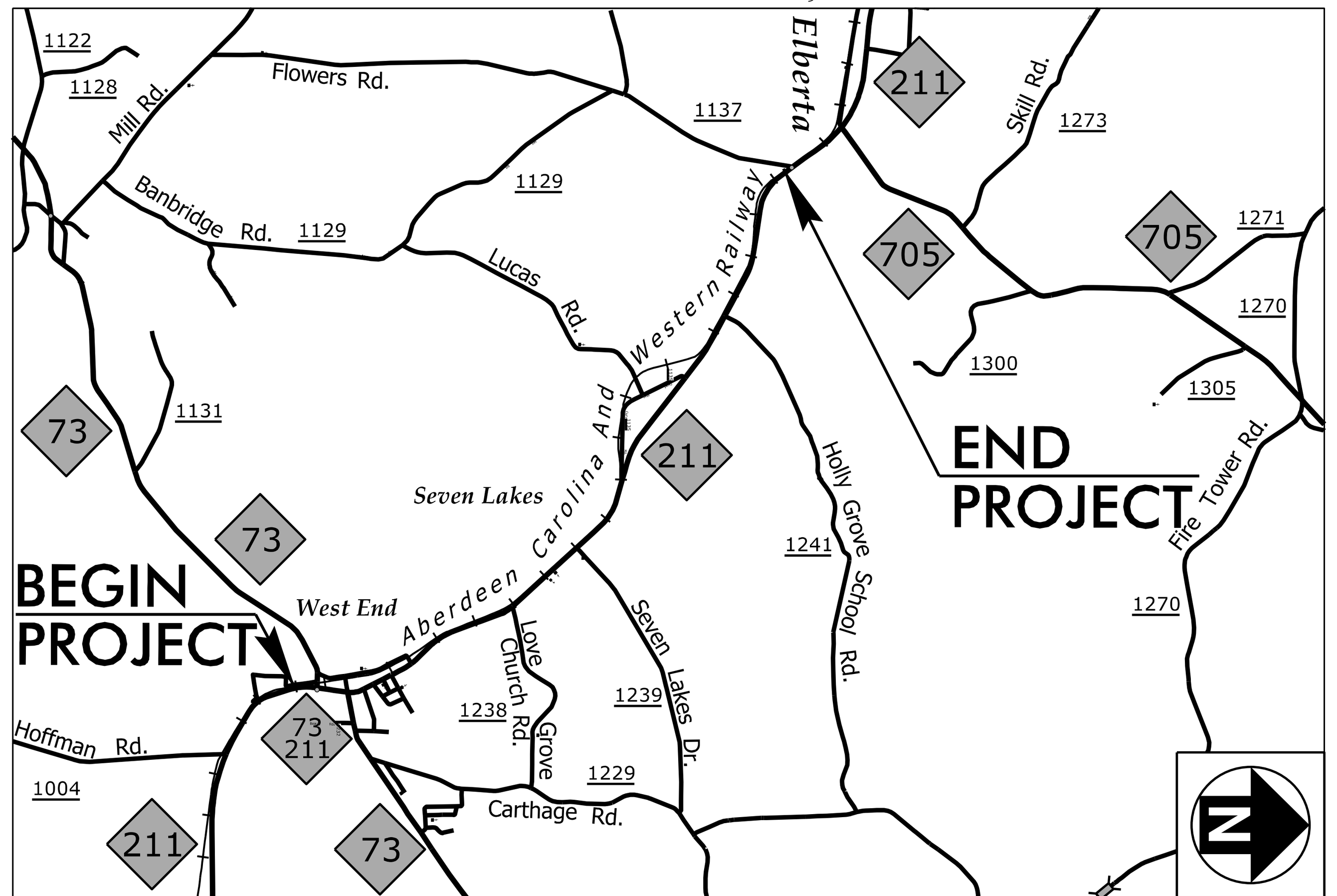
TIP PROJECT: R-5726

CONTRACT: C204949

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



VICINITY MAP
NTS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

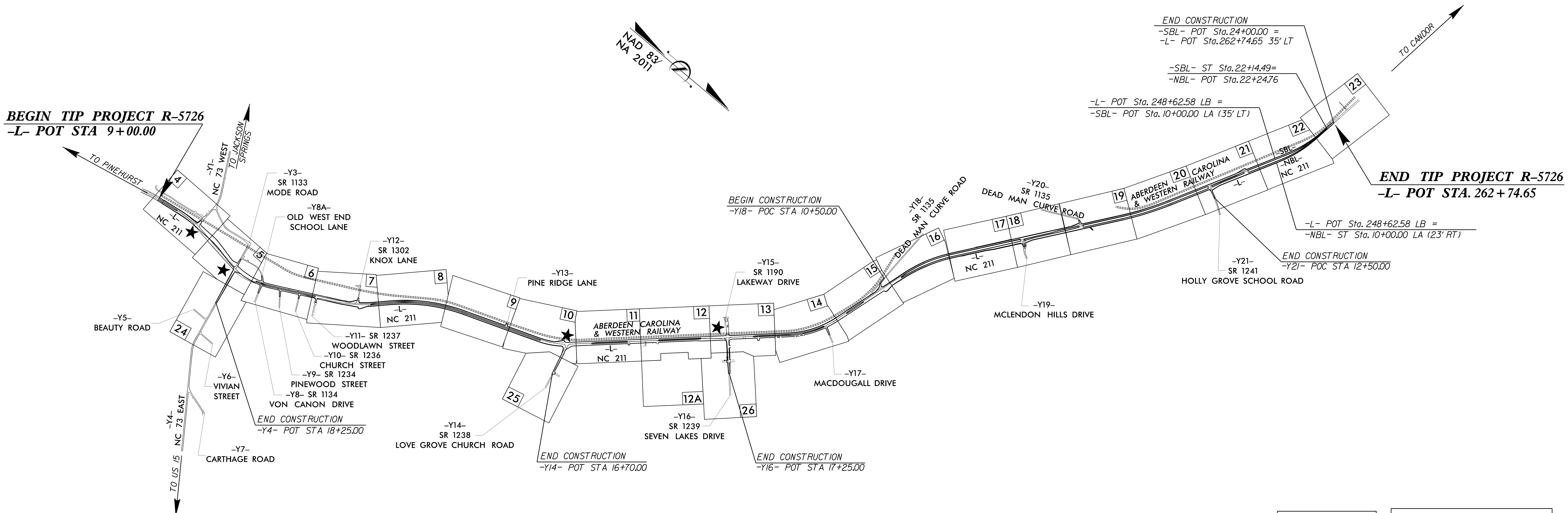
MOORE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5726	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
50218.1.1		P.E.
50218.2.2		R/W
50218.2.5		UTIL.
50218.3.1		CONST.

LOCATION: NC 211 FROM SOUTH OF NC 73 IN WEST END TO WEST OF SR 1241 (HOLLY GROVE SCHOOL ROAD).

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



★ TRAFFIC SIGNAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2024 = 17,460
ADT 2044 = 22,260
K = 9 %
D = 55 %
T = 9 % *
V = 60 MPH
* (TTST 6% + DUAL 3%)
FUNC CLASS = MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5726 = 4.806 MILES
TOTAL LENGTH OF TIP PROJECT R-5726 = 4.806 MILES

PLANS PREPARED FOR THE NCDOT BY:

MOTT MACDONALD
930 Main Campus Dr, Suite 200
Raleigh, NC 27606
(919) 552-2253
(919) 552-2254 (Fax)
www.mottmac.com
LICENSE NO. F-0669

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 29, 2018

LETTING DATE:
NOVEMBER 19, 2024

DAVID C. WALLER, PE
PROJECT ENGINEER
PEF ENGINEER

PADDY JORDAN
PROJECT DESIGN ENGINEER
PEF ENGINEER

KHALED ALAKHDAR
NCDOT PROJECT MANAGER

HYDRAULICS ENGINEER

SEAL 042084
Signed by: Joshua Massrock 29-Aug-2024
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SEAL 22606
Signed by: David C. Waller 29-Aug-2024
SIGNATURE: P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

8/17/99

$$$$USERNAME$$$$
$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$DATE$$$$
$$$$SYSTIME$$$$

Prepared in the Office of:
MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

PROJECT REFERENCE NO.	SHEET NO.
R-5726	1A

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

SEAL 22606
DAVID C. WALLER

Signed by:
David C. Waller
653418F2ECED4C0...
10-Oct-2024

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-18

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 OR 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 OR 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.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS 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.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, BRIGHTSPEED, AND MOORE COUNTY

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 CONTRACT

CURB RAMPS:

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05

LIST OF ROADWAY STANDARD DRAWINGS

EFF. 01-16-2018

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	
200.02	Method of Clearing – Method III
225.01	Guide for Grading Subgrade – Interstate and Freeway
225.02	Guide for Grading Subgrade – Secondary and Local
225.03	Deceleration and Acceleration Lanes
225.04	Method of Obtaining Superelevation – Two Lane Pavement
225.05	Method of Obtaining Superelevation – Divided Highways
275.01	Rock Plating – See Detail
DIVISION 3 – PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
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	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
806.03	Concrete Control of Access Marker
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Culverts – 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Culverts – 15" thru 48" Pipe 90 Skew
838.21	Reinforced Concrete Endwall – for Single 54" Pipe 90 Skew
838.45	Notes for Reinforced Concrete Endwall – Std. Dwg 838.21 thru 838.40
838.51	Reinforced Brick Endwall – for Single 54" Pipe 90 Skew
838.75	Notes for Reinforced Brick Endwall – Std. Dwg. 838.51 Thru 838.70
838.80	Precast Endwalls – 12" thru 72" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin – 12" thru 54" Pipe
840.02	Concrete Catch Basin – 12" thru 54" Pipe
840.03	Frame, Grates and Hood – for Use on Standard Catch Basin
840.14	Concrete Drop Inlet – 12" thru 30" Pipe
840.15	Brick Drop Inlet – 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates – for use with Std. Dwg 840.14 and 840.15
840.17	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
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames – Brick or Concrete or Precast
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
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box – 12" thru 66" Pipe
840.32	Brick Junction Box – 12" thru 66" Pipe
840.34	Traffic Bearing Junction Box – for Use with Pipes 42" and Under
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
846.02	Drop Inlet Installation in Expressway Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout – Radius Type
848.04	Street Turnout
848.05	Curb Ramp – Proposed Curb & Gutter
852.01	Concrete Islands
852.04	Method for Placement of Drop Inlets in Grassed Median – Using 1'-6" Curb and Gutter
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
862.01	Guardrail Placement
862.02	Guardrail Installation
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-10	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-4	INTERSECTION DETAIL SHEETS
2C-1	ROCK PLATING DETAIL
2C-2	2'-9" CONCRETE CURB & GUTTER DETAIL
2C-3	DETAIL OF 2'-9" TO FRAME AND GRATE
2C-4	DETAIL OF 1'-6" C&G TO SHOULDER BERM GUTTER TRANSITION SECTION
2C-5	DETAIL OF 1'-6" C&G TO 2'-9" C&G TRANSITION SECTION
2C-6	DETAIL OF 2'-6" C&G TO EXPRESSWAY GUTTER TRANSITION SECTION
2C-7	DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE
2C-8	GUARDRAIL ANCHOR UNIT DETAIL
2C-9	GUARDRAIL INSTALLATION DETAIL
2C-10	DETAIL OF 1'-6" CONCRETE CURB & GUTTER (SPECIAL)
2C-11	DETAIL TO CONVERT EXISTING DI, CB, OTCB OR GI TO JB
2C-12	DETAIL TO CONVERT EXISTING CB OR JB TO DI OR 2-GI
2D-1 THRU 2D-3	DRAINAGE DETAILS
3B-1 THRU 3B-2	EARTHWORK SUMMARY
3B-3	GUARDRAIL AND GUIDERAIL SUMMARIES
3B-4	EXPRESSWAY GUTTER, SHOULDER BERM GUTTER, ASPHALT PAVEMENT REMOVAL, AND CHAIN LINK FENCE SUMMARIES
3D-1 THRU 3D-13	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARY
3P-1 THRU 3P-2	PARCEL INDEX SHEET
4 THRU 26	PLAN SHEETS
27 THRU 43	PROFILE SHEETS
RW-01	SURVEY CONTROL TITLE SHEET
RW-02C-1 THRU RW-02C-11	SURVEY CONTROL SHEETS
RW-02D-1	PROPOSED ALIGNMENT CONTROL SHEET
RW-03E-1 THRU RW-03E-5	RIGHT OF WAY CONTROL SHEETS
RW-04 THRU RW-26	RIGHT OF WAY PLAN
TMP-1 THRU TMP-63	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-25	PAVEMENT MARKING PLANS
EC-1 THRU EC-49	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-27A	SIGNING PLANS
SIG-1.0 THRU SIG-19.5	SIGNAL PLANS
M1A THRU M9	STANDARD METAL POLE DETAILS
UC-1 THUR UC-37	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-24	UTILITIES BY OTHERS PLANS
X-A THRU X-H	CROSS-SECTIONS INDEX AND SUMMARY
X-1 THRU X-151	CROSS-SECTIONS
W-1 THRU W-3	STRUCTURE PLANS – WALLS

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5726	1B

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
- 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:

- 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
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- 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
- 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:

- 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:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:

- 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)

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
- 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:

- 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:

- 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:

- 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:

- 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:

- 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:

- 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

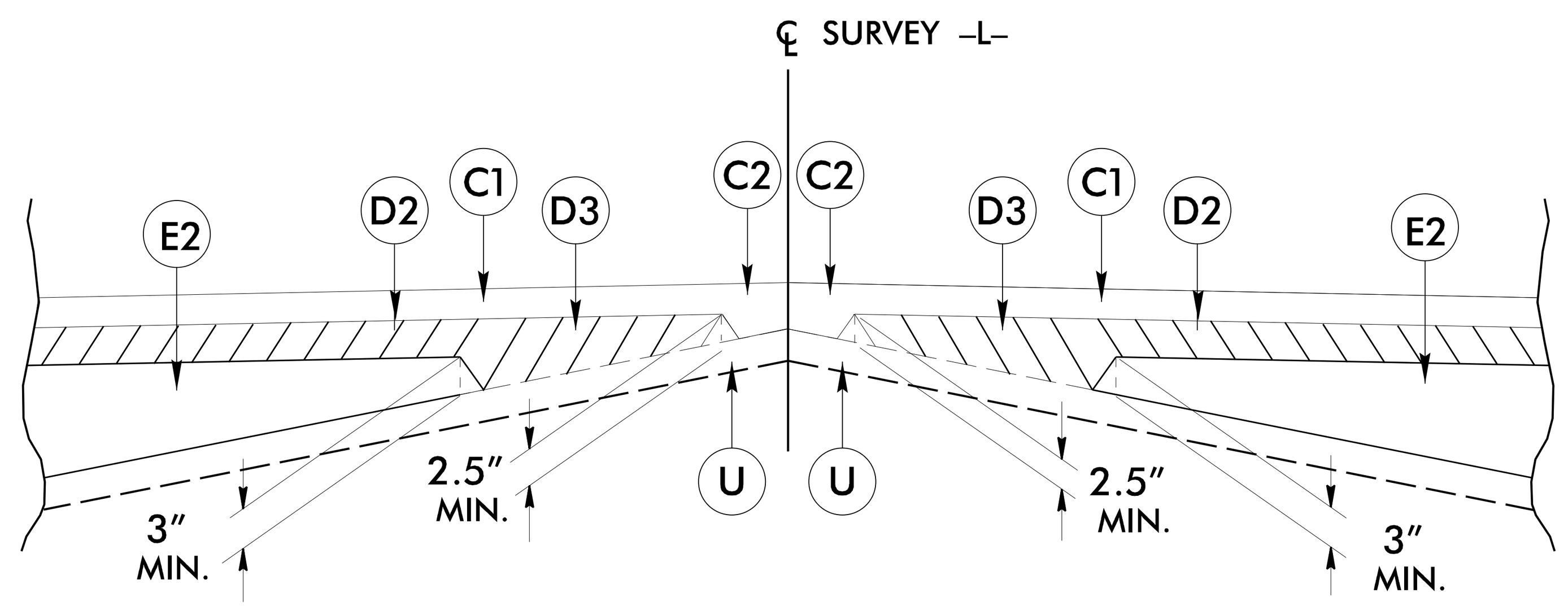
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-1

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 DAVID C. WALLER — 13-Aug-2024 — MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

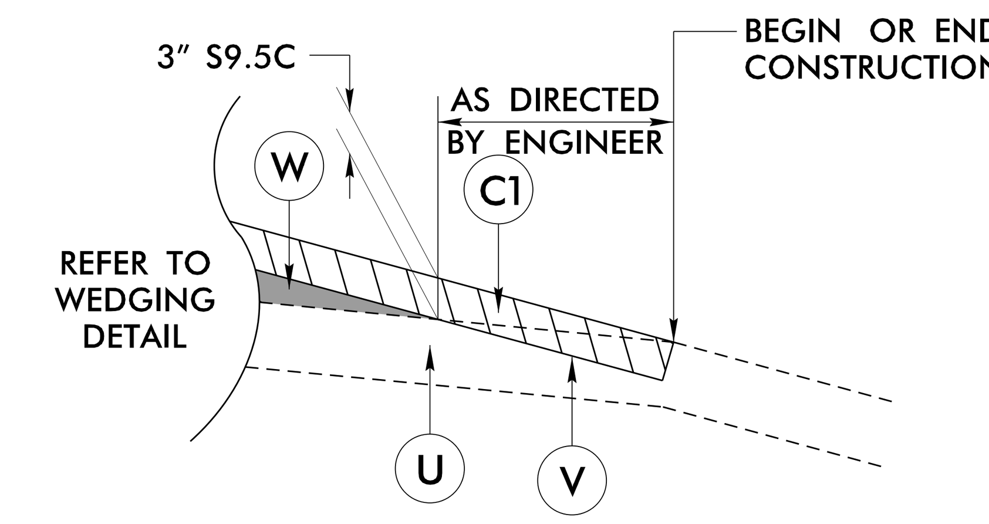
PAVEMENT DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038176 ZHANG — 14-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com



Detail Showing Method of Wedging (W)



MILLING DETAIL

DETAIL SHOWING PROFILE VIEW

PAVEMENT SCHEDULE
FINAL PAVEMENT DESIGN

C1	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.	J1	8" AGGREGATE BASE COURSE.	R6	SHOULDER BERM GUTTER
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	P	PRIME COAT	R7	EXPRESSWAY GUTTER
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	R1	1'-6" CONCRETE CURB AND GUTTER.	T	EARTH MATERIAL.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R2	2'-6" CONCRETE CURB AND GUTTER.	U	EXISTING PAVEMENT.
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	R3	2'-9" CONCRETE CURB AND GUTTER	V	INCIDENTAL MILLING
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R4	1'-6" CONCRETE CURB AND GUTTER (SPECIAL), SEE DETAIL SHEET NO. 2C-10	V1	MILLING ASPHALT PAVEMENT, 2½" DEPTH.
E2	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.	R5	5" MONOLITHIC CONCRETE ISLAND (KEYED-IN)	W	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE WEDGING DETAIL)

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

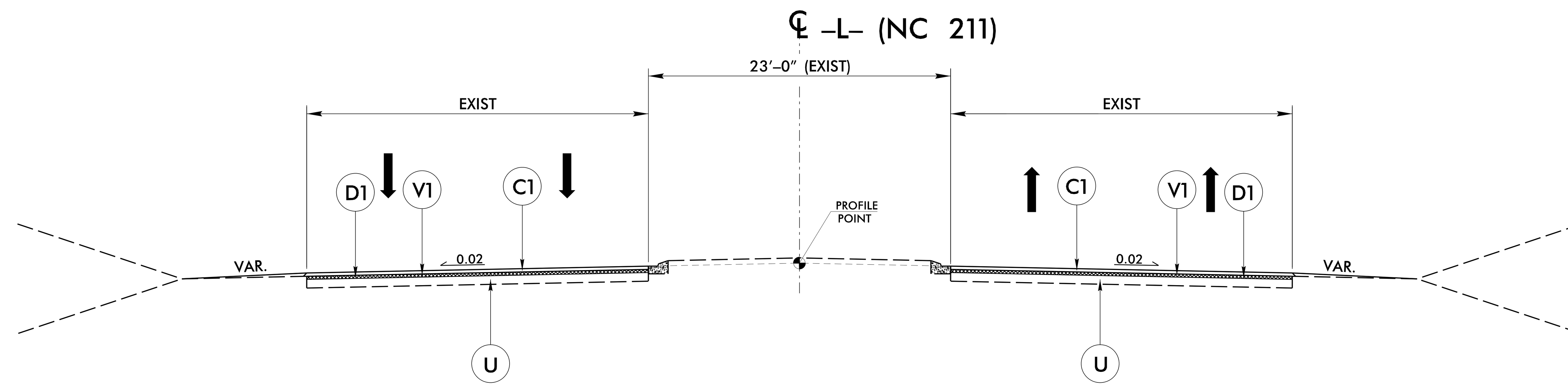
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
SEAL 22606 — DAVID C. WALLER — 13-Aug-2024	SEAL 038176 — ZHANG — 14-Aug-2024
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

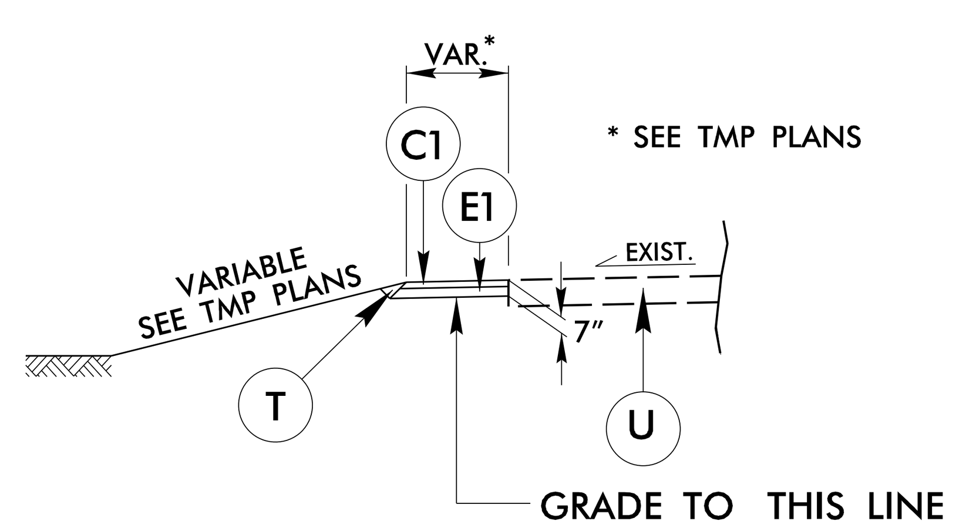
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D1	2½" I19.0C
D2	4" I19.0C
E1	4" B25.0C
R1	1'-6" C & G
R3	2'-9" C & G
R5	5" MONO. ISLAND
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	2½" MILLING
W	WEDGING

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



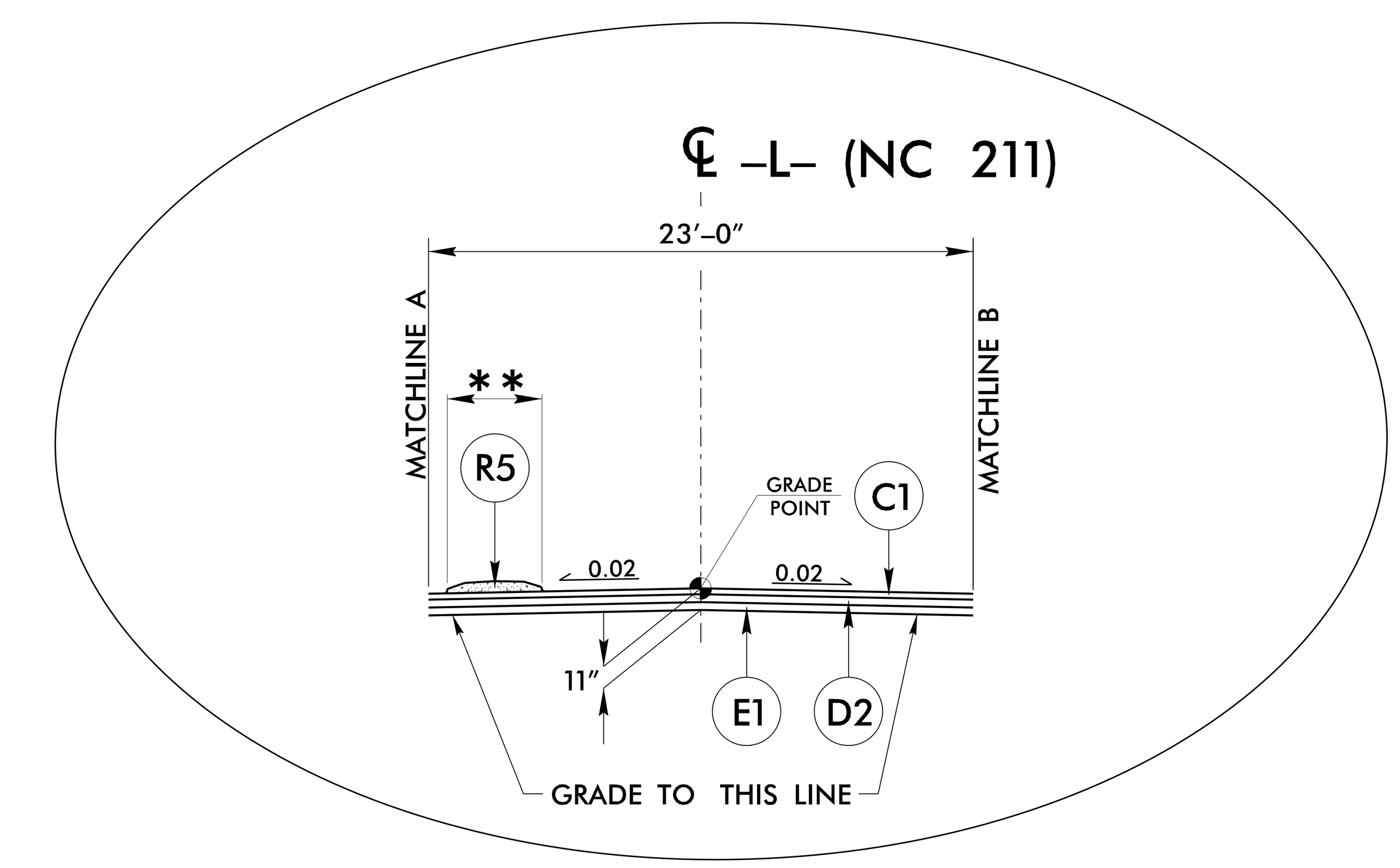
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1:
-L- STA 9+00.00 TO 10+00.00

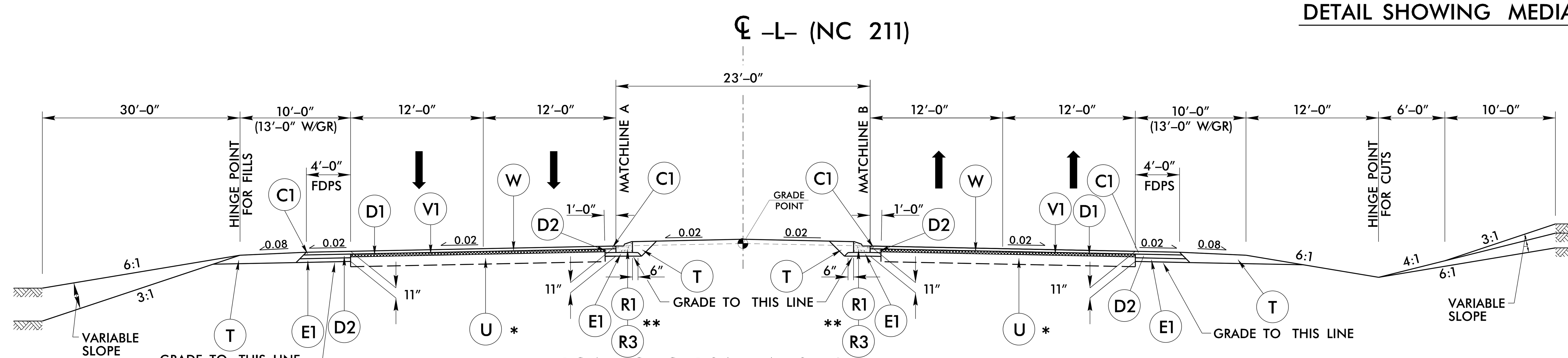


TEMPORARY PAVEMENT DETAIL

-L- STA. 72+55 TO 77+05 LT



DETAIL SHOWING MEDIAN CONCRETE ISLANDS



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2:
-L- STA 10+00.00 TO 16+89.76 RT
-L- STA 10+00.00 TO 18+46.08 LT
-L- STA 49+25.00 TO 98+80.17
-L- STA 165+00.00 TO 168+00.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)
**ISLAND AND CURB LOCATIONS AND WIDTHS VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

ROADWAY DESIGN ENGINEER — SEAL 22606 — DAVID C. WALLER — 13-Aug-2024

PAVEMENT DESIGN ENGINEER — SEAL 038176 — ZHANG — 14-Aug-2024

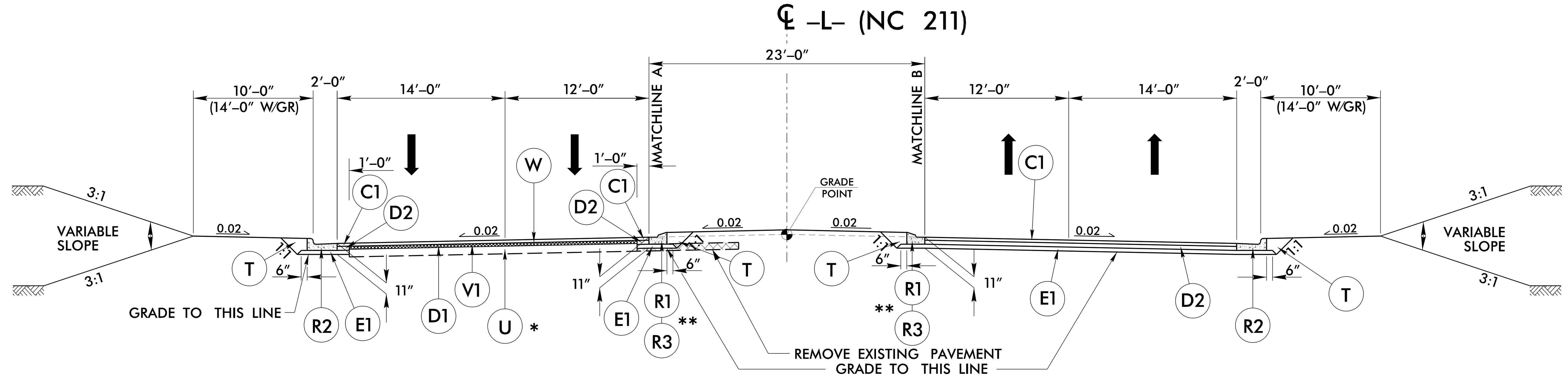
MOTT MACDONALD I& E, LLC LICENSE NO. F-0669

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

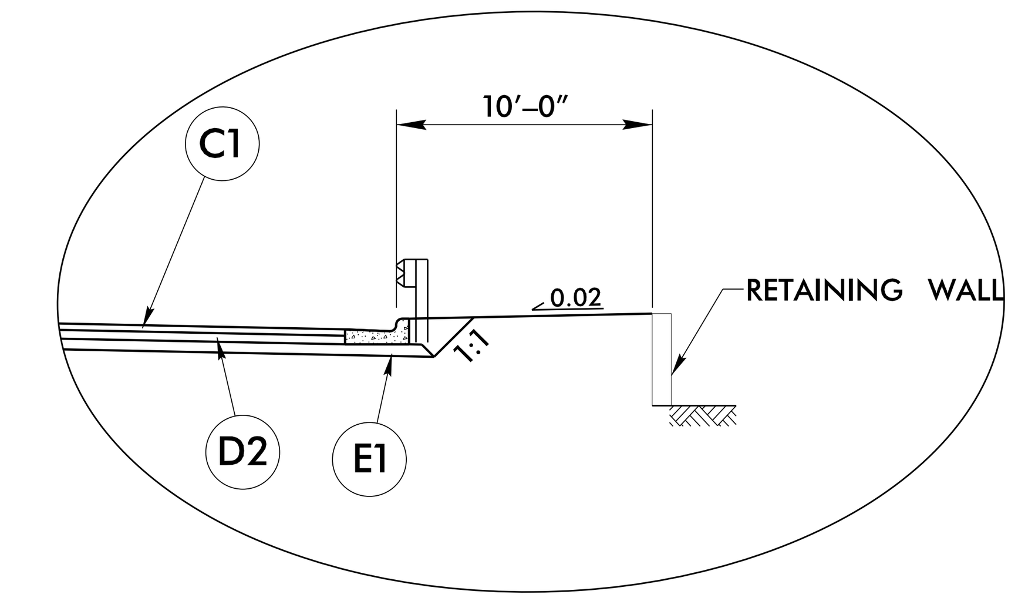
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D1	2½" I19.0C
D2	4" I19.0C
E1	4" B25.0C
R1	1'-6" C & G
R2	2'-6" C & G
R3	2'-9" C & G
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	2½" MILLING
W	WEDGING

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

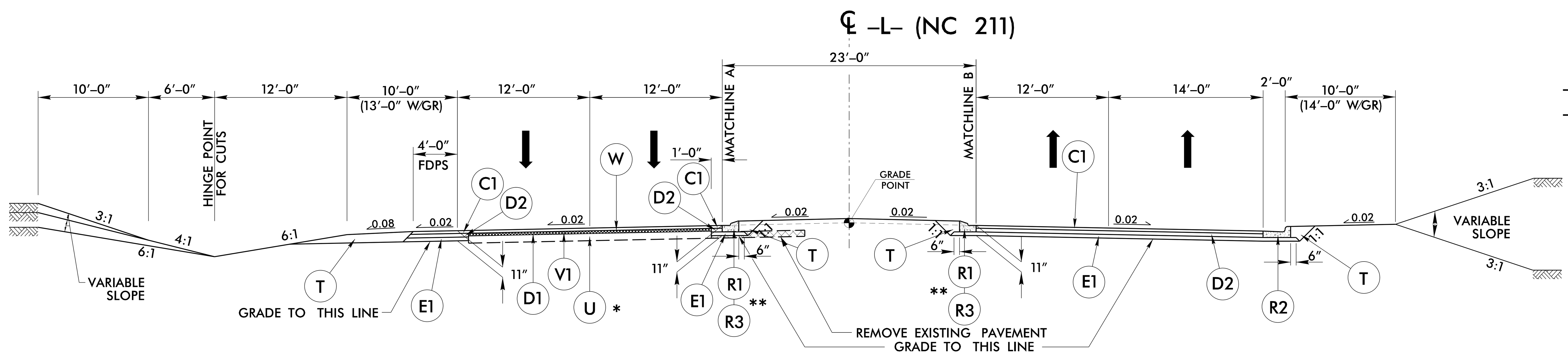


TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3:
- -L- STA 16+89.76 TO 49+25.00 RT
- -L- STA 18+46.08 TO 49+25.00 LT
- -L- STA 98+80.17 TO 131+54.00

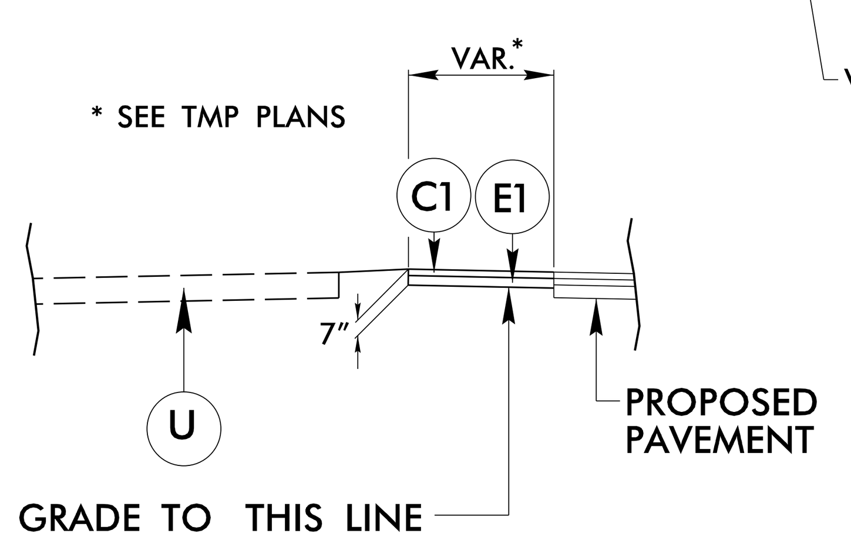


RETAINING WALL DETAIL
- -L- STA 47+80.00 TO 49+10.00 RT
- -L- STA 146+09.05 TO 146+43.12 RT

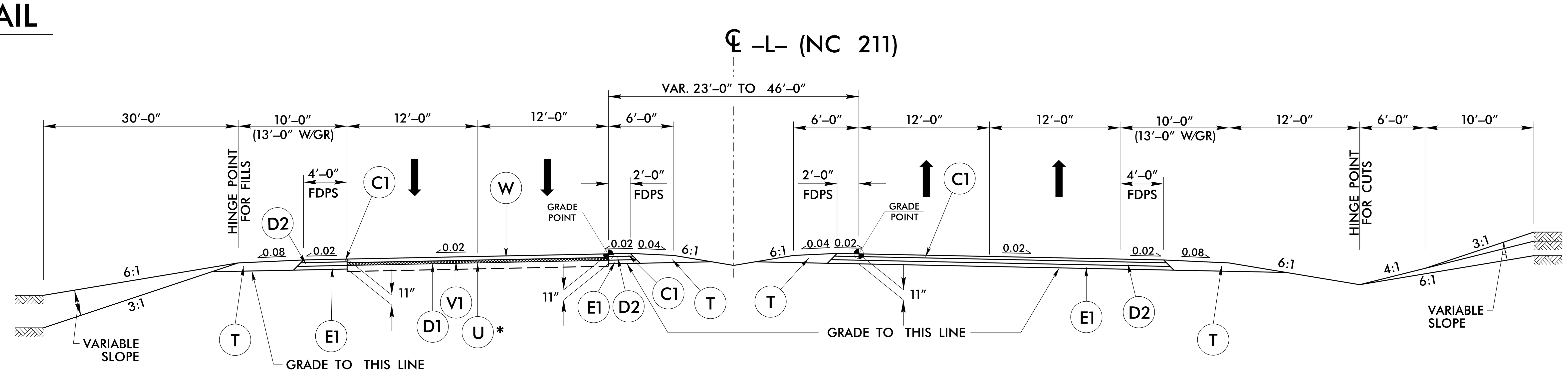


TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4:
- -L- STA 131+54.00 TO 165+00.00



TEMPORARY PAVEMENT DETAIL
- -L- STA. 104+13 TO 114+30 RT
- -L- STA. 117+60 TO 126+12 RT
- -L- STA. 136+63 TO 144+50 RT
- -L- STA. 146+75 TO 151+10 RT
- -L- STA. 191+50 TO 194+75 RT
- -L- STA. 195+70 TO 197+01 RT
- -L- STA. 250+80 TO 256+40 RT



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5:
- -L- STA 168+00.00 TO 175+00.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)
**ISLAND AND CURB LOCATIONS AND WIDTHS VARIES. (SEE PLANS AND SHEET 2A-2 FOR DETAIL)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-4

ROADWAY DESIGN ENGINEER

SEAL 22606

Signed by:
David C. Waller
653418F2ECED4C0...
13-Aug-2024

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

PAVEMENT DESIGN ENGINEER

SEAL 038176

DocuSigned by:
Shihai Zhang
245D67F4181I435...
14-Aug-2024

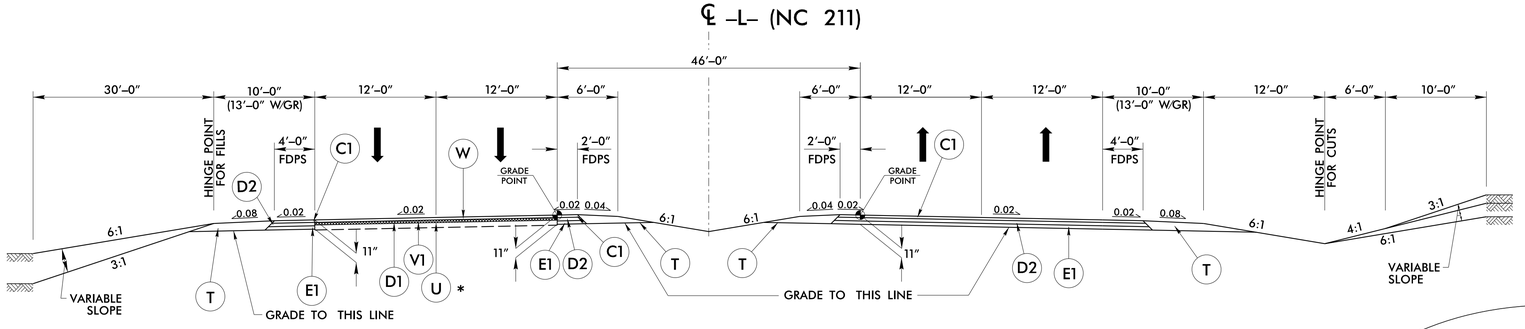
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

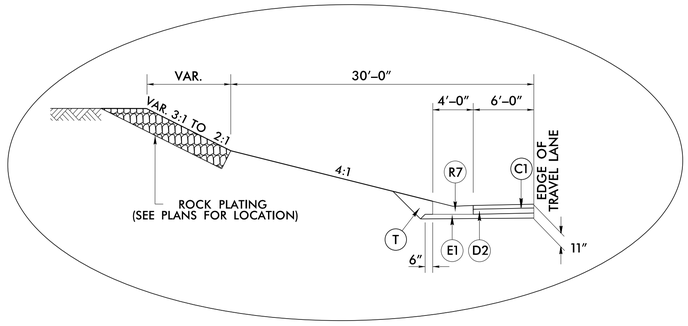
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3″ S9.5C
D1	2½″ I19.0C
D2	4″ I19.0C
E1	4″ B25.0C
R6	SHOULDER BERM GUTTER
R7	EXPRESSWAY GUTTER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	2½″ MILLING
W	WEDGING

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

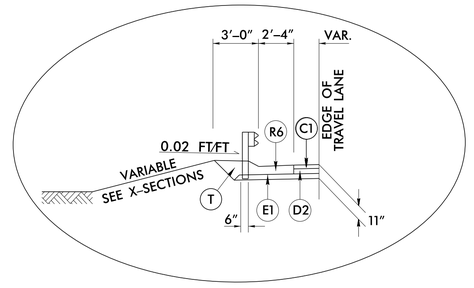


TYPICAL SECTION NO. 6

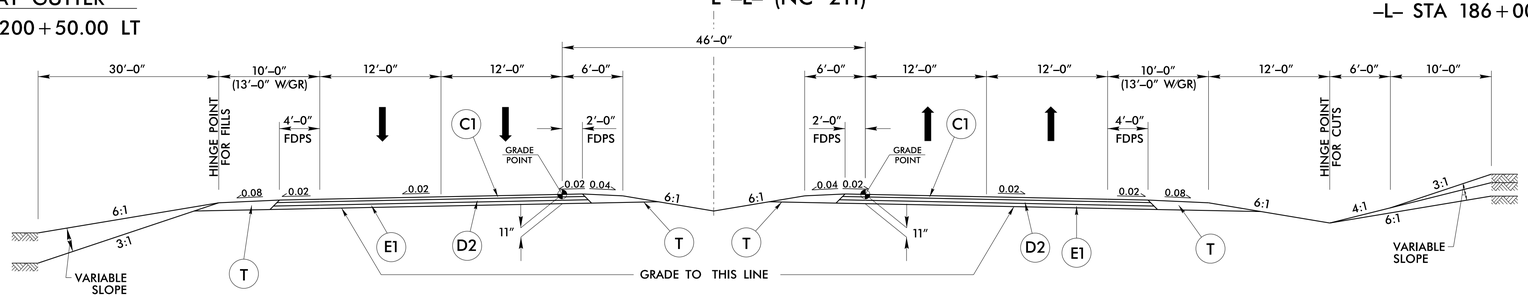
USE TYPICAL SECTION NO. 6:
-L- STA 175+00.00 TO 183+00.00
-L- STA 192+50.00 TO 248+62.58



DETAIL FOR EXPRESSWAY GUTTER
-L- STA 196+00.00 TO 200+50.00 LT



DETAIL FOR SHOULDER BERM GUTTER IN CONJUNCTION WITH GUARDRAIL
-L- STA 183+25.00 TO 194+00.00 RT
-L- STA 186+00.00 TO 192+25.00 LT



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7:
-L- STA 183+00.00 TO 192+50.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$
$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-5

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 — DAVID C. WALLER — 13-Aug-2024
MOTT MACDONALD I& E, LLC LICENSE NO. F-0669

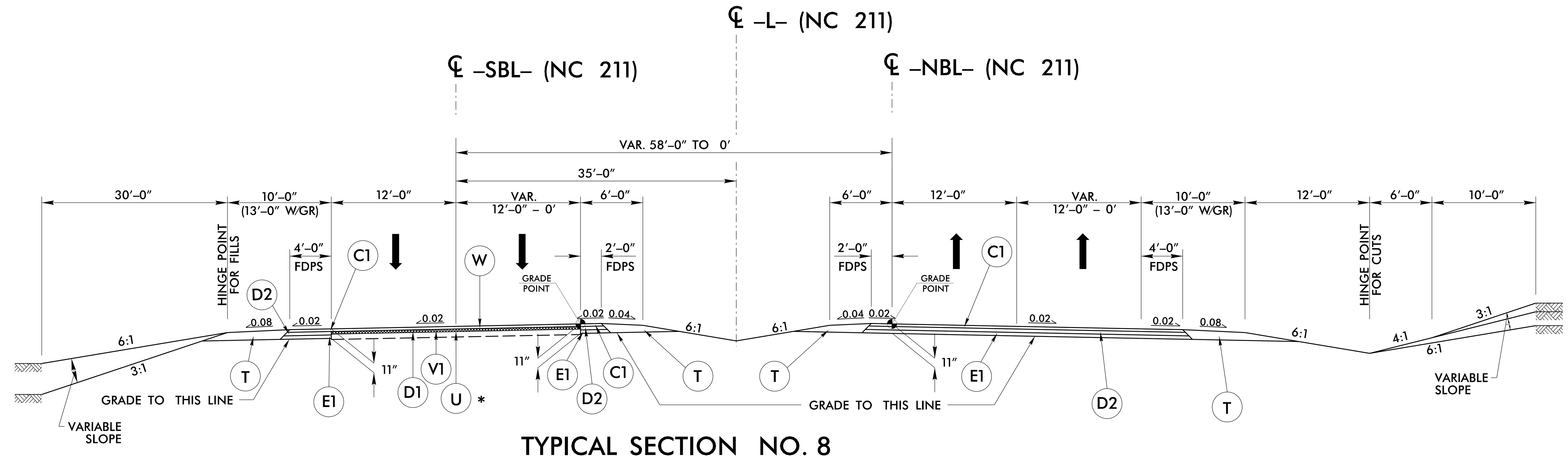
PAVEMENT DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038176 — ZHANG — 14-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

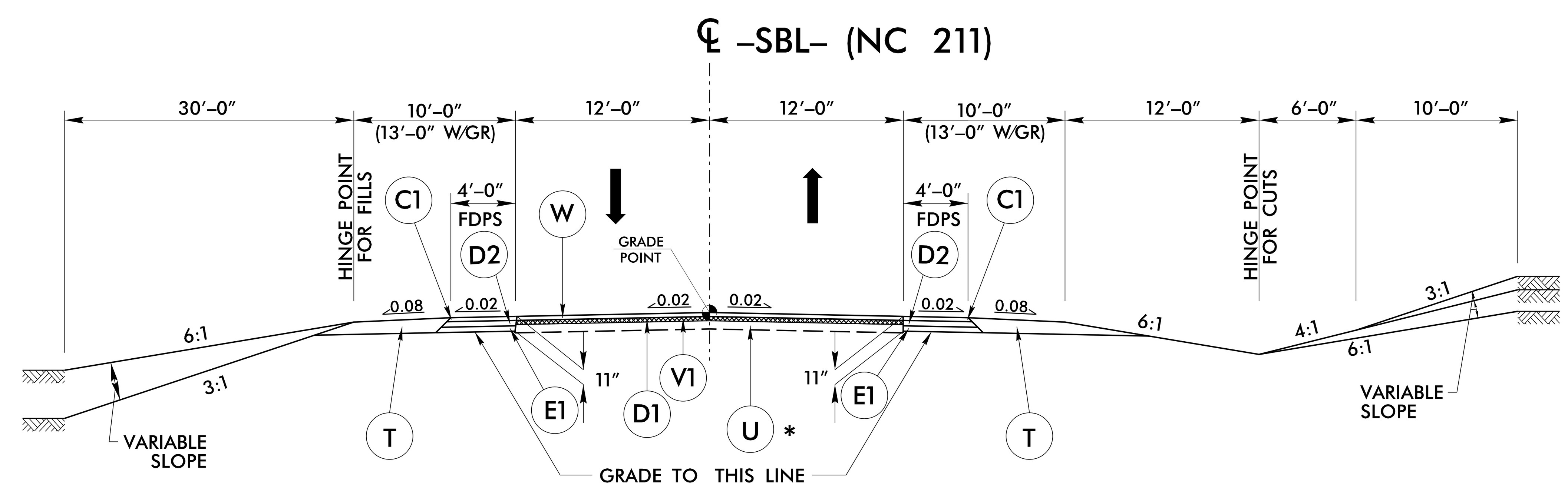
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D1	2½" I19.0C
D2	4" I19.0C
E1	4" B25.0C
R2	2'-6" C & G
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	2½" MILLING
W	WEDGING

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



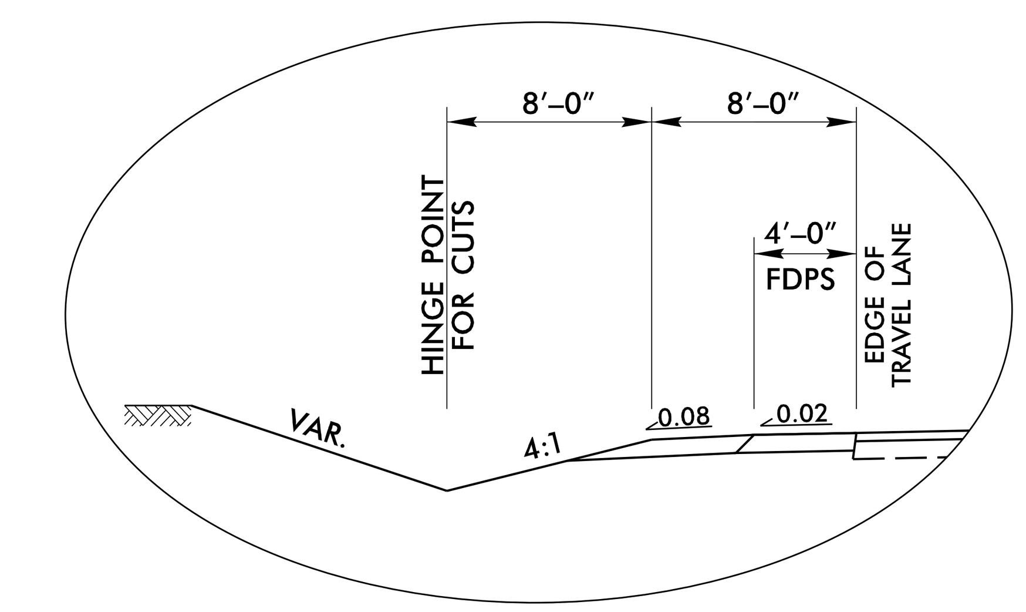
TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8:
-SBL- STA 10+00.00 TO 22+14.49
-NBL- STA 10+00.00 TO 22+24.76



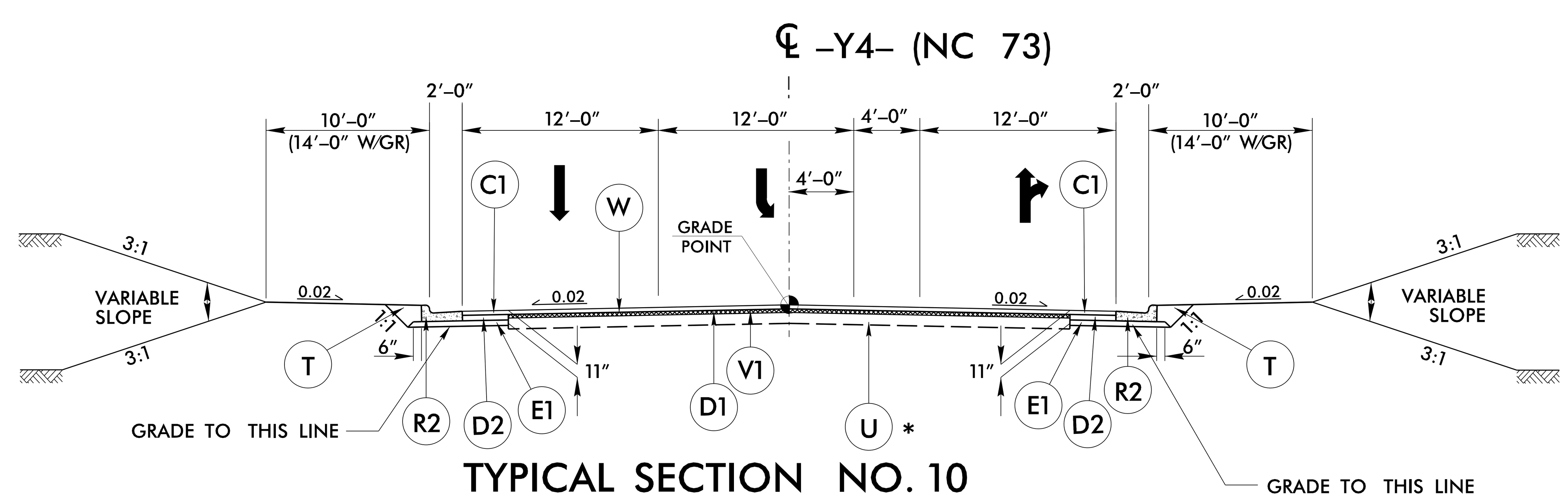
TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9:
-SBL- STA 22+14.49 TO 24+00.00



DITCH DETAIL

-SBL- STA 19+25.00 TO 24+00.00 LT



TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10:
-Y4- STA 10+38.89 TO 12+50.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

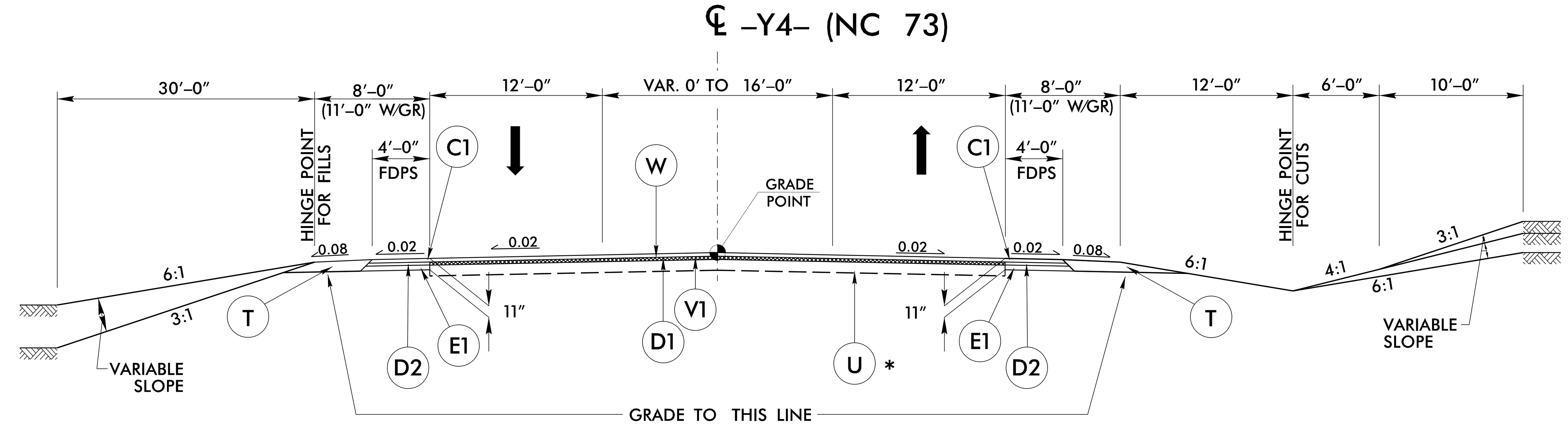
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
SEAL 22606 — MOTT MACDONALD I& E, LLC LICENSE NO. F-0669 — 13-Aug-2025	SEAL 038176 — 14-Aug-2025

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

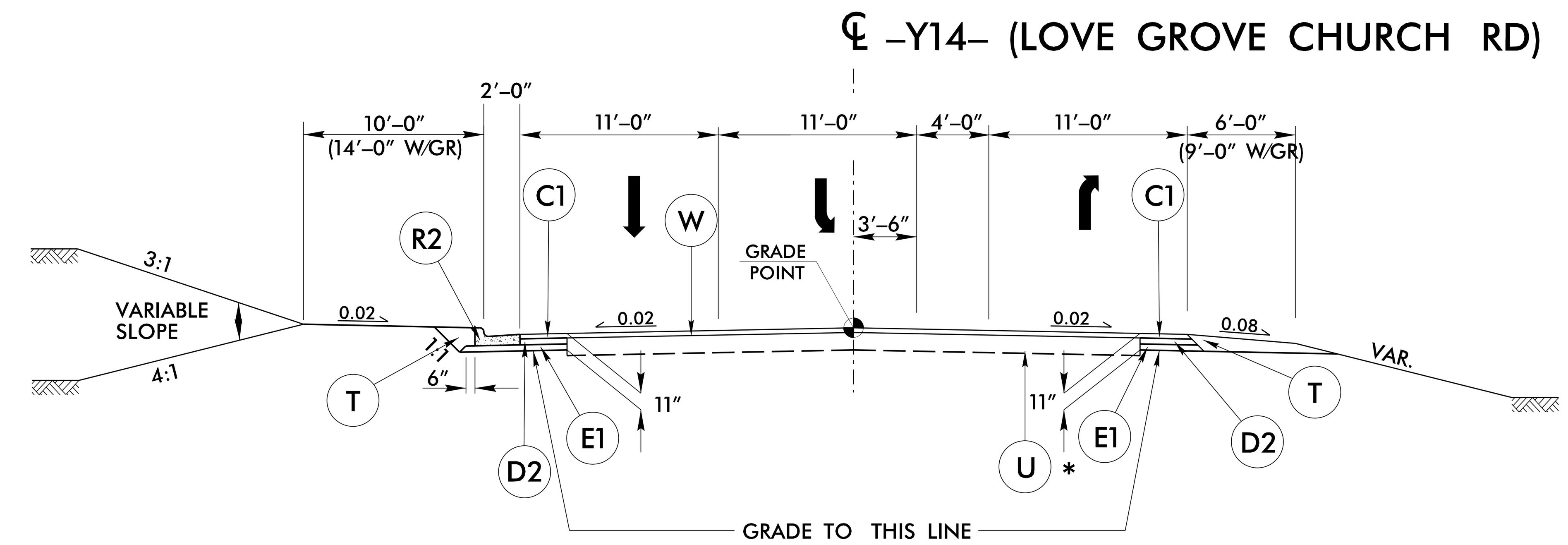
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D1	2½" I19.0C
D2	4" I19.0C
E1	4" B25.0C
R2	2'-6" C & G
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	2½" MILLING
W	WEDGING

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



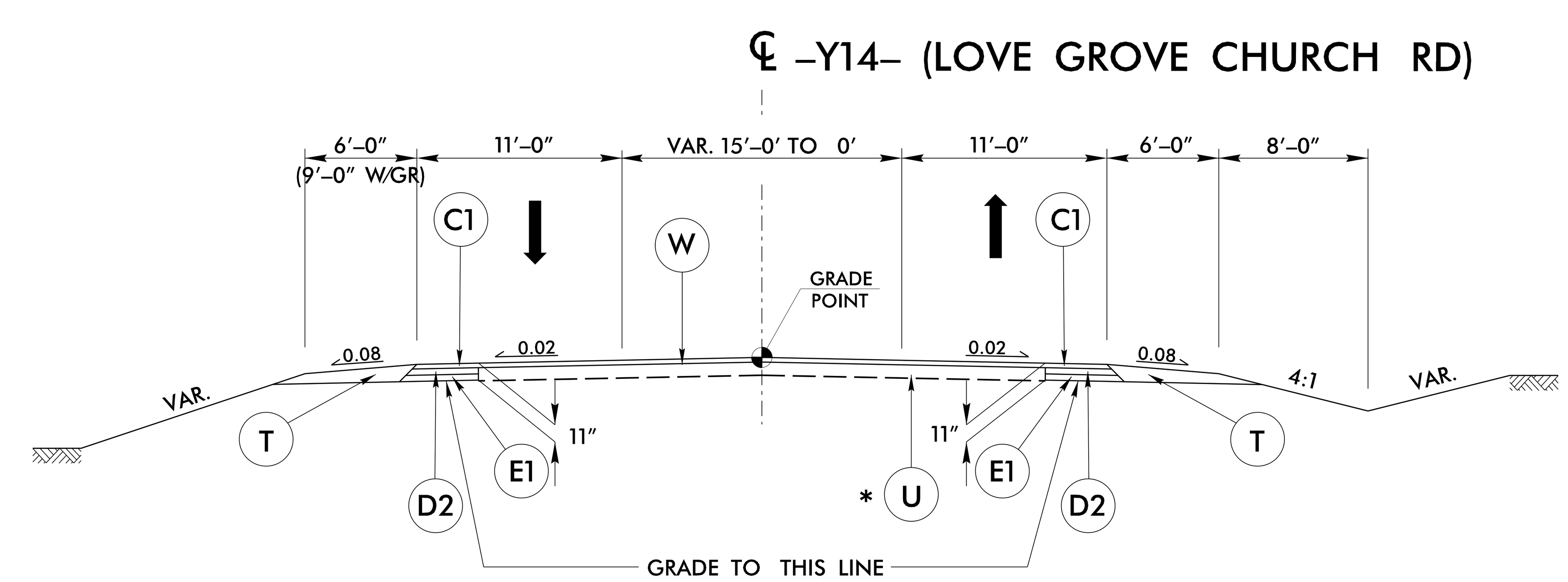
TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11:
-Y4- STA 12+50.00 TO 18+25.00



TYPICAL SECTION NO. 12

USE TYPICAL SECTION NO. 12:
-Y14- STA 10+38.80 TO 12+00.00



TYPICAL SECTION NO. 13

USE TYPICAL SECTION NO. 13:
-Y14- STA 12+00.00 TO 16+70.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D2	4" I19.0C
E1	4" B25.0C
R2	2'-6" C & G
R5	5" MONO. ISLAND
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

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

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-7

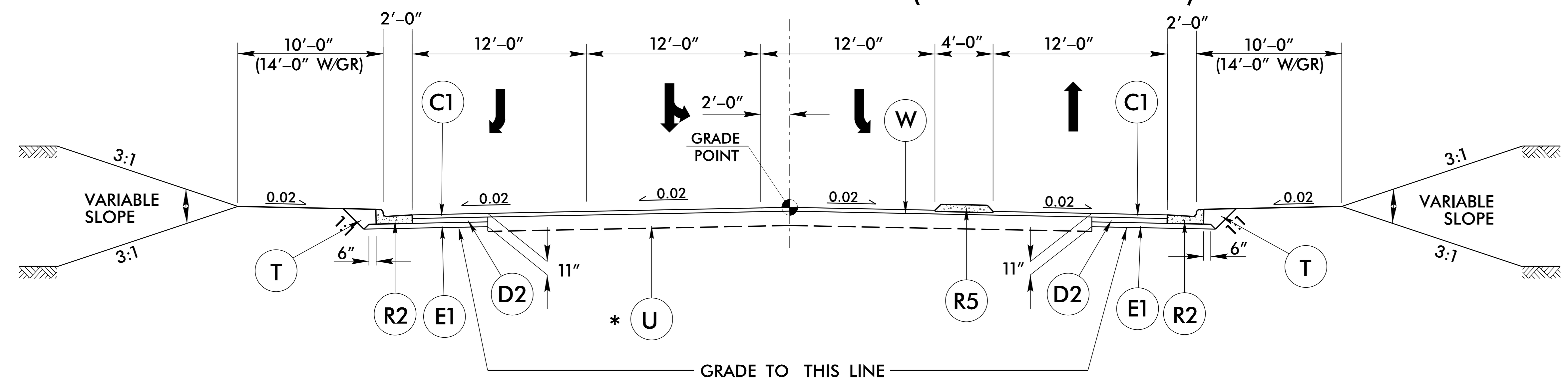
ROADWAY DESIGN ENGINEER — SEAL 22606 — DAVID C. WALLER — 13-Aug-2024

PAVEMENT DESIGN ENGINEER — SEAL 038176 — ZHANG — 14-Aug-2024

MOTT MACDONALD I& E, LLC LICENSE NO. F-0669

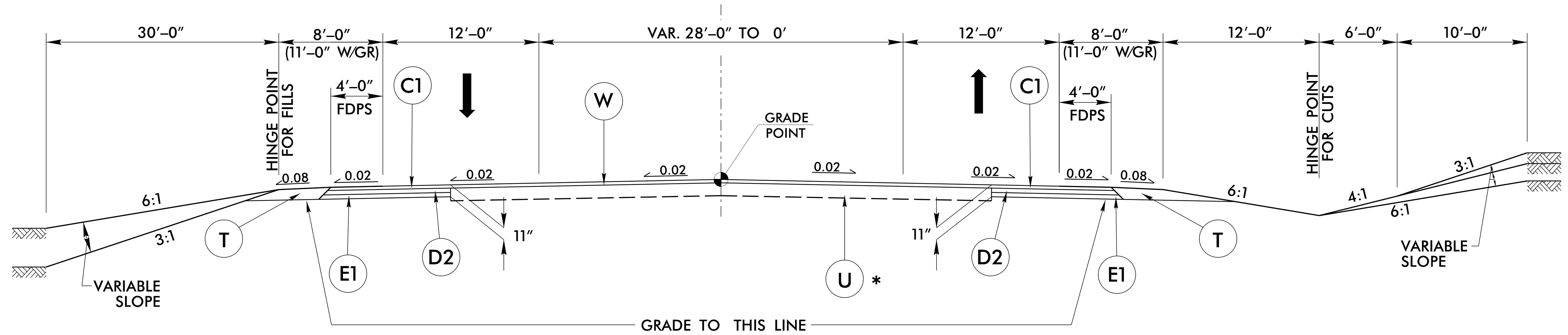
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com



TYPICAL SECTION NO. 14

USE TYPICAL SECTION NO. 14:
-Y16- STA 10+37.50 TO 13+29.50 RT
-Y16- STA 10+37.50 TO 13+09.80 LT



TYPICAL SECTION NO. 15

USE TYPICAL SECTION NO. 15:
-Y16- STA 13+29.50 TO 17+25.00 RT
-Y16- STA 13+09.80 TO 17+25.00 LT

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

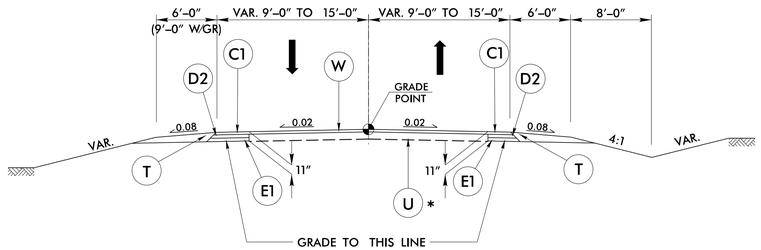
NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

6/2/99

PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3″ S9.5C
D2	4″ I19.0C
E1	4″ B25.0C
R2	2′-6″ C & G
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

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

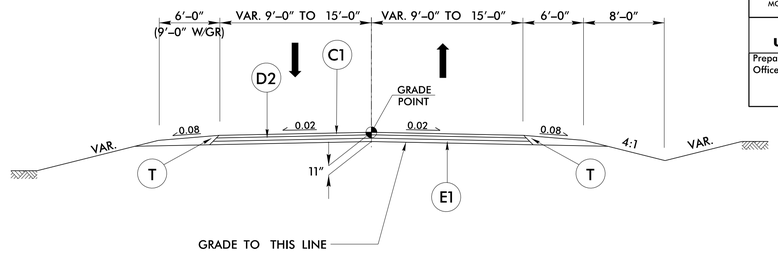
℄ –Y18– (DEAD MAN CURVE RD)
℄ –Y21– (HOLLY GROVE SCHOOL RD)



TYPICAL SECTION NO. 16

USE TYPICAL SECTION NO. 16:
–Y18– STA 10+50.00 TO 11+92.07
–Y21– STA 10+47.05 TO 12+50.00

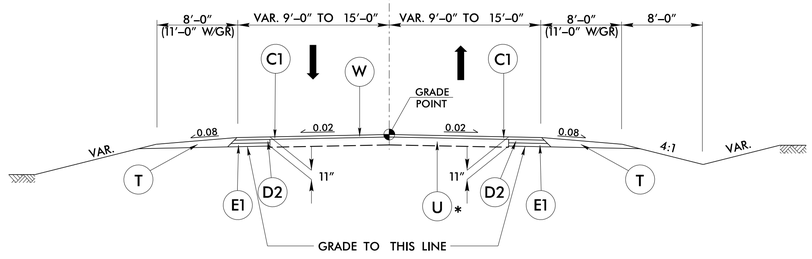
℄ –Y18– (DEAD MAN CURVE RD)



TYPICAL SECTION NO. 17

USE TYPICAL SECTION NO. 17:
–Y18– STA 11+92.07 TO 12+74.71

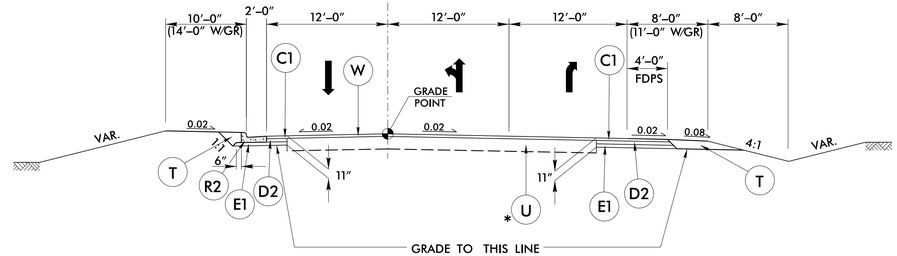
℄ –Y3– (MODE RD)
℄ –Y8– (VON CANON DR)
℄ –Y9– (PINEWOOD ST)
℄ –Y10– (CHURCH ST)
℄ –Y12– (KNOX LN)
℄ –Y13– (PINE RIDGE LN)
℄ –Y17– (MACDOOGAL DR)
℄ –Y20– (DEAD MAN CURVE RD)



TYPICAL SECTION NO. 18

USE TYPICAL SECTION NO. 18:
–Y3– STA 13+10.00 TO 14+57.29
–Y8– STA 10+37.51 TO 12+00.00
–Y9– STA 10+38.08 TO 11+65.00
–Y10– STA 10+37.50 TO 11+25.00
–Y12– STA 11+75.00 TO 12+71.74
–Y13– STA 12+55.00 TO 13+01.73
–Y17– STA 10+37.58 TO 12+00.00
–Y20– STA 13+50.00 TO 14+38.74

℄ –Y1– (NC 73)



TYPICAL SECTION NO. 19

USE TYPICAL SECTION NO. 19:
–Y1– STA 16+70.00 TO 17+49.76

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-8

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER
Signed by: DAVID C. WALLER
13-Aug-2021

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 038176 ENGINEER SHUMIN ZHANG
Signed by: SHUMIN ZHANG
14-Aug-2021

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-9

ROADWAY DESIGN ENGINEER — SEAL 22606 — DAVID C. WALLER — 13-Aug-2024 — MOTT MACDONALD I& E, LLC LICENSE NO. F-0669

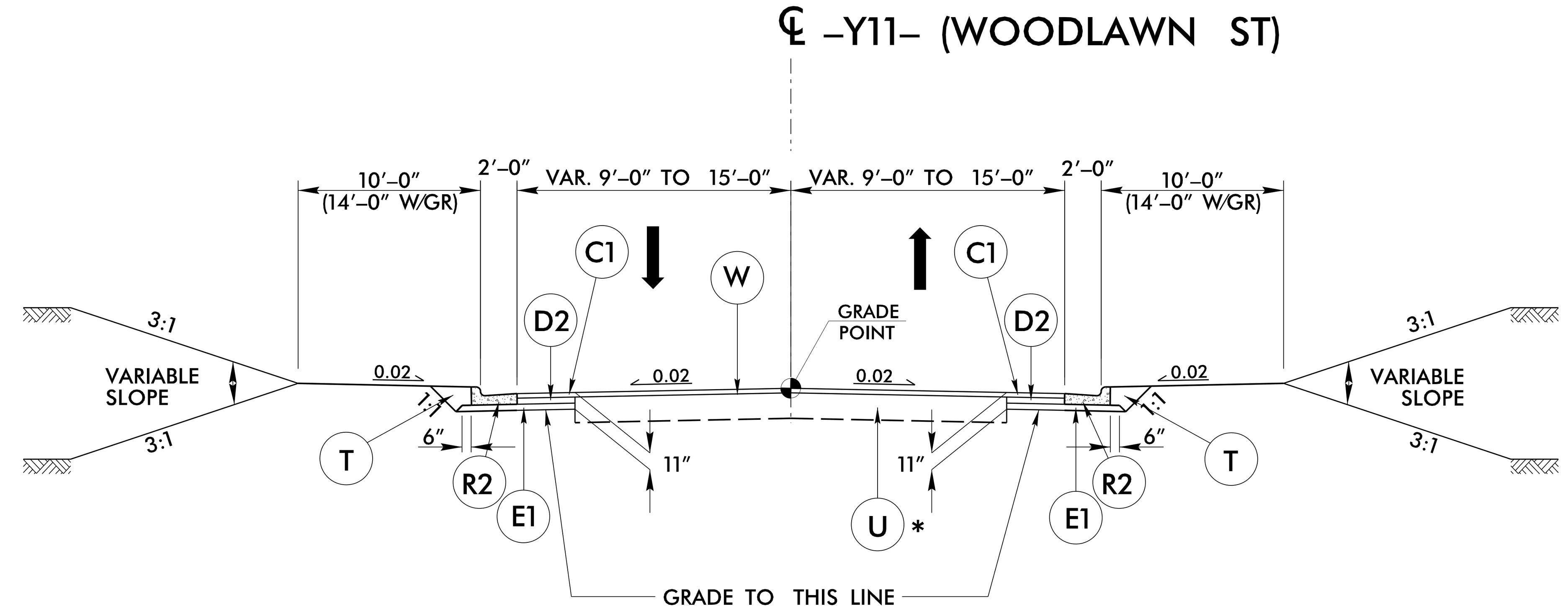
PAVEMENT DESIGN ENGINEER — SEAL 038176 — 14-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

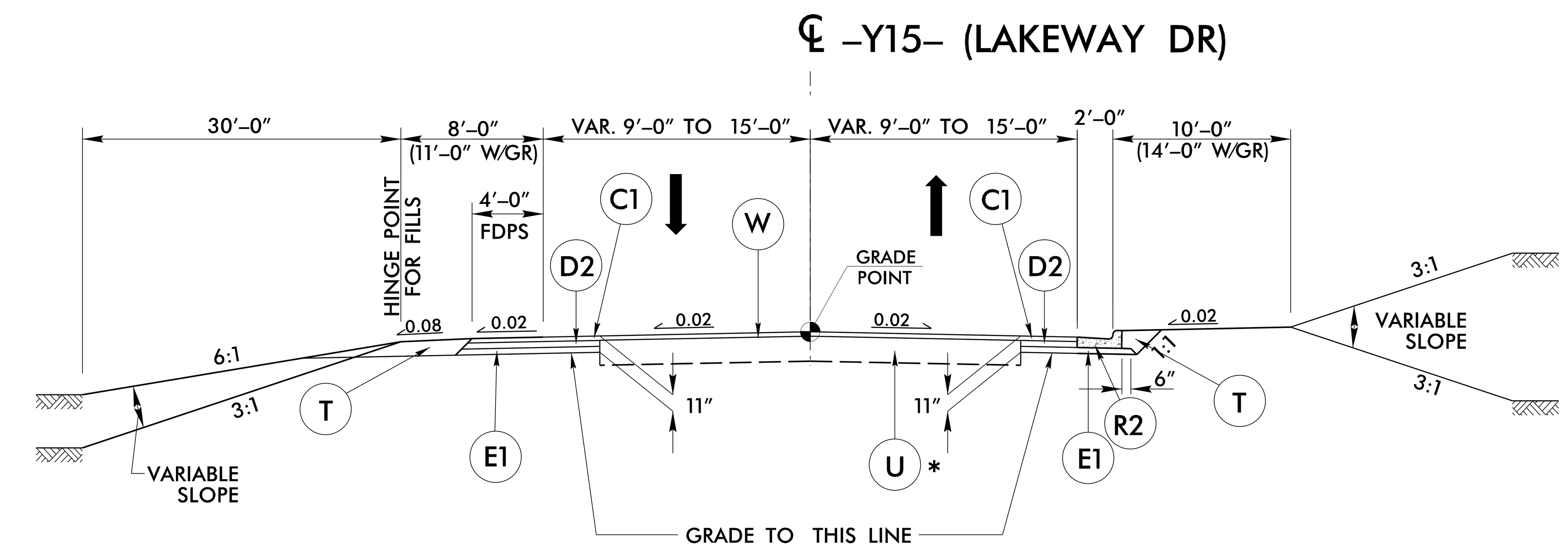
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
D2	4" I19.0C
E1	4" B25.0C
R2	2'-6" C & G
R4	1'-6" C & G (SPECIAL)
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

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



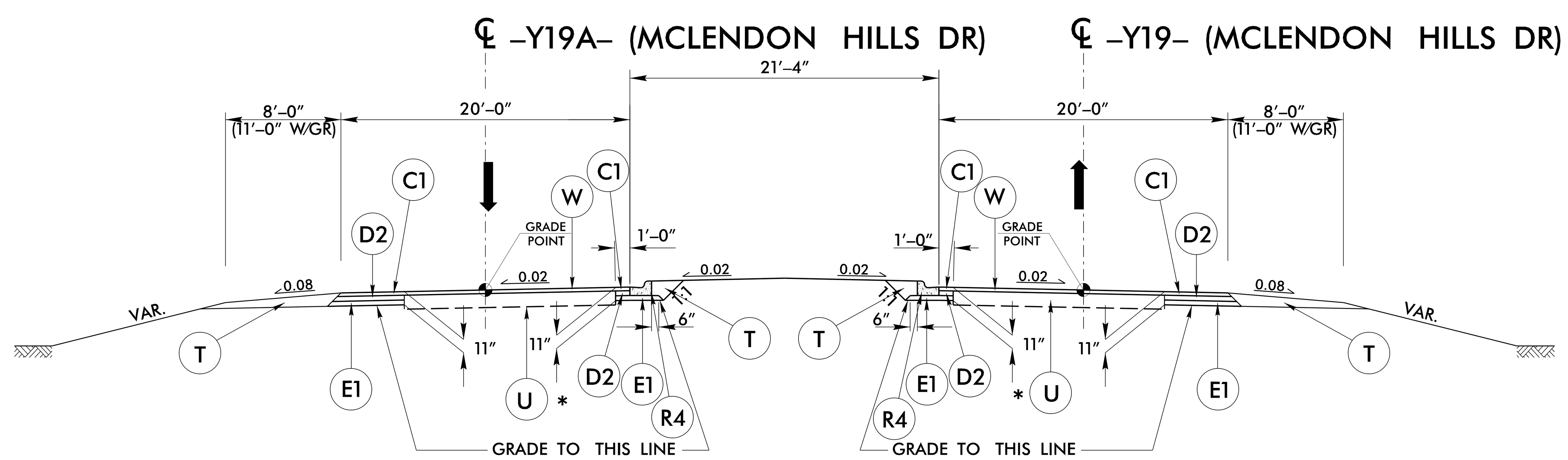
TYPICAL SECTION NO. 20

USE TYPICAL SECTION NO. 20:
-Y11- STA 10+37.50 TO 11+25.00



TYPICAL SECTION NO. 21

USE TYPICAL SECTION NO. 21:
-Y15- STA 13+40.00 TO 13+68.41



TYPICAL SECTION NO. 22

USE TYPICAL SECTION NO. 22:
-Y19- STA 10+47.11 TO 11+02.00

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2A-10

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 DAVID C. WALLER — 13-Aug-2024

PAVEMENT DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038176 — ZHANG — 14-Aug-2024

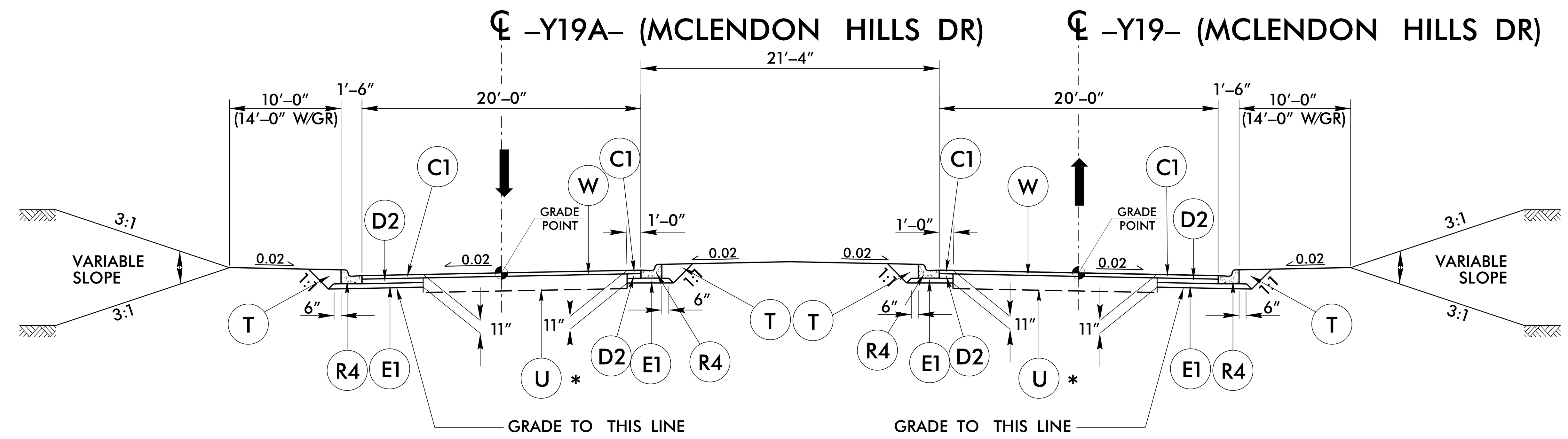
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

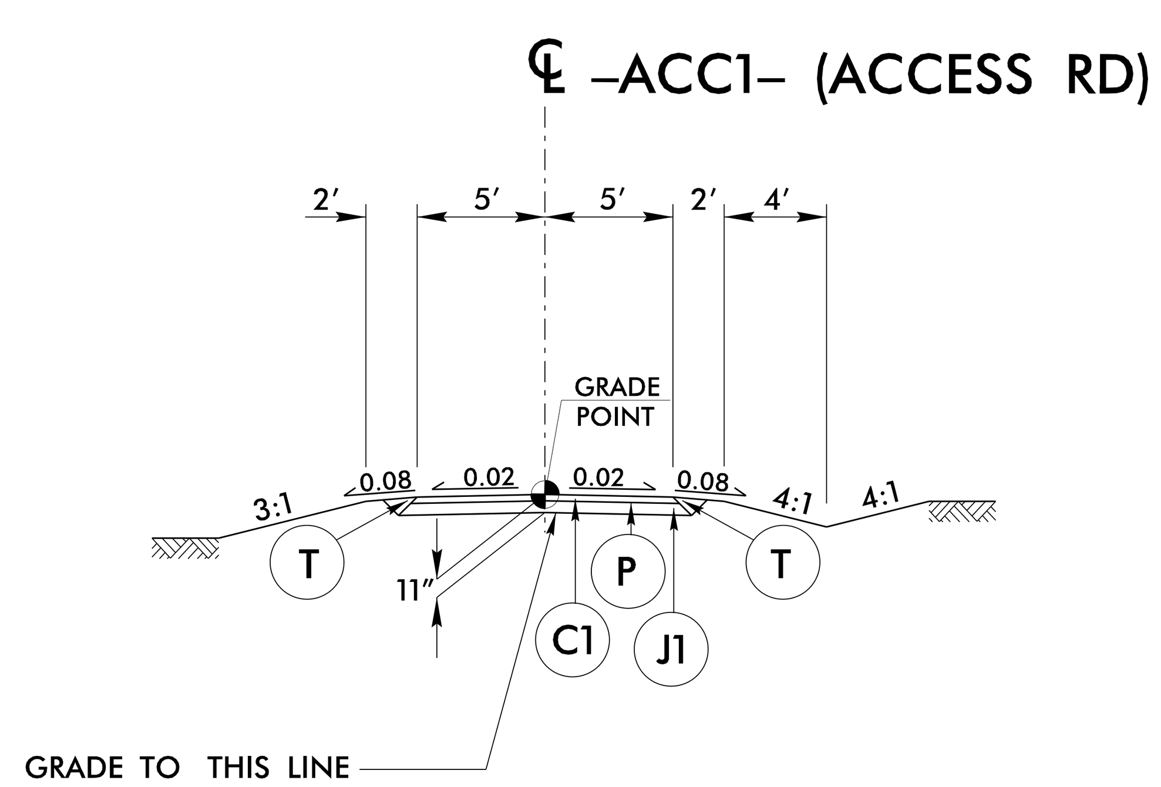
PAVEMENT SCHEDULE FINAL PAVEMENT DESIGN	
C1	3" S9.5C
C2	VAR. S9.5C
D1	2.5" I19.0C
D2	4" I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
J1	8" ABC
P	PRIME COAT
R4	1'-6" C & G (SPECIAL)
R7	EXPRESSWAY GUTTER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

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



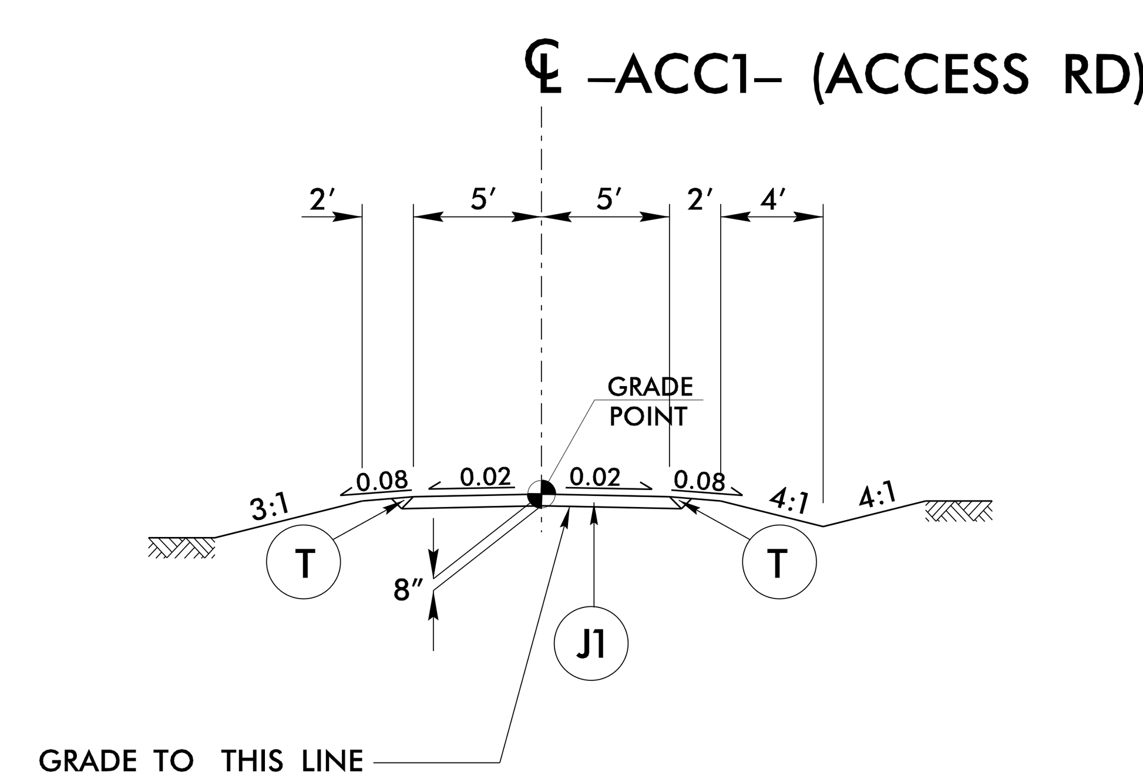
TYPICAL SECTION NO. 23

USE TYPICAL SECTION NO. 23:
-Y19- STA 11+02.00 TO 11+40.00



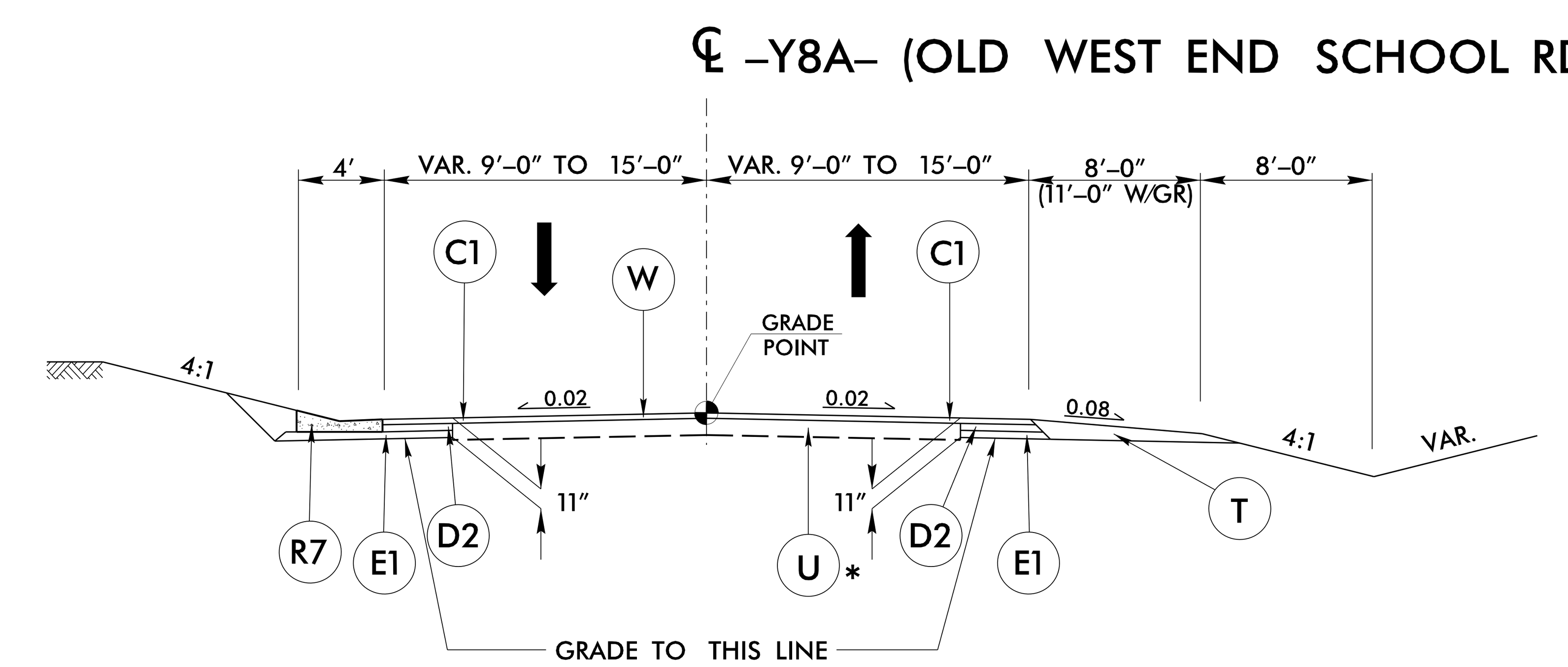
TYPICAL SECTION NO. 24

USE TYPICAL SECTION NO. 24:
-ACC1- STA 10+37.67 TO 11+55.00



TYPICAL SECTION NO. 25

USE TYPICAL SECTION NO. 25:
-ACC1- STA 11+55.00 TO 14+24.60



TYPICAL SECTION NO. 26

USE TYPICAL SECTION NO. 26:
-Y8A- STA 10+00.00 TO 11+20.93

*WIDTH AND LOCATION OF EXISTING PAVEMENT VARIES. (SEE PLANS)

NOTE: FOR VARIABLE SLOPES SEE CROSS-SECTIONS.
FOR TAPERS AND AUXILIARY LANES SEE PLAN VIEW.
FOR ISLAND LIMITS SEE PLAN VIEW.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

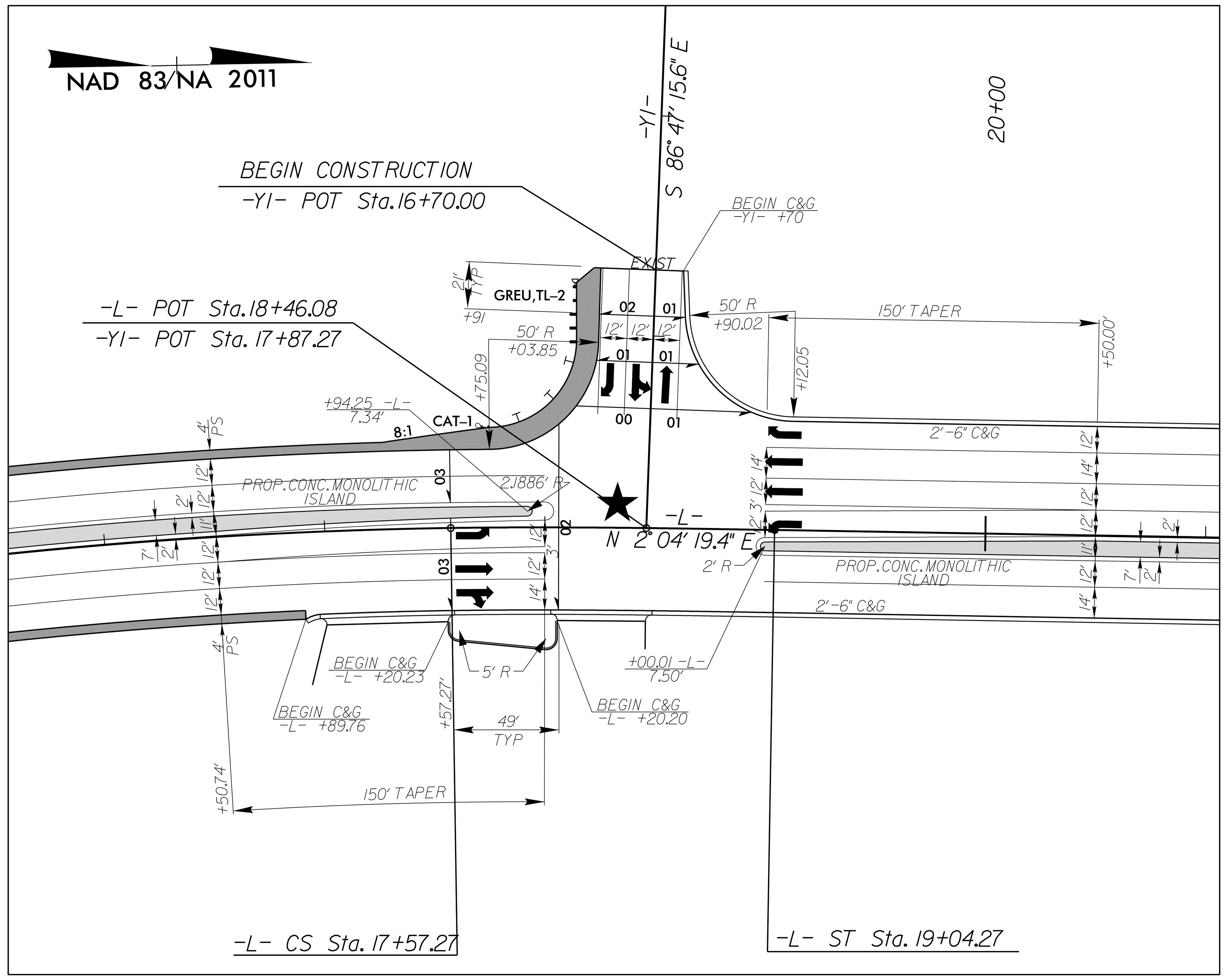
NORTH CAROLINA PROFESSIONAL SEAL 22606

13-Aug-2025

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

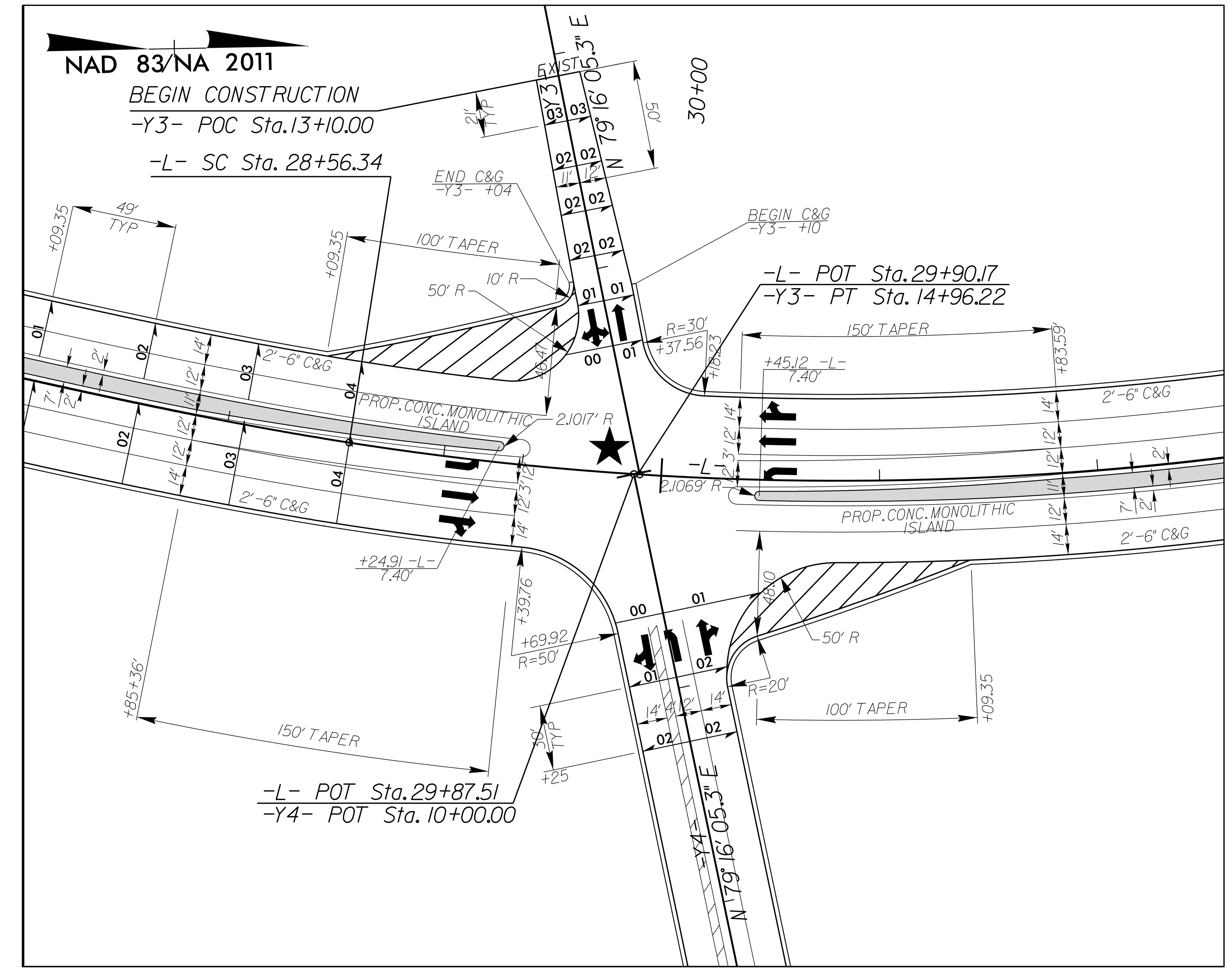
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com



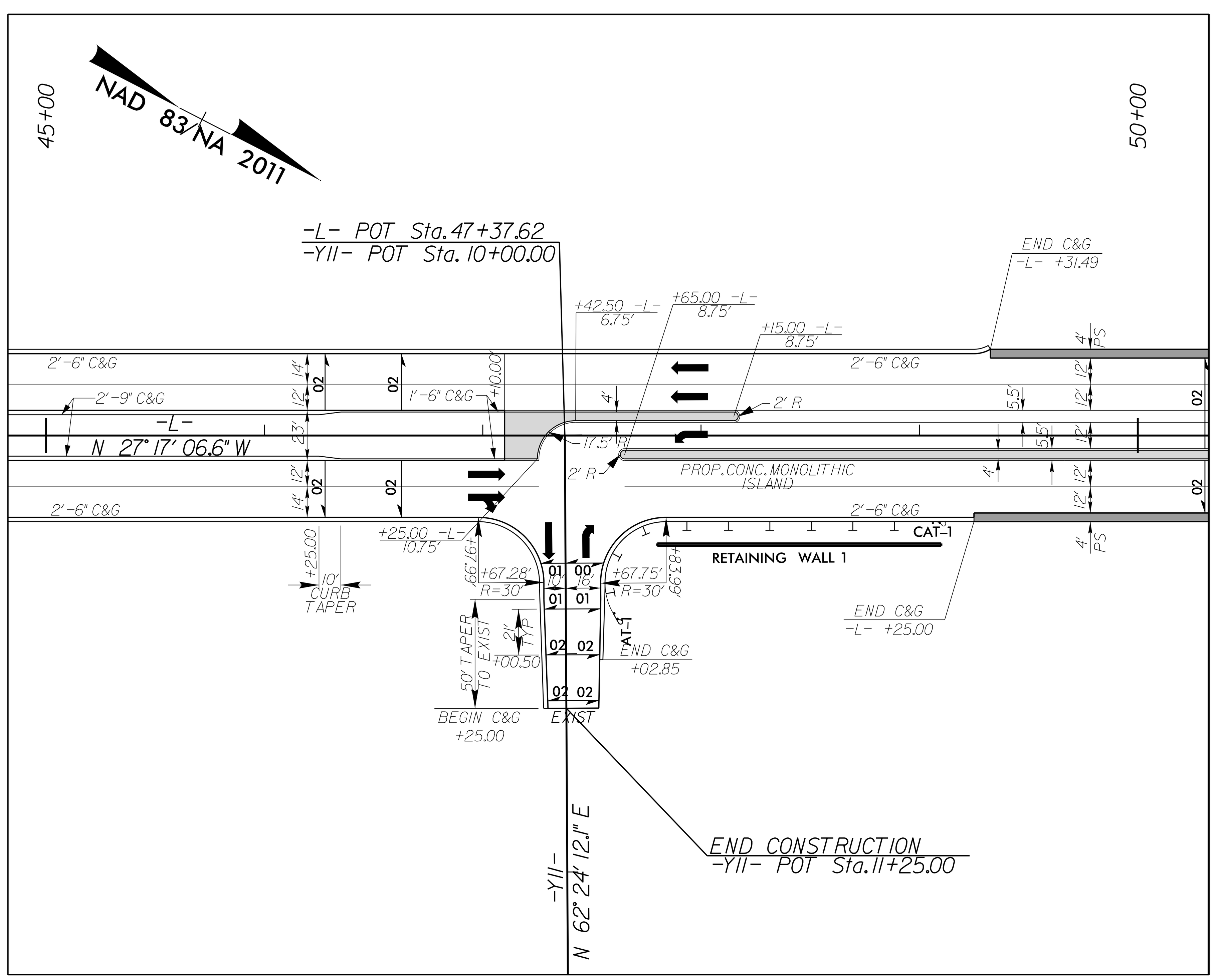
NC 211 & NC 73 (-L- & -Y1-)
INTERSECTION DETAIL

SEE PLAN SHEET 4 FOR PLAN VIEW



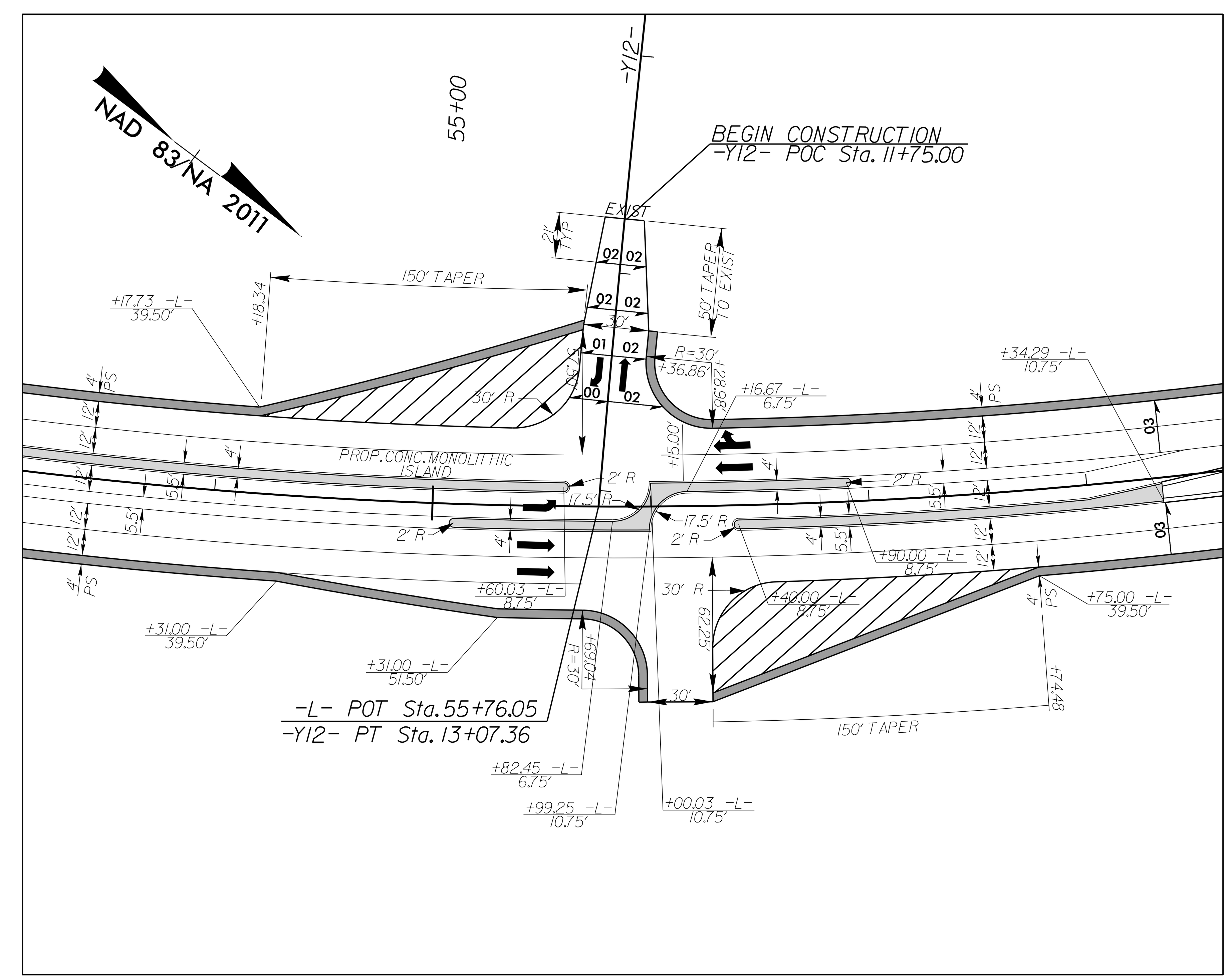
NC 211 & NC 73/MODE RD (-L- & -Y4-/-Y3-)
INTERSECTION DETAIL

SEE PLAN SHEET 5 FOR PLAN VIEW



NC 211 & WOODLAWN ST (-L- & -Y11-)
INTERSECTION DETAIL

SEE PLAN SHEET 7 FOR PLAN VIEW



NC 211 & KNOX LN (-L- & -Y12-)
INTERSECTION DETAIL

SEE PLAN SHEET 7 FOR PLAN VIEW

★ TRAFFIC SIGNAL

50' 0' 50' 100'
25'
(ENGLISH)

R:\Roadway\Proj\r5726_rdy_psh02B-1.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2B-2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

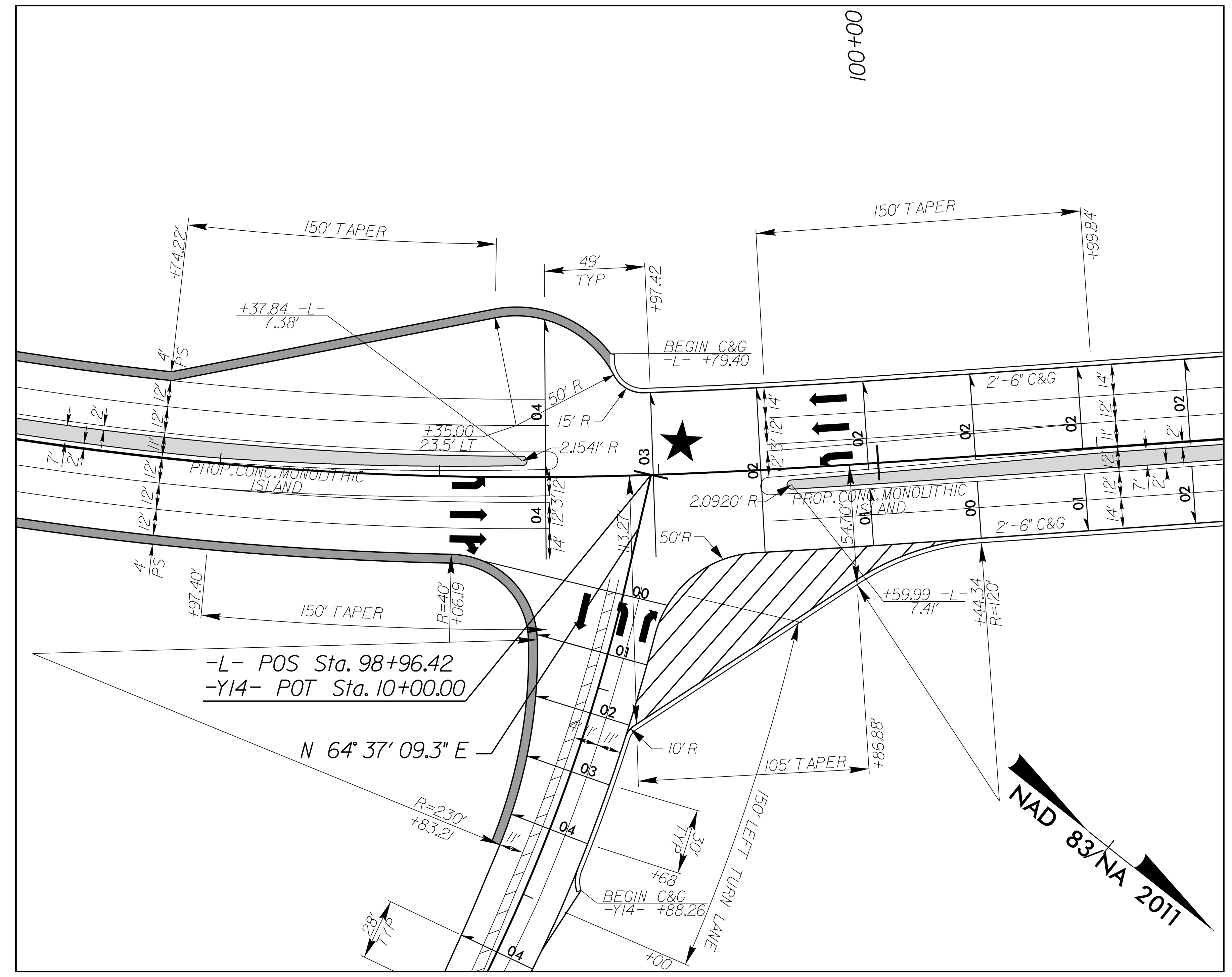
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

13-Aug-2024

MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

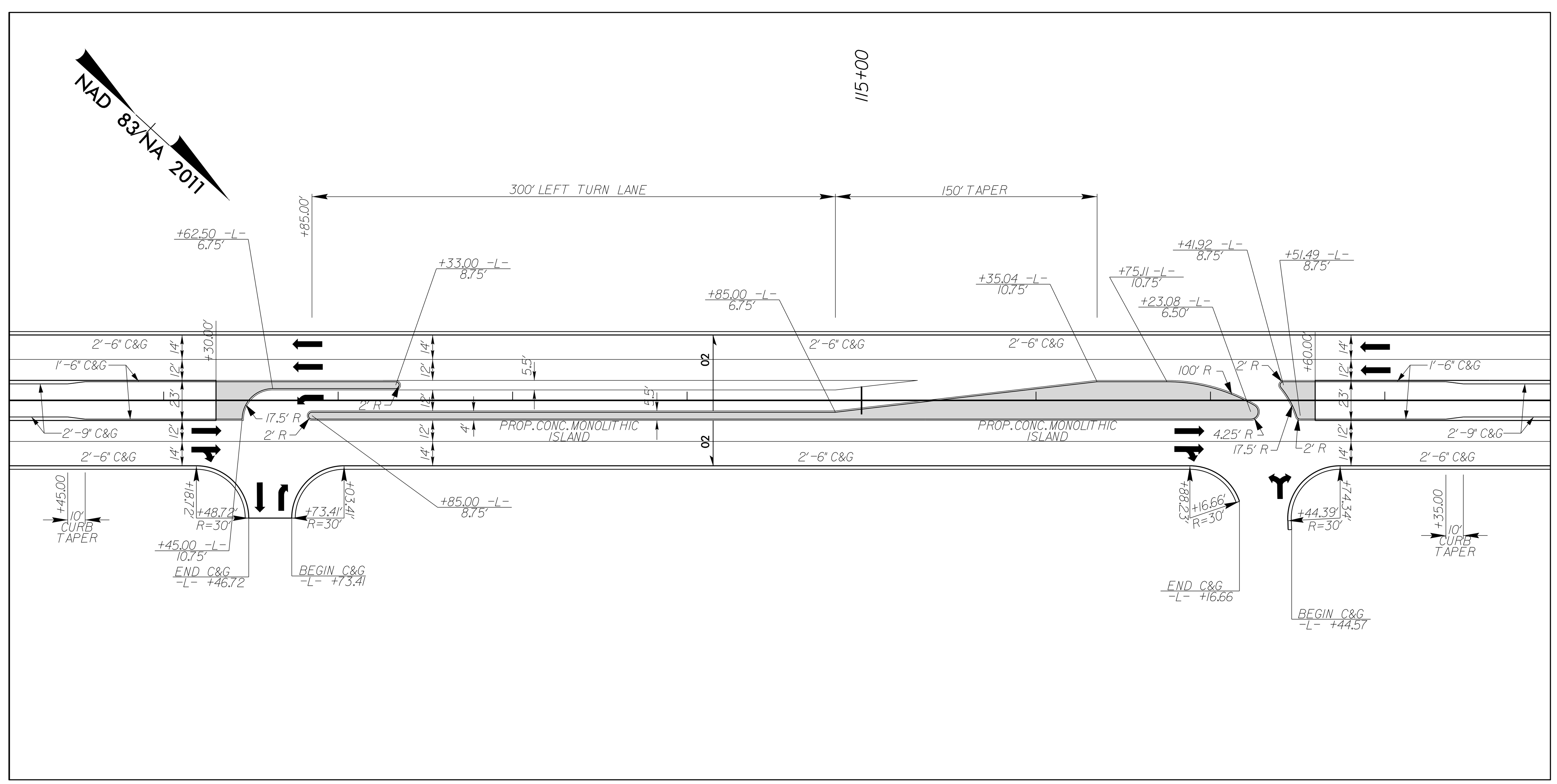
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com



NC 211 & LOVE GROVE CHURCH RD (-L- & -Y14-)
INTERSECTION DETAIL

SEE PLAN SHEET 10 FOR PLAN VIEW



NC 211 & WEST END ELEMENTARY SCHOOL DRIVE (-L- & -DRIVE-)
INTERSECTION DETAIL

SEE PLAN SHEET 11 & 12 FOR PLAN VIEW

★ TRAFFIC SIGNAL

50' 0' 50' 100'
25'
(ENGLISH)

5/14/99

7:29:49 AM R:\Roadway\Proj\r-5726_rdy_psh02B-2.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2B-3
R/W SHEET NO.	

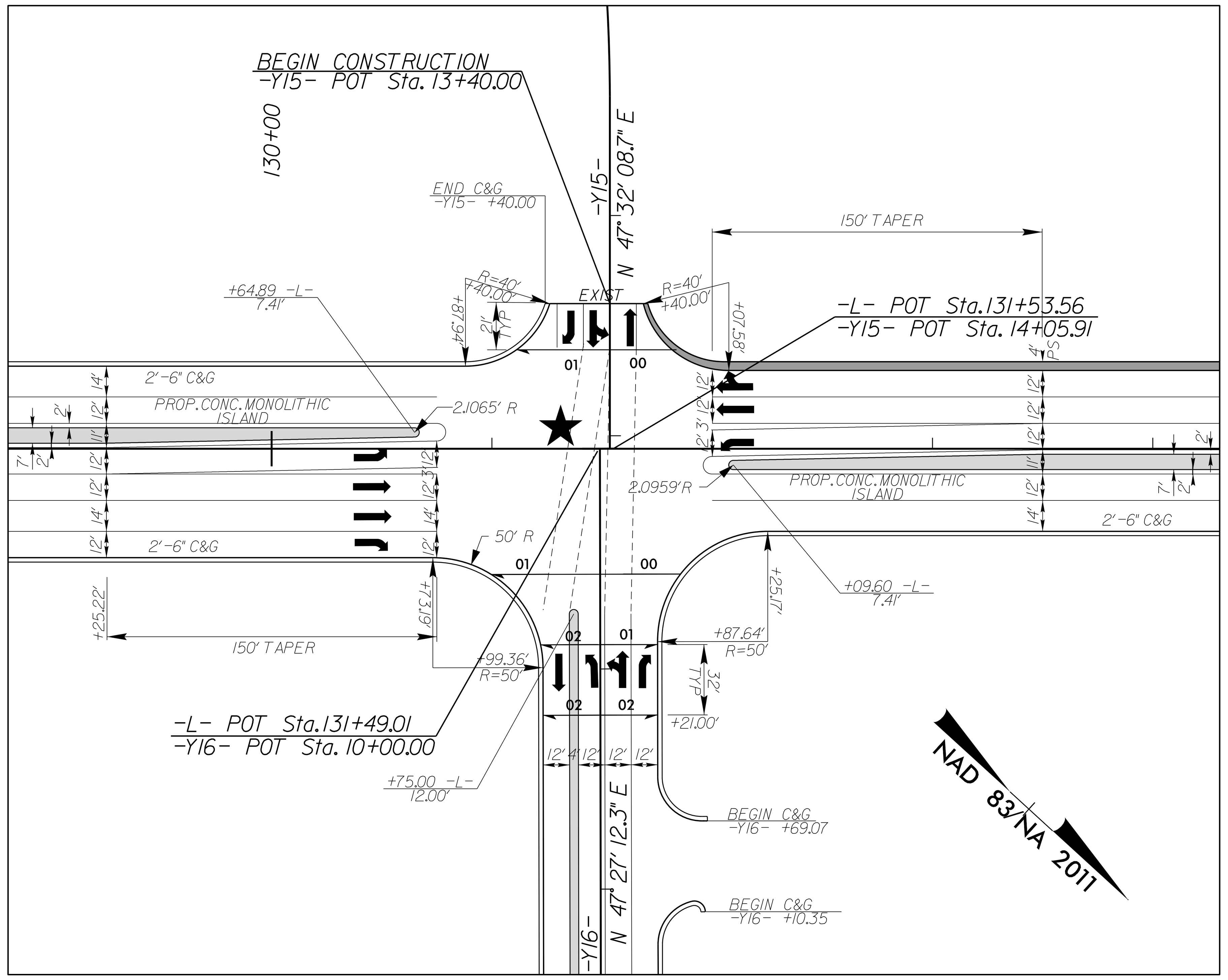
ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

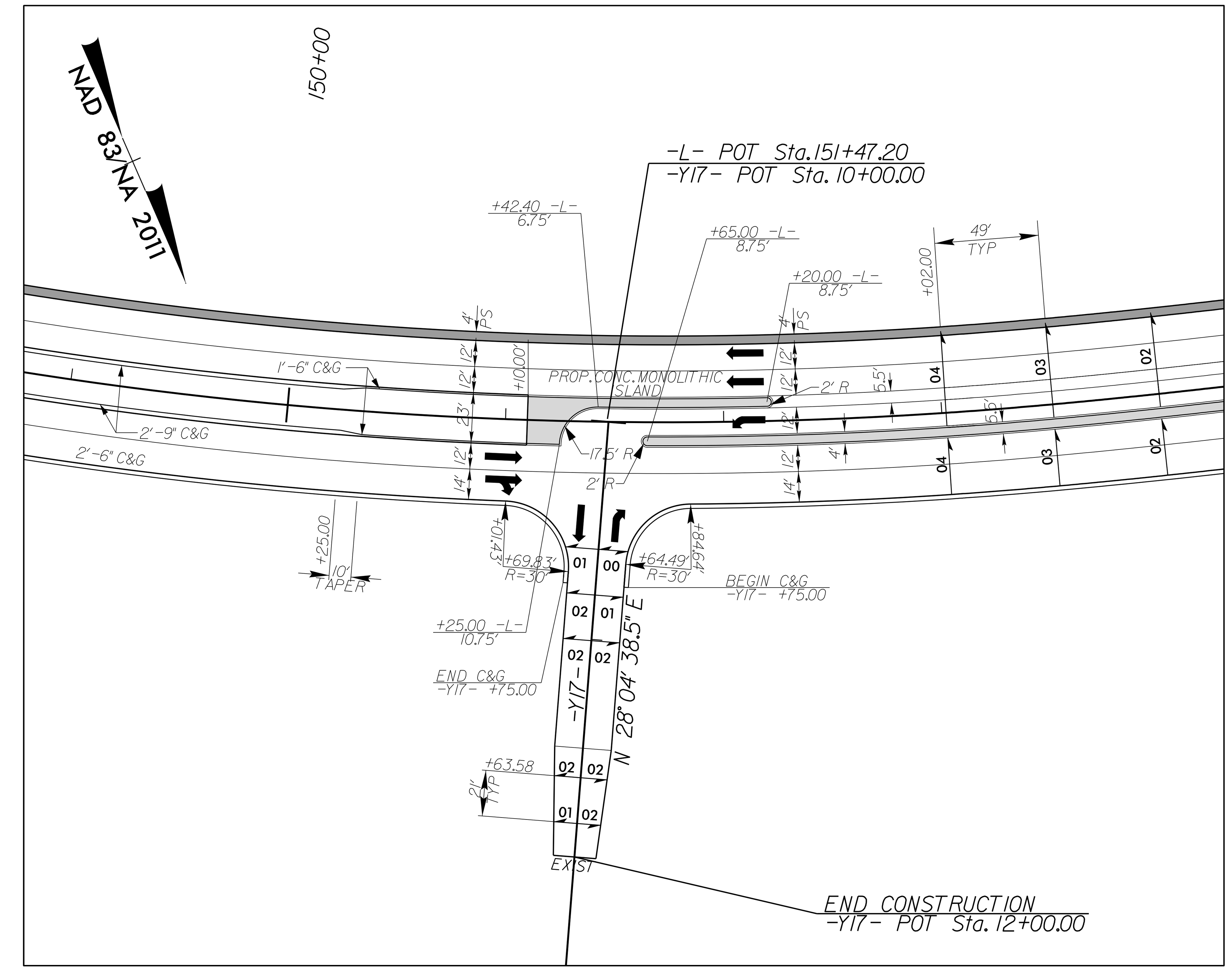
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com



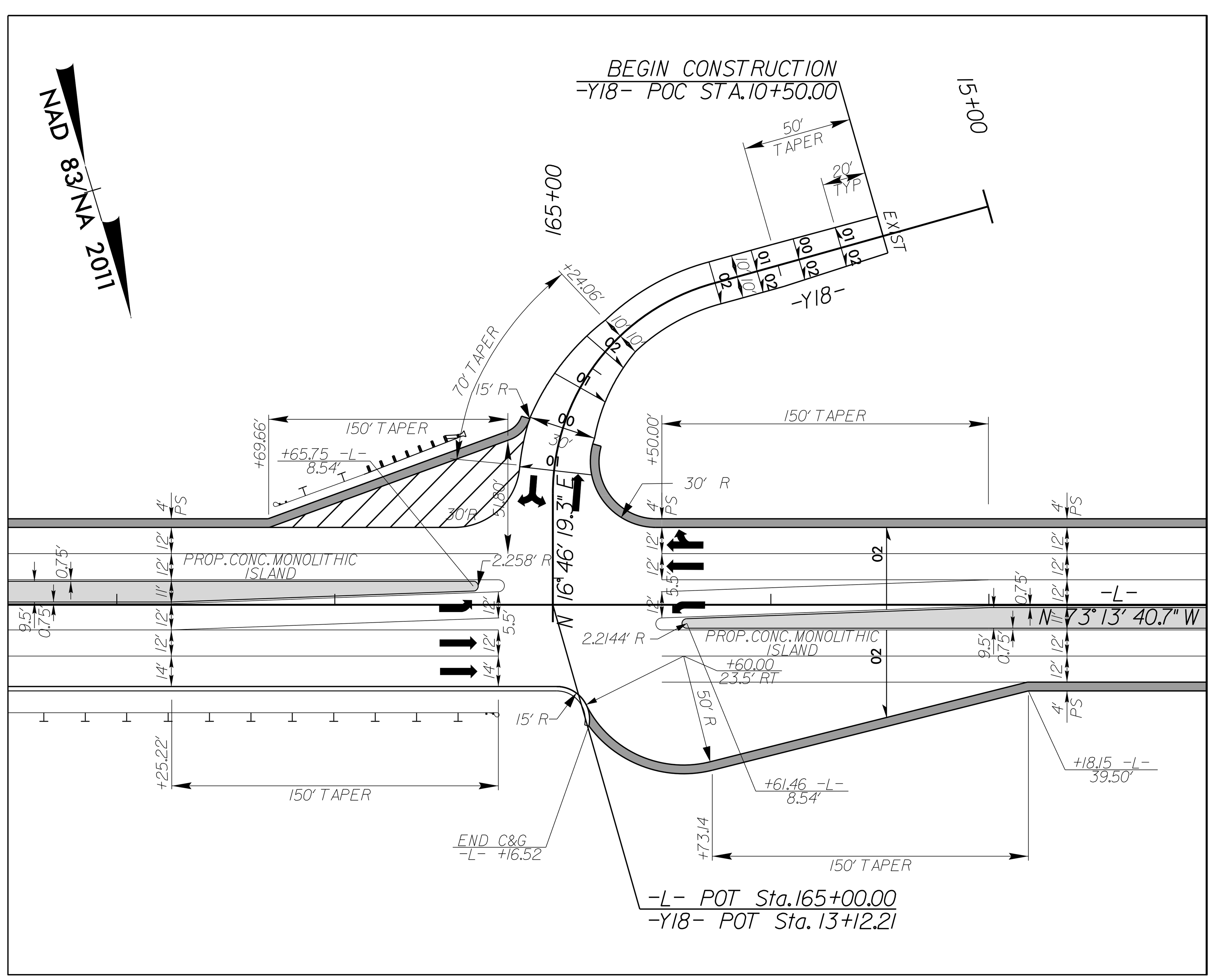
NC 211 & SEVEN LAKES DR/LAKEVIEW DR (-L- & -Y16-/-Y15-)
INTERSECTION DETAIL

SEE PLAN SHEET 13 FOR PLAN VIEW



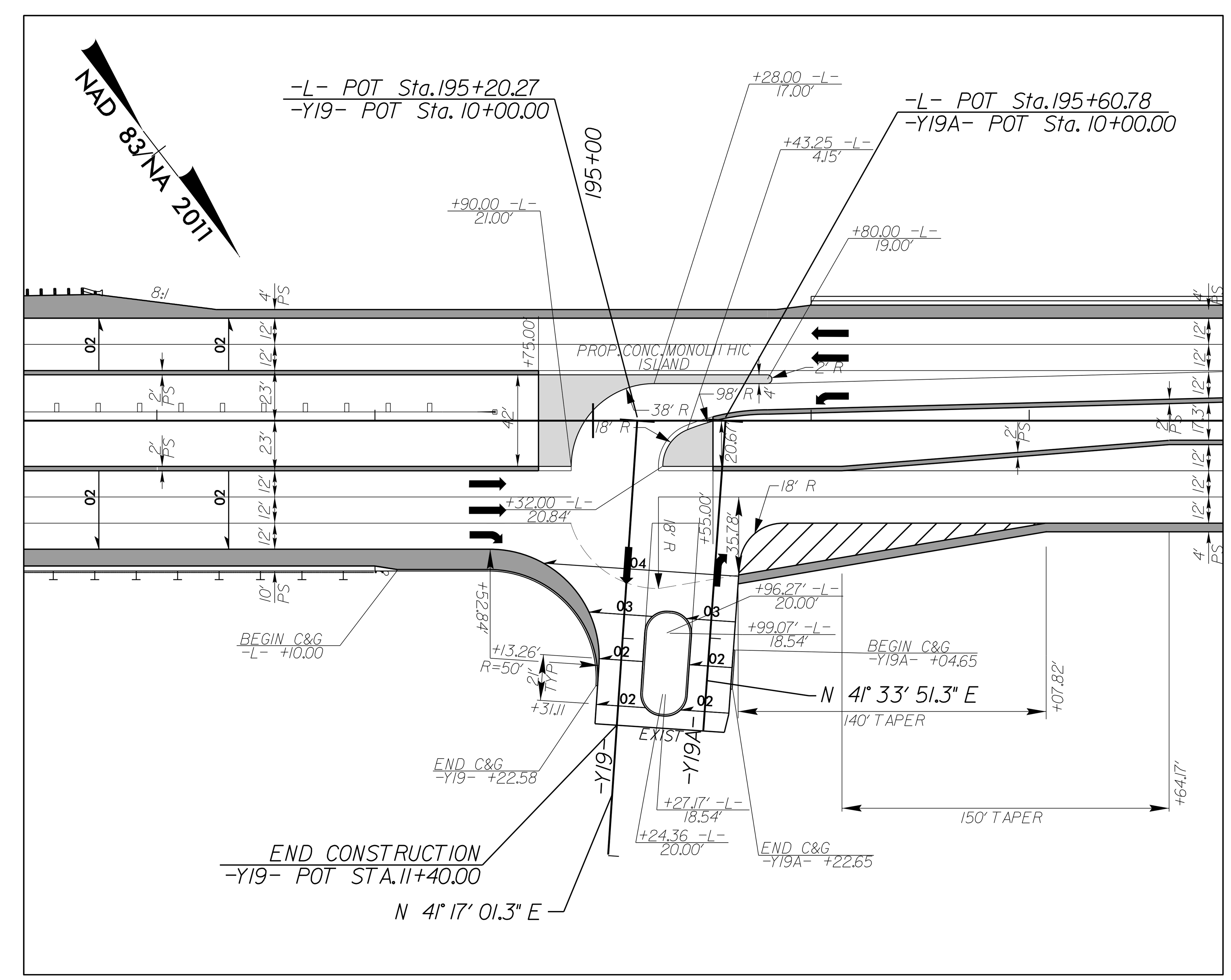
NC 211 & MACDOUGALL DR (-L- & -Y17-)
INTERSECTION DETAIL

SEE PLAN SHEET 14 FOR PLAN VIEW



NC 211 & DEAD MAN CURVE RD (-L- & -Y18-)
INTERSECTION DETAIL

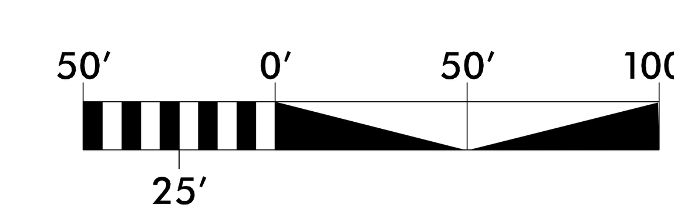
SEE PLAN SHEET 15 FOR PLAN VIEW



NC 211 & MCLENDON HILLS DR (-L- & -Y19-/-Y19A-)
INTERSECTION DETAIL

SEE PLAN SHEET 18 FOR PLAN VIEW

★ TRAFFIC SIGNAL



(ENGLISH)

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2B-4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

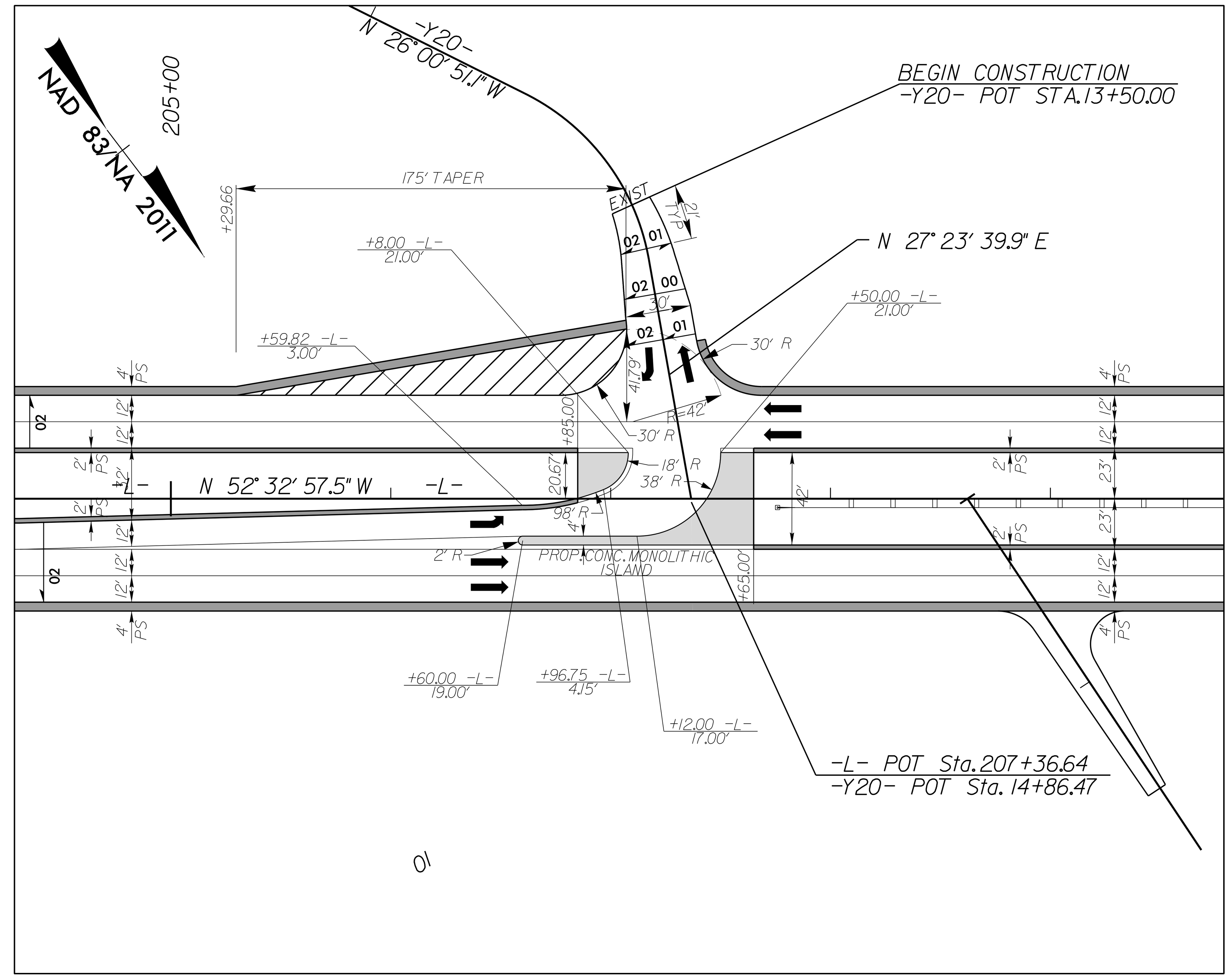
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

13-Aug-2025

MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

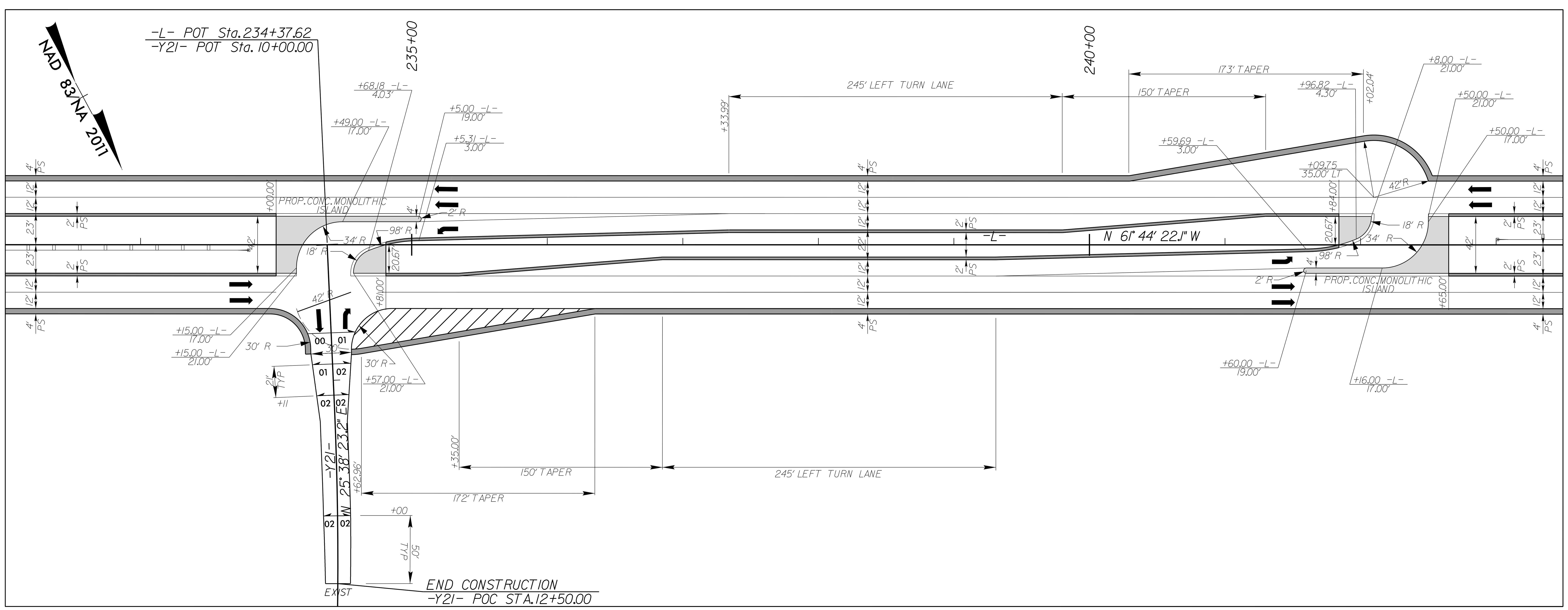
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com



NC 211 & DEAD MAN CURVE RD (-L- & -Y20-)
INTERSECTION DETAIL

SEE PLAN SHEET 19 FOR PLAN VIEW



NC 211 & HOLLY GROVE SCHOOL RD (-L- & -Y21-)
INTERSECTION DETAIL

SEE PLAN SHEET 21 FOR PLAN VIEW

★ TRAFFIC SIGNAL

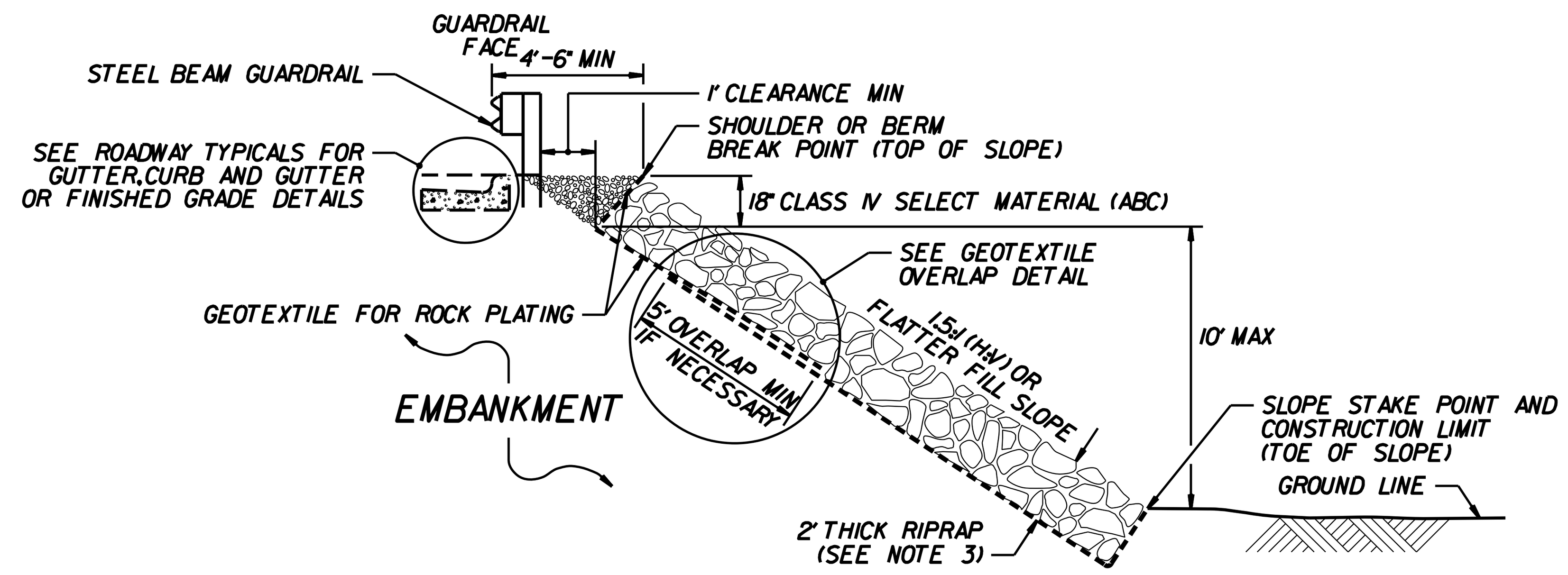
50' 0' 50' 100'
25'
(ENGLISH)

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-1

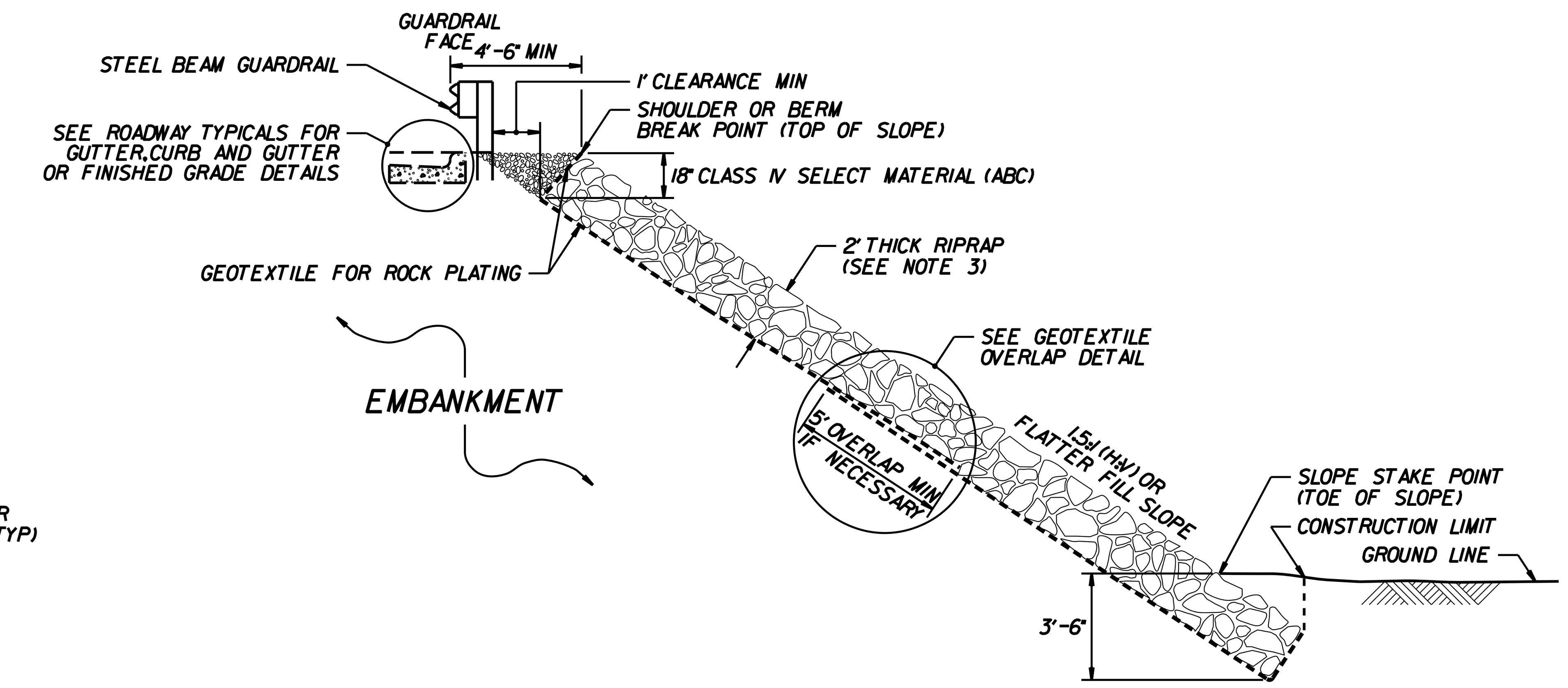
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

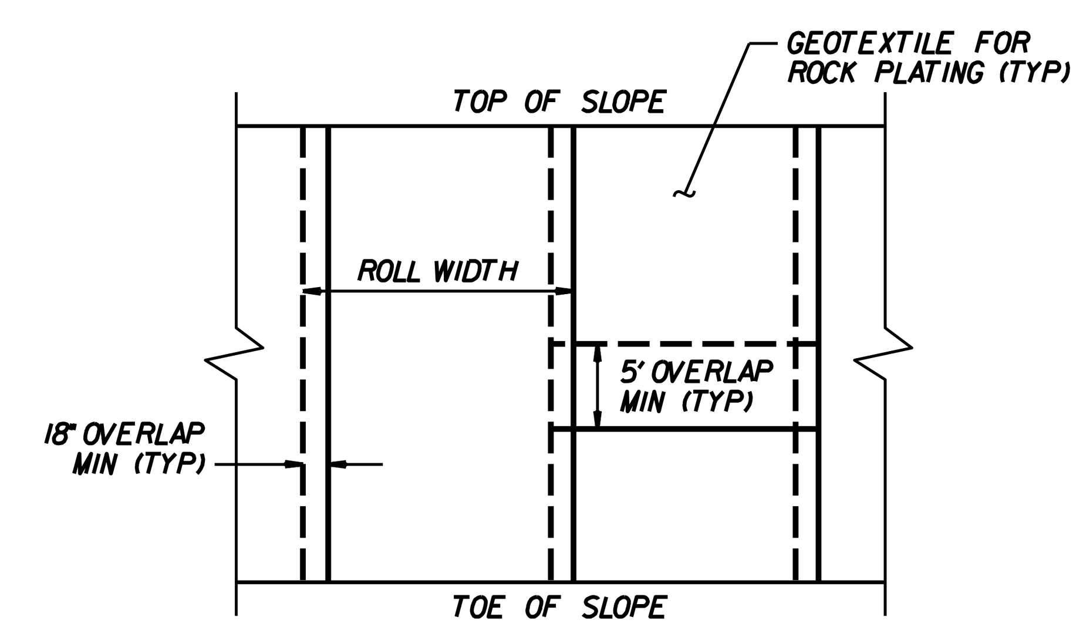
ROCK PLATING



ROCK PLATING DETAIL NO. 1 – TYPICAL SECTION

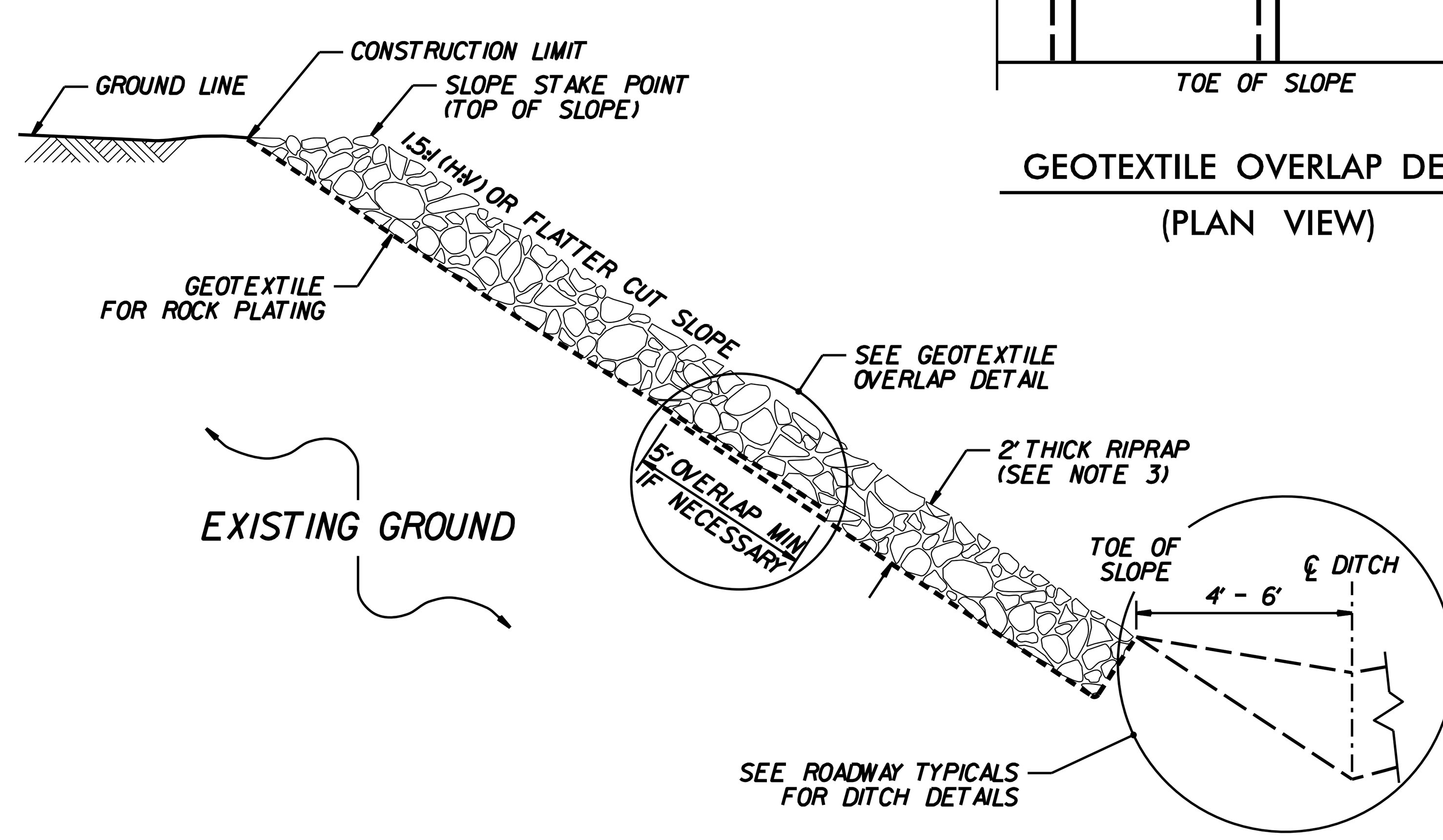


ROCK PLATING DETAIL NO. 2 – TYPICAL SECTION

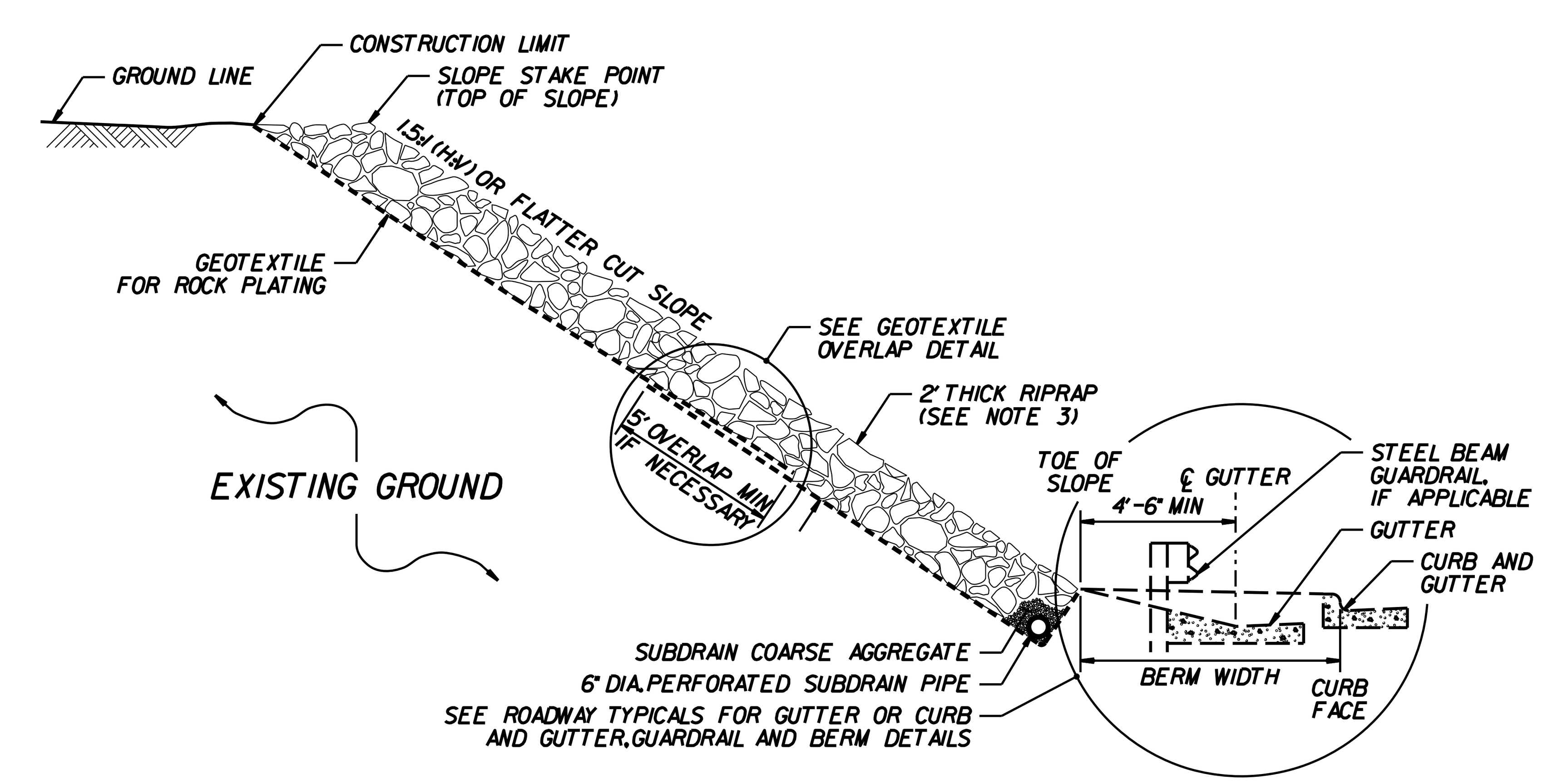


GEOTEXTILE OVERLAP DETAIL

(PLAN VIEW)



ROCK PLATING DETAIL NO. 3 – TYPICAL SECTION



ROCK PLATING DETAIL NO. 4 – TYPICAL SECTION

NOTES:

1. SEE ROADWAY PLANS AND SUMMARY SHEETS FOR ROCK PLATING LOCATIONS.
2. FOR ROCK PLATING,SEE SECTION 275 OF THE STANDARD SPECIFICATIONS.
3. USE CLASS 1,2 OR B RIPRAP UNLESS REQUIRED OTHERWISE IN THE ROADWAY SUMMARY SHEETS.

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144
13-Aug-2024

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.:

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-2

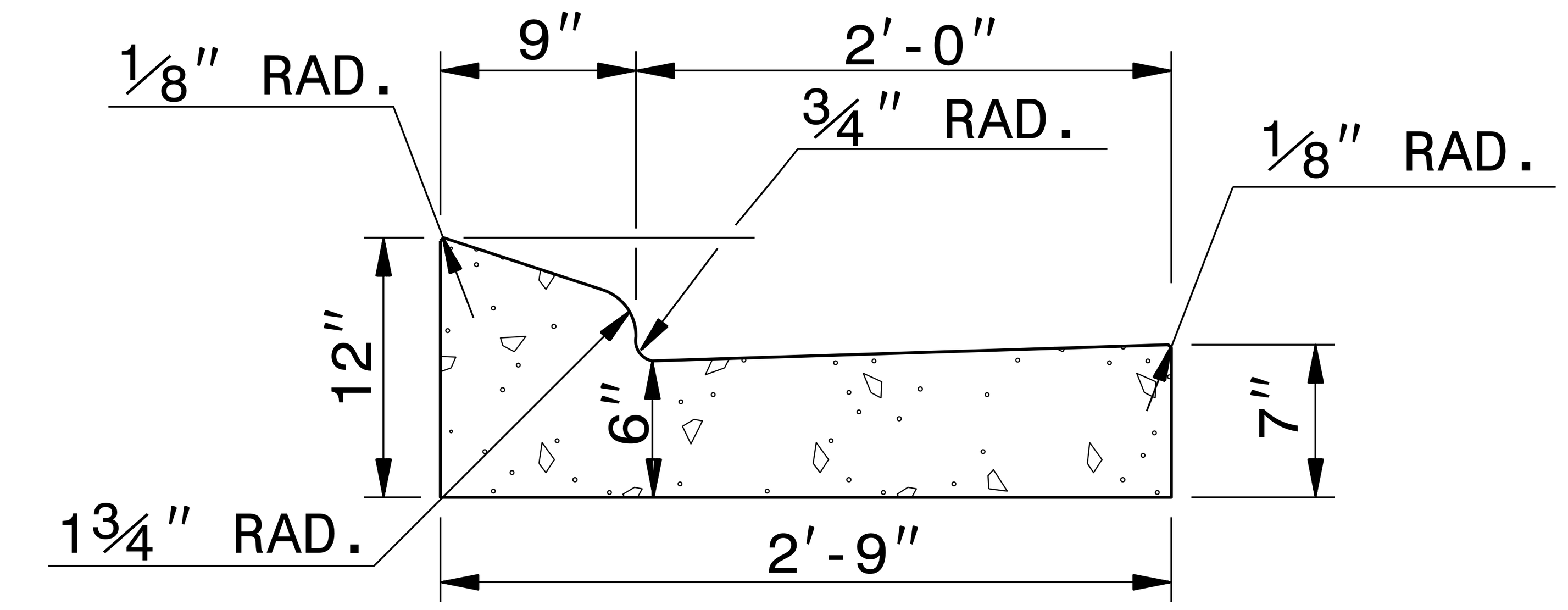
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR

2′-9″ CONCRETE CURB & GUTTER

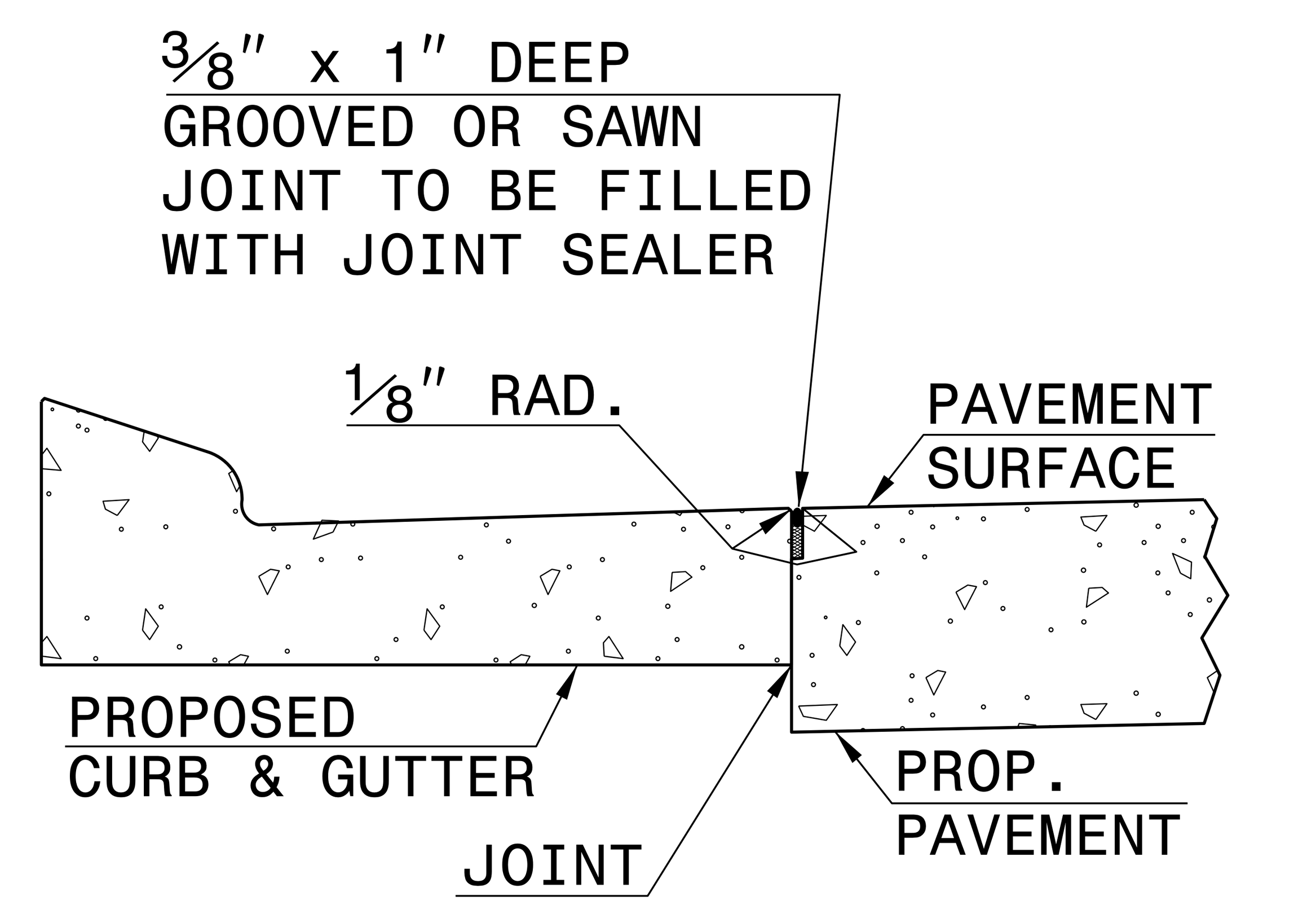
GENERAL NOTES:

- 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)

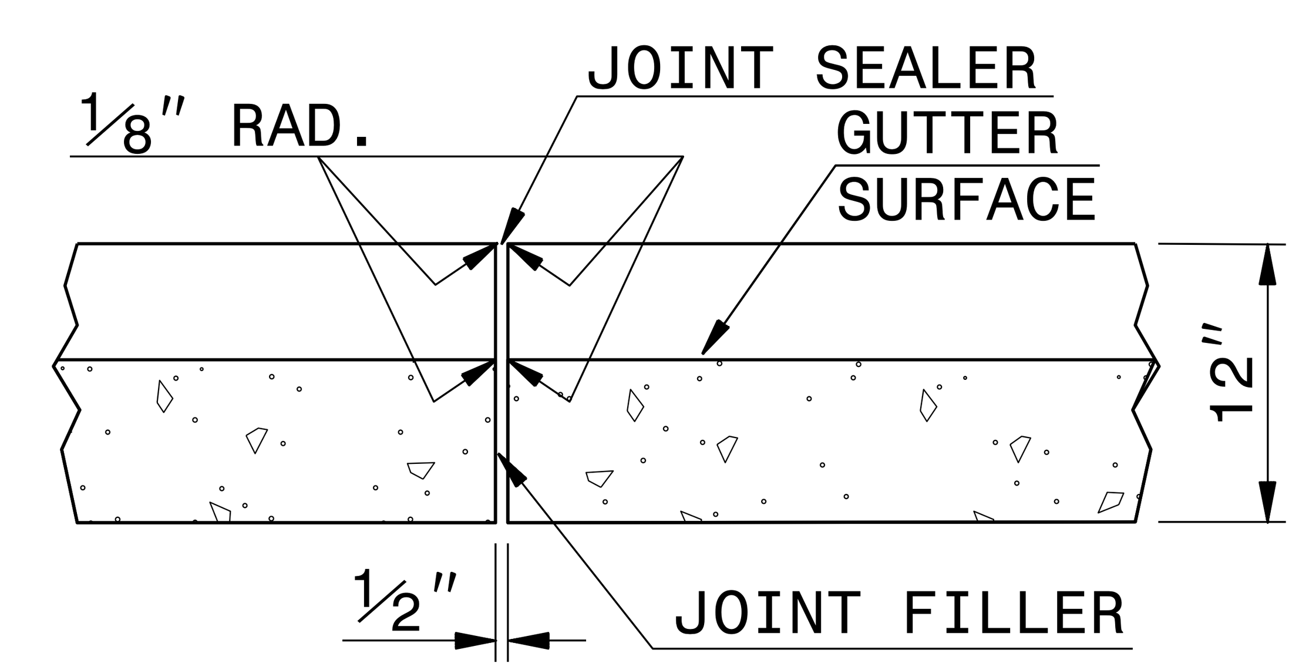


2′-9″ CURB AND GUTTER

SECTION VIEW OF CURB AND GUTTER



LONGITUDINAL JOINT



TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER

SECTION VIEW OF JOINTS

SHEET 1 OF 1

846D01

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144
13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

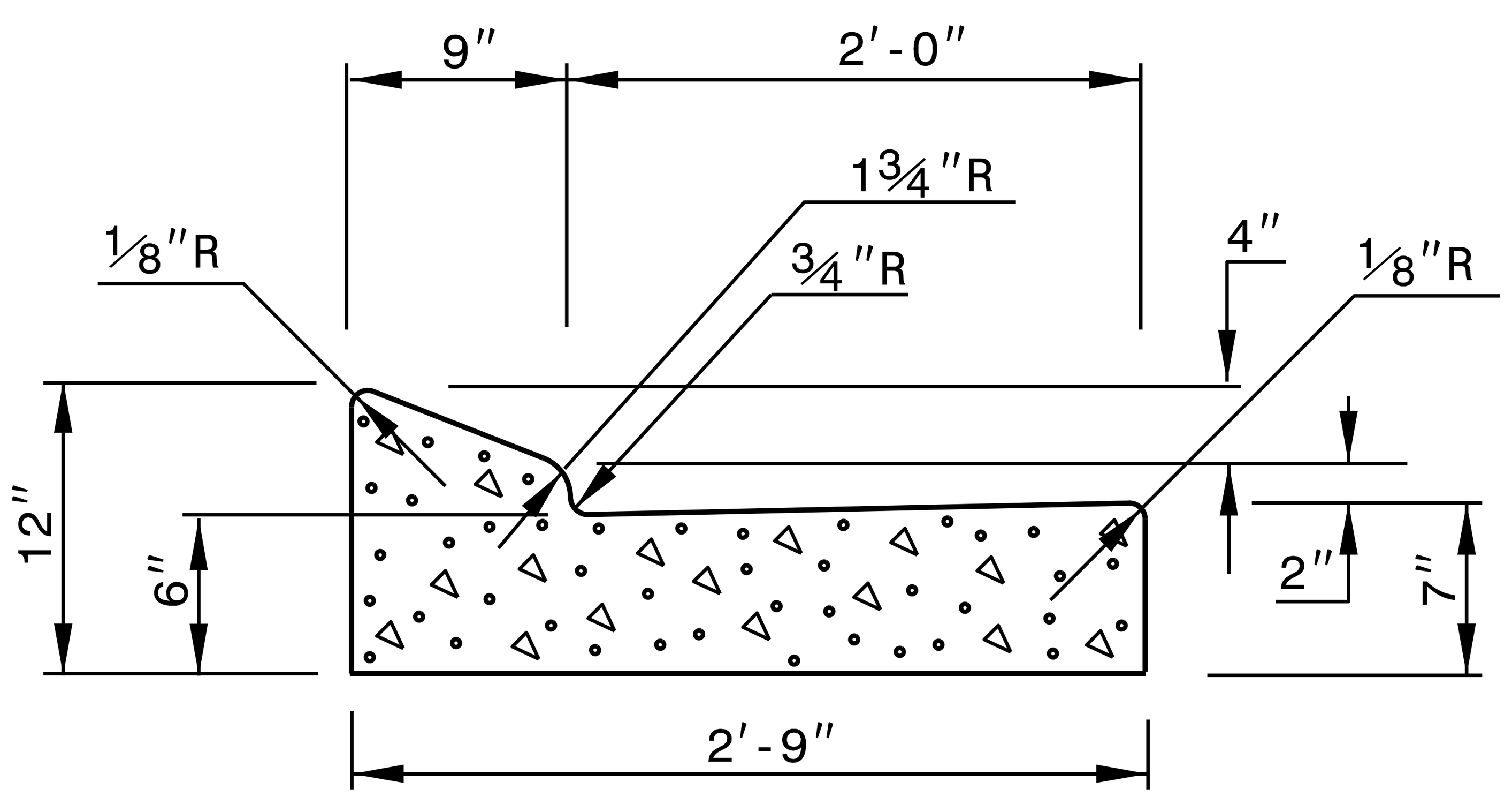
SEE PLATE FOR TITLE

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

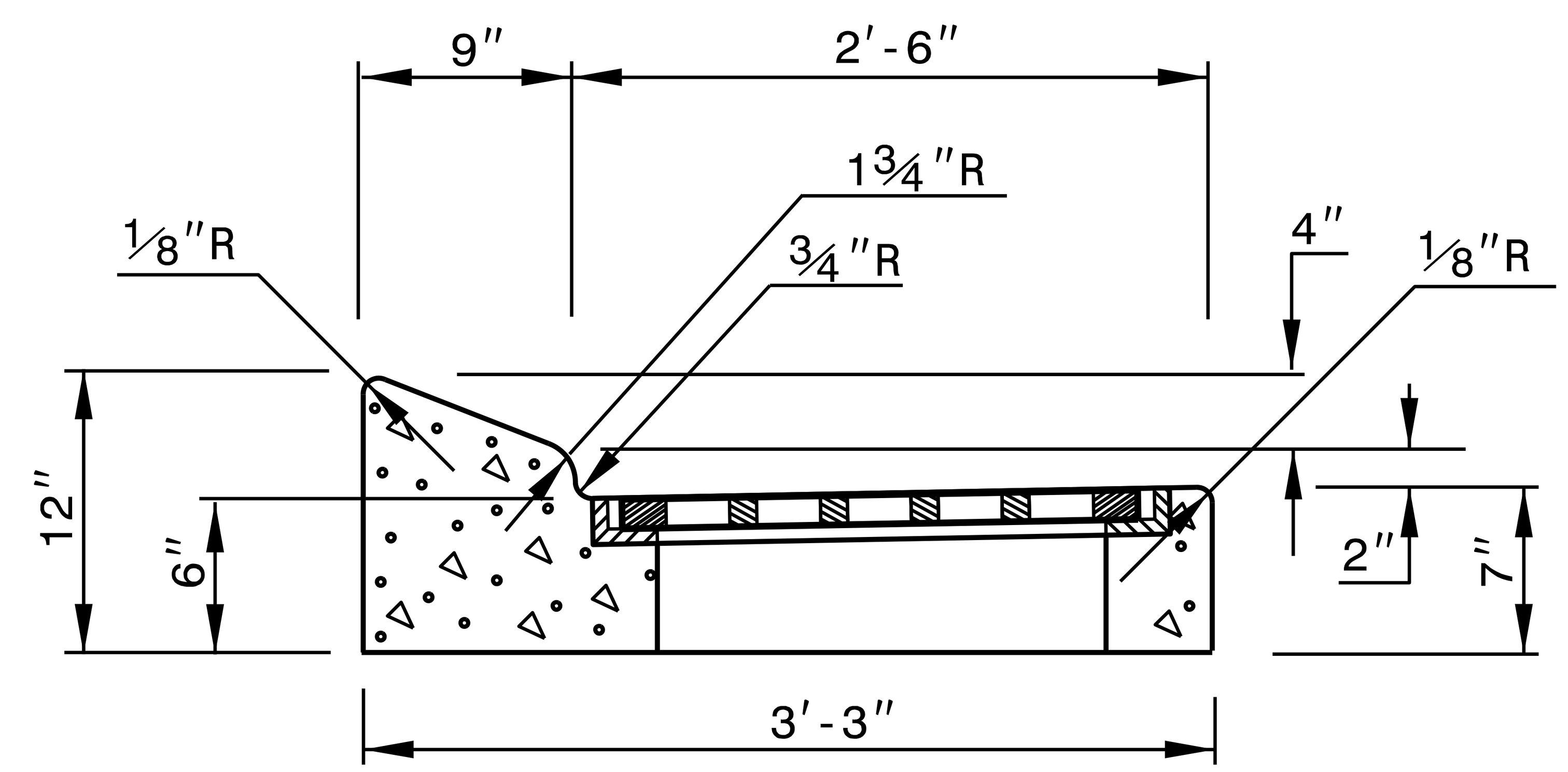
10-AUG-2017 11:46
S:\Contracts\Contracts\Special Details\ericward\usr\details\stand\c&g2'-9.dgn
jhowerton AT CSD-292595

5/14/99

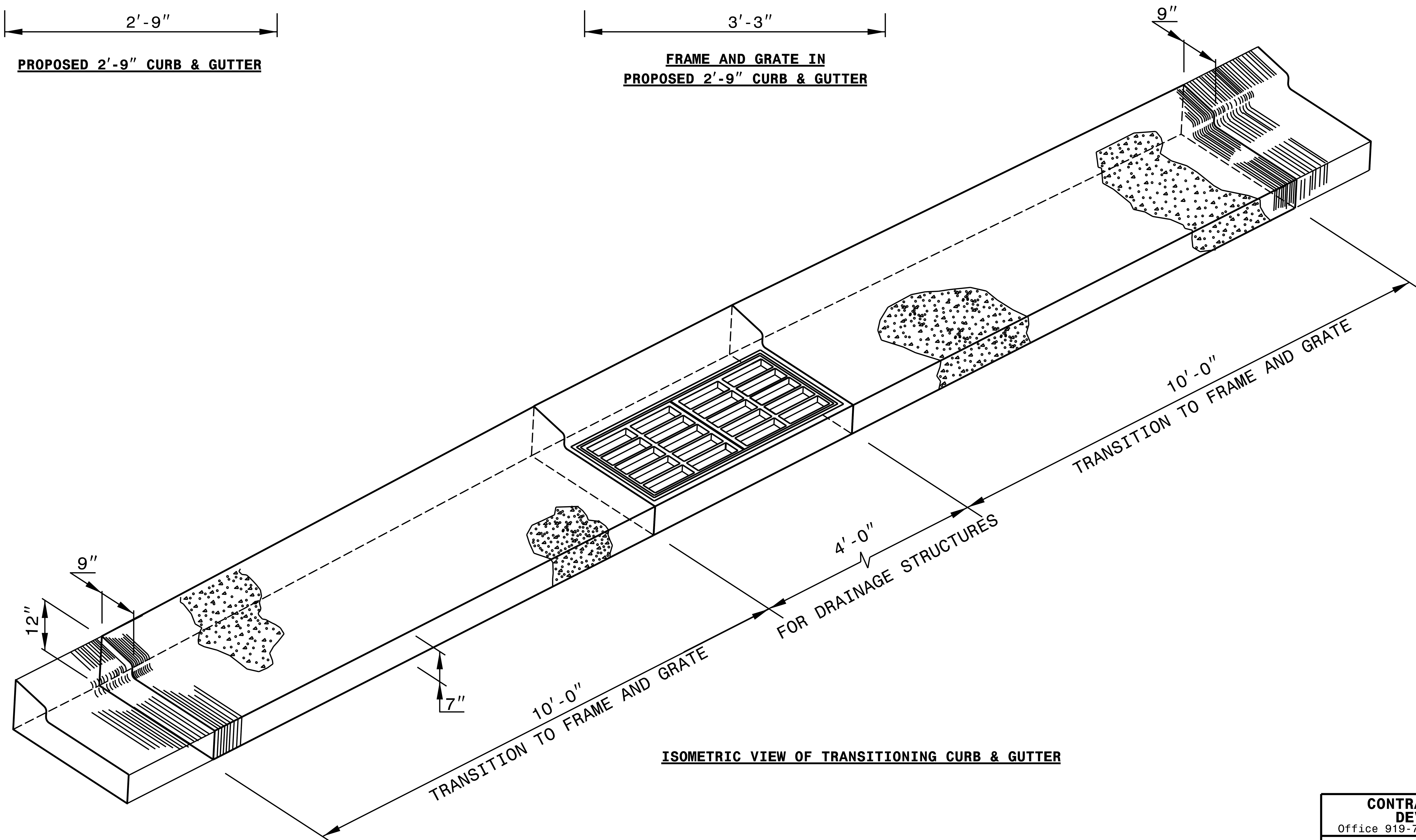
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-3



PROPOSED 2′-9″ CURB & GUTTER



FRAME AND GRATE IN PROPOSED 2′-9″ CURB & GUTTER



ISOMETRIC VIEW OF TRANSITIONING CURB & GUTTER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144

13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

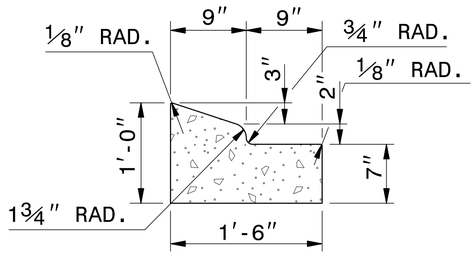
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

DETAIL OF 2′-9″ TO FRAME AND GRATE

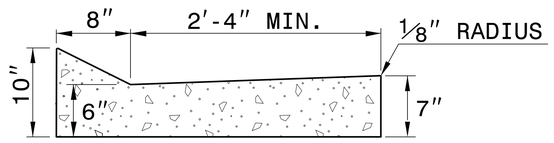
ORIGINAL BY: ______ DATE: ______
MODIFIED BY: ______ DATE: ______
CHECKED BY: ______ DATE: ______
FILE SPEC.: kkempf/english/curb_gutter_transition.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-4



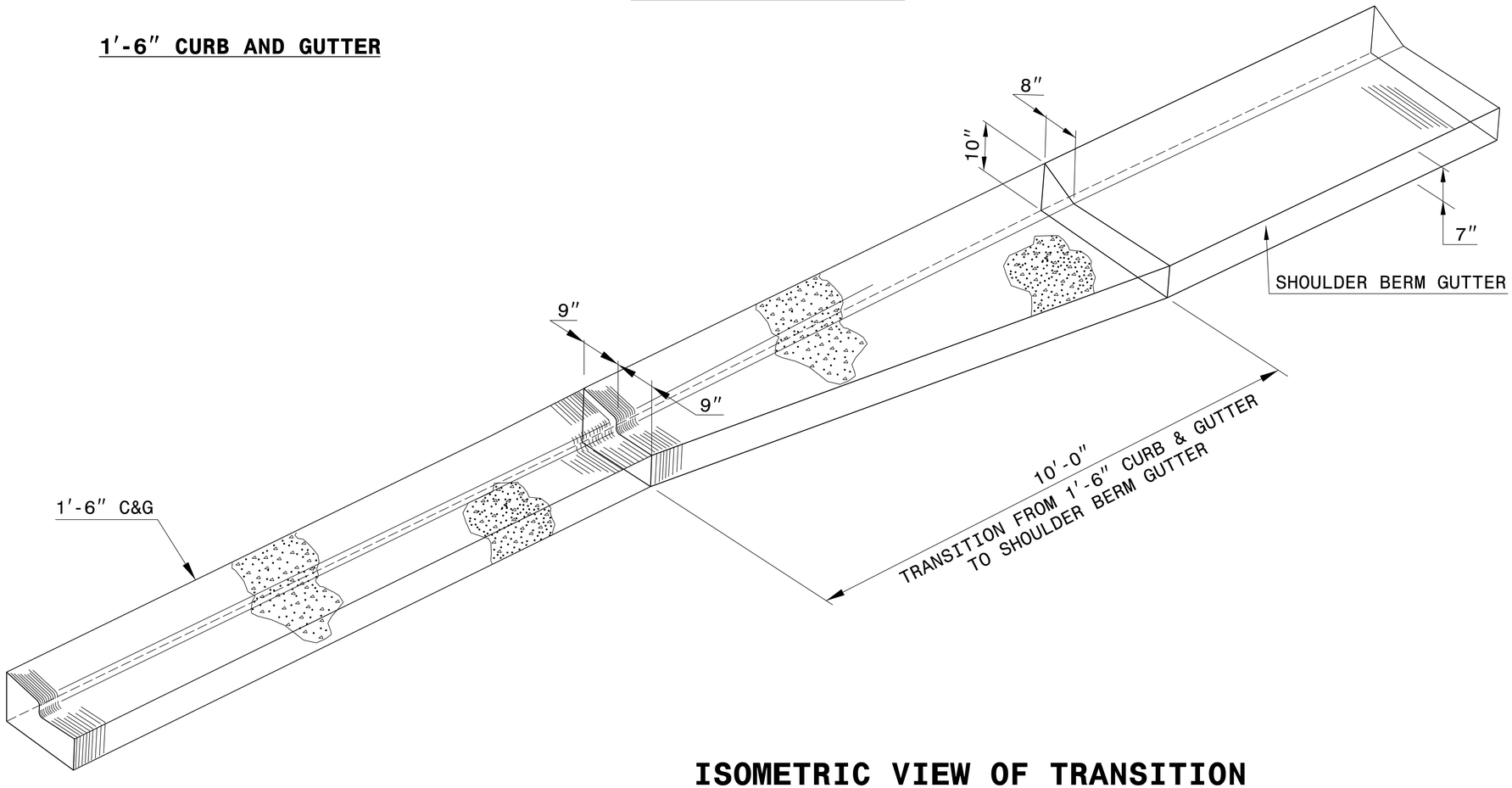
1'-6" CURB AND GUTTER



SHOULDER BERM GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF TRANSITION

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID WALLER

Signed by: David R. Waller
13-Aug-2024

DETAIL OF 1'-6" C&G TO SHOULDER BERM GUTTER TRANSITION SECTION

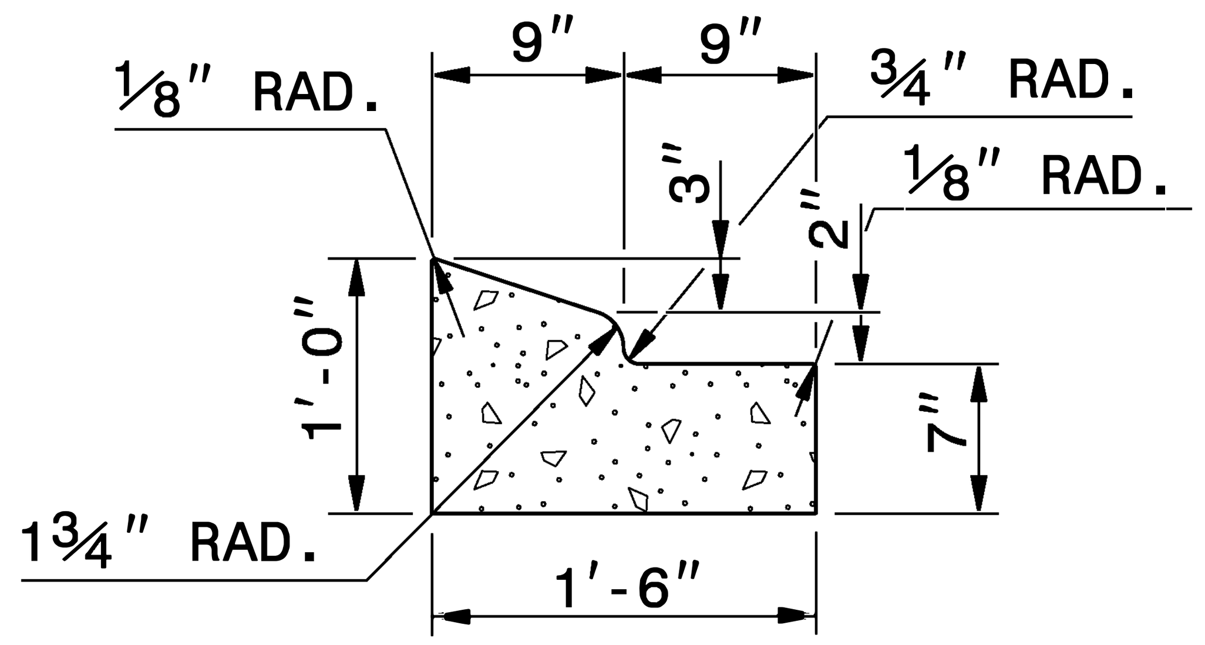
ORIGINAL BY:	E.E. WARD	DATE:	11-21-03
MODIFIED BY:	HUDSON COKER	DATE:	7-1-2024
CHECKED BY:	DAVID WALLER	DATE:	7-1-2024
FILE SPEC.:	/usr/details/stand/cgtransit.dgn		

5/14/99

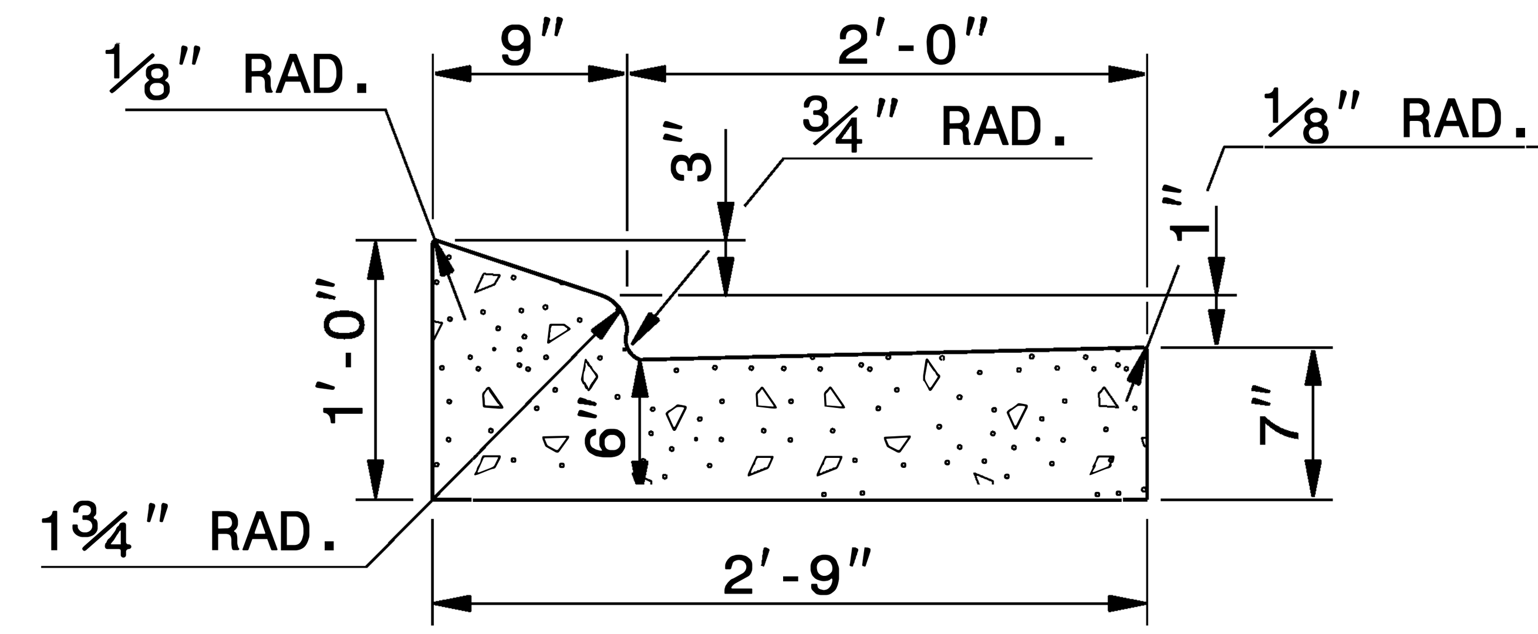
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-5

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

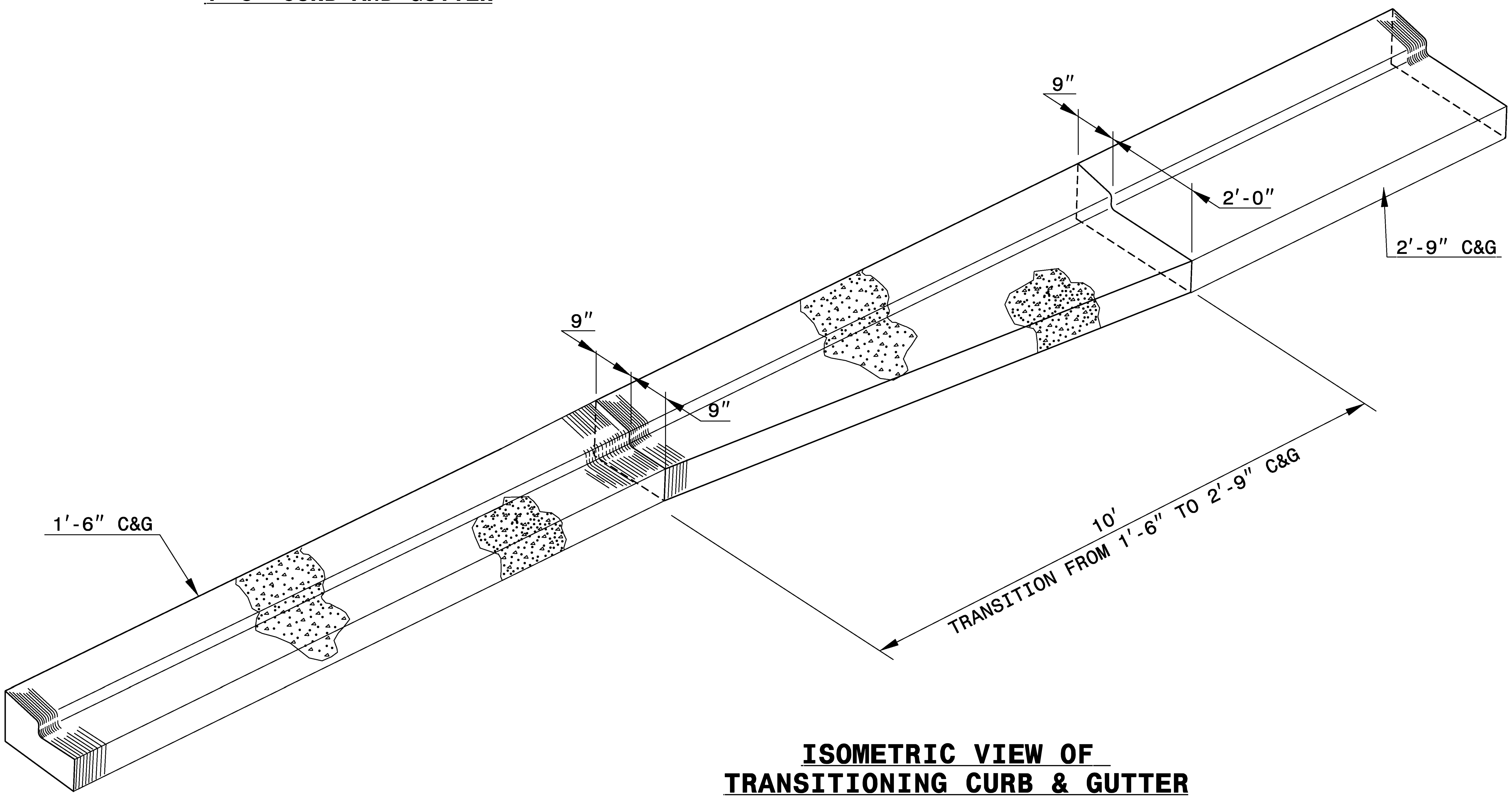
SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



1′-6″ CURB AND GUTTER



2′-9″ CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITIONING CURB & GUTTER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144

13-Aug-2024

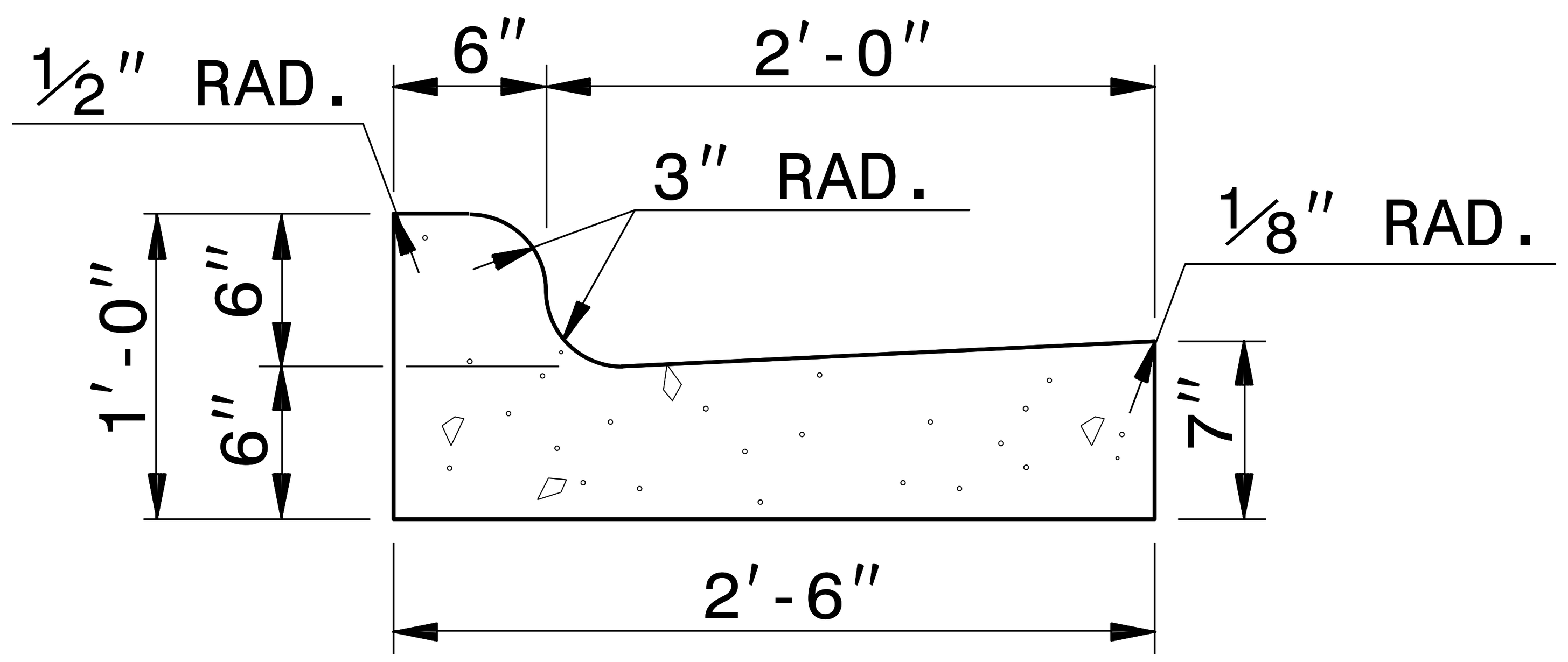
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

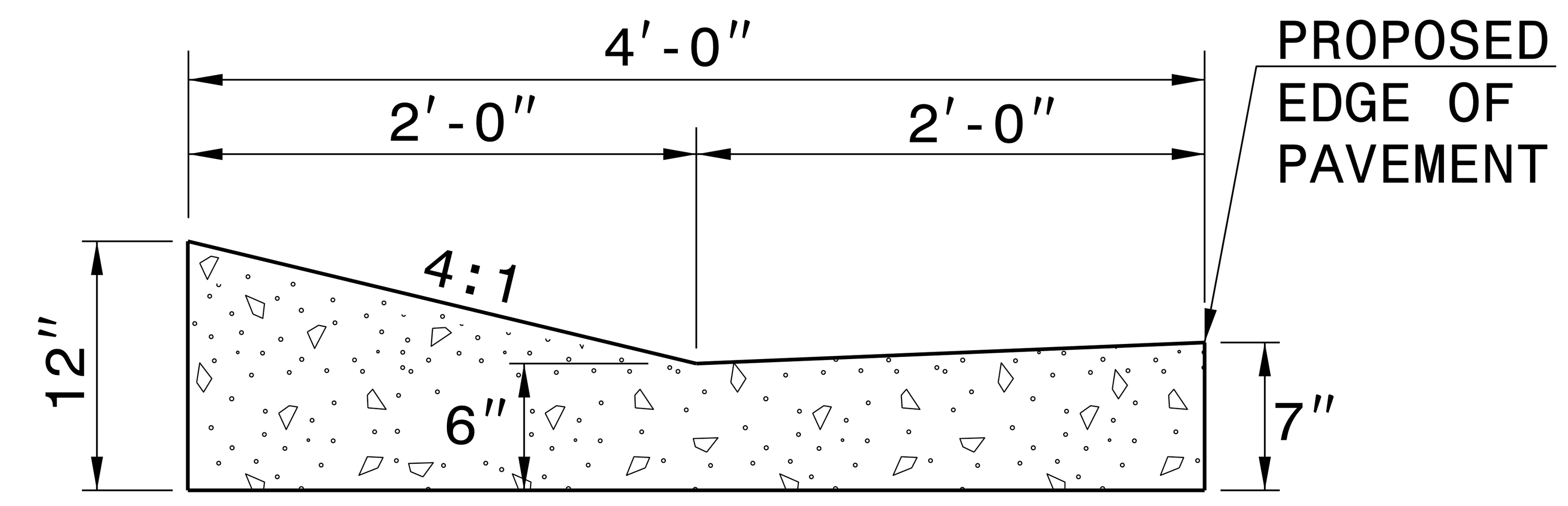
DETAIL OF 1′-6″ TO 2′-9″ CURB & GUTTER TRANSITION SECTION

ORIGINAL BY: T.S.SPELL DATE: NOV. 26, 2001
MODIFIED BY: T.S.SPELL DATE: JAN. 23, 2007
CHECKED BY: DATE:
FILE SPEC.: DS174:/usr/details/stand/cgtransit.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-6



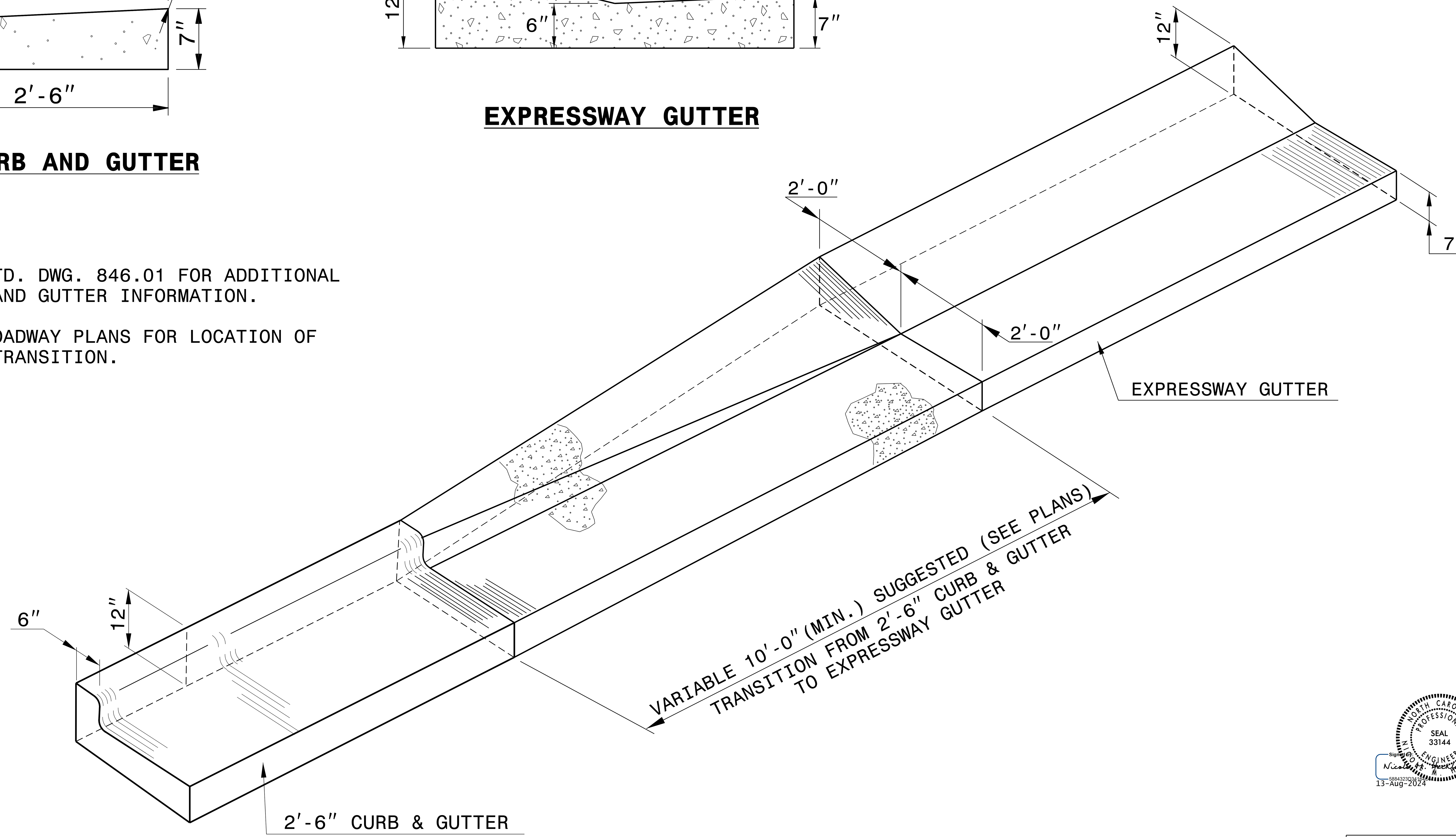
2'-6" CURB AND GUTTER



EXPRESSWAY GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF TRANSITION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144
13-Aug-2024

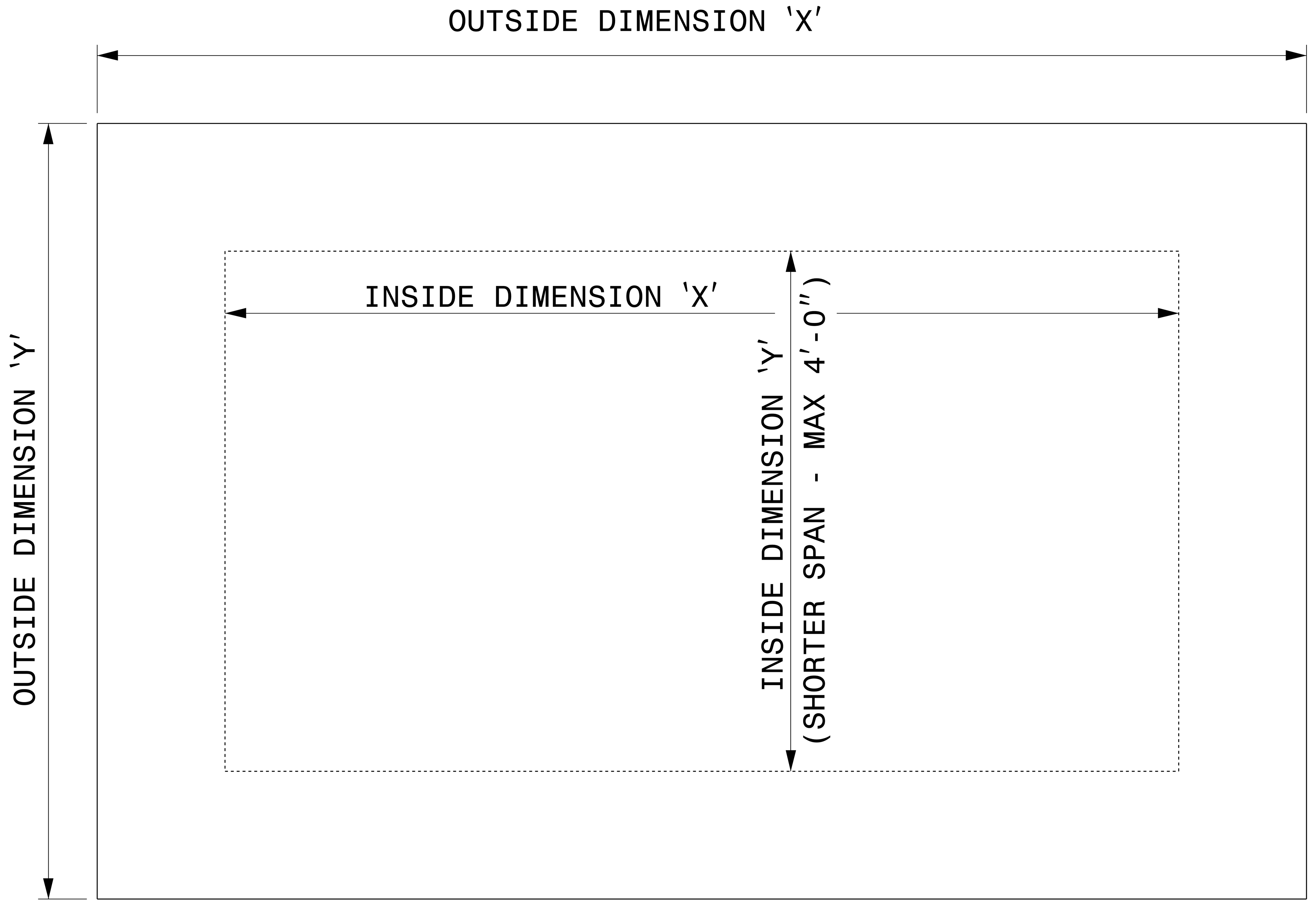
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

DETAIL OF 2'-6" CURB & GUTTER TO EXPRESSWAY GUTTER TRANSITION SECTION

ORIGINAL BY: T.S.Spell DATE: 8-13-02
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: w:usr/details/stand/cgtransit.dgn

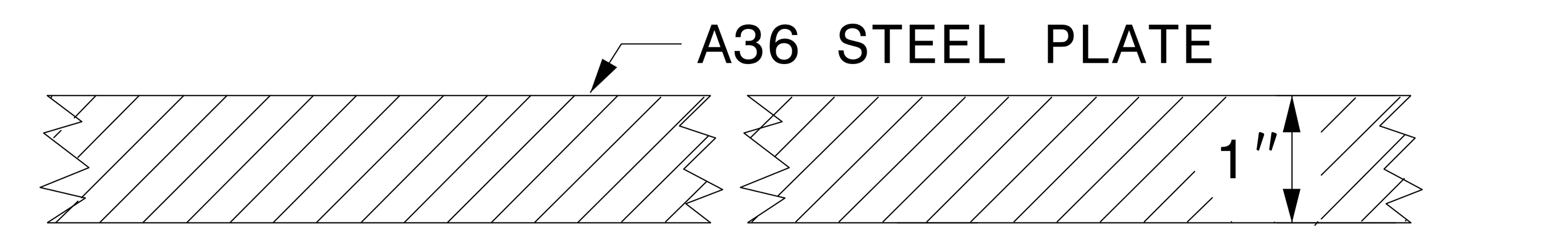
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-7



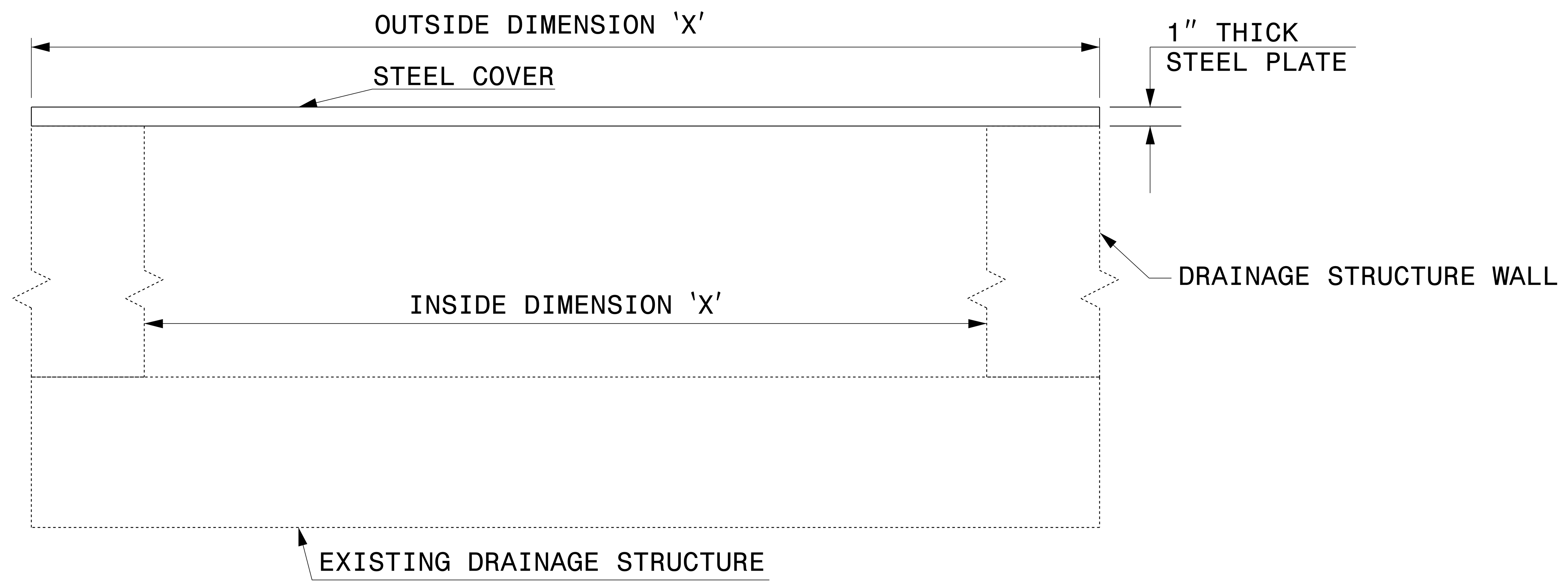
PLAN VIEWS

GENERAL NOTES:

- USE GRADE A36 STEEL
- STEEL COVERS ARE FOR TEMPORARY USE DURING PHASE CONSTRUCTION.
- FILL SHALL BE PLACED DIRECTLY OVER THE STEEL PLATES.
- SEE ROADWAY PLANS AND PROVISIONS FOR LOCATIONS
- QUANTITES TO BE PAID FOR AT THE UNIT PRICE BID PER EACH.



SECTION VIEW OF STEEL TOP PLATE



ELEVATION VIEWS

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144 NICOLE M. HACKLER
Signed by: Nicole M. Hackler
13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

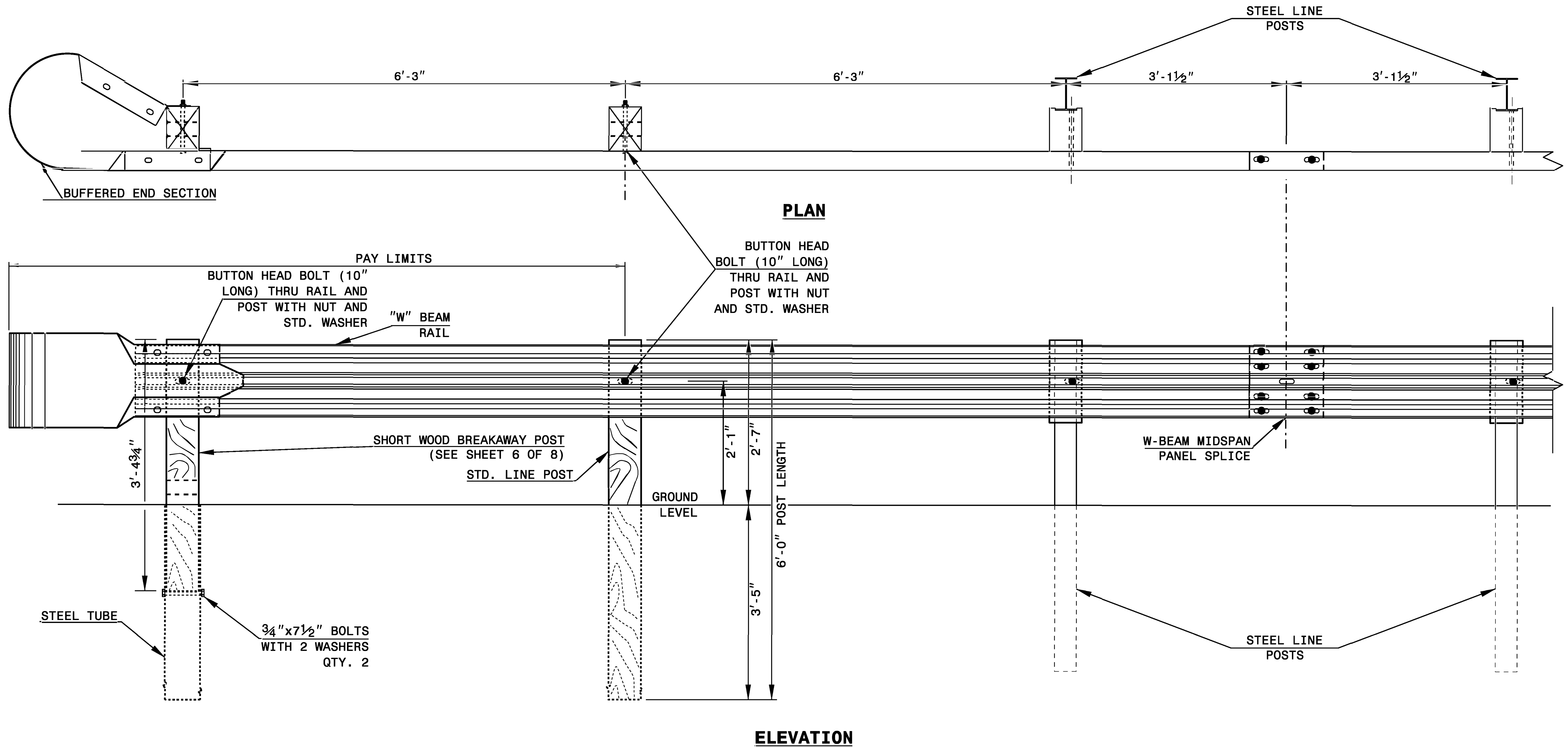
DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE

ORIGINAL BY: E.E. WARD DATE: 2-2-98
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: eric:/usr/details/metric/stand/stlcvr2.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-8

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

ROADWAY DETAIL DRAWING FOR **GUARDRAIL INSTALLATION**



TRAILING END UNIT ASSEMBLY

A.T.-1 SYSTEM

SHEET OF

SHEET OF

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144

13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

A.T.-1 SYSTEM

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

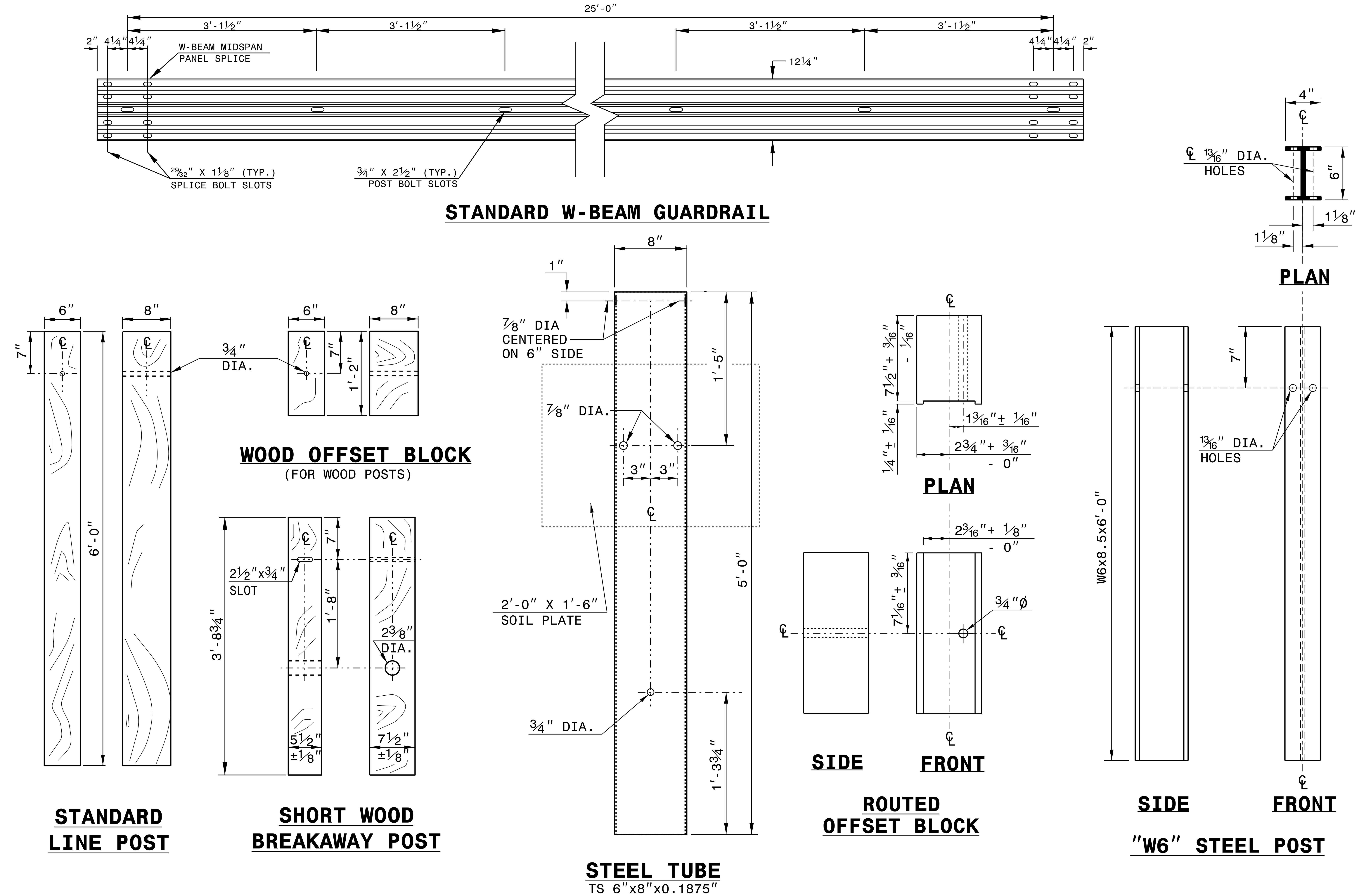
Docusign Envelope ID: 3E82D64E-A4ED-4904-822B-2445EBA5A794

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-9

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 INSTALLATION



SYSTEM PARTS

SHEET 6 OF 8
862D02

SHEET 6 OF 8
862D02

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

SEE TITLE BLOCK

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144
13-Aug-2024

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

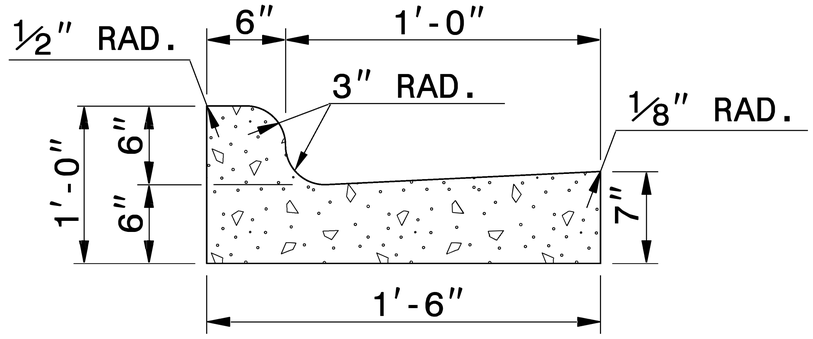
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2C-10

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

ROADWAY DETAIL DRAWING FOR

1'-6" CONCRETE CURB & GUTTER (SPECIAL)

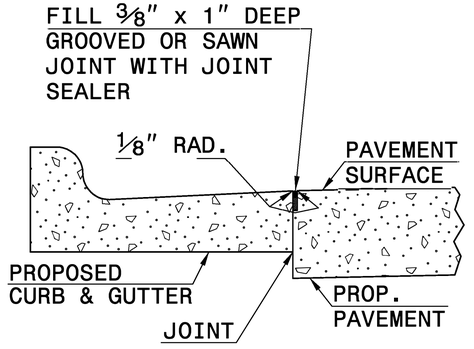
846d01



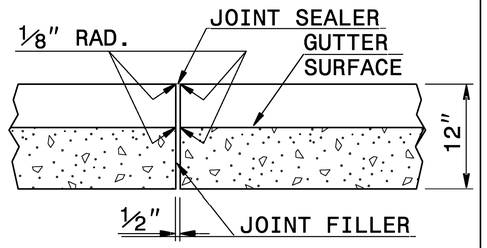
1'-6" CURB AND GUTTER (SPECIAL)

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 1½" 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

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

ROADWAY DETAIL DRAWING FOR

1'-6" CONCRETE CURB & GUTTER (SPECIAL)

846d01

16-NOV-2023 13:38
S:\Contracts\Contracts\Special Details\jhowerton\846d01 2ft C&G.dgn
kkempf AT CSD-320967

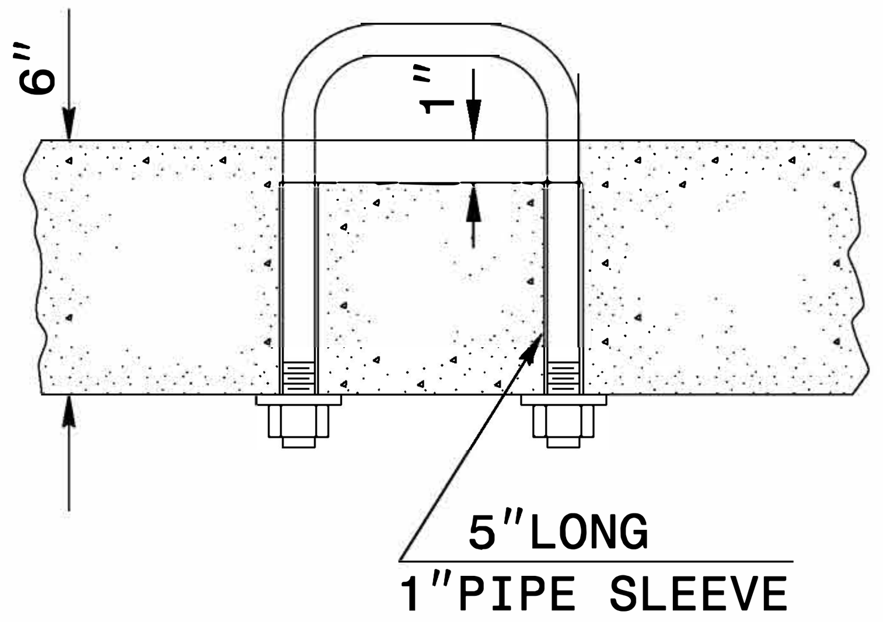
NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE W. HACKER
Signed by: Nicole W. Hacker
13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

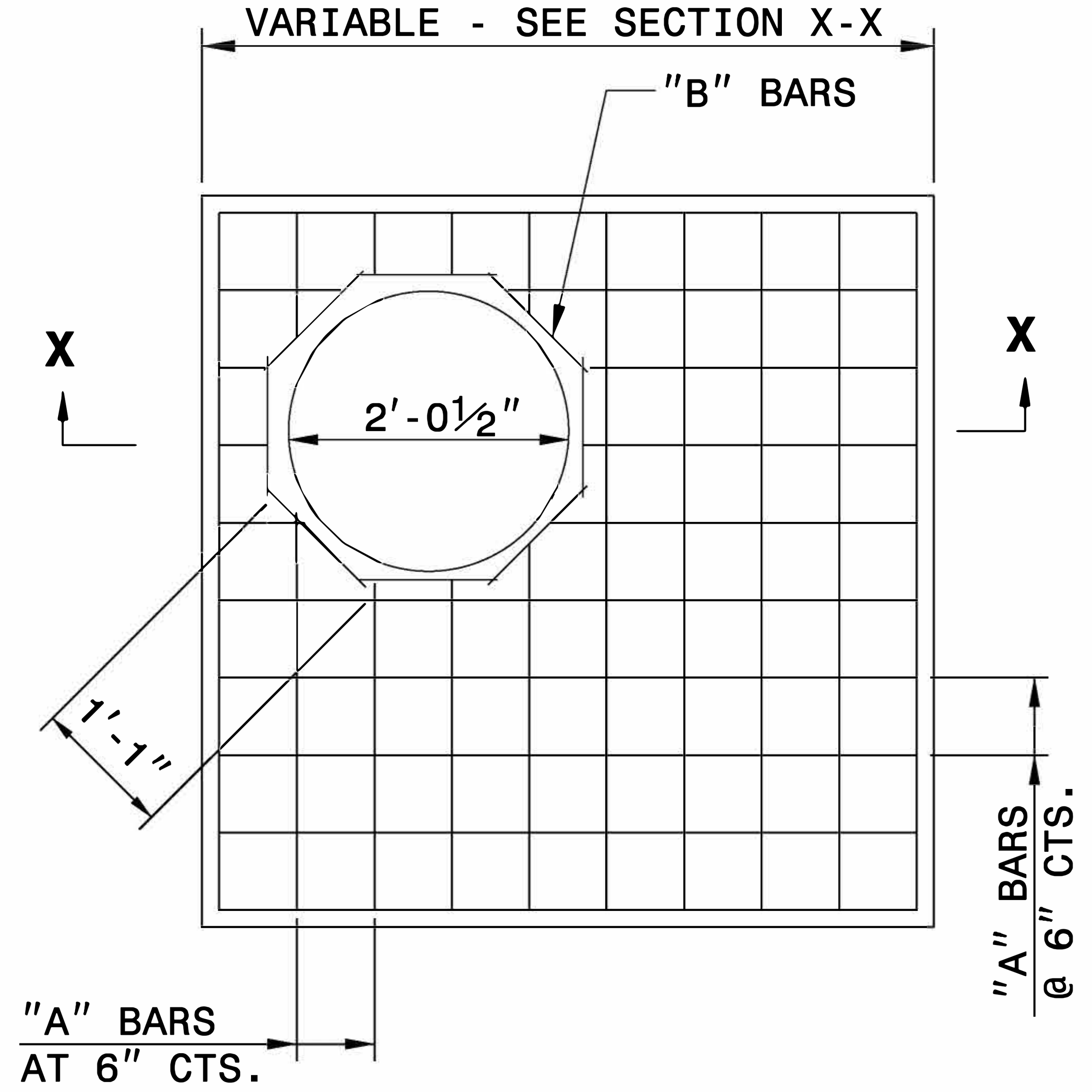
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

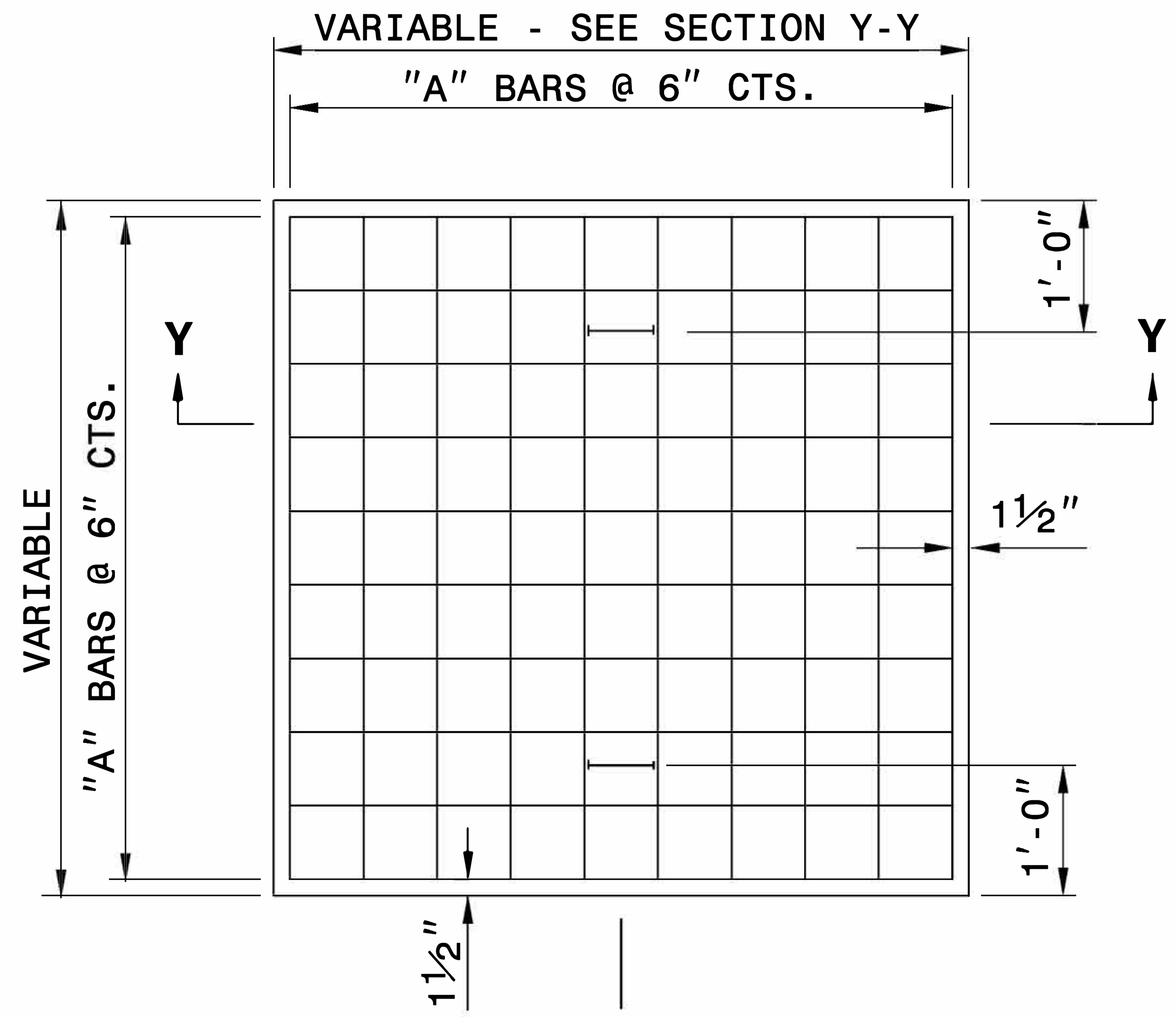
ORIGINAL BY: kkempf DATE: 11/16/23
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: details\jhowerton\846d01 2ft C&G.dgn



PARTIAL SECTION



PLAN



PLAN

GENERAL NOTES:

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.

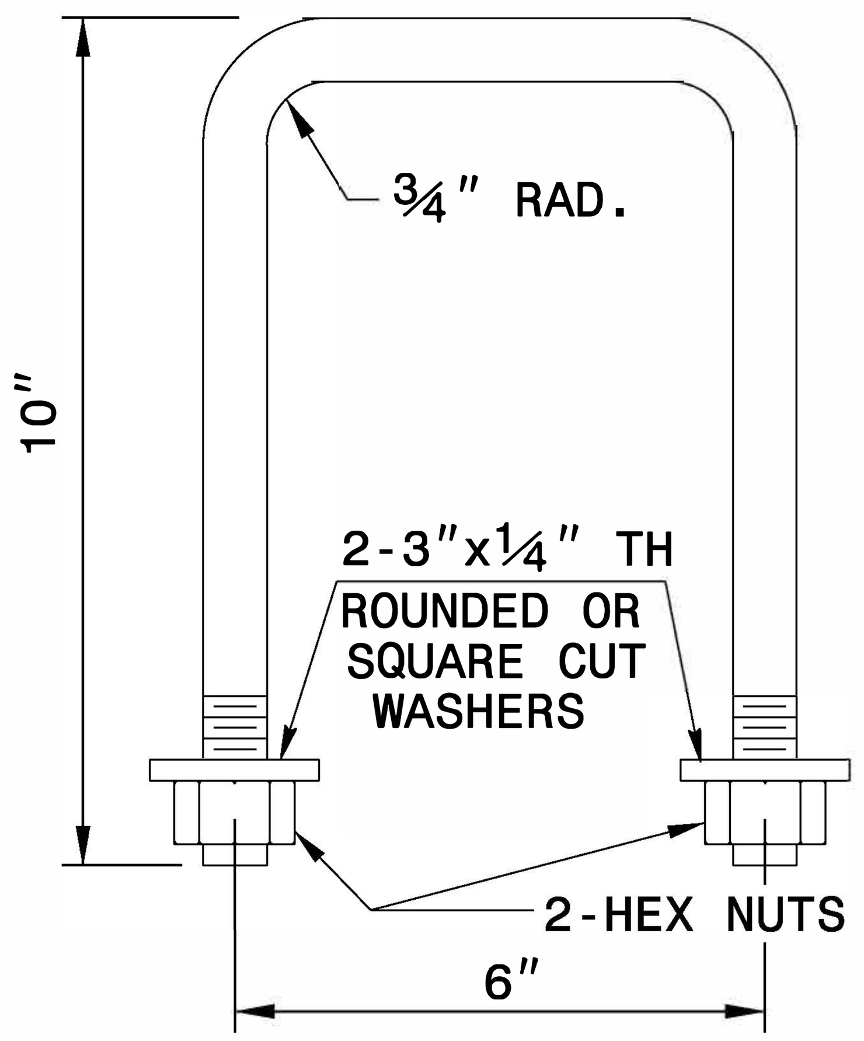
DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

BILL OF MATERIALS

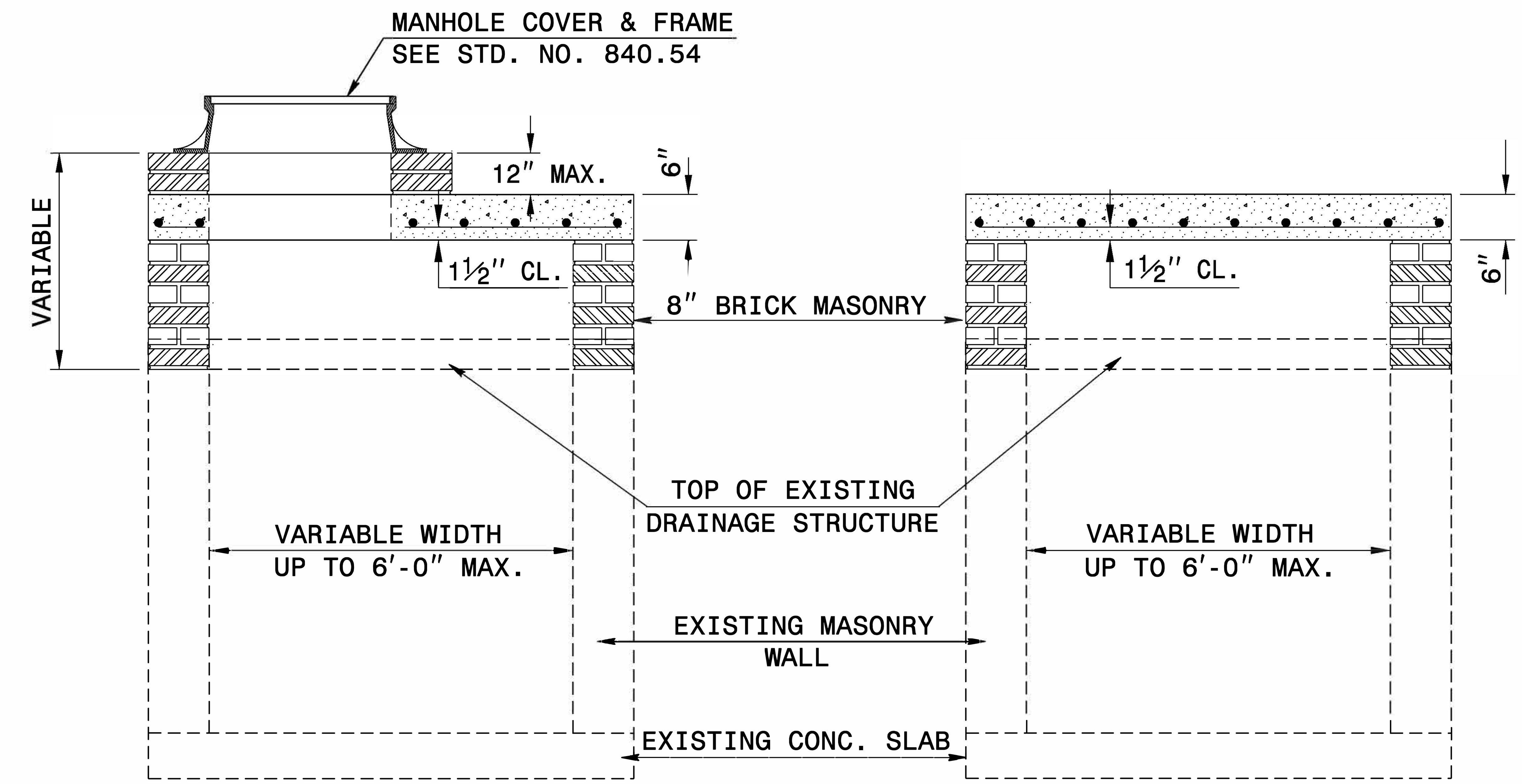
REINFORCING STEEL				
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *

MASONRY	CU YDS
TOP SLAB CONCRETE CLASS "B"	.4326 *
BRICK MASONRY PER FT HT (MIN)	.4111

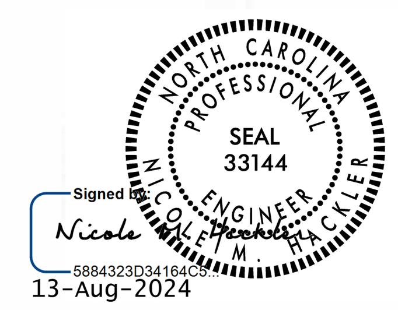
*** NOTE:**
QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.



DETAIL OF HANDLE



SECTION X-X **SECTION Y-Y**



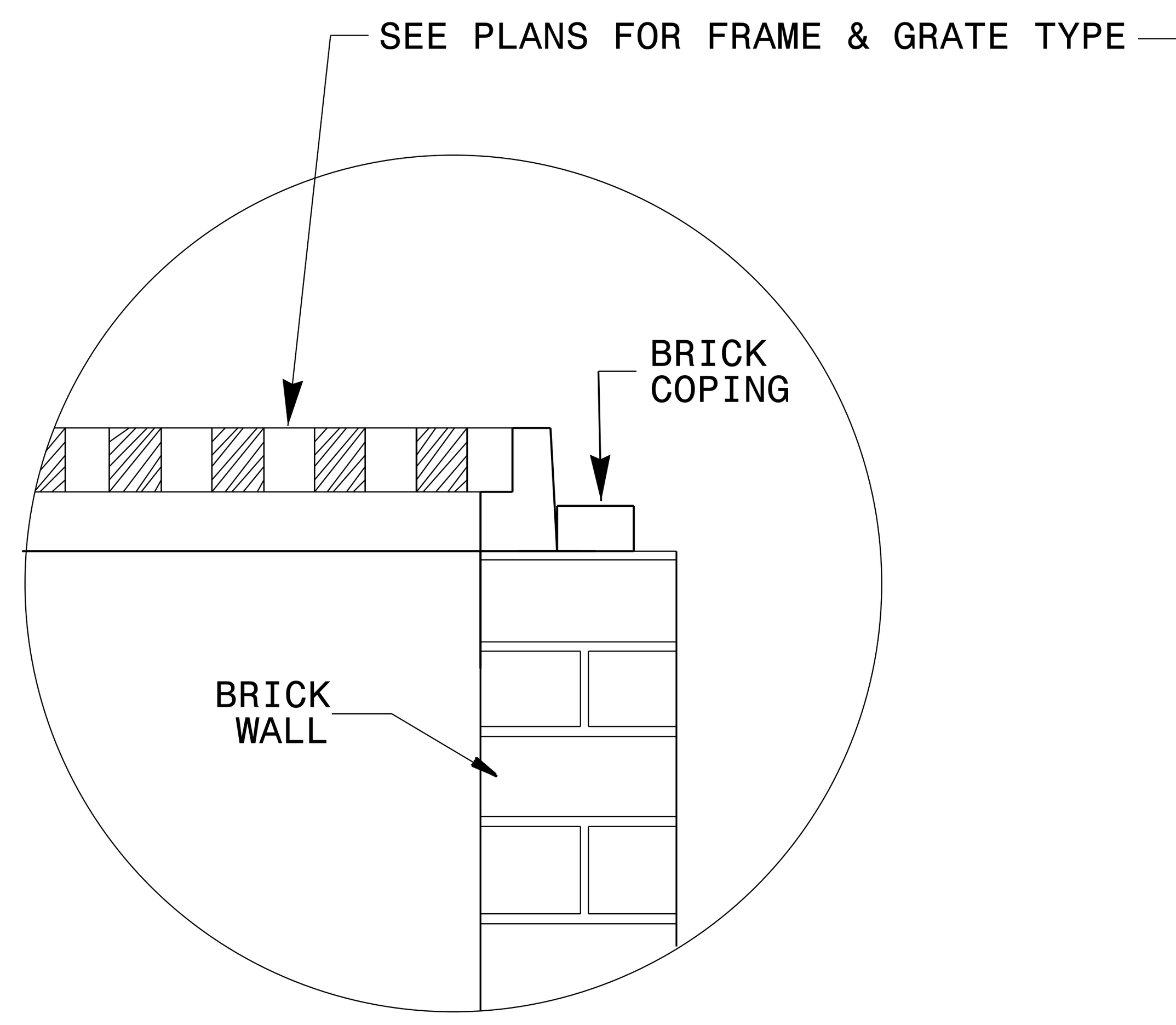
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

DETAIL TO CONVERT EXISTING DI, CB, OTCB or GI TO JUNCTION BOX (MANHOLE OPTIONAL)

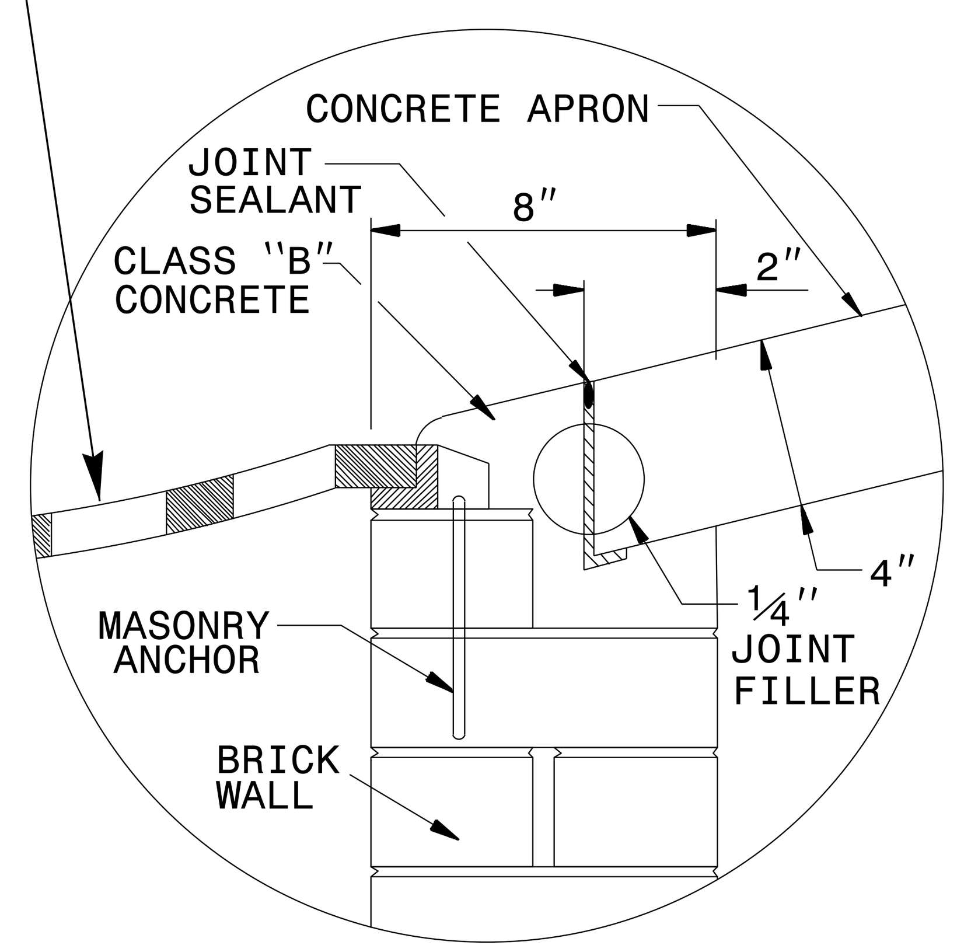
ORIGINAL BY: T.S.S. DATE: NOV.1997
MODIFIED BY: T.S.S. DATE: FEB.2000
CHECKED BY: DATE:
FILE SPEC.: ds174:/usr/details/stand/boxtojbe.dgn

$$$$SYSTIME$$$$ $$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$ $$$$USERNAME$$$$



GRATE PLACEMENT DETAIL

FOR DROP INLETS

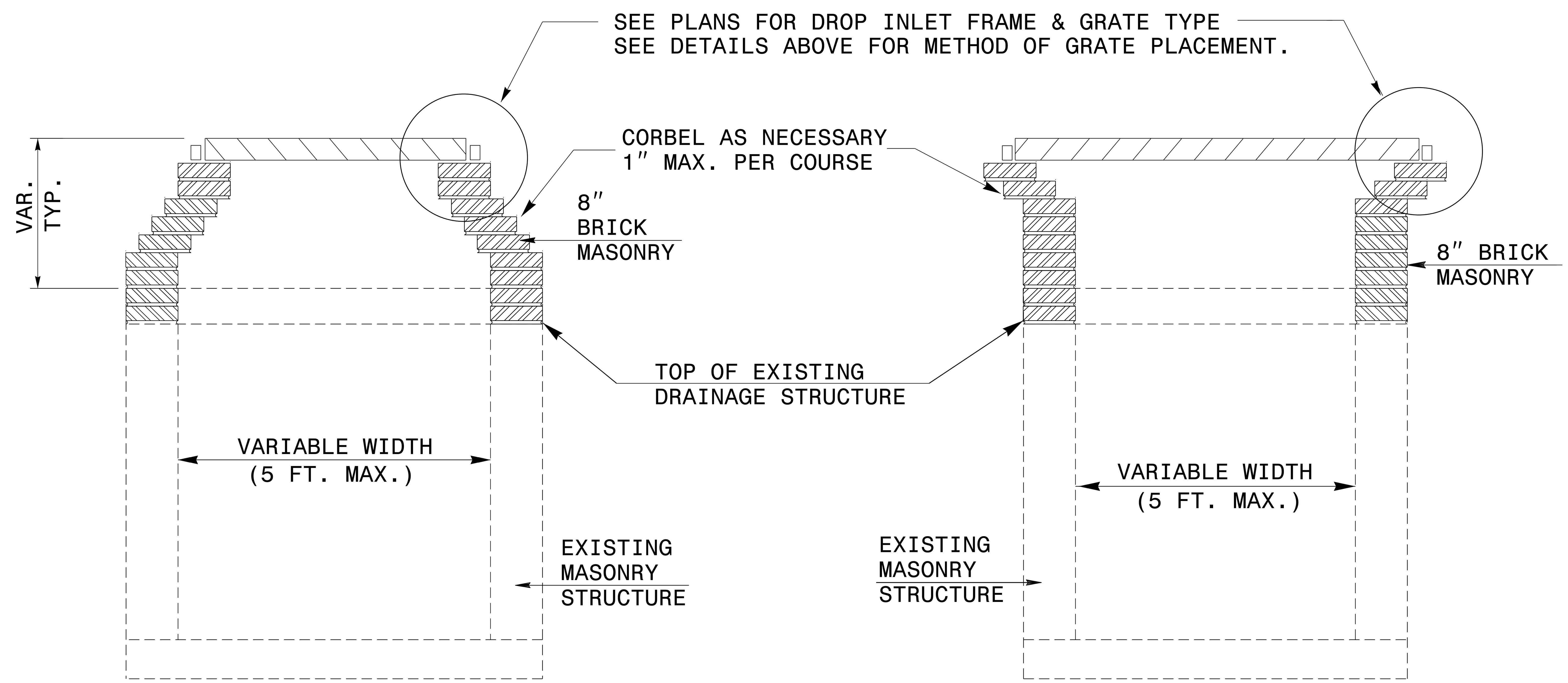


GRATE PLACEMENT DETAIL

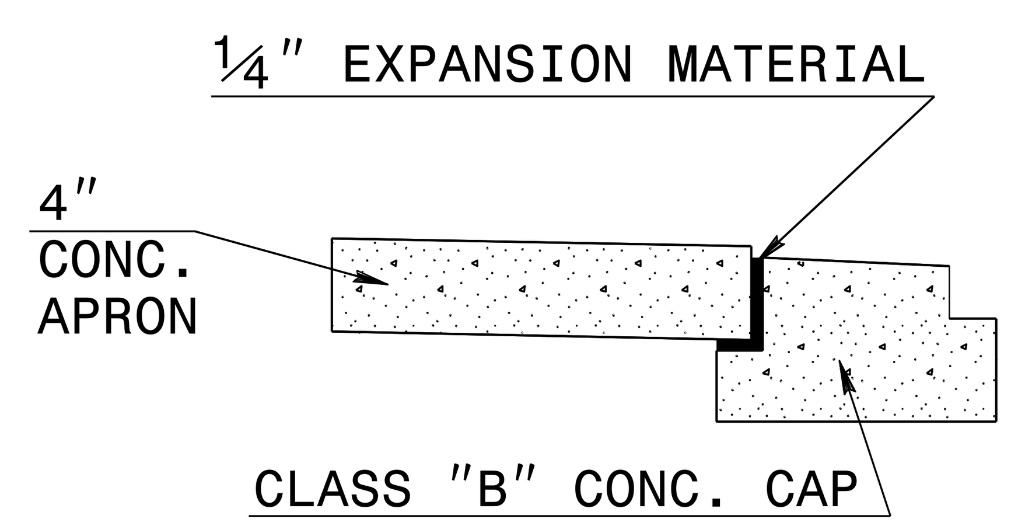
FOR GRATED DROP INLETS

GENERAL NOTES:

- CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.
- USE CLASS B CONCRETE.
- THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.
- JUMBO CONCRETE BRICK WILL BE PERMITTED. 4″ CONCRETE BRICK OR 8″ SOLID CONCRETE BLOCK ARE REQUIRED FOR DRAINAGE STRUCTURE.
- INCLUDE 18″ CONCRETE APRON IN UNIT PRICE BID PER EACH, CONVERT EXISTING CATCH BASIN TO DROP INLET.
- SPECIAL DESIGN IS REQUIRED FOR USE UNDER PAVEMENT.
- CONFIRM DIMENSIONS ON EACH INDIVIDUAL FRAME & GRATE PROPOSAL.
- SEE STD. DRAWING 840.25 FOR MASONRY ANCHORAGE.



TYPICAL SECTION **TYPICAL SECTION**



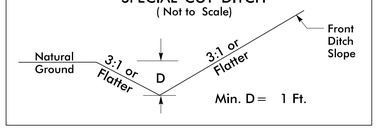
EXPANSION JOINT DETAIL

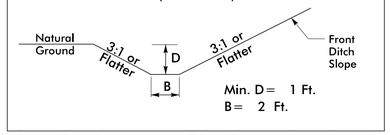
SEAL 33144 — 13-Aug-2024

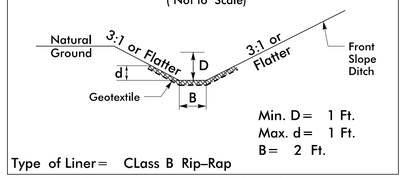
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

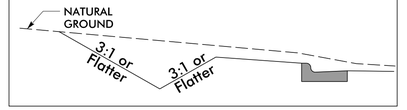
DETAIL TO CONVERT EXISTING CATCH BASIN OR JUNCTION BOX TO DI OR 2-GI

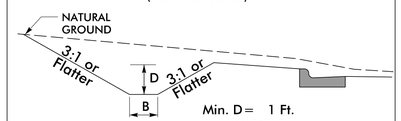
ORIGINAL BY: T.S.S. DATE: NOV.1997
MODIFIED BY: T.S.S. DATE: FEB.2000
CHECKED BY: DATE:
FILE SPEC.: s:usr/details/stand/cbtodi02.dgn

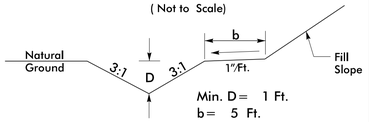


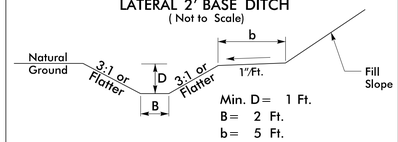


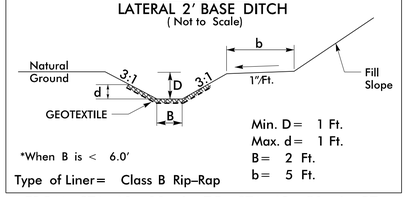


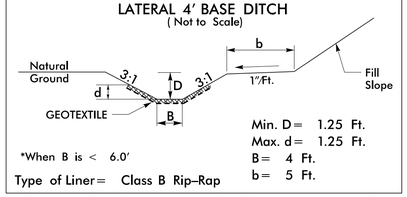


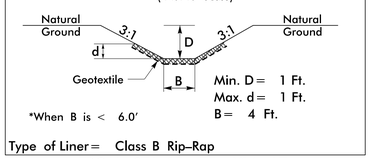


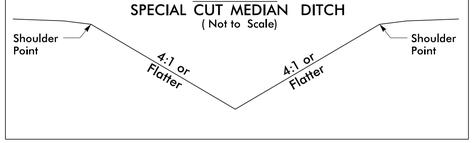


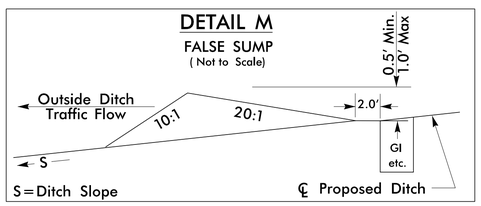


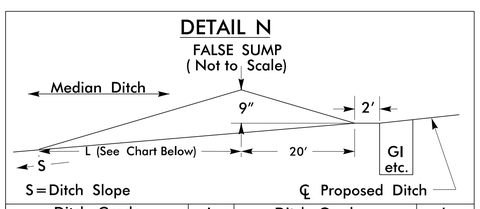


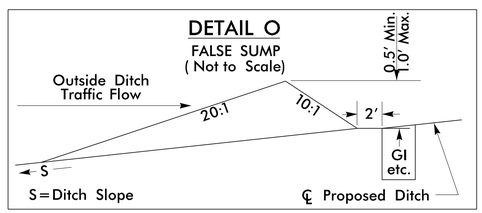


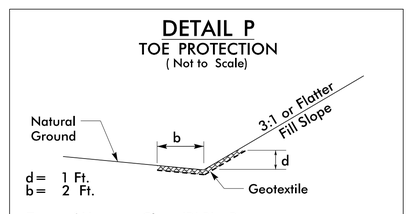


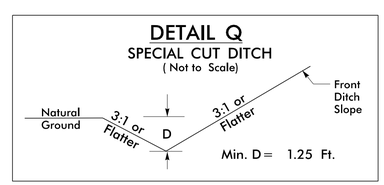












8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2D-1

ROADWAY DESIGN ENGINEER
SEAL 22606
DAVID C. WALLER
Signed by:
David C. Waller
653418F2ECED4C0...
13-Aug-2024
MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

HYDRAULICS ENGINEER
SEAL 042084
JOSHUA MASSROCK
Signed by:
Joshua Massrock
D6D5DB73060C4E7...
13-Aug-2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

DETAIL A

FROM STA. 14+17 –L– TO STA. 18+00 –L– LT
FROM STA. 16+70 –Y1– TO STA. 17+15 –Y1– RT
FROM STA. 13+50 –Y3– TO STA. 14+00 –Y3– LT
FROM STA. 13+50 –Y3– TO STA. 14+00 –Y3– RT
FROM STA. 54+00 –L– TO STA. 55+50 –L– LT
FROM STA. 11+75 –Y12– TO STA. 12+50 –Y12– RT
FROM STA. 11+75 –Y12– TO STA. 12+50 –Y12– LT
FROM STA. 63+50 –L– TO STA. 64+50 –L– RT
FROM STA. 64+00 –L– TO STA. 65+50 –L– LT
FROM STA. 74+50 –L– TO STA. 81+50 –L– LT
FROM STA. 86+75 –L– TO STA. 91+00 –L– LT
FROM STA. 167+50 –L– TO STA. 168+50 –L– LT
FROM STA. 170+20 –L– TO STA. 170+50 –L– RT
FROM STA. 195+87 –L– TO STA. 197+00 –L– RT
FROM STA. 209+00 –L– TO STA. 209+75 –L– LT
FROM STA. 211+80 –L– TO STA. 212+50 –L– RT
FROM STA. 231+05 –L– TO STA. 234+00 –L– RT
FROM STA. 10+75 –Y21– TO STA. 12+50 –Y21– RT
FROM STA. 11+00 –Y21– TO STA. 12+50 –Y21– LT
FROM STA. 241+50 –L– TO STA. 242+00 –L– RT
FROM STA. 243+00 –L– TO STA. 244+00 –L– LT
FROM STA. 13+35 –NBL– TO STA. 13+85 –NBL– RT
FROM STA. 20+35 –NBL– TO STA. 21+35 –NBL– RT
FROM STA. 13+00 –Y4– TO STA. 18+45 –Y4– LT

DETAIL B

FROM STA. 12+10 –Y14– TO STA. 14+50 –Y14– LT
FROM STA. 162+50 –L– TO STA. 164+75 –L– LT
FROM STA. 11+62 –Y18– TO STA. 12+25 –Y18– RT

DETAIL C

FROM STA. 59+73 –L– TO STA. 60+00 –L– RT
FROM STA. 14+50 –Y14– TO STA. 15+75 –Y14– LT

DETAIL D

FROM STA. 22+00 –L– TO STA. 23+50 –L– LT
FROM STA. 25+85 –L– TO STA. 27+00 –L– LT
FROM STA. 33+00 –L– TO STA. 35+00 –L– LT

DETAIL E

FROM STA. 11+00 –Y14– TO STA. 12+10 –Y14– LT

DETAIL F

FROM STA. 63+05 –L– TO STA. 64+00 –L– LT
FROM STA. 10+50 –Y18– TO STA. 12+38 –Y18– LT
FROM STA. 165+45 –L– TO STA. 166+00 –L– LT

DETAIL G

FROM STA. 62+00 –L– TO STA. 63+05 –L– LT

DETAIL H

FROM STA. 60+00 –L– TO STA. 62+50 –L– RT
FROM STA. 191+25 –L– TO STA. 194+50 –L– LT

DETAIL I

FROM STA. 77+80 –L– TO STA. 80+50 –L– RT

DETAIL K

FROM STA. 15+75 –Y14– LT

DETAIL L

FROM STA. 205+50 –L– TO STA. 206+75 –L– M
FROM STA. 238+50 –L– TO STA. 241+50 –L– M

DETAIL M

STA. 53+82 –L– LT
STA. 70+86 –L– LT
STA. 80+36 –L– LT
STA. 177+65 –L– RT
STA. 182+13 –L– RT
STA. 220+35 –L– LT
STA. 225+85 –L– LT

DETAIL N

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 177+65 –L– M
STA. 182+13 –L– M
STA. 184+62 –L– M
STA. 186+15 –L– M
STA. 188+18 –L– M
STA. 192+10 –L– M
STA. 198+87 –L– M
STA. 215+26 –L– M
STA. 220+35 –L– M
STA. 225+85 –L– M
STA. 251+15 –L– M
STA. 253+14 –L– M

DETAIL O

STA. 93+64 –L– LT
STA. 177+65 –L– LT
STA. 182+13 –L– LT
STA. 184+62 –L– LT
STA. 198+87 –L– RT
STA. 220+35 –L– RT
STA. 225+85 –L– RT

DETAIL P

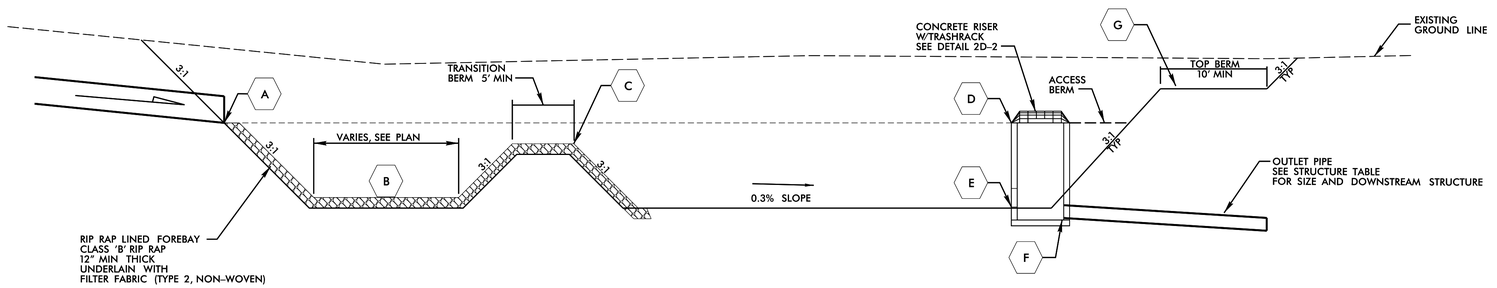
FROM STA. 66+00 -L- TO STA. 67+50 -L- LT
FROM STA. 188+50 -L- TO STA. 188+75 -L- LT

DETAIL Q

FROM STA. 11+25 –Y14– TO STA. 16+00 –Y14– RT

DRY DETENTION BASIN

NOT TO SCALE



TYPICAL SECTION

PROJECT REFERENCE NO.	SHEET NO.
R-5726	2D-2
R/W SHEET NO.	

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 042084 ENGINEER JOSHUA J. MASSROCK

11/12/2024

NOTES:

1. SEE PLANS FOR LOCATION AND BASIN DIMENSIONS.
2. IF SEASONAL HIGH WATER TABLE (SHWT) IS WITHIN 2' OF THE BASIN BOTTOM, CONTACT THE NCDOT HYDRAULIC UNIT PRIOR TO CONSTRUCTION.
3. ALL DISTURBED BASIN SLOPES DRAINING INTO THE BASIN SHALL BE SODDED WITH BERMUDA SOD.
4. ACCESS BERM SHOULD BE PROVIDED TO CONTROL STRUCTURE ON ALL BASINS AS SHOWN IN DETAIL.

TABLE 1

ELEVATIONS FOR DRY DETENTION BASIN

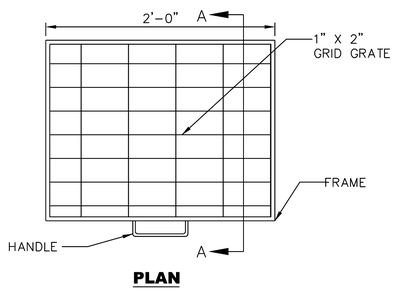
STATION	A (INLET PIPE INVERT)	B (FOREBAY BOTTOM)	C (FOREBAY BERM)	D (WEIR ELEV)	E (ORIFICE INVERT)	F (OUTLET INVERT)	G (TOP OF BERM)
120+00 RT	578.00	575.00	578.00	578.50	575.00	572.00	582.00
215+00 RT	611.30	608.30	611.30	610.80	608.30	606.80	615.30

REMOVABLE ORIFICE TRASH RACK

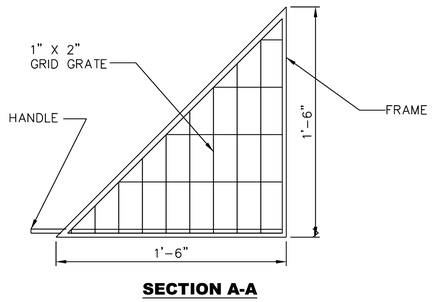
NOT TO SCALE

TRASH RACK IS INCIDENTAL TO THE DRAINAGE STRUCTURE

ORIFICE TRASH RACK NOTES:
1. ALL JOINTS SHALL BE FULLY WELDED AROUND JOINT WITH A MINIMUM OF A 1/4" BEAD.
2. IF BOLTS ARE ANCHORED IN CONCRETE, FOLLOW STD. DWG. 862.03 AND 862.04 FOR ANCHORING PROCEDURE.
3. REMOVEABLE ORIFICE TRASH RACK SHALL BE ATTACHED TO CONCRETE BOX BY HINGE OR SLIDE RAIL SYSTEM.
4. RACK AND HARDWARE SHALL BE ALUMINUM OR GALVANIZED IN ACCORDANCE WITH ASTM A-153.



PLAN



SECTION A-A

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_REDLINES.tbl
USER: JMASSROC DATE: 11/12/2024 TIME: 10:48:22 AM
FILE: Hatch_Mott_MacDonald_I_E_LLC\HMMI_E_MST_14_Pln_Dsn_5357\W07_R5726_NC211_NC73\6.0_CAD_BIM\6.2_Work_In_Progress\Hydraulics\R5726_HYD_psh_2D-2_Basin_Details.dgn

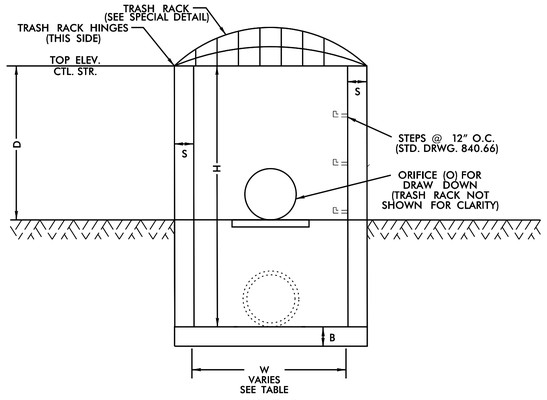
PROJECT REFERENCE NO.	SHEET NO.
R-5726	2D-3
R/W SHEET NO.	

HYDRAULICS ENGINEER

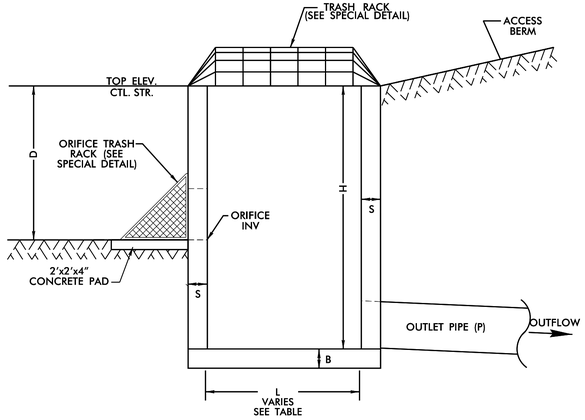
NORTH CAROLINA PROFESSIONAL SEAL 042084 ENGINEER JOSHUA J. MASSROCK
11/12/2024

OUTLET CONTROL STRUCTURE

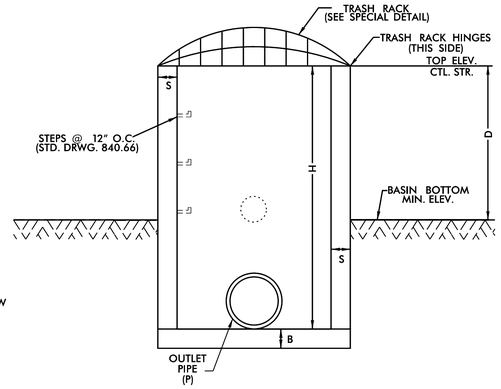
NOT TO SCALE



SIDE 1



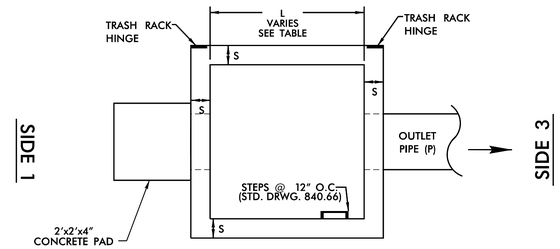
SIDE 2



SIDE 3

NOTES:
1. TOP ELEVATION OF CONTROL STRUCTURE (WEIR ELEVATION) SHOULD BE SET BELOW THE 50-YEAR EVENT WATER SURFACE ELEVATION.
2. NO BEDDING MATERIAL TO BE USED TO PREVENT SEEPAGE. THEREFORE, DO NOT FOLLOW STANDARD DRAWINGS FOR METHOD OF PIPE INSTALLATION FOR OUTLET PIPE THROUGH EMBANKMENT.
3. CONTROL STRUCTURE AND OUTLET PIPE ARE SIZED TO PASS THE 100-YEAR EVENT.
4. CONSTRUCT TRASH RACK TO SPAN OUTLET CONTROL STRUCTURE.

SELECT BOX STANDARD AS REQUIRED TO ACCOMMODATE ORIFICE TRASH RACK WIDTH AND OUTLET PIPE.
5. FOOTER DIMENSION (B) IS ADJUST FOR ANTI-FLOTATION.
6. WATER TIGHT SEALS ARE REQUIRED AT ALL PIPE CONNECTIONS TO STRUCTURE.



SIDE 1 — SIDE 3

SIDE 2

PLAN VIEW

TRASH RACK NOT SHOWN FOR CLARITY

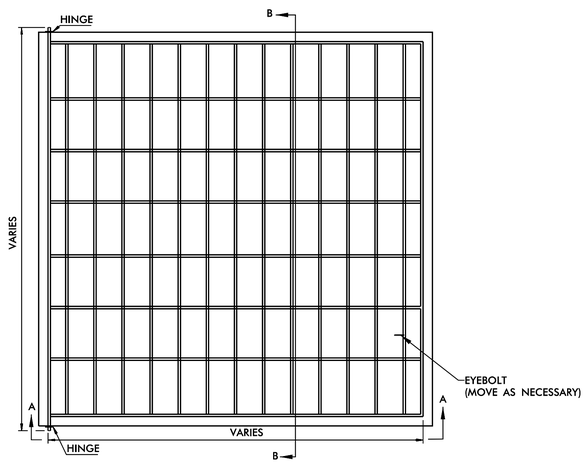
MINIMUM DIMENSIONS FOR OUTLET CONTROL STRUCTURE

STATION	STRUCTURE NUMBER	S (INCHES) 6" MIN.	B (INCHES) 6" MIN.	TOP ELEVATION CONTROL STRUCTURE	MAX. STORAGE DEPTH(D) FEET	ORIFICE DIAMETER (O) INCHES	ORIFICE INV. ELEV.	CONTROL STRUCTURE INV. ELEV.	CTL. STR. DIMENSIONS (W x L x H)	OUTLET PIPE DIAMETER(P) INCHES
120+00 RT	1242	6	21	580.00	4.00	12	576.00	572.00	4x4x8.0	36
215+00 RT	1919	6	12	610.80	2.50	12	608.30	606.80	4x4x4.0	36

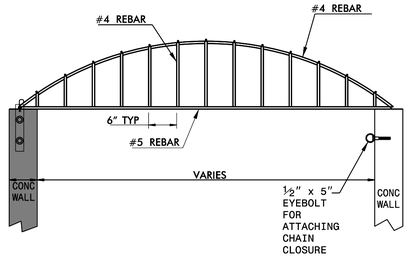
REBAR TRASH RACK

NOT TO SCALE

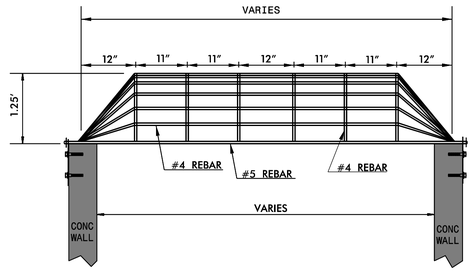
TRASH RACK IS INCIDENTAL TO THE DRAINAGE STRUCTURE



PLAN



SECTION A-A



SECTION B-B

RISER TRASH RACK NOTES:
1. ALL JOINTS SHALL BE FULLY WELDED AROUND JOINT WITH A MINIMUM OF A 1/4" BEAD.
2. IF BOLTS ARE ANCHORED IN CONCRETE, FOLLOW STD. DWG. 862.03 AND 862.04 FOR ANCHORING PROCEDURE.
3. EYEBOLT FOR CHAIN CLOSURE SHALL BE INSTALLED BY THE SAME METHOD AS THE HINGE PLATE BOLTS.
4. RACK AND HARDWARE SHALL BE ALUMINUM OR REBAR AND GALVANIZED IN ACCORDANCE WITH ASTM A-153.
5. ENSURE TRASH RACK OPENS FREELY AND WITHOUT INTERFERENCE WITH SLUICE GATES.

REVISIONS

PLOT DRIVER: NCDOT_pdf_color_eng_50.plt PENTABLE: NCDOT_REDLINES.tbl
USER: JMASSROC DATE: 11/12/2024 TIME: 10:49:03 AM
FILE: Hatch_Mott_MacDonald_I_E_LLC\HMMI_E_MST_14_Pln_Dsn_5357\HMMI_E_5357WOT_R5726_NC211_NC73\6.0_CAD_BIM\6.2_Work_In_Progress\Hydraulics\R5726_HYD_psh_2D-2_Basin_Details.dgn

5/9/06

COMPUTED BY: HUDSON COKER DATE: 2-27-2024
CHECKED BY: PADDY JORDAN DATE: 7-24-2024

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3B-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
PHASE I					
–L– LT 9+00.00 TO 18+47.00	735		910	175	
–L– LT 18+47.00 TO 29+91.00	3,702		4,242	540	
–L– LT 29+91.00 TO 36+19.00	3,159		623		2,536
–Y1– 16+70.00 TO 17+49.76	144		49		95
–Y3– 13+10.00 TO 14+57.29	790				790
–Y8A– 10+00.00 TO 11+20.93	753				753
SUBTOTAL	9,283		5,824	715	4,174
–L– LT 36+19.00 TO 55+77.00	2,031		4,201	2,170	
–L– LT 55+77.00 TO 62+40.00	1,013		90		923
–Y12– 11+75.00 TO 12+71.74	272				272
SUBTOTAL	3,316		4,291	2,170	1195
–L– RT 59+15.00 TO 89+00.00	1,201		32,239	31,038	
–L– RT 89+00.00 TO 98+90.00	68		4,932	4,864	
SUBTOTAL	1,269		37,171	35,902	
–L– RT 98+90.00 TO 128+00.00	32		12,793	12,761	
–Y14– 10+38.80 TO 16+70.00	81		1,222	1,141	
BASIN 1 119+00.00	4,278				4,278
SUBTOTAL	4,391		14,015	13,902	4,278
–L– RT 128+00.00 TO 131+50.00	109		318	209	
–L– RT 131+50.00 TO 151+44.00	595		5,659	5,064	
–L– RT 151+44.00 TO 168+00.00	78		19,218	19,140	
–ACC1– 10+37.67 TO 14+24.60	204		348	144	
–Y16– 10+37.50 TO 17+25.00	271		1,038	767	
–Y17– 10+37.58 TO 12+00.00	7		1,056	1,049	
SUBTOTAL	1,264		27,637	26,373	
–L– RT 168+00.00 TO 180+00.00	22,393		2,208		20,185
–L– RT 180+00.00 TO 195+15.00	4,342		99,673	95,331	
–Y18– 10+50.00 TO 12+74.71	97		528	431	
SUBTOTAL	26,832		102,409	95,762	20,185
–L– RT 195+15.00 TO 225+00.00	18,613		6,959		11,654
–L– MED 194+75.00 TO 196+00.00	35		24		11
–L– MED 196+00.00 TO 206+50.00	413		34		379
–Y19– 10+47.11 TO 11+40.00	8		343	335	
–DR1– 10+61.28 TO 11+45.00	1		116	115	
SUBTOTAL	19,070		7,476	450	12,044
–L– RT 225+00.00 TO 234+40.00	2,349		1,222		1,127
–Y21– 10+47.05 TO 12+50.00	122		400	278	
BASIN 2 215+50.00	3,358				3,358
SUBTOTAL	5,829		1,622	278	4,485
–L– RT 234+40.00 TO 262+75.00	2,962		9,386	6,424	
SUBTOTAL	2,962		9,386	6,424	
PHASE I TOTAL	74,216		209,831	181,976	46,361

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
PHASE II					
–L– RT 9+00.00 TO 27+50.00	34		1,441	1,407	
–L– RT 27+50.00 TO 30+00.00			108	108	
–L– RT 30+00.00 TO 36+00.00	3		271	268	
–Y4– 10+38.39 TO 18+25.00	346		508	162	
SUBTOTAL	383		2,328	1,945	
–L– RT 36+00.00 TO 39+95.00	53		720	667	
–L– RT 39+95.00 TO 43+95.00	111		602	491	
–L– RT 43+95.00 TO 47+38.00	7		338	331	
–L– RT 47+38.00 TO 59+15.00	2,835		544		2,291
–Y8– 10+37.51 TO 12+00.00	37		184	147	
–Y9– 10+38.08 TO 11+65.00	318		1		317
–Y10– 10+37.50 TO 11+25.00	12		132	120	
–Y11– 10+37.50 TO 11+25.00	17		88	71	
SUBTOTAL	3,390		2,609	1,827	2,608
–L– LT 62+40.00 TO 86+26.00	1,074		1,660	586	
SUBTOTAL	1,074		1,660	586	
–L– LT 86+26.00 TO 115+00.00	485		2,544	2,059	
–L– LT 115+00.00 TO 131+54.00	90		1,598	2,059	
–Y13– 12+55.00 TO 13+01.73	30		38	8	
SUBTOTAL	605		4,180	3,575	
–L– LT 131+54.00 TO 160+00.00	429		1,020	591	
–L– LT 160+00.00 TO 165+00.00	440		175		265
–L– LT 165+00.00 TO 168+00.00	21		2		19
–Y15– 13+40.00 TO 13+68.41	12		38	26	
SUBTOTAL	902		1,235	617	284
–L– LT 168+00.00 TO 195+00.00	11,797		11,022		775
SUBTOTAL	11,797		11,022		775
–L– LT 195+00.00 TO 207+28.00	4,213		24		4,189
–Y20– 13+50.00 TO 14+38.74	51		12		39
SUBTOTAL	4,264		36		4,228
–L– LT 207+28.00 TO 237+00.00	1,532		1,746	214	
SUBTOTAL	1,532		1,746	214	
–L– LT 237+00.00 TO 262+75.00	687		756	69	
SUBTOTAL	687		756	69	
PHASE II TOTAL	24,634		25,572	8,833	7,895

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.

7:23:07 AM
R:\5726\Roadway\Proj\r-5726_rdy_est03B-1.dgn
tdrake105

COMPUTED BY: HUDSON COKER DATE: 2-27-2024
CHECKED BY: PADDY JORDAN DATE: 7-24-2024

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3B-2

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
PHASE III					
–L– MED 9+00.00 TO 18+50.00	144		442	298	
–L– MED 18+50.00 TO 30+00.00	124		1,385	1,261	
SUBTOTAL	268		1,827	1,559	
–L– MED 30+00.00 TO 60+00.00	358		1,912	1,554	
SUBTOTAL	358		1,912	1,554	
–L– MED 60+00.00 TO 90+00.00	434		598	164	
SUBTOTAL	434		598	164	
–L– MED 90+00.00 TO 99+00.00	457		0		457
–L– MED 99+00.00 TO 131+40.00	855		850		5
SUBTOTAL	1,312		850		462
–L– MED 131+40.00 TO 160+00.00	521		571	50	
–L– MED 160+00.00 TO 165+00.00	178		130		48
–L– MED 165+00.00 TO 168+00.00	54		0		54
SUBTOTAL	753		701	50	102
–L– MED 168+00.00 TO 169+50.00	54		0		54
–L– MED 169+50.00 TO 194+75.00	395		2,563	2,168	
SUBTOTAL	449		2,563	2,168	54
–L– MED 206+50.00 TO 207+65.00	45		0		45
–L– MED 207+65.00 TO 234+00.00	558		83		475
SUBTOTAL	603		83		520
–L– MED 234+00.00 TO 235+15.00	27		4		23
–L– MED 235+15.00 TO 241+50.00	254		0		254
–L– MED 241+50.00 TO 242+65.00	50		0		50
–L– MED 242+65.00 TO 262+75.00	183		24		159
SUBTOTAL	514		28		486
PHASE III TOTAL	4,691		8,562	5,495	1,624
PHASE I TOTAL	74,216		209,831	181,976	46,361
PHASE II TOTAL	24,634		25,572	8,833	7,895
GRAND SUBTOTAL	103,541		243,965	196,304	55,880
LOSS DUE TO CLEARING AND GRUBBING	–13,500			13,500	
MATERIAL FOR SHOULDER CONSTRUCTION			11,712	11,712	
WASTE TO REPLACE BORROW PHASE I				–46,361	–46,361
WASTE TO REPLACE BORROW PHASE II				–7,895	–7,895
WASTE TO REPLACE BORROW PHASE III				–1,624	–1,624
EST. 5% TO REPLACE TOPSOIL ON BORROW PITS				8,282	
GRAND TOTAL	90,041		255,677	173,918	0
SAY	91,000			174,000	

EST. DDE = 1,520 CY
EST. UNDERCUT EXCAVATION = 3,950 CY
EST. PAVEMENT STRUCTURE VOLUME = 68,250 CY

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.

COMPUTED BY: PJJ	DATE: 2-5-2024
CHECKED BY:	DATE:

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3B-3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

"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

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS				IMPACT ATTENUATOR TYPE 350			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-2	GREU TL-3	CAT-1	AT-1	NO.	PERMITTED G	PERMITTED NG	
-L-/-Y1-	17+68.75	16+78.93	LT/RT		93.75'				10'	13'					1		1					GR IN PLACE TO PROTECT SIGNAL POLE
-Y11-/-L-	10+86.60	49+12.06	RT/RT	137.50'	62.50'		10+80.00		2'	10' BERM							1	1				GR IN PLACE TO PROTECT WALL – WRAP GR AROUND -Y11- RADII
-L-	98+81.00	100+94.42	LT	206.25'	25.00'				2'	10' BERM						1		1				GR IN PLACE TO PROTECT SIGNAL POLE
-L-	161+50.00	164+75.00	RT	325.00'					12'	14' BERM						1	1					
-L-	163+72.00	164+60.00	LT	93.75'					8'	11'						1	1					
-L-	182+75.00	194+06.25	RT	1137.50'					10'	13'						1	1					
-L-	185+93.75	192+75.00	LT	681.25'					10'	13'						1	1					
SUBTOTAL				2581.25'	181.25'										1	5	6	2				
DEDUCTION FOR ANCHOR UNITS																						
GREU, TL-2			1 @ 25'		-25.00'																	
GREU, TL-3			5 @ 50'	-250.00																		
CAT-1			6 @ 6.25'	-31.25'	-6.25'																	
AT-1			2 @ 6.25'	-12.50'																		
			GRAND TOTALS	2287.50'	150.00'										1	5	6	2				
			SAY	2325'	150'		ADDITIONAL GUARDRAIL POST		5		TOTAL ANCHORS OR ATTENUATORS (EA)				1	5	6	2				

CABLE GUIDERAIL

SURVEY LINE	STATION	STATION	SIDE LT/RT/MED	GROSS LENGTH	ANCHOR UNITS	NET LENGTH
-L-	170+28.00	194+55.00	MED	2427'	2 @ 25'	2377'
-L-	207+76.00	233+80.00	MED	2604'	2 @ 25'	2554'
-L-	243+01.00	252+75.00	MED	974'	2 @ 25'	924'
				TOTAL:	6 EA	5855'
				SAY:	6 EA	5860'

6/21/08

COMPUTED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3B-4

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
-L-	10+00	18+46	LT	342.30
-L-	10+00	13+38	LT-MED	34.05
-L-	10+00	12+91	RT-MED	37.87
-L-	10+00	16+85	RT	319.96
-L-	18+46	19+24	LT	19.96
-L-	17+30	30+00	RT	6,159.79
-L-	30+00	36+09	RT	1,590.57
-L-	36+09	47+10	LT	1,492.46
-L-	36+09	39+89	RT	703.44
-L-	39+89	43+95	RT	665.49
-L-	43+95	47+10	RT	549.95
-L-	47+10	56+13	LT	334.11
-L-	47+10	56+13	RT	164.07
-L-	56+13	86+34	LT	3,290.06
-L-	56+13	65+56	RT	1,020.33
-L-	86+34	98+96	LT	782.95
-L-	98+96	111+30	LT	1,003.74
-L-	111+30	117+60	LT	299.50
-L-	117+60	126+12	LT	1,375.90
-L-	126+12	131+51	LT	153.64
-L-	126+12	131+51	RT	262.14
-L-	131+51	136+63	LT	222.00
-L-	136+63	143+69	LT	1,180.67
-L-	143+69	151+10	LT	1,503.45
-L-	151+10	156+33	LT	256.04
-L-	156+33	169+52	LT	1,020.76
-L-	169+52	194+75	LT	2,374.61
-L-	194+75	212+85	LT	1,290.83
-L-	212+85	226+38	LT	1,291.70
-L-	226+38	234+00	LT	381.78
-L-	234+00	248+63	LT	664.54
-L-	248+63	262+75	LT	1,202.99
Y1	16+70	17+48	LT	14.26
Y1	16+70	17+48	RT	26.59
Y3	13+10	14+88	LT	30.81
Y3	13+10	14+88	RT	30.42
Y4	10+76	18+25	LT	1.84
Y4	10+76	18+25	RT	62.28
Y8A	11+21	11+58	CL	97.71
Y11	10+29	11+25	LT	27.29
Y11	10+29	11+25	RT	29.19
Y12	12+41	12+90	LT	6.73
Y12	12+41	12+90	RT	9.53
Y14	10+00	15+90	CL	126.54
Y16	10+00	10+25	CL	6.60
Y18	11+30	12+60	RT	643.37
Y19	10+00	10+22	LT	57.53
Y21	10+46	12+50	LT	25.51
Y21	10+46	12+50	RT	19.06
TEMPORARY PAVEMENT REMOVAL				
-L-	63+14.32	72+88.31	LT	852.43
-L-	104+12.75	111+30.00	RT	410.63
-L-	117+60.00	125+87.42	RT	454.70
-L-	136+62.58	151+10.00	RT	842.44
-L-	156+32.85	159+45.22	RT	164.46
-L-	191+24.83	194+75.00	RT	194.63
-L-	195+55.00	197+39.09	RT	135.10
-L-	249+82.36	256+27+75	RT	320.94
			TOTAL:	36,582.24
			SAY:	36,590

SUMMARY OF CHAIN LINK FENCE, 72" FABRIC

STATION TO STATION	LT or RT	A FABRIC (LF)	B END BRACE	C CORNER BRACE	D LINE BRACE	E 4" POSTS (EA)	F 5" POSTS (EA)
-L- 118+40.00 TO 121+80.00	RT	957'	2	4	10	82	16
-L- 213+85.00 TO 216+05.21	RT	735'	2	4	10	63	16
-L- 42+23.00 TO 43+43.85	LT	121'	2			10	2
TOTAL:		1813'				155	34
SAY:		1850'				155	34
DOUBLE GATES, 72" HIGH, 8' WIDE, 16' OPENING						SAY:	2
METAL GATE POST FOR 72" CHAIN LINK FENCE, DOUBLE GATE						SAY:	4

NOTE: LT or RT INDICATES LEFT OR RIGHT OF THE MAIN LINE.

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH
-L-	183+25.00	194+00.00	RT	1,075.0'
-L-	186+00.00	192+25.00	LT	625.0'
			TOTAL:	1,700.0'
			SAY:	1,700'

EXPRESSWAY GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	LENGTH
-L-	196+00.00	200+50.00	LT	450.00'
-Y8A-	10+00.00	10+73.46	LT	100.00'
			TOTAL:	550.00'
			SAY:	550'

RAL_GTPH6L3

COMPUTED BY:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	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)

LINE & STATION SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)								DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	DRAINAGE STRUCTURE MASONRY	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL	PIPE CLEAN OUT	CONCRETE / BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
		FROM	TO	FT.	FT.	FT.	%	12	15	18	24	30	36	42	48						15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48				CY	CY	CY	0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.		E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																										CY	EA	CY	LIN. FT.	
L 13+43	10 LT	0413		598.8																																																	1																							1									Convert CB to DI
L 14+16	8 LT	0415		600.1																																																	1																							1								63	Convert CB to DI
L 14+70	8 LT	0417		601.0																																									1								1			1	1																												
		0417	0415		597.4	596.5																						52																																																							
L 15+50	8 LT	0418		602.5																																									1								1			1	1																												
		0418	0417		598.8	597.6																						88																																																							
L 17+89	8 LT	0421		604.0																																									1								1			1	1																												
		0421	0418		599.2	598.8																						240																																																							
L 17+89	39 RT	0422		603.0																																									1			1		1																																				
		0422	0421		599.5	599.2																						48																																																							
L 19+60	39 RT	0423		600.5																																									1			1		1																																				
		0423	0425		597.3	594.0																						188																																																							
L 19+60	6 RT	0424		601.4																																									1								1			1	1																												
		0424	0423		598.0	597.3																						32																																																							
L 21+50	39 RT	0425		597.2																																									1			1		1																																	48	
		0425	0513		594.0	592.0																						72																																																							
L 21+50	4 RT	0426		598.2																																									1								1			1	1																												
		0426	0425		594.8	594.0																						36																																																							
L 18+75	68 LT	0450		602.8																																									1	0.3		1			1																																			
		0450	0449		597.5	597.0																					84																																																									
L 19+59	51 LT	0449		602.5																																									1	0.5		1			1																																			
		0449	0507		597.0	593.4																					268																																																									
L 22+26	51 LT	0507		598.7																																									1	0.3		1			1																																			
		0507	0512		593.4	592.2																							52																																																						
L 31+50	40 LT	0508		600.9																																									1			1			1																																			
		0508	0531		597.6	594.8																						156																																																								
L 22+25	94 RT	0510		594.7																																																																				1		1										CONVERT CB TO JB w/ MH
L 22+25	70 LT	0511		597.0																																									1											1	1																												
		0511	0507		593.5	593.3																		20																																																														
L 22+25	4 RT	0512		597.7																																									1								1			1	1																										53	
		0512	0513		593.3	593.0																							36																																																							
L 22+25	39 RT	0513		596.7																																									1			1		1																																	52	
		0513	0510		592.0	590.3																			56																																																												
L 23+05	60 RT	0514		595.9																																									1											1	1																												
		0514	0516		593.6	592.2			20										X																																																																				
L 23+05	4 RT	0515		597.5																																									1								1			1	1																												
		0515	0516		594.1	592.0																						36																																																								
L 23+05	40 RT	0516		596.2																																									1	0.2		1	1																																			282	
		0516	0513		591.0	590.7																								76																																																					
L 23+65	39 RT	0517		596.1																																									1			1			1																																			
		0517	0516		591.1	591.0																								56																																																					
L 25+00	8 LT	0518		599.7																																									1	2.1							1					1								1														1					
		0518	0520		592.7	592.0																							48																																																							
L 29+42	74 LT	0519		602.2																																									1			1			1																																			
		0519	0538		599.0	598.7																						92																																																								
L 25+00	39 RT	0520		597.9																																									1	1.4		1		1																																	43	
		0520	0517		591.5	591.1																								132																																																					
L 25+02	57 RT	0521		597.3																																									1											1	1																												
		0521	0520		592.6	592.5				20																																																																														
SHEET TOTALS									20	20													20	56			352	1040	136	264															23	4.8		12	1	5	6		10			10	10	1								1						1		1	2				1				541	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL-GTPH6L3

COMPUTED BY:	CGM	**DATE:**	08/26/2024
CHECKED BY:	JJM	**DATE:**	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-2

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 SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)													R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	DRAINAGE STRUCTURE	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)	A	B	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL	PIPE CLEAN OUT	CONCRETE / BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
		FROM	TO	FT.	FT.	FT.	%	12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48				CY	CY	MASONRY CY	0' THRU 5' EACH	5' THRU 10' LIN. FT.	10' AND ABOVE LIN. FT.		GRATE TYPE E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																										CY	EA	CY	LIN. FT.	
L 25+85	8 LT	0522		601.3																																									1	2.8							1					1								1													1					
		0522	0518		593.5	592.7																							84																																																								
L 25+85	72 LT	0523		596.7																																									1															1				1																				
		0523	0522		594.2	594.0																						64																																																									
L 27+34	4 LT	0524		604.2																																									1	1.0							1			1	1																							1					
		0524	0522		598.2	594.0																						148																																																									
L 27+34	39 LT	0525		603.4																																									1	0.1		1		1																																			
		0525	0524		598.3	598.2																						36																																																										
Y3 14+00	26 LT	0526		602.9																																									1															1				1																				
	|0526|0539| |601.0|600.8|													|48|																																																																		
L 27+75	4 LT	0527		604.7																																									1								1			1	1																							1					
		0527	0524		601.5	598.5																					40																																																										
Y4 12+45	24 RT	0528		603.2																																									1			1		1																																			
	|0528|0529| |600.2|600.1|													|48|																																																																		
Y4 12+45	24 LT	0529		603.2																																									1			1			1																																		
	|0529|0530| |600.1|599.6|													|60|																																																																		
L 33+10	40 LT	0531		598.1																																									1			1			1																																		
		0531	0611		594.8	594.6																						88																																																									
L 23+65	0 CL	0532		597.9																																									1								1			1	1																												
		0532	0515		594.7	594.3																					60																																																										
L 25+15	103 RT	0534		597.3																																																																			1		1										CONVERT CB TO JB w/ MH
		0534	0521																																																																																		Exist. 15" RCP to be Retained
L 33+10	8 RT	0542		600.2																																									1								1			1	1																										77	
		0542	0610		596.8	594.4																						88																																																									
L 28+50	43 LT	0538		604.2																																									1	0.5		1			1																																		
		0538	0525		598.7	598.3																						112																																																										
Y3 14+00	24 RT	0539		602.9																																									1															1				1																				
	|0539|0519| |600.8|599.2|													|12|																																																																		
Y8A 10+50	16 LT	0607		604.8																																									1														1			1																						
		0607	0614		600.0	599.0																					56																																																										
L 35+50	40 LT	0608		599.4																																									1			1		1																																			
		0608	0612		596.0	594.8																						56																																																										
L 34+00|63 LT|0609| |595.2|																																																																																	|OPEN END
	|0609|0611| |595.2|594.1|															|24|																																																																
L 34+00	8 RT	0610		599.8																																									1	1.4							1			1	1																												
		0610	0636		593.4	593.0	0.4																	96																																																															
L 34+00	39 LT	0611		598.0																																									1			1	1																																				
	|0611|0610| |593.6|593.4|																|48|																																																															
L 34+90	39 LT	0612		598.1																																									1			1		1																																			
		0612	0611		594.8	594.6																						88																																																											
L 34+90	10 RT	0613		600.3																																									1			1		1				1																																		
		0613	0610		597.0	594.4																						88																																																											
Y8A 10+50	27 RT	0614		600.9																																									1															1				1																				
	|0614|0608| |599.0|596.0|													|48|																																																																		
L 36+45	39 LT	0615		600.4																																									1			1		1																																			
		0615	0608		597.1	596.0																						56																																																											
L 38+25	8 RT	0616		603.4																																									1			1		1				1																																		
		0616	0633		600.3	597.6																					124																																																										
L 39+50	39 RT	0617		600.7																																									1			1		1																																			
		0617	0633		597.7	597.6																					28																																																										
SHEET TOTALS																					216		24	144			308	824	84																	23	5.8		12	1	8	3		6	2		5	5	1	1	4		1		4		1						1		1					3				77	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL-GTPH6L3

COMPUTED BY: CGM **DATE:** 08/26/2024
CHECKED BY: JJM **DATE:** 08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-3

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	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)								DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V				
SIZE								12	15	18	24	30	36	42	48						15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48
THICKNESS OR GAUGE		FROM	TO	FT.	FT.	FT.	%																															
L 42+00	40 LT	0620		594.6																																		
		0620	0619		591.6	591.1															28																	
L 42+40	39 RT	0621		593.0																																		
		0621	0623		590.0	585.3																					104											
L 43+45	39 RT	0623		590.3																																		
		0623	0625		585.0	584.8																						76										
L 43+45	59 RT	0624		589.2																																		
		0624	0623		585.3	585.3															20																	
L 43+45	39 LT	0625		590.7																																		
		0625	0626		584.8	584.2	0.3																					180										
L 45+25	39 LT	0626		587.5																																		
		0626	0711		584.2	583.3	0.4																					140										
L 46+00	39 RT	0629		586.4																																		
		0629	0710		583.4	582.6																					64											
Y10 10+65	15 LT	0631		588.5																																		
		0631	0624		585.5	585.3																					64											
L 39+50	8 RT	0633		601.7																																		
		0633	0634		597.6	597.5																					48											
L 39+50	40 LT	0634		600.8																																		
		0634	0620		597.5	591.6																					248											
L 46+64	40 RT	0710		586.2																																		
		0710	0736		582.6	582.2	0.4																				92											
L 46+64	40 LT	0711		586.5																																		
		0711	0709		583.3	582.7	0.5															28																
Y11 11+05	11 RT	0715		585.0																																		
		0715	0717		582.0	581.9																					28											
L 47+55	8 LT	0716		587.5																																		
		0716	0719		581.3	581.2																							32									
Y11 11+00	17 LT	0717		584.9																																		
		0717	0736		581.9	581.7																					60											
L 47+55	40 LT	0719		586.9																																		
		0719	0718		581.2	581.1																	32															
L 47+75	8 RT	0720		587.7																																		
		0720	0735		584.3	584.2																16																
L 47+90	52 RT	0721		584.9																																		
		0721	0722		582.7	582.6															12																	
L 47+90	40 RT	0722		587.1																																		
		0722	0736		582.6	582.2	0.3																				36											
L 49+50	58 RT	0724		588.3																																		
		0724	0737		585.3	585.1																						48										
L 52+02	5 LT	0725		599.6																																		
		0725	0739		595.6	594.0																	60															
L 50+25	38 RT	0726		592.9																																		
		0726	0719		588.0	581.1																	268															
L 52+50	8 LT	0727		600.9																																		
		0727	0725		596.5	596.1	1.0															48																
L 54+00	53 LT	0728		600.5																																		
		0728	0731		597.5	597.4																						44										
L 55+45	8 LT	0729		603.7																																		
		0729	0730		600.5	600.4																					16											
SHEET TOTALS																					60	92	360				760	488	32									

LINE & STATION	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	CONCRETE TRANSITIONAL SECTION C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 42+00	0620								1			1			1																																	
	0620	0619																																														
L 42+40	0621								1			1		1																																	32	
	0621	0623																																														
L 43+45	0623								1	0.3		1		1																																		
	0623	0625																																														
L 43+45	0624								1																1					1																		
	0624	0623																																														
L 43+45	0625								1	0.9		1			1																																	
	0625	0626																																														
L 45+25	0626								1			1			1																																	
	0626	0711																																														
L 46+00	0629								1			1		1																																	20	
	0629	0710																																														
Y10 10+65	0631								1			1			1																																41	
	0631	0624																																														
L 39+50	0633								1			1		1				1																														
	0633	0634																																														
L 39+50	0634								1			1			1																																	
	0634	0620																																														
L 46+64	0710								1			1	1																																			
	0710	0736																																														
L 46+64	0711								1			1	1																																			
	0711	0709																																														
Y11 11+05	0715								1			1	1																																		43	
	0715	0717																																														
L 47+55	0716								1	1.2							1			1	1																							1					
	0716	0719																																														
Y11 11+00	0717								1			1			1																																	
	0717	0736																																														
L 47+55	0719								1	0.7		1		1																																		
	0719	0718																																														
L 47+75	0720								1								1			1	1																							1					
	0720	0735																																														
L 47+90	0721								1											1	1																												
	0721	0722																																														
L 47+90	0722								1			1			1																																	
	0722	0736																																														
L 49+50	0724								1														1					1																				
	0724	0737																																														
L 52+02	0725								1								1			1	1																												
	0725	0739																																														
L 50+25	0726								1																								1			1												
	0726	0719																																														
L 52+50	0727								1								1			1	1																											19	
	0727	0725																																														
L 54+00	0728								1														1					1																				
	0728	0731																																														
L 55+45	0729								1								1			1	1																												
	0729	0730																																														
SHEET TOTALS									25	3.1		15	3	5	7		5	1		6	6		3					3					1			1							2				155	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-4

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)

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

LINE & STATION SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III 15	18	24	30	36		R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 24	30	36	42	48
L 55+45	10 RT	0730		604.7																																		
		0730	0749		600.4	598.2																					136											
L 54+00	8 LT	0731		603.7																																		
		0731	0727		597.4	596.5																						148										
L 57+75	10 RT	0732		599.7																																		
		0732	0733		596.4	591.7																						124										
L 59+00	9 RT	0733		595.0																																		
		0733	0750		591.0	588.0																						68										
L 47+75	8 LT	0735		587.7																																		
		0735	0716		584.2	581.8																						20										
L 47+55	39 RT	0736		586.9																																		
		0736	0716		581.4	581.3																							44									
L 49+50	8 RT	0737		590.7																																		
		0737	0720		585.1	584.3																						172										
L 46+64	61 RT	0738		585.0																																		
		0738	0710		582.7	582.6														20																		
L 52+02	31 LT	0739		598.9																																		
		0739	0726		594.0	588.0																							176									
L 52+50	59 RT	0741		599.9																																		
		0741	0727		596.9	596.5	0.5															68																
L 56+83	8 LT	0748		601.6																																		
		0748	0749		598.4	598.2														16																		
L 56+83	10 RT	0749		602.1																																		
		0749	0732		598.2	596.7																					92											
L 59+69	10 RT	0750		592.4																																		
		0750	0734		588.0	587.1																						56										
L 62+50	76 RT	0810																																				
		0810	0811																				24															
L 63+05	80 LT	0812		577.5																																		
		0812	0814		577.5	577.3																	72															
L 62+50	10 LT	0813		583.7																																		
		0813	0810		576.7	567.5	0.6																															
L 63+05	10 LT	0814		583.0																																		
		0814	0813		577.3	576.7	0.5																						56									
L 64+75	9 LT	0815		582.3																																		
		0815	0818		578.5	578.4																							44									
L 64+30	10 LT	0818		582.2																																		
		0818	0814		578.4	578.0																							124									
L 66+25	10 LT	0823		584.2																																		
		0823	0815		579.2	578.5																							148									
L 66+25	72 LT	0825		579.9																																		
		0825	0823		579.9	579.7																						64										
L 71+00	9 LT	0826		594.7																																		
		0826	0827		586.7	574.8																	128															
L 71+00	58 LT	0829		593.6																																		
		0829	0826		590.6	587.2																48																
L 69+50	9 LT	0830		592.3																																		
		0830	0826		589.3	587.5																					148											
L 69+00	62 RT	0835			588.1	586.5			60																													
L 74+50	58 LT	0909		598.4																																		
SHEET TOTALS									60												36	116	224				376	652	592									

LINE & STATION	FROM	TO	24" WELDED STEEL PIPE 0.25" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 55+45	0730								1								1			1	1																											
	0730	0749																																														
L 54+00	0731								1	1.4							1			1	1																											
	0731	0727																																														
L 57+75	0732								1			1		1				1																													41	
	0732	0733																																														
L 59+00	0733								1			1		1				1																														
	0733	0750																																														
L 47+75	0735								1								1			1	1																						1					
	0735	0716																																														
L 47+55	0736								1	0.5																								1			1											67	
	0736	0716																																														
L 49+50	0737								1	0.6							1			1	1																											
	0737	0720																																														
L 46+64	0738								1											1	1																											
	0738	0710																																														
L 52+02	0739								1																									1			1												
	0739	0726																																														
L 52+50	0741								1														1					1																				
	0741	0727																																														
L 56+83	0748								1								1			1	1																											
	0748	0749																																														
L 56+83	0749								1								1			1	1																											
	0749	0732																																														
L 59+69	0750								1			1		1				1																									1					
	0750	0734																																														
L 62+50	0810																																															
	0810	0811																																														
L 63+05	0812					1.500																																										Headwall
	0812	0814																																														
L 62+50	0813								1	2.0		1		1				1																														
	0813	0810	84																																													
L 63+05	0814								1	0.7		1		1				1																													62	
	0814	0813																																														
L 64+75	0815								1			1			1			1																														
	0815	0818																																														
L 64+30	0818								1			1	1					1																														
	0818	0814																																														
L 66+25	0823								1			1			1			1																													67	
	0823	0815																																														
L 66+25	0825					1.000																																										Headwall
	0825	0823																																														
L 71+00	0826								1	3.0		1			1			1																														
	0826	0827																																														
L 71+00	0829								1														1					1																			49	
	0829	0826																																														
L 69+50	0830								1			1		1				1																														
	0830	0826																																														
L 69+00	0835																																															
L 74+50	0909								1														1					1																				
SHEET TOTALS			84			2.500			22	8.2		10	1	6	3		6	10		7	7		3					3					2			2							2				286	

RAL-GTPH6L3

COMPUTED BY: CGM DATE: 08/26/2024
CHECKED BY: JJM DATE: 08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-5

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	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)													R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	DRAINAGE STRUCTURE	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL	PIPE CLEAN OUT	CONCRETE / BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
SIZE THICKNESS OR GAUGE		FROM	TO	FT.	FT.	FT.	%	12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48				CY	CY	MASONRY CY	0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.		GRATE TYPE E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																										CY	EA	CY	LIN. FT.	
		0909	0910		595.4	595.2																						48																																																									
L 74+50	9 LT	0910		599.4																																									1			1		1				1																																		
		0910	0911		595.2	594.9																						104																																																										
L 75+50	9 LT	0911		600.8																																							1	0.9		1		1				1																																		
		0911	0913		594.9	588.0																96																																																																	
L 80+50	54 RT	0912		602.5																																							1																						1					1												
		0912	0914		598.1	589.0	4.9			56						X	X	X																																																																			
L 80+50	63 LT	0915		601.5																																							1														1					1																				41	
		0915	0912		598.5	598.1																						116																																																										
L 82+00	54 RT	0916		603.6																																							1														1					1																					
		0916	0912		600.6	598.1	0.4															148																																																																	
L 100+37	40 RT	1010		603.2																																							1			1			1																																				
		1010	1020		599.3	598.3																						88																																																										
L 95+50	4 LT	1012		605.3																																							1	0.1							1			1	1																															
		1012	1013		600.2	599.6	0.4																					148																																																												
L 97+00	4 LT	1013		604.3																																							1	0.2							1					1									1																					
		1013	1014		599.1	598.7																	124																																																															
L 98+25	6 LT	1014		603.1																																							1								1					1									1																					
		1014	1009		598.7	598.2																	112																																																														
L 99+55	40 LT	1017		601.9																																							1			1	1																																							
		1017	1018		598.6	598.5																						48																																																										
L 99+63	8 RT	1018		603.1																																							1								1			1	1																							1					
		1018	1020		598.5	598.3																						64																																																										
L 100+40	40 LT	1019		602.2																																							1			1		1																																						
		1019	1010		599.2	599.0																					76																																																											
L 99+55	73 RT	1020		604.5																																							1	1.3		1	1																																							
		1020	1021		598.3	598.0																80																																																																	
L 93+50	5 RT	1030		607.5																																							1	1.6		1			1			1																																
		1030	1012		600.8	600.2																						200																																																										
L 93+50	57 LT	1031		604.0																																							1														1					1																					
		1031	1030		601.0	600.8																						64																																																									
L 101+20	40 RT	1111		603.3																																							1			1			1																																				
		1111	1010		599.6	599.3																92																																																																		
L 101+20	4 RT	1112		604.0																																							1								1			1	1																							1					
		1112	1111		599.7	599.6																						36																																																										
L 101+20	40 LT	1113		603.1																																							1			1		1																																						
		1113	1112		599.8	599.7																						44																																																									
L 102+00	40 LT	1114		604.0																																							1			1		1																																						
		1114	1113		601.0	600.1																					80																																																											
L 102+90	40 RT	1115		605.1																																							1			1			1																																				
		1115	1111		601.9	599.6																						168																																																										
L 103+75	40 LT	1116		606.2																																							1			1		1																																						
		1116	1117		602.9	602.7																						76																																																										
L 103+75	40 RT	1117		606.2																																							1			1			1																																				
		1117	1115		602.7	601.9																						84																																																										
L 105+75	39 LT	1118		608.6																																							1			1		1																																						
		1118	1119		605.3	605.1																						76																																																										
L 105+75	40 RT	1119		608.6																																							1			1			1																																				
		1119	1117		605.1	602.7																						200																																																										
L 110+00	40 LT	1120		609.9																																							1			1			1																																				
SHEET TOTALS										56												416	236				156	1564																	25	4.1		16	2	7	7		5	3		3	3	2	3					3		2	1					1							2				41	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL GTPH6L3

COMPUTED BY:	CGM	**DATE:**	08/26/2024
CHECKED BY:	JJM	**DATE:**	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-6

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 / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III 15	18	24	30	36		R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 24	30	36	42	48	24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
		1120	1125		606.9	606.4																					116																																																									
L 110+00	40 RT	1121		609.9																																									1			1		1																																		
		1121	1124		606.9	606.4																					116																																																									
L 111+15	40 RT	1124		609.4																																									1			1		1																																		
		1124	1129		606.4	605.7																					104																																																									
L 111+15	40 LT	1125		609.4																																									1			1			1																																	
		1125	1126		606.4	606.0																					104																																																									
L 112+20	40 LT	1126		609.0																																									1			1			1																																	
		1126	1127		605.7	605.6																					32																																																									
L 112+20	8 LT	1127		609.8																																									1								1			1	1																						1					
		1127	1129		605.6	605.5																					48																																																									
L 113+50	40 LT	1128		608.4																																									1			1			1																																	
		1128	1250		605.4	604.9																					124																																																									
L 112+20	40 RT	1129		609.0																																									1			1		1																																		
		1129	1130		605.5	605.1																						128																																																							
L 113+50	40 RT	1130		608.4																																									1			1		1																																		
		1130	1211		605.1	604.4																						124																																																							
L 114+75	8 RT	1209		608.8																																									1								1			1	1																						1					
		1209	1211		604.5	604.4																						32																																																							
L 114+75	40 RT	1211		608.2																																									1			1		1																																		
		1211	1215		604.4	603.8	0.4																					124																																																							
L 116+00	40 LT	1214		607.4																																									1			1			1																																	
		1214	1218		604.4	604.1																					108																																																									
L 116+00	40 RT	1215		607.4																																									1			1		1																																		
		1215	1216		603.8	603.3	0.5																					84																																																							
L 116+85	40 RT	1216		607.4																																									1			1	1																																			
		1216	1221		603.3	602.8	0.5																					96																																																								
L 117+10	40 LT	1218		607.3																																									1			1	1																																			
		1218	1220		604.1	603.9																					68																																																									
L 117+80	40 LT	1220		607.4																																									1			1		1																																		
		1220	1222		603.9	603.5																					120																																																									
L 117+80	40 RT	1221		607.4																																									1	0.1		1			1																																	
		1221	1223		602.3	602.0																		120																																																													
L 119+00	40 LT	1222		607.7																																									1			1		1																																		
		1222	1228		603.3	603.0																						100																																																							
L 119+00	40 RT	1223		607.7																																									1	0.7		1			1																																	
		1223	1225		602.0	601.7																		100																																																													
L 121+00	40 LT	1224		608.4																																									1	0.7		1		1																																		
		1224	1226		602.7	602.5																						64																																																							
L 120+00	40 RT	1225		608.0																																									1	1.4		1			1																																	
		1225	1227		601.7	601.4																		100																																																													
L 121+66	40 LT	1226		608.6																																									1	1.1		1		1																																		
		1226	1232		602.5	601.7	0.4																					76																																																							
L 121+00	40 RT	1227		608.4																																									1	2.5		1			1																																	
		1227	1232		600.9	600.7																			64																																																											
L 120+00	40 LT	1228		608.0																																									1			1		1																																		
		1228	1224		603.0	602.7																						100																																																							
L 122+75	40 RT	1229		609.0																																									1	2.6		1			1																																	
		1229	1232		601.4	599.6																			108																																																											
L 122+75	40 LT	1230		609.0																																									1			1		1																																		
SHEET TOTALS																							320	172			940	928																	25	9.1		23	2	12	9		2			2	2																						2					

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL-GTPH6L3

COMPUTED BY: CGM DATE: 08/26/2024
CHECKED BY: JJM DATE: 08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-7

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)

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

LINE & STATION	OFFSET	STRUCTURE NUMBER		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)													R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	DRAINAGE STRUCTURE	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL	PIPE CLEAN OUT	CONCRETE / BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
SIZE / THICKNESS OR GAUGE		FROM	TO	FT.	FT.	FT.	%	12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48				CY	CY	MASONRY CY	0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.		GRATE TYPE E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																										CY	EA	CY	LIN. FT.	
		1230	1226		605.8	602.5																					108																																																													
L 124+00	40 RT	1231		609.7																																									1	2.9		1			1																																			
		1231	1229		601.8	601.5																			124																																																																
L 121+66	40 RT	1232		608.6																																									1	3.4		1			1																																			
		1232	1241		599.6	580.0																				284																																																														
L 124+00	40 LT	1233		609.7																																									1			1		1																																				
		1233	1230		606.7	606.0																					124																																																												
L 125+00	40 RT	1234		610.3																																									1	3.2		1			1																																			
		1234	1231		602.1	601.8																			100																																																																
L 125+00	40 LT	1236		610.3																																									1			1		1																																				
		1236	1233		607.3	606.7																					100																																																												
L 126+55	52 RT	1237		610.7																																									1	3.0		1			1																																			
		1237	1234		602.7	602.1																			156																																																															
L 126+55	40 LT	1238		610.9																																									1			1		1																																				
		1238	1236		607.9	607.3																					156																																																												
L 121+46	325 RT	1241		586.0																																									1	0.4																					1					1												
		1241	1219		580.6	578.0																									120																																																								
L 114+75	40 LT	1250		607.9																																									1			1			1																																			
		1250	1209		604.6	604.5																						48																																																											
L 128+50	40 LT	1311		611.0																																									1			1			1																																			
		1311	1313		608.0	607.7																					84																																																													
L 128+50	52 RT	1312		610.8																																									1	2.6		1		1																																				
		1312	1237		603.2	602.6																			196																																																																	
L 129+35	40 LT	1313		610.8																																									1			1			1																																			
		1313	1315		607.7	607.4																					100																																																												
L 129+35	52 RT	1314		610.5																																									1	2.0		1		1																																				
		1314	1312		603.5	603.2																			84																																																																
L 130+38	40 LT	1315		610.5																																									1			1	1																																					
		1315	1316		607.2	607.1																						32																																																											
L 130+38	6 LT	1316		611.5																																									1								1			1	1																														
		1316	1317		607.1	606.9																						56																																																											
L 130+38	52 RT	1317		610.5																																									1	1.7		1	1																																				
		1317	1314		603.8	605.6																			100																																																																
Y16 11+05	28 RT	1319		610.3																																									1			1		1																																				
		1319	1320		607.3	606.9																					40																																																													
Y16 11+45	27 RT	1320		610.3																																									1																									1															
		1320	1321		606.6	606.3	0.3																					32																																																												
Y16 11+77	28 RT	1321		610.1																																									1			1			1																																	54	
		1321	1318		606.3	605.2	1.4																					64																																																											
Y16 12+40	28 RT	1322		610.8																																									1			1			1																																			
		1322	1321		606.5	606.3	0.3																					64																																																											
Y16 11+05	28 LT	1323		610.3																																									1			1			1																																			
		1323	1324		607.3	607.0																					40																																																													
Y16 11+45	28 LT	1324		610.0																																									1			1	1																																					
		1324	1343		606.8	606.7																						40																																																											
Y16 12+40	28 LT	1325		610.8																																									1			1		1																																		124	
		1325	1322		606.7	606.5	0.3																					56																																																											
Y16 11+45	40 LT	1326		610.6																																									1											1	1																														
		1326	1324		608.4	607.0																		12																																																																		
Y16 12+40	46 LT	1327		610.2																																									1			1	1																																					
						SHEET TOTALS																		12			760	284		644	500			120														25	19.2		21	4	7	10		1			2	2										1		1			1											178	

RAL GTPH6L3

COMPUTED BY:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-8

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 SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III 15	18	24	30	36	R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 24	30	36	42	48	24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
		1327	1325		607.1	606.9	0.7														20																																																																			
L 132+25	40 RT	1329		611.6																																								1			1			1																																		
		1329	1317		604.9	603.8	0.3																188																																																																	
L 134+30	40 RT	1332		614.0																																								1	1.0		1			1																																		
		1332	1329		608.0	604.9																204																																																																		
L 138+15	40 RT	1336		618.6																																								1	1.7		1			1																																		
		1336	1339		611.9	609.9	0.3																				216																																																													
L 140+75	40 RT	1338		618.9																																								1	0.1		1		1																																			
		1338	1336		613.8	611.9																					260																																																													
L 136+00	40 RT	1339		616.2																																								1			1			1																																		
		1339	1332		609.9	608.0	0.5																				168																																																													
L 132+25	7 RT	1342		612.4																																								1								1			1	1																							1					
		1342	1329		608.1	608.0																					32																																																													
Y16 11+45	11 RT	1343		610.6																																								1								1			1	1																							1					
		1343	1320		606.7	606.6																					16																																																													
L 141+85	40 RT	1410		618.8																																								1			1	1																																			
		1410	1338		615.8	615.1																				108																																																														
L 143+55	10 RT	1413		620.0																																								1			1		1				1																														
		1413	1427		617.0	616.9																				28																																																														
L 143+90	10 RT	1414		620.2																																								1			1		1				1																														
		1414	1413		617.2	617.0																				36																																																														
L 145+25	10 RT	1420		621.2																																								1			1		1				1																														
		1420	1414		618.2	617.2																				136																																																														
L 147+25	10 RT	1423		622.7																																								1			1		1				1																														
		1423	1420		619.7	618.2																				200																																																														
L 151+45	8 LT	1424		627.5																																								1								1			1	1																												
		1424	1431		624.5	624.4																				36																																																														
L 151+80	9 RT	1425		628.4																																								1								1			1	1																												
		1425	1428		624.1	621.7																					76																																																													
L 142+50	40 RT	1426		619.3																																								1			1			1																																		
		1426	1410		616.3	615.8																				64																																																														
L 143+55	39 RT	1427		621.1																																								1			1			1																																		
		1427	1426		616.9	616.3																				104																																																														
L 153+75	9 RT	1430		627.6																																								1								1			1	1																												
		1430	1510		624.4	623.9																				48																																																														
L 151+80	8 LT	1431		627.7																																								1								1			1	1																												
		1431	1425		624.4	624.4															16																																																																			
L 154+25	38 RT	1509		627.6																																								1			1		1																																		
		1509	1512		623.5	620.0																					172																																																														
L 154+25	10 RT	1510		626.9																																								1								1			1	1																							1					
		1510	1509		623.6	623.5																					28																																																														
L 156+00	40 RT	1512		623.2																																								1			1		1																																		
		1512	1514		620.2	617.3																				200																																																														
L 158+00	40 RT	1514		620.3																																								1			1		1																																		
		1514	1516		617.3	614.4																				200																																																														
L 160+00	39 RT	1516		617.4																																								1			1		1																																		
		1516	1520		614.2	611.6																					160																																																													
L 161+60	83 RT	1517		604.9																																								1																							1					1												
		1517	1518		600.1	600.0																12																																																																
L 161+60	40 RT	1520		615.1																																								1			1		1																																		
SHEET TOTALS																					36	216	188			1160	1128																	25	2.8		17	1	10	6		7	4		7	7										1					1							3					

ABBREVIATIONS	
C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL-GTPH6L3

COMPUTED BY: CGM **DATE:** 08/26/2024

CHECKED BY: JJM **DATE:** 08/26/2024

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-5726	3D-9

**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 SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	MINIMUM REQUIRED SLOPE	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)												R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50 % NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE)	REINFORCED ENDWALLS	DRAINAGE STRUCTURE	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL	PIPE CLEAN OUT	CONCRETE / BRICK PIPE PLUG STD. 840.71	PIPE REMOVAL	REMARKS
		FROM	TO	FT.	FT.	FT.	%	12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48				CY	CY	MASONRY CY	0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.		GRATE TYPE E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																										CY	EA	CY	LIN. FT.	
		1520	1517		610.6	600.1	3.4			56																																																																								
L 163+34	39 RT	1522		613.7																																									1	1.6		1	1																																				
		1522	1525		607.1	606.9	0.3																	64																																																												
L 163+34	76 LT	1523		608.0																																																																																OPEN END
		1523	1522		608.0	607.9	0.4																40																																																														
L 164+00	39 RT	1525		613.9																																									1	2.0		1			1																																		
		1525	1527		606.9	595.3	1.4					40				X	X	X		X																																																																	
L 164+00	80 RT	1527		600.8																																									1	0.5																							1					1												
		1527	1526		595.3	595.0																		32																																																												
Y18 12+32	45 LT	1528		611.5																																																																															56	OPEN END
		1528	1524		611.5	610.9																							100																																																								
L 169+75	5 RT	1611		627.8																																									1														1					1																										
		1611	1609		624.8	622.5																						64																																																										
L 177+50	71 RT	1612		619.0																																									1														1					1																										
		1612	1613		616.0	615.8																72																																																																	
L 177+50	0 CL	1613		620.0																																									1														1					1																										
		1613	1710		615.8	597.3	0.5															448																																																																	
L 177+50	71 LT	1614		622.4																																									1														1					1																										
		1614	1613		619.4	615.8																72																																																																	
L 182+00	71 LT	1709		601.7																																									1														1					1																										
		1709	1710		598.7	597.3																72																																																																	
L 182+00	0 CL	1710		601.5																																									1													1						1																										
		1710	1731		596.8	586.5	0.6																248																																																																
L 182+00	71 RT	1711		601.3																																									1														1					1																										
		1711	1710		598.3	597.3																72																																																																	
L 188+05	0 CL	1714		583.3																																									1														1					1																								104	
		1714	1740		579.8	579.6																60																																																																	
L 188+87	0 CL	1715		583.0																																									1														1					1																										
		1715	1714		580.3	580.0															80																																																																			
L 192+25	0 CL	1718		588.0																																									1														1					1																										
		1718	1761		585.0	584.8																68																																																																	
L 184+50	71 LT	1730		591.0																																									1														1					1																										
		1730	1731		588.0	587.0																72																																																																	
L 184+50	0 CL	1731		591.3																																									1													1						1																										
		1731	1732		586.5	581.8	0.8																148																																																															
L 186+00	0 CL	1732		586.6																																									1													1						1																										
		1732	1733		581.8	581.4	0.8																56																																																														
L 186+00	56 RT	1733		588.9																																									1	2.5														1			1																												
		1733	1734		581.4	555.5	3.7				104					X	X	X		X																																																																	
L 188+05	59 RT	1740		585.6																																									1	1.0														1			1																												
		1740	1717		579.6	552.5	1.7			104						X	X	X		X																																																															
L 188+87	65 RT	1741		585.2																																									1														1			1																												
		1741	1740		582.4	579.8																					80																																																											
L 188+05	56 LT	1742		585.6																																									1														1			1																												
		1742	1714		582.1	579.8																						56																																																											
L 188+87	56 LT	1743		585.3																																									1														1			1																												
		1743	1742		582.6	582.3																					80																																																											
L 191+14	108 LT	1751		570.7																																																																																	OPEN END
		1751	1752		570.7	554.9																														32																																																				
SHEET TOTALS										160	104	40									80	936	492	96			160	120	100						32										21	7.6		2	1		1								3	15			5		13			1					1												160	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL GTPH6L3

COMPUTED BY:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-10

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)

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

LINE & STATION / SIZE / THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	R. C. PIPE CLASS III 15	18	24	30	36		R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 24	30	36	42	48	24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL
L 191+08	76 LT	1752		581.9																																					
		1752	1753		570.0	567.1																																		50	50
L 190+86	23 RT	1753		571.6																																					
		1753	1750		567.1	554.9																													144						
L 192+25	68 RT	1761		590.1																																					
		1761	1760		584.8	556.0	1.5			100						X	X	X		X																					
L 201+00	71 LT	1805		617.5																																					
		1805	1806		614.5	608.9																							296												
L 198+00	55 LT	1806		611.9																																					
		1806	1807		608.9	601.9																							180												
L 196+16	55 LT	1807		605.4																																					
		1807	1808		601.9	601.7	0.3																						12												
L 196+02	55 LT	1808		604.7																																					
		1808	1810		601.7	595.3	0.3																						100												
L 195+00	69 LT	1810		598.5																																					
		1810	1809		595.3	595.0	0.4																						52												
L 194+95	0 CL	1811		601.2																																					
		1811	1718		597.8	585.0																			268																		
L 195+65	10 RT	1812		603.8																																					
		1812	1811		600.8	597.8															68																				
L 199+00	0 CL	1813		614.7																																					
		1813	1812		609.0	600.8															332																				
L 199+00	71 RT	1821		612.2																																					
		1821	1813		609.2	609.0															72																				
L 206+75	10 LT	1910		621.8																																					
		1910	1911		619.0	618.4																					64														
L 207+35	11 RT	1911		621.5																																					
		1911	1912		618.1	617.8															64																				
L 211+78	0 CL	1915		614.5																																					
		1915	1914		612.3	611.9															88																				
L 215+41	0 CL	1917		617.0																																					
		1917	1918		612.2	611.5	0.5															124																			
L 220+50	0 CL	2010		631.2																																					
		2010	1917		626.5	612.2	0.3															508																			
L 226+00	0 CL	2012		647.4																																					
		2012	2010		644.1	627.0	0.4														548																				
L 220+50	71 LT	2020		631.0																																					
		2020	2010		628.0	627.0															72																				
L 220+50	71 RT	2021		633.1																																					
		2021	2010		630.1	627.0															72																				
L 226+00	71 LT	2030		647.3																																					
		2030	2012		644.3	644.1															72																				
L 226+00	71 RT	2031		648.4																																					
		2031	2012		645.4	644.1															72																				
L 234+90	18 LT	2109		653.2																																					
		2109	2110		650.0	648.4																					100														
L 233+90	0 CL	2110		651.2																																					
		2110	2111		648.1	646.5															84																				
L 241+50	9 LT	2114		646.9																																					
		2114	2115		644.8	643.7																							84												
SHEET TOTALS										100												1812	632				164	724						144						50	50

LINE & STATION	FROM	TO	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 191+08	1752					1	5.0	1.9																				1					1												
	1752	1753																																											
L 190+86	1753					1																								1															
	1753	1750																																											
L 192+25	1761					1	0.3													1			1																						
	1761	1760																																											
L 201+00	1805					1														1					1																				
	1805	1806																																											
L 198+00	1806					1														1			1																						
	1806	1807																																											
L 196+16	1807					1														1			1																						
	1807	1808																																											
L 196+02	1808					1														1			1																						
	1808	1810																																											
L 195+00	1810					1														1					1																				
	1810	1809																																											
L 194+95	1811					1								1			1	1																											
	1811	1718																																											
L 195+65	1812					1														1					1																				
	1812	1811																																											
L 199+00	1813					1	0.7													1					1																				
	1813	1812																																											
L 199+00	1821					1														1					1																				
	1821	1813																																											
L 206+75	1910					1														1					1																				
	1910	1911																																											
L 207+35	1911					1								1			1	1																											
	1911	1912																																											
L 211+78	1915					1															1				1																		50	
	1915	1914																																											
L 215+41	1917					1													1						1																				
	1917	1918																																											
L 220+50	2010					1													1						1																				
	2010	1917																																											
L 226+00	2012					1														1					1																				
	2012	2010																																											
L 220+50	2020					1														1					1																				
	2020	2010																																											
L 220+50	2021					1														1					1																				
	2021	2010																																											
L 226+00	2030					1														1					1																				
	2030	2012																																											
L 226+00	2031					1														1					1																				
	2031	2012																																											
L 234+90	2109					1								1			1	1																											
	2109	2110																																											
L 233+90	2110					1														1					1																				
	2110	2111																																											
L 241+50	2114					1															1				1																		24	
	2114	2115																																											
SHEET TOTALS						25	6.0	1.9						3			3	3	2	16	2		4		16			1		1			1										74	

RAL-GTPH6L3

COMPUTED BY: CGM DATE: 08/26/2024

CHECKED BY: JJM DATE: 08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-11

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 SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER		TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)													R. C. PIPE CLASS III						R. C. PIPE CLASS IV							R. C. PIPE CLASS V					24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)			C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03				CONCRETE TRANSITIONAL SECTION		OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
		FROM	TO					12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC	15	18	24	30	36		15	18	24	30	36	42	48	24	30	36	42	48							0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.		GRATE TYPE E	F	G		D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05																														
L 242+28	16 RT	2115		647.1																																											1									1			1	1																											48	
		2115	2113		643.7	643.3																	116																																																														
L 251+00	1 LT	2213		636.8																																											1														1					1																			23	
		2213	2217		634.1	633.1																	196																																																															
L 254+44	15 LT	2215		634.3																																											1														1					1																			
		2215	2214		631.3	630.2																	48																																																													48	
L 254+44	44 RT	2216		633.5																																																																																	OPEN END
		2216	2215		633.5	631.3																		60																																																													
L 253+00	5 LT	2217		635.1																																											1															1				1																			24	
		2217	2218		633.1	632.9	0.3																			76																																																								
Y16 15+03	33 LT	2603		611.4																																											1	1.4												1					1																			
		2603	2605		605.0	603.9																								72																																																				42	
Y16 15+05	41 RT	2605		610.7																																											1	1.8												1					1																			
					603.9																																																																													Tie to existing pipe
L 26+26	64 RT	0533							28																																																																										
L 22+75	68 LT	0540							48																																																																										
L 26+28	64 RT	0541							32																																																																										
Y8 11+89	20 LT	0635							44																																																																										
L 42+64	61 RT	0622							24																																																																										
L 50+54	57 RT	0740							36																																																																								28	
L 51+98	56 RT	0742							32																																																																								29	
L 52+87	57 RT	0743							28																																																																										
L 53+96	57 RT	0744							32																																																																										
L 58+09	57 RT	0745							48																																																																										
L 58+87	57 RT	0746							128																																																																										
L 59+28	53 LT	0747							36																																																																										
L 60+12	52 LT	0831							28																																																																										
L 60+24	73 RT	0809							28																																																																										
L 69+35	63 LT	0832							36																																																																										
L 84+12	58 RT	0917							32																																																																										
L 86+11	58 RT	0918							36																																																																										
L 92+32	56 LT	1006							36																																																																										
L 92+72	55 RT	1007							28																																																																										
L 94+38	61 RT	1008							20																																																																										
L 118+98	402 RT	1242																																													1																															1					
		1242	1243										36																																																																						
L 118+60	404 RT	1243		582.0																																											1	5.0	0.4																			1					1											
		1243	1244		571.6	565.5						140																																																																						
L 194+77	76 LT	1810																																																																																	
Y20 13+96	0 RT	1909			618.6	618.0																					76																																																							
L 214+40	140 RT	1919																																													1																															1					
		1919	1920										28					X		X																																																															
L 214+12	140 RT	1920		615.3																																											1	2.7																					1					1											
SHEET TOTALS										760				204								244	176					76	76		72															10	10.9	0.4						1			1	1		4	1				5			2					2					2					242	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL GTPH6L3

COMPUTED BY:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-12

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 SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC) 12	15	18	24	30	36	42	48	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
		1920	1921		607.6	607.0							116					X		X
L 234+18	71 LT	2108							40											
L 239+68	72 LT	2112							44											
L 239+65	70 RT	2117							44											
L 241+21	71 RT	2118							36											
L 248+29	71 RT	2219							40											
L 249+69	67 RT	2220							36											
L 251+26	60 RT	2221							40											
L 252+44	54 RT	2222							32											
Y4 15+10	31 LT	2401							32											
SHEET TOTALS									344				116							
PROJECT TOTALS									1184	336	104	40	320							

LINE & STATION	R. C. PIPE CLASS III 15	18	24	30	36		R. C. PIPE CLASS IV 15	18	24	30	36	42	48	R. C. PIPE CLASS V 24	30	36	42	48	24" WELDED STEEL PIPE 0.25" THICK 50% IN SOIL, 50% NOT IN SOIL	30" WELDED STEEL PIPE 0.375" THICK IN SOIL	30" WELDED STEEL PIPE 0.375" THICK NOT IN SOIL	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) A 0' THRU 5' EACH	B 5' THRU 10' LIN. FT.	10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G	
L 234+18																																
L 239+68																																
L 239+65																																
L 241+21																																
L 248+29																																
L 249+69																																
L 251+26																																
L 252+44																																
Y4 15+10																																
SHEET TOTALS																																
PROJECT TOTALS	684	3764	2496	1228	284		5096	8044	944	336	120				176				84	50	50	2.500			249	84.6		128	16	60	52	

LINE & STATION	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I.(W.S. FLAT)FRAME W GRATE STD. 840.20	G.D.I.(W.S. FLAT) FR W/2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FR W/ GRATE STD. 840.22	G.D.I.(W.S. SAG) FR W/ 2 GRATES STD. 840.22	G.D.I. (N.S. FLAT) FR W/ GRATE STD. 840.29	G.D.I.(N.S. FLAT) FR W/2 GRATES STD. 840.29	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES & FRAMES STD. 840.33	T.B.J.B. STD. 840.34		M.H. STD. 840.51, STD. 840.52, OR STD. 840.53	M.H. FRAME AND COVER STD. 840.54		CONV. EXIST. CB TO JB(SEE DETAIL SHEET 2C-11)	CONV. EXIST. CB TO DI(SEE DETAIL SHEET 2C-12)	CONVERT EXISTING D.I. TO J.B.	CONVERT EXISTING J.B. TO D.I.	BASIN OUTLET STR. (SEE DETAIL SHEET 2D-3)	TEMPORARY STEEL COVERS	FLOWABLE FILL CY	PIPE CLEAN OUT EA	CONCRETE / BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 234+18																																
L 239+68																															71	
L 239+65																																
L 241+21																																
L 248+29																															120	
L 249+69																																
L 251+26																																
L 252+44																																
Y4 15+10																													1.0000			
SHEET TOTALS																													1.0000		191	
PROJECT TOTALS	46	20		46	46	9	45	7		10		47		4	7		5			12		2	2			2	15		1.0000		1945	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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

RAL GTPH6L3

COMPUTED BY:	CGM	DATE:	08/26/2024
CHECKED BY:	JJM	DATE:	08/26/2024

PROJECT NO.	SHEET NO.
R-5726	3D-13

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 54 INCHES & OVER)

LINE & STATION SIZE THICKNESS OR GAUGE	OFFSET	STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	R. C. PIPE CLASS V 12	15	18	24	30	36	42	48	54	60	66	72	78	84		54" WELDED STEEL PIPE 0.375" THICK IN SOIL	54" WELDED STEEL PIPE #0.375" THICK NOT IN SOIL	##" WELDED STEEL PIPE ##" THICK, GRADE B (UNDER RR)							ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)) 0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E	F	G		CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	DRIVEWAY D.I. STD. 840.30	FRAME W/ GRATE FOR DRIVEWAY STD. 840.30	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES AND FRAMES STD. 840.33	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	T.B.D.I. FOR STEEL GRATES STD. 840.36	STEEL FRAME WITH TWO GRATES STD. 840.37	TEMP STEEL PLATE COVER MASONRY DRAINAGE	ENERGY DISSIPATION BASIN		FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
L 187+60	125 LT	1712		563.5																													5.200																																										
		1712	1716		563.5	552.2										52																																																											
L 188+00	80 LT	1716		567.5																														3.500																												1													
		1716	1719		561.3	557.5																	50	50																																														19				
L 188+00	23 RT	1719		564.3																														3.500																												1													
		1719	1713		557.5	552.2										140																																																											
SHEET TOTALS																192							50	50									5.200	7.000																												2									19				
PROJECT TOTALS																192							50	50									5.200	7.000																												2									19				

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY 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: SEM DATE: 4/24/2024
CHECKED BY: SSL DATE: 4/24/2024

(2-3-23)

PROJECT NO.	SHEET NO.
R-5726	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 (6")	375
				TOTAL LF:	375

*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 Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY			ASU(1)	12	300	590	900		
			TOTAL CY/TONS/SY:		300	590**	900**	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 Subgrade 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	3:1	186+50	3:1	188+50	LT	1		1000
L	3:1	196+50	3:1	199+50	LT	3		500
							TOTAL SY:	1500

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

SUMMARY OF SETTLEMENT GAUGES

Gauge No.	LINE and Station	Offset	
		Distance FT	Direction LT/RT
1	-L- 185+50	60	RT
2	-L- 188+00	60	RT
3	-L- 190+50	70	RT
4	-L- 192+50	70	RT
	TOTAL GAUGES (EACH):		4

SUMMARY OF EMBANKMENT WAITING PERIODS

LINE	Station	Station	MONTHS
L	184+50	189+50	1
L	190+50	194+00	1

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3P-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PARCEL INDEX SHEET

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME	PHASE NO.
1	4	FRED B. MONROE, JR AND WIFE, CAROL H. MONROE (NO CLAIM)	4
1A	4	BUREAU ENTERPRISES, LLC (NO CLAIM)	4
2	4	JEFFERY D. AND CHRISTINE M. KERR (NO CLAIM)	4
3	4	Mc, B, Mc, LLC	4
4	4	NCDOT	4
5	4, 5, 8, 9, 10, 11, 12, 13, 14, 15, 21, 22, 23, 24	ABERDEEN CAROLINA & WESTERN RAILWAY (NO CLAIM)	1,2,3,4,5
6		UNASSIGNED	4
7	4,5	JDN GROUP, LLC	4
8	4,5	JR SQUARE, LLC	4
9	5	JDN GROUP, LLC	4
10	5	5364 HIGHWAY 211, LLC	4
11	5	WEST END UNITED METHODIST CHURCH	4
12	5	MARK EARL KARSHNER CLAYTON EARL KARSHNER	4
13	5	MCNEIL OIL CO.	4
14	5	JERRY D. WICKER AND WIFE, HARRIET D. WICKER	4
15	5,24	WEST END UNITED METHODIST CHURCH	4
16	5	LONNIE R. MATTHEWS	4
17	5	LONNIE R. MATTHEWS	4
18	5,24	SOUTHERN GOLF AND LAND, LLC	4
19	5,24	SOUTHERN GOLF AND LAND, LLC	4
20		UNASSIGNED	
21		UNASSIGNED	
22	5	PINE RIDGE PROPERTIES, LLC	4
23	5	NC DEPARTMENT OF TRANSPORTATION	4
24	5	MICHAEL S. NARDO	4
25	5,6	MOORE COUNTY	4
26	6	JAMES RICHARD VON CANON AND WIFE, EDNA M. VON CANON	4
27	6	JENNEFER CLARK	4
28	6	EDNA M. VON CANON	4
29	6	JOHN A. CHISHOLM AND WIFE, RACHEL E. CHISHOLM	4
30	6	SANDHILLS PRIME REAL ESTATE, LLC	4
31	6	NIC'S PIC KWIK. INC	4
32	6	FIRST BAPTIST CHURCH OF WEST END, INC	4
33	6	JAMES R. KRKPATRICK TRUSTEES	4
34	6	BOLES FAMILY, LLC	4
35	6,7	JOHNSON IMPROVEMENT CO.	4
36	6	FIRST BAPTIST CHURCH OF WEST END, INC	4
37		UNASSIGNED	
38	6,7	JESSE JAMES SOUTHARD TABATHA SOUTHARD ALDRIDGE	4
39		UNASSIGNED	
40	7	USPS	4
41	7	BILLY RAY BOWYER	4
42	7	IVORY RICHARDSON	3
43	7	SUSAN McCASKILL MORGAN ET, ALS	3
44	7	TIMOTHY COOPER	3
45	7	WEST END CEMETERY ASSOCIATION	3
46	7	JAMES R. KIRKPATRICK FAMILY REVOCABLE TRUST	3
47	7	WEST END CEMETERY ASSOCIATION	3
48	7	JR SQUARE, LLC	3
49	7	SERIOUS STORAGE, LLC	3
50	7	NC DEPARTMENT OF TRANSPORTATION	3
51A		Eliminated	
51	8	JOHNSON IMPROVEMENT CO	3
52	7	SILVER RUN FARM, LLC	3
53	7,8	JAMES DAVID COUGHENOUR	3
53A	7,8	UN- OPENED STREET	3
53B	7,8	CALVIN LEE DOWNS AND WIFE GLORIA H. DOWNS	3
54	8	JOHNSON IMPROVEMENT CO	3
54A	8	JACQUELINE COUGHENOUR	3
55	8,9	SILVER RUN FARM, LLC	3
56		UNASSIGNED	
57	9	ZACHARY S. WILLIAMS AND WIFE REBECCA M. WILLIAMS	2
57A	9,10	JEANNE M. WILLIAMS	2
58	10	FRED B. MONROE AND WIFE, CAROL H. MONROE AND DOUGLASS H. MONROE	2
59	10,25	CLAUDE SMITH ENTERPRISES, INC.	2
60	10,11, 10,25	MOORE COUNTY BOARD OF EDUCATION	2
61	12,12A	CEDAR GROVE BAPTIST CHURCH	2
62		UNASSIGNED	
63		UNASSIGNED	
64	12,12A	CLARENCE GILLESPIE HEIRS	2
65	12,12A	THELMA CRUTCHFIELD	2
66	12,12A	SEVEN LAKES HARDWARE	2
67	12,13	SEVEN LAKES HARDWARE	2
68	13	CLEMMONS SUBS, INC.	2
69	13	BRIAN K. NEALAND WIFE, KAREN P. NEAL	5
70	13,26	CAT HOLDINGS, LLC	5
71	13	ELAINE YOW GIRGIS AND EDWINA LANE YOW	5
71A	13	NC DEPARTMENT OF TRANSPORTATION	5
71B	13	NC DEPARTMENT OF TRANSPORTATION	5
72		UNASSIGNED	
73	13	FIRST BANK	5
74	13	VENTURA BERBER HOLDINGS, LLC	5
75	13	ELAIN YOW GIRGIS	5
76	13	JOYCE RUSSELL & OTHERS	5
77	13	JOYCE RUSSELL & OTHERS	5
78	13,14	CS DAVIS, JR., MOORE COUNTY,LLC	5
79	14	BERKOSKI SOUTH, LLC	5
80		UNASSIGNED	
81	14	DOLGENCORP, INC.	5
82	14	McDONALD'S REAL ESTATE COMPANY	5
83	14	4145 HWY 211, LLC	1

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	3P-2

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PARCEL INDEX SHEET

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME	PHASE NO.
84	14	JKL RENTALS	1
85	14	JC RG, LLC	1
86	14	JC RG, LLC	1
87	15	YASMIN LUJANO JIMINEZ	1
88	15	ELSIE H. RUSHING AND HUSBAND, BILLY D. RUSHING	1
89	15	NORRIS RANDELL JESSUP AND WIFE, KATHY T. JESSUP	1
90	15	NC DEPARTMENT OF TRANSPORTATION	1
91	15,16,17	JOHNSON IMPROVEMENT COMPANY	1
92	15	ANCHOR 7, LLC	1
93		UNASSIGNED	
94	16,17	NORTH CAROLINA RSA#6, INC	1
95	17	HARVEY A. BOWMAN AND WIFE, BRENDA A. BOWMAN	1
96	17,18	JOHNSON IMPROVEMENT COMPANY	1
96A	17	DOUGLAS FRANKLIN HOYLE	1
97	17	McLENDON HILLS PROPERTY OWNERS ASSOCIATION	1
98	17,18	McLENDON HILLS PROPERTY OWNERS ASSOCIATION	1
99	18	McLENDON HILLS POA	1
100	18	JOSEPHINE M. JONES	1
101	18	AILEEN LITTLEJOHN	1
102	18,19	JOHN WILLIAM CARTER III AND WIFE, LEE PAISLEY CARTER	1
103	18,19	JOHN WILLIAM CARTER III AND WIFE, LEE PAISLEY CARTER	1
104	19	RAMON JAIMES MORALES AND WIFE, JUANA MARTINEZ MENDEZ	1
105		UNASSIGNED	
106	19,20,21	J. WAYNE TUCKER, JR.	1
107	21,22	COSTA MESA, LLC	1
108		UNASSIGNED	
109		UNASSIGNED	
110		UNASSIGNED	
111		UNASSIGNED	
112		UNASSIGNED	
113		UNASSIGNED	
114		UNASSIGNED	
115		UNASSIGNED	
116		UNASSIGNED	
117		UNASSIGNED	
118		UNASSIGNED	
119		UNASSIGNED	
120		UNASSIGNED	
121	22,23	BRIDGET COTTON	1
122	23	THYRONE V. BARRETT	
123	23	ISMAEL MORENZO AND WIFE, MARIA D. GUZMAN	
124	23	JORDAN PIERSON	
125	24	SAMUEL WILLIAM OLSZANSKI, III AND WIFE, GAYLE JENE OLSZANSKI	4
125A	24	WILLIAM AND DIANNE MINGIN	4
126	26	ELAINE McK. YOW	5
127		UNASSIGNED	
128	26	PROTESTANT EPISCOPAL CHURCH	5
129	26	BALDWIN REALTY INVESTMENTS, LLC	5
130	26	MOORE PEDIATRIC THERAPY SERVICES, LLC	5
131	26	MOORE PEDIATRIC THERAPY SERVICES, LLC	5
132	26	BOYD REAL ESTATE INVESTMENT, LLC	5
132A	26	ROSELAND PROPERTIES, LLC	5
133	12A	NC DEPARTMENT OF TRANSPORTATION	2
134		UNASSIGNED	
135	22	DELANA CAGLE	1
136	23	COSTA MESA, LLC	1
136A	23	JEFFREY ALLEN BOWMAN	1
136B	23	MARY J. GAINEY	1
900	12, 12A	CEDAR GROVE BAPTIST CHURCH	2
900A	12, 12A	CEDAR GROVE BAPTIST CHURCH	2
PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME	PHASE NO.

7:30:52 AM
C:\Roadway\Proj\r-5726_rdy_psh03P-2.dgn
08/25/19

PROJECT REFERENCE NO.	SHEET NO.
R-5726	4

ROADWAY DESIGN ENGINEER — SEAL 22606 — MOTT MACDONALD I&E, LLC LICENSE NO. F-0669 — 29-Aug-2024

HYDRAULICS ENGINEER — SEAL 042084 — HDR ENGINEERING LICENSE NO. F-0116 — 29-Aug-2024

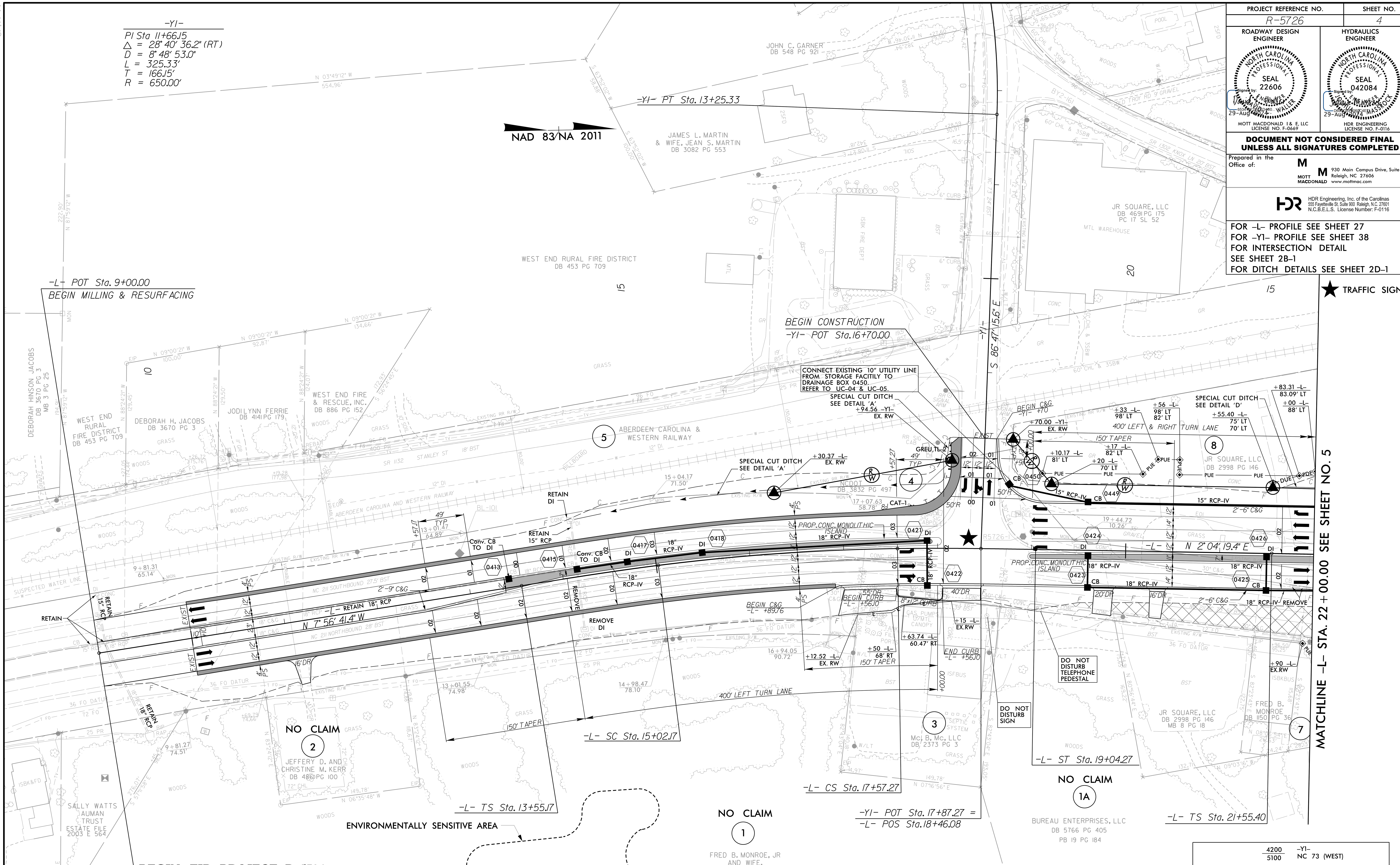
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

HDR Engineering, Inc. of the Carolinas, 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601, N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 27
FOR -Y1- PROFILE SEE SHEET 38
FOR INTERSECTION DETAIL SEE SHEET 2B-1
FOR DITCH DETAILS SEE SHEET 2D-1

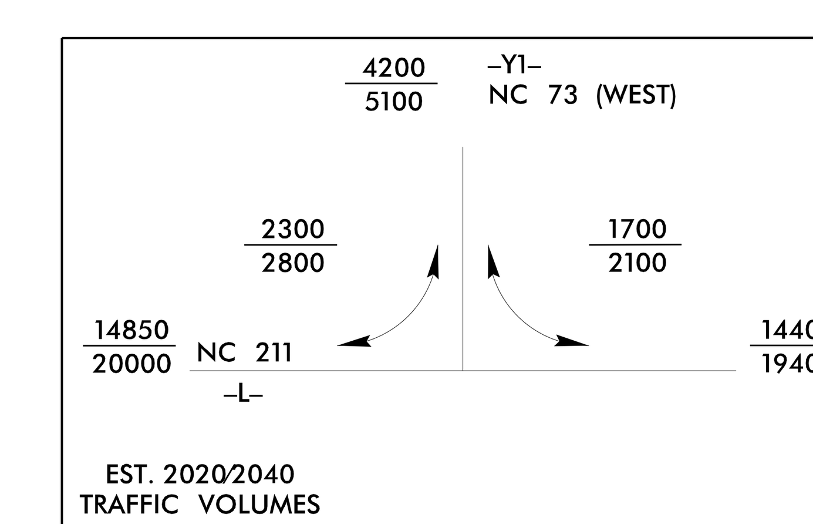
★ TRAFFIC SIGNAL


-Y1-
PI Sta 11+66.15
Δ = 28° 40' 36.2" (RT)
D = 8° 48' 53.0"
L = 325.33'
T = 166.15'
R = 650.00'
NAD 83/NA 2011
-Y1- PT Sta. 13+25.33
-L- POT Sta. 9+00.00
BEGIN MILLING & RESURFACING
BEGIN CONSTRUCTION
-Y1- POT Sta. 16+70.00
CONNECT EXISTING 10" UTILITY LINE FROM STORAGE FACITILY TO DRAINAGE BOX 0450. REFER TO UC-04 & UC-05.
SPECIAL CUT DITCH SEE DETAIL 'A'
SPECIAL CUT DITCH SEE DETAIL 'D'
ABERDEEN CAROLINA & WESTERN RAILWAY
WEST END RURAL FIRE DISTRICT DB 453 PG 709
JOHN C. GARNER DB 548 PG 921
JAMES L. MARTIN & WIFE, JEAN S. MARTIN DB 3082 PG 553
JR SQUARE, LLC DB 4691 PG 175 PC 17 SL 52
DEBORAH H. JACOBS DB 3670 PG 3
JODI LYNN FERRIE DB 4141 PG 179
WEST END FIRE & RESCUE, INC. DB 886 PG 152
N 7° 56' 41.4" W
N 2° 04' 19.4" E
S 86° 47' 15.6" E
400' LEFT TURN LANE
150' TAPER
-L- SC Sta. 15+02.17
-L- TS Sta. 13+55.17
-L- CS Sta. 17+57.27
-Y1- POT Sta. 17+87.27 = -L- POS Sta. 18+46.08
-L- ST Sta. 19+04.27
-L- TS Sta. 21+55.40
NO CLAIM
JEFFERY D. AND CHRISTINE M. KERR DB 4861 PG 100
Mci B. Mc, LLC DB 2373 PG 3
BUREAU ENTERPRISES, LLC DB 5766 PG 405 PB 19 PG 184
FRED B. MONROE, JR AND WIFE, CAROL H. MONROE DB 1150 PG 36
SALLY WATTS AUMAN TRUST ESTATE FILE 2003 E 564
JOHN WESLEY WATKINS, III DB 3314 PG 90 PC 13 SL 995
JR SQUARE, LLC DB 2998 PG 146 MB 8 PG 18
ENVIRONMENTALLY SENSITIVE AREA
DO NOT DISTURB TELEPHONE PEDESTAL
DO NOT DISTURB SIGN
MATCHLINE -L- STA. 22+00.00 SEE SHEET NO. 5

BEGIN TIP PROJECT R-5726
-L- STA. 9+00.00

-L-

PIs Sta 14+53.17	PI Sta 16+29.85	PIs Sta 18+06.28	PIs Sta 22+86.10
Θs = 1° 49' 51.5"	Δ = 6° 21' 17.8" (RT)	Θs = 1° 49' 51.5"	Θs = 3° 44' 36.0"
Ls = 147.00'	D = 2° 29' 28.0"	Ls = 147.00'	Ls = 196.00'
LT = 98.01'	L = 255.10'	LT = 98.01'	LT = 130.70'
ST = 49.00'	T = 127.68'	ST = 49.00'	ST = 65.36'
	R = 2,300.00'		
	SE = 0.03		
	RO = 147'		



ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	5

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 — WALLER — 29-Aug-2024 — MOTT MACDONALD I& E, LLC LICENSE NO. F-0669

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042084 — MASSROCK — 29-Aug-2024 — HDR ENGINEERING LICENSE NO. F-0116

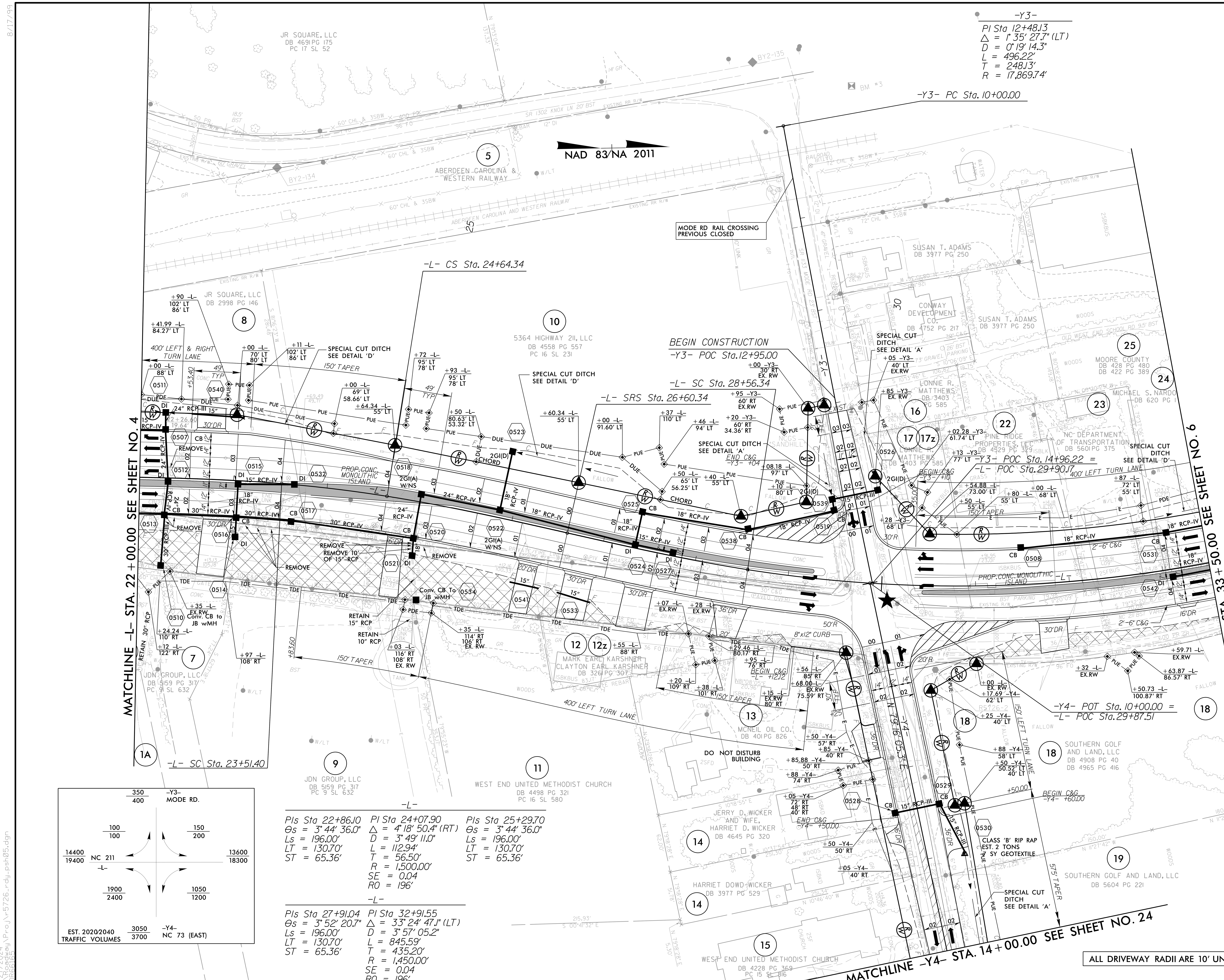
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD — 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, NC 27601 N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 27
FOR -Y3- PROFILE SEE SHEET 38
FOR -Y4- PROFILE SEE SHEET 39
FOR INTERSECTION DETAIL SEE SHEET 2B-1
FOR DITCH DETAILS SEE SHEET 2D-1

★ TRAFFIC SIGNAL



-Y3-
PI Sta 12+48.13
Δ = 1° 35' 27.7" (LT)
D = 0° 19' 14.3"
L = 496.22'
T = 248.13'
R = 17,869.74'
-Y3- PC Sta. 10+00.00
NAD 83/NA 2011
JR SQUARE, LLC DB 4691 PG 175 PC 17 SL 52
ABERDEEN CAROLINA & WESTERN RAILWAY
MODE RD RAIL CROSSING PREVIOUS CLOSED
-L- CS Sta. 24+64.34
JR SQUARE, LLC DB 2998 PG 146
5364 HIGHWAY 211, LLC DB 4558 PG 557 PC 16 SL 231
BEGIN CONSTRUCTION -Y3- POC Sta.12+95.00
-L- SC Sta. 28+56.34
-L- SRS Sta. 26+60.34
SUSAN T. ADAMS DB 3977 PG 250
CONWAY DEVELOPMENT CO. DB 4752 PG 217
MOORE COUNTY DB 428 PG 480 DB 422 PG 389
MICHAEL S. NARDO DB 620 PG
LONNIE R. MATTHEWS DB 3403 PG 585
PINE RIDGE PROPERTIES, LLC DB 4529 PG 329
NC DEPARTMENT OF TRANSPORTATION DB 5601 PG 375
-Y3- POC Sta. 14+96.22 = -L- POC Sta.29+90.17
400' LEFT & RIGHT TURN LANE
150' TAPER
SPECIAL CUT DITCH SEE DETAIL 'D'
SPECIAL CUT DITCH SEE DETAIL 'A'
PROP. CONC. MONOLITHIC ISLAND
MATCHLINE -L- STA. 22+00.00 SEE SHEET NO. 4
MATCHLINE -L- STA. 33+50.00 SEE SHEET NO. 6
MATCHLINE -Y4- STA. 14+00.00 SEE SHEET NO. 24
-Y4- POT Sta. 10+00.00 = -L- POC Sta.29+87.51
-L- SC Sta. 23+51.40
JDN GROUP, LLC DB 5159 PG 317 PC 9 SL 632
WEST END UNITED METHODIST CHURCH DB 4498 PG 321 PC 16 SL 580
MARK EARL KARSHNER CLAYTON EARL KARSHNER DB 326 PG 307
MCNEIL OIL CO. DB 401 PG 826
DO NOT DISTURB BUILDING
SOUTHERN GOLF AND LAND, LLC DB 4908 PG 40 DB 4965 PG 416
SOUTHERN GOLF AND LAND, LLC DB 5604 PG 221
JERRY D. WICKER AND WIFE, HARRIET D. WICKER DB 4645 PG 320
HARRIET DOWD-WICKER DB 3977 PG 529
WEST END UNITED METHODIST CHURCH DB 4228 PG 369 PC 15 SL 516
400' LEFT TURN LANE
150' LEFT TURN LANE
575' TAPER
CLASS 'B' RIP RAP EST. 2 TONS 2 SY GEOTEXTILE
ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.
-Y3- MODE RD. 350/400
NC 211 -L- 14400/19400 13600/18300
100/100 150/200 1900/2400 1050/1200
-Y4- NC 73 (EAST) 3050/3700
EST. 2020/2040 TRAFFIC VOLUMES

-L-

PIs Sta 22+86.10	PI Sta 24+07.90	PIs Sta 25+29.70
Θs = 3° 44' 36.0"	Δ = 4° 18' 50.4" (RT)	Θs = 3° 44' 36.0"
Ls = 196.00'	D = 3° 49' 11.0"	Ls = 196.00'
LT = 130.70'	L = 112.94'	LT = 130.70'
ST = 65.36'	T = 56.50'	ST = 65.36'
	R = 1,500.00'	
	SE = 0.04	
	RO = 196'	

-L-

PIs Sta 27+91.04	PI Sta 32+91.55
Θs = 3° 52' 20.7"	Δ = 33° 24' 47.1" (LT)
Ls = 196.00'	D = 3° 57' 05.2"
LT = 130.70'	L = 845.59'
ST = 65.36'	T = 435.20'
	R = 1,450.00'
	SE = 0.04
	RO = 196'

8/27/2024

PROJECT REFERENCE NO.	SHEET NO.
R-5726	6

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER
Signed by: David C. Waller
13-Aug-2024
MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 042084 ENGINEER JOSHUA J. MASSROCK
Signed by: Joshua Massrock
13-Aug-2024
HDR ENGINEERING
LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St, Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

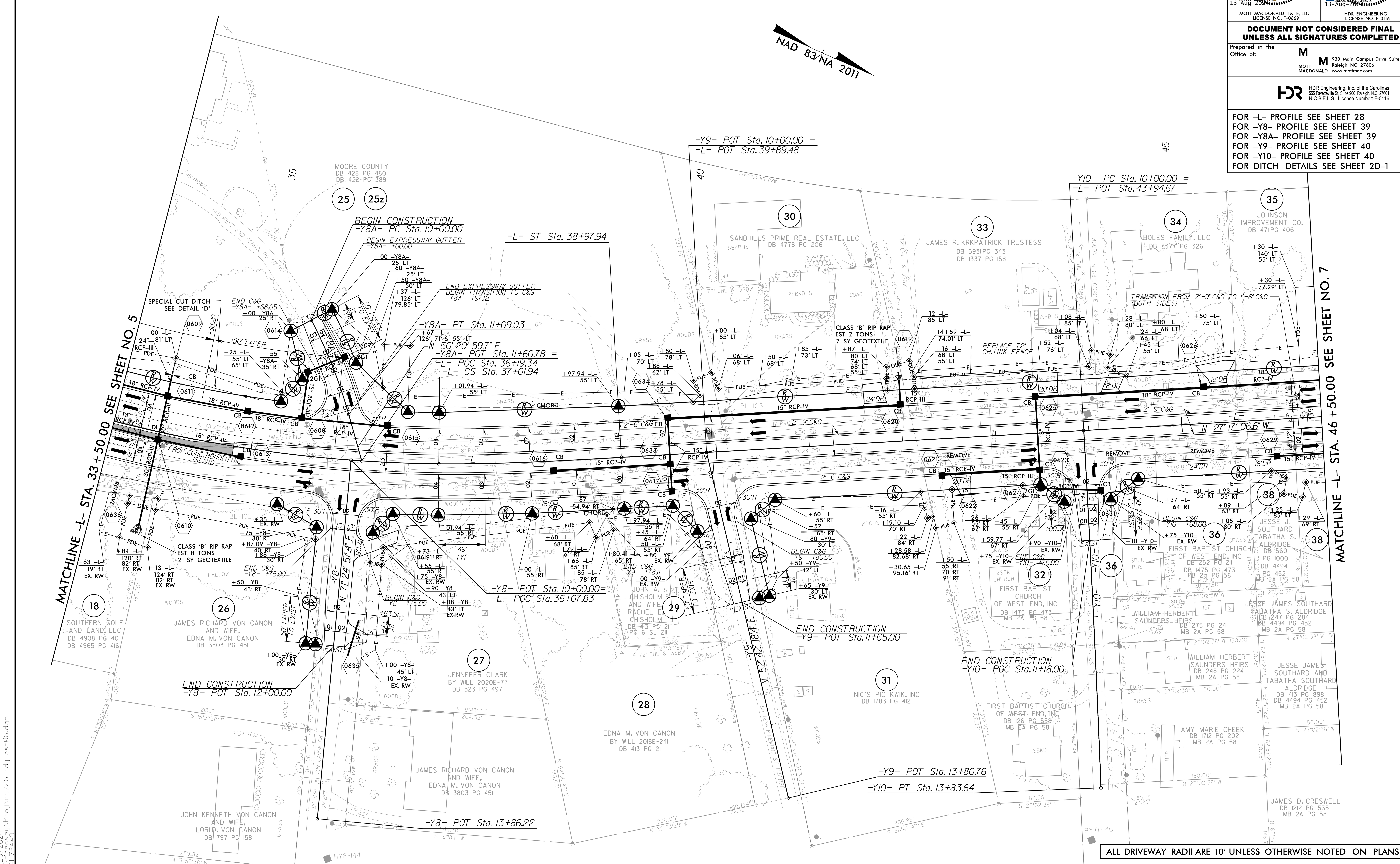
FOR -L- PROFILE SEE SHEET 28
FOR -Y8- PROFILE SEE SHEET 39
FOR -Y8A- PROFILE SEE SHEET 39
FOR -Y9- PROFILE SEE SHEET 40
FOR -Y10- PROFILE SEE SHEET 40
FOR DITCH DETAILS SEE SHEET 2D-1

-L-
PI Sta 32+91.55
△ = 33° 24′ 47.1″ (LT)
D = 3° 57′ 05.2″
L = 845.59′
T = 435.20′
R = 1,450.00′
SE = 0.04
R0 = 196′

PIs Sta 37+67.30
Θs = 3° 52′ 20.7″
Ls = 196.00′
LT = 130.70′
ST = 65.36′

-Y8A-
PI Sta 10+54.71
△ = 11° 53′ 55.8″ (RT)
D = 10° 54′ 48.5″
L = 109.03′
T = 54.71′
R = 525.00′

-Y10-
PI Sta 11+91.82
△ = 0° 57′ 09.4″ (RT)
D = 0° 14′ 53.9″
L = 383.64′
T = 191.82′
R = 23,074.48′


NAD 83/NA 2011
MATCHLINE -L- STA. 33+50.00 SEE SHEET NO. 5
MATCHLINE -L- STA. 46+50.00 SEE SHEET NO. 7
BEGIN CONSTRUCTION
-Y8A- PC Sta. 10+00.00
-L- ST Sta. 38+97.94
-Y8A- PT Sta. 11+09.03
N 50° 20′ 59.7″ E
-Y8A- POT Sta. 11+60.78 =
-L- POC Sta. 36+19.34
-L- CS Sta. 37+01.94
-Y9- POT Sta. 10+00.00 =
-L- POT Sta. 39+89.48
-Y10- PC Sta. 10+00.00 =
-L- POT Sta. 43+94.67
N 27° 17′ 06.6″ W
SPECIAL CUT DITCH SEE DETAIL 'D'
CLASS 'B' RIP RAP EST. 2 TONS 7 SY GEOTEXTILE
CLASS 'B' RIP RAP EST. 8 TONS 21 SY GEOTEXTILE
-Y8- POT Sta. 10+00.00=
-L- POC Sta. 36+07.83
END CONSTRUCTION
-Y9- POT Sta. 11+65.00
END CONSTRUCTION
-Y10- POC Sta. 11+18.00
END CONSTRUCTION
-Y8- POT Sta. 12+00.00
-Y9- POT Sta. 13+80.76
-Y10- PT Sta. 13+83.64
-Y8- POT Sta. 13+86.22
N 71° 24′ 57.4″ E
N 52° 42′ 18.4″ E
MOORE COUNTY DB 428 PG 480 DB 422 PG 389
SANDHILLS PRIME REAL ESTATE, LLC DB 4778 PG 206
JAMES R. KIRKPATRICK TRUSTESS DB 5931 PG 343 DB 1337 PG 158
BOLES FAMILY, LLC DB 3377 PG 326
JOHNSON IMPROVEMENT CO. DB 471 PG 406
SOUTHERN GOLF AND LAND, LLC DB 4908 PG 40 DB 4965 PG 416
JAMES RICHARD VON CANON AND WIFE, EDNA M. VON CANON DB 3803 PG 451
JENNEFER CLARK BY WILL 2020E-77 DB 323 PG 497
EDNA M. VON CANON BY WILL 2018E-241 DB 413 PG 21
JOHN A. CHISHOLM AND WIFE, RACHEL E. CHISHOLM DB 413 PG 21
NIC'S PIC KWIK, INC DB 1783 PG 412
FIRST BAPTIST CHURCH OF WEST END, INC DB 1475 PG 473 MB 2A PG 58
FIRST BAPTIST CHURCH OF WEST END, INC DB 126 PG 558 MB 2A PG 58
WILLIAM HERBERT SAUNDERS HEIRS DB 275 PG 24 MB 2A PG 58
WILLIAM HERBERT SAUNDERS HEIRS DB 248 PG 224 MB 2A PG 58
JESSE JAMES SOUTHARD TABATHA S. ALDRIDGE DB 247 PG 284 DB 4494 PG 452 MB 2A PG 58
AMY MARIE CHEEK DB 1712 PG 202 MB 2A PG 58
JAMES D. CRESWELL DB 1212 PG 535 MB 2A PG 58
JOHN KENNETH VON CANON AND WIFE, LORI D. VON CANON DB 797 PG 158
JAMES RICHARD VON CANON AND WIFE, EDNA M. VON CANON DB 3803 PG 451

ALL DRIVEWAY RADII ARE 10′ UNLESS OTHERWISE NOTED ON PLANS.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	7

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 — DAVID C. WALLER — 10-Oct-2024 — MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

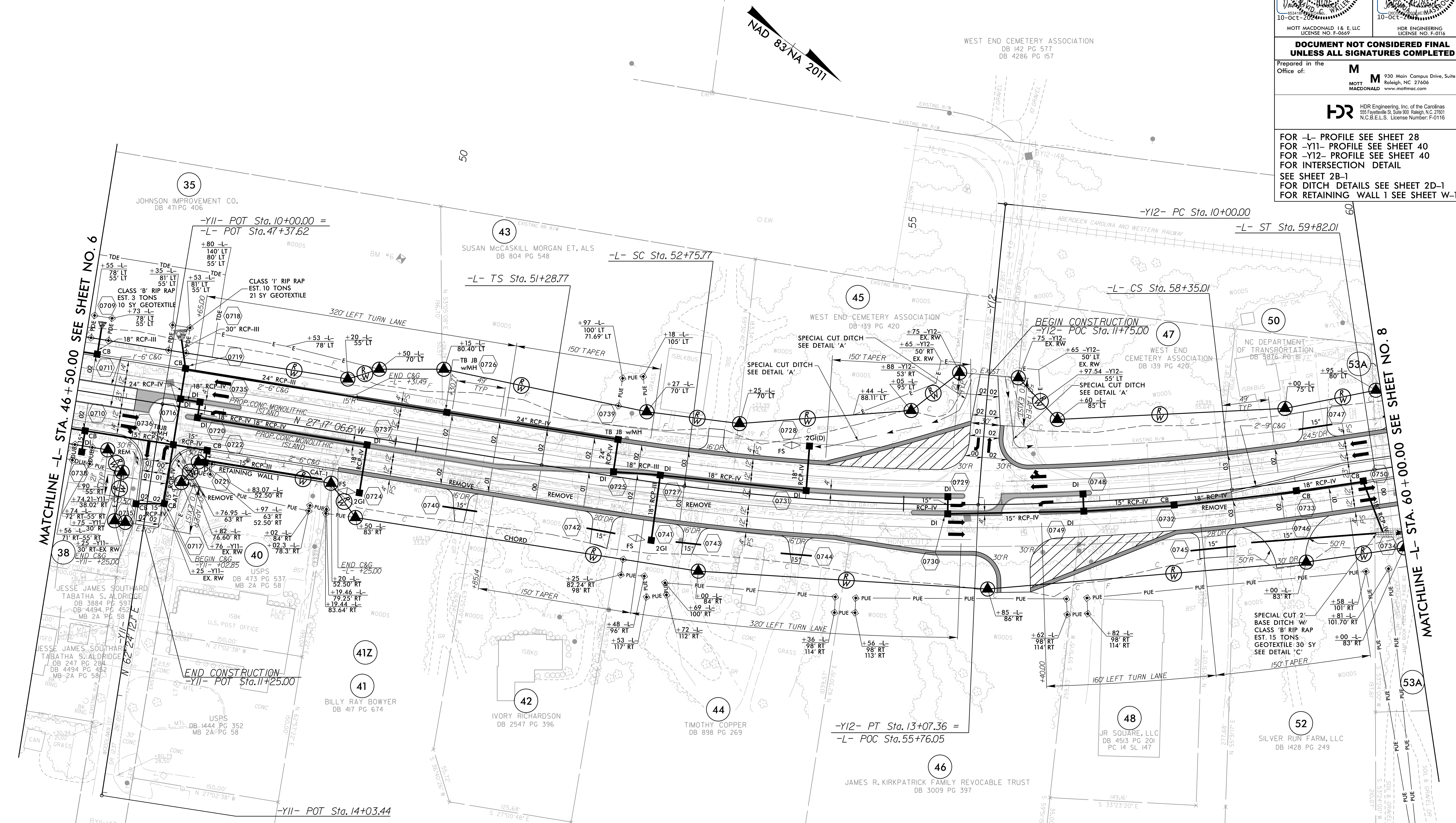
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042084 — 10-Oct-2024 — HDR ENGINEERING LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD — 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 28
FOR -Y11- PROFILE SEE SHEET 40
FOR -Y12- PROFILE SEE SHEET 40
FOR INTERSECTION DETAIL SEE SHEET 2B-1
FOR DITCH DETAILS SEE SHEET 2D-1
FOR RETAINING WALL 1 SEE SHEET W-1



-L-

PI Sta 52+26.78	PI Sta 55+56.78	PI Sta 58+84.01
Θs = 1° 49' 51.5"	Δ = 13° 55' 52.2" (LT)	Θs = 1° 49' 51.5"
Ls = 147.00'	D = 2° 29' 28.0"	Ls = 147.00'
LT = 98.01'	L = 559.23'	LT = 98.01'
ST = 49.00'	T = 281.00'	ST = 49.00'
	R = 2,300.00'	
	SE = 0.03	
	RO = 147'	

-Y12-

PI Sta 11+53.69
Δ = 1° 36' 10.0" (LT)
D = 0° 31' 17.3"
L = 307.36'
T = 153.69'
R = 10,987.47'

8/17/99

10/10/2024 R:\Roadway\Proj\r5726_rdy_psh07.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5726	8

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 — 10-Oct-2024 — MOTT MACDONALD I&E, LLC LICENSE NO. F-0669

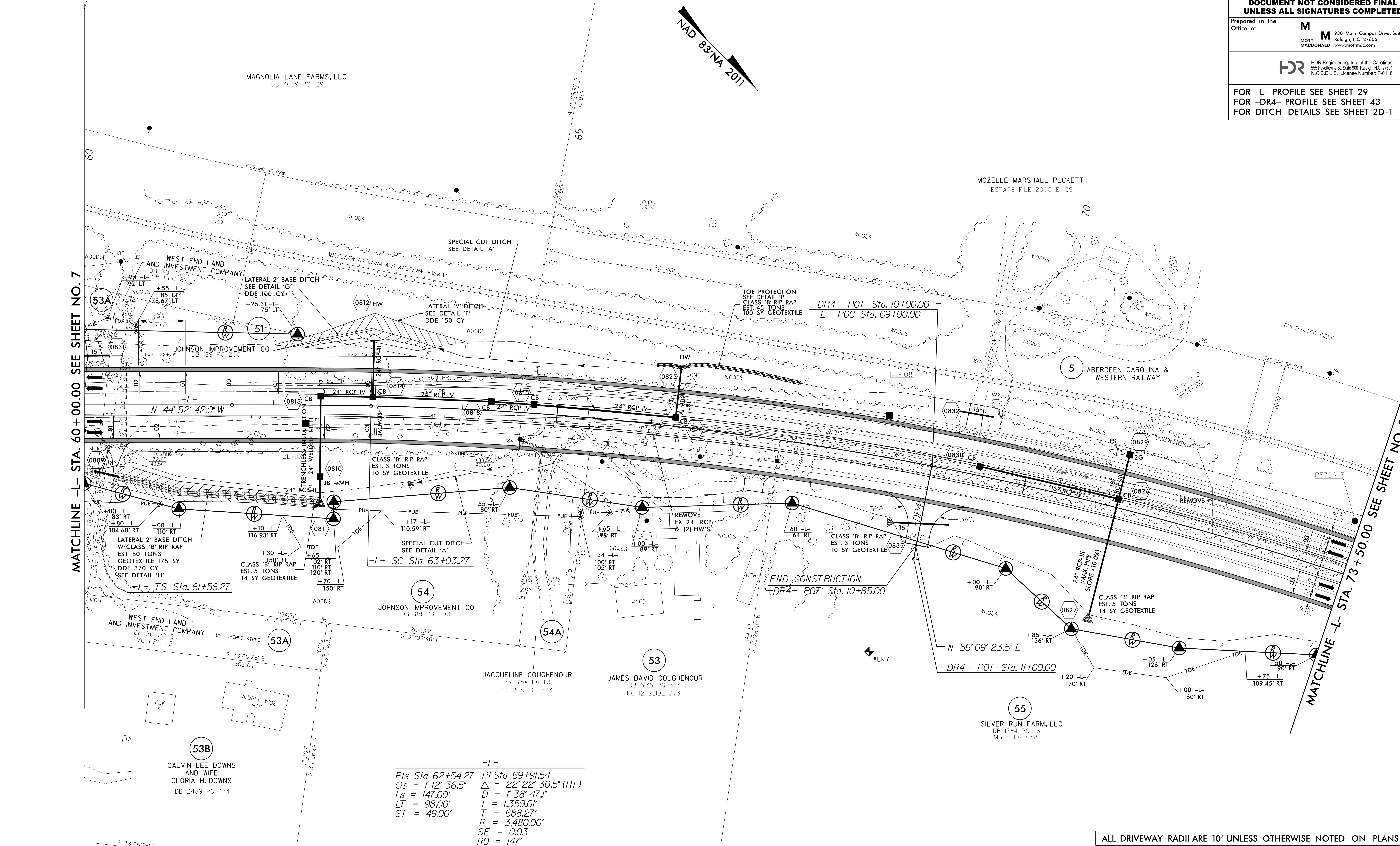
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042084 — 10-Oct-2024 — HDR ENGINEERING LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD — 930 Main Campus Drive, Suite 200 Raleigh, NC 27606 www.mottmac.com

HDR Engineering, Inc. of the Carolinas 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601 N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 29
FOR -DR4- PROFILE SEE SHEET 43
FOR DITCH DETAILS SEE SHEET 2D-1


NAD 83/NA 2011
MATCHLINE -L- STA. 60+00.00 SEE SHEET NO. 7
MATCHLINE -L- STA. 73+50.00 SEE SHEET NO. 9
MAGNOLIA LANE FARMS, LLC
DB 4639 PG 129
WEST END LAND AND INVESTMENT COMPANY
DB 30 PG 59
MB 1 PG 82
JOHNSON IMPROVEMENT CO
DB 189 PG 200
MOZELLE MARSHALL PUCKETT
ESTATE FILE 2000 E 139
ABERDEEN CAROLINA & WESTERN RAILWAY
JACQUELINE COUGHENOUR
DB 1784 PG 113
PC 12 SLIDE 873
JAMES DAVID COUGHENOUR
DB 5135 PG 333
PC 12 SLIDE 873
SILVER RUN FARM, LLC
DB 1784 PG 118
MB 8 PG 658
CALVIN LEE DOWNS AND WIFE GLORIA H. DOWNS
DB 2469 PG 474
SPECIAL CUT DITCH SEE DETAIL 'A'
LATERAL 2' BASE DITCH SEE DETAIL 'G' DDE 100 CY
LATERAL 'V' DITCH SEE DETAIL 'F' DDE 150 CY
TOE PROTECTION SEE DETAIL 'P' CLASS 'B' RIP RAP EST. 45 TONS 100 SY GEOTEXTILE
-DR4- POT Sta. 10+00.00 = -L- POC Sta. 69+00.00
N 44° 52' 42.0" W
CLASS 'B' RIP RAP EST. 3 TONS 10 SY GEOTEXTILE
LATERAL 2' BASE DITCH W/CLASS 'B' RIP RAP EST. 80 TONS GEOTEXTILE 175 SY DDE 370 CY SEE DETAIL 'H'
-L- TS Sta. 61+56.27
CLASS 'B' RIP RAP EST. 5 TONS 14 SY GEOTEXTILE
-L- SC Sta. 63+03.27
REMOVE EX. 24" RCP & (2) HW'S
END CONSTRUCTION -DR4- POT Sta. 10+85.00
N 56° 09' 23.5" E
-DR4- POT Sta. 11+00.00
TRENCHLESS INSTALLATION 24" WELDED STEEL
24" RCP-III (MAX. PIPE SLOPE=10.0%)
18" RCP (FOUND IN FIELD APPROX. LOCATION)

-L-	
PIs Sta 62+54.27	PI Sta 69+91.54
Θs = 1° 12' 36.5"	Δ = 22° 22' 30.5" (RT)
Ls = 147.00'	D = 1° 38' 47.1"
LT = 98.00'	L = 1,359.01'
ST = 49.00'	T = 688.27'
	R = 3,480.00'
	SE = 0.03
	RO = 147'

ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	9

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER — 10-Oct-2024 — MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

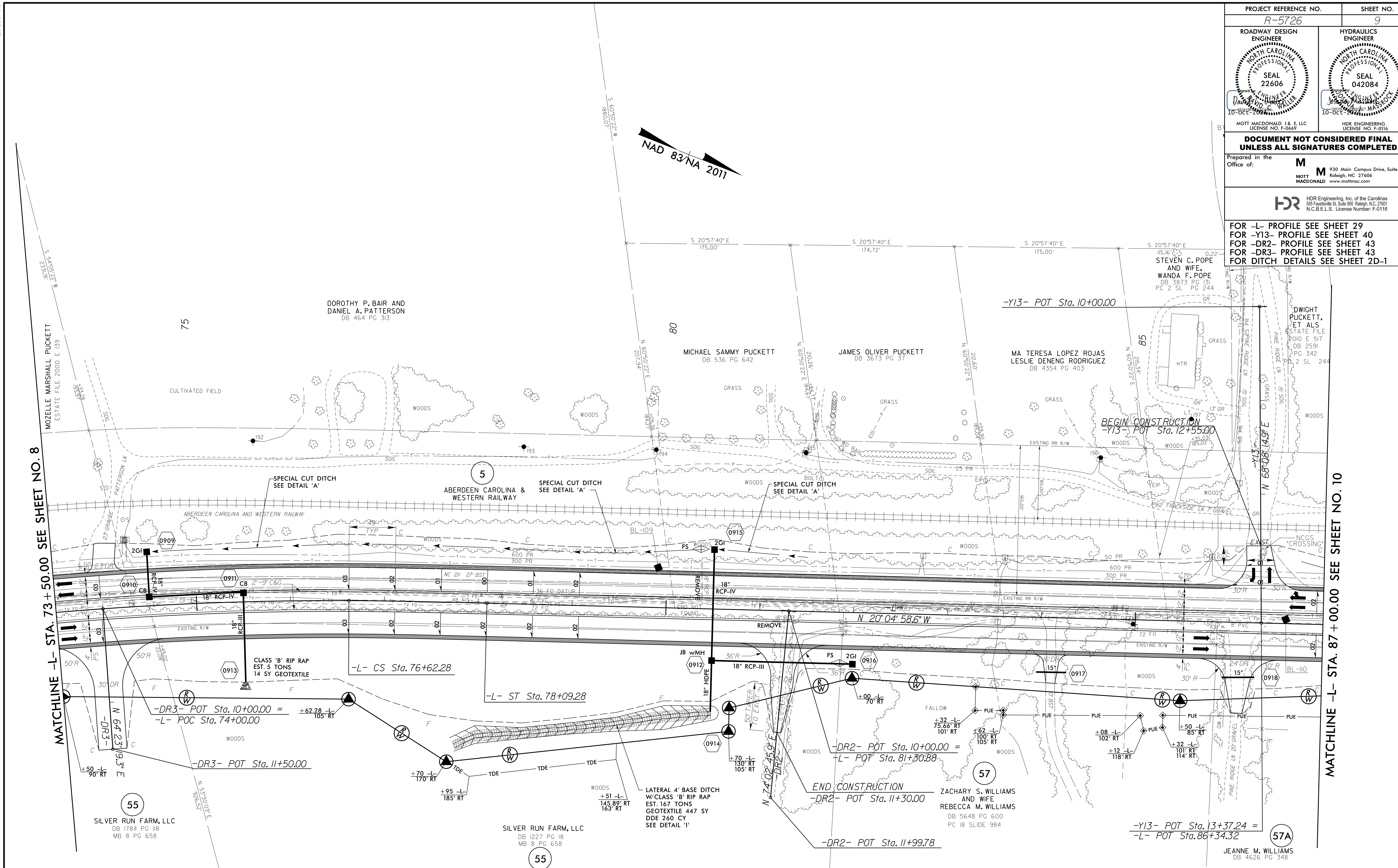
HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 042084 ENGINEER — 10-Oct-2024 — HDR ENGINEERING LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

HDR Engineering, Inc. of the Carolinas, 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601, N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 29
FOR -Y13- PROFILE SEE SHEET 40
FOR -DR2- PROFILE SEE SHEET 43
FOR -DR3- PROFILE SEE SHEET 43
FOR DITCH DETAILS SEE SHEET 2D-1


NAD 83/NA 2011
MATCHLINE -L- STA. 73+50.00 SEE SHEET NO. 8
MATCHLINE -L- STA. 87+00.00 SEE SHEET NO. 10
DOROTHY P. BAIR AND DANIEL A. PATTERSON DB 464 PG 313
MOZELLE MARSHALL PUCKETT ESTATE FILE 2000 E 139
MICHAEL SAMMY PUCKETT DB 536 PG 642
JAMES OLIVER PUCKETT DB 3673 PG 37
MA TERESA LOPEZ ROJAS LESLIE DENENG RODRIGUEZ DB 4354 PG 403
STEVEN C. POPE AND WIFE, WANDA F. POPE DB 3873 PG 131 PC 2 SL PG 244
DWIGHT PUCKETT, ET ALS ESTATE FILE 2010 E 517 DB 2591 PG 342 PC 2 SL 244
ABERDEEN CAROLINA & WESTERN RAILWAY
SPECIAL CUT DITCH SEE DETAIL 'A'
CLASS 'B' RIP RAP EST. 5 TONS 14 SY GEOTEXTILE
-L- CS Sta. 76+62.28
-L- ST Sta. 78+09.28
N 20°04' 58.6" W
-DR3- POT Sta. 10+00.00 = -L- POC Sta. 74+00.00
-DR3- POT Sta. 11+50.00
LATERAL 4' BASE DITCH W/CLASS 'B' RIP RAP EST. 167 TONS GEOTEXTILE 447 SY DDE 260 CY SEE DETAIL 'I'
-DR2- POT Sta. 10+00.00 = -L- POT Sta. 81+30.88
END CONSTRUCTION -DR2- POT Sta. 11+30.00
-DR2- POT Sta. 11+99.78
-Y13- POT Sta. 10+00.00
BEGIN CONSTRUCTION -Y13- POT Sta. 12+55.00
-Y13- POT Sta. 13+37.24 = -L- POT Sta. 86+34.32
SILVER RUN FARM, LLC DB 1784 PG 118 MB 8 PG 658
SILVER RUN FARM, LLC DB 1227 PG 18 MB 8 PG 658
ZACHARY S. WILLIAMS AND WIFE REBECCA M. WILLIAMS DB 5648 PG 600 PC 18 SLIDE 984
JEANNE M. WILLIAMS DB 4626 PG 348

-L-

PI Sta 69+91.54	PIs Sta 77+11.28
Δ = 22° 22' 30.5" (RT)	Θs = 1° 12' 36.5"
D = 1° 38' 47.1"	Ls = 147.00'
L = 1,359.01'	LT = 98.00'
T = 688.27'	ST = 49.00'
R = 3,480.00'	
SE = 0.03	
RO = 147'	

ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

PROJECT REFERENCE NO.	SHEET NO.
R-5726	10

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 — DAVID C. WALLER — 13-Aug-2024 — MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042084 — 13-Aug-2024 — HDR ENGINEERING LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, 930 Main Campus Drive, Suite 200, Raleigh, NC 27606, www.mottmac.com

HDR Engineering, Inc. of the Carolinas, 555 Fayetteville St. Suite 900 Raleigh, N.C. 27601, N.C.B.E.L.S. License Number: F-0116

FOR -L- PROFILE SEE SHEET 30
FOR -Y14- PROFILE SEE SHEET 41
FOR INTERSECTION DETAIL SEE SHEET 2B-2
FOR DITCH DETAILS SEE SHEET 2D-1

★ TRAFFIC SIGNAL

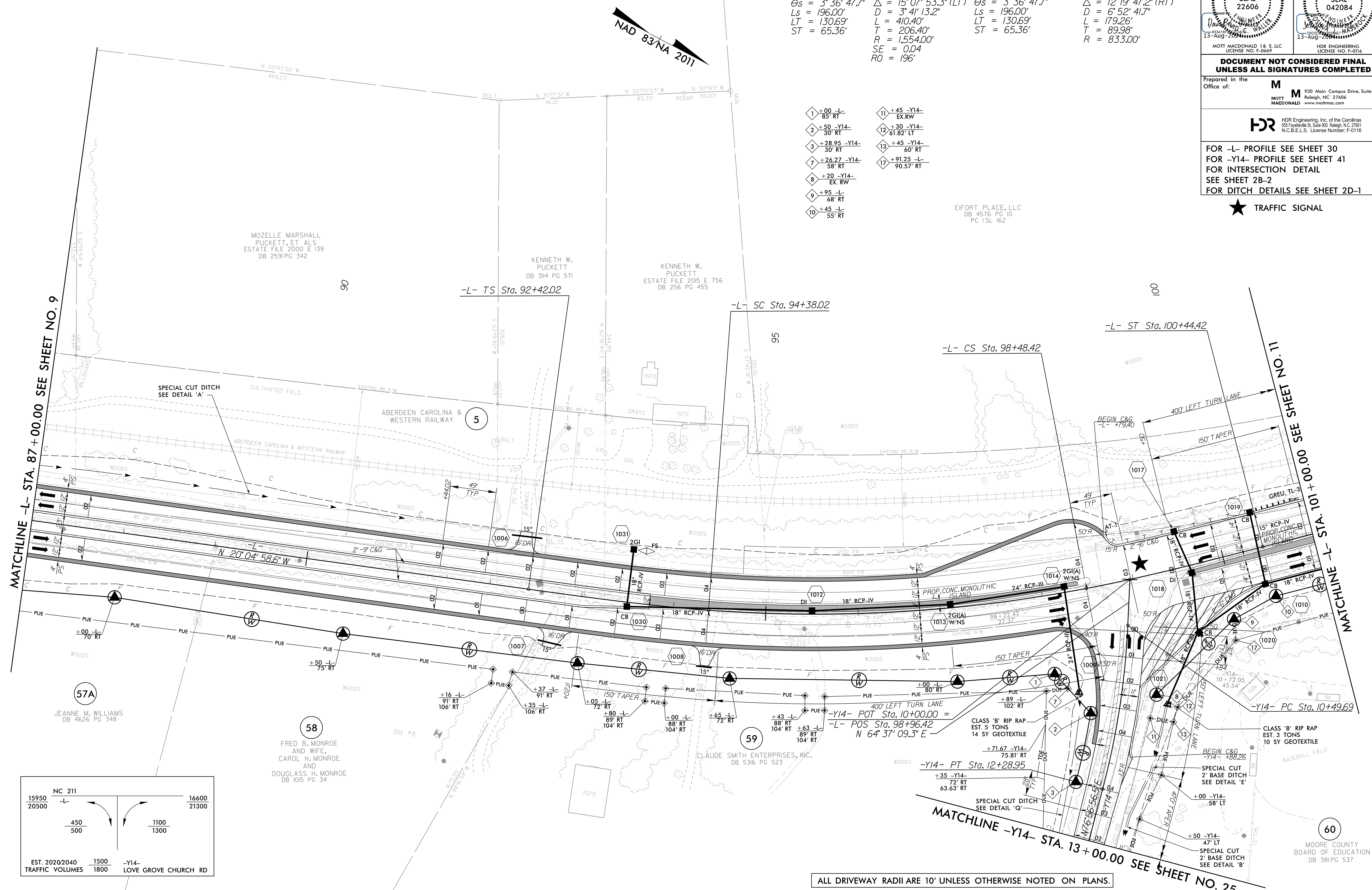
-L-

PIs Sta 93+72.72	PI Sta 96+44.42	PIs Sta 99+13.78
Θs = 3° 36' 47.7"	Δ = 15° 07' 53.3" (LT)	Θs = 3° 36' 47.7"
Ls = 196.00'	D = 3° 41' 13.2"	Ls = 196.00'
LT = 130.69'	L = 410.40'	LT = 130.69'
ST = 65.36'	T = 206.40'	ST = 65.36'
	R = 1,554.00'	
	SE = 0.04	
	RO = 196'	

-Y14-

PI Sta 11+39.67
Δ = 12° 19' 47.2" (RT)
D = 6° 52' 41.7"
L = 179.26'
T = 89.98'
R = 833.00'

1: +00 -L- 85' RT	11: +45 -Y14- EX.RW
2: +50 -Y14- 30' RT	12: +30 -Y14- 61.82' LT
3: +28.95 -Y14- 30' RT	13: +45 -Y14- 60' RT
7: +26.27 -Y14- 58' RT	17: +91.25 -L- 90.57' RT
8: +20 -Y14- EX. RW	
9: +95 -L- 68' RT	
10: +45 -L- 55' RT	


NAD 83/NA 2011
MATCHLINE -L- STA. 87+00.00 SEE SHEET NO. 9
MATCHLINE -L- STA. 101+00.00 SEE SHEET NO. 11
MATCHLINE -Y14- STA. 13+00.00 SEE SHEET NO. 25
-L- TS Sta. 92+42.02
-L- SC Sta. 94+38.02
-L- CS Sta. 98+48.42
-L- ST Sta. 100+44.42
-Y14- POT Sta. 10+00.00 = -L- POS Sta. 98+96.42 N 64° 37' 09.3" E
-Y14- PC Sta. 10+49.69
-Y14- PT Sta. 12+28.95
N 20° 04' 58.6" W
MOZELLE MARSHALL PUCKETT, ET ALS ESTATE FILE 2000 E 139 DB 2591 PG 342
KENNETH W. PUCKETT DB 3114 PG 571
KENNETH W. PUCKETT ESTATE FILE 2015 E 756 DB 256 PG 455
EIFORT PLACE, LLC DB 4576 PG 10 PC 1 SL 162
ABERDEEN CAROLINA & WESTERN RAILWAY
JEANNE M. WILLIAMS DB 4626 PG 348
FRED B. MONROE AND WIFE, CAROL H. MONROE AND DOUGLASS H. MONROE DB 1015 PG 34
CLAUDE SMITH ENTERPRISES, INC. DB 5316 PG 523
MOORE COUNTY BOARD OF EDUCATION DB 381 PG 537
SPECIAL CUT DITCH SEE DETAIL 'A'
SPECIAL CUT DITCH SEE DETAIL 'Q'
SPECIAL CUT 2' BASE DITCH SEE DETAIL 'E'
SPECIAL CUT 2' BASE DITCH SEE DETAIL 'B'
CLASS 'B' RIP RAP EST. 5 TONS 14 SY GEOTEXTILE
CLASS 'B' RIP RAP EST. 3 TONS 10 SY GEOTEXTILE
400' LEFT TURN LANE
150' TAPER
PROP. CONC. MONOLITHIC ISLAND
BEGIN C&G -L- +79.40
BEGIN C&G -Y14- +88.26
2'-9" C&G
2'-6" C&G
18" RCP-IV
24" RCP-III
15" RCP-IV
WOODS
CULTIVATED FIELD
BASEBALL FIELD
NC 211
-L-
15950 / 20500
16600 / 21300
450 / 500
1100 / 1300
1500 / 1800
-Y14- LOVE GROVE CHURCH RD
EST. 2020/2040 TRAFFIC VOLUMES

ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

7/29/2024
R:\Roadway\Proj\r-5726_rdy_psh10.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5726	11

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID P. WALLER	NORTH CAROLINA PROFESSIONAL SEAL 042084 ENGINEER JOSHUA M. MASSTOCK
13-Aug-2024	13-Aug-2024
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669	HDR ENGINEERING LICENSE NO. F-0116

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
930 Main Campus Drive, Suite 200
Raleigh, NC 27606
www.mottmac.com

HDR Engineering, Inc. of the Carolinas
555 Fayetteville St. Suite 900 Raleigh, N.C. 27601
N.C.B.E.L.S. License Number: F-0116

FOR –L– PROFILE SEE SHEET 30
FOR INTERSECTION DETAIL SEE SHEET 2B–2
FOR DITCH DETAILS SEE SHEET 2D–1

NAD 83/NA 2011

105

110

MATCHLINE –L– STA. 101+00.00 SEE SHEET NO. 10

MATCHLINE –L– STA. 114+00.00 SEE SHEET NO. 12

EIFORT PLACE, LLC
DB 4576 PG 10
PC 1SL 162

WOODS

FALLOW

400' LEFT TURN LANE

150' TAPER

300' LEFT TURN LANE

5 ABERDEEN CAROLINA & WESTERN RAILWAY

ABERDEEN CAROLINA & WESTERN RAILWAY

EXISTING RR R/W

SOIL

BILLBOARD

-L-
N 42° 26' 27.2" W

PROP. CONC. MONOLITHIC ISLAND

2'-6" C&G

2'-9" C&G

1'-6" C&G

15" RCP-IV

18" RCP-IV

30' DR

24' DR

16' DR

BEGIN C&G -L- +75.41

END C&G -L- +46.72

+42 -L- 85' RT

+52 -L- 101' RT

+80 -L- 84' RT

+21 -L- 75.40' RT

+56 -L- 90' RT

+75 -L- 74.35' RT 83' RT

+00 -L- 68' RT

+15 -L- 55' RT

+35 -L- 75' RT

+85 -L- 75' RT

+05 -L- 55' RT

60 MOORE COUNTY BOARD OF EDUCATION DB 381PG 537

ISBK

WEST END ELEMENTARY SCHOOL

ALL DRIVEWAY RADII ARE 10' UNLESS OTHERWISE NOTED ON PLANS.

7/29/2024
R:\Projects\Proj\r-5726_rdy_psh11.dgn
Wall 78449