.5 | |
| GROUNDWATER ELEVATION BELOW PILE TIP | < 6 | 7.5 | 3.0 | 8.0 | 8.0 | 8.0 | 11.0 | 10.0 | 9.5 | 9.5 | 9.5 |
| | 7 | 8.5 | 4.5 | 9.5 | 9.5 | 9.5 | 12.0 | 12.0 | 10.5 | 10.5 | 10.5 |
| | 8 | 10.0 | 6.5 | 10.5 | 10.5 | 10.5 | 12.5 | 14.0 | 11.5 | 11.5 | 11.5 |
| | 9 | 11.0 | 9.5 | -- | 12.0 | 12.0 | 13.5 | 16.5 | -- | 12.5 | 12.5 |
| | 10 | 12.5 | 13.0 | -- | -- | 13.5 | 14.0 | 19.5 | -- | 13.5 | 13.5 |
| | 11 | 13.5 | 17.0 | -- | -- | 14.5 | 15.0 | 22.5 | -- | -- | 14.5 |
| 12 | 15.0 | 21.5 | -- | -- | 16.0 | 16.0 | 25.5 | -- | -- | 15.5 | |

MINIMUM REQUIRED EMBEDMENT AND SECTION MODULUS

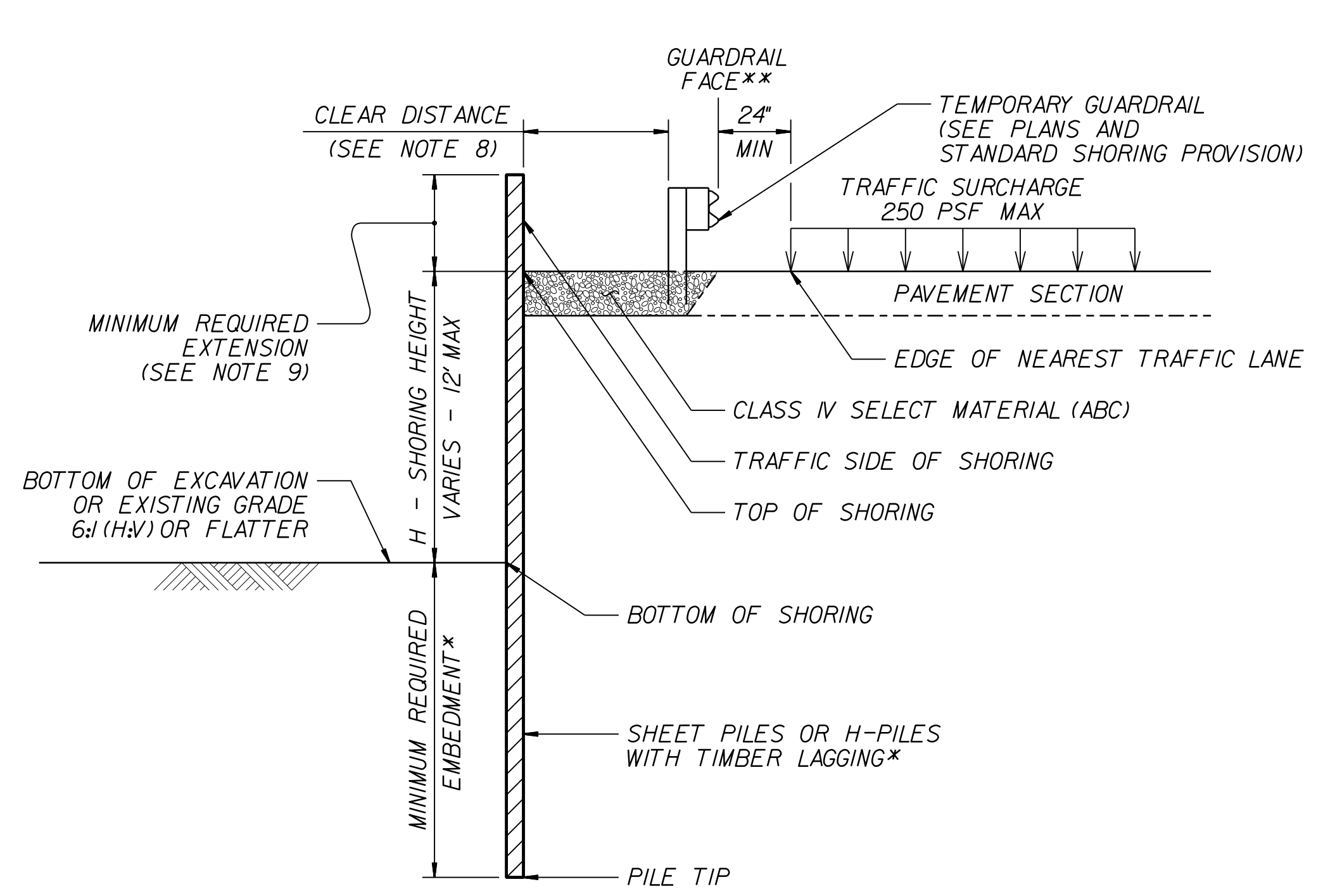
*DO NOT USE H-PILES WITH TIMBER LAGGING FOR GROUNDWATER CONDITION, SHORING HEIGHT AND H-PILE SIZE SHOWN IF MINIMUM REQUIRED EMBEDMENT IS "--".

NOTES:

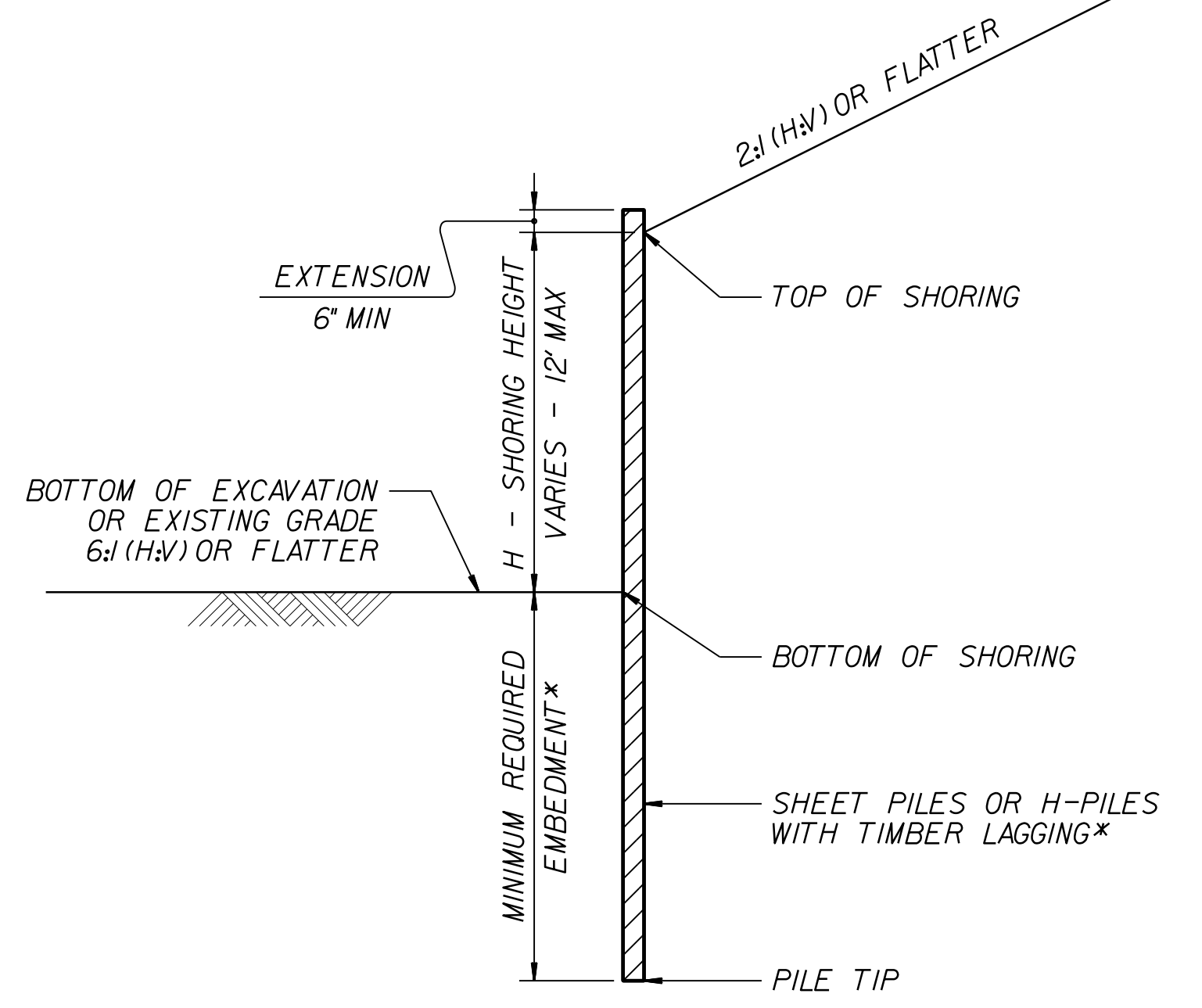
- AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING AS NOTED IN THE PLANS.
- FOR STANDARD TEMPORARY SHORING, SEE STANDARD SHORING PROVISION.
- STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
UNIT WEIGHT, $\gamma = 120$ PCF
FRICTION ANGLE, $\phi = 30$ DEGREES
COHESION, $c = 0$ PSF
- DO NOT USE STANDARD TEMPORARY SHORING IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE.
- DO NOT USE STANDARD TEMPORARY SHORING WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS WITHIN THE EMBEDMENT DEPTH.
- USE GROUNDWATER ELEVATION NOTED IN THE PLANS. IF NO GROUNDWATER ELEVATION IS SHOWN IN THE PLANS, USE "GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP" FOR GROUNDWATER CONDITION. DO NOT USE STANDARD TEMPORARY SHORING IF GROUNDWATER IS ABOVE BOTTOM OF SHORING.
- AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN THE MINIMUM REQUIRED FOR CONCRETE BARRIER, SET BARRIER NEXT TO AND UP AGAINST TRAFFIC SIDE OF PILES AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
- AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN 4' FOR TEMPORARY GUARDRAIL, ATTACH GUARDRAIL TO TRAFFIC SIDE OF PILES AS SHOWN IN THE PLANS AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
- MINIMUM REQUIRED EXTENSION IS 6' FOR "SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT" AND 32' FOR "SURCHARGE CASE WITH TRAFFIC IMPACT".
- MINIMUM REQUIRED EMBEDMENT FOR H-PILES WITH TIMBER LAGGING IS BASED ON DRIVEN H-PILES AT MAXIMUM 6' SPACING. AT THE CONTRACTOR'S OPTION, EMBEDMENT DEPTHS MAY BE REDUCED BY 25% FOR DRILLED-IN H-PILES.
- SUBMIT A "STANDARD TEMPORARY SHORING SELECTION FORM" AT LEAST 7 DAYS BEFORE STARTING TEMPORARY SHORING CONSTRUCTION. UP TO 3 SHORING LOCATIONS MAY BE INCLUDED ON EACH FORM. STANDARD SHORING SELECTION FORMS ARE AVAILABLE FROM:
connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
- CONTACT THE ENGINEER IF PILES DO NOT ATTAIN THE MINIMUM REQUIRED EMBEDMENT.



CONCRETE BARRIER
**TOP OF SHORING =
EDGE OF PAVEMENT

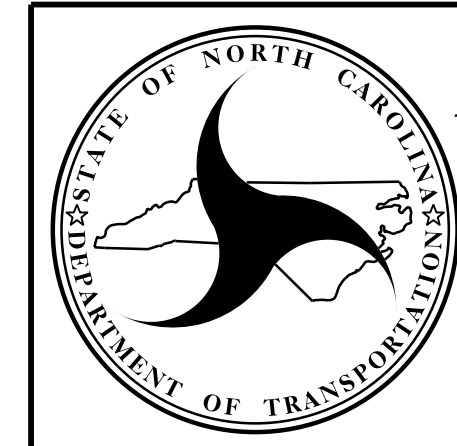


TEMPORARY GUARDRAIL
**GUARDRAIL FACE =
EDGE OF PAVEMENT



STANDARD TEMPORARY SHORING
(SLOPE CASE)
*SEE TABLE ABOVE.

STANDARD TEMPORARY SHORING
(SURCHARGE CASE)
*SEE TABLE ABOVE.



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**GEOTECHNICAL
ENGINEERING UNIT**

STANDARD DETAIL NO. 1801.01

STANDARD
TEMPORARY SHORING

12/06/07

COMPUTED BY: KHW DATE: 4/10/2020
CHECKED BY: JMB DATE: 4/17/2021

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. R-5751
SHEET NO. 3B-1

SUMMARY OF EARTHWORK
(IN CUBIC YARDS)

Table with columns: STATION, UNCL. EXCAV., UNDERCUT, EMBANK. +%, BORROW, WASTE. Includes subtotals for various station ranges and project totals.

EST. DDE = 200 CY

EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING SUBCONSULTANT.

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

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

SUMMARY OF ASPHALT PAVEMENT REMOVAL

Table with columns: SURVEY LINE, STATION, STATION, LOCATION LT/RT/CL, YD. Includes subtotals and a SAY value of 25,640.

SHOULDER BERM GUTTER SUMMARY

Table with columns: SURVEY LINE, STATION, STATION, LENGTH (LF). Includes subtotals and a SAY value of 2,310.

CABLE GUIDERAIL SUMMARY

Table with columns: SURVEY LINE, STATION, STATION, LENGTH, END ANCHOR UNIT, INTERMEDIATE ANCHOR UNIT, REMOVE EXISTING GUIDERAIL, COMMENTS. Includes subtotals and a SAY value of 3,700.

SUMMARY OF 47" FABRIC WOVEN WIRE FENCE

Table with columns: SURVEY LINE, STATION, STATION, LOCATION LTRT, FABRIC (LF), END BRACE, CORNER BRACE, LINE BRACE, 4" POSTS, 5" POSTS. Includes subtotals and a SAY value of 5,000.

16" ENCASEMENT PIPE SUMMARY

Table with columns: SURVEY LINE, STATION, LOCATION LTRT, LENGTH (LF). Includes subtotals and a SAY value of 25.

GUARDRAIL SUMMARY

Large table with columns: SURVEY LINE, BEG. STA., END STA., LOCATION, LENGTH (LF), WARRANT POINT, "N" DIST. FROM E.O.L., TOTAL SHOUL. WIDTH, FLARE LENGTH, W, ANCHORS, IMPACT ATTENUATOR TYPE TL-3, SINGLE FACED GUARDRAIL, REMOVE EXISTING GUARDRAIL, REMOVE AND STOCKPILE EXISTING GUARDRAIL, REMARKS. Includes subtotals and a SAY value of 4,300.

ANCHOR DEDUCTION
GREU TL-3: 9 @ 50' = 450.00'
CAT-1: 6 @ 6.25' = 37.50'
B-77: 12 @ 22.875' = 275.00'
GRAND TOTAL = 762.00'
ADDITIONAL GUARDRAIL POSTS = 15 EA.

07-N04-2002-15-35-R5751-RdJy-sum.dgn

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)

| LINE & STATION | OFFSET | STRUCTURE NUMBER | | TOP ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | SIDE DRAIN PIPE (RCP, CSP, CAAP, HDPE, or PVC) | | | | | | C.S. PIPE | | | | | | R.C. PIPE CLASS III | | | | | | R.C. PIPE CLASS IV | | | | | | R.C. PIPE CLASS V | | | | | | ENDWALLS | | QUANTITIES FOR DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') | FRAME, GRATES, AND HOOD STANDARD 840.03 | CONCRETE TRANSITIONAL SECTION | REMARKS |
|--------------------|--------|------------------|------|----------------------|-------------------------|-----------------------------|---|----|----|----|----|----|-----------|-------|-------|-------|-------|-------|---------------------|----|----|----|----|----|--------------------|----|----|----|----|----|-------------------|----|----|----|----|----|----------|----|---|---|-------------------------------|---------|
| | | FROM | TO | | | | 15 | 18 | 24 | 30 | 36 | 42 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 12 | 15 | 18 | 24 | 30 | | | | |
| THICKNESS OR GAUGE | SIZE | | | FT. | FT. | | | | | | | | | 0.064 | 0.064 | 0.079 | 0.079 | 0.109 | 0.109 | | | | | | | | | | | | | | | | | | | | | | | |
| RCD 10+40 | 4 RT | 624 | 625 | 104.15 | 103.72 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y1A 33+40 | 14 RT | 626 | 655 | 105.34 | 102.38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 35+41 | 83 RT | 629 | 629 | 79.20 | 79.20 | | | | | | | | | 0.064 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 35+42 | 66 LT | 631 | 631 | 85.10 | 83.60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 33+00 | CL | 633 | 633 | 85.23 | 81.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 44+53 | 4 LT | 638 | 637 | 85.89 | 79.00 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 44+14 | 84 LT | 639 | 639 | 82.80 | 79.15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y1RPA 23+58 | CL | 640A | 640B | 79.50 | 79.40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L 54+50 | CL | 643 | 644 | 85.59 | 81.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y1RPA 21+02 | CL | 641A | 641B | 79.50 | 79.40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y1RPA 18+87 | 25 RT | 667 | 667 | 87.63 | 81.20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SHEET TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ABBREVIATIONS
 C.A.A. - CORRUGATED ALUMINUM INLET
 C.B. - CATCH BASIN
 C.S. - CORRUGATED STEEL
 D.I. - DROP INLET
 G.D.I. - GRATED DROP INLET
 P.D.P.E. - HIGH DENSITY POLYETHYLENE
 J.B. - JUNCTION BOX
 M.H. - MANHOLE
 N.S. - NARROW SLOT
 P.V.C. - POLYVINYL CHLORIDE
 R.C. - REINFORCED CONCRETE
 T.B.D.I. - TRAFFIC BEARING DROP INLET
 T.B.J.B. - TRAFFIC BEARING JUNCTION BOX
 W.S. - WIDE SLOT

COMPUTED BY: JPM DATE: 01-28-21
 CHECKED BY: AFR DATE: 01-28-21
 REVISED BY: Jinyoung Park DATE: 06-14-22

(12-17-19)
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

| | |
|-----------------------|-------------------|
| PROJECT NO. R-5751 | SHEET NO. 3G-1 |
|-----------------------|-------------------|

SUMMARY OF SUBSURFACE DRAINAGE

| LINE | Station | Station | Location LT/RT/CL | Drain Type* UD/BD/SD | LF |
|-------------|---------|---------|----------------------|-------------------------|-----|
| | | | | | |
| CONTINGENCY | | | | SD | 500 |
| | | | | TOTAL LF: | 500 |

*UD = Underdrain
 *BD = Blind Drain
 *SD = Subsurface Drain

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

| LINE | Station | Station | Aggregate Type* ASU(1/2)/ AST | Aggregate Thickness INCHES [8" for ASU(2)] | Shallow Undercut CY | Class IV Subgrade Stabilization TONS | Geotextile for Soil Stabilization SY | Stabilizer Aggregate TONS | Class IV Aggregate Stabilization TONS |
|--------------------------|---------|---------|--|--|---------------------------|---|---|---------------------------------|--|
| | | | | | | | | | |
| CONTINGENCY | | | ASU(1) | 12 | 100 | 190 | 300 | | |
| TOTAL CY/TONS/SY: | | | | | 100 | 190** | 300** | 0 | 0 |

*ASU(1/2) = Aggregate Subgrade (Type 1 or 2)
 *AST = Aggregate Stabilization
 **Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Soil Stabilization" are only the estimated quantities for ASU(1/2)/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.

SUMMARY OF ROCK PLATING

| LINE | Beginning Slope (H:V) | Approx. Station | Ending Slope (H:V) | Approx. Station | Location LT/RT | Rock Plating Detail No. 1/2/3/4 | Riprap Class 1/2/B | Rock Plating SY |
|------|-----------------------------|--------------------|--------------------------|--------------------|-------------------|--|--------------------------|-----------------------|
| -L- | 2.5:1 | 68+60 ± | 2.5:1 | 69+25 ± | RT | 1 | * | 120 |
| | | | | | | | TOTAL SY: | 120 |

*Use Class 1, 2 or B riprap if riprap class is not shown for rock plating location.

SUMMARY OF BRIDGE WAITING PERIODS

| Bridge Description | End Bent/ Bent No. | MONTHS |
|--|-----------------------|--------|
| Upgrade of At-Grade Intersections at US74/NC72 and US74/NC130 to Interchange | 1 | 1 |
| | 2 | 1 |

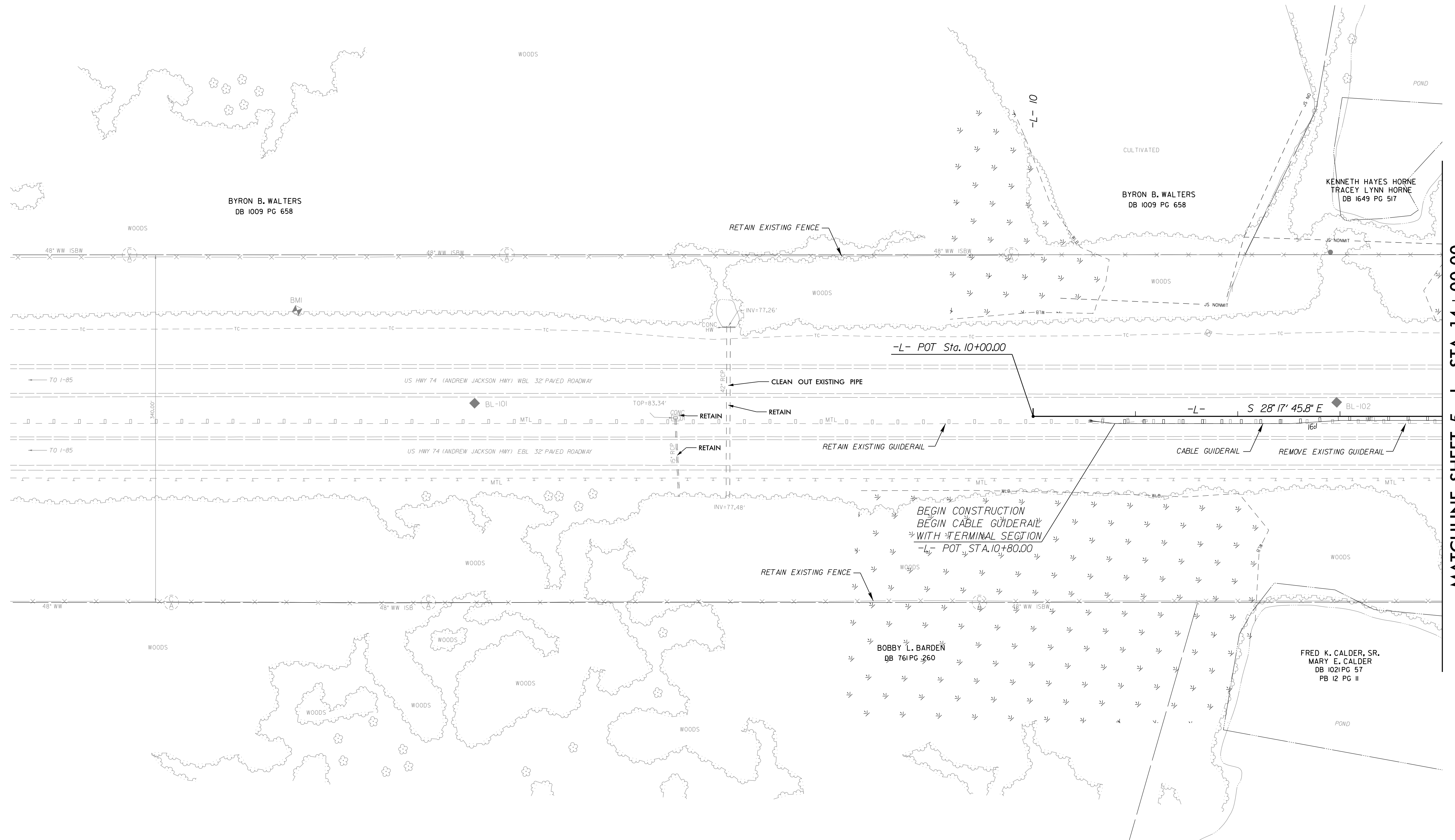
8/17/99

| | | | |
|--|--|---------------------|--|
| PROJECT REFERENCE NO. <i>R-575J</i> | | SHEET NO. 4 | |
| RW SHEET NO. | | | |
| ROADWAY DESIGN ENGINEER | | HYDRAULICS ENGINEER | |
| | | | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

NAD 83/NA 2011

REVISIONS

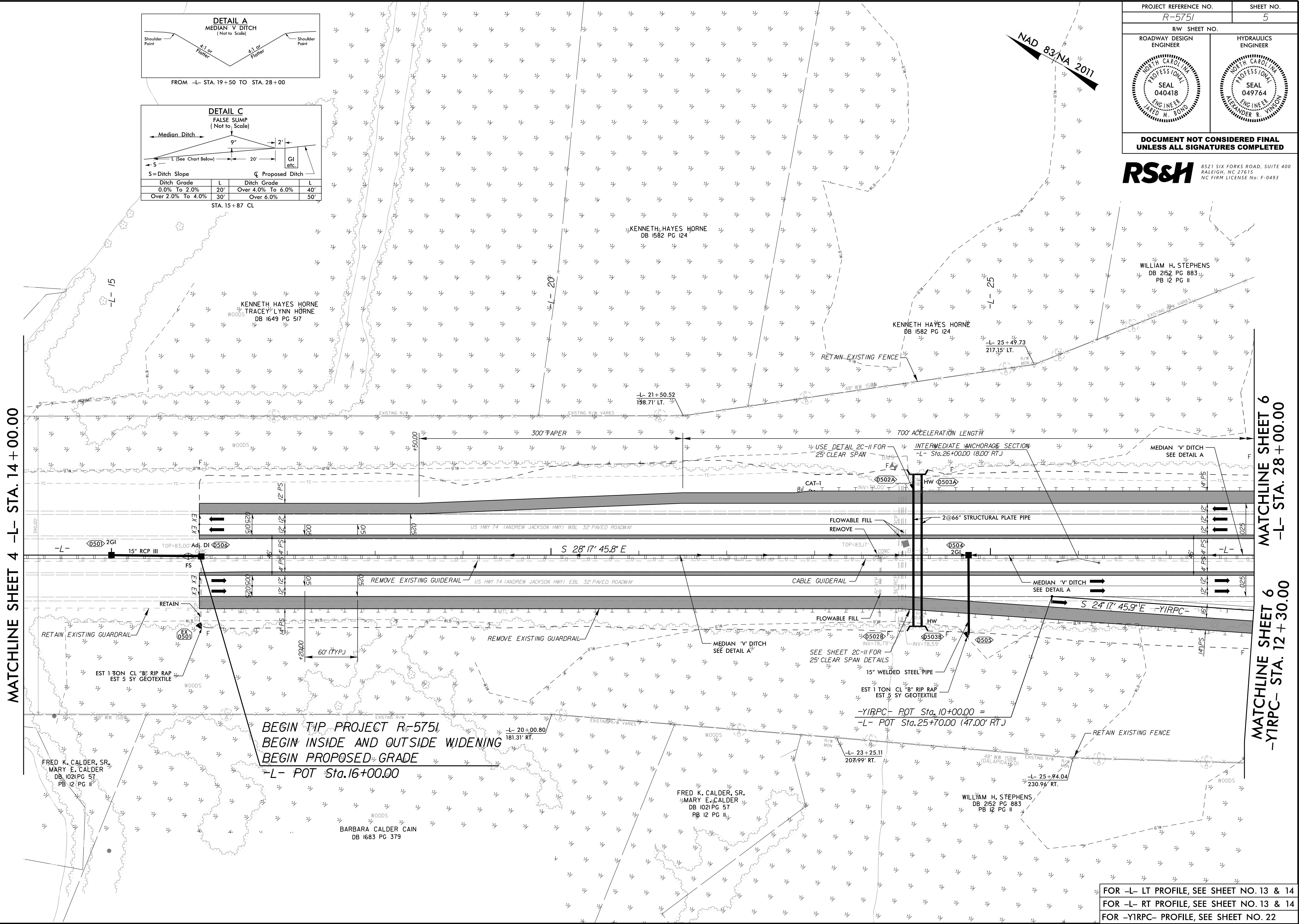
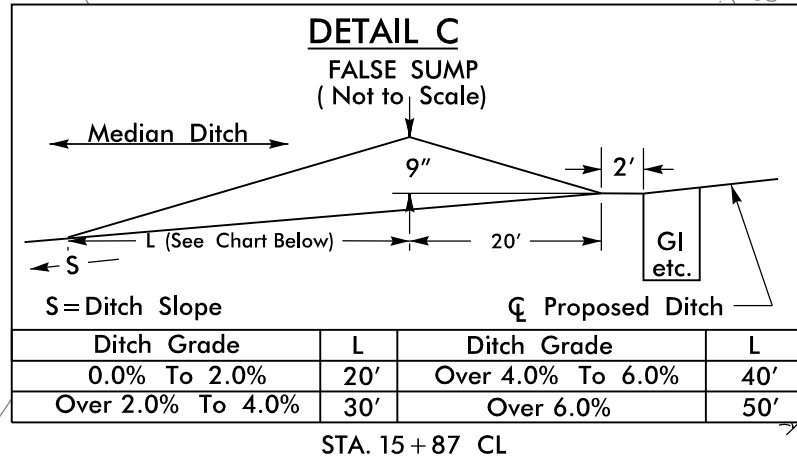
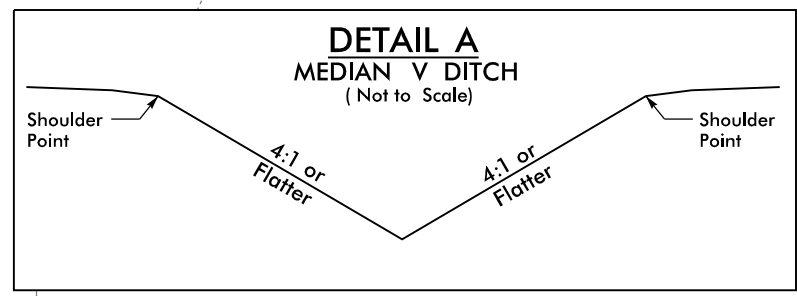


MATCHLINE SHEET 5 -L- STA. 14 + 00.00

05-OCT-2022 10:42
R:\Roadway\Projects\R575J_Rdy.psh_4.dgn
JMB

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

RS&H
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE NO: F-0493



MATCHLINE SHEET 4 -L- STA. 14+00.00

MATCHLINE SHEET 6 -L- STA. 28+00.00
MATCHLINE SHEET 6 -YIRPC- STA. 12+30.00

BEGIN TIP PROJECT R-5751
BEGIN INSIDE AND OUTSIDE WIDENING
BEGIN PROPOSED GRADE
-L- POT Sta. 16+00.00

FOR -L- LT PROFILE, SEE SHEET NO. 13 & 14
FOR -L- RT PROFILE, SEE SHEET NO. 13 & 14
FOR -YIRPC- PROFILE, SEE SHEET NO. 22

REVISIONS

8/17/99

05-OCT-2022 10:42
R:\Roadway\Projects\R5751_Rdy.psh_5.dgn
JMS/SUBSERNAME

REVISIONS

-YIRPA- CURVE DATA

| | | |
|--|---|---|
| PI Sta 15+2671 OS = 4'19" 30.5" D = 220.00' LT = 146.37' ST = 13.37' | PI Sta 16+983.1 OS = 7'19" 102.2' (RT) D = 5'52" 16.8" L = 196.33' T = 38.33' R = 1480.00' SE = 0° RO = SEE PLANS DS = 65 MPH | PI Sta 18+76.38 OS = 4'38" 14.2" D = 240.00' LT = 180.00' ST = 80.00' |
| PI Sta 21+56.38 OS = 5'20" 37.1" D = 180.00' LT = 60.00' ST = 60.00' | PI Sta 24+142.62 OS = 5'56" 14.6" D = 387.30' L = 196.29' T = 06.29' R = 3600' | PI Sta 26+36.96 OS = 38'11" 54.5' (RT) D = 59' 40" 59.2" L = 64.71' T = 33.34' R = 3600' |

-YIRPB- CURVE DATA

| | | |
|--|---|---|
| PI Sta 10+933.4 OS = 1'28" 47.3" D = 140.00' LT = 93.34' ST = 46.67' | PI Sta 15+175.33 OS = 19'51" 42.1' (LT) D = 2'06" 51.2" L = 750.23' T = 371.53' R = 2700.00' SE = 0° RO = SEE PLANS DS = 65 MPH | PI Sta 21+96.32 OS = 24' 22" 00.9' (LT) D = 24' 21" 24" L = 125.86' T = 63.59' R = 296.00' |
|--|---|---|

-YIRPC- CURVE DATA

| | | |
|---|---|---|
| PI Sta 14+967.1 OS = 4'19" 30.5" D = 220.00' LT = 146.37' ST = 13.37' | PI Sta 16+546.3 OS = 7'19" 102.2' (RT) D = 5'52" 16.8" L = 196.33' T = 38.33' R = 1480.00' SE = 0° RO = SEE PLANS DS = 65 MPH | PI Sta 18+913 OS = 4'38" 14.2" D = 240.00' LT = 180.00' ST = 80.00' |
| PI Sta 20+931.1 OS = 4'19" 30.5" D = 180.00' LT = 60.00' ST = 60.00' | PI Sta 24+117.6 OS = 5'56" 14.6" D = 387.30' L = 196.29' T = 06.29' R = 3600' | PI Sta 26+934.7 OS = 49'51" 23.4' (RT) D = 59' 40" 59.2" L = 64.71' T = 33.34' R = 3600' |

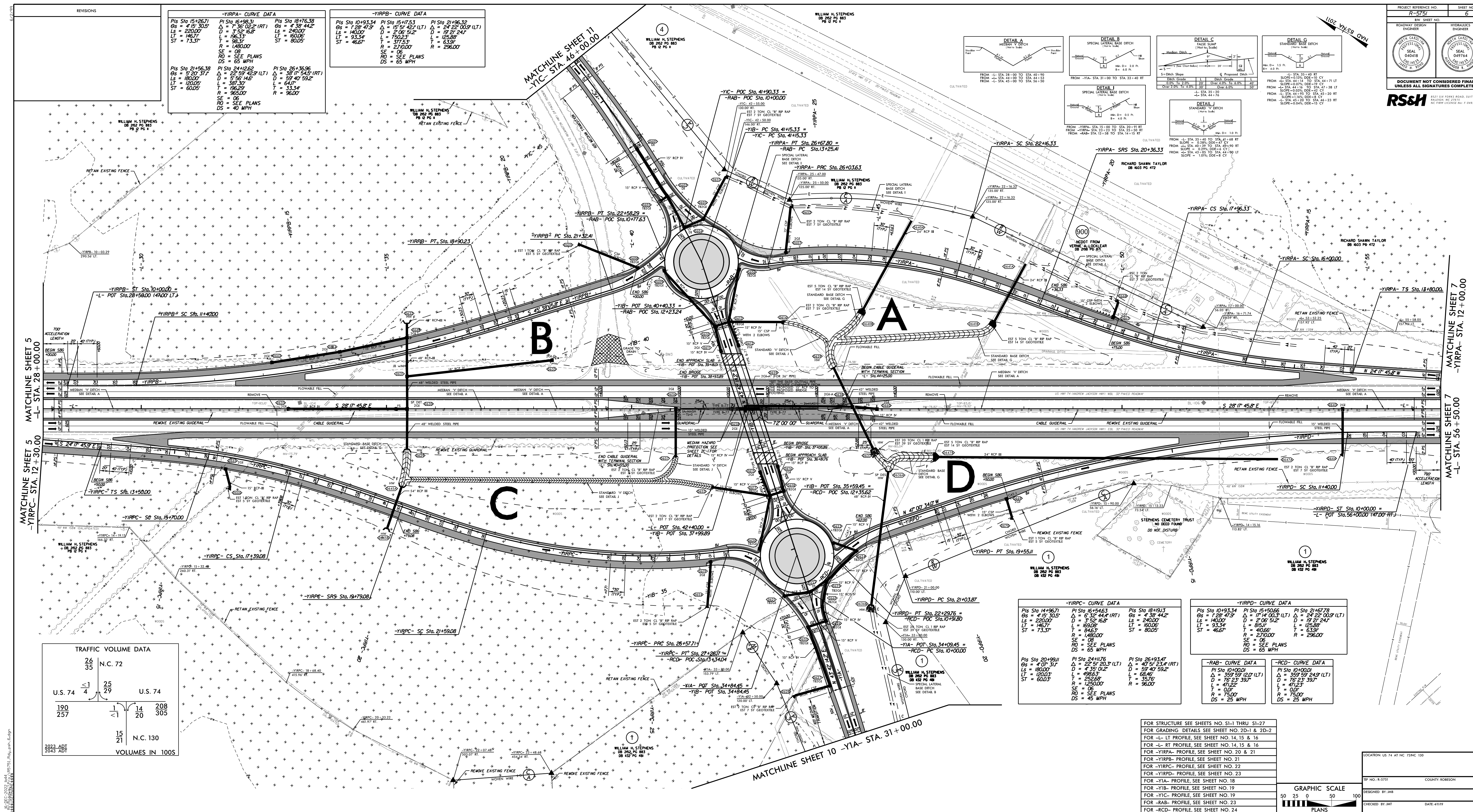
-YIRPD- CURVE DATA

| | | |
|--|---|---|
| PI Sta 10+933.4 OS = 1'28" 47.3" D = 140.00' LT = 93.34' ST = 46.67' | PI Sta 15+175.33 OS = 19'51" 42.1' (LT) D = 2'06" 51.2" L = 750.23' T = 371.53' R = 2700.00' SE = 0° RO = SEE PLANS DS = 65 MPH | PI Sta 21+96.32 OS = 24' 22" 00.9' (LT) D = 24' 21" 24" L = 125.86' T = 63.59' R = 296.00' |
|--|---|---|

TRAFFIC VOLUME DATA

| | | |
|------------|----------|------------|
| 26 35 | N.C. 72 | |
| 190 257 | U.S. 74 | 208 305 |
| 15 21 | N.C. 130 | |

VOLUMES IN 100S



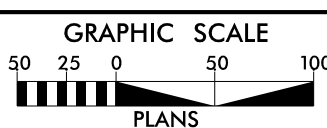
PROJECT REFERENCE NO. R-5751
SHEET NO. 6

ROADWAY DESIGN ENGINEER: WILLIAM H. STEPHENS
HYDRAULICS ENGINEER: RICHARD SHAWN TAYLOR

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

RS&H

- FOR STRUCTURE SEE SHEETS NO. S1-1 THRU S1-27
- FOR GRADING DETAILS SEE SHEET NO. 2D-1 & 2D-2
- FOR -L- LT PROFILE, SEE SHEET NO. 14, 15 & 16
- FOR -R- RT PROFILE, SEE SHEET NO. 14, 15 & 16
- FOR -YIRPA- PROFILE, SEE SHEET NO. 20 & 21
- FOR -YIRPB- PROFILE, SEE SHEET NO. 21
- FOR -YIRPC- PROFILE, SEE SHEET NO. 22
- FOR -YIRPD- PROFILE, SEE SHEET NO. 23
- FOR -YIA- PROFILE, SEE SHEET NO. 18
- FOR -YIB- PROFILE, SEE SHEET NO. 19
- FOR -YIC- PROFILE, SEE SHEET NO. 19
- FOR -YIB- PROFILE, SEE SHEET NO. 19
- FOR -RAB- PROFILE, SEE SHEET NO. 23
- FOR -RCD- PROFILE, SEE SHEET NO. 24



LOCATION US 74 AT NC 79NC 130

TP NO. R-5751 COUNTY ROSSIGN

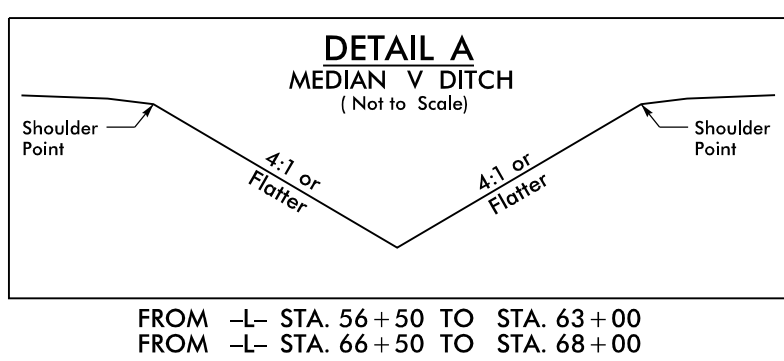
DESIGNED BY: JMS
CHECKED BY: JMT DATE: 4/19/99

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

RS&H
8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

-L- CURVE DATA

| | | |
|---|---|---|
| Pls Sta 60+65.59 Os = 1' 54' 35.5" Ls = 300.00' LT = 200.01' ST = 100.01' | Pl Sta 65+86.83 Δ = 10' 41' 45.2" (LT) D = 1' 16' 23.7" L = 840.05' T = 421.25' R = 4,500.00' SE = 05 RO = SEE PLANS | Pls Sta 71+05.64 Os = 1' 54' 35.5" Ls = 300.00' LT = 200.01' ST = 100.01' |
|---|---|---|



FROM -L- STA. 56+50 TO STA. 63+00
FROM -L- STA. 66+50 TO STA. 68+00

NORTH CAROLINA DEPT.
OF ADMINISTRATION
DB 1918 PG 636

NAD 83/NA 2011

MATCHLINE SHEET 6
-YIRPA- STA. 12+00.00

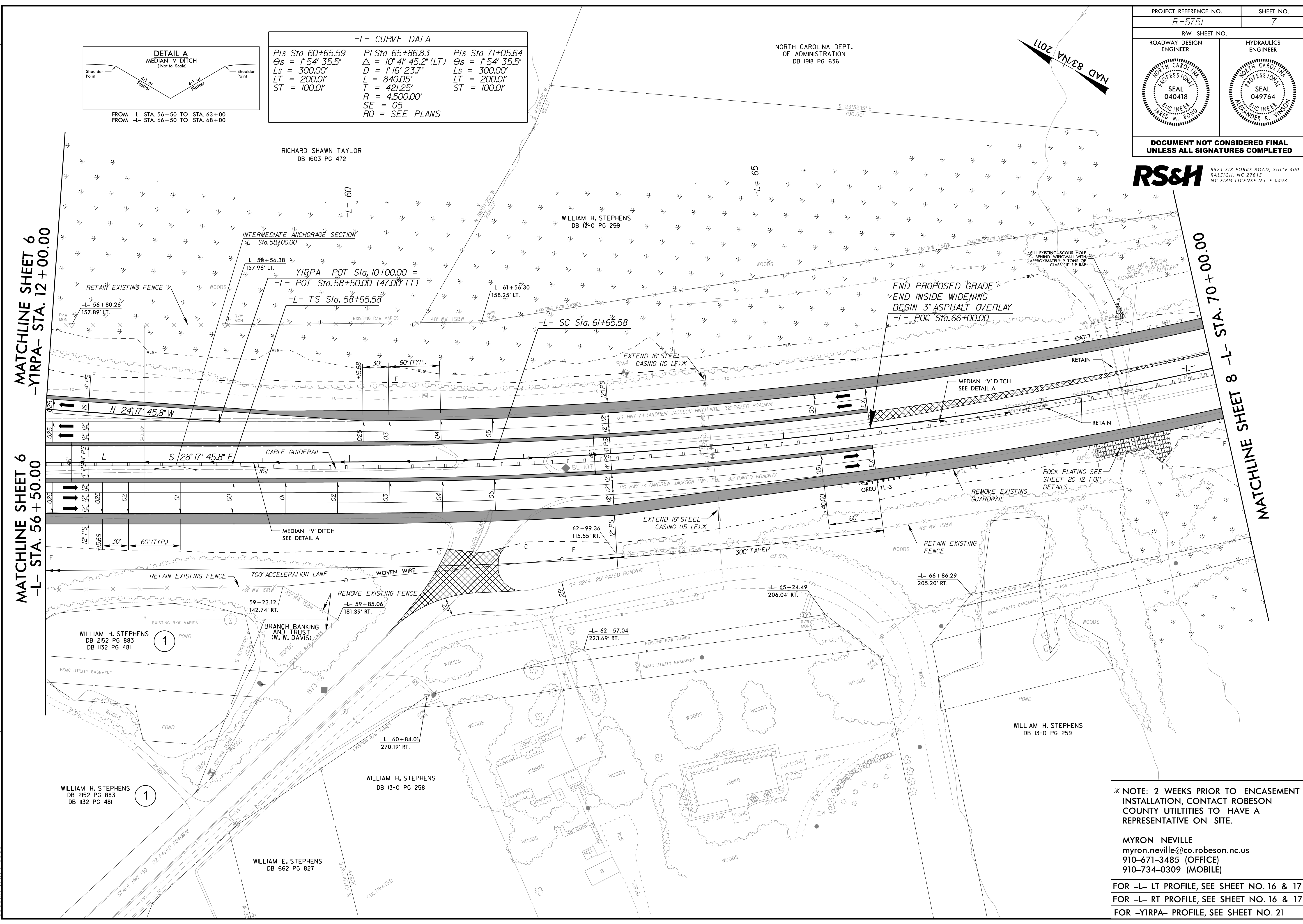
MATCHLINE SHEET 6
-L- STA. 56+50.00

MATCHLINE SHEET 8 -L- STA. 70+00.00

REVISIONS

05-OCT-2022 10:42
R:\Roadway\Projects\R575J\1_Rdy_psh_7.dgn
JAMES M. BOND

8/17/99



* NOTE: 2 WEEKS PRIOR TO ENCASMENT
INSTALLATION, CONTACT ROBESON
COUNTY UTILITIES TO HAVE A
REPRESENTATIVE ON SITE.

MYRON NEVILLE
myron.neville@co.robeson.nc.us
910-671-3485 (OFFICE)
910-734-0309 (MOBILE)

FOR -L- LT PROFILE, SEE SHEET NO. 16 & 17
FOR -L- RT PROFILE, SEE SHEET NO. 16 & 17
FOR -YIRPA- PROFILE, SEE SHEET NO. 21

8/17/99

NAD 83/NA 2011

| | |
|--|---------------------|
| PROJECT REFERENCE NO. R-575I | SHEET NO. 8 |
| RW SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

WILLIAM H. STEPHENS
DB 13-0 PG 258

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

NORTH CAROLINA DEPT.
OF ADMINISTRATION
DB 1918 PG 636

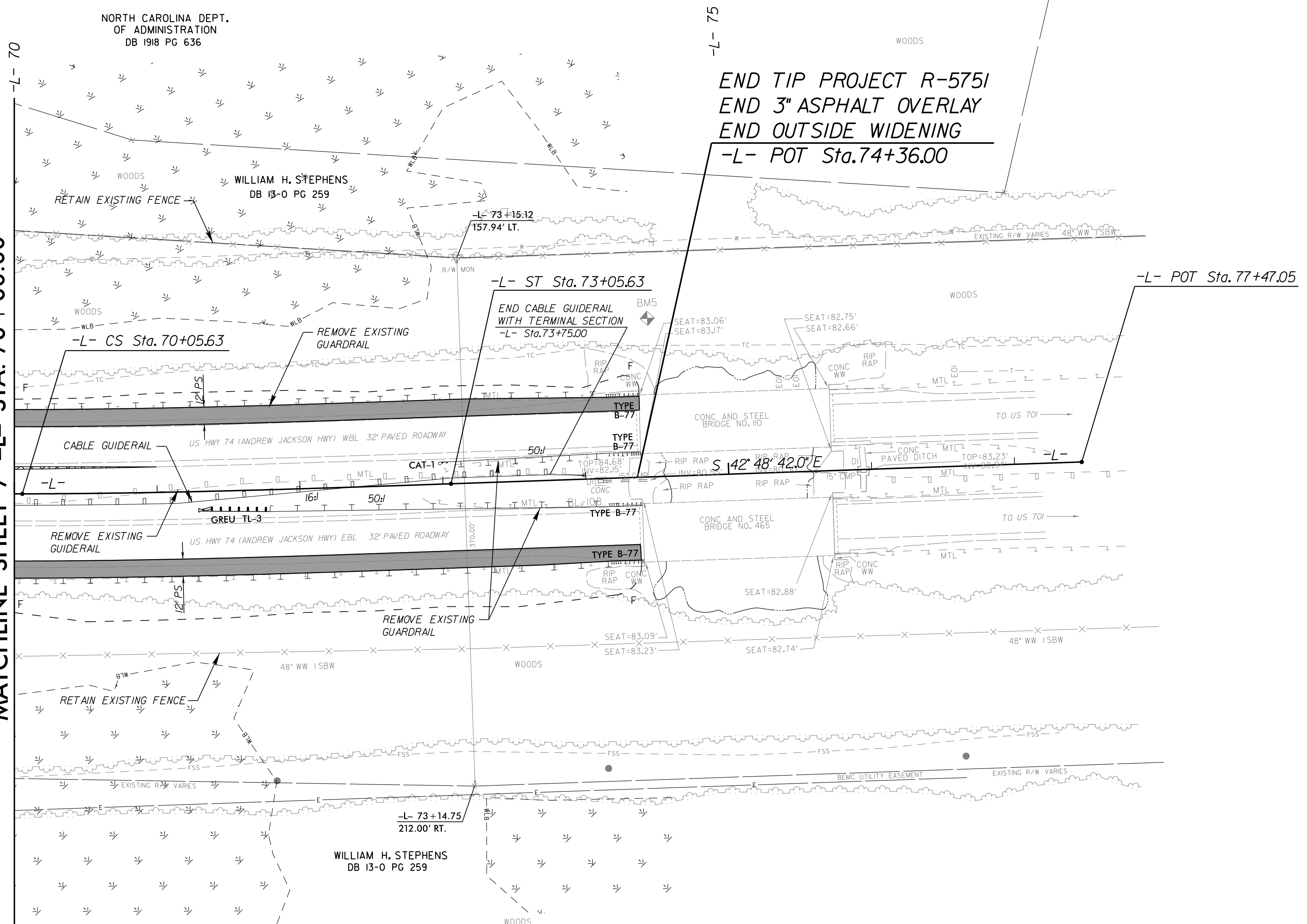
NORTH CAROLINA DEPT.
OF ADMINISTRATION
DB 1918 PG 636

WILLIAM H. STEPHENS
DB 13-0 PG 259

WILLIAM H. STEPHENS
DB 13-0 PG 259

END TIP PROJECT R-575I
END 3" ASPHALT OVERLAY
END OUTSIDE WIDENING
-L- POT Sta.74+36.00

MATCHLINE SHEET 7 -L- STA. 70+00.00



REVISIONS

05-OCT-2022 10:42
R:\Roadway\Projects\R575I_Rdy.psh_8.dgn
WILLIAM H. STEPHENS

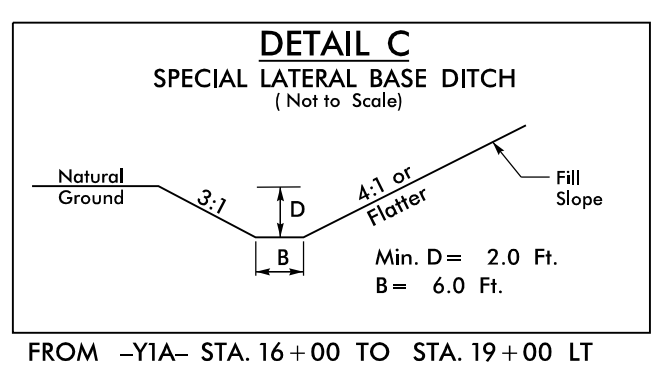
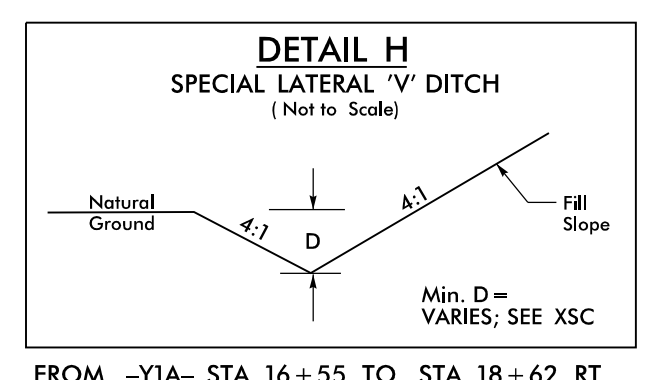
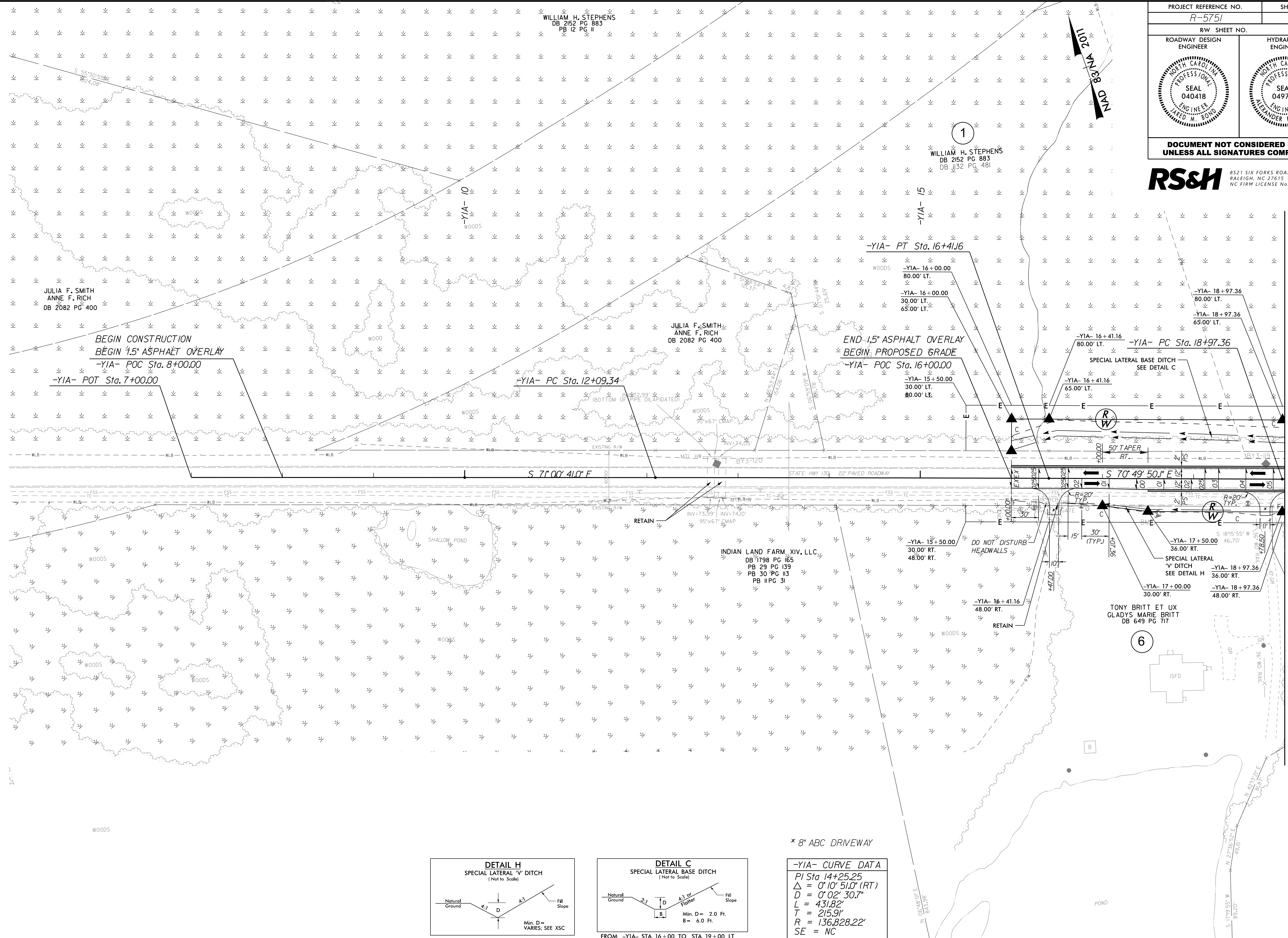
FOR -L- LT PROFILE, SEE SHEET NO. 16 & 17
FOR -L- RT PROFILE, SEE SHEET NO. 16 & 17

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

RS&H 8521 SIX FORKS ROAD, SUITE 400
RALEIGH, NC 27615
NC FIRM LICENSE No: F-0493

REVISIONS

MATCHLINE SHEET 10 -YIA- STA. 19+00.00



-YIA- CURVE DATA

| |
|------------------------------------|
| PI Sta 14+25.25 |
| $\Delta = 0^{\circ}10'51.0''$ (RT) |
| $D = 0^{\circ}02'30.7''$ |
| $L = 431.82'$ |
| $T = 215.91'$ |
| $RE = 136,828.22'$ |
| SE = NC |

8/17/99

05-OCT-2022 10:42
R:\Roadway\Projects\R5751_Rdy_psh_3.dgn
SUSHERMAN

FOR -YIA- PROFILE, SEE SHEET NO. 18