

09_08/2019

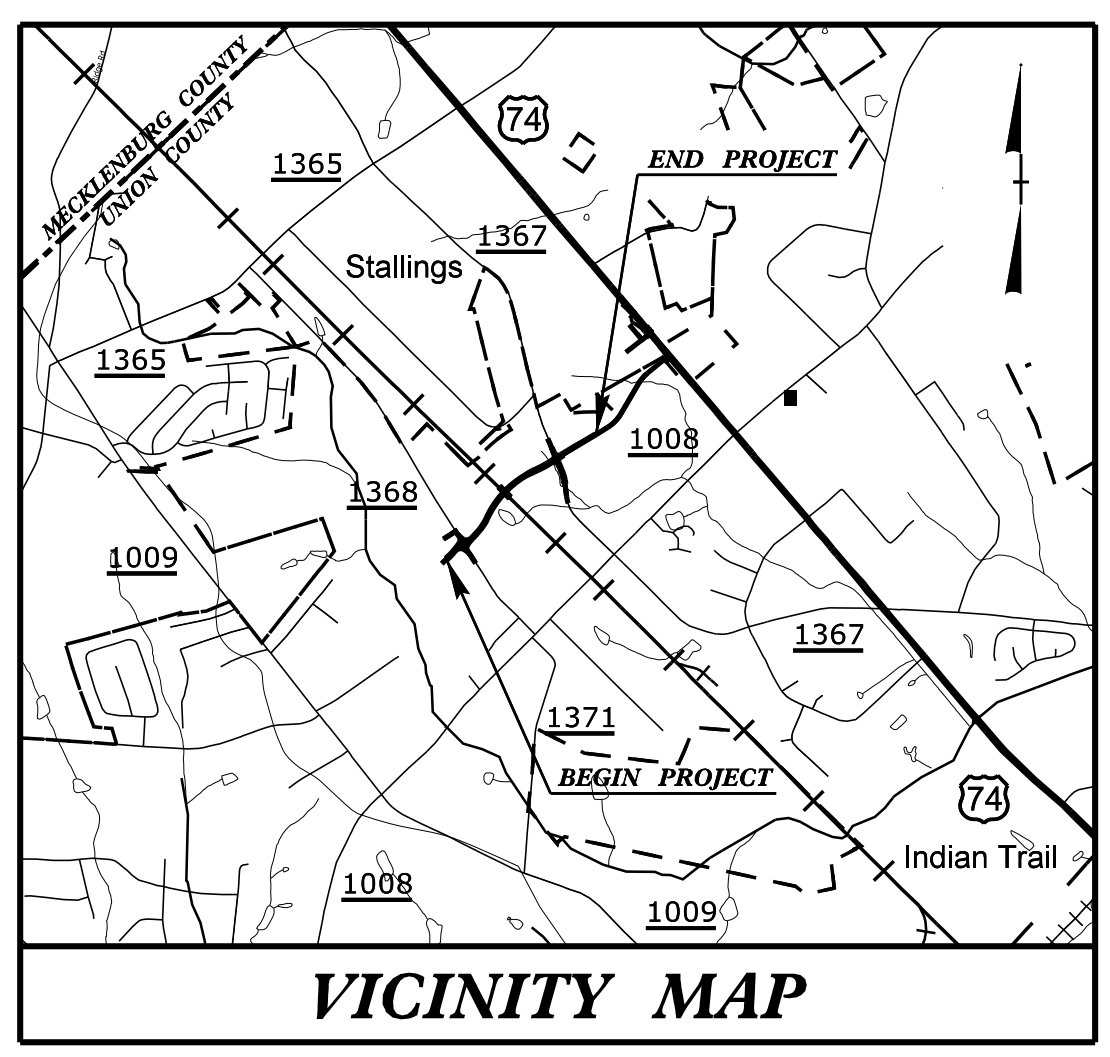
See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Plan Sheet Symbols

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

UNION COUNTY

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | U-5808 | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 44381.1.1 | N/A | PE | |
| 44381.2.1 | N/A | R/W | |
| 44381.2.4 | N/A | UTILITY | |
| 44381.3.1 | N/A | CONST | |

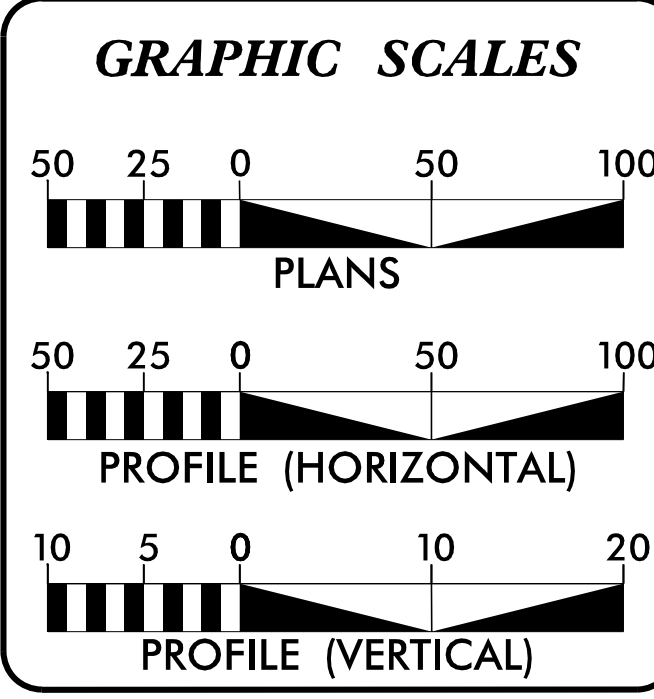
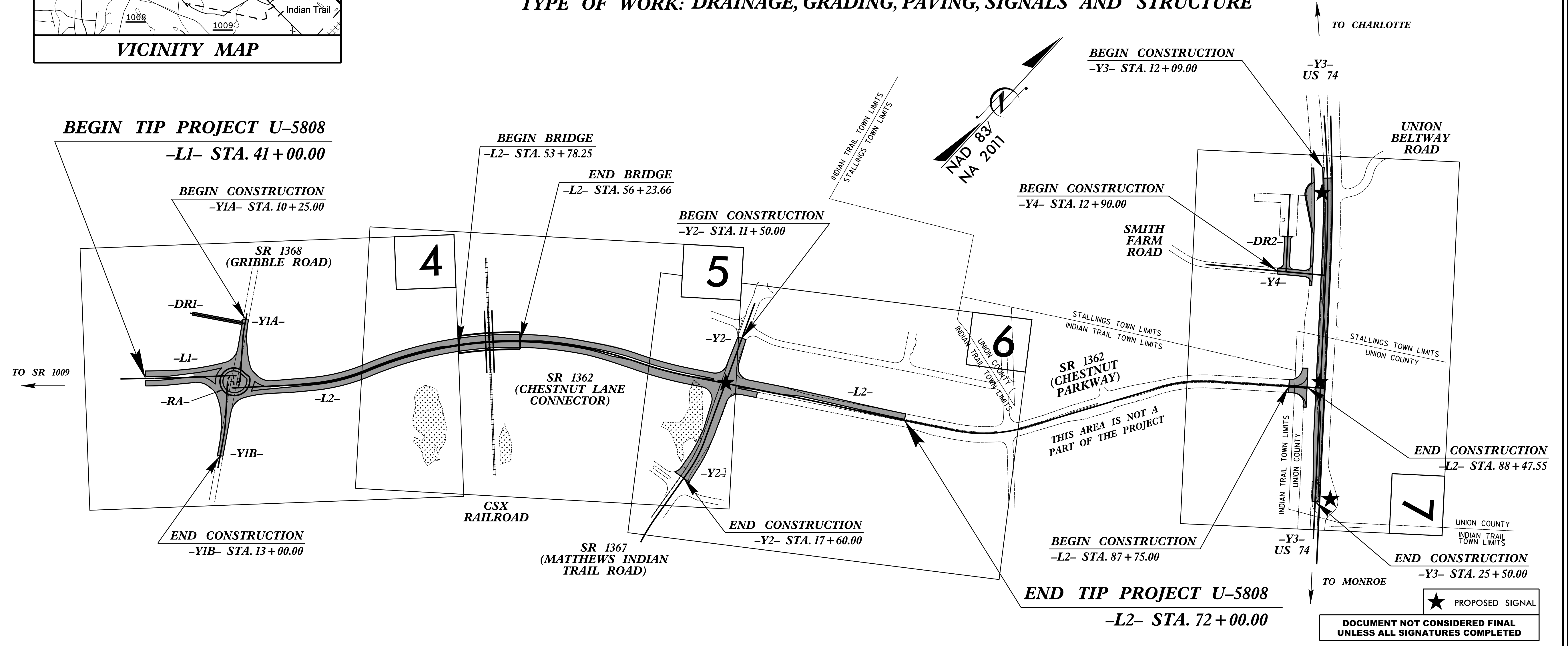
TIP PROJECT: U-5808



LOCATION: SR 1362 (CHESTNUT LANE CONNECTOR) FROM SR 1367 (MATTHEWS INDIAN TRAIL ROAD) TO SR 1368 (GRIBBLE ROAD). CONSTRUCT ROAD ON NEW LOCATION. INTERSECTION OF US 74 AND EXISTING SR 1362 (CHESTNUT LANE CONNECTOR). CONSTRUCT INTERSECTION IMPROVEMENTS.

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

CONTRACT: C204842



DESIGN DATA

| | |
|------------|--------|
| ADT 2023 = | 21,950 |
| ADT 2043 = | 24,950 |
| K = | 7 % |
| D = | 60 % |
| T = | 4 % * |
| V = | 40 MPH |

* TTST = 3% DUAL = 1%
FUNC CLASS = MINOR ARTERIAL REGIONAL TIER

PROJECT LENGTH

| | | |
|--|----------|--------------------|
| LENGTH ROADWAY TIP PROJECT U-5808 | = | 0.541 MILES |
| LENGTH STRUCTURE TIP PROJECT U-5808 | = | 0.046 MILES |
| TOTAL LENGTH TIP PROJECT U-5808 | = | 0.587 MILES |

-L1- AND -L2- USED TO DETERMINE PROJECT LENGTH

Prepared for NCDOT Division 10 In the Office of:

Mead&Hunt
111 E. Hargett Street, Suite 300
Raleigh, North Carolina 27601
919-714-8670 | meadhunt.com
NC License No. F-1235

| | |
|--------------------------------------|---|
| 2018 STANDARD SPECIFICATIONS | RICK DECOLA, PE PROJECT ENGINEER |
| RIGHT OF WAY DATE: MARCH 29, 2019 | SURAJ SANGHANI, PE PROJECT DESIGN ENGINEER |
| LETTING DATE: DECEMBER 19, 2023 | YANWEI MA, PE NCDOT CONTACT |

HYDRAULICS ENGINEER

DocuSigned by:
Brad Smith
10/5/2023

ROADWAY DESIGN ENGINEER

DocuSigned by:
R J Decola
10/4/2023



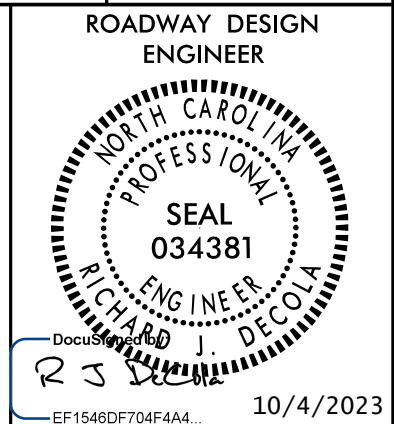
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★ PROPOSED SIGNAL
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

8/17/99

REVISIONS

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| SHEET NUMBER | INDEX OF SHEETS |
|----------------------|---|
| 1 | TITLE SHEET |
| 1A | INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS |
| 1B | CONVENTIONAL SYMBOLS |
| 2A-1 THRU 2A-4 | PAVEMENT SCHEDULE AND TYPICAL SECTIONS |
| 2B-1 THRU 2B-4 | ROADWAY DETAILS |
| 2C-1 THRU 2C-5 | SPECIAL DETAILS |
| 2D-1 THRU 2D-2 | DRAINAGE DETAILS |
| 3B-1 | ROADWAY SUMMARIES |
| 3D-1 THRU 3D-5 | DRAINAGE SUMMARIES |
| 3G-1 | GEOTECHNICAL SUMMARIES |
| 3P-1 | PARCEL INDEX SHEET |
| 4 THRU 11 | PLAN AND PROFILE SHEETS |
| RW02C-1 THRU RW02C-4 | SURVEY CONTROL SHEETS |
| RW02D-1 | PROPOSED ALIGNMENT CONTROL SHEET |
| TMP-1 THRU TMP-10 | TRANSPORTATION MANAGEMENT PLANS |
| PMP-1 THRU PMP-5 | PAVEMENT MARKING PLANS |
| EC-1 THRU EC-11 | EROSION CONTROL PLANS |
| SIGN-1 THRU SIGN-6 | SIGNING PLANS |
| SIG 1.0 THRU SIG 5.5 | SIGNAL PLANS |
| SIG.M1 THRU SIG.M8 | STANDARD DRAWINGS FOR ALL METAL POLES |
| SCP-1 THRU SCP-11 | SIGNAL COMMUNICATIONS PLANS |
| UC-1 THRU UC-8 | UTILITY CONSTRUCTION PLANS |
| UO-1 THRU UO-5 | UTILITIES BY OTHERS PLANS |
| X-1 | CROSS-SECTION INDEX |
| X-1A | CROSS-SECTION SUMMARY SHEET |
| X-2 THRU X-32 | CROSS-SECTIONS |
| S-1 THRU S-56 | STRUCTURE PLANS |

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. NO. 225.04 AND 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 AND 560.02.

SIDE ROADS:

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

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 WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

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 UNION COUNTY PUBLIC WORKS, DUKE ENERGY, PIEDMONT NATURAL GAS, WINDSTREAM, SPECTRUM, SPRINT, VERIZON/MCI, AND SEGRA.

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

RIGHT-OF-WAY MARKERS:

RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS AND BY CONTRACT IN ACCORDANCE WITH DESIGNATED SYMBOLS.

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 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 |
| 225.04 | Method of Obtaining Superelevation - Two Lane Pavement |
| 225.05 | Method of Obtaining Superelevation - Divided Highways |
| DIVISION 3 - PIPE CULVERTS | |
| 300.01 | Method of Pipe Installation |
| DIVISION 4 - MAJOR STRUCTURES | |
| 422.01 | Bridge Approach Fills - Type I Standard Approach Fill |
| DIVISION 5 - SUBGRADE, BASES AND SHOULDERS | |
| 560.01 | Method of Shoulder Construction - High Side of Superelevated Curve - Method I |
| 560.02 | Method of Shoulder Construction - High Side of Superelevated Curve - Method II |
| DIVISION 6 - ASPHALT BASES AND PAVEMENTS | |
| 654.01 | Pavement Repairs |
| DIVISION 8 - INCIDENTALS | |
| 806.03 | Concrete Contol of Access Marker |
| 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 |
| 838.39 | Reinforced Concrete Endwall - for Single 72" Pipe 90 Skew |
| 838.45 | Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40 |
| 838.69 | Reinforced Brick Endwall - for Single 72" Pipe 90 Skew |
| 838.75 | Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70 |
| 838.80 | Precast Endwalls - 12" thru 72" Pipe 90 Skew |
| 840.00 | Concrete Base Pad for Drainage Structures |
| 840.01 | Brick Catch Basin - 12" thru 54" Pipe |
| 840.02 | Concrete Catch Basin - 12" thru 54" Pipe |
| 840.03 | Frame, Grates and Hood - for Use on Standard Catch Basin |
| 840.14 | Concrete Drop Inlet - 12" thru 30" Pipe |
| 840.15 | Brick Drop Inlet - 12" thru 30" Pipe |
| 840.16 | Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15 |
| 840.18 | Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe |
| 840.20 | Frames and Wide Slot Flat Grates |
| 840.22 | Frames and Wide Slot Sag Grates |
| 840.24 | Frames and Narrow Slot Sag Grates |
| 840.25 | Anchorage for Frames - Brick or Concrete or Precast |
| 840.27 | Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe |
| 840.29 | Frames and Narrow Slot Flat Grates |
| 840.31 | Concrete Junction Box - 12" thru 66" Pipe |
| 840.32 | Brick Junction Box - 12" thru 66" Pipe |
| 840.35 | Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates |
| 840.45 | Precast Drainage Structure |
| 840.46 | Traffic Bearing Precast Drainage Structure |
| 840.54 | Mannole Frame and Cover |
| 840.66 | Drainage Structure Steps |
| 840.72 | Pipe Collar |
| 846.01 | Concrete Curb, Gutter and Curb & Gutter |
| 846.02 | Drop Inlet Installation in Expressway Gutter |
| 846.04 | Drop Inlet Installation in Shoulder Berm Gutter |
| 848.01 | Concrete Sidewalk |
| 848.04 | Street Turnout |
| 848.05 | Curb Ramp - Proposed Curb & Gutter |
| 852.01 | Concrete Islands |
| 852.05 | Median Curb for Catch Basin - for Use with 1'-6" Curb and Gutter |
| 852.06 | Method for Placement of Drop Inlets in Concrete Islands |
| 852.10 | Median Construction - with Curb and Gutter |
| 862.01 | Guardrail Placement |
| 862.02 | Guardrail Installation |
| 862.03 | Structure Anchor Units |
| 876.02 | Guide for Rip Rap at Pipe Outlets |

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

Note: Not to Scale

BOUNDARIES AND PROPERTY:

Table listing symbols for 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, Existing Fence Line, Proposed Woven Wire Fence, Proposed Chain Link Fence, Proposed Barbed Wire Fence, Existing Wetland Boundary, Proposed Wetland Boundary, Existing Endangered Animal Boundary, Existing Endangered Plant Boundary, Existing Historic Property Boundary, Known Contamination Area: Soil, Potential Contamination Area: Soil, Known Contamination Area: Water, Potential Contamination Area: Water, Contaminated Site: Known or Potential.

BUILDINGS AND OTHER CULTURE:

Table listing symbols for 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:

Table listing symbols for hydrology: Stream or Body of Water, Hydro, Pool or Reservoir, Jurisdictional Stream, Buffer Zone 1, Buffer Zone 2, Flow Arrow, Disappearing Stream, Spring, Wetland, Proposed Lateral, Tail, Head Ditch, False Sump.

RAILROADS:

Table listing symbols for railroads: Standard Gauge, RR Signal Milepost, Switch, RR Abandoned, RR Dismantled.

RIGHT OF WAY & PROJECT CONTROL:

Table listing symbols for right of way and 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 CA Monument, Proposed CA Monument (Rebar and Cap), Proposed CA 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, Proposed Temporary Drainage Easement, Proposed Permanent Drainage Easement, Proposed Permanent Drainage/Utility Easement, Proposed Permanent Utility Easement, Proposed Temporary Utility Easement, Proposed Aerial Utility Easement.

ROADS AND RELATED FEATURES:

Table listing symbols for roads and related features: Existing Edge of Pavement, Existing Curb, Proposed Slope Stakes Cut, Proposed Slope Stakes Fill, Proposed Curb Ramp, Existing Metal Guardrail, Proposed Guardrail, Existing Cable Guiderail, Proposed Cable Guiderail, Equality Symbol, Pavement Removal.

VEGETATION:

Table listing symbols for vegetation: Single Tree, Single Shrub, Hedge.

Table listing symbols for woods, orchard, and vineyard: Woods Line, Orchard, Vineyard.

EXISTING STRUCTURES:

Table listing symbols for existing structures: Bridge, Tunnel or Box Culvert, Bridge Wing Wall, Head Wall and End Wall, Head and End Wall, Pipe Culvert, Footbridge, Drainage Box: Catch Basin, DI or JB, Paved Ditch Gutter, Storm Sewer Manhole, Storm Sewer.

UTILITIES:

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

Table listing symbols for utilities: 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, H-Frame Pole, U/G Power Line Test Hole (SUE - LOS A)*, U/G Power Line (SUE - LOS B)*, U/G Power Line (SUE - LOS C)*, U/G Power Line (SUE - LOS D)*.

TELEPHONE:

Table listing symbols for telephone: Existing Telephone Pole, Proposed Telephone Pole, Telephone Manhole, Telephone Pedestal, Telephone Cell Tower, U/G Telephone Cable Hand Hole, U/G Telephone Test Hole (SUE - LOS A)*, U/G Telephone Cable (SUE - LOS B)*, U/G Telephone Cable (SUE - LOS C)*, U/G Telephone Cable (SUE - LOS D)*, U/G Telephone Conduit (SUE - LOS B)*, U/G Telephone Conduit (SUE - LOS C)*, U/G Telephone Conduit (SUE - LOS D)*, U/G Fiber Optics Cable (SUE - LOS B)*, U/G Fiber Optics Cable (SUE - LOS C)*, U/G Fiber Optics Cable (SUE - LOS D)*.

WATER:

Table listing symbols for 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)*, U/G Water Line (SUE - LOS C)*, U/G Water Line (SUE - LOS D)*, Above Ground Water Line.

TV:

Table listing symbols for TV: TV Pedestal, TV Tower, U/G TV Cable Hand Hole, U/G TV Test Hole (SUE - LOS A)*, U/G TV Cable (SUE - LOS B)*, U/G TV Cable (SUE - LOS C)*, U/G TV Cable (SUE - LOS D)*, U/G Fiber Optic Cable (SUE - LOS B)*, U/G Fiber Optic Cable (SUE - LOS C)*, U/G Fiber Optic Cable (SUE - LOS D)*.

GAS:

Table listing symbols for gas: Gas Valve, Gas Meter, U/G Gas Line Test Hole (SUE - LOS A)*, U/G Gas Line (SUE - LOS B)*, U/G Gas Line (SUE - LOS C)*, U/G Gas Line (SUE - LOS D)*, Above Ground Gas Line.

SANITARY SEWER:

Table listing symbols for sanitary sewer: Sanitary Sewer Manhole, Sanitary Sewer Cleanout, U/G Sanitary Sewer Line, Above Ground Sanitary Sewer, SS Force Main Line Test Hole (SUE - LOS A)*, SS Force Main Line (SUE - LOS B)*, SS Force Main Line (SUE - LOS C)*, SS Force Main Line (SUE - LOS D)*.

MISCELLANEOUS:

Table listing symbols for miscellaneous: Utility Pole, Utility Pole with Base, Utility Located Object, Utility Traffic Signal Box, Utility Unknown U/G Line (SUE - LOS B)*, U/G Tank; Water, Gas, Oil, Underground Storage Tank, Approx. Loc., A/G Tank; Water, Gas, Oil, Geoenvironmental Boring, Abandoned According to Utility Records, End of Information.

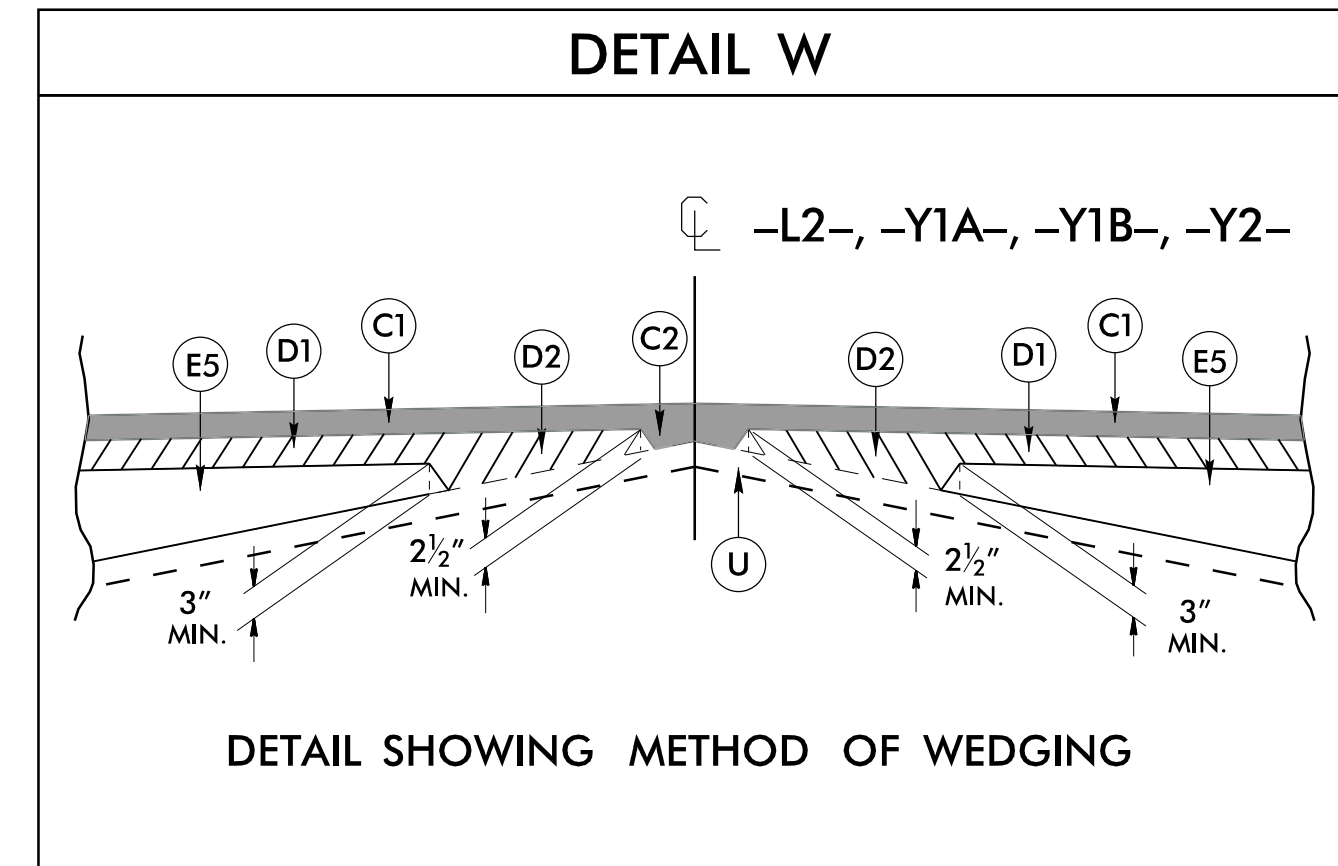
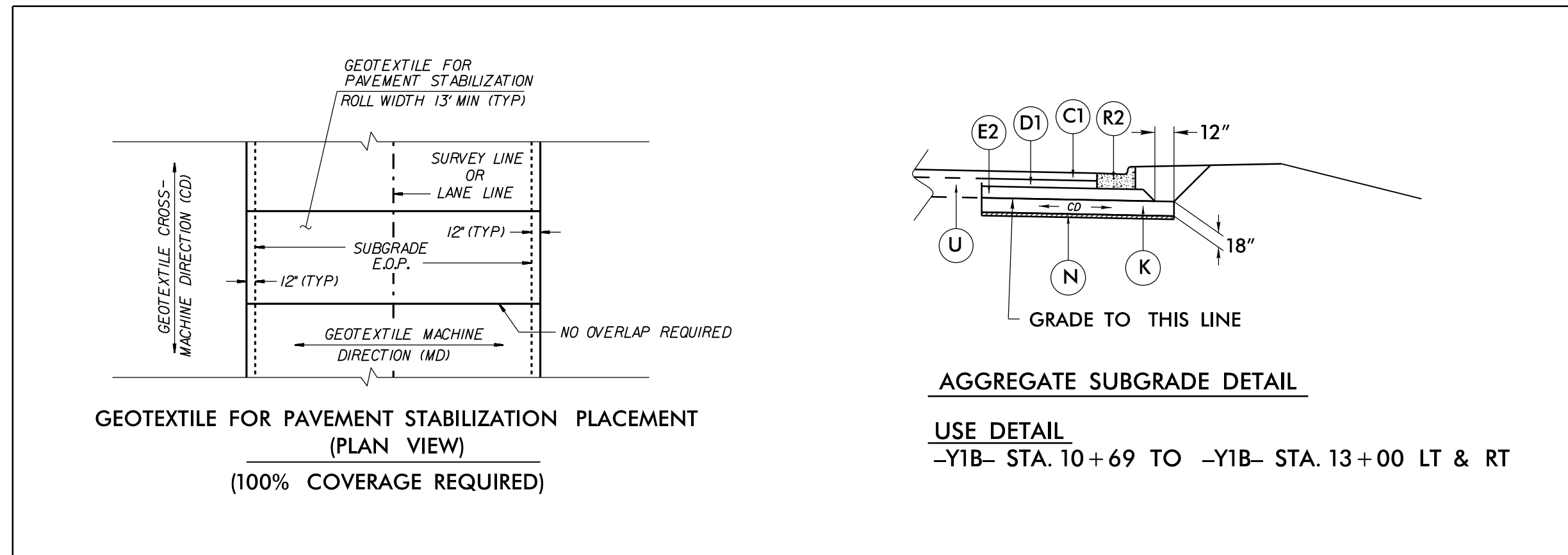
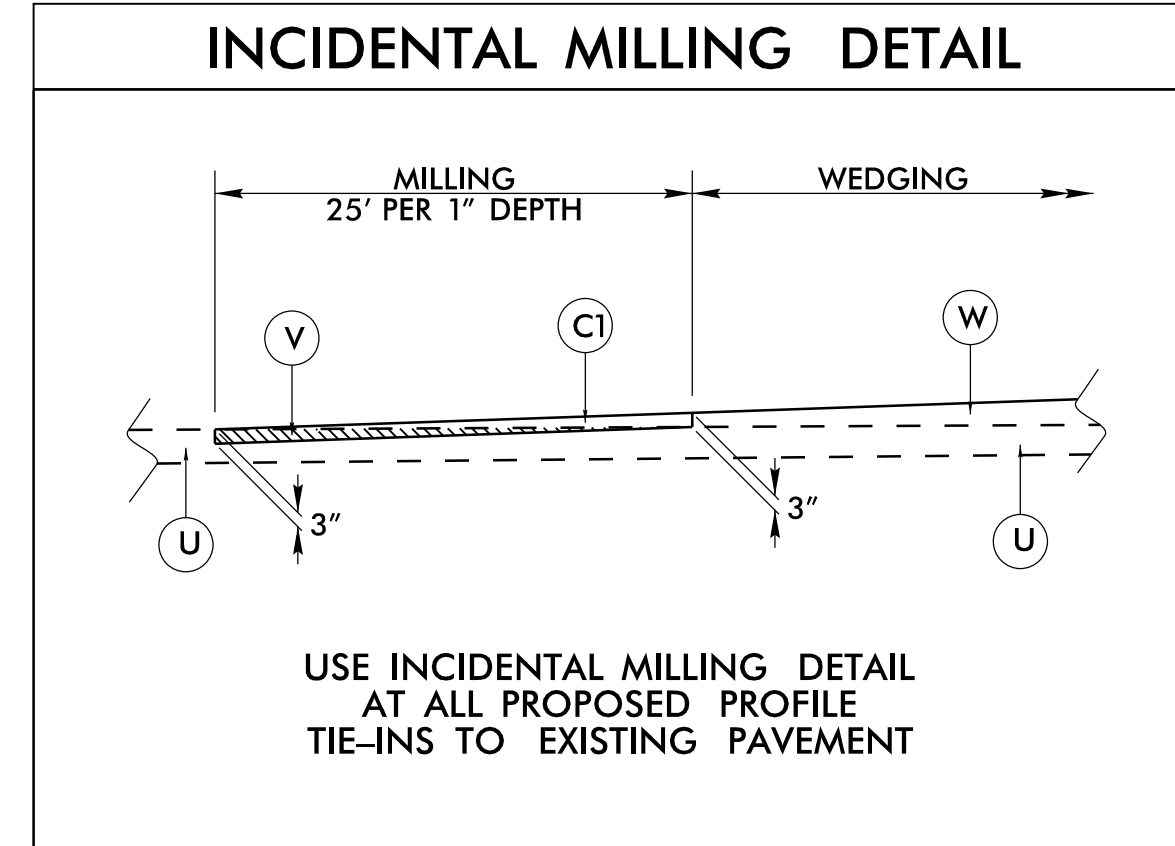
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PAVEMENT SCHEDULE

| | | | |
|----|---|----|---|
| A1 | 6" JOINTED CONCRETE PAVEMENT REINFORCED WITH WIRE MESH (SIZE 4x4 W3xW3). | K | PROP. 18" CLASS IV SUBGRADE STABILIZATION. |
| A2 | 7" JOINTED CONCRETE TRUCK APRON REINFORCED WITH WIRE MESH (SIZE 4x4 W3.5xW3.5). | N | GEOTEXTILE FOR SOIL STABILIZATION. |
| C1 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | R1 | 1'-6" CONCRETE CURB AND GUTTER. |
| C2 | PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1" IN DEPTH OR GREATER THAN 1½" IN DEPTH. | R2 | 2'-6" CONCRETE CURB AND GUTTER. |
| C3 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | R3 | 9" X 12" CONCRETE CURB. |
| D1 | PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. | R4 | 5" MONOLITHIC CONCRETE ISLAND. |
| D2 | PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH. | R5 | SHOULDER BERM GUTTER. |
| E1 | PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. | S | 4" CONCRETE SIDEWALK. |
| E2 | PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. | T | EARTH MATERIAL. |
| E3 | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. | U | EXISTING PAVEMENT. |
| E4 | PROP. APPROX. 11" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. | V | INCIDENTAL MILLING. |
| E5 | PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH. | W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL). |

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

| | |
|---|--|
| PROJECT REFERENCE NO. <i>U-5808</i> | SHEET NO. <i>2A-1</i> |
| ROADWAY DESIGN ENGINEER <i>R. J. ...</i> | PAVEMENT DESIGN ENGINEER <i>Joseph T. Holland</i> |
| SEAL 034381 NORTH CAROLINA PROFESSIONAL ENGINEER | SEAL 024964 NORTH CAROLINA PROFESSIONAL ENGINEER |
| 10/4/2023 | 10/4/2023 |
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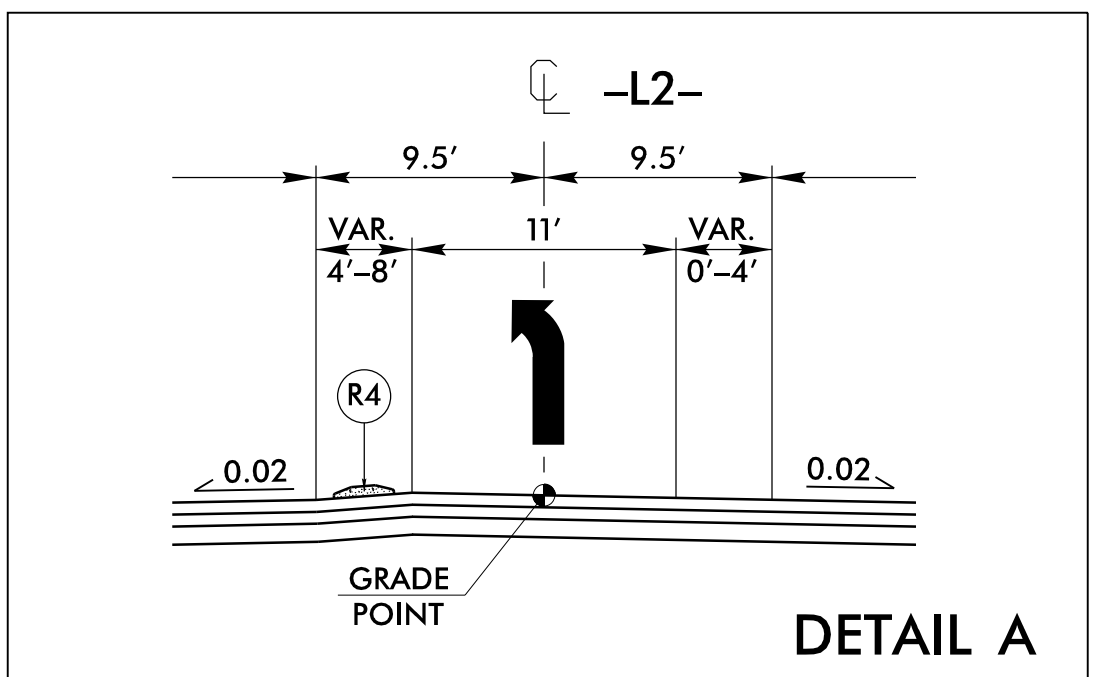


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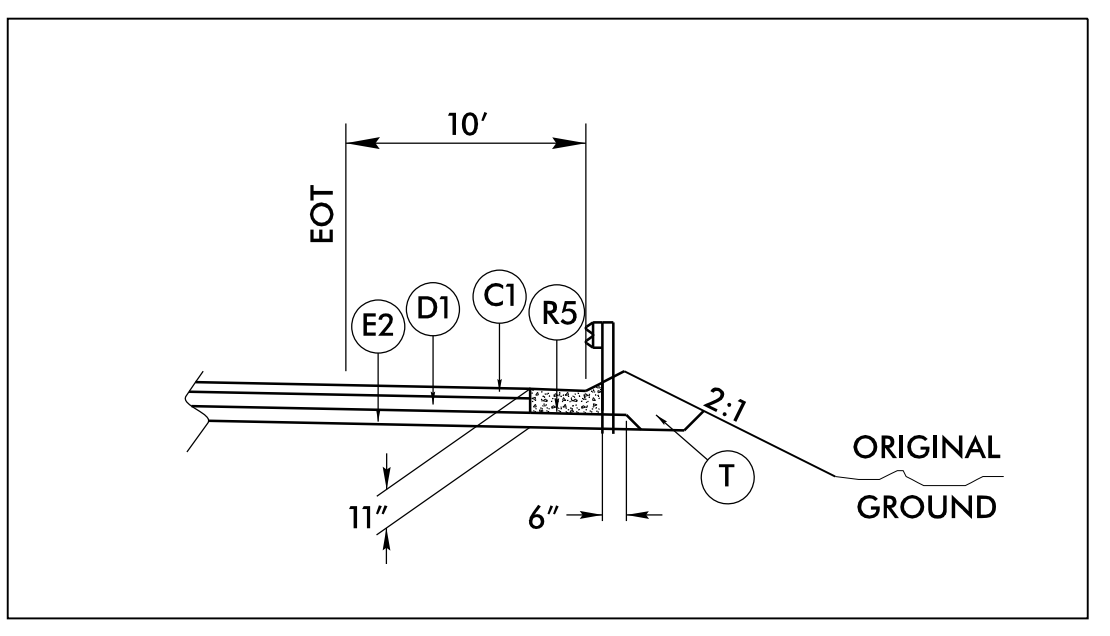
6/2/2023

| PAVEMENT SCHEDULE | |
|-------------------|---|
| C1 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| D1 | PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| E2 | PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| R1 | 1'-6" CONCRETE CURB AND GUTTER. |
| R2 | 2'-6" CONCRETE CURB AND GUTTER. |
| R4 | 5" MONOLITHIC CONCRETE ISLAND. |
| R5 | SHOULDER BERM GUTTER. |
| S | 4" CONCRETE SIDEWALK. |
| T | EARTH MATERIAL. |
| U | EXISTING PAVEMENT. |
| W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL). |

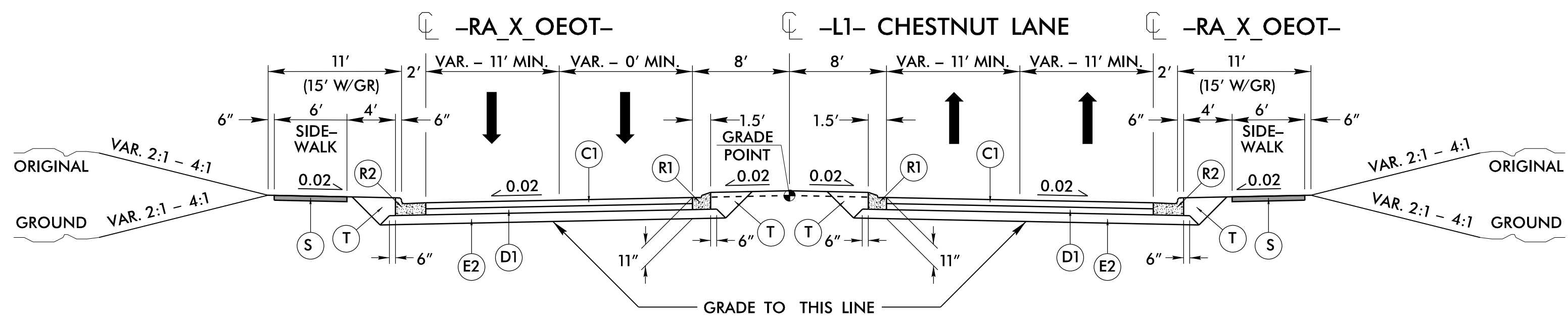
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



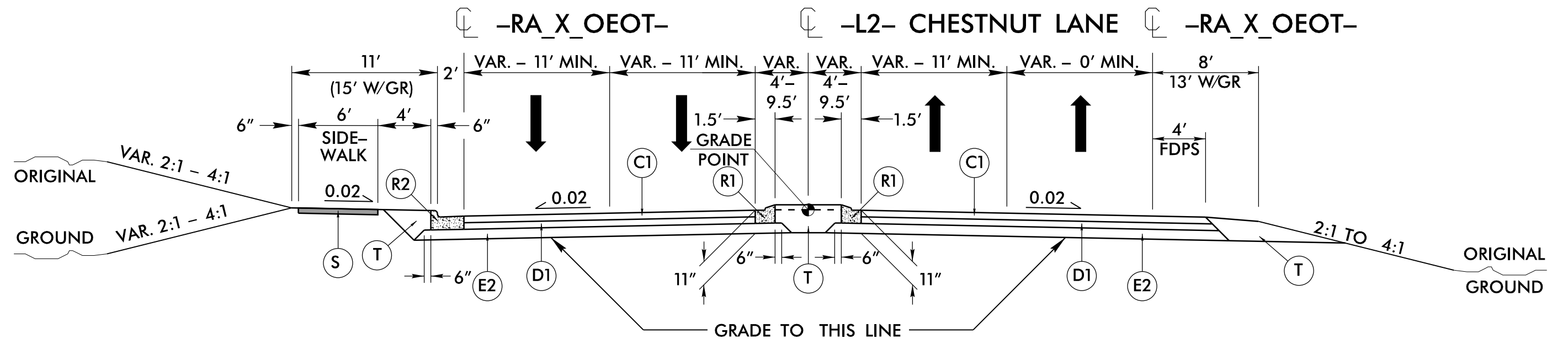
DETAIL A
 -L2- STA. 61+00.00 TO -L2- STA. 64+15.00
 -L2- STA. 65+25.00 TO -L2- STA. 66+75.00



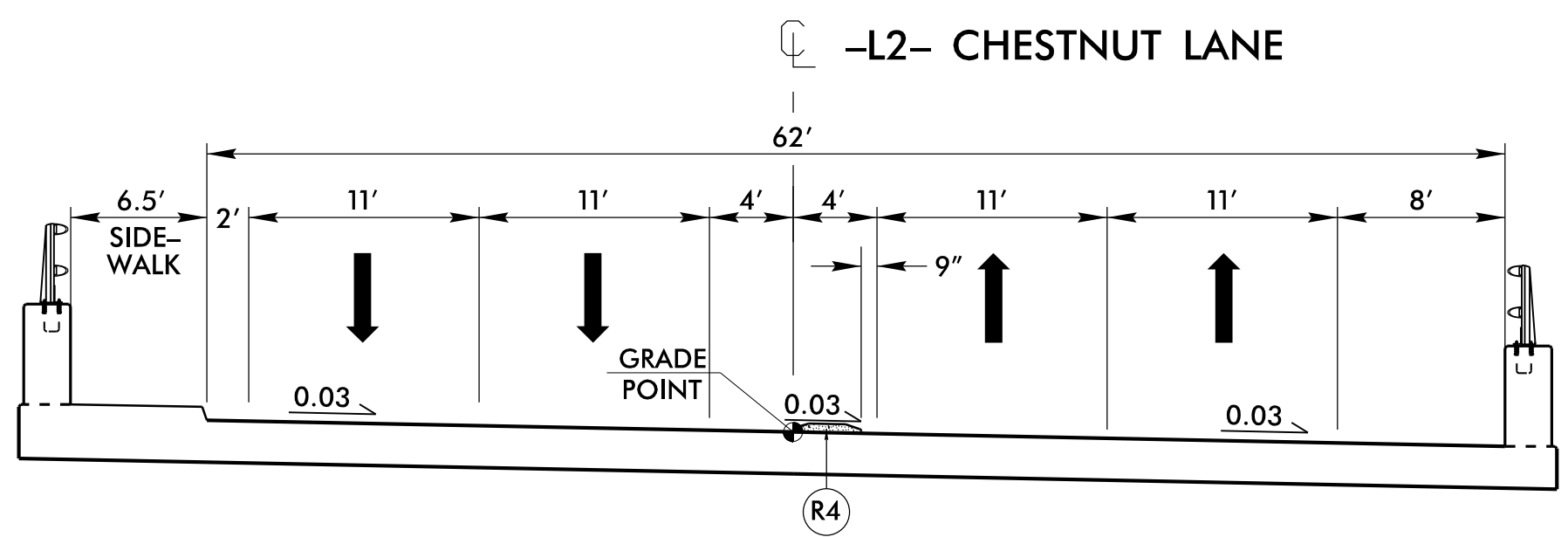
SHOULDER BERM GUTTER DETAIL
 -L2- STA. 47+78.33 TO -L2- STA. 53+49.84 RT
 -L2- STA. 56+50.29 TO -L2- STA. 61+83.07 RT



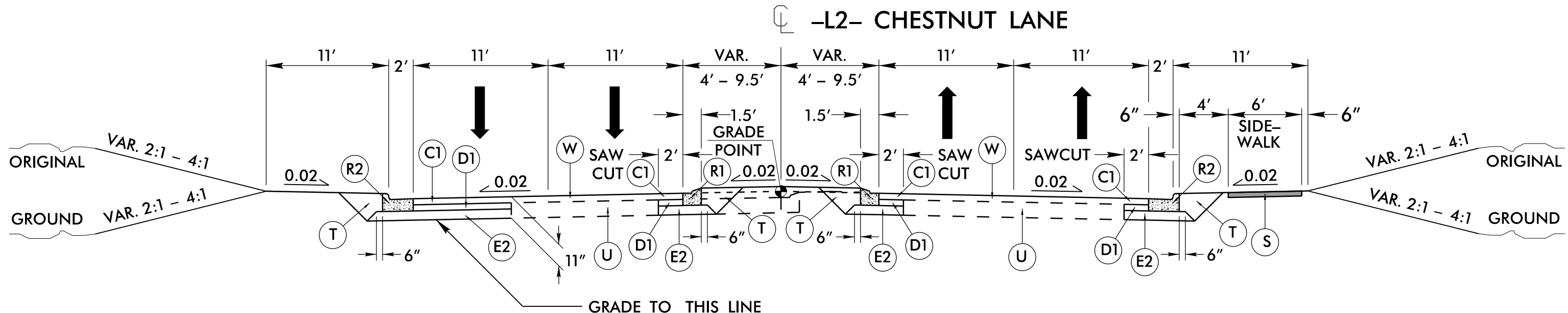
TYPICAL SECTION NO. 1
 USE -RA_X_OEOT- FOR VAR. DIMENSIONS
 SEE SHEET 2B-1 FOR ALIGNMENT DATA
USE TYPICAL SECTION NO. 1
 -L1- STA. 41+00.00 TO -L1- STA. 43+84.47



TYPICAL SECTION NO. 2
 SEE DETAIL A FOR LEFT TURN LANE
 USE -RA_X_OEOT- FOR VAR. DIMENSIONS
 SEE SHEET 2B-1 FOR ALIGNMENT DATA
USE TYPICAL SECTION NO. 2
 -L2- STA. 45+30.33 TO -L2- STA. 53+78.25 (BEGIN BRIDGE)
 -L2- STA. 56+23.66 (END BRIDGE) TO -L2- STA. 64+49.36



TYPICAL SECTION NO. 3
USE TYPICAL SECTION NO. 3
 -L2- STA. 53+78.25 TO -L2- STA. 56+23.66



TYPICAL SECTION NO. 4
 SEE DETAIL A FOR LEFT TURN LANE
USE TYPICAL SECTION NO. 4
 -L2- STA. 64+49.36 TO -L2- STA. 72+00.00

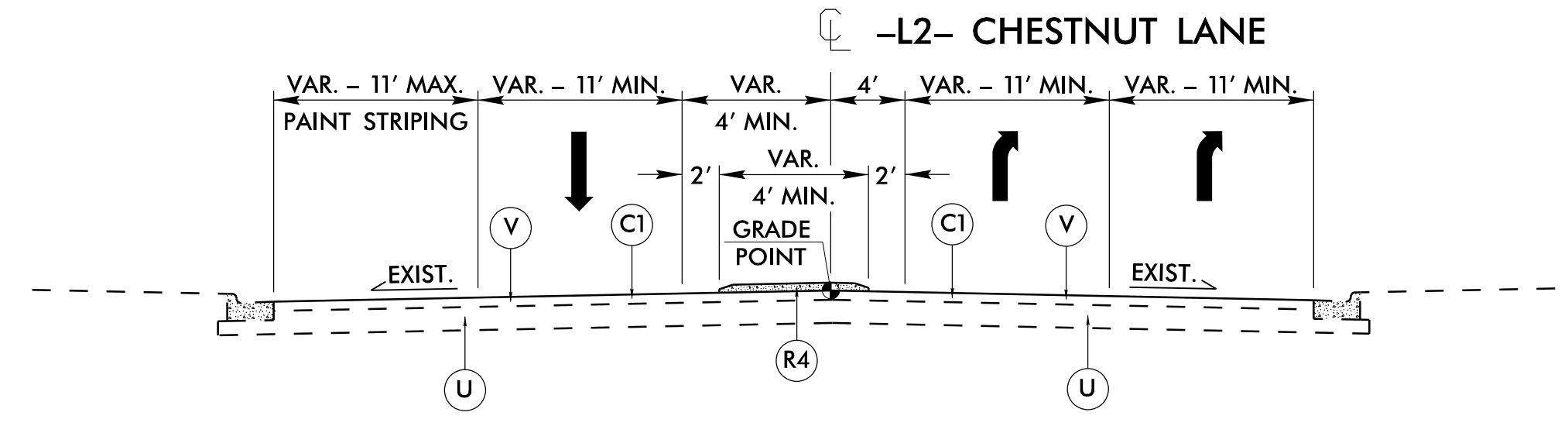
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| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2A-2 |
| ROADWAY DESIGN ENGINEER SEAL 034381 | PAVEMENT DESIGN ENGINEER SEAL 024964 |
| 10/4/2023 | 10/4/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
| Mead&Hunt | |
| 111 E. Hargett Street, Suite 300 Raleigh, North Carolina 27601 919-714-8670 meadhunt.com NC License No. F-1235 | |

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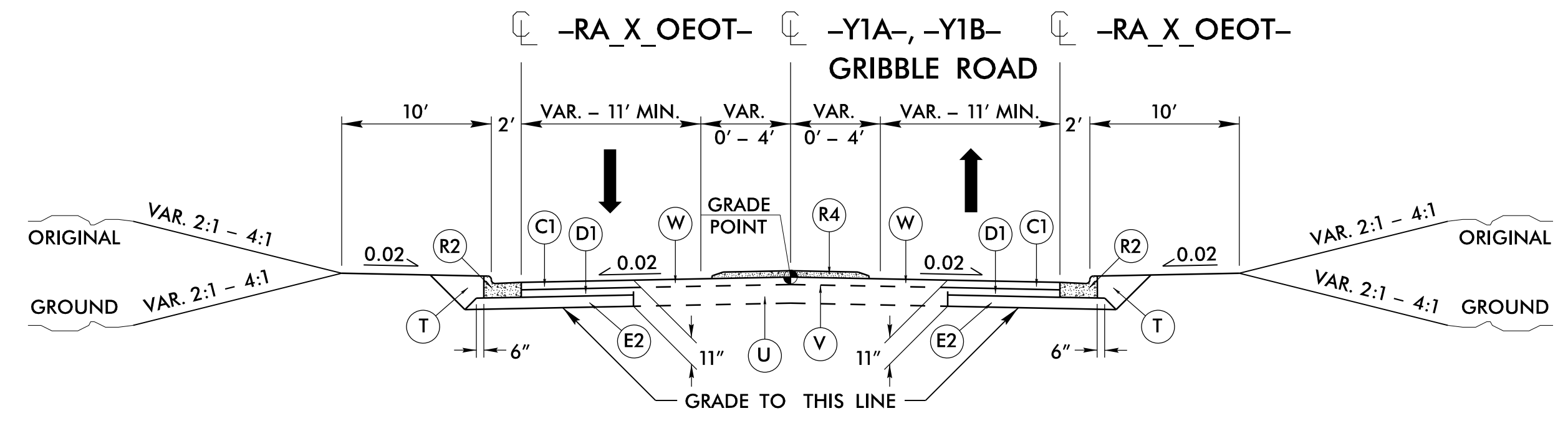
6/22/23

| PAVEMENT SCHEDULE | |
|-------------------|---|
| A1 | 6" JOINTED CONCRETE PAVEMENT REINFORCED WITH WIRE MESH (SIZE 4x4 W3xW3). |
| A2 | 7" JOINTED CONCRETE TRUCK APRON REINFORCED WITH WIRE MESH (SIZE 4x4 W3.5xW3.5). |
| C1 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| D1 | PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| E1 | PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. |
| E2 | PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| R1 | 1'-6" CONCRETE CURB AND GUTTER. |
| R2 | 2'-6" CONCRETE CURB AND GUTTER. |
| R3 | 9" X 12" CONCRETE CURB. |
| R4 | 5" MONOLITHIC CONCRETE ISLAND. |
| K | PROP. 18" CLASS IV SUBGRADE STABILIZATION. |
| N | GEOTEXTILE FOR SOIL STABILIZATION. |
| S | 4" CONCRETE SIDEWALK. |
| T | EARTH MATERIAL. |
| U | EXISTING PAVEMENT. |
| V | INCIDENTAL MILLING. |
| W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL). |

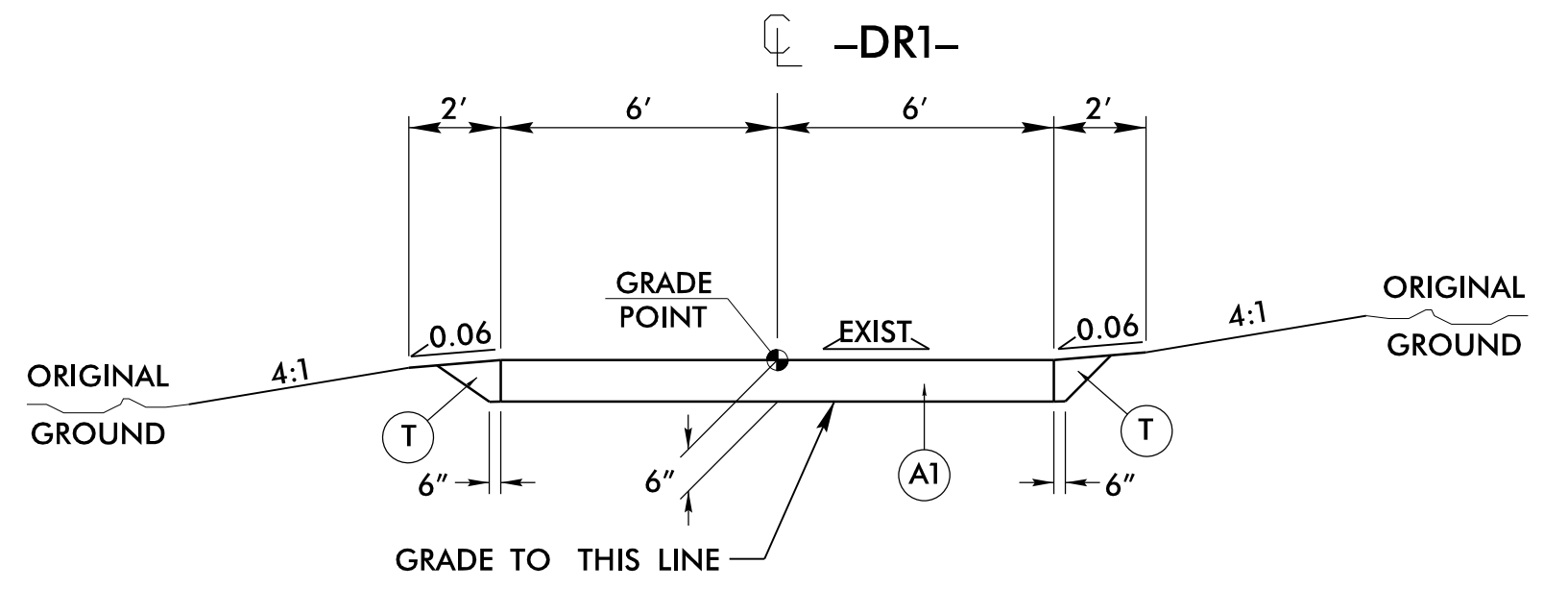
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



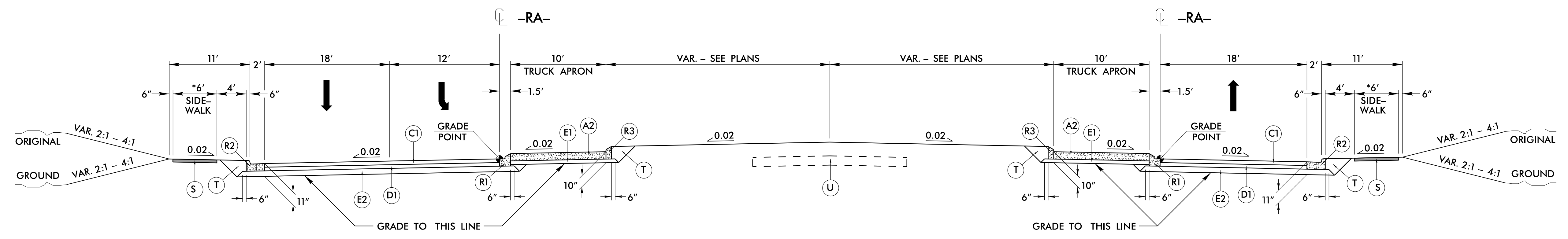
TYPICAL SECTION NO. 5
SEE PLANS FOR ISLAND LOCATIONS
USE TYPICAL SECTION NO. 5
-L2- STA. 87+75.00 TO -L2- STA. 88+47.55



TYPICAL SECTION NO. 6
USE -RA_X_OEOT- FOR VAR. DIMENSIONS
SEE SHEET 2B-1 FOR ALIGNMENT DATA
USE TYPICAL SECTION NO. 6
-Y1A- STA. 10+25.00 TO -Y1A- STA. 11+95.70
-Y1B- STA. 10+68.59 TO -Y1B- STA. 13+00.00



TYPICAL SECTION NO. 7
NOTE: GRADE DRIVEWAY TO DRAIN
USE TYPICAL SECTION NO. 7
-DR1- STA. 10+10.00 TO -DR1- STA. 12+12.16



TYPICAL SECTION NO. 8
*SEE PLANS FOR SIDEWALK LOCATIONS
USE TYPICAL SECTION NO. 8
-RA- STA. 10+00.00 TO -RA- STA. 13+60.16

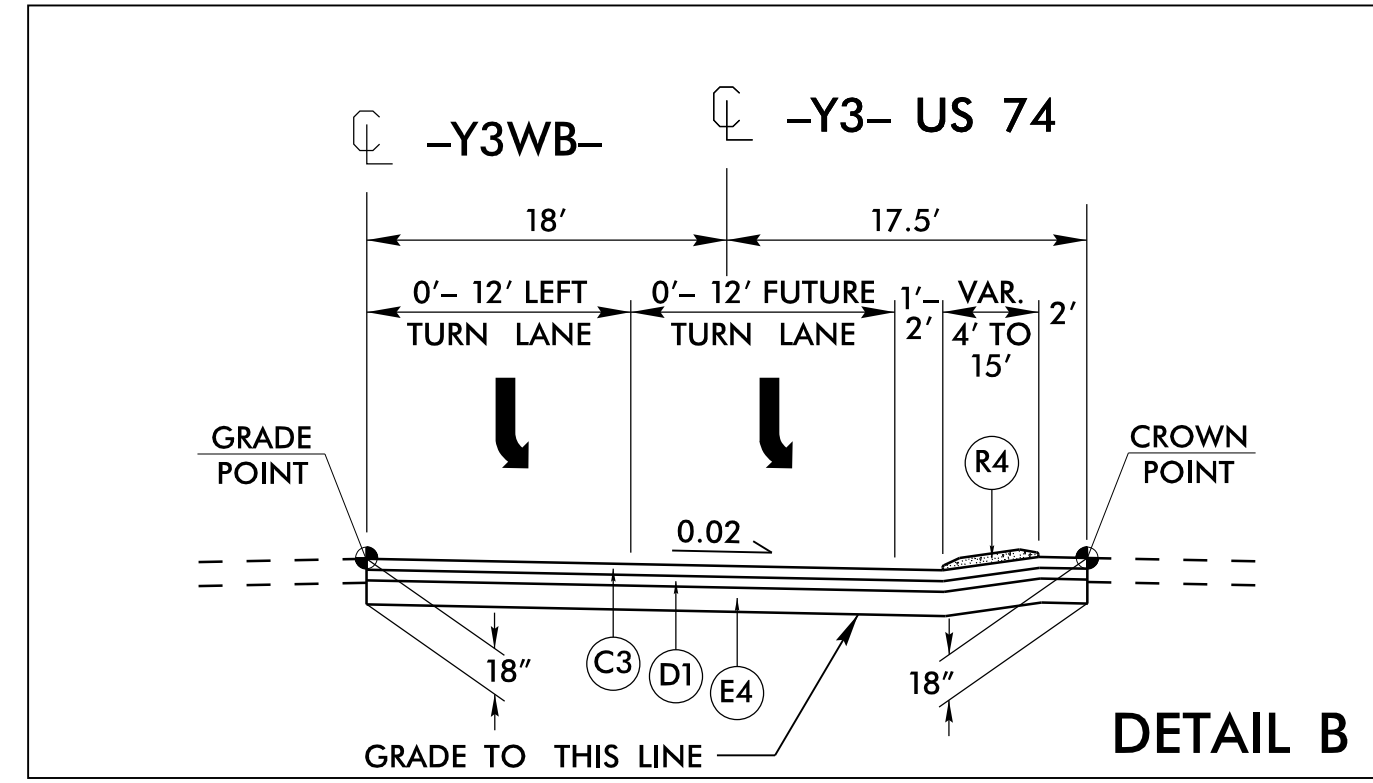
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| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2A-3 |
| ROADWAY DESIGN ENGINEER SEAL 034381 | PAVEMENT DESIGN ENGINEER SEAL 024964 |
| 10/4/2023 | 10/4/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
| Mead&Hunt | |

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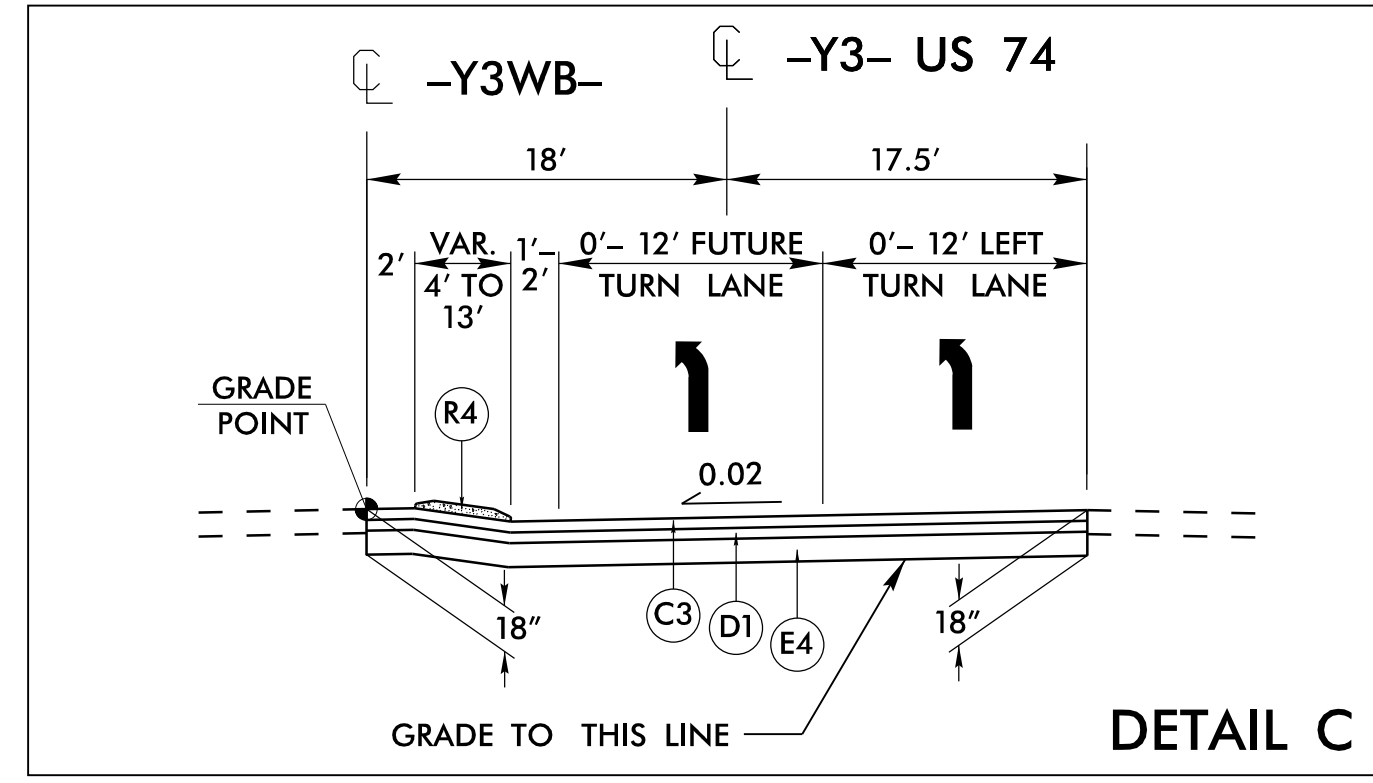
6/2/2023

| PAVEMENT SCHEDULE | |
|-------------------|---|
| C1 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| C3 | PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| D1 | PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| E2 | PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. |
| E3 | PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. |
| E4 | PROP. APPROX. 11" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD. IN EACH OF TWO LAYERS. |
| R2 | 2'-6" CONCRETE CURB AND GUTTER. |
| R4 | 5" MONOLITHIC CONCRETE ISLAND. |
| S | 4" CONCRETE SIDEWALK. |
| T | EARTH MATERIAL. |
| V | INCIDENTAL MILLING. |
| W | VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL). |
| U | EXISTING PAVEMENT. |

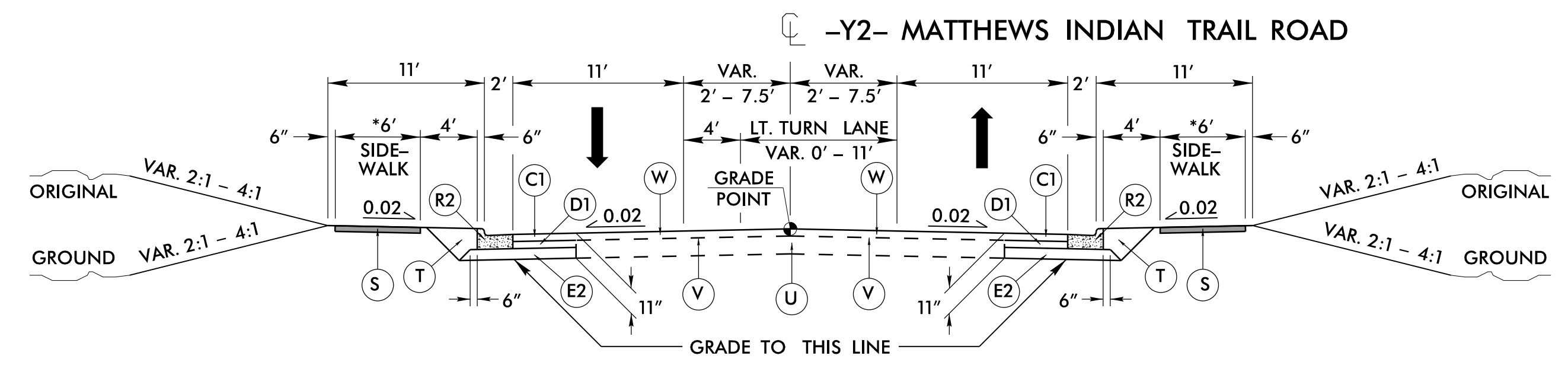
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



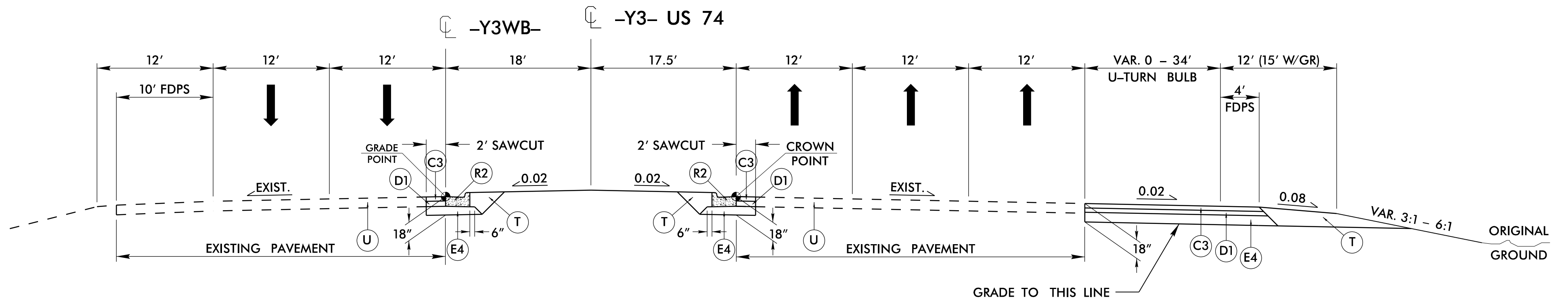
DETAIL B
-Y3- STA. 12+55.00 TO -Y3- STA. 19+50.00



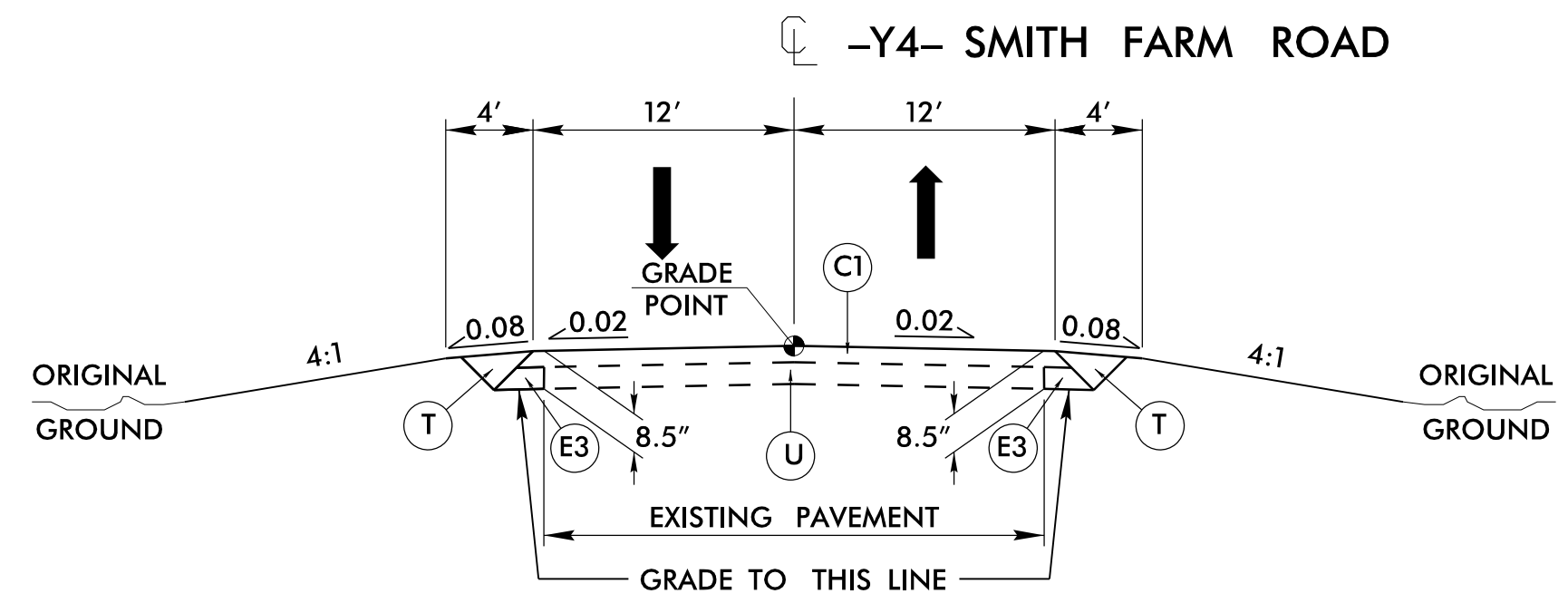
DETAIL C
-Y3- STA. 21+00.00 TO -Y3- STA. 25+50.00



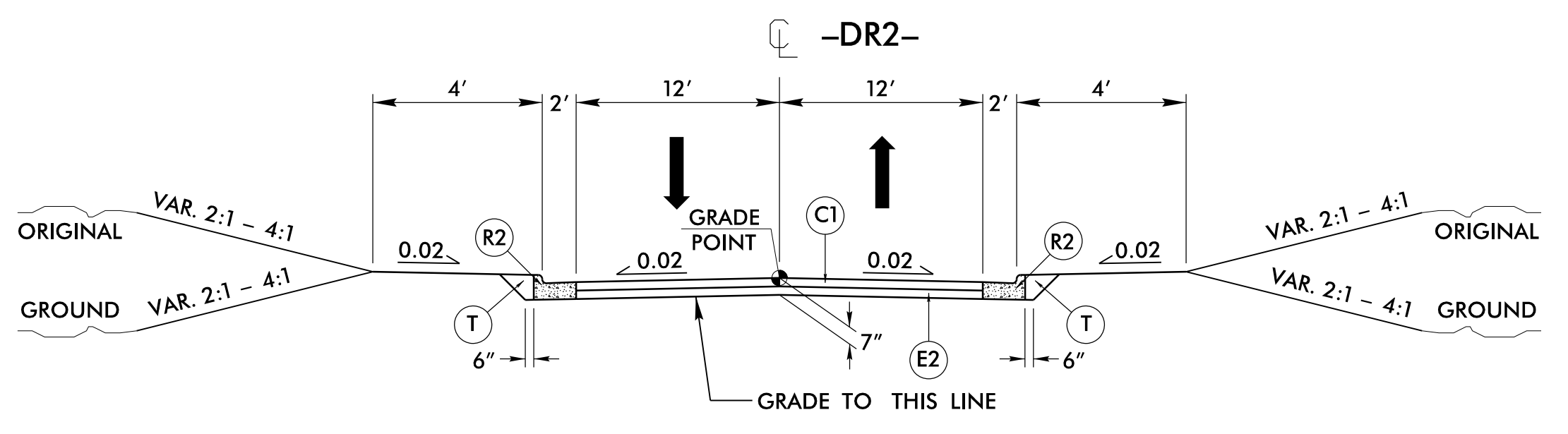
TYPICAL SECTION NO. 9
*SEE PLANS FOR SIDEWALK LOCATIONS
USE TYPICAL SECTION NO. 9
-Y2- STA. 11+50.00 TO -Y2- STA. 13+11.00
-Y2- STA. 13+74.76 TO -Y2- STA. 17+60.00



TYPICAL SECTION NO. 10
USE TYPICAL SECTION NO. 10
-Y3- STA. 12+09.00 TO -Y3- STA. 25+50.00



TYPICAL SECTION NO. 11
USE TYPICAL SECTION NO. 11
-Y4- STA. 12+90.00 TO -Y4- STA. 14+29.88



TYPICAL SECTION NO. 12
USE TYPICAL SECTION NO. 12
-DR2- STA. 11+69.14 TO -DR2- STA. 12+98.99

| | |
|--|--|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2A-4 |
| ROADWAY DESIGN ENGINEER SEAL 034381 | PAVEMENT DESIGN ENGINEER SEAL 024964 |
| 10/4/2023 | 10/4/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
| Mead&Hunt | |

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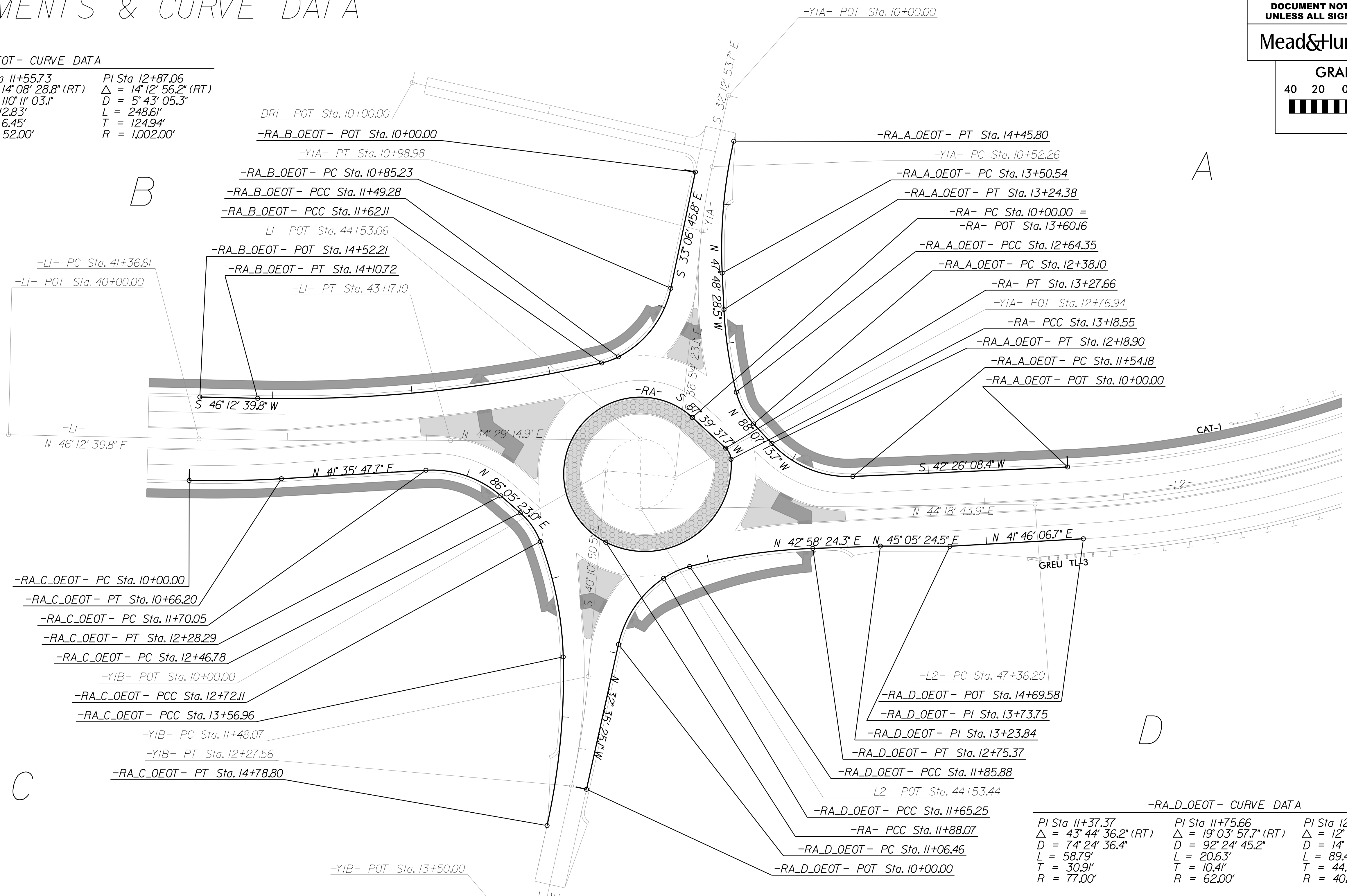
ROUNDBABOUT CENTRAL ISLAND & OUTSIDE EDGE OF TRAVEL ALIGNMENTS & CURVE DATA

-RA_A_OEOT - CURVE DATA

| | | | |
|--|---|---|---|
| PI Sta 11+88.71 Δ = 49° 26' 37.8" (RT) D = 76' 23' 39.7" L = 64.72' T = 34.53' R = 75.00' | PI Sta 12+51.51 Δ = 28° 55' 26.6" (RT) D = 110' 11' 03.1" L = 26.25' T = 13.41' R = 52.00' | PI Sta 12+94.46 Δ = 11° 23' 18.6" (RT) D = 18' 58' 19.6" L = 60.03' T = 30.11' R = 302.00' | PI Sta 13+98.47 Δ = 15° 35' 34.8" (RT) D = 16' 22' 12.8" L = 95.25' T = 47.92' R = 350.00' |
|--|---|---|---|

-RA_B_OEOT - CURVE DATA

| | | |
|---|--|--|
| PI Sta 11+9.55 Δ = 50° 58' 00.6" (RT) D = 79' 34' 38.9" L = 64.05' T = 34.32' R = 72.00' | PI Sta 11+55.73 Δ = 14° 08' 28.8" (RT) D = 110' 11' 03.1" L = 12.83' T = 6.45' R = 52.00' | PI Sta 12+87.06 Δ = 14° 12' 56.2" (RT) D = 5' 43' 05.3" L = 248.61' T = 124.94' R = 1,002.00' |
|---|--|--|



-RA_C_OEOT - CURVE DATA

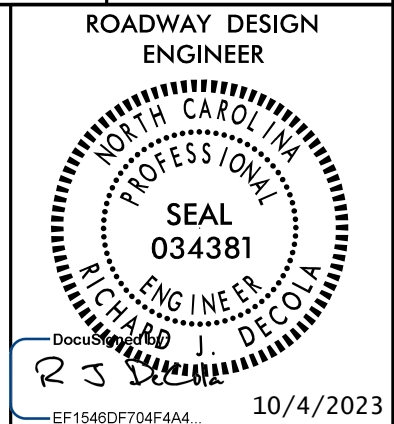
| | | | | |
|---|--|---|---|--|
| PI Sta 10+33.12 Δ = 4° 36' 52.1" (LT) D = 6' 58' 13.0" L = 66.20' T = 33.12' R = 822.00' | PI Sta 12+00.73 Δ = 44° 29' 35.3" (RT) D = 76' 23' 39.7" L = 58.24' T = 30.68' R = 75.00' | PI Sta 12+59.70 Δ = 27° 54' 45.2" (RT) D = 110' 11' 03.1" L = 25.33' T = 12.92' R = 52.00' | PI Sta 13+14.95 Δ = 19° 26' 43.1" (RT) D = 22° 55' 05.9" L = 84.85' T = 42.84' R = 250.00' | PI Sta 14+18.18 Δ = 13° 57' 43.6" (RT) D = 11' 27' 33.0" L = 121.84' T = 61.22' R = 500.00' |
|---|--|---|---|--|

-RA - CURVE DATA

| | | |
|--|---|---|
| PI Sta 13+93.41 Δ = 195° 55' 01.3" (LT) D = 104' 10' 26.9" L = 188.07' T = 393.41' R = 55.00' | PI Sta 12+96.73 Δ = 120° 34' 56.6" (LT) D = 92' 24' 45.2" L = 130.48' T = 108.66' R = 62.00' | PI Sta 13+23.34 Δ = 43° 30' 02.0" (LT) D = 477' 27' 53.4" L = 9.11' T = 4.79' R = 12.00' |
|--|---|---|

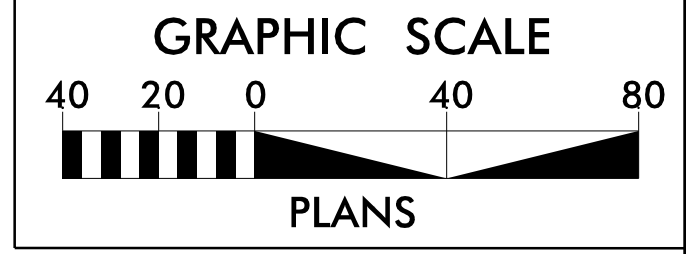
-RA_D_OEOT - CURVE DATA

| | | |
|--|--|---|
| PI Sta 11+37.37 Δ = 43° 44' 36.2" (RT) D = 74' 24' 36.4" L = 58.79' T = 30.91' R = 77.00' | PI Sta 11+75.66 Δ = 19° 03' 57.7" (RT) D = 92' 24' 45.2" L = 206.3' T = 10.41' R = 62.00' | PI Sta 12+30.81 Δ = 12° 45' 15.5" (RT) D = 14' 15' 09.7" L = 89.49' T = 44.93' R = 402.00' |
|--|--|---|



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A

B

C

D

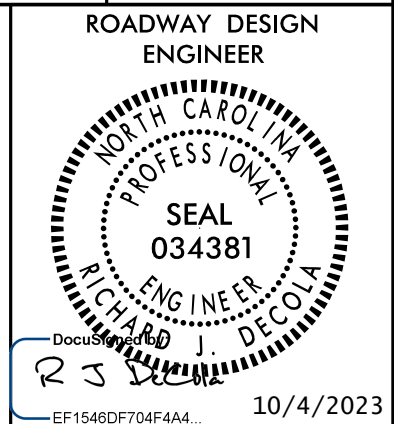
FOR PLANS, SEE SHEET 4

FOR ROUNDABOUT DETAIL, SEE SHEET 2B-2

8/17/19

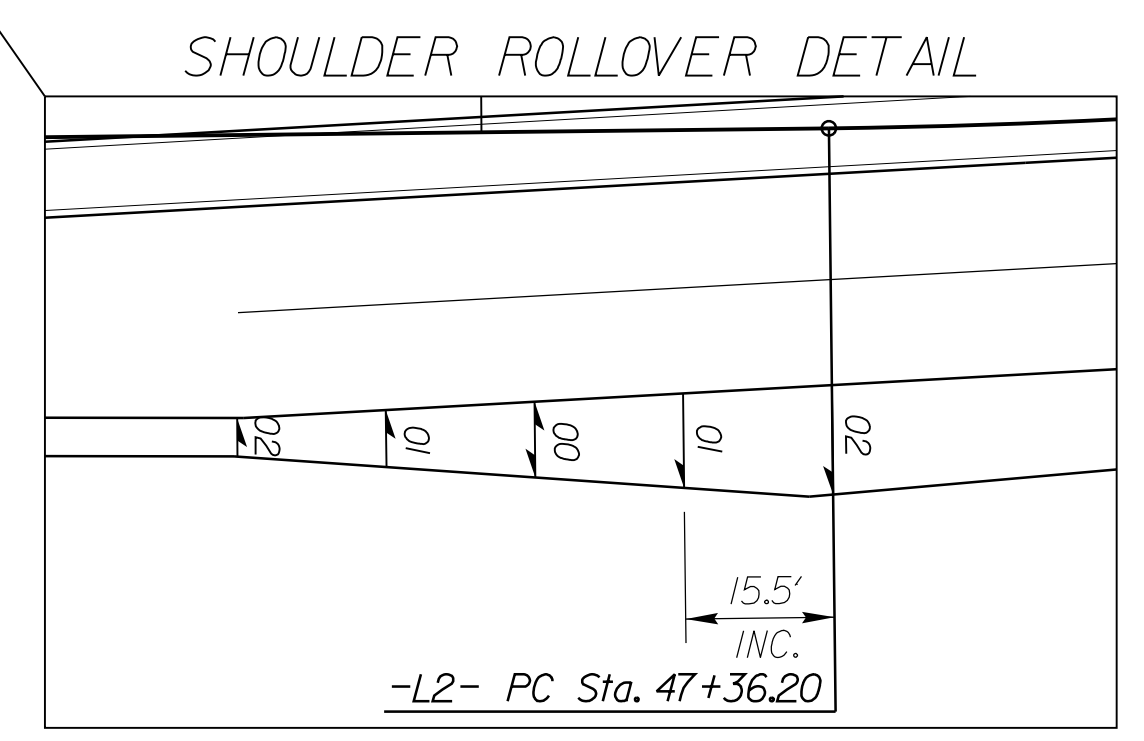
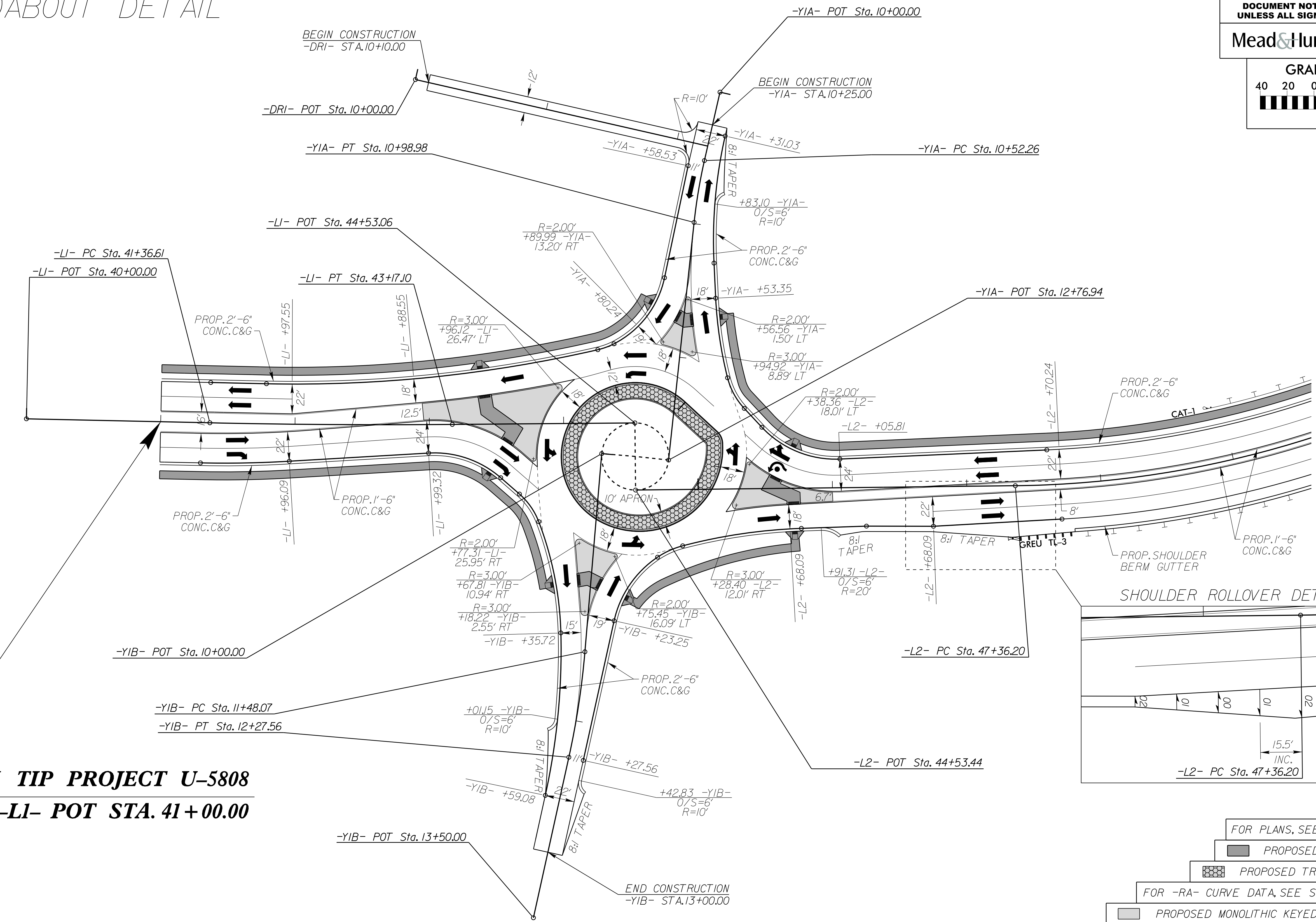
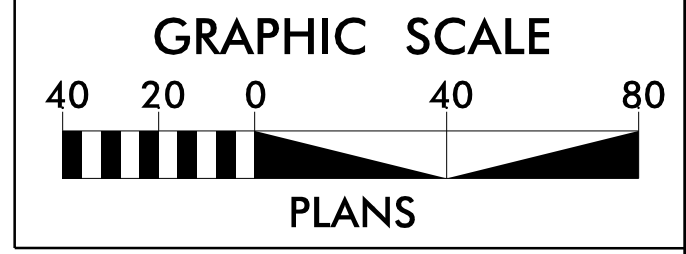
CHESTNUT LANE & GRIBBLE ROAD ROUNDBABOUT DETAIL

| | |
|---------------------------------|-------------------|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2B-2 |
|---------------------------------|-------------------|



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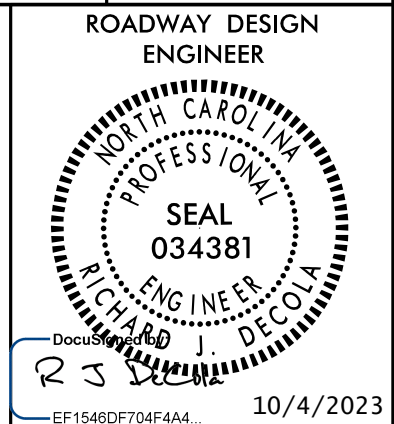
BEGIN TIP PROJECT U-5808
-LI- POT STA. 41+00.00

- FOR PLANS, SEE SHEET 4
- PROPOSED SIDEWALK
- PROPOSED TRUCK APRON
- FOR -RA- CURVE DATA, SEE SHEET 2B-1
- PROPOSED MONOLITHIC KEYED-IN ISLAND

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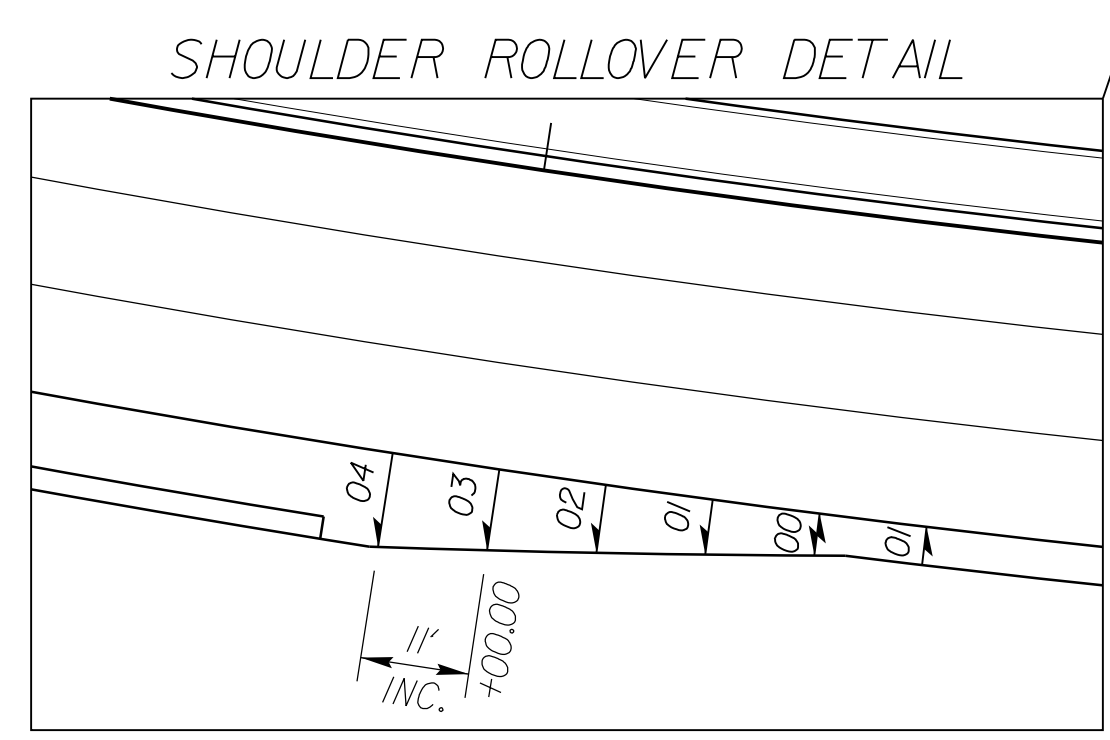
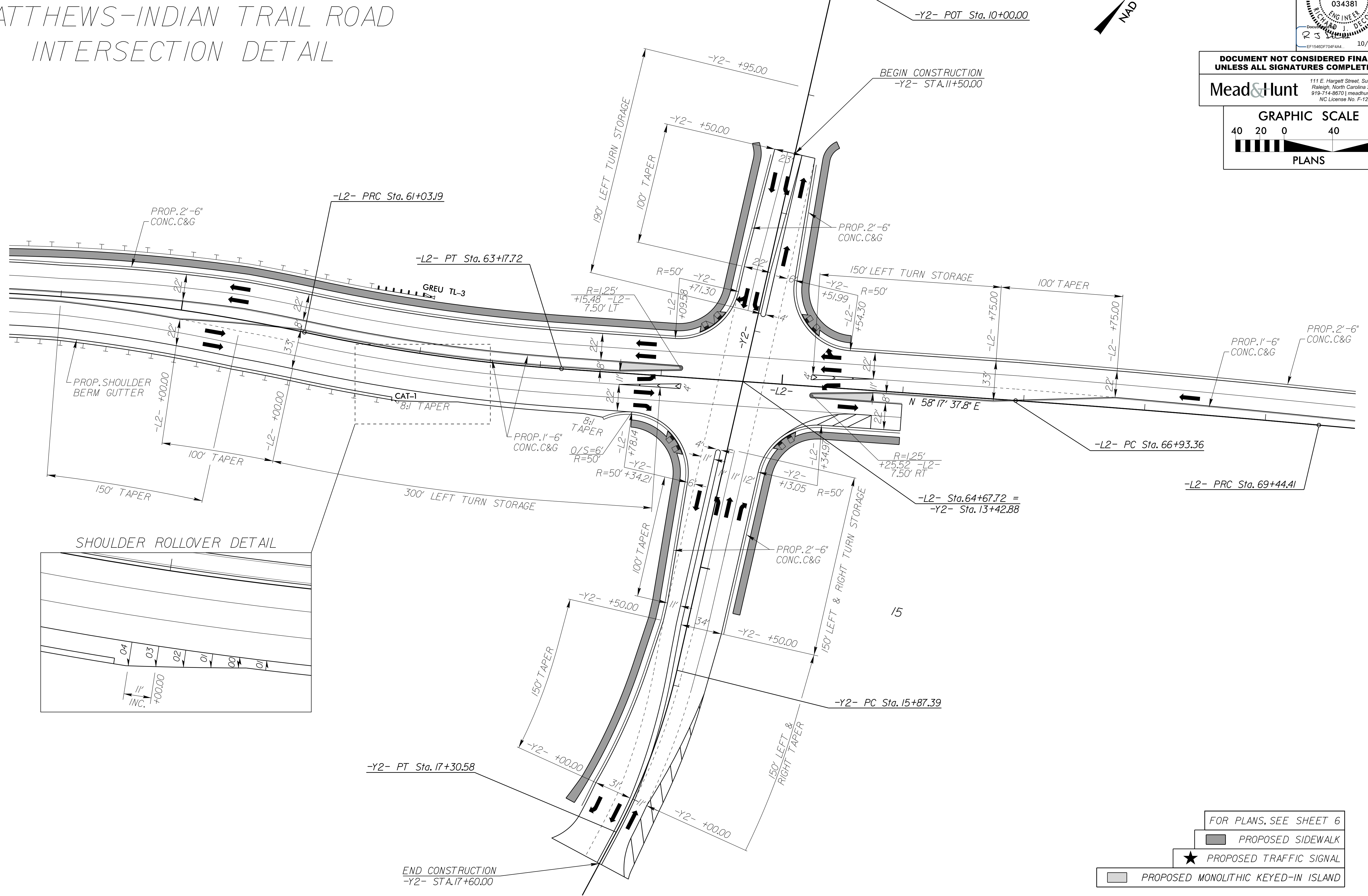
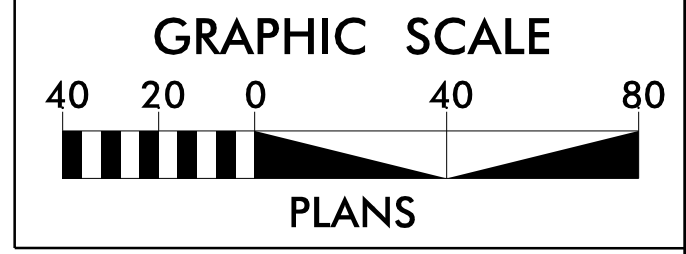
CHESTNUT LANE & MATTHEWS-INDIAN TRAIL ROAD INTERSECTION DETAIL

| | |
|---------------------------------|-------------------|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2B-3 |
|---------------------------------|-------------------|



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- FOR PLANS, SEE SHEET 6
- PROPOSED SIDEWALK
- ★ PROPOSED TRAFFIC SIGNAL
- PROPOSED MONOLITHIC KEYED-IN ISLAND

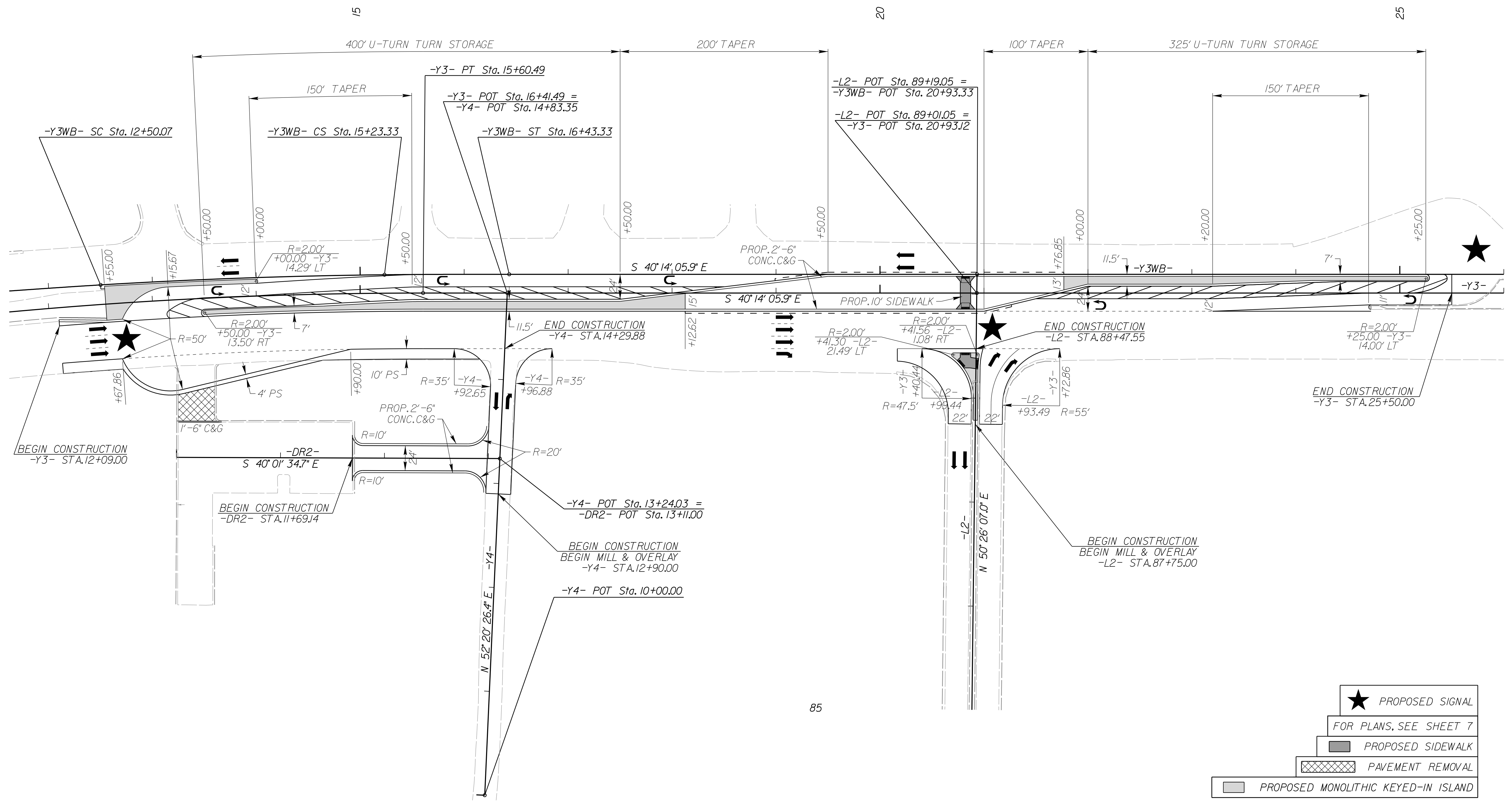
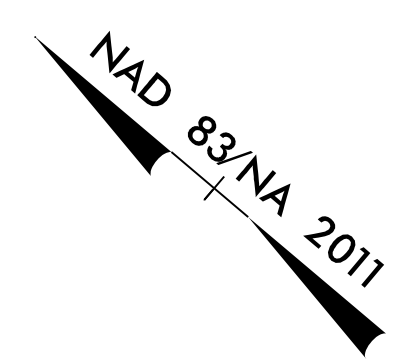
8/17/99

CHESTNUT PARKWAY & US 74 (INDEPENDENCE BLVD) INTERSECTION DETAIL

| | |
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| PROJECT REFERENCE NO. U-5808 | SHEET NO. 2B-4 |
| ROADWAY DESIGN ENGINEER | |
| | |

**DOCUMENT NOT CONSIDERED FINAL
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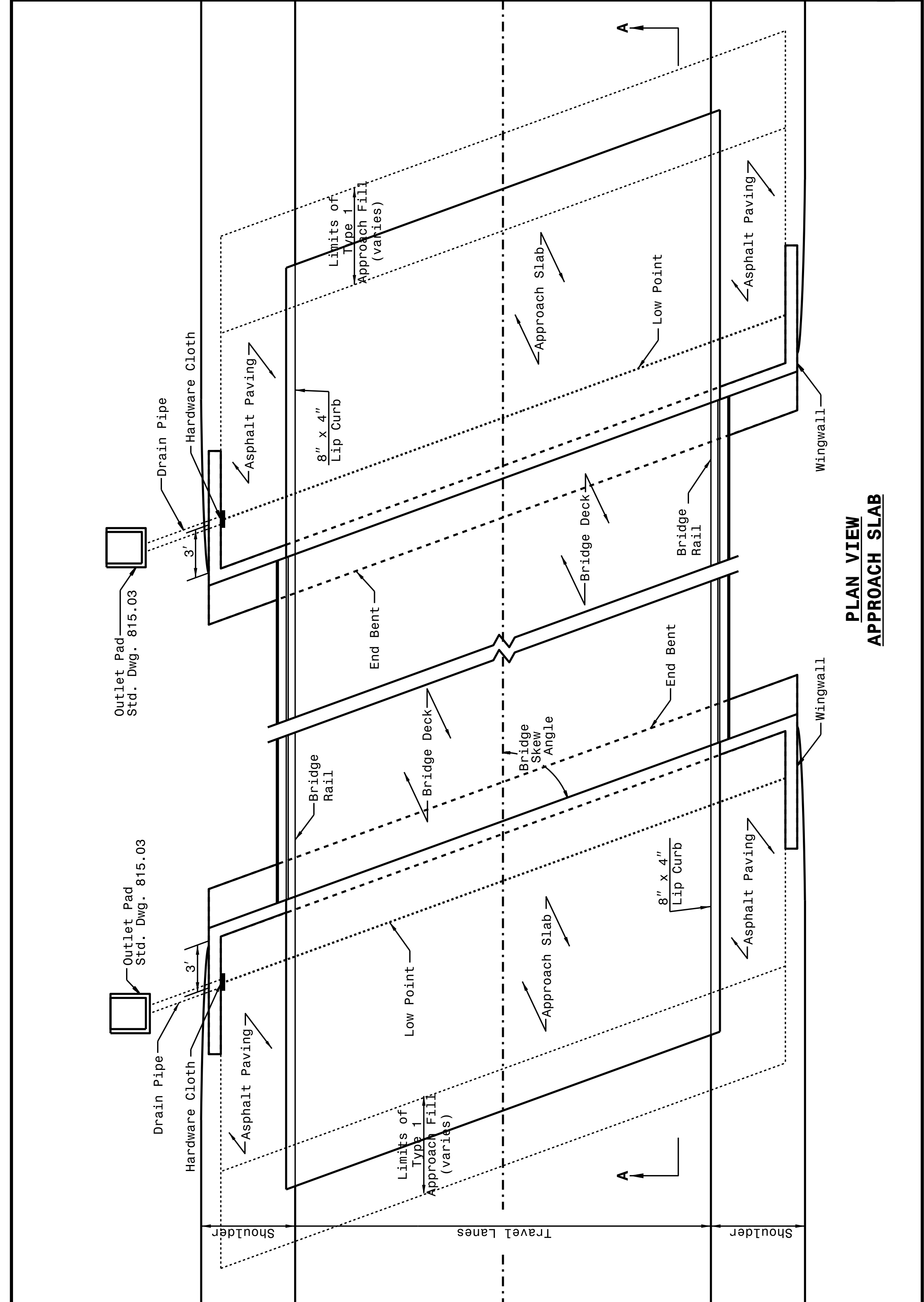
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- PROPOSED SIGNAL
- FOR PLANS, SEE SHEET 7
- PROPOSED SIDEWALK
- PAVEMENT REMOVAL
- PROPOSED MONOLITHIC KEYED-IN ISLAND

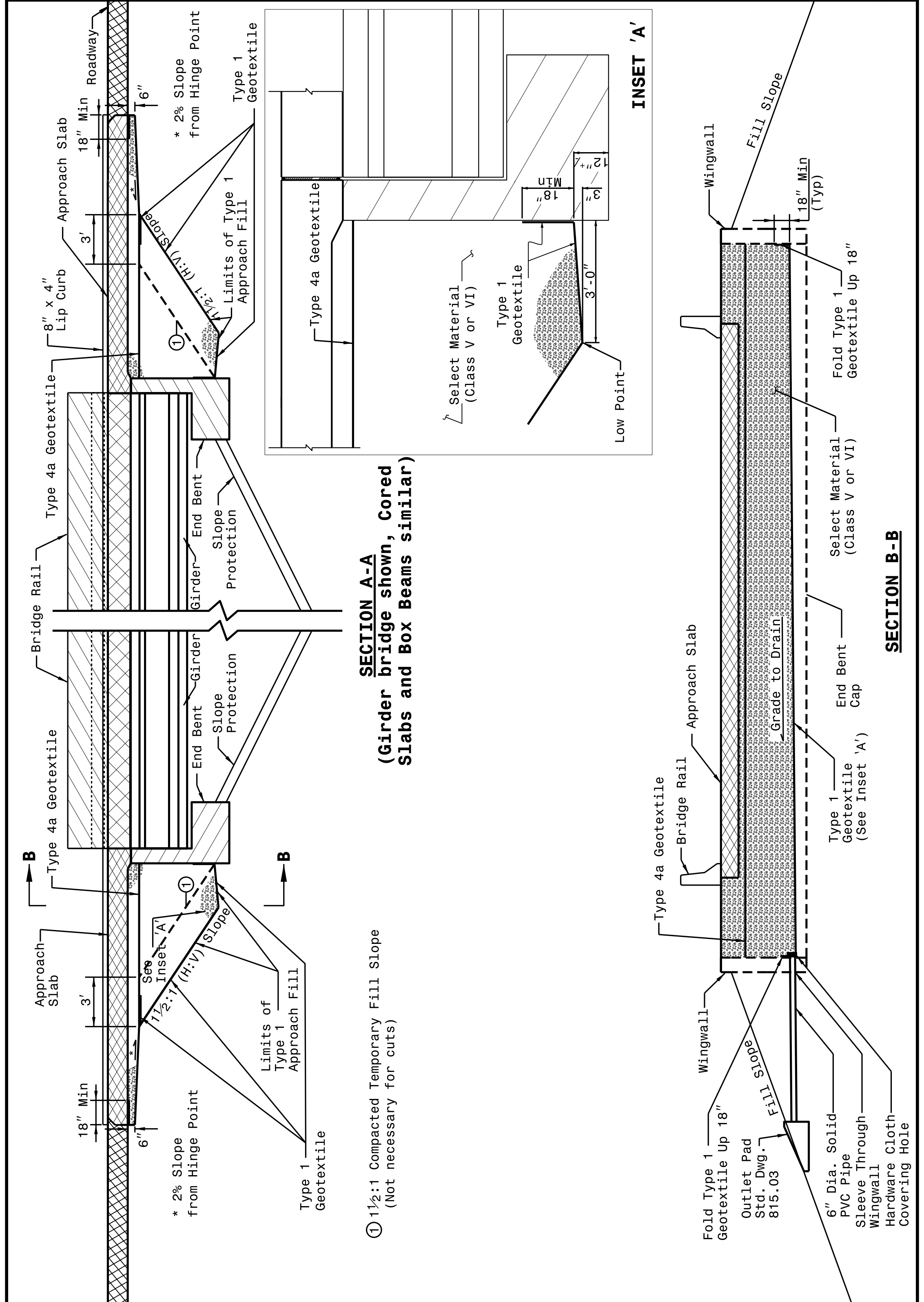
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 1/28/24

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY DETAIL DRAWING FOR BRIDGE APPROACH FILLS TYPE 1 APPROACH FILL FOR BRIDGE ABUTMENT
SHEET 1 OF 2



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY DETAIL DRAWING FOR BRIDGE APPROACH FILLS TYPE 1 APPROACH FILL FOR BRIDGE ABUTMENT
SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY DETAIL DRAWING FOR BRIDGE APPROACH FILLS TYPE 1 APPROACH FILL FOR BRIDGE ABUTMENT
SHEET 2 OF 2



STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
ROADWAY DETAIL DRAWING FOR BRIDGE APPROACH FILLS TYPE 1 APPROACH FILL FOR BRIDGE ABUTMENT
SHEET 2 OF 2

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DocuSigned by:
Scott Hidden
10/5/2023

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

ORIGINAL BY: K KEMP DATE: 07-30-23
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

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

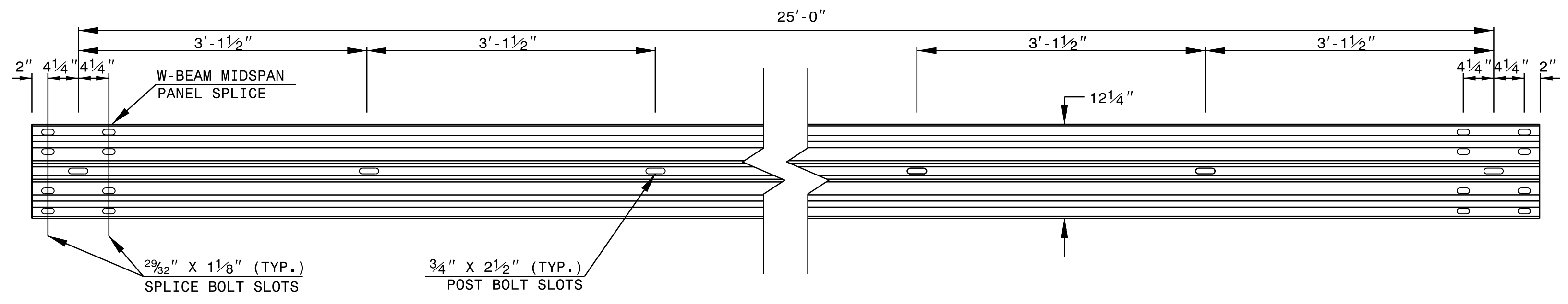
ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 6 OF 8
862D02

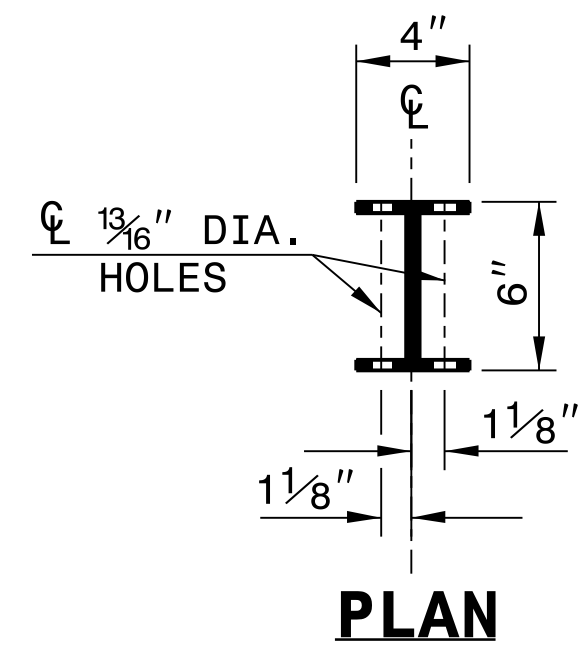
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DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

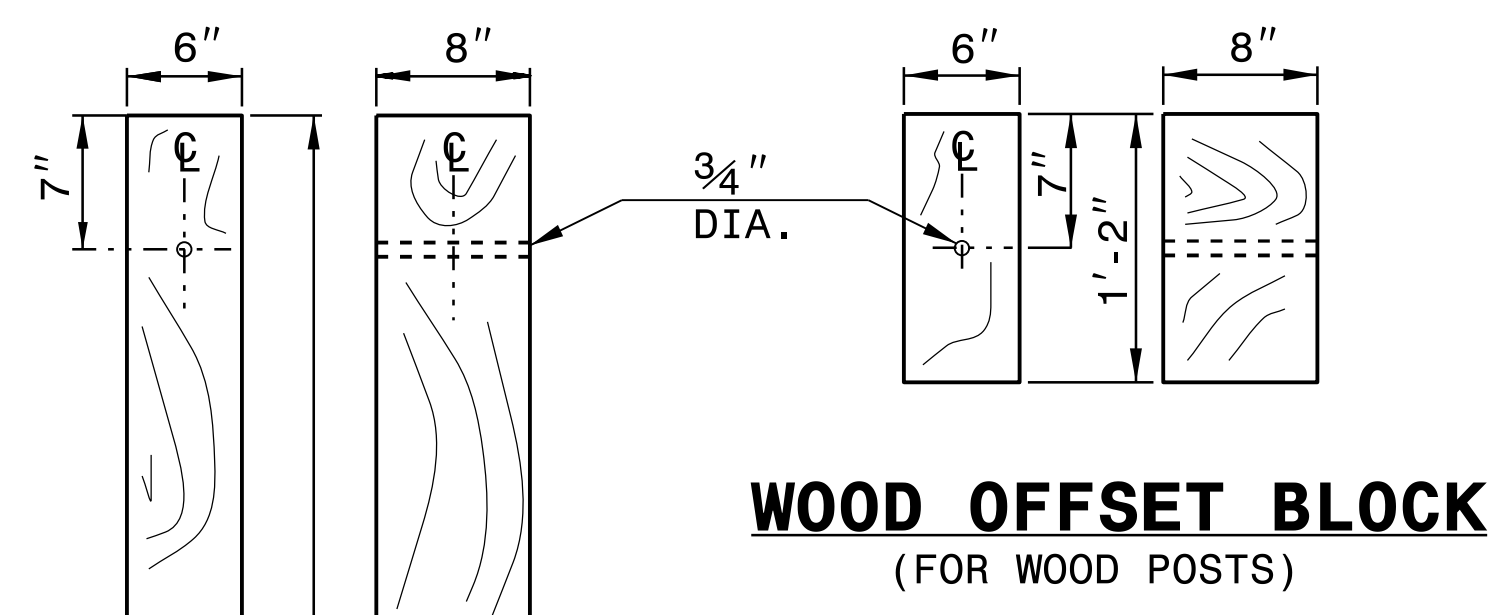
SHEET 6 OF 8
862D02



STANDARD W-BEAM GUARDRAIL



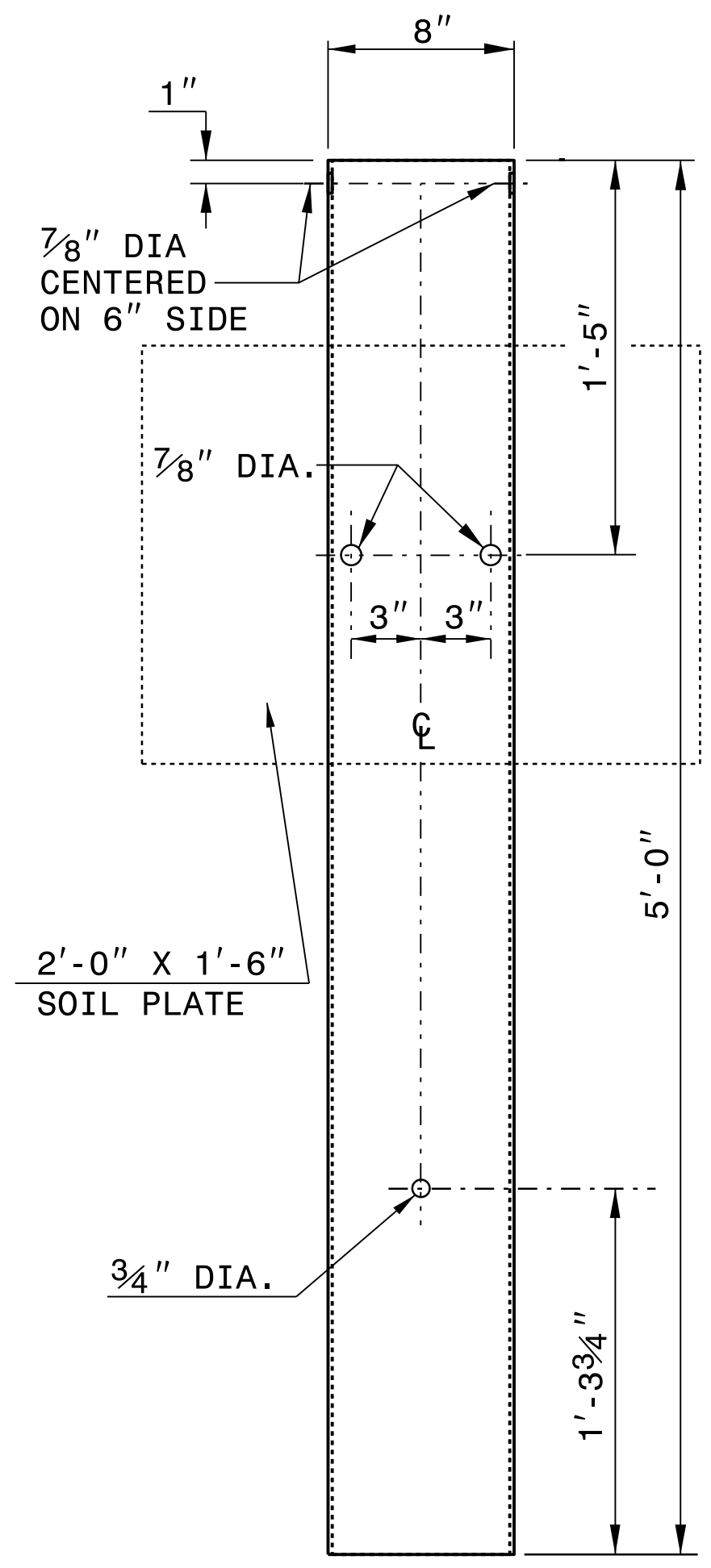
PLAN



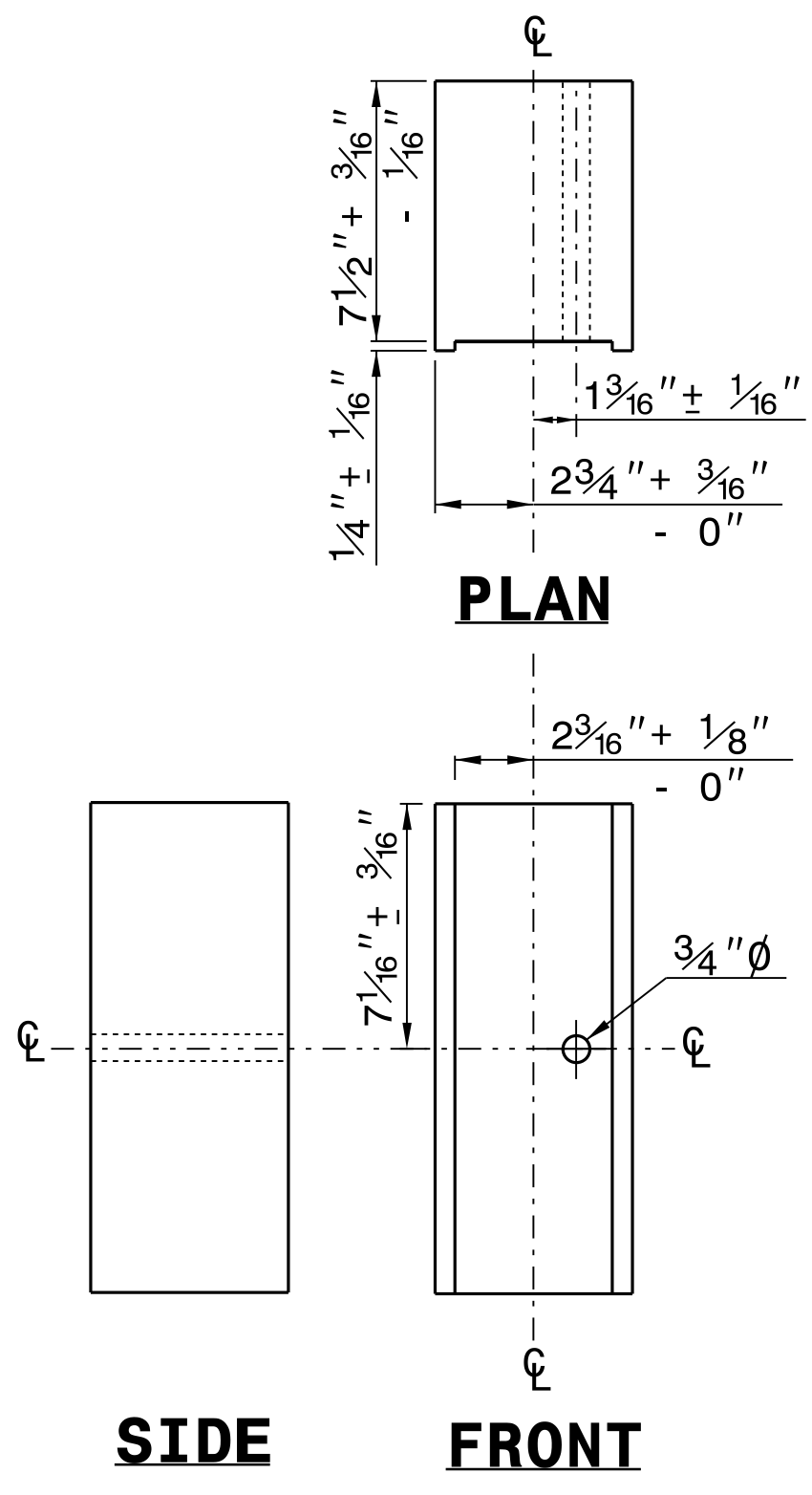
**WOOD OFFSET BLOCK
(FOR WOOD POSTS)**

**STANDARD
LINE POST**

**SHORT WOOD
BREAKAWAY POST**



**STEEL TUBE
TS 6"x8"x0.1875"**

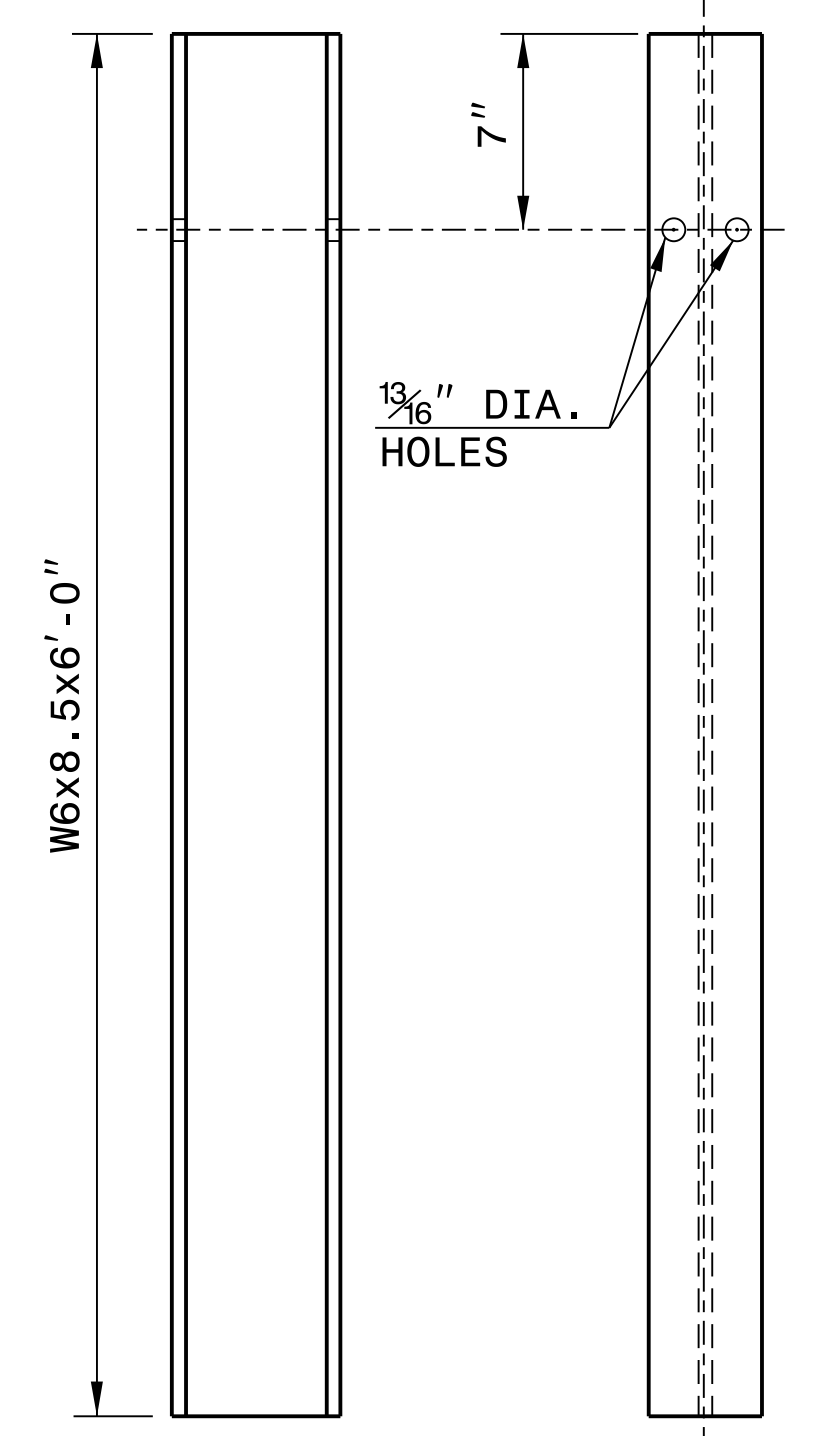


PLAN

SIDE

FRONT

**ROUTED
OFFSET BLOCK**

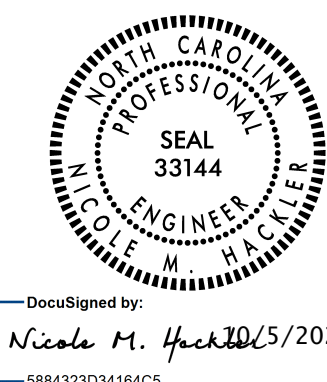


SIDE

FRONT

"W6" STEEL POST

SYSTEM PARTS



DocuSigned by:
Nicole M. Heck 2023/05/20 2023
6884323034164C5

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

SEE TITLE BLOCK

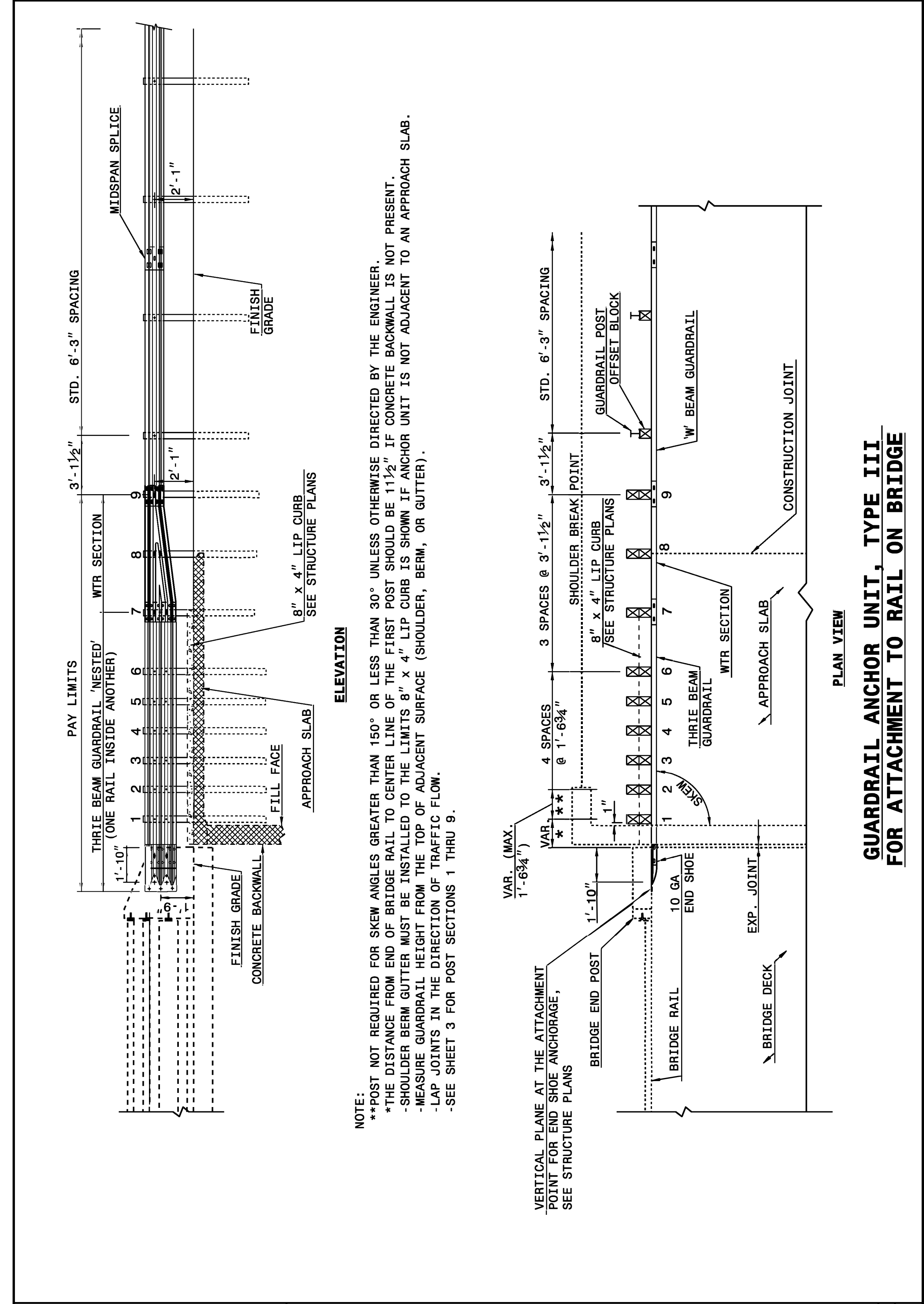
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|--------------------------|----------------|
| ORIGINAL BY: J. HOWERTON | DATE: 3-7-2018 |
| MODIFIED BY: | DATE: |
| CHECKED BY: | DATE: |
| FILE SPEC.: | |

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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE

SHEET 1 OF 7
862D03



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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE

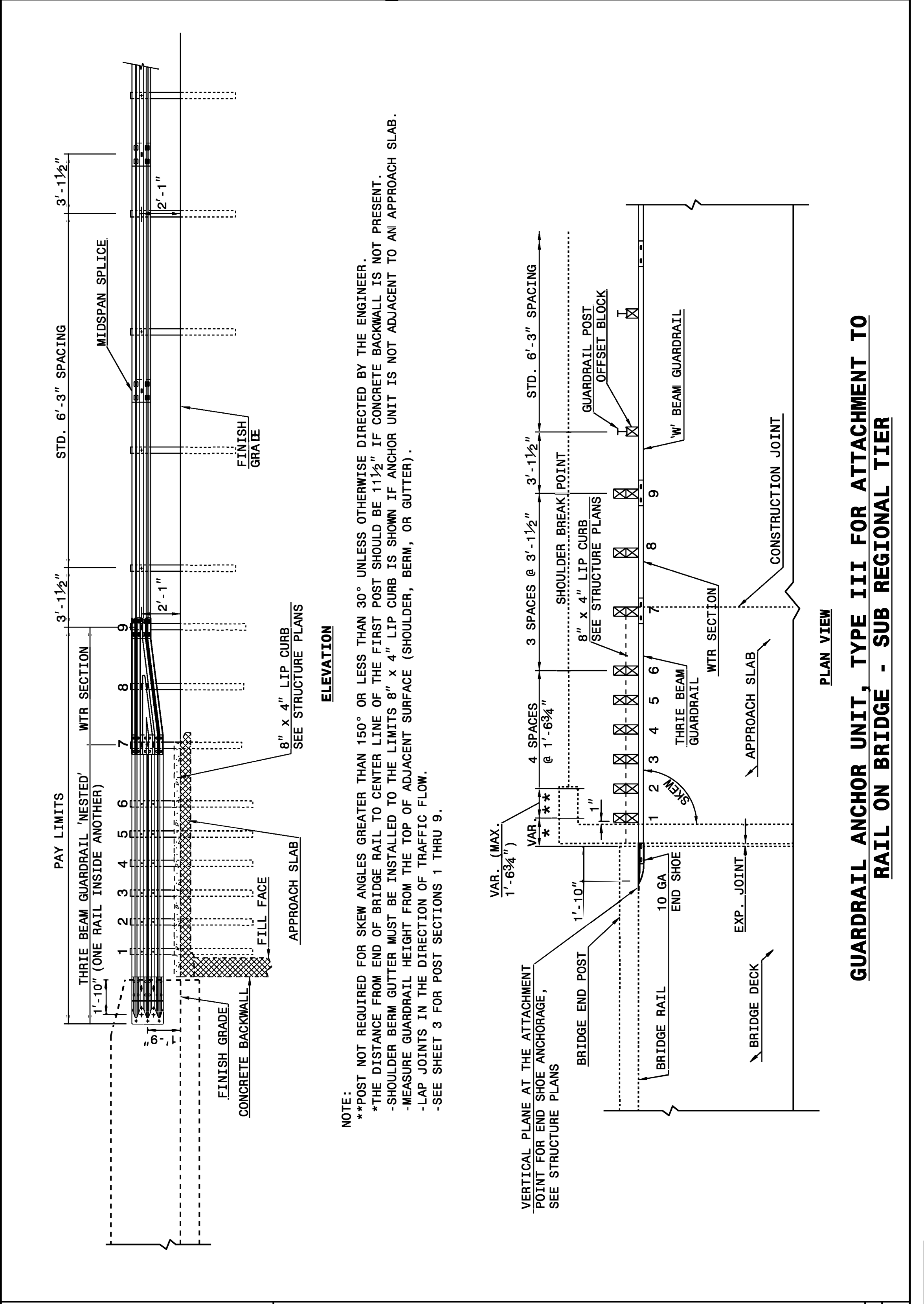
SHEET 1 OF 7
862D03

NOTE:
 **POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 *THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11 1/2" IF CONCRETE BACKWALL IS NOT PRESENT.
 -SHOULDER BERM GUTTER MUST BE INSTALLED TO THE LIMITS 8" x 4" LIP CURB IS SHOWN IF ANCHOR UNIT IS NOT ADJACENT TO AN APPROACH SLAB.
 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE - SUB REGIONAL TIER

SHEET 2 OF 7
862D03



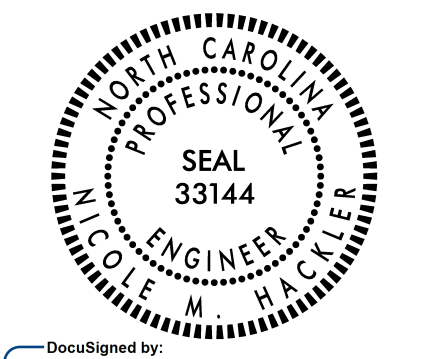
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE - SUB REGIONAL TIER

SHEET 2 OF 7
862D03

NOTE:
 **POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 *THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11 1/2" IF CONCRETE BACKWALL IS NOT PRESENT.
 -SHOULDER BERM GUTTER MUST BE INSTALLED TO THE LIMITS 8" x 4" LIP CURB IS SHOWN IF ANCHOR UNIT IS NOT ADJACENT TO AN APPROACH SLAB.
 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

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

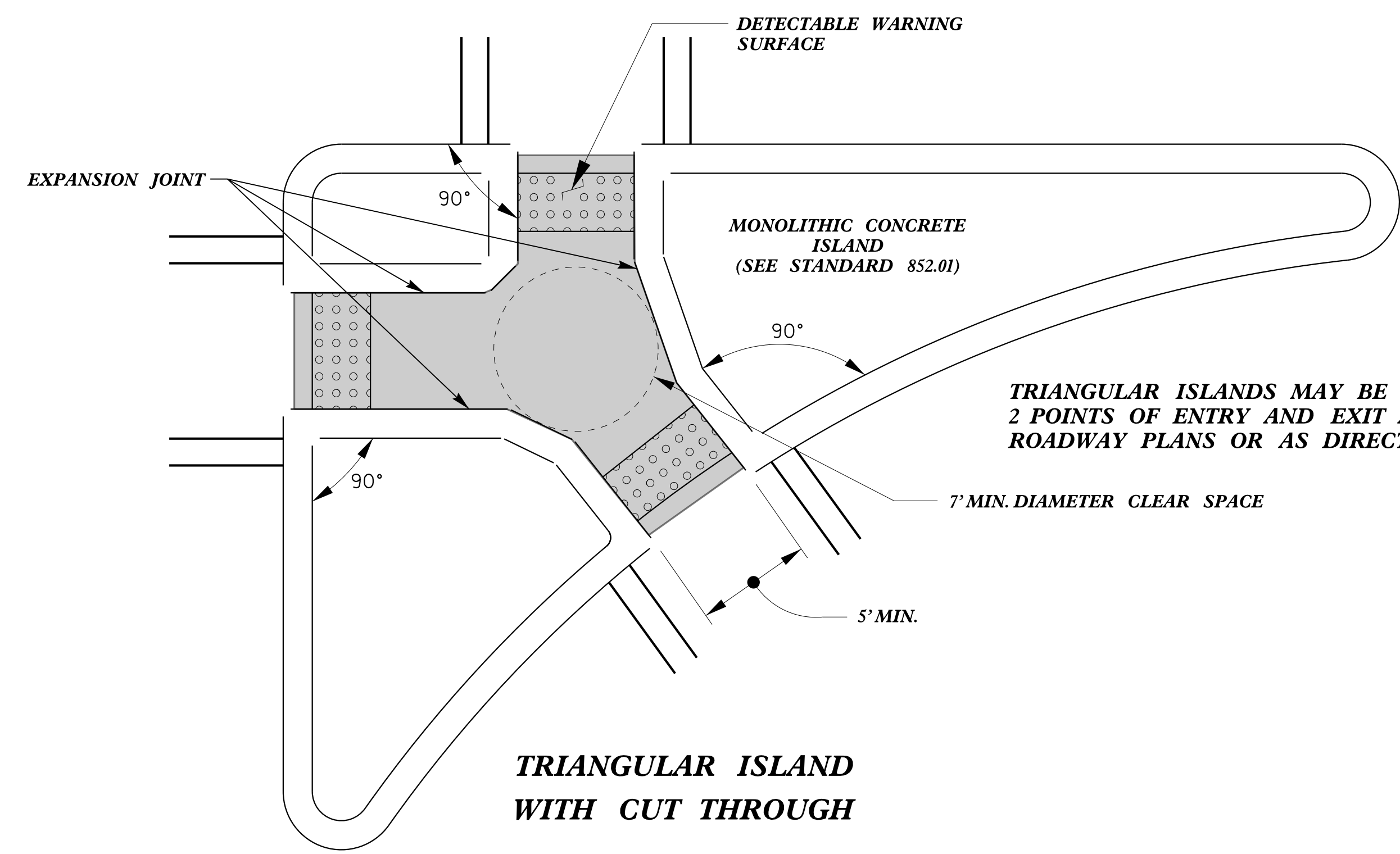


DocuSigned by:
 Nicole M. Heckler 05/2023
 588432303416405

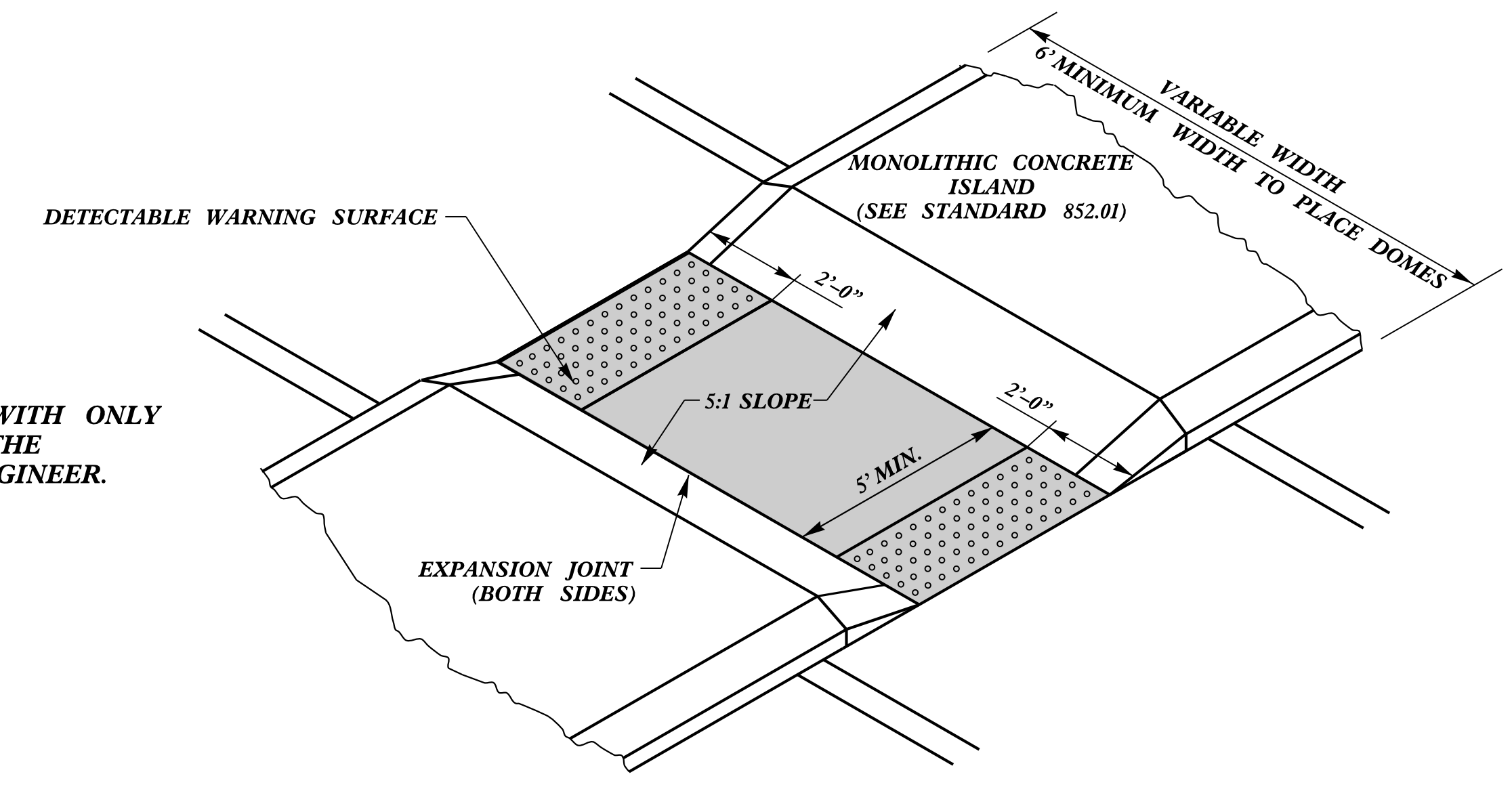
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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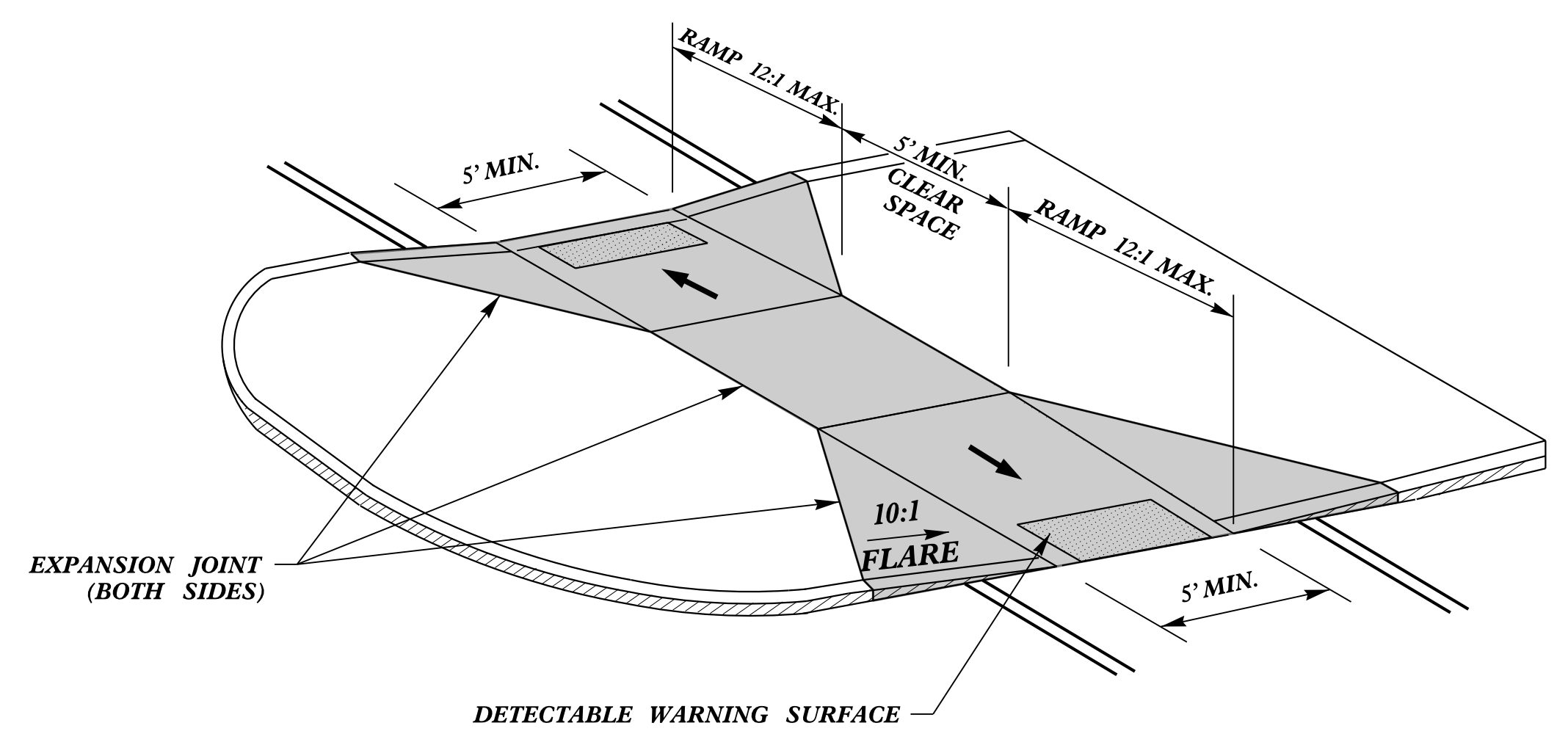
SEE TITLE BLOCK




**TRIANGULAR ISLAND
WITH CUT THROUGH
TYPE 6**



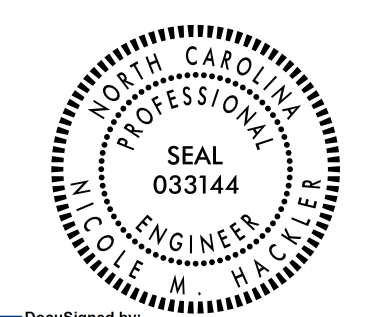
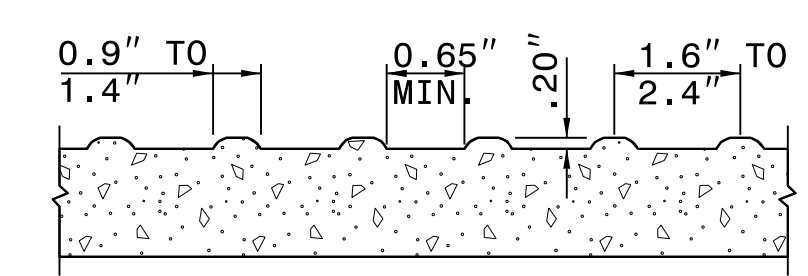
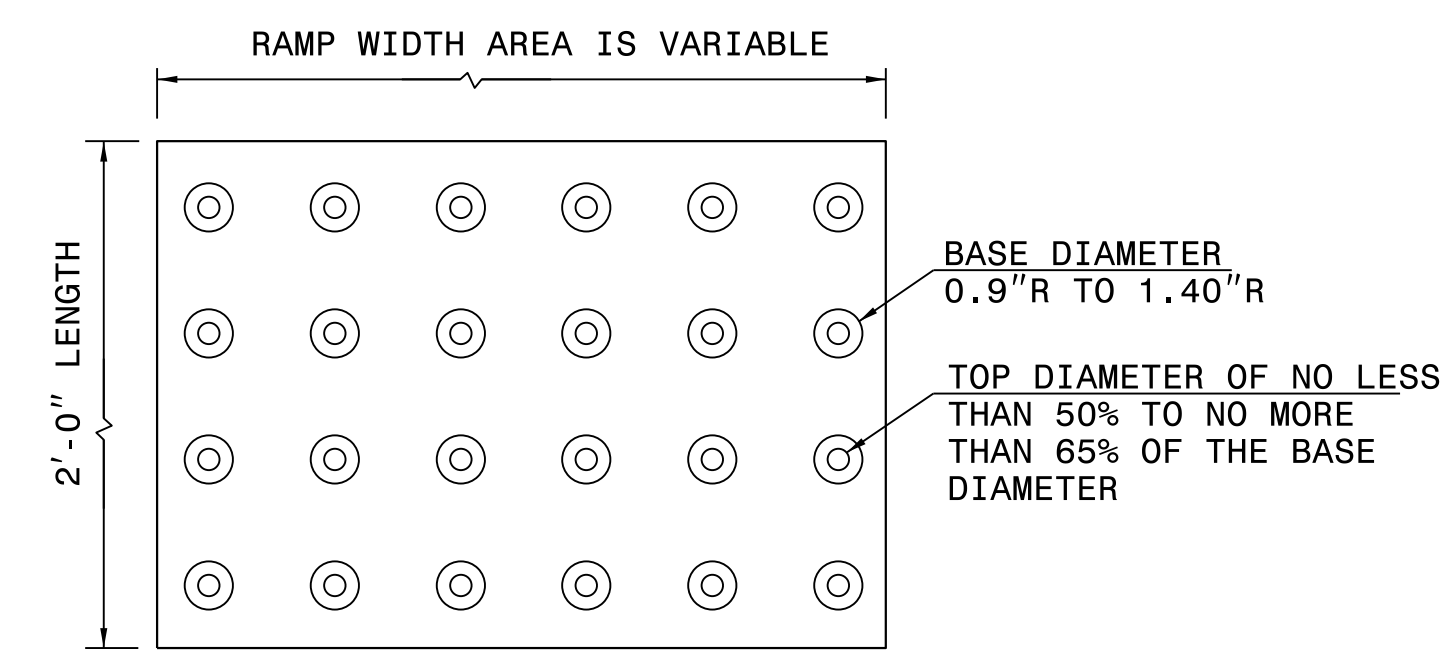
**MEDIAN ISLAND
WITH CUT THROUGH
TYPE 7**



**MEDIAN ISLAND
CURB RAMPS
TYPE 8**

 PAY LIMITS FOR 2 OR 3 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES)

NOTES:
 DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.
 DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DocuSigned by:
 Nicole M. Heckler/2023
 588432303416405

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DETECTABLE WARNING SURFACE

| | |
|--|------------------|
| CONTRACT STANDARDS AND DEVELOPMENT UNIT | |
| Office 919-707-6950 | FAX 919-250-4119 |
| CURB RAMP TYPE 6, 7 & 8 | |
| ORIGINAL BY: K KEMPF | DATE: 07-30-23 |
| MODIFIED BY: | DATE: |
| CHECKED BY: | DATE: |
| FILE SPEC.: | |

30-JUN-2023 13:02
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STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

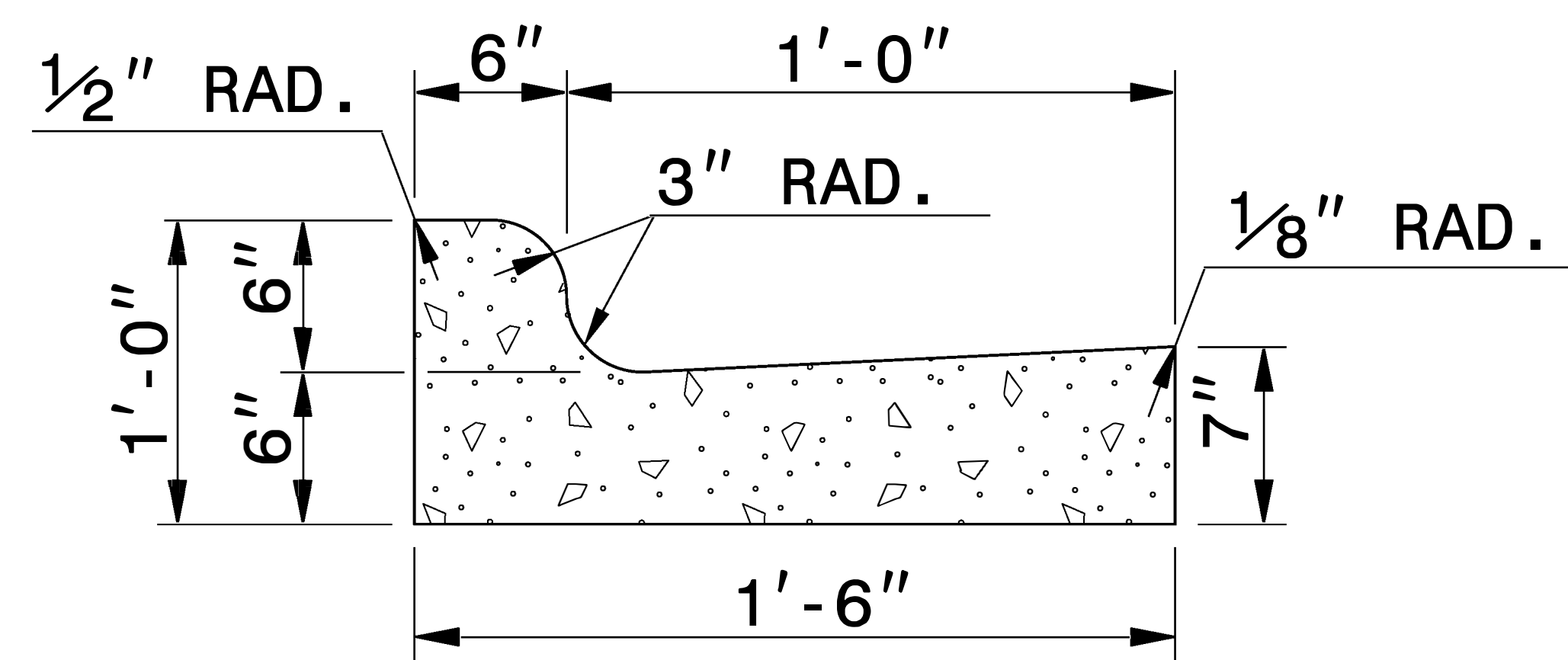
ROADWAY DETAIL DRAWING FOR
**1'-6" CONCRETE CURB & GUTTER
(SPECIAL)**

846d01

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

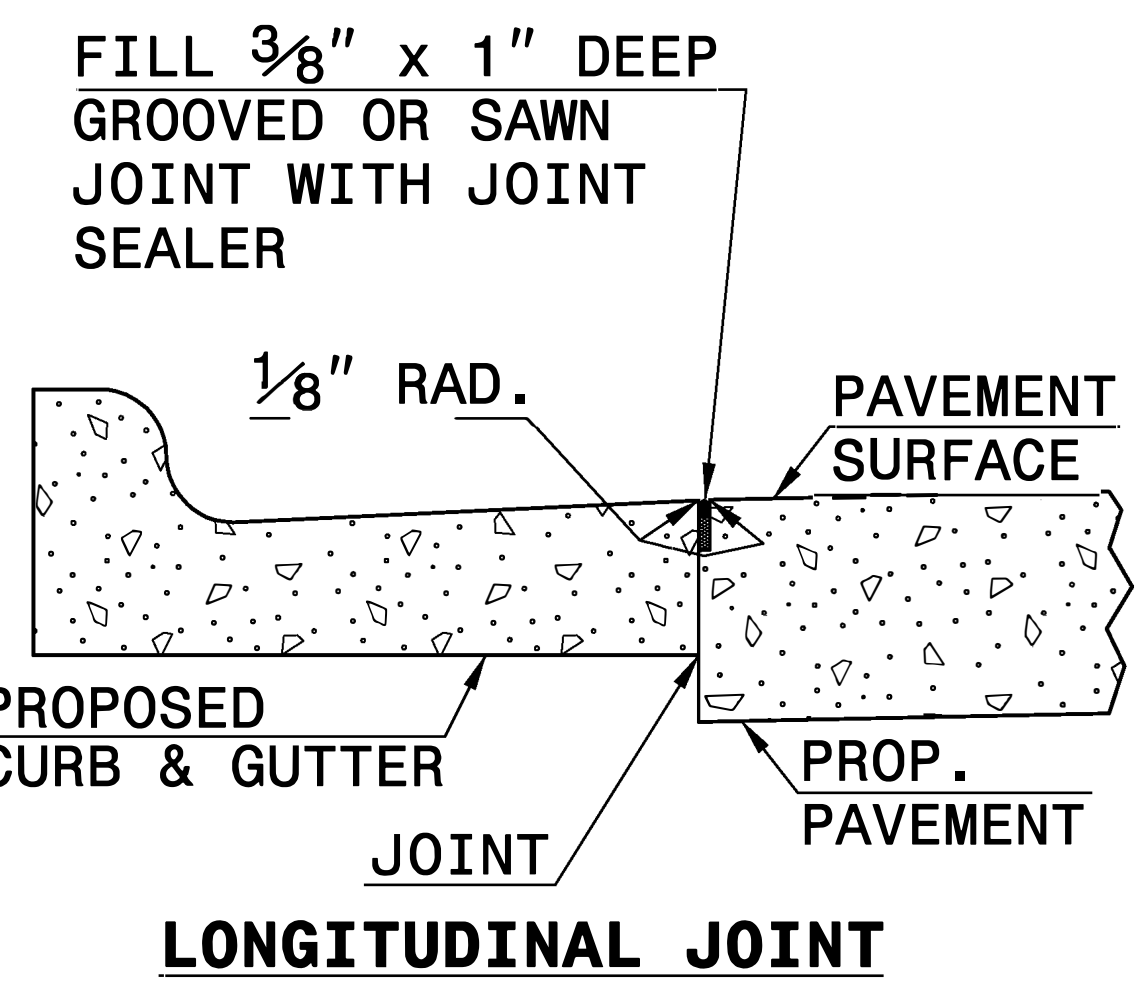
ROADWAY DETAIL DRAWING FOR
**1'-6" CONCRETE CURB & GUTTER
(SPECIAL)**

846d01

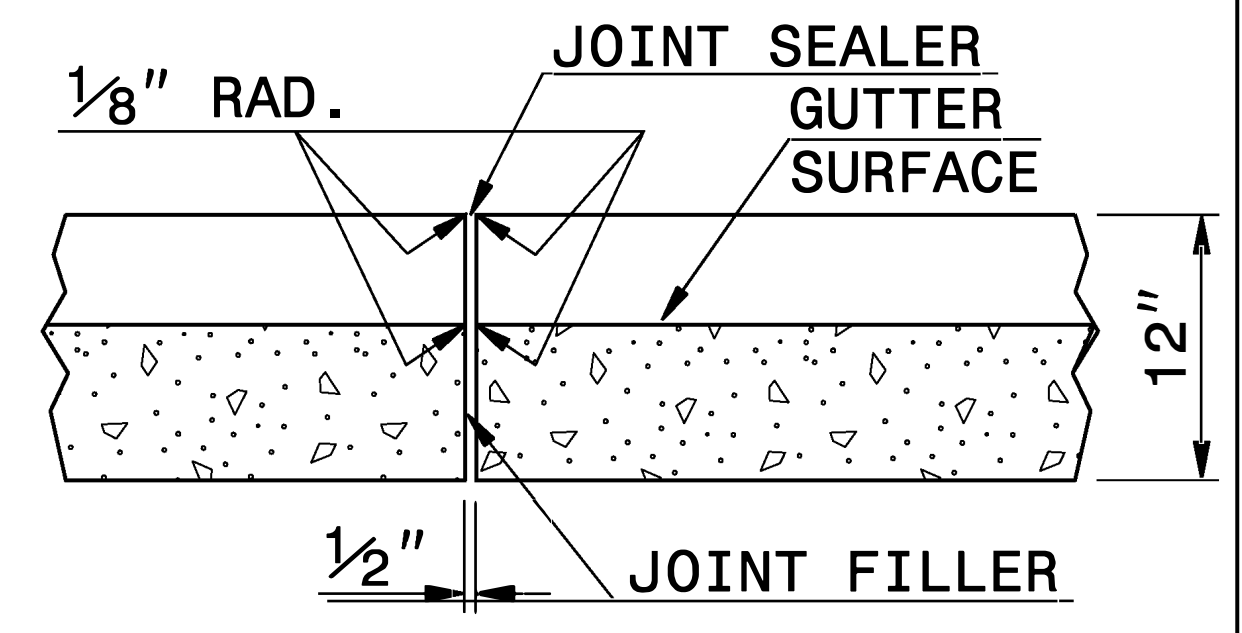


**1'-6" CURB AND GUTTER
(SPECIAL)**
SECTION VIEW

- 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.
 - CONSTRUCT NON-TEMPLATE FORMED JOINTS A MIN. OF 1 1/2" DEEP.
 - FILL ALL CONSTRUCTION JOINTS WITH JOINT FILLER AND SEALER.
 - SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.



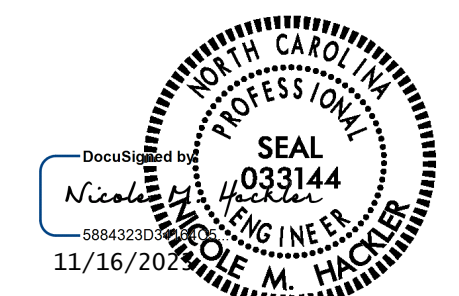
LONGITUDINAL JOINT



**TRANSVERSE EXPANSION JOINT
IN CURB AND GUTTER**

SECTION VIEW OF JOINTS

16-NOV-2023 13:38
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kkemp AT CSD-320967



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

SEE TITLE BLOCK

ORIGINAL BY: kkemp DATE: 11/16/23
MODIFIED BY: DATE:
CHECKED BY: DATE:
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STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

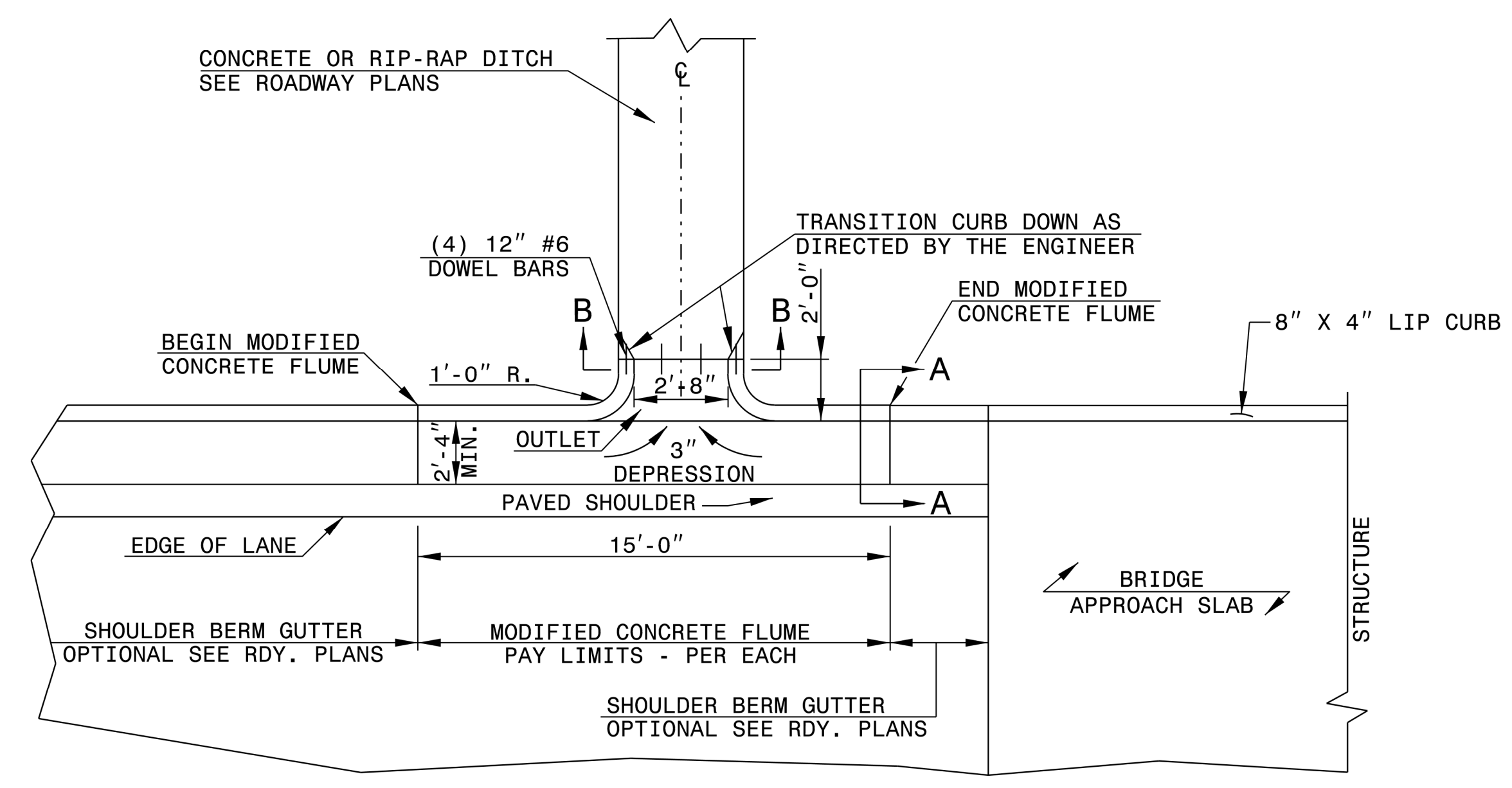
ENGLISH DETAIL DRAWING FOR
MODIFIED CONCRETE FLUME
WITH CONCRETE OR RIP-RAP DITCH

SHEET 1 OF 1
MODFLMDTCH

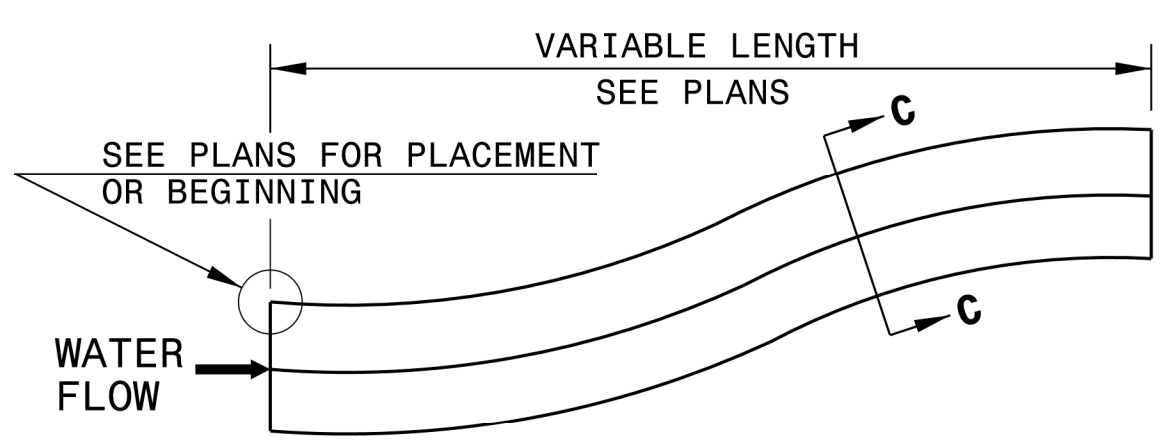
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MODIFIED CONCRETE FLUME
WITH CONCRETE OR RIP-RAP DITCH

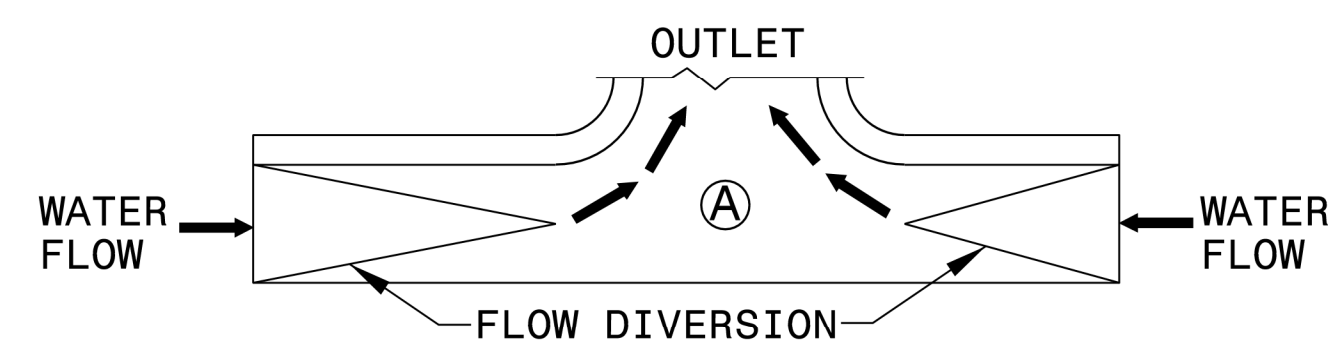
SHEET 1 OF 1
MODFLMDTCH



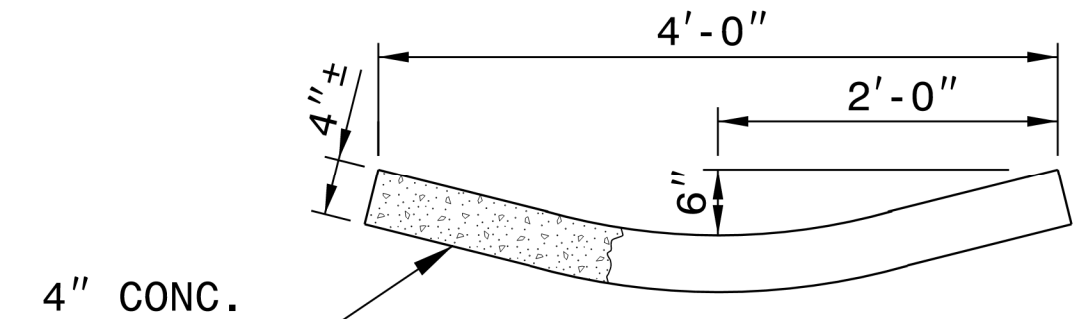
PLAN VIEW



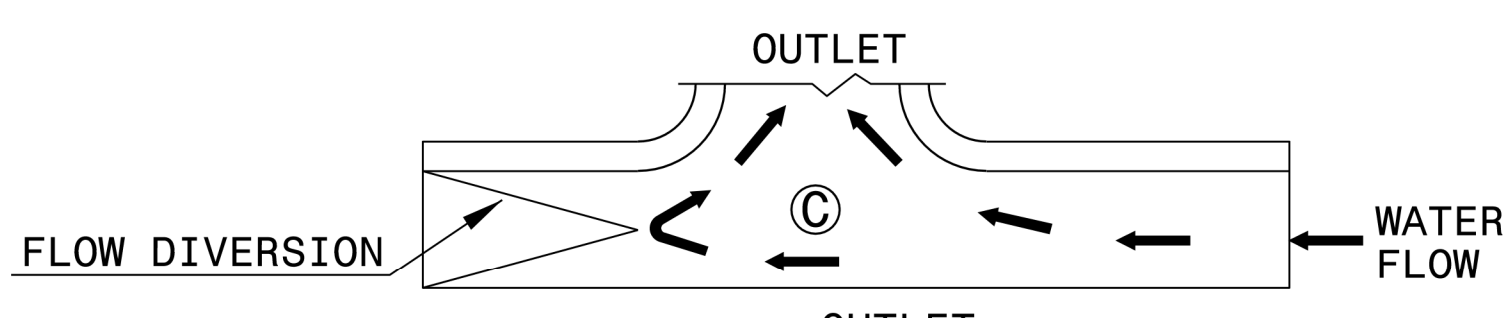
DOWNGRADE OR SAG



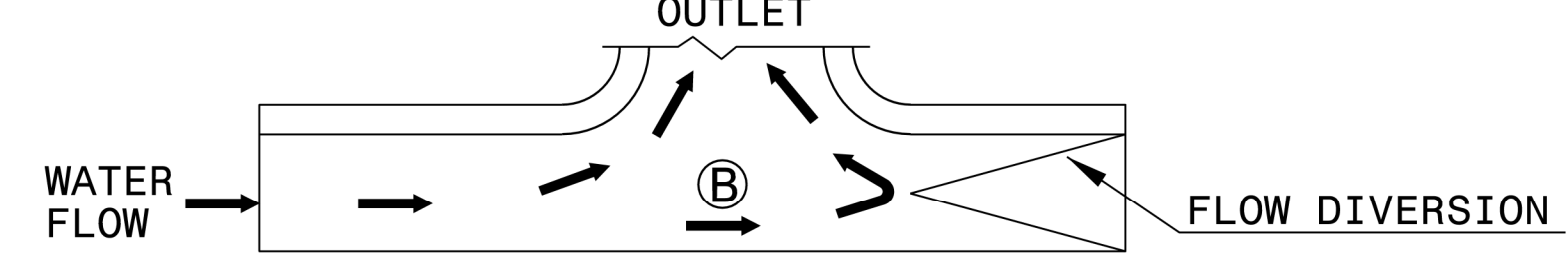
SAG



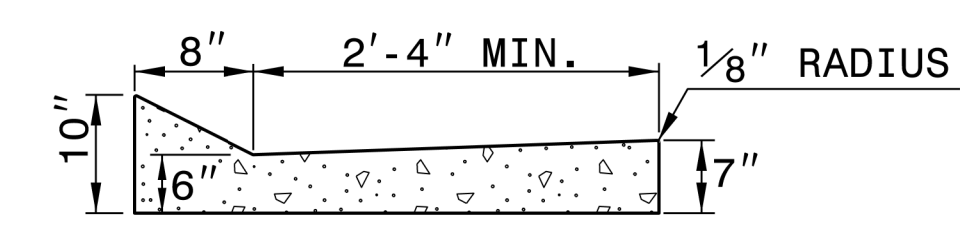
SECTION C-C



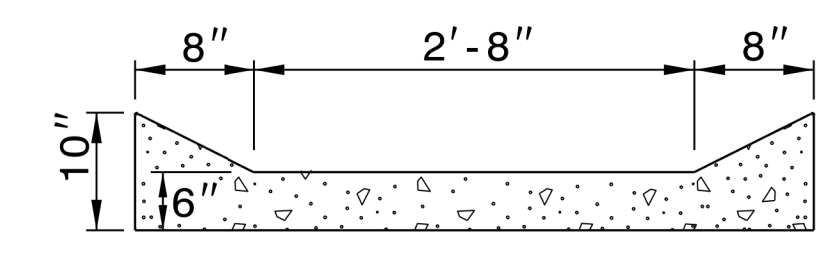
FLOW DIVERSION EXAMPLES



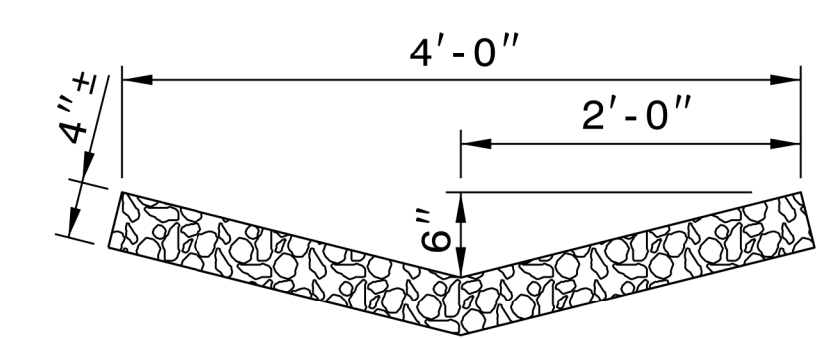
DOWN GRADE



SECTION A-A



SECTION B-B



RIP-RAP LINED DITCH

NOTES:

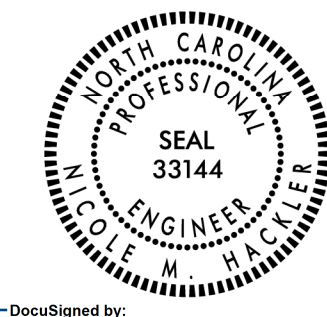
- CONSTRUCT MODIFIED CONCRETE FLUME AND SHOULDER BERM GUTTER IN ACCORDANCE WITH THIS DETAIL.
- CONSTRUCT CONCRETE DITCH IN ACCORDANCE WITH STD. DWG. NO. 850.01.
- CONSTRUCT RIP RAP LINED DITCH IN ACCORDANCE WITH THIS DETAIL, IF CALLED FOR IN PLANS.
- CONCRETE OR RIP RAP LINED DITCH SHALL BE THE TYPE AND LENGTH SPECIFIED BY THE ROADWAY PLANS. THE DITCH SHALL TERMINATE AS SHOWN ON THE PLANS. IF NO TERMINATION IS INDICATED PLACE RIP-RAP AT THE END OF THE DITCH AS INDICATED BY STD. DWG. 876.02 FOR AN 18" PIPE. TRANSITIONS FROM THE DITCH TO TERMINATION SHALL BE AS DIRECTED BY THE ENGINEER.
- MODIFICATIONS SHALL BE AS DICTATED BY SITE CONDITIONS AND DIRECTED BY THE ENGINEER.

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Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

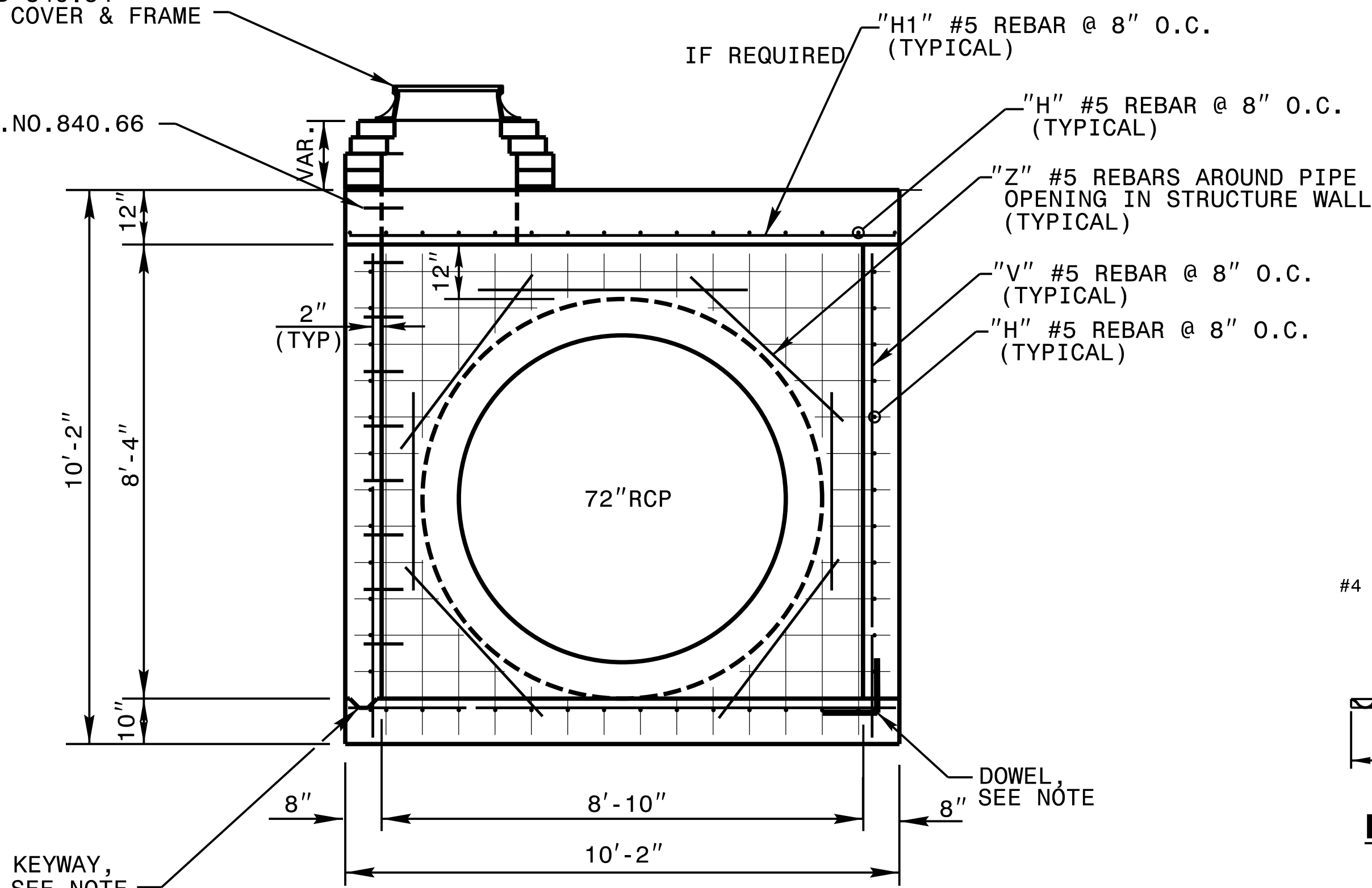
ORIGINAL BY: E.E. Ward DATE: Apr. 2002
 MODIFIED BY: J.S. Howerton DATE: October 2017
 CHECKED BY: DATE:
 FILE SPEC.: w:\details\stand\modifiedflume.dgn



DocuSigned by:
Nicole M. Heckler 10/5/2023

SEE STANDARD 840.54 FOR MANHOLE COVER & FRAME

SEE STEP STD.NO.840.66



SECTION A-A

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

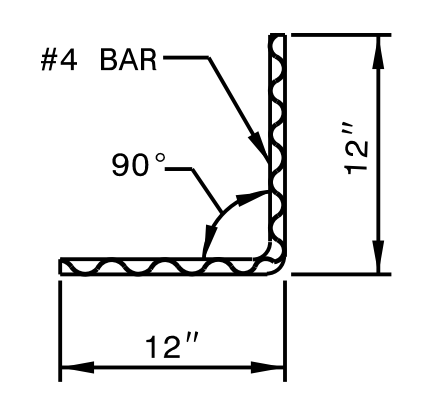
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS OR BRICK/BLOCK WALLS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

BOX DIMENSIONS MAY BE FIELD ADJUSTED AS DIRECTED BY THE ENGINEER.

2" MINIMUM CONCRETE COVERAGE ON ALL REBAR.

PROVIDE ALL JUNCTION BOXES OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.



DOWEL

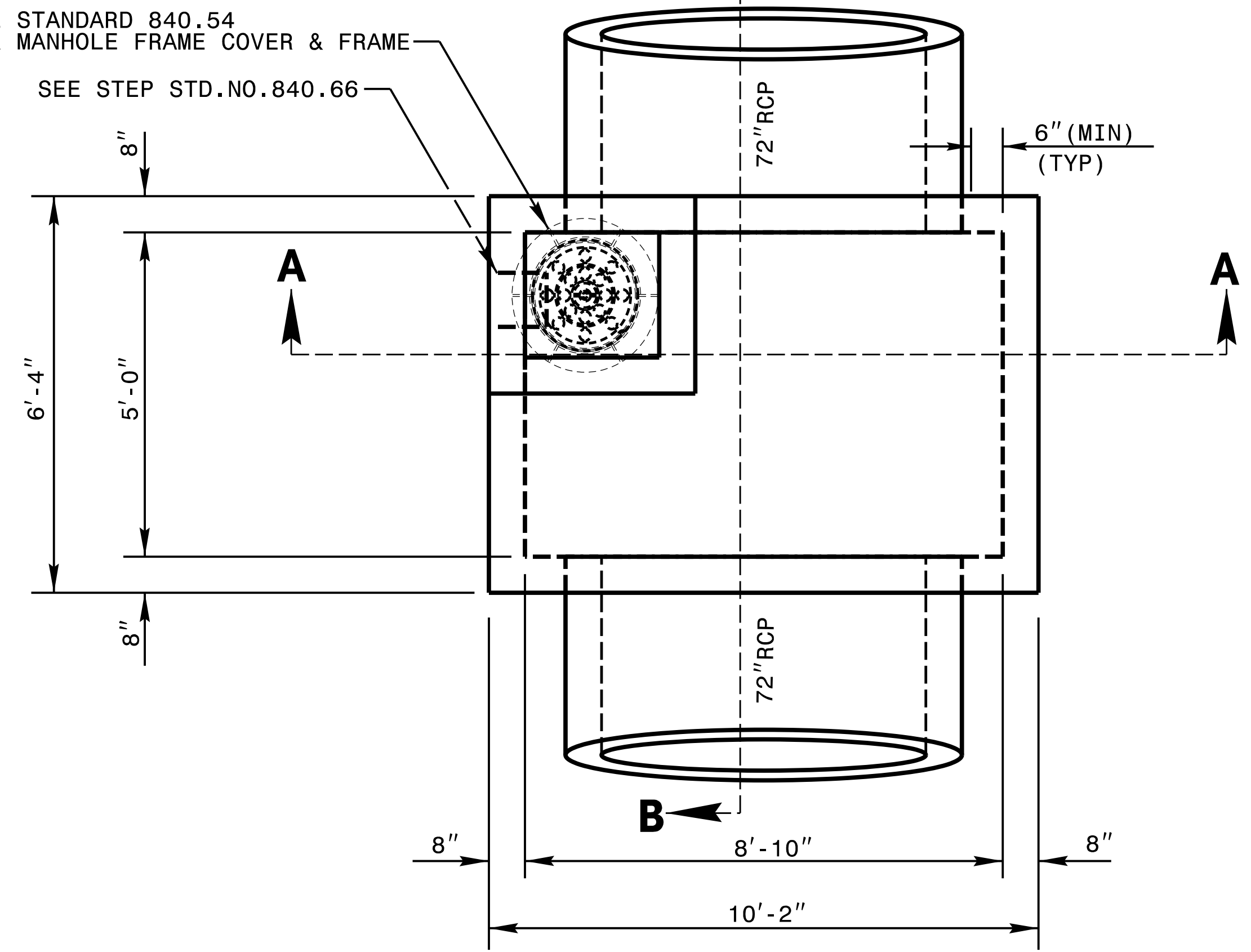
| BILL OF MATERIALS | | | | |
|---------------------------|-----|------|--------|--------|
| BAR | NO. | SIZE | LENGTH | WEIGHT |
| H | 42 | #5 | 8'-10" | 387 |
| H1 | 48 | #5 | 8'-6" | 426 |
| V | 54 | #5 | 7'-6" | 423 |
| Z | 14 | #5 | 5'-0" | 74 |
| TOTAL REINF. STEEL (LBS.) | | | | 1310 |
| TOTAL CONC. (CU. YDS.) | | | | * 11.8 |

* NO DEDUCTION HAS BEEN MADE FOR PIPES

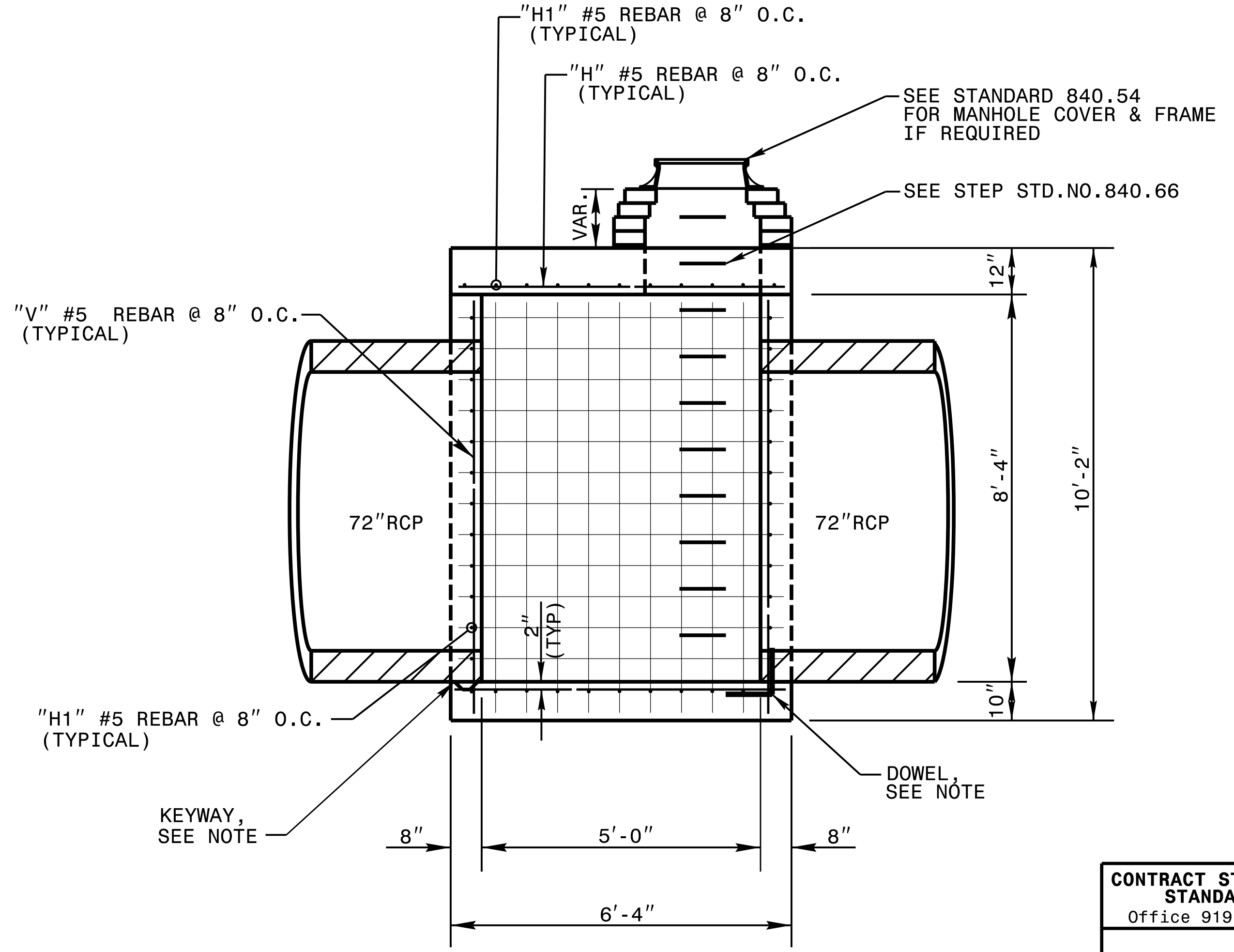
* 2.00 CU. YD. DEDUCTION FOR 2-72" RC PIPE

SEE STANDARD 840.54 FOR MANHOLE FRAME COVER & FRAME

SEE STEP STD.NO.840.66



PLAN VIEW



SECTION B-B



DocuSigned by:
Nicole M. Heckel 5/2023
5884323D34164C5

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

SPECIAL JUNCTION BOX WITH SLAB LID

ORIGINAL BY: _____ DATE: _____
 MODIFIED BY: nbritt DATE: 04/17/09
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: detail/nbritt/english/rural/r2417c72jb.dgn

SYTIME.DGN
 USERNAME

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
 (In Cubic Yards)

| Station | Station | UNCLASSIFIED EXCAVATION | UNDERCUT EXCAVATION | EMBT +% | BORROW | WASTE |
|--|------------------------|-------------------------|---------------------|----------------|----------------|--------------|
| SUMMARY NO. 1 | | | | | | |
| -L1- STA. 41+00.00 | -L1- STA. 43+84.47 | 4,640 | | 8 | | 4,632 |
| -DR1- STA. 10+10.00 | -DR1- STA. 12+12.16 | 51 | | 2 | | 49 |
| -Y1A- STA. 10+25.00 | -Y1A- STA. 11+95.70 | 21 | | 456 | 435 | |
| -Y1B- STA. 10+68.59 | -Y1B- STA. 13+00.00 | 25 | | 692 | 667 | |
| -RA- STA. 10+00.00 | -RA- STA. 13+60.16 | 48 | | 3,491 | 3,443 | |
| SUMMARY NO. 1 TOTALS | | 4,785 | | 4,649 | 4,545 | 4,681 |
| SUMMARY NO. 2 | | | | | | |
| -L2- STA. 45+30.33 | -L2- STA. 53+78.25 | | | 83,578 | 83,578 | |
| SUMMARY NO. 2 TOTALS | | | | 83,578 | 83,578 | |
| SUMMARY NO. 3 | | | | | | |
| -L2- STA. 56+23.66 | -L2- STA. 64+50.00 | 35 | 200 | 88,132 | 88,097 | 200 |
| -Y2- STA. 11+50.00 | -Y2- STA. 13+11.34 | 66 | | 263 | 197 | |
| -Y2- STA. 13+74.75 | -Y2- STA. 17+60.00 | 68 | | 1,178 | 1,110 | |
| -L2- STA. 65+00.00 | -L2- STA. 72+00.00 | 855 | | 175 | | 680 |
| SUMMARY NO. 3 TOTALS | | 1,024 | 200 | 89,748 | 89,404 | 880 |
| SUMMARY NO. 4 | | | | | | |
| -L2- STA. 87+75.00 | -L2- STA. 88+47.55 | 11 | | 7 | | 4 |
| -Y3- STA. 12+09.00 MED | -Y3- STA. 25+50.00 MED | 1,448 | | 648 | | 800 |
| -Y3- STA. 12+09.00 RT | -Y3- STA. 14+90.00 RT | 232 | | 468 | 236 | |
| -Y4- STA. 12+90.00 | -Y4- STA. 14+29.88 | | | 32 | | 32 |
| -DR2- STA. 11+69.14 | -DR2- STA. 12+98.99 | 109 | | 30 | | 79 |
| SUMMARY NO. 4 TOTALS | | 1,800 | | 1,185 | 268 | 883 |
| SUMMARY TOTALS | | 7,609 | 200 | 179,160 | 177,795 | 6,444 |
| MATERIAL FOR SHOULDER CONSTRUCTION | | | | 48 | 48 | |
| LOSS DUE TO CLEARING & GRUBBING | | -3,500 | | | 3,500 | |
| ADDITIONAL UNDERCUT | | | 1,250 | 1,500 | 1,500 | 1,250 |
| EARTH WASTE TO REPLACE BORROW | | | | | -2,844 | -2,844 |
| PROJECT TOTALS | | 4,109 | 1,450 | 180,708 | 179,999 | 4,850 |
| EST. 5% TO REPLACE TOP SOIL ON BORROW PIT | | | | | 9,000 | |
| GRAND TOTALS: | | 4,109 | | | 188,999 | |
| SAY: | | 4,200 | | | 190,000 | |

Note: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

Note: Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, and Removal of Asphalt Pavement will be paid for at the contract lump sum price for grading.

EXPRESSWAY GUTTER SUMMARY
 (IN LINEAR FEET)

| LINE | STATION | STATION | LENGTH |
|--------------|----------|----------|-----------|
| -Y3- | 12+09.00 | 12+55.00 | 46 |
| TOTAL | | | 46 |
| SAY | | | 50 |

PAVEMENT REMOVAL SUMMARY
 IN SQUARE YARDS

| SURVEY LINE | STATION | STATION | LOCATION LT/RT/CL | ASPHALT REMOVAL | ASPHALT BREAKUP | CONCRETE REMOVAL | CONCRETE BREAKUP |
|---------------------------|---------|---------|-------------------|-----------------|-----------------|------------------|------------------|
| -L2- LT Outside C&G | 65+38 | 67+21 | LT | 40.5 | | | |
| -L2- LT Inside C&G | 65+75 | 66+83 | RT | 23.9 | | | |
| -L2- | 66+83 | 71+33 | LT | 216.5 | | | |
| -L2- LT Outside C&G | 70+50 | 72+00 | LT | 33.3 | | | |
| -L2- LT Inside C&G | 71+33 | 72+00 | LT | 14.9 | | | |
| -L2- RT Outside C&G | 65+19 | 66+00 | RT | 18.1 | | | |
| -L2- RT Inside C&G | 65+75 | 66+00 | RT | 5.5 | | | |
| -Y1A- | 10+57 | 11+57 | RT | 22.2 | | | |
| -Y1B- | 11+09 | 12+43 | LT | 29.8 | | | |
| -RA- | 10+27 | 12+03 | LT & RT | 281.6 | | | |
| -Y2- | 11+50 | 12+71 | RT | 27.0 | | | |
| -Y2- | 11+50 | 11+90 | LT | 8.8 | | | |
| -Y2- | 13+97 | 15+10 | LT | 50.1 | | | |
| -Y2- | 15+10 | 15+50 | LT | 8.9 | | | |
| -Y3- Median PS | 12+09 | 18+13 | RT | 335.6 | | | |
| -Y3- Med PS & Sawcut | 18+13 | 21+27 | RT | 244.3 | | | |
| -Y3- Med PS & Sawcut | 12+51 | 19+50 | LT | 388.3 | | | |
| -Y3- Med PS & Sawcut | 19+50 | 21+77 | LT | 176.4 | | | |
| -Y3- Med PS & Sawcut | 21+77 | 25+47 | LT | 160.6 | | | |
| Y3- Median Left Turn Lane | 21+27 | 25+50 | LT & RT | 842.2 | | | |
| -DR2- | 10+00 | 10+39 | LT | 212.8 | | | |
| TOTAL | | | | 3141.0 | | | |
| SAY | | | | 3,150 | | | |

SHOULDER BERM GUTTER SUMMARY
 (IN LINEAR FEET)

| LINE | STATION | STATION | LENGTH |
|--------------|----------|----------|-----------------|
| -L- RT | 47+78.33 | 53+50.14 | 571.813 |
| -L- RT | 56+50.11 | 61+83.07 | 532.96 |
| TOTAL | | | 1104.773 |
| SAY | | | 1110 |

GUARDRAIL SUMMARY

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

"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

| SURVEY LINE | BEG. STA. | END STA. | LOCATION | LENGTH (LF) | | | WARRANT POINT | | "N" DIST. FROM E.O.L. (LF) | TOTAL BERM WIDTH (LF) | TOTAL SHOULDER WIDTH (LF) | FLARE LENGTH (LF) | | W (LF) | | ANCHORS | | | | IMPACT ATTENUATOR TYPE 350 | | REMOVE EXISTING GUARDRAIL | REMARKS |
|------------------------------------|-----------|----------|----------|----------------|-------------|--------------|---------------|--------------|----------------------------|-----------------------|---------------------------|-------------------|--------------|--------------|--------------|-----------|----------|-----------|-------|----------------------------|----|---------------------------|------------------------------|
| | | | | STRAIGHT | SHOP CURVED | DOUBLE FACED | APPROACH END | TRAILING END | | | | APPROACH END | TRAILING END | APPROACH END | TRAILING END | GREU TL-3 | TYPE III | TYPE B-77 | CAT-1 | G | NG | | |
| -L2- | 47+30.81 | 53+74.56 | RT | 643.75 | | | | 49+00.00 | 15 | 15 | 13 | 200 | 50 | 6.5 | 2 | 1 | 1 | | | | | | 25:1 PS TAPER AT BRIDGE |
| -L2- | 48+81.82 | 53+81.82 | LT | 500.00 | | | | 48+00.00 | 10 | | | 50 | | | 1 | 1 | | | | | | | FLARE FOLLOWS SIDEWALK TAPER |
| -L2- | 56+21.70 | 62+15.45 | LT | 593.75 | | | | 61+25.00 | 15 | 15 | | 250 | | | 6.5 | 1 | 1 | | | | | | FLARE FOLLOWS SIDEWALK TAPER |
| -L2- | 56+25.68 | 61+88.18 | RT | 562.50 | | | | 61+75.00 | 10 | | | 50 | | 2 | | 1 | | | | | | | 25:1 PS TAPER AT BRIDGE |
| SUBTOTAL | | | | 2300.00 | | | | | | | | | | | | | | | | | | | |
| LESS DEDUCTIONS | | | | | | | | | | | | | | | | | | | | | | | |
| FOR ANCHOR UNITS | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT TOTAL | | | | 2112.50 | | | | | | | | | | | | | | | | | | | |
| SAY | | | | 2125 | | | | | | | | | | | | | | | | | | | |
| ADDITIONAL GUARDRAIL POSTS = 5 EA. | | | | | | | | | | | | | | | | | | | | | | | |

1/14/2023

COMPUTED BY: CRS DATE: 1/10/2023
CHECKED BY: BTS DATE: 9/21/2023

PROJECT NO. U-5808 SHEET NO. 3D-1

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)

Table with columns: LINE & STATION, OFFSET, STRUCTURE NUMBER, TOP ELEVATION, INVERT ELEVATION, MINIMUM REQUIRED SLOPE, Drainage Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE), C. S. PIPE, R. C. PIPE CLASS III, R. C. PIPE CLASS IV, R. C. PIPE CLASS V, ENDWALLS, REINFORCED ENDWALLS, MASONRY, DRAINAGE STRUCTURE, QUANTITIES FOR DRAINAGE STRUCTURES, FRAME, GRATES, AND HOOD, CONCRETE TRANSITIONAL SECTION, GRATE TYPE, FLOWABLE FILL, CONCRETE COLLARS CL. "B" STD. 840.72, PIPE REMOVAL, ABBREVIATIONS, REMARKS.

SHEET TOTALS

COMPUTED BY: Paul Zhang DATE: 9/25/18
 CHECKED BY: Shane Johnson DATE: 9/25/18

PROJECT NO. U-5808 SHEET NO. 3G-1

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF SUBSURFACE DRAINAGE

| LINE | Station | Station | Location LT/RT/CL | Drain Type* UD/BD/SD | LF |
|-------------|---------|---------|----------------------|-------------------------|-----|
| | | | | | |
| CONTINGENCY | | | | SD | 200 |
| | | | | TOTAL LF: | 200 |

*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 |
|--------------------------|---------|---------|--|--|---------------------------|---|---|---------------------------------|--|
| -Y1B- | 10+69 | 13+00 | ASU | 18 | 150 | 300 | 300 | | |
| CONTINGENCY | | | ASU | 18 | 700 | 1350 | 1400 | | |
| TOTAL CY/TONS/SY: | | | | | 850 | 1650** | 1700** | 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.

**STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PARCEL INDEX SHEET**

| PARCEL No. | SHEET No. | PROPERTY OWNER NAME |
|------------|-----------|--------------------------------------|
| 1 | 4 | Dennis Edward Simpson |
| 2 | 4 | Jastco, LLC |
| 3 | 4, 5 | Killough Family Farm 21, LLC |
| 4 | 4, 5 | Jay P. Ross |
| 5 | 4 | Jay P. Ross |
| 6 | 5, 6 | Alton Properties, LLC |
| 7 | 5, 6 | Town of Indian Trail |
| 9 | 6 | Partners in Hoops, LLC |
| 10 | 7 | Kay Family Investments, LLC |
| 11 | 7 | J.D. Armstrong and Larry A. McKinney |
| 12 | 7 | Allison Lemmond Garner |
| 13 | 7 | Cherry 5, LLC |

| | | | |
|---|--|--|--|
| PROJECT REFERENCE NO. | | SHEET NO. | |
| U-5808 | | 4 | |
| RW SHEET NO. | | HYDRAULICS ENGINEER | |
| ROADWAY DESIGN ENGINEER | | SEAL 034381 | |
| NORTH CAROLINA PROFESSIONAL SEAL | | NORTH CAROLINA PROFESSIONAL SEAL 48622 | |
| 10/4/2023 | | 10/5/2023 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |
| Mead&Hunt | | 111 E. Hargett Street, Suite 300 Raleigh, North Carolina 27601 919-714-8570 meadandhunt.com NC License No. F-1235 | |

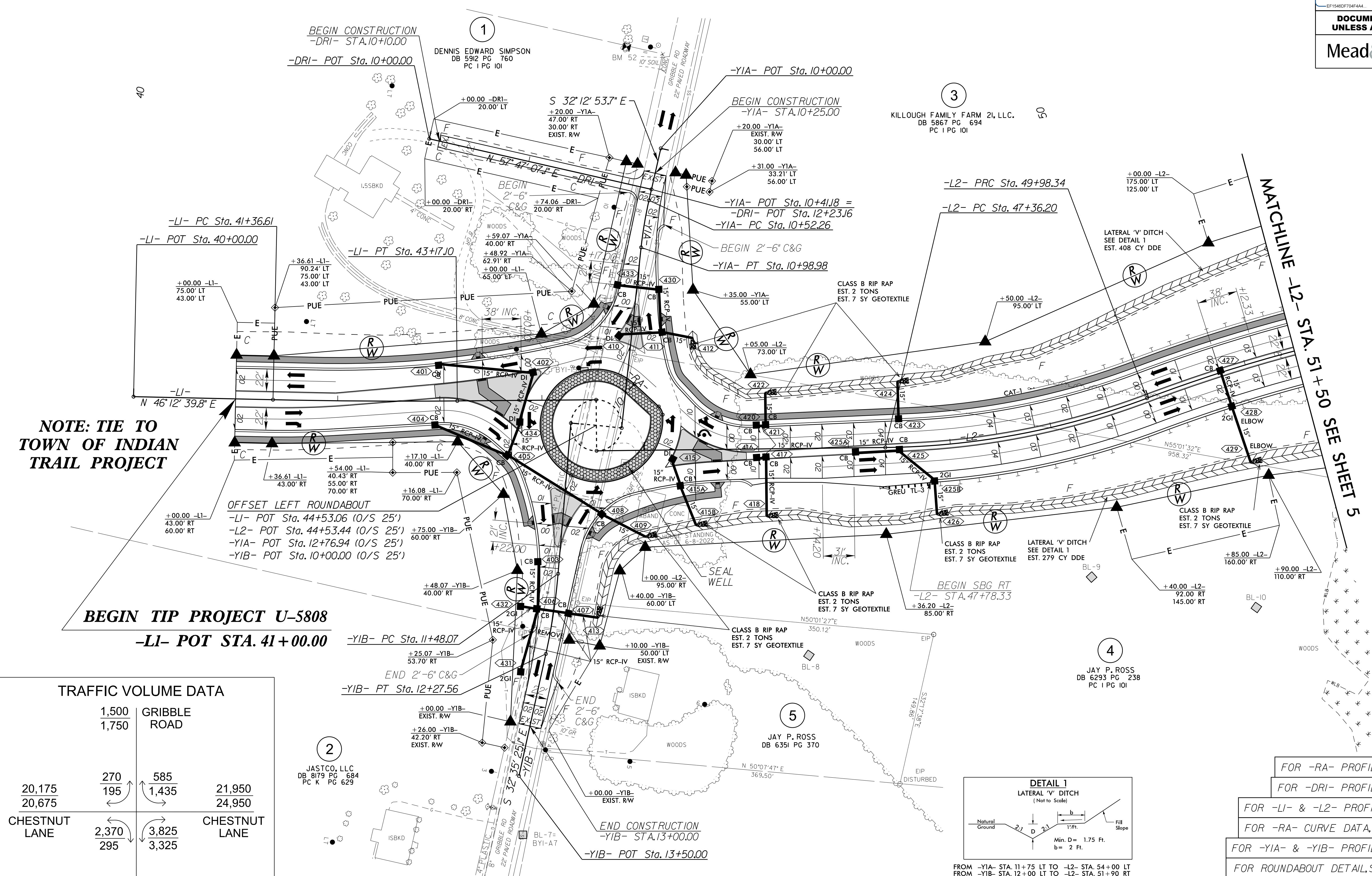
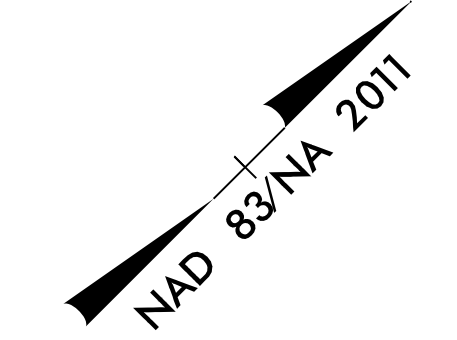
-LI- CURVE DATA
 PI Sta 42+26.86
 $\Delta = 1^\circ 43' 24.8" (LT)$
 $D = 0' 57' 17.7"$
 $L = 180.49'$
 $T = 90.25'$
 $R = 6,000.00'$
 $e = NC$

-YIA- CURVE DATA
 PI Sta 10+75.64
 $\Delta = 6' 41' 29.4" (LT)$
 $D = 14' 19' 26.2"$
 $L = 46.72'$
 $T = 23.38'$
 $R = 400.00'$
 $e = EXISTING$

-YIB- CURVE DATA
 PI Sta 11+87.87
 $\Delta = 7' 35' 25.5" (RT)$
 $D = 9' 32' 57.5"$
 $L = 79.49'$
 $T = 39.80'$
 $R = 600.00'$
 $e = EXISTING$

-L2- CURVE DATA
 PI Sta 48+68.62
 $\Delta = 20' 01' 33.6" (LT)$
 $D = 7' 38' 22.0"$
 $L = 262.14'$
 $T = 132.42'$
 $R = 750.00'$
 $e = 0.04$
 $RO = 152.00'$

PI Sta 55+77.17
 $\Delta = 42' 12' 08.0" (RT)$
 $D = 3' 49' 11.0"$
 $L = 1,104.85'$
 $T = 578.84'$
 $R = 1,500.00'$
 $e = 0.03$
 $RO = 152.00'$

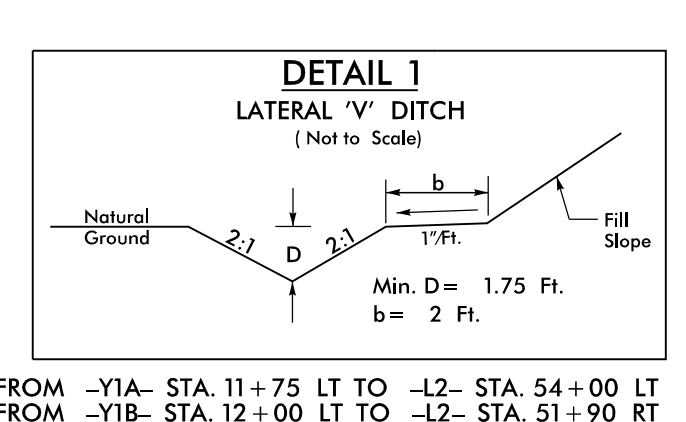


NOTE: TIE TO TOWN OF INDIAN TRAIL PROJECT

BEGIN TIP PROJECT U-5808
-LI- POT STA. 41+00.00

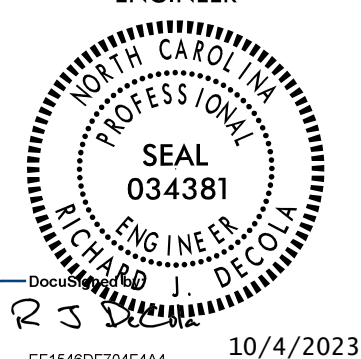


TRAFFIC VOLUME DATA

| | | | |
|------------------------|----------------|----------------|------------------|
| | 1,500 1,750 | GRIBBLE ROAD | |
| 20,175 20,675 | 270 195 | 585 1,435 | 21,950 24,950 |
| CHESTNUT LANE | 2,370 295 | 3,825 3,325 | CHESTNUT LANE |
| 2023 AADT 2043 AADT | 6,840 3,740 | GRIBBLE ROAD | |



FOR -RA- PROFILE, SEE SHEET 10
 FOR -DRI- PROFILE, SEE SHEET 10
 FOR -LI- & -L2- PROFILE, SEE SHEET 8
 FOR -RA- CURVE DATA, SEE SHEET 2B-1
 FOR -YIA- & -YIB- PROFILE, SEE SHEET 10
 FOR ROUNDABOUT DETAIL, SEE SHEET 2B-2

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| | | | |
|---|--|---|--|
| PROJECT REFERENCE NO. U-5808 | | SHEET NO. 5 | |
| RW SHEET NO. | | | |
| ROADWAY DESIGN ENGINEER | | HYDRAULICS ENGINEER | |
|  | |  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |
|  | | | |

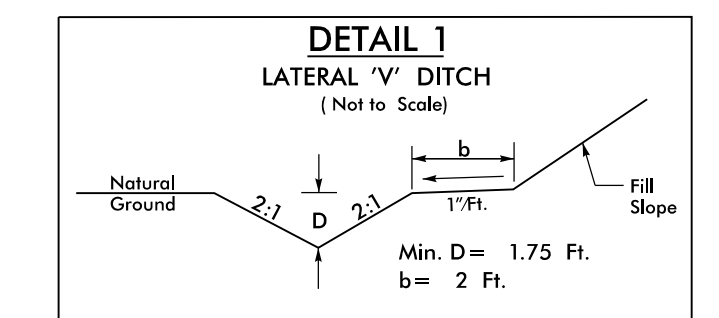
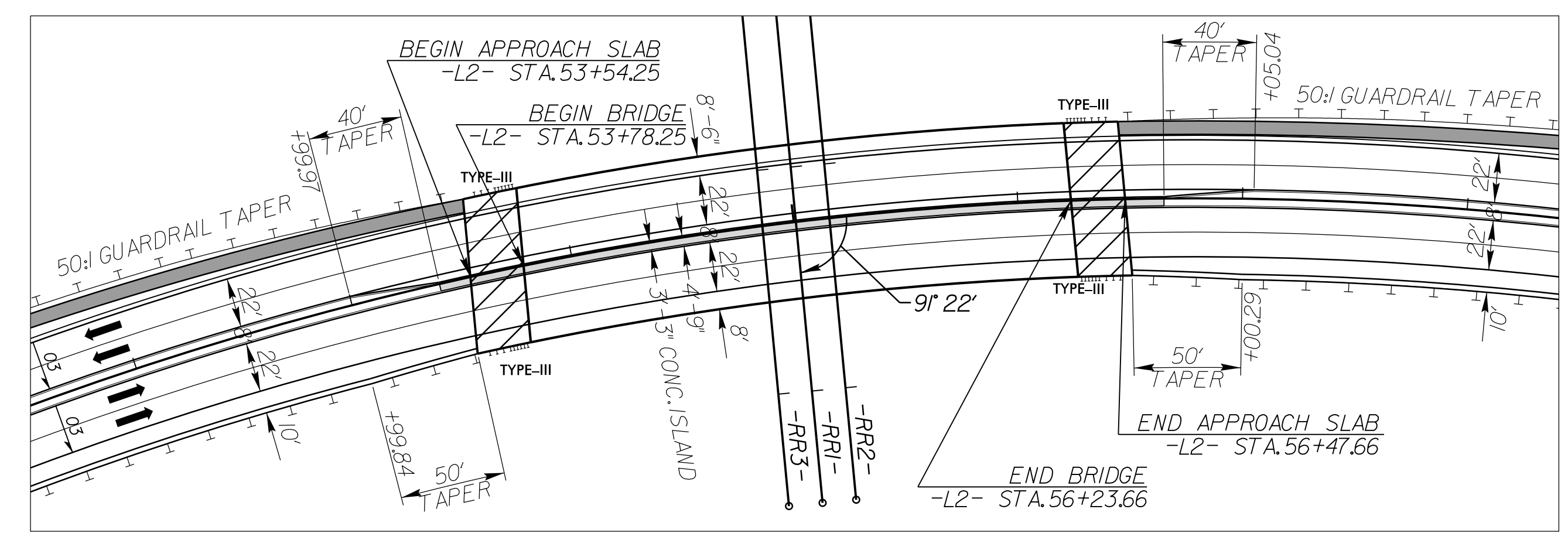
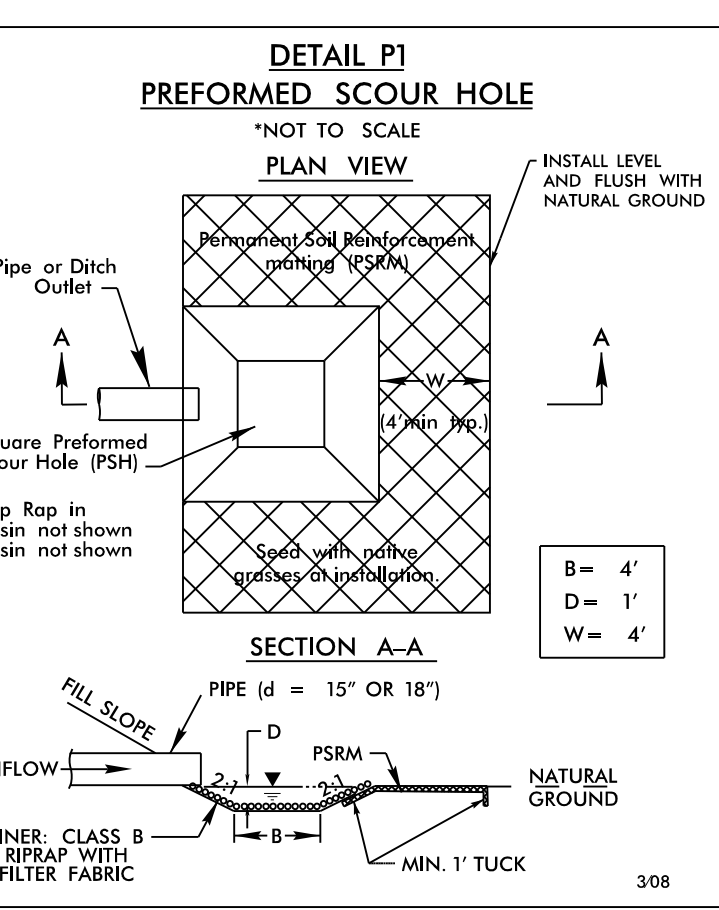
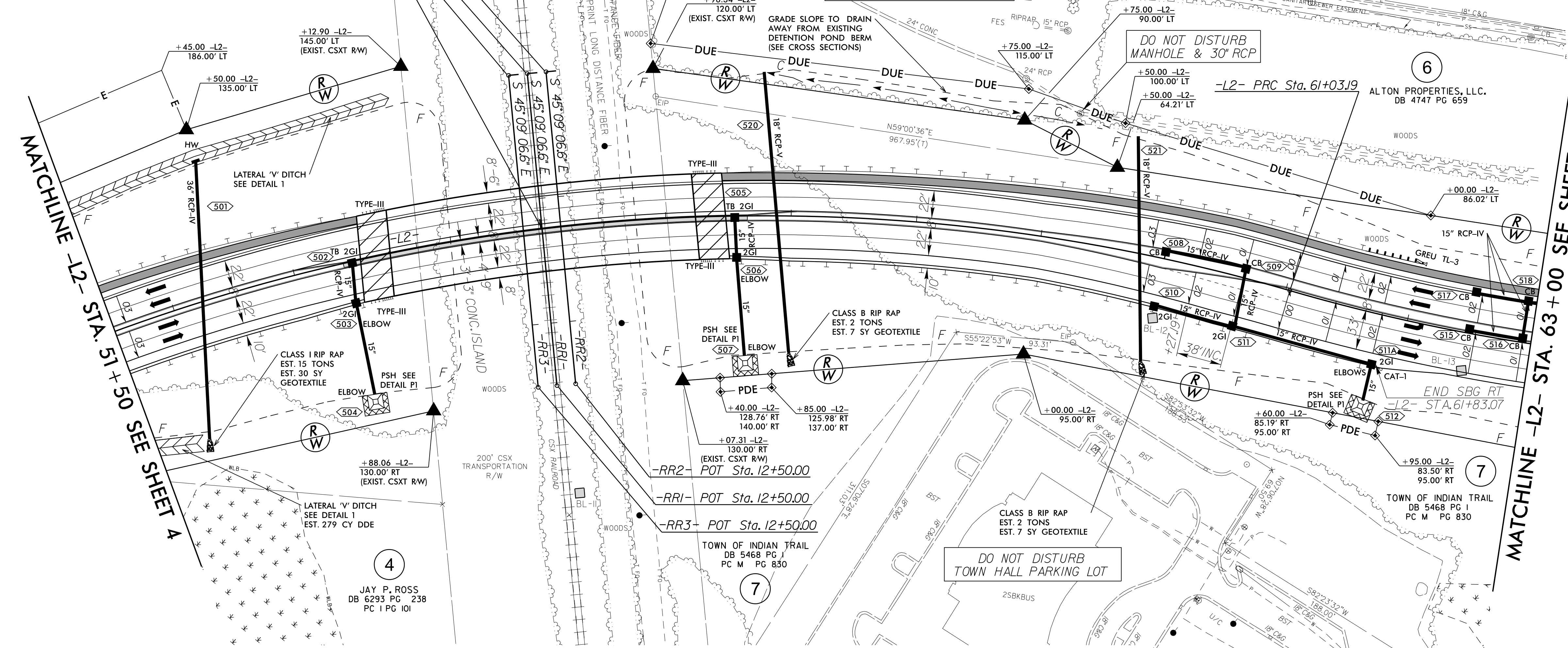
-L2- CURVE DATA

| | |
|---|---|
| PI Sta 55+77.17 Δ = 42° 12' 08.0" (RT) D = 3° 49' 11.0" L = 1404.85' T = 578.84' R = 1,500.00' e = 0.03 RO = 114.00' | PI Sta 62+10.64 Δ = 8° 11' 40.4" (LT) D = 3° 49' 11.0" L = 214.53' T = 107.45' R = 1,500.00' e = 0.03 RO = 114.00' |
|---|---|

③
KILLOUGH FAMILY FARM 21, LLC.
DB 5867 PG 694
PC 1 PG 101

---RR2--- POT Sta. 10+00.00
---RR1--- POT Sta. 10+00.00
---RR3--- POT Sta. 10+00.00

---L2--- POC Sta. 55+00.96
---RR1--- POT Sta. 11+24.52



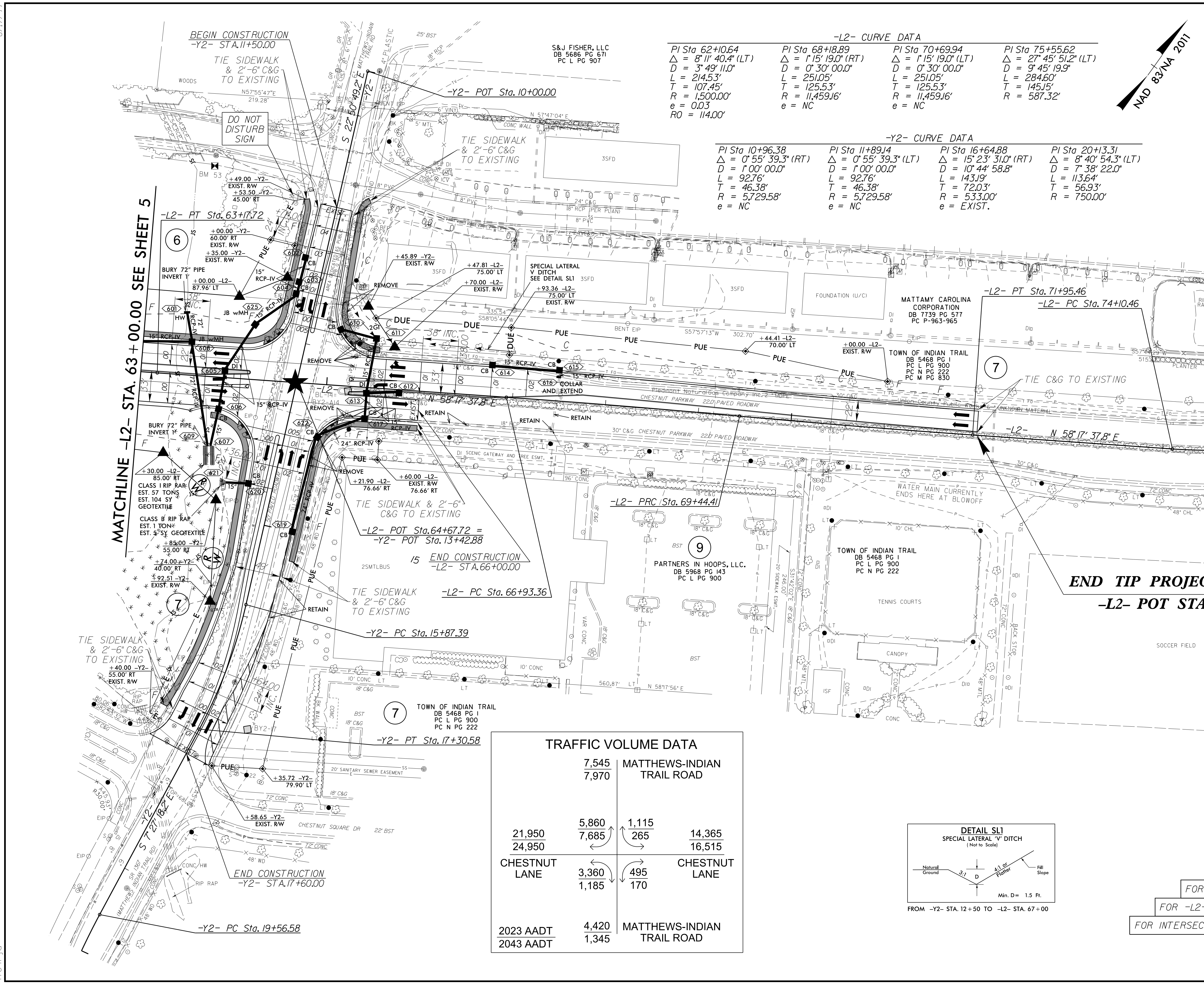
FOR -L2- PROFILE, SEE SHEET 8
FOR INTERSECTION DETAIL, SEE SHEET 2B-2
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-56

FOR -L2- PROFILE, SEE SHEET 8
BRIDGE APPROACH SLAB
FOR INTERSECTION DETAIL, SEE SHEET 2B-2
FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-56

-L2- STA 52+40 (RT)
-L2- STA 56+62 (RT)
-L2- STA 60+66 (RT)

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| | | | |
|---|--|---|--|
| PROJECT REFERENCE NO. U-5808 | | SHEET NO. 6 | |
| RW SHEET NO. | | | |
| ROADWAY DESIGN ENGINEER BRAD SMITH SEAL 034381 10/4/2023 | | HYDRAULICS ENGINEER BRAD SMITH SEAL 48622 10/5/2023 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |
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-L2- CURVE DATA

| | | | |
|---|--|--|--|
| PI Sta 62+10.64 Δ = 8' 11" 40.4" (LT) D = 3' 49" 11.0" L = 214.53' T = 107.45' R = 1,500.00' e = 0.03 RO = 114.00' | PI Sta 68+18.89 Δ = 1' 15" 19.0" (RT) D = 0' 30" 00.0" L = 251.05' T = 125.53' R = 11,459.16' e = NC | PI Sta 70+69.94 Δ = 1' 15" 19.0" (LT) D = 0' 30" 00.0" L = 251.05' T = 125.53' R = 11,459.16' e = NC | PI Sta 75+55.62 Δ = 27' 45" 51.2" (LT) D = 9' 45" 19.9" L = 284.60' T = 145.15' R = 587.32' |
|---|--|--|--|

-Y2- CURVE DATA

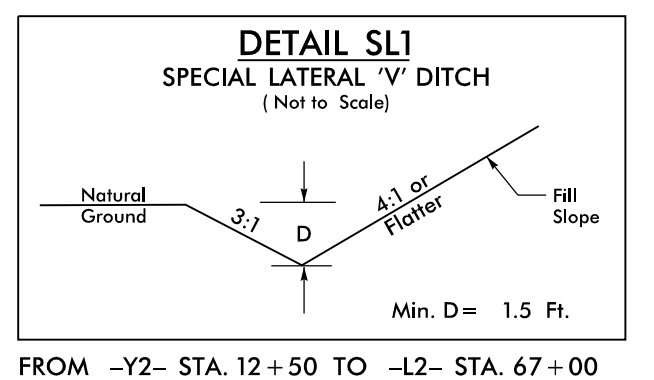
| | | | |
|---|---|--|--|
| PI Sta 10+96.38 Δ = 0' 55" 39.3" (RT) D = 1' 00" 00.0" L = 92.76' T = 46.38' R = 5,729.58' e = NC | PI Sta 11+89.14 Δ = 0' 55" 39.3" (LT) D = 1' 00" 00.0" L = 92.76' T = 46.38' R = 5,729.58' e = NC | PI Sta 16+64.88 Δ = 15' 23" 31.0" (RT) D = 10' 44" 58.8" L = 143.19' T = 72.03' R = 533.00' e = EXIST. | PI Sta 20+13.31 Δ = 8' 40" 54.3" (LT) D = 7' 38" 22.0" L = 113.64' T = 56.93' R = 750.00' |
|---|---|--|--|

MATCHLINE -L2- STA. 63 + 00.00 SEE SHEET 5

END TIP PROJECT U-5808
-L2- POT STA. 72 + 00.00

TRAFFIC VOLUME DATA

| | | | |
|---------------|--------|----------------------------|---------------|
| | 7,545 | MATTHEWS-INDIAN TRAIL ROAD | |
| | 7,970 | | |
| | 21,950 | 5,860 | 1,115 |
| | 24,950 | 7,685 | 265 |
| | | | 14,365 |
| | | | 16,515 |
| CHESTNUT LANE | 3,360 | 495 | CHESTNUT LANE |
| | 1,185 | 170 | |
| 2023 AADT | 4,420 | MATTHEWS-INDIAN TRAIL ROAD | |
| 2043 AADT | 1,345 | | |



★ PROPOSED SIGNAL

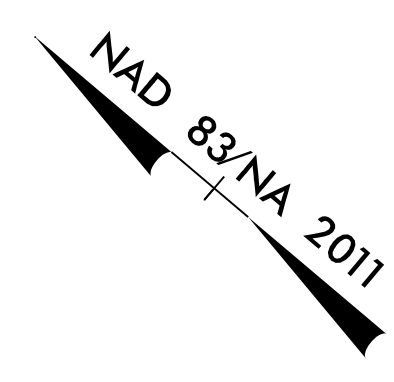
FOR -Y2- PROFILE, SEE SHEET 10

FOR -L2- PROFILE, SEE SHEETS 8 & 9

FOR INTERSECTION DETAIL, SEE SHEET 2B-3

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| | | | |
|--|--|--|--|
| PROJECT REFERENCE NO. U-5808 | | SHEET NO. 7 | |
| RW SHEET NO. | | HYDRAULICS ENGINEER | |
| ROADWAY DESIGN ENGINEER | | SEAL 034381 | |
| 10/4/2023 | | 10/5/2023 | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | | | |
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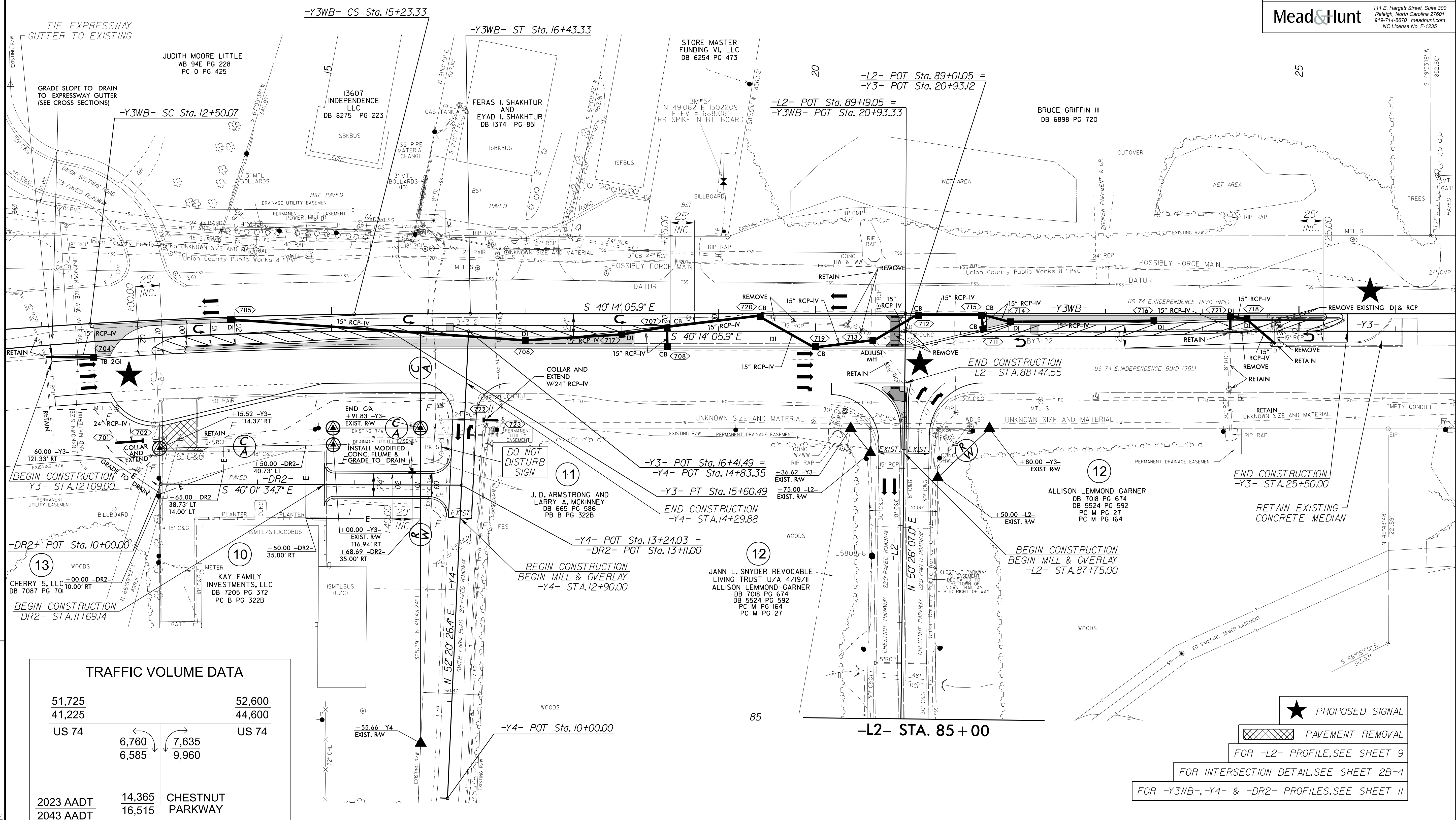


-Y3WB- CURVE DATA

| | | |
|--|---|--|
| PI Sta 12+10.07 Δs = 0' 37" 30.2" Ls = 120.00' LT = 80.00' ST = 40.00' | PI Sta 13+86.73 Δ = 2' 50" 48.0" (RT) D = 1' 02" 30.3" L = 273.26' T = 136.66' R = 5,500.00' e = EXIST. | PI Sta 15+63.33 Δs = 0' 37" 30.2" Ls = 120.00' LT = 80.00' ST = 40.00' |
|--|---|--|

-Y3- CURVE DATA

| |
|---|
| PI Sta 12+80.63 Δ = 7' 22" 56.7" (RT) D = 1' 19" 01.7" L = 560.49' T = 280.63' R = 4,350.00' e = EXIST. |
|---|



| | |
|------------------|-----------|
| 51,725 | 52,600 |
| 41,225 | 44,600 |
| US 74 | US 74 |
| 6,760 | 7,635 |
| 6,585 | 9,960 |
| 2023 AADT | 2043 AADT |
| 14,365 | 16,515 |
| CHESTNUT PARKWAY | |

★ PROPOSED SIGNAL

▨ PAVEMENT REMOVAL

FOR -L2- PROFILE, SEE SHEET 9

FOR INTERSECTION DETAIL, SEE SHEET 2B-4

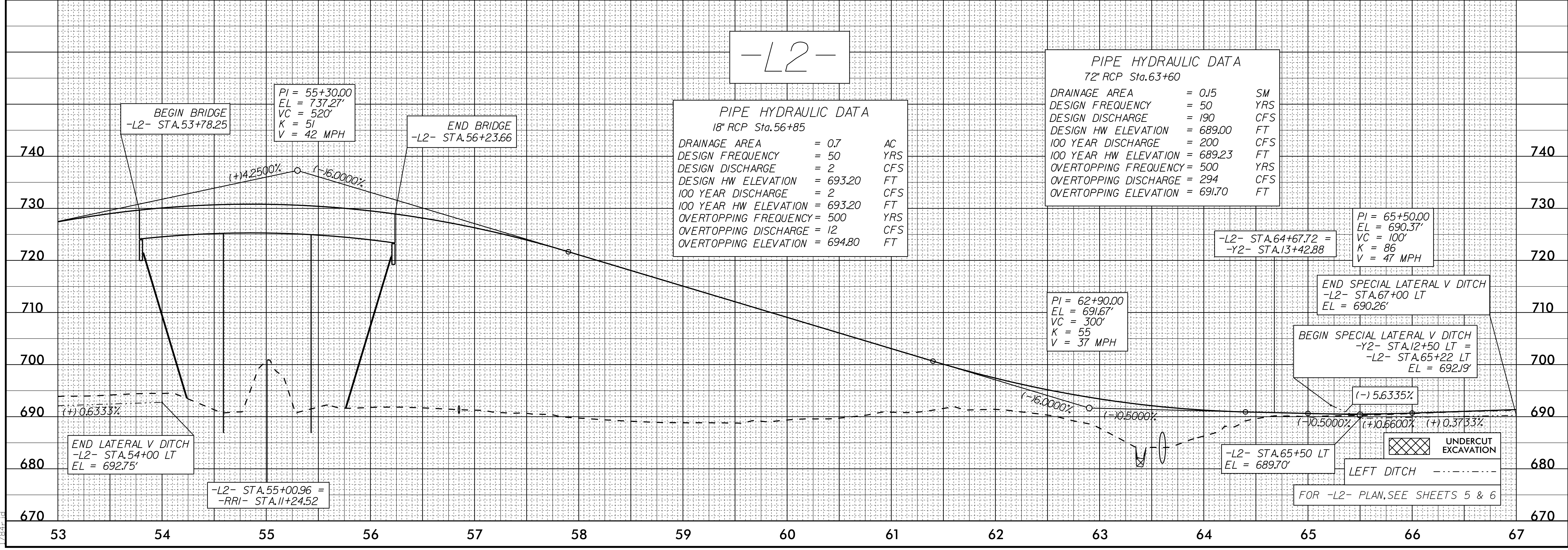
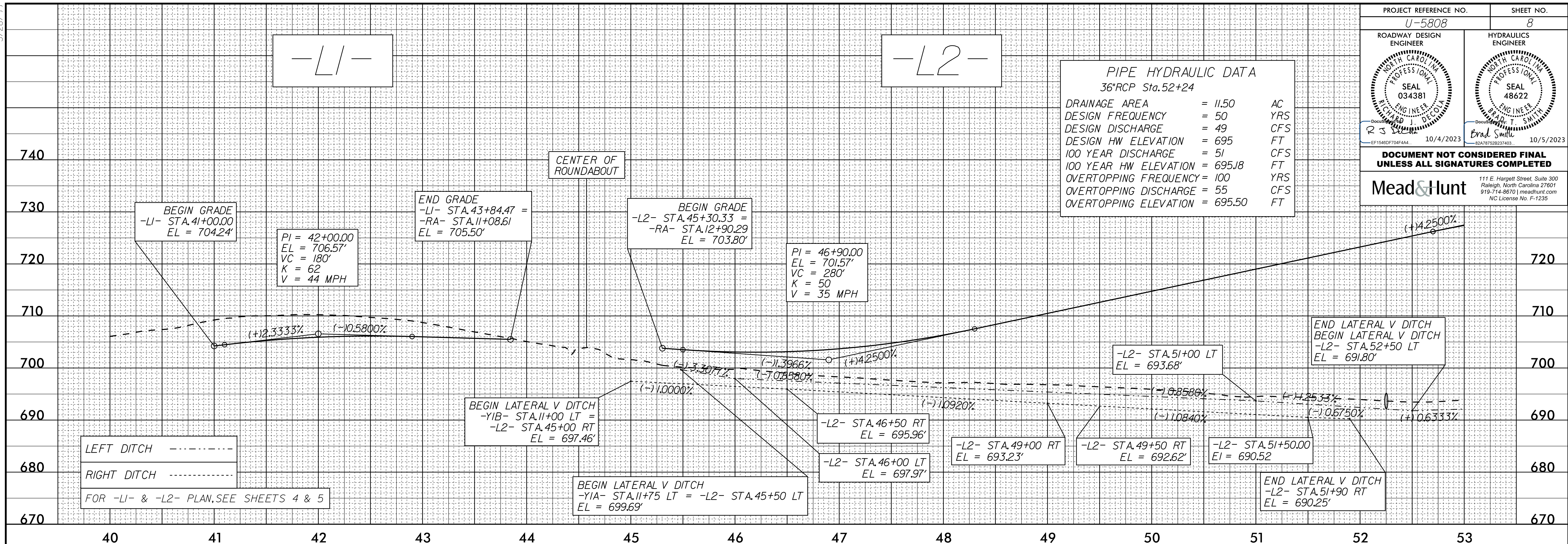
FOR -Y3WB-, -Y4- & -DR2- PROFILES, SEE SHEET 11

REVISIONS

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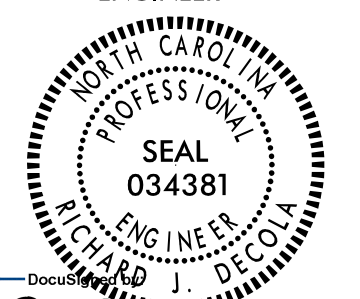

5/28/23

| | |
|---|---|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 8 |
| ROADWAY DESIGN ENGINEER R. J. [Signature] | HYDRAULICS ENGINEER Brad Smith |
| SEAL 034381 REGISTERED PROFESSIONAL ENGINEER STATE OF NORTH CAROLINA | SEAL 48622 REGISTERED PROFESSIONAL ENGINEER STATE OF NORTH CAROLINA |
| 10/4/2023 | 10/5/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
| Mead & Hunt | |
| 111 E. Hargett Street, Suite 300 Raleigh, North Carolina 27601 919-714-8670 meadhunt.com NC License No. F-1235 | |



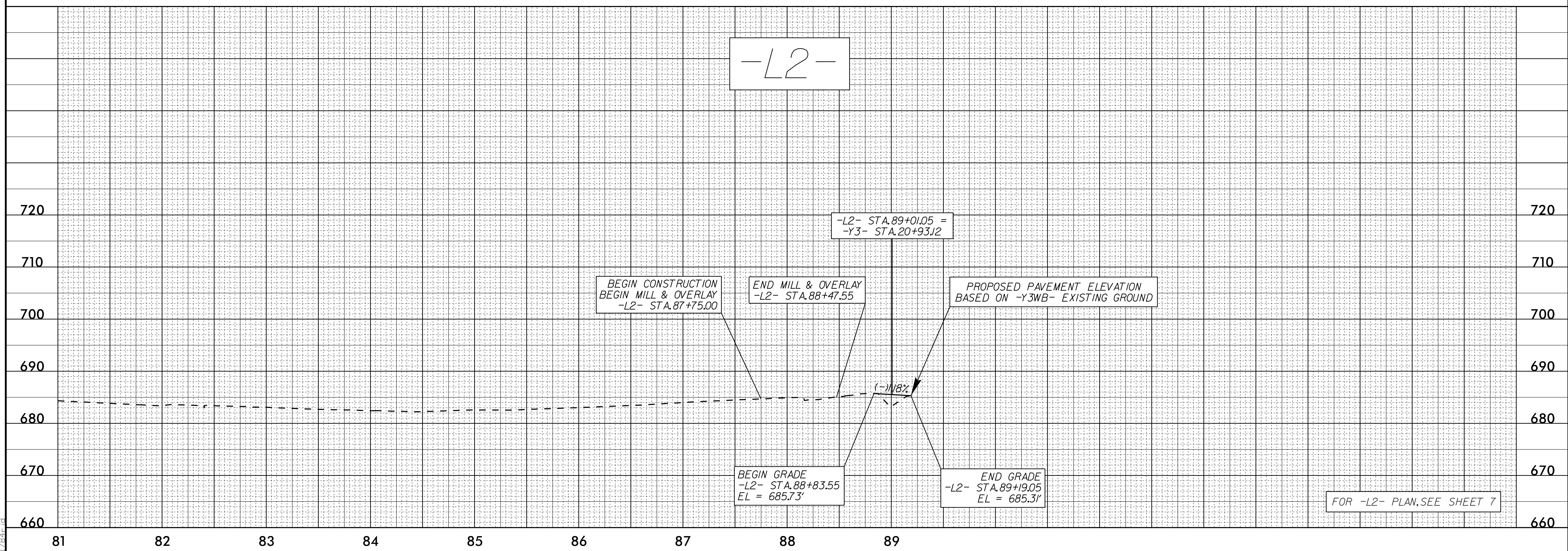
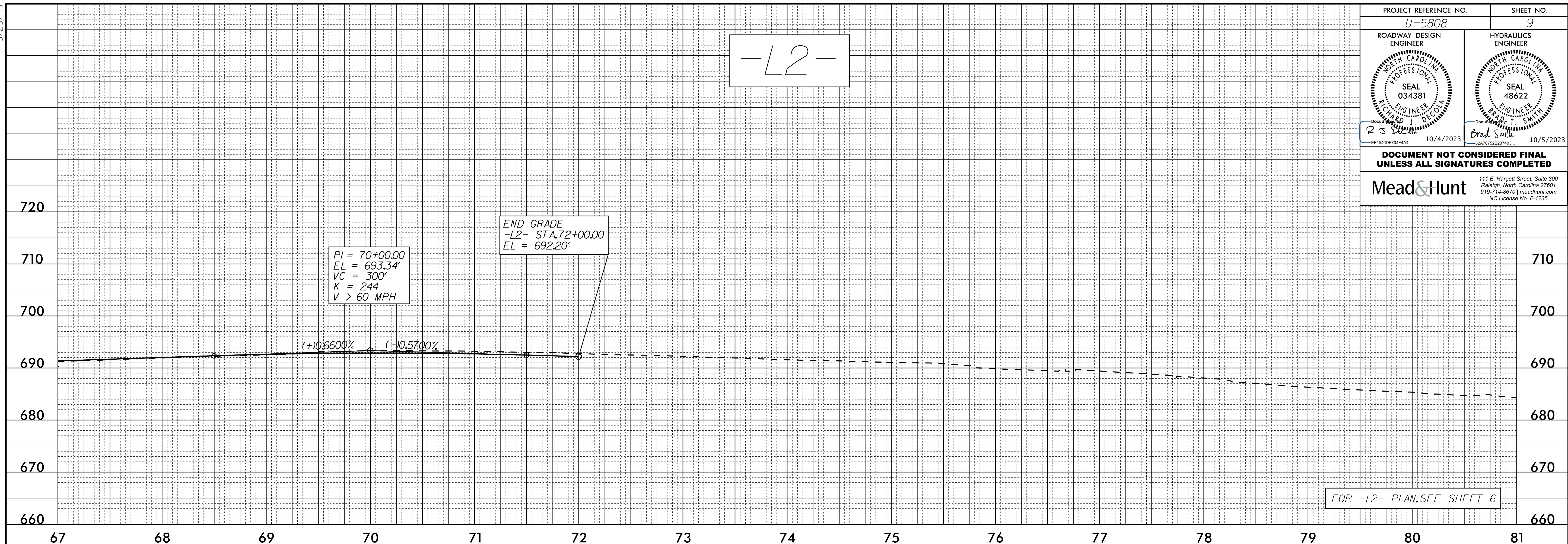
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5/28/23

| | |
|---|---|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 9 |
| ROADWAY DESIGN ENGINEER <i>RS</i> | HYDRAULICS ENGINEER <i>Brad Smith</i> |
|  |  |
| 10/4/2023 | 10/5/2023 |

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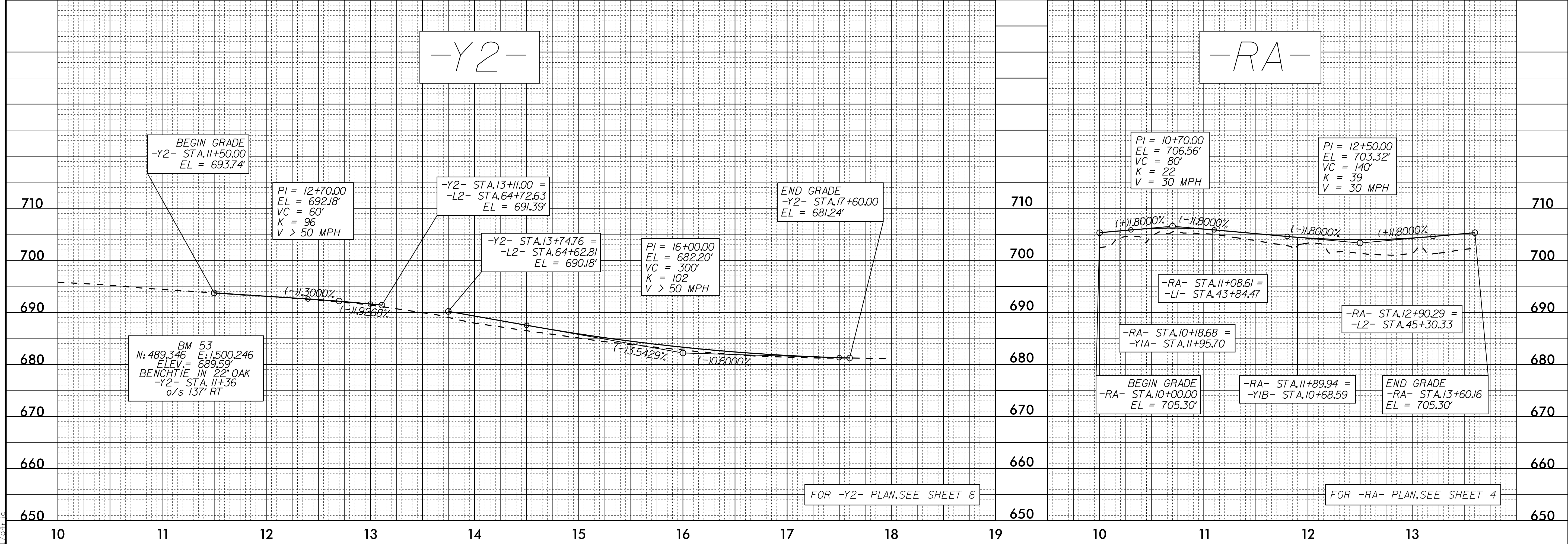
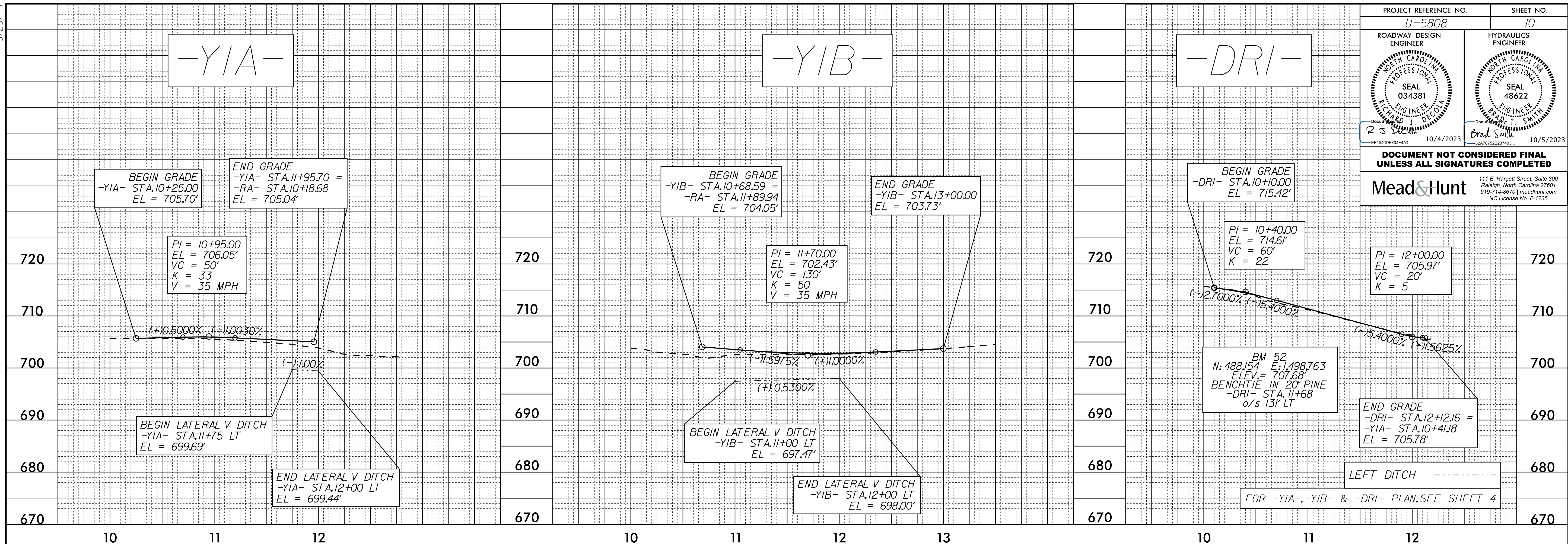
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5/28/24

| | |
|---|---|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 10 |
| ROADWAY DESIGN ENGINEER SEAL 034381 R. S. SMITH | HYDRAULICS ENGINEER SEAL 48622 BRAD SMITH |
| 10/4/2023 | 10/5/2023 |

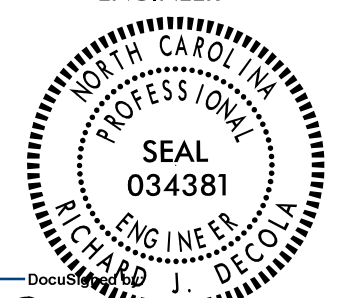

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

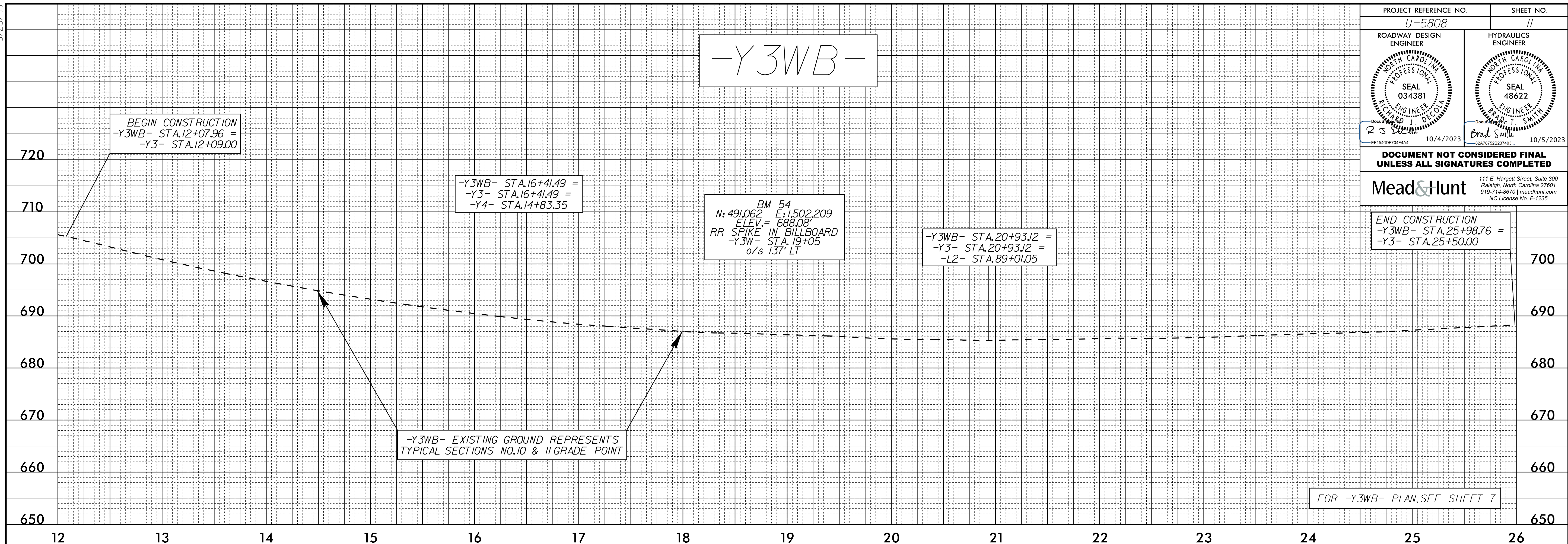
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Raleigh, North Carolina 27601
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NC License No. F-1235



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5/28/23

| | |
|---|--|
| PROJECT REFERENCE NO. U-5808 | SHEET NO. 11 |
| ROADWAY DESIGN ENGINEER  | HYDRAULICS ENGINEER  |
| 10/4/2023 | 10/5/2023 |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |
| Mead&Hunt <small>111 E. Hargett Street, Suite 300 Raleigh, North Carolina 27601 919-714-8670 meadhunt.com NC License No. F-1235</small> | |



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