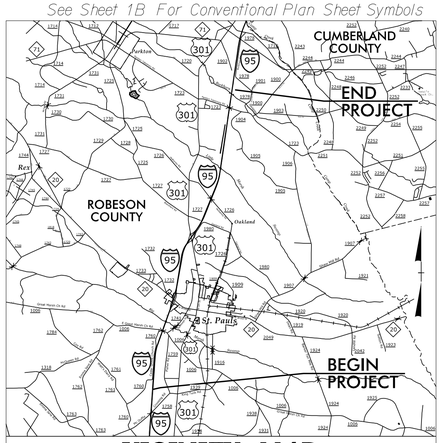
09/08/49

TIP PROJECT: I–5987B

CONTRACT: C204728

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROBESON COUNTY

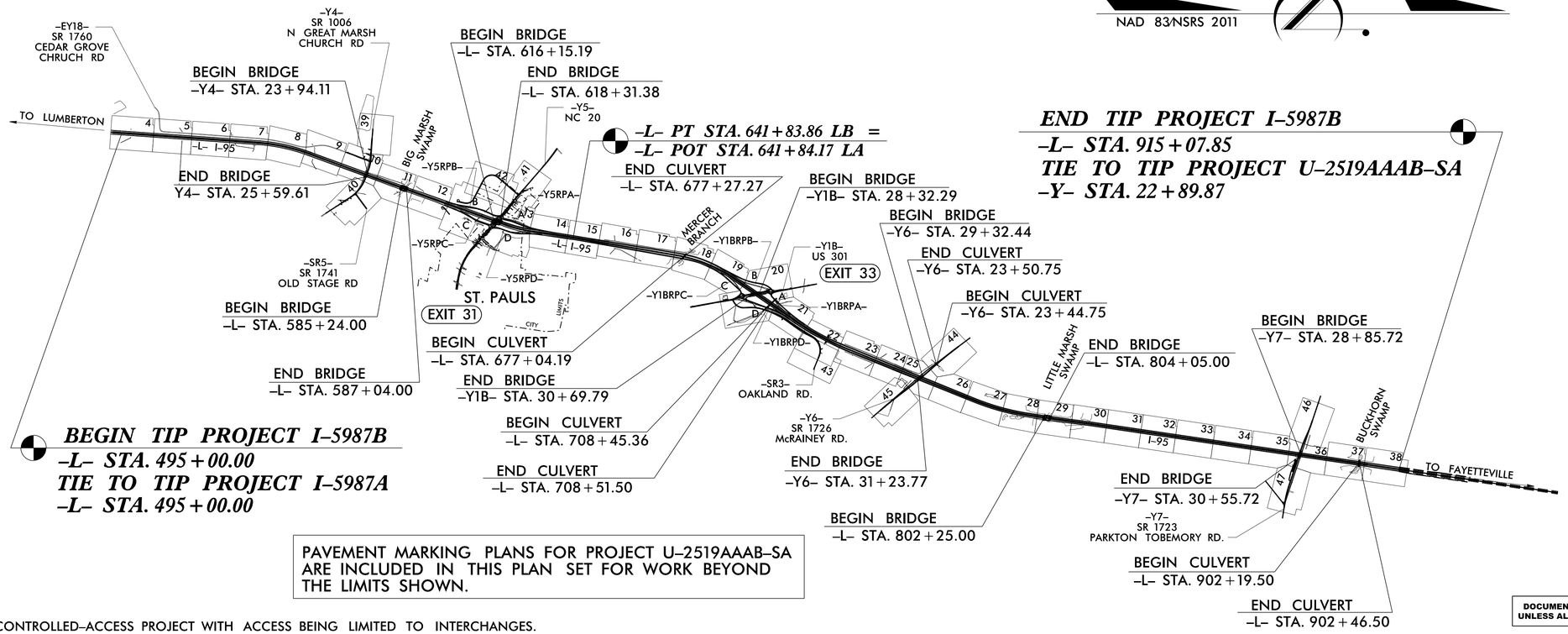
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I–5987B	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
47533.1.3		PE
47533.2.3		R/W
47533.2.5		UTIL
47533.3.3		CONST

LOCATION: I–95 IMPROVEMENTS FROM SOUTH OF NC20 TO SOUTH OF PROPOSED I–295

TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURES, CULVERTS, AND RETAINING WALLS

NAD 83/NSRS 2011



BEGIN TIP PROJECT I–5987B
–L– STA. 495+00.00
TIE TO TIP PROJECT I–5987A
–L– STA. 495+00.00

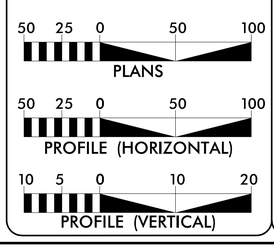
END TIP PROJECT I–5987B
–L– STA. 915+07.85
TIE TO TIP PROJECT U–2519AAAB–SA
–Y– STA. 22+89.87

PAVEMENT MARKING PLANS FOR PROJECT U–2519AAAB–SA ARE INCLUDED IN THIS PLAN SET FOR WORK BEYOND THE LIMITS SHOWN.

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2022 = 63,300
ADT 2042 = 92,600
K = 8 %
D = 55 %
T = 14 % *
V = 75 MPH
* TTST =11 DUAL 3
FUNC CLASS = INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I–5987B = 7.847 MILES

LENGTH STRUCTURES TIP PROJECT I–5987B = 0.112 MILES

TOTAL LENGTH OF TIP PROJECT I–5987B = 7.956 MILES

Prepared in the Office of:

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Raleigh, N.C. 27606
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Bus: 919 851 8077
Fax: 919 851 8107

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 28, 2021

LETTING DATE:
JULY 19, 2022

DAVID C. WALLER, PE
PROJECT ENGINEER

MICHAEL D. PEKAREK, PE
PROJECT DESIGN ENGINEER

CRAIG A. FREEMAN, JR., PE
NCDOT CONTACT – DIVISION 6

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. KIRGIOS

P.E.

SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID L. HOLLAR

P.E.

SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/5/2022
R:\Roadway\Proj\15987b_rdy_TSH.dgn
WAL78449

8/17/99

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

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

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

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 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

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.

SHOULDER DRAINS:

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

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON 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 NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

END BENTS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Duke Energy (Power).

Lumbee River EMC (Power), City of Lumberton (Power), AT&T (Phone).

Windstream (Phone), Spectrum (CATV), and Piedmont Natrural Gas (Gas)

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

RIGHT-OF-WAY MARKERS:

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

EFF. 01-16-2018
REV.

2018 ROADWAY ENGLISH STANDARD DRAWINGS

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

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.02	Guide for Grading Subgrade - Secondary and Local
225.03	Deceleration and Acceleration Lanes
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.05	Method of Obtaining Superelevation - Divided Highways
225.06	Method of Grading Sight Distance at Intersections
225.09	Guide for Shoulder and Ditch Transition at Grade Separations
235.01	Embankment Monitoring
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.01	Bridge Approach Fills - Type I Standard Approach Fill
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
610.04	Guide for Paving Shoulders Under Bridges - Method IV
654.01	Pavement Repairs
665.01	Asphalt Shoulders - Milled Rumble Strips
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
816.01	Concrete Pads - for Shoulder Drain Installation
816.02	Aggregate Shoulder Drain
816.04	Markers for Drainage Structure and Concrete Pad
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.21	Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew
838.27	Reinforced Concrete Endwall - for Single 60" 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
838.57	Reinforced Brick Endwall - for Single 60" 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
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates
840.37	Steel Grate and Frame
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
852.01	Concrete Islands
854.02	Double Faced Concrete Barrier - Types 'T', 'T1' and 'T2'
857.01	Precast Reinforced Concrete Barrier - 41" Single Faced
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
866.02	Woven Wire Fence - with Wood Post
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-21	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-3	INTERSECTION DETAIL SHEETS
2B-4 THRU 2B-16	DETOUR AND CROSSOVER PLAN AND PROFILE SHEETS
2B-17 THRU 2B-20	DETAIL OF FINAL PAVEMENT LAYER (U-2519AAAB-SA)
2B-21	DETAIL FOR TRANSITION FROM 1'-6" CURB AND GUTTER TO SHOULDER BERM GUTTER AND DETAIL FOR CONCRETE TRANSITIONAL SECTION
2C-1	SPECIAL DETAILS - COAL COMBUSTION PRODUCT PLACEMENT
2C-2	SPECIAL DETAILS - MEDIAN HAZARD PIER PROTECTION
2C-3	SPECIAL DETAILS - TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE
2C-4	SPECIAL DETAILS - SLOTTED DRAIN, 12" THRU 36" DIAMETER PIPE
2C-5	SPECIAL DETAILS - CONCRETE ENDWALL FOR SINGLE AND DOUBLE PIPE CULVERTS
2C-6	SPECIAL DETAILS - REINFORCED CONCRETE ENDWALL
2C-7	SPECIAL DETAILS - CONCRETE GRATED DROP INLET TYPE 'A' (MINIMUM DEPTH)
2C-8	SPECIAL DETAILS - CONCRETE GRATED DROP INLET TYPE 'A' (EXTRA DEPTH)
2C-9	SPECIAL DETAILS - TYPE III REINFORCED APPROACH FILLS
2C-10	SPECIAL DETAILS - GUARDRAIL INSTALLATION
2C-11	SPECIAL DETAILS - GUARDRAIL INSTALLATION - AT-1 SYSTEM
2C-12	SPECIAL DETAILS - TRAFFIC BEARING JUNCTION BOX 60"
2C-13	SPECIAL DETAILS - ROCK PLATING
2D-1 THRU 2D-3	DRAINAGE DITCH DETAIL SHEETS
2D-4	DRAINAGE SPECIAL DETAILS - TRAFFIC BEARING GRATED INLET - 54" RCP
2D-5	DRAINAGE SPECIAL DETAILS - TRAFFIC BEARING GRATED INLET - 60" WELDED STEEL
2D-6	DRAINAGE SPECIAL DETAILS - TRAFFIC BEARING GRATED INLET - 66" WELDED STEEL
2G-1	GEOTECHNICAL DETAILS - TEMPORARY SHORING
2G-2 THRU 2G-4	GEOTECHNICAL DETAILS - STANDARD TEMPORARY WALL
2G-5 THRU 2G-7	GEOTECHNICAL DETAILS - SURCHARGE DETAILS
2G-8 THRU 2G-10	GEOTECHNICAL DETAILS - SPECIAL BRIDGE APPROACH FILL
2N-1	NOISE WALL DETAIL SHEET
3B-1 THRU 3B-3	EARTHWORK SUMMARY SHEETS
3B-4	GUARDRAIL SUMMARY SHEET
3B-5	SHOULDER BERM GUTTER, WOVEN WIRE FENCE, WOVEN WIRE FENCE REMOVAL, CONCRETE BARRIER SUMMARIES
3B-6	EXISTING ASPHALT PAVEMENT REMOVAL, INCIDENTAL MILLING, EXISTING ASPHALT PAVEMENT BREAKING, AND MILLING SUMMARIES
3D-1 THRU 3D-28	DRAINAGE SUMMARY SHEETS
3G-1	GEOTECHNICAL SUMMARY SHEET
3P-1 THRU 3P-2	PARCEL INDEX SHEETS
4 THRU 47	PLAN SHEETS
48 THRU 105	PROFILE SHEETS
RW01	SURVEY CONTROL TITLE SHEET
RW02C-1 THRU RW02C-22	SURVEY CONTROL SHEETS
RW02D-1 THRU RW02D-2	PROPOSED ALIGNMENT CONTROL SHEETS
RW03E-1 THRU RW03E-3	RIGHT OF WAY CONTROL SHEETS
RW04 THRU RW47	RIGHT OF WAY PLANS
TMP-01 THRU TMP-297	TRAFFIC MANAGEMENT PLANS
PMP-01 THRU PMP-27	PAVEMENT MARKING PLANS
PMP-01 THRU PMP-10	PAVEMENT MARKING PLANS (U-2519AAAB-SA)
E-1 THRU E-6	ELECTRICAL PLANS
EC-1 THRU EC-93	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-44	SIGNING PLANS
SIG-1.0 THRU SIG-12.0	SIGNAL PLANS
ITS-1 THRU ITS-16	ITS PLANS
UC-1 THRU UC-26	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-23	UTILITIES BY OTHERS PLANS
X-1A THRU X-1N	CROSS-SECTION INDEX AND SUMMARY
X-1 THRU X-762	CROSS-SECTIONS
S4-1 THRU S4-29	STRUCTURE PLANS - SR 1006 (-Y4-) OVER I-95 (-L-)
S5-1 THRU S5-64	STRUCTURE PLANS - I-95 (-L-) OVER BIG MARSH SWAMP
S6-1 THRU S6-53	STRUCTURE PLANS - I-95 (-L-) OVER NC 20 (-Y5-)
S7-1 THRU S7-37	STRUCTURE PLANS - US 301 (-Y1B-) OVER I-95 (-L-)
S8-1 THRU S8-28	STRUCTURE PLANS - SR 1726 (-Y6-) OVER I-95 (-L-)
S9-1 THRU S9-69	STRUCTURE PLANS - I-95 (-L-) OVER LITTLE MARSH SWAMP
S10-1 THRU S10-33	STRUCTURE PLANS - SR 1723 (-Y7-) OVER I-95 (-L-)
C15-1 THRU C15-13	CULVERT PLANS - I-95 (-L-) STA. 677+13.20
C16-1 THRU C16-20	CULVERT PLANS - I-95 (-L-) STA. 708+48.43
C17-1 THRU C17-5	CULVERT PLANS - SR 1726 (-Y6-) STA. 23+47.75
C18-1 THRU C18-9	CULVERT PLANS - I-95 (-L-) STA. 902+33.00
W-1 THRU W-17	WALL PLANS
W19-1 THRU W19-4	NOISE WALL PLANS

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 27391 ENGINEER MICHAEL PEKARIK

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

7/12/2022
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DWK82513

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Property Monument (ECM)
- Parcel/Sequence Number (123)
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary (WLB)
- Proposed Wetland Boundary (WLB)
- Existing Endangered Animal Boundary (EAB)
- Existing Endangered Plant Boundary (EPB)
- Existing Historic Property Boundary (HPB)
- Known Contamination Area: Soil (S)
- Potential Contamination Area: Soil (S)
- Known Contamination Area: Water (W)
- Potential Contamination Area: Water (W)
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign (S)
- Well (W)
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream (JS)
- Buffer Zone 1 (BZ 1)
- Buffer Zone 2 (BZ 2)
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch (FLOW)
- False Sump

RAILROADS:

- Standard Gauge (CSX TRANSPORTATION)
- RR Signal Milepost (MILEPOST 35)
- Switch (SWITCH)
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easement Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line (RW)
- New Right of Way Line with Pin and Cap (RW)
- New Right of Way Line with Concrete or Granite R/W Marker (RW)
- New Control of Access Line with Concrete C/A Marker (CA)
- Existing Control of Access (CA)
- New Control of Access (CA)
- Existing Easement Line (E)
- New Temporary Construction Easement (E)
- New Temporary Drainage Easement (TDE)
- New Permanent Drainage Easement (PDE)
- New Permanent Drainage / Utility Easement (DUE)
- New Permanent Utility Easement (PUE)
- New Temporary Utility Easement (TUE)
- New Aerial Utility Easement (AUE)

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut (C)
- Proposed Slope Stakes Fill (F)
- Proposed Curb Ramp (CR)
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert (CONC)
- Bridge Wing Wall, Head Wall and End Wall (CONC WW)

MINOR:

- Head and End Wall (CONC HW)
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB (CB)
- Paved Ditch Gutter
- Storm Sewer Manhole (S)
- Storm Sewer (S)

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole (P)
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) (P)
- U/G Power Line LOS C (S.U.E.*) (P)
- U/G Power Line LOS D (S.U.E.*) (P)

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole (T)
- Telephone Pedestal (T)
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole (HH)
- U/G Telephone Cable LOS B (S.U.E.*) (T)
- U/G Telephone Cable LOS C (S.U.E.*) (T)
- U/G Telephone Cable LOS D (S.U.E.*) (T)
- U/G Telephone Conduit LOS B (S.U.E.*) (TC)
- U/G Telephone Conduit LOS C (S.U.E.*) (TC)
- U/G Telephone Conduit LOS D (S.U.E.*) (TC)
- U/G Fiber Optics Cable LOS B (S.U.E.*) (T FO)
- U/G Fiber Optics Cable LOS C (S.U.E.*) (T FO)
- U/G Fiber Optics Cable LOS D (S.U.E.*) (T FO)

WATER:

- Water Manhole (W)
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) (W)
- U/G Water Line LOS C (S.U.E*) (W)
- U/G Water Line LOS D (S.U.E*) (W)
- Above Ground Water Line (A/G Water)

TV:

- TV Pedestal (C)
- TV Tower
- U/G TV Cable Hand Hole (HH)
- U/G TV Cable LOS B (S.U.E.*) (TV)
- U/G TV Cable LOS C (S.U.E.*) (TV)
- U/G TV Cable LOS D (S.U.E.*) (TV)
- U/G Fiber Optic Cable LOS B (S.U.E.*) (TV FO)
- U/G Fiber Optic Cable LOS C (S.U.E.*) (TV FO)
- U/G Fiber Optic Cable LOS D (S.U.E.*) (TV FO)

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) (G)
- U/G Gas Line LOS C (S.U.E.*) (G)
- U/G Gas Line LOS D (S.U.E.*) (G)
- Above Ground Gas Line (A/G Gas)

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line (SS)
- Above Ground Sanitary Sewer (A/G Sanitary Sewer)
- SS Forced Main Line LOS B (S.U.E.*) (FSS)
- SS Forced Main Line LOS C (S.U.E.*) (FSS)
- SS Forced Main Line LOS D (S.U.E.*) (FSS)

MISCELLANEOUS:

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

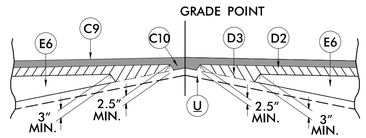
6/2/99

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN - 5/12/22)

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	R6	12" JOINTED CONCRETE TRUCK APRON W/ 4x4 W5.5 x W5.5 or 6x6 w8.5 x w8.5 or HEAVIER WIRE MESH. 15' MINIMUM RADIAL JOINT SPACING.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R7	SINGLE FACED CONCRETE BARRIER
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.	R8	TYPE T CONCRETE BARRIER
C4	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R9	CONCRETE BARRIER RAIL WITH MOMENT SLAB
C5	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	R10	9" x 18" CONCRETE CURB
C6	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.	R11	4" CONCRETE COVER
C7	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 LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.	T	EARTH MATERIAL
C8	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
C9	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	V	MILLING ASPHALT PAVEMENT, 1.5" DEPTH
C10	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.	V1	MILLING ASPHALT PAVEMENT, 2" DEPTH
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	V2	MILLING ASPHALT PAVEMENT, VAR. 0" TO 1.5" DEPTH
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V3	INCIDENTAL MILLING
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 1)
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 2)
E2	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	W3	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 3)
E3	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	W4	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 4)
E4	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, TO BE PLACED IN TWO LAYERS, ONE BEING 4" AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. AND THE OTHER BEING 3" AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	W5	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 5)
E5	PROP. APPROX. 12" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF THREE LAYERS.	W6	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 6)
E6	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.	W7	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 7)
J1	PROP. 6" AGGREGRATE BASE COURSE	X	MILLED RUMBLE STRIPS
K2	CLASS IV SUBGRADE STABILIZATION		
N2	GEOTEXTILE FOR SOIL STABILIZATION		
R1	1'-6" CONCRETE CURB & GUTTER		
R2	2'-6" CONCRETE CURB & GUTTER		
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)		

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

WEDGING DETAIL 1

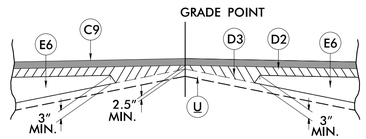


DETAIL SHOWING METHOD OF WEDGING NO. 1 FOR

–L–

WEDGING DETAIL W1 IS TO BE USED WHEN THE WEDGING DEPTH IS LESS THAN 5.5"

WEDGING DETAIL 2

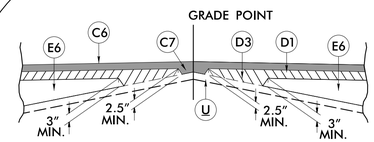


DETAIL SHOWING METHOD OF WEDGING NO. 2 FOR

–L–

WEDGING DETAIL W2 IS TO BE USED WHEN THE WEDGING DEPTH EXCEEDS 5.5"

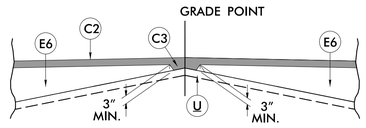
WEDGING DETAIL 3



DETAIL SHOWING METHOD OF WEDGING NO. 3 FOR

–Y1B–

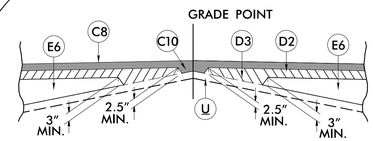
WEDGING DETAIL 4



DETAIL SHOWING METHOD OF WEDGING NO. 4 FOR

–Y6– , –SR3– , –SR4– , –SR5–

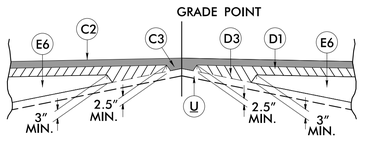
WEDGING DETAIL 5



DETAIL SHOWING METHOD OF WEDGING NO. 5 FOR

–Y5RPB–

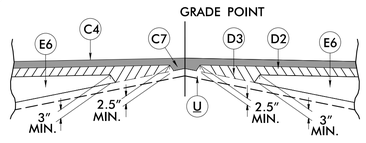
WEDGING DETAIL 6



DETAIL SHOWING METHOD OF WEDGING NO. 6 FOR

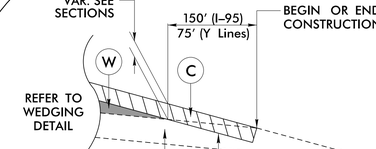
–Y4– , –Y7–

WEDGING DETAIL 7



DETAIL SHOWING METHOD OF WEDGING NO. 7 FOR

–Y5–



INCIDENTAL MILLING DETAIL

DETAIL SHOWING PROFILE VIEW

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-1

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D WARCO

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

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www.mottmac.com/americas

5/13/2022
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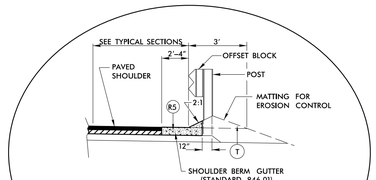
Val 7844

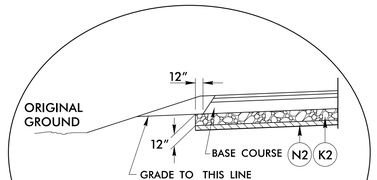
6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C9	3″ S9.5D
D2	4″ I19.0C
E5	12″ B25.0C
K2	CLASS IV SUBGRADE STABILIZATION
N2	GEOTEXTILE FOR SOIL STABILIZATION
R5	SHOULDER BERM GUTTER
R7	SINGLE FACED CONC. BARRIER
R8	TYPE T CONC. BARRIER
R9	CONC. BARRIER W/ MOMENT SLAB
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	MILLING, 2″
W1	SEE WEDGING DETAIL 1
W2	SEE WEDGING DETAIL 2
X	MILLED RUMBLE STRIPS

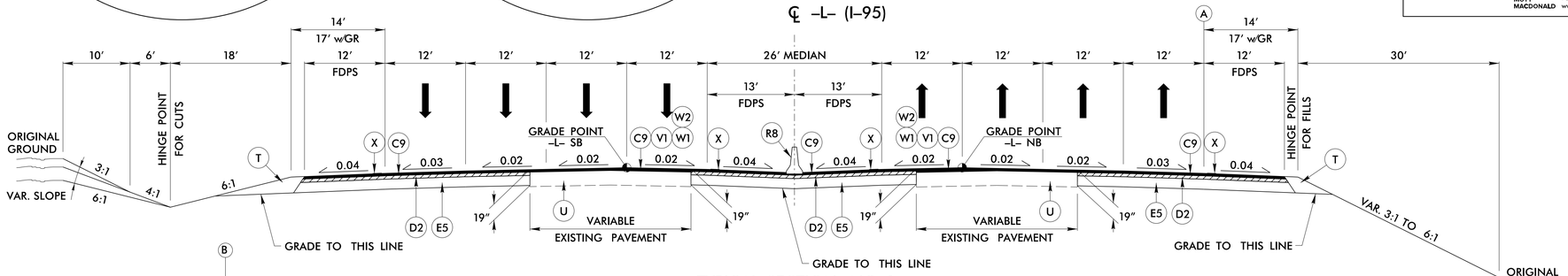
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



DETAIL SHOWING SHOULDER BERM GUTTER
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1, 2, 4A, 11, 12, 14A, 16, 17 AND 18
SEE PLAN SHEETS FOR LOCATION OF SHOULDER BERM GUTTER



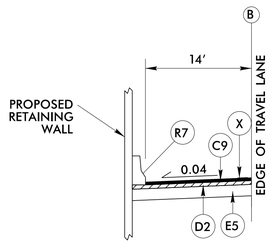
DETAIL SHOWING CLASS IV SUBGRADE STABILIZATION WITH GEOTEXTILE SHOULDER SECTION
TO BE PLACED AT THE DISCRETION OF THE ENGINEER



TYPICAL SECTION NO. 1

–L– STA. 495+00.00 TO 507+00.00
–L– STA. 516+00.00 TO 553+00.00
–L– STA. 559+00.00 TO 579+00.00
–L– STA. 594+00.00 TO 600+00.00
–L– STA. 633+00.00 TO 641+83.86 LB
–L– STA. 641+84.17 LA TO 792+00.00
–L– STA. 814+00.00 TO 864+00.00
–L– STA. 868+50.00 TO 915+06.17

WEDGING DETAIL W1 IS TO BE USED WHEN THE WEDGING DEPTH IS LESS THAN 5.5″
WEDGING DETAIL W2 IS TO BE USED WHEN THE WEDGING DEPTH EXCEEDS 5.5″



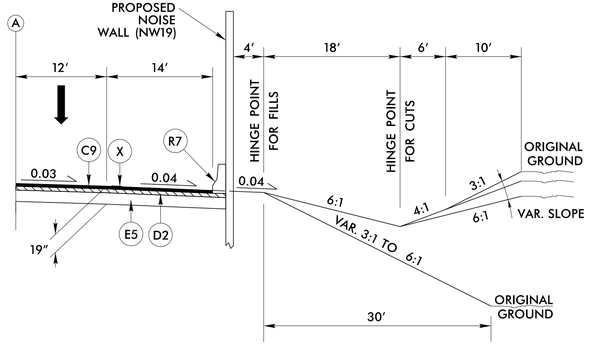
PARTIAL TYPICAL SECTION NO. 1B

INVERT PARTIAL TYPICAL SECTION FOR NB LANES (RT)

–L– STA. 572+91.87 TO 574+39.87 RT (W4B)
–L– STA. 572+91.87 TO 574+39.73 LT (W4A)
–L– STA. 701+10.04 TO 702+87.82 RT (W6B)
–L– STA. 702+63.04 TO 704+40.82 LT (W6A)
–L– STA. 760+05.90 TO 761+54.14 RT (W7B)
–L– STA. 760+87.78 TO 762+36.02 LT (W7A)
–L– STA. 882+50.77 TO 883+95.27 RT (W8B)
–L– STA. 882+77.93 TO 884+22.42 LT (W8A)

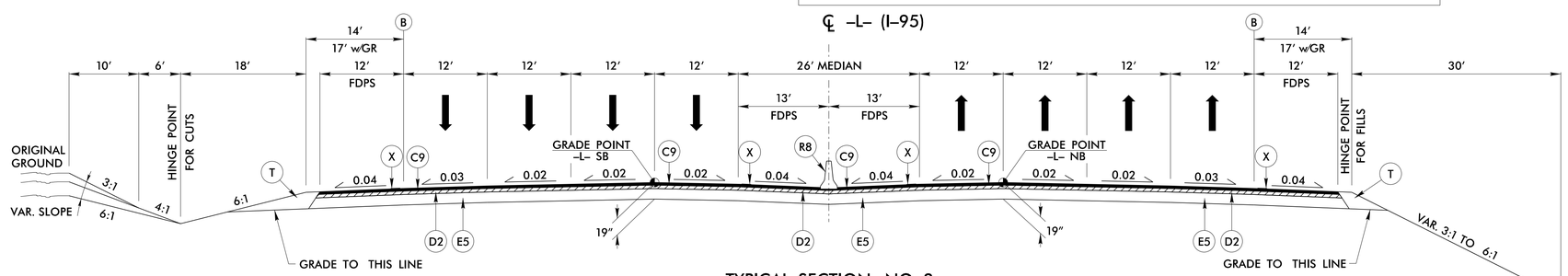
2″ MILLING LIMITS

–L– SB STA. 495+00.00 TO 497+25.00	–L– NB STA. 495+00.00 TO 497+25.00
–L– SB STA. 517+75.00 TO 527+75.00	–L– NB STA. 517+75.00 TO 520+25.00
–L– SB STA. 531+75.00 TO 536+75.00	–L– NB STA. 523+25.00 TO 527+25.00
–L– SB STA. 595+25.00 TO 597+75.00	–L– NB STA. 530+75.00 TO 535+75.00
–L– SB STA. 633+75.00 TO 640+75.00	–L– NB STA. 548+25.00 TO 551+75.00
–L– SB STA. 755+00.00 TO 771+25.00	–L– NB STA. 565+25.00 TO 565+75.00
–L– SB STA. 779+75.00 TO 790+25.00	–L– NB STA. 634+25.00 TO 637+25.00
–L– SB STA. 818+25.00 TO 834+75.00	–L– NB STA. 755+00.00 TO 759+25.00
–L– SB STA. 844+25.00 TO 861+75.00	–L– NB STA. 763+25.00 TO 768+75.00
–L– SB STA. 870+75.00 TO 880+75.00	–L– NB STA. 776+25.00 TO 779+25.00
–L– SB STA. 886+25.00 TO 901+75.00	–L– NB STA. 816+25.00 TO 826+75.00
–L– SB STA. 907+75.00 TO 915+00.00	–L– NB STA. 828+75.00 TO 836+25.00
	–L– NB STA. 844+25.00 TO 858+75.00
	–L– NB STA. 871+25.00 TO 875+25.00
	–L– NB STA. 877+75.00 TO 880+75.00
	–L– NB STA. 886+25.00 TO 901+25.00
	–L– NB STA. 907+75.00 TO 915+00.00



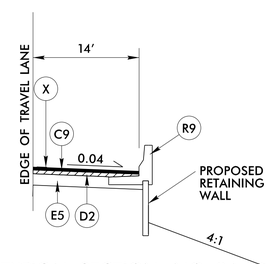
PARTIAL TYPICAL SECTION NO. 1A

–L– STA. 883+95.27 TO 897+45.27



TYPICAL SECTION NO. 2

–L– STA. 507+00.00 TO 516+00.00
–L– STA. 553+00.00 TO 559+00.00
–L– STA. 579+00.00 TO 585+24.00 (BEGIN BRIDGE)
–L– STA. 587+04.00 (END BRIDGE) TO 594+00.00
–L– STA. 600+00.00 TO 616+15.19 (BEGIN BRIDGE)
–L– STA. 618+31.38 (END BRIDGE) TO 633+00.00
–L– STA. 792+00.00 TO 802+25.00 (BEGIN BRIDGE)
–L– STA. 804+05.00 (END BRIDGE) TO 814+00.00
–L– STA. 864+00.00 TO 868+50.00



PARTIAL TYPICAL SECTION NO. 2A

INVERT PARTIAL TYPICAL SECTION FOR SB LANES (LT)

–L– STA. 610+00.00 TO 616+53.57 LT (W5A)
–L– STA. 612+30.00 TO 615+90.94 RT (W5A)
–L– STA. 618+55.58 TO 626+00.00 LT (W5B)
–L– STA. 617+92.94 TO 621+00.00 RT (W5B)

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-2

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

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARCO

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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5/13/2022
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WBI 48419

6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C2	3″ S9.5B
C8	1.5″ S9.5D
D1	2.5″ I19.0C
D2	4″ I19.0C
E1	4″ B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V	MILLING, 1½″
V2	VAR. MILLING, 0″ TO 1½″
V3	INCIDENTAL MILLING
W6	SEE WEDGING DETAIL 6
X	MILLED RUMBLE STRIPS

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

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-3

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARCO

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

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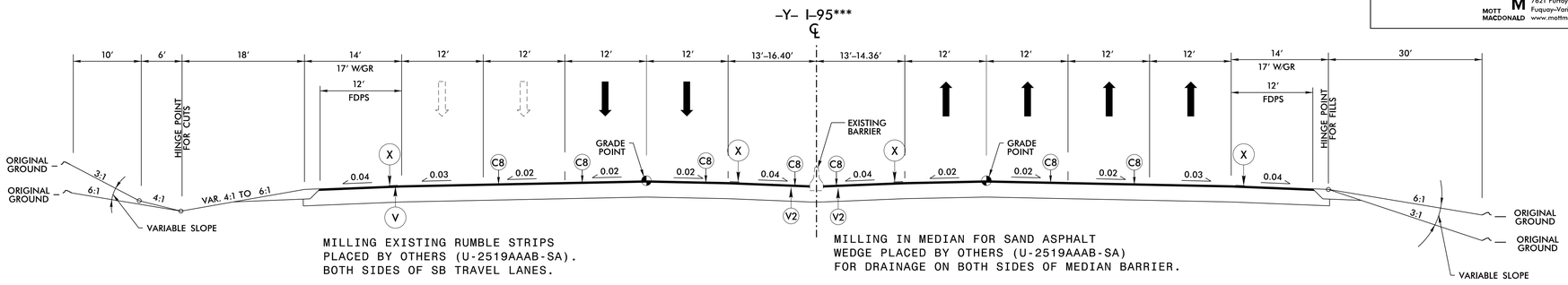
7621 Parfoy Rd., Suite 115
Fuquay-Varina, NC 27526
www.mottmac.com/americas



MILLING EXISTING RUMBLE STRIPS PLACED BY OTHERS (U-2519AAAB-SA). BOTH SIDES OF SB TRAVEL LANES.

MILLING IN MEDIAN FOR SAND ASPHALT WEDGE PLACED BY OTHERS (U-2519AAAB-SA) FOR DRAINAGE ON BOTH SIDES OF MEDIAN BARRIER.

*** –Y– ALIGNMENT FROM U–2519AAAB

TYPICAL SECTION NO. 2A

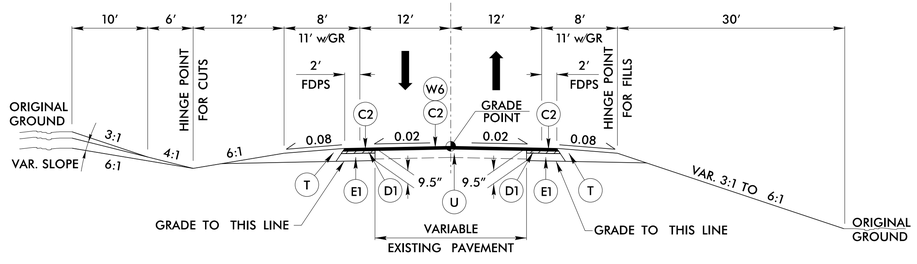
–Y– NBL STA. 22+89.91 TO 26+00.00
–Y– SBL STA. 22+89.91 TO 238+65.00

℄ –Y4– (GREAT MARSH CHURCH RD.)
–Y7– (PARKTON TOBEMORY RD.)

TYPICAL SECTION NO. 4

–Y4– STA. 15+75.00 TO 21+50.00
–Y4– STA. 33+74.15 TO 36+75.00
–Y7– STA. 21+25.00 TO 23+28.84
–Y7– STA. 37+70.44 TO 44+25.00

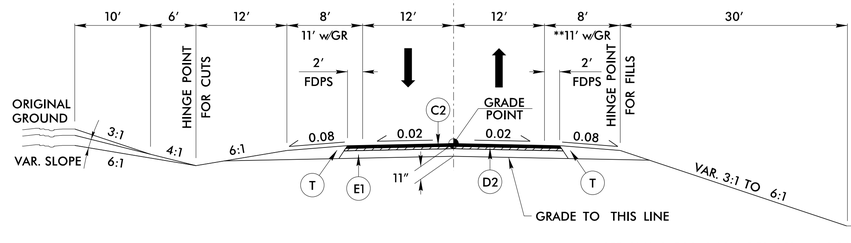
℄ –Y4– (GREAT MARSH CHURCH RD.)
–Y7– (PARKTON TOBEMORY RD.)



TYPICAL SECTION NO. 3

–Y4– STA. 13+00.00 TO 15+75.00
–Y4– STA. 36+75.00 TO 38+00.00
–Y7– STA. 18+00.00 TO 21+25.00
–Y7– STA. 44+25.00 TO 47+00.00

℄ –Y4– (GREAT MARSH CHURCH RD.)
–Y7– (PARKTON TOBEMORY RD.)



** SEE PLANS FOR SHOULDER BERM LOCATIONS.
SEE DETAIL ON SHEET 2A–1 SHOWING SHOULDER BERM GUTTER

TYPICAL SECTION NO. 4A

–Y4– STA. 21+50.00 TO 23+94.11 (BEGIN BRIDGE)
–Y4– STA. 25+59.61 (END BRIDGE) TO 33+74.15
–Y7– STA. 23+28.84 TO 28+85.72 (BEGIN BRIDGE)
–Y7– STA. 30+55.72 (END BRIDGE) TO 37+70.44

5/13/2022
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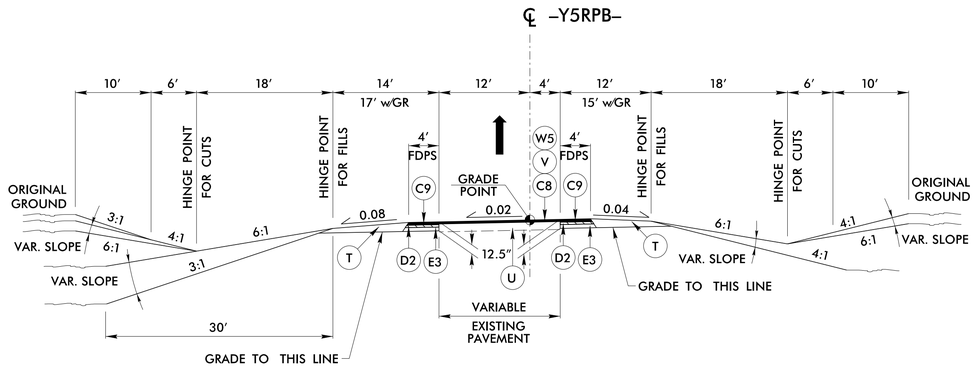
WAI 78449

6/2/99

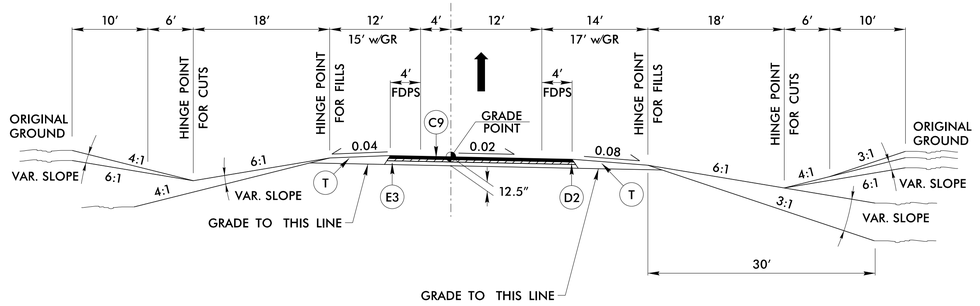
PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C8	1.5″ S9.5D
C9	3″ S9.5D
D2	4″ I19.0C
E3	5.5″ B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V	MILLING, 1½″
W5	SEE WEDGING DETAIL 5

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



TYPICAL SECTION NO. 5

–Y5RPB– STA. 21+52.56 TO 22+35.00



TYPICAL SECTION NO. 6

INVERT TYPICAL SECTION FOR RAMPS –Y5RPB– & –Y5RPD–

–Y5RPA– STA. 14+42.57 TO 23+82.07
–Y5RPB– STA. 14+89.92 TO 21+52.56
–Y5RPB– STA. 22+35.00 TO 27+14.40
–Y5RPC– STA. 16+34.07 TO 25+86.38
–Y5RPD– STA. 14+74.34 TO 25+33.54

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-4

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARCO

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:

MOTT MACDONALD
7621 Parfoy Rd., Suite 115
Fuquay-Varina, NC 27526
www.mottmac.com/americas

5/13/2022
R:\5987b...\Proj\I5987b_rdy_TYP.dgn
WO 78449

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-5

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 DAVID C. WALLER

PAVEMENT DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044590 ANDREW D. WARGO

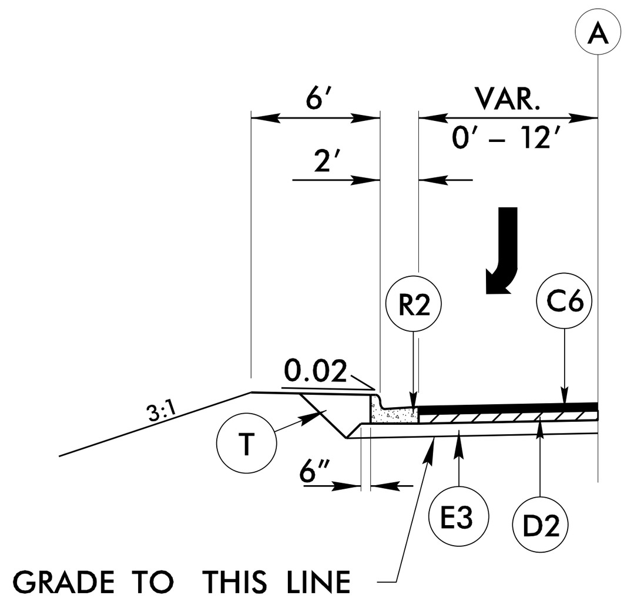
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

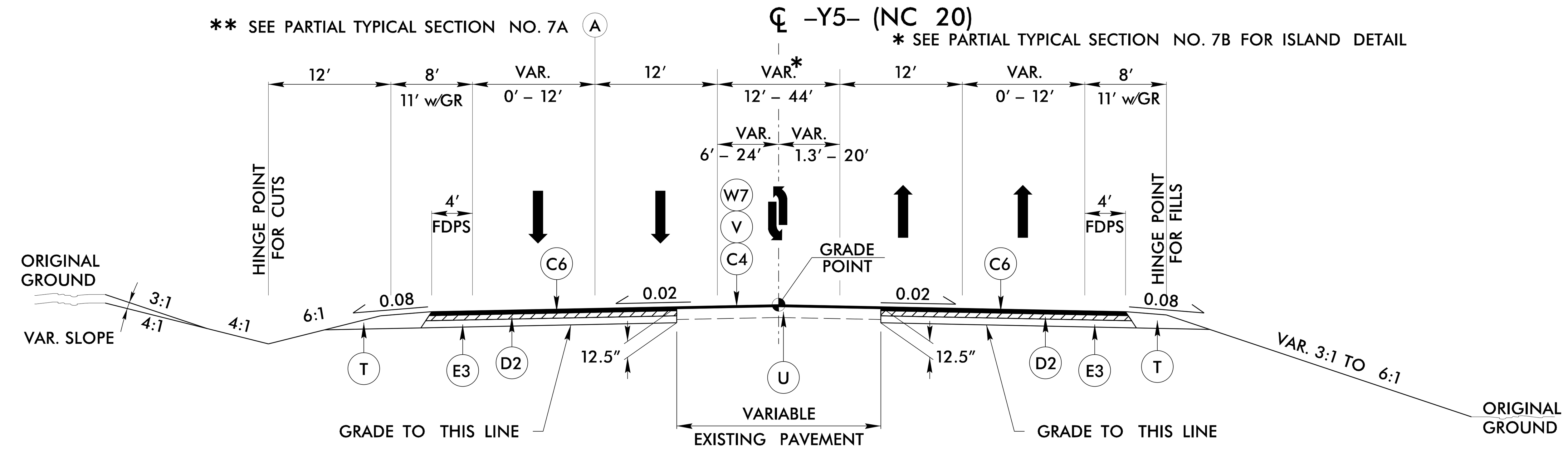
Prepared in the Office of: MOTT MACDONALD 7621 Purfoy Rd., Suite 115 Fuquay-Varina, NC 27526 www.mottmac.com/americas

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C4	1.5″ S9.5C
C6	3″ S9.5C
D2	4″ I19.0C
E1	4″ B25.0C
E3	5.5″ B25.0C
E4	7″ B25.0C
R1	1′ 6″ C & G
R2	2′-6″ C & G
R3	5″ MONO. ISLAND (KEYED IN)
R6	12″ JOINTED CONC. TRUCK APRON
R10	9″ X 18″ CONC. CURB
R11	4″ CONCRETE COVER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V	MILLING, 1½″
W7	SEE WEDGING DETAIL 7

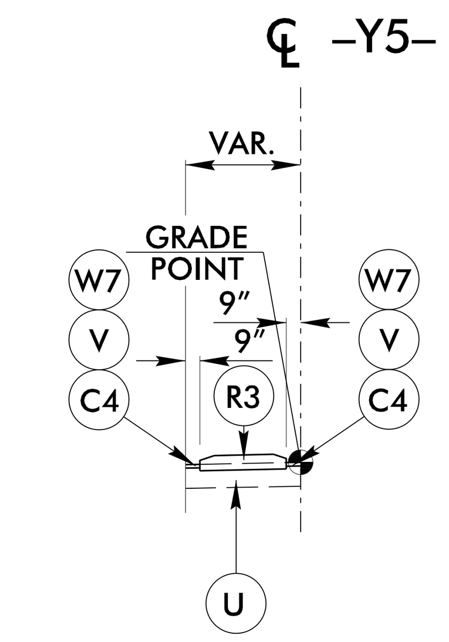
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



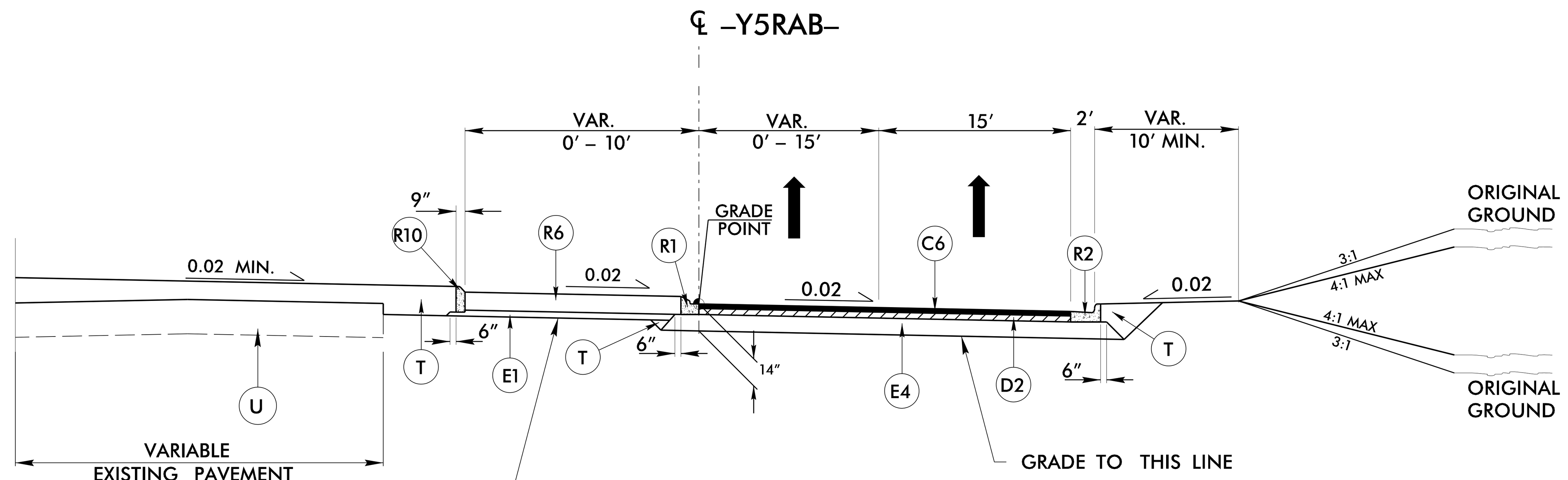
PARTIAL TYPICAL SECTION NO. 7A
-Y5- STA. 32+32.00 TO 34+30.00



TYPICAL SECTION NO. 7
-Y5- STA. 29+99.64 TO 38+73.03

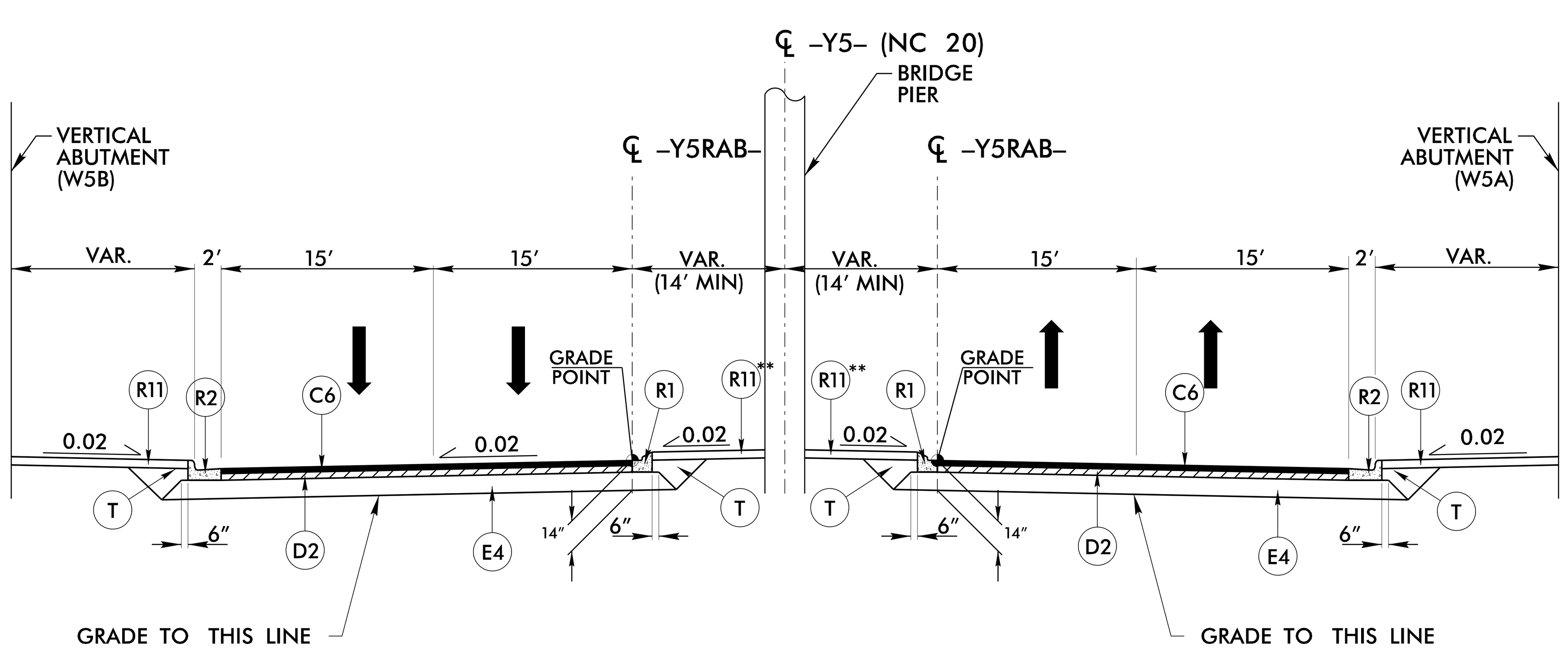


PARTIAL TYPICAL SECTION NO. 7B
-Y5- STA. 35+71.90 TO 38+73.03



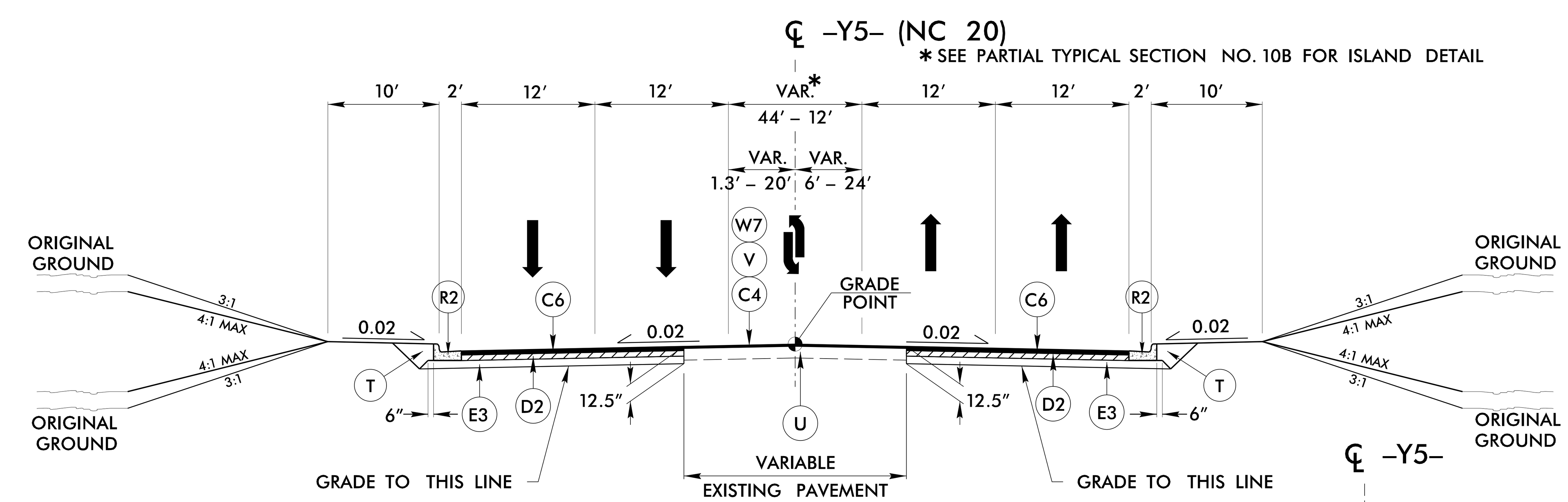
EXISTING PAVEMENT TO BE BROKEN LOCATION VARIES, SEE PLAN

TYPICAL SECTION NO. 8
-Y5RAB- STA. 10+00.00 TO 11+14.30
-Y5RAB- STA. 14+02.41 TO 16+24.71
-Y5RAB- STA. 19+13.66 TO 20+19.26

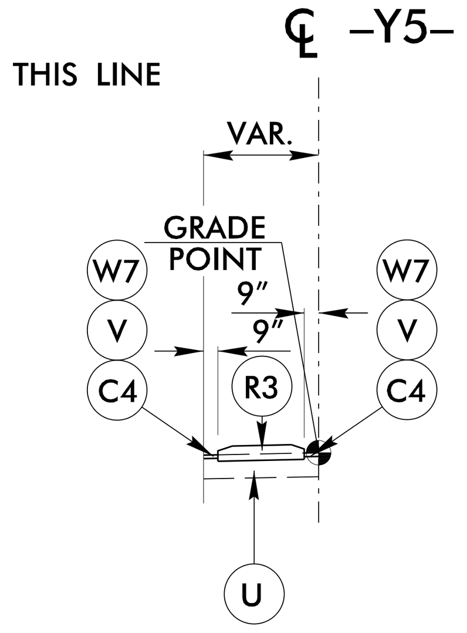


TYPICAL SECTION NO. 9
-Y5- STA. 39+72.11 TO 42+51.65

** SEE PLANS FOR LIMITS OF CONCRETE CAP



TYPICAL SECTION NO. 10
-Y5- STA. 43+51.16 TO 48+53.98



PARTIAL TYPICAL SECTION NO. 10B
-Y5- STA. 43+51.16 TO 45+70.02

6/2/99

5/13/2022 R:\Roadway\Proj\I5987b_rdy_TYP.dgn

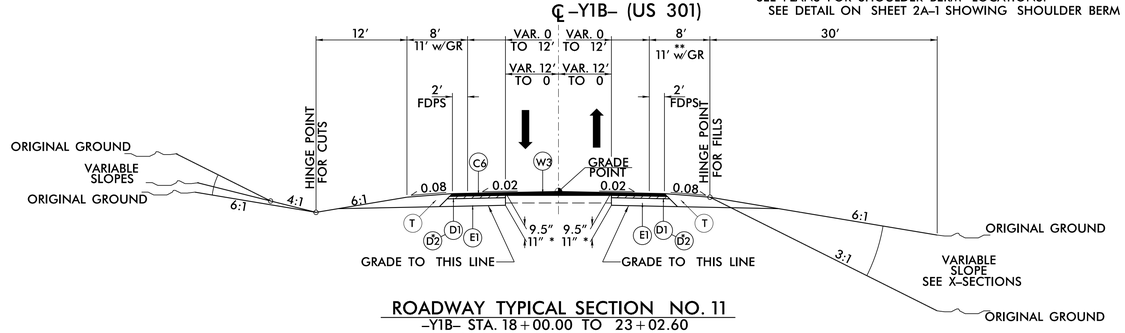
6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C6	3″ S9.5C
C9	3″ S9.5D
D1	2.5″ I19.0C
D2	4″ I19.0C
E1	4″ B25.0C
E4	7″ B25.0C
R1	1′ 6″ C & G
R3	5″ MONO. ISLAND (KEYED IN)
R6	12″ JOINTED CONC. TRUCK APRON
R10	9″ X 18″ CONC. CURB
R11	4″ CONC. COVER
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W3	SEE WEDGING DETAIL 3

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

℄ –Y1B– (US 301)

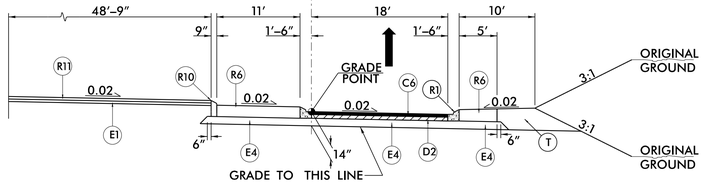
** SEE PLANS FOR SHOULDER BERM LOCATIONS.
SEE DETAIL ON SHEET 2A–1 SHOWING SHOULDER BERM GUTTER



ROADWAY TYPICAL SECTION NO. 11

–Y1B– STA. 18+00.00 TO 23+02.60
–Y1B– STA. 23+02.60 TO 24+00.00 *
–Y1B– STA. 40+19.91 TO 42+00.00

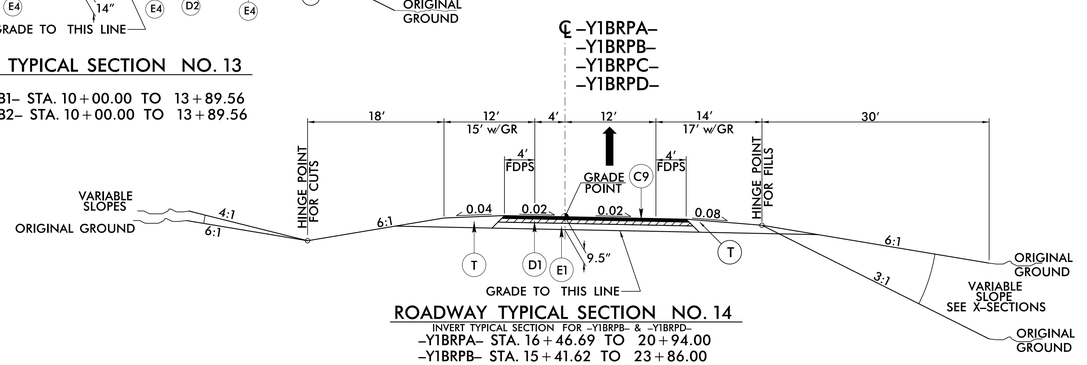
℄ –Y1BRAB1–
–Y1BRAB2–



ROADWAY TYPICAL SECTION NO. 13

–Y1BRAB1– STA. 10+00.00 TO 13+89.56
–Y1BRAB2– STA. 10+00.00 TO 13+89.56

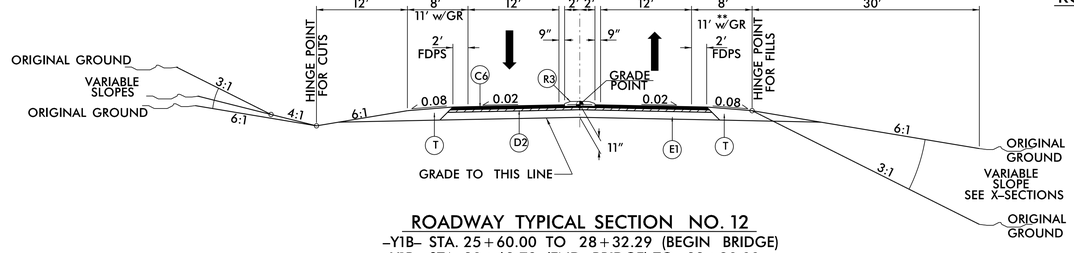
℄ –Y1BRPA–
–Y1BRPB–
–Y1BRPC–
–Y1BRPD–



ROADWAY TYPICAL SECTION NO. 14

INVERT TYPICAL SECTION FOR –Y1BRPB– & –Y1BRPD–
–Y1BRPA– STA. 16+46.69 TO 20+94.00
–Y1BRPB– STA. 15+41.62 TO 23+86.00
–Y1BRPB– STA. 27+11.00 TO 27+58.41
–Y1BRPC– STA. 15+67.00 TO 20+00.00
–Y1BRPD– STA. 14+59.00 TO 26+17.63

℄ –Y1B– (US 301)

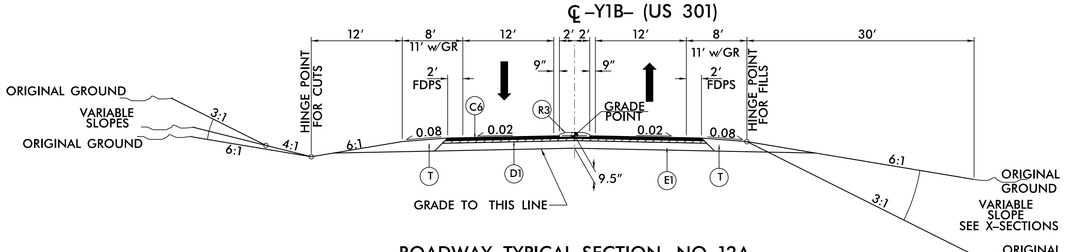


ROADWAY TYPICAL SECTION NO. 12

–Y1B– STA. 25+60.00 TO 28+32.29 (BEGIN BRIDGE)
–Y1B– STA. 30+69.79 (END BRIDGE) TO 33+20.00
–Y1B– STA. 34+80.00 TO 36+68.00

** SEE PLANS FOR SHOULDER BERM LOCATIONS.
SEE DETAIL ON SHEET 2A–1 SHOWING SHOULDER BERM GUTTER

℄ –Y1B– (US 301)

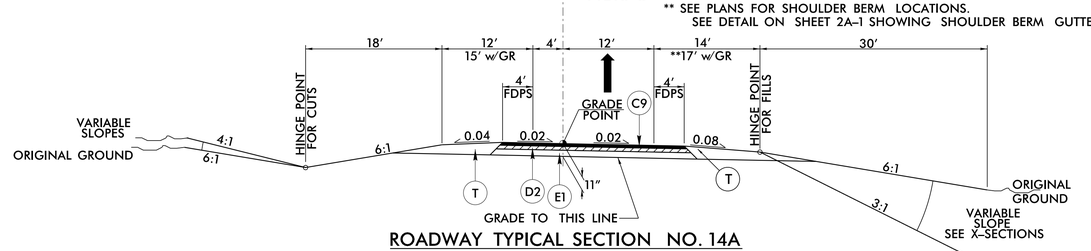


ROADWAY TYPICAL SECTION NO. 12A

–Y1B– STA. 36+68.00 TO 40+19.91

℄ –Y1BRPA–
–Y1BRPB–
–Y1BRPC–

** SEE PLANS FOR SHOULDER BERM LOCATIONS.
SEE DETAIL ON SHEET 2A–1 SHOWING SHOULDER BERM GUTTER



ROADWAY TYPICAL SECTION NO. 14A

INVERT TYPICAL SECTION FOR –Y1BRPB–
–Y1BRPA– STA. 20+94.00 TO 24+45.79
–Y1BRPB– STA. 23+86.00 TO 27+11.00
–Y1BRPC– STA. 20+00.00 TO 24+13.94

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-6

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROB A. MAY
WETHERILL ENGINEERING LLC. LICENSE NO. F-0377

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARCO

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

5/13/2022
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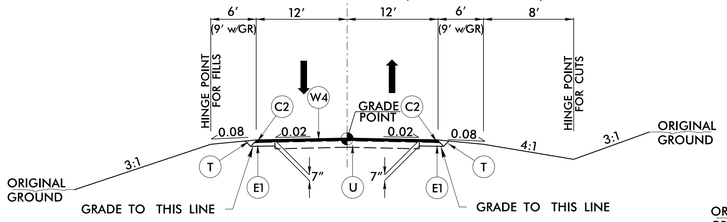
WAI 78449

6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN - 5/12/22)	
C2	3″ S9.5B
C6	3″ S9.5C
D1	2.5″ I19.0C
E1	4″ B25.0C
J1	6″ ABC
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W4	SEE WEDGING DETAIL 4

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

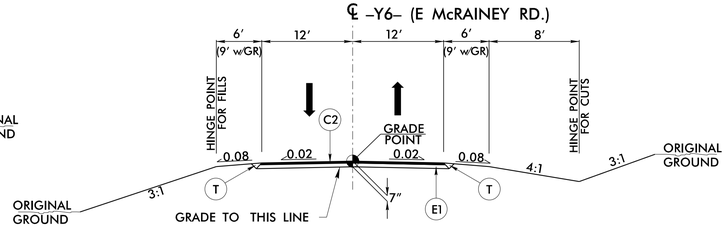
℄ –Y6– (E McRAINEY RD.)



ROADWAY TYPICAL SECTION NO. 15

–Y6– STA. 14+50.00 TO 20+25.00
–Y6– STA. 43+25.00 TO 46+50.00

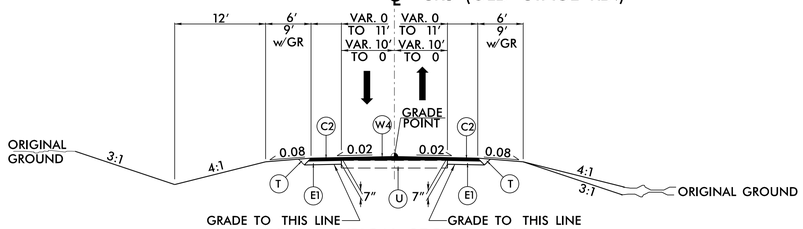
℄ –Y6– (E McRAINEY RD.)



ROADWAY TYPICAL SECTION NO. 16

–Y6– STA. 20+25.00 TO 29+32.44 (BEGIN BRIDGE)
–Y6– STA. 31+23.77 (END BRIDGE) TO 43+25.00

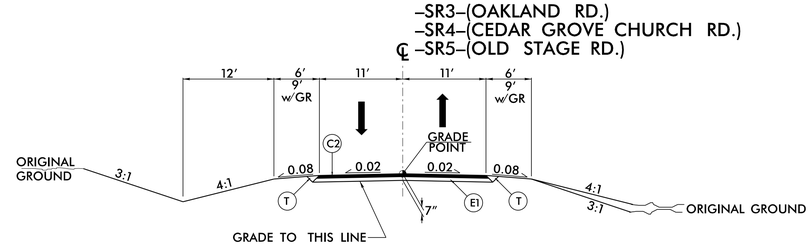
–SR3–(OAKLAND RD.)
–SR4–(CEDAR GROVE CHURCH RD.)
℄ –SR5–(OLD STAGE RD.)



ROADWAY TYPICAL SECTION NO. 17

–SR3– STA. 18+49.88 TO 23+99.29
–SR3– STA. 41+46.94 TO 46+50.00
–SR4– STA. 74+00.00 TO 78+00.00
–SR5– STA. 15+50.00 TO 16+00.00

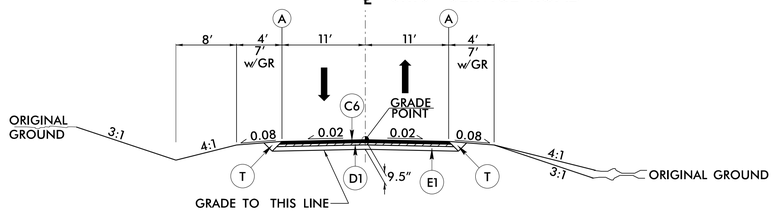
–SR3–(OAKLAND RD.)
–SR4–(CEDAR GROVE CHURCH RD.)
℄ –SR5–(OLD STAGE RD.)



ROADWAY TYPICAL SECTION NO. 18

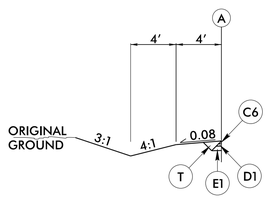
–SR3– STA. 10+18.61 TO 18+49.88
–SR3– STA. 23+99.29 TO 41+46.94
–SR4– STA. 78+00.00 TO 81+77.38
–SR5– STA. 10+12.07 TO 15+50.00

℄ –SR10– SERVICE ROAD



ROADWAY TYPICAL SECTION NO. 19

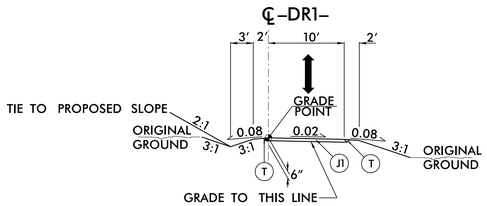
–SR10– STA. 10+18.00 TO 36+29.49



PARTIAL TYPICAL SECTION NO. 19A

–SR10– STA. 10+18.00 TO 12+30.00 RT
–SR10– STA. 10+18.00 TO 17+00.00 LT

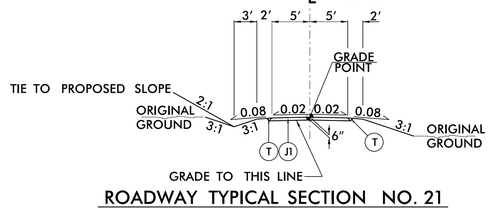
℄ –DR1–



ROADWAY TYPICAL SECTION NO. 20

–DR1– STA. 10+12.00 TO 15+55.00

–Y4DR1–
–SR4DR1–
℄–Y4DR2–



ROADWAY TYPICAL SECTION NO. 21

–Y4DR1– STA. 10+12.00 TO 11+46.17
–SR4DR1– STA. 10+15.00 TO 10+88.83
–Y4DR2– STA. 10+12.74 TO 11+00.00

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-7

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WASCO

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

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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
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Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

5/16/2022
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WA178449

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-8

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARGO

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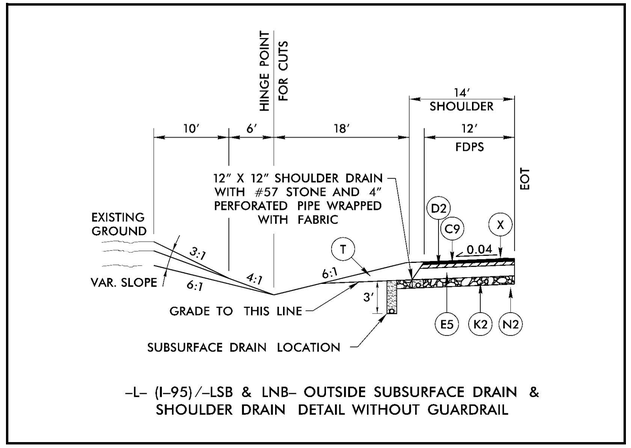
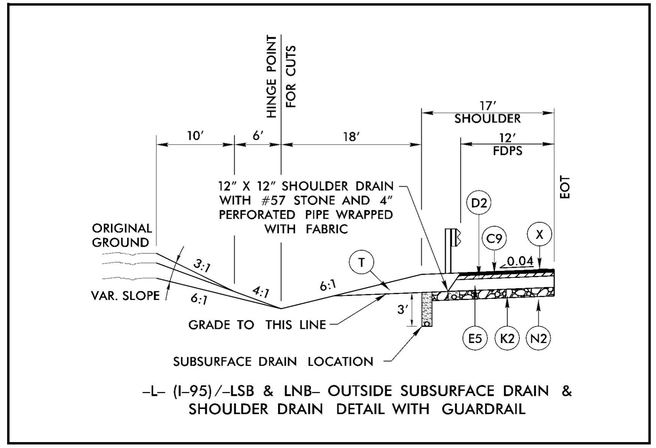
Fuquay-Varina, NC 27526
www.mottmac.com/americas



–L– (I–95) /–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITHOUT GUARDRAIL



–L– (I–95) /–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITH GUARDRAIL

PAVEMENT SCHEDULE	
C9	3″ S9.5D
D2	4″ I19.0C
E5	12″ B25.0C
K2	CLASS IV AGGREGATE SUBGRADE
N2	GEOTEXTILE FOR SOIL STABILIZATION
R8	DOUBLE FACED CONC. BARRIER
T	EARTH
X	MILLED RUMBLE STRIPS

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

SEE SHEET 3G-1 FOR SUBSURFACE DRAIN LOCATION
CLASS IV SUBGRADE STABILIZATION AND GEOTEXTILE TO BE PLACED AT THE DISCRETION OF THE ENGINEER

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	495+00.00	537+01.64	LT	495+00	CP
				496+13	CP
				499+20	CP
				502+20	CP
				505+50	CP
				509+00	CP
				512+00	CP
				515+00	2GI (0514)
				518+33	2GI (0610)
				522+00	2GI (0611)
				525+00	CP
				529+00	CP
				532+00	CP
				535+00	CP
				536+81	2GI (0720)
-L-	555+04.51	563+11	LT	558+75	CP
				561+75	CP
-L-	570+69	597+33	LT	572+95	2GI (1016)
				574+36	2GI (1018)
				575+00	2GI (1033)
				575+50	2GI (1032)
				577+00	2GI (1116)
				581+00	2GI (1118)
				584+95	2GI (1119)
				587+53	2GI (1120)
				590+00	2GI (1202)
				592+25	CP
				595+25	CP
-L-	611+80	620+93	LT	612+55	2GI (1325)
				616+08	2GI (1324)
				620+94	2GI (1311)
-L-	631+73	674+86.68	LT	633+00	CP
				634+52	CP
				637+50	CP
				640+50	CP
				643+00	CP
				646+50	CP
				649+50	CP

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	631+73	674+86.68	LT	652+50	CP
				655+48	CP
				658+50	CP
				661+50	CP
				664+50	CP
				666+80	CP
				669+80	CP
				672+80	CP
-L-	695+94.52	816+72	LT	698+25	CP
				701+25	CP
				707+00	2GI (2022)
				710+50	2GI (2102)
				713+00	2GI (2101)
				716+00	CP
				719+00	CP
				722+00	CP
				725+00	CP
				728+00	CP
				731+00	CP
				734+00	CP
				737+00	CP
				739+92	CP
				743+00	CP
				747+00	CP
				750+00	CP
				753+00	CP
				756+00	CP
				758+70	CP
				760+91	2GI (2574)
				763+91	CP
				767+18	CP
				770+18	CP
				773+18	CP
				776+18	CP
				779+18	CP
				782+18	CP
				785+18	CP
				788+18	CP

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-9

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARGO

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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MOTT MACDONALD
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Fuquay-Varina, NC 27526
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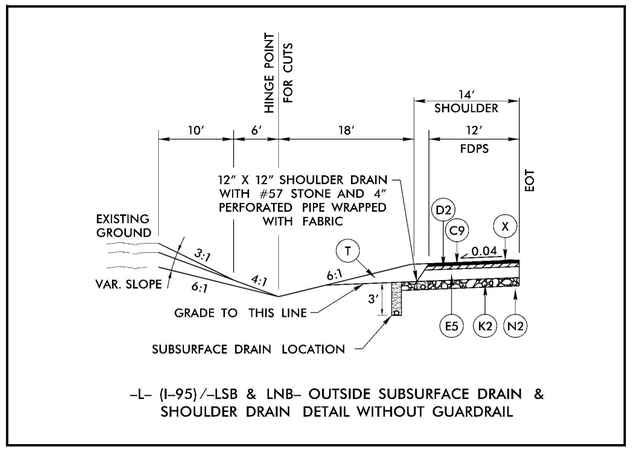
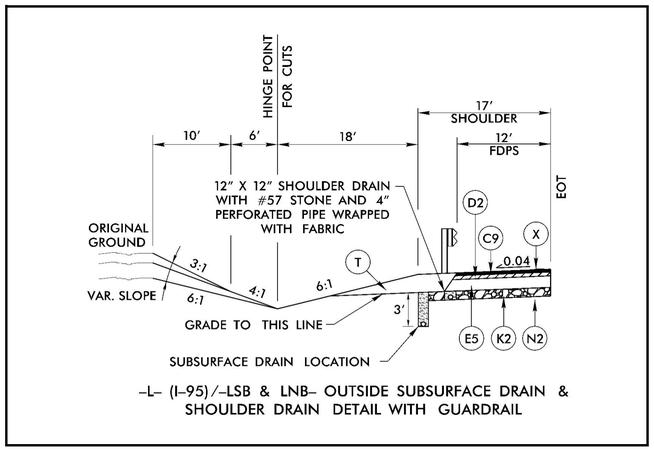


–L– (I–95)/–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITHOUT GUARDRAIL



–L– (I–95)/–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITH GUARDRAIL

PAVEMENT SCHEDULE	
C9	3″ S9.5D
D2	4″ I19.0C
E5	12″ B25.0C
K2	CLASS IV AGGREGATE SUBGRADE
N2	GEOTEXTILE FOR SOIL STABILIZATION
R8	DOUBLE FACED CONC. BARRIER
T	EARTH
X	MILLED RUMBLE STRIPS

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

SEE SHEET 3G-1 FOR SUBSURFACE DRAIN LOCATION
CLASS IV SUBGRADE STABILIZATION AND GEOTEXTILE TO BE PLACED AT THE DISCRETION OF THE ENGINEER

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	695+94.52	816+72	LT	791+18	CP
				794+18	CP
				797+18	CP
				798+00	2GI (2844)
				798+25	2GI (2843)
				801+77	2GI (2910)
				804+53	2GI (2922)
				808+25	CP
				811+25	2GI (3005)
				811+50	2GI (3006)
				814+47	CP
-L-	827+86	915+07.85	LT	829+75	CP
				832+75	CP
				835+75	CP
				838+75	CP
				841+75	CP
				845+06	CP
				848+15	CP
				855+25	CP
				858+50	CP
				861+87	CP
				864+87	CP
				868+17	CP
				871+17	CP
				874+17	cp
				877+17	CP
				882+50	2GI (3616)
				886+25	2GI (3658)
				889+50	CP
				892+75	CP
				896+00	CP
				899+37	CP
				902+30	CP
				905+35	CP
				908+35	CP
				911+35	CP

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	495+00	563+21	RT	495+00	CP
				496+13	CP
				499+20	CP
				502+20	CP
				505+50	CP
				509+33	CP
				512+33	CP
				515+33	CP
				518+33	CP
				521+33	CP
				524+33	CP
				529+04	CP
				532+04	CP
				535+04	CP
				538+04	CP
				541+04	CP
				544+04	CP
				546+75	CP
				549+75	CP
				552+75	CP
				555+75	CP
				558+75	CP
				561+75	CP
-L-	570+69	597+33	RT	572+50	2GI (1005)
				574+36	2GI (1015)
				576+00	2GI (1030)
				577+00	2GI (1109)
				581+00	2GI (1112)
				584+75	2GI (1113)
				587+53	2GI (1114)
				589+50	2GI (1201)
				592+25	CP
				595+25	CP
-L-	611+80	619+43.57	RT	612+55	2GI (1320)
				615+52	2GI (1321)

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-10

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARGO

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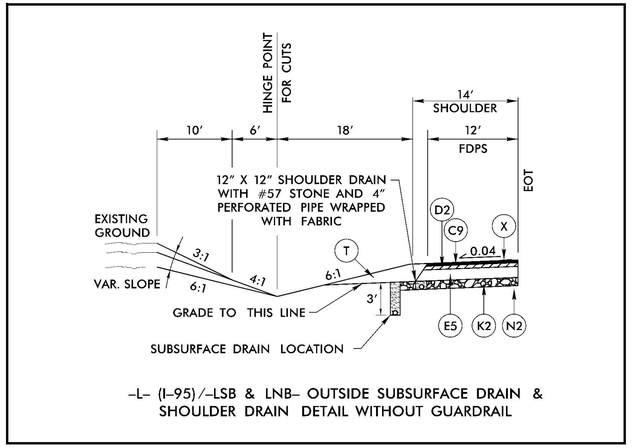
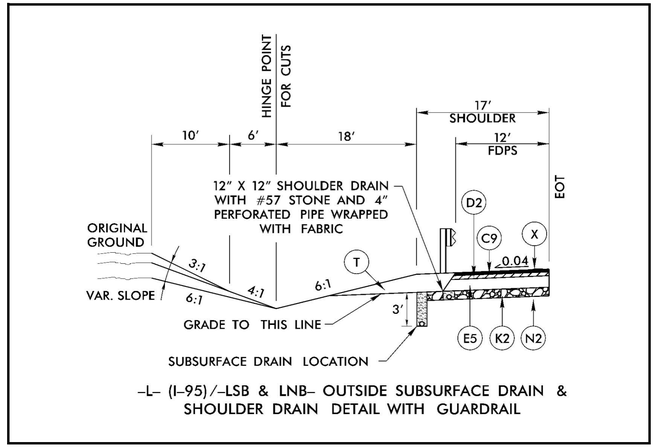


–L– (I–95)/–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITHOUT GUARDRAIL



–L– (I–95)/–LSB & LNB– OUTSIDE SUBSURFACE DRAIN & SHOULDER DRAIN DETAIL WITH GUARDRAIL

PAVEMENT SCHEDULE	
C9	3" S9.5D
D2	4" I19.0C
E5	12" B25.0C
K2	CLASS IV AGGREGATE SUBGRADE
N2	GEOTEXTILE FOR SOIL STABILIZATION
R8	DOUBLE FACED CONC. BARRIER
T	EARTH
X	MILLED RUMBLE STRIPS

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

SEE SHEET 3G-1 FOR SUBSURFACE DRAIN LOCATION
CLASS IV SUBGRADE STABILIZATION AND GEOTEXTILE TO BE PLACED AT THE DISCRETION OF THE ENGINEER

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	632+29	717+11.15	RT	634+39	CP
				637+39	CP
				640+39	CP
				643+39	CP
				645+39	CP
				649+98	CP
				652+98	CP
				655+98	CP
				658+98	CP
				661+98	CP
				664+98	CP
				670+34	CP
				673+34	CP
				675+13	2GI (1810)
				678+13	CP
				680+70	CP
				683+70	CP
				686+70	CP
				692+00	2GI (1921)
				695+00	CP
				698+00	CP
				701+00	CP
				706+00	CP
				709+00	2GI (2025)
				710+50	2GI (2103)
				712+50	2GI (2112)
-L-	737+59.98	778+75.74	RT	739+00	CP
				742+00	CP
				747+00	CP
				750+00	CP
				753+00	CP
				756+00	CP
				759+00	2GI (2570)
				762+00	CP
				769+00	CP
				772+00	CP
				775+00	CP
				778+00	CP

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	798+80.32	816+72	RT	799+00	2GI (2846)
				801+77	2GI (2916)
				804+53	2GI (2928)
				808+50	2GI (2931)
				808+85	2GI (2930)
				811+47	CP
				814+47	CP
-L-	827+86	915+07.85	RT	829+75	CP
				832+75	CP
				835+75	CP
				838+75	CP
				841+75	CP
				845+06	CP
				648+06	CP
				852+75	CP
				855+75	CP
				858+75	CP
				861+87	CP
				864+87	CP
				868+17	CP
				871+17	CP
				874+17	CP
				877+17	CP
				882+50	2GI (3620)
				884+94	2GI (3622)
				888+00	2GI (3651)
				890+75	CP
				893+50	2GI (3707)
				897+30	2GI (3740)
				897+42	2GI (3741)
				900+35	2GI (3732)
				903+35	CP
				905+35	CP
				908+32	CP
				911+32	CP

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-11

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARGO

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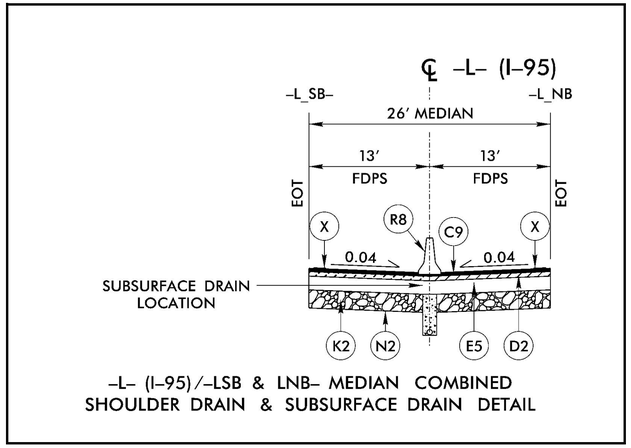
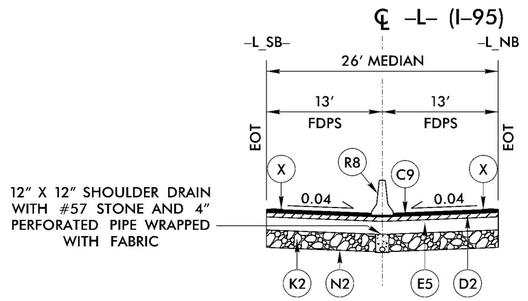


–L– (I–95) /–LSB & LNB– MEDIAN COMBINED SHOULDER DRAIN & SUBSURFACE DRAIN DETAIL



–L– (I–95) /–LSB & LNB– MEDIAN SHOULDER DRAIN DETAIL

PAVEMENT SCHEDULE	
C9	3″ S9.5D
D2	4″ I19.0C
E5	12″ B25.0C
K2	CLASS IV AGGREGATE SUBGRADE
N2	GEOTEXTILE FOR SOIL STABILIZATION
R8	DOUBLE FACED CONC. BARRIER
T	EARTH
X	MILLED RUMBLE STRIPS

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

SEE SHEET 3G-1 FOR SUBSURFACE DRAIN LOCATION
CLASS IV SUBGRADE STABILIZATION AND GEOTEXTILE TO BE PLACED AT THE DISCRETION OF THE ENGINEER

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	495+00	563+11	MED	495+00	2GI (0401 & 0406)
				496+13	2GI (0402 & 0407)
				496+50	2GI (0411 & 0412)
				497+83	2GI (0408 & 0403)
				502+00	2GI (0404 & 0409)
				506+00	2GI (0505 & 0506)
				513+95	2GI (0501 & 0503)
				517+20	2GI (0607 & 0608)
				518+33	2GI (0601 & 0603)
				519+50	2GI (0602 & 0604)
				522+00	2GI (0605 & 0606)
				530+27	2GI (0703 & 0704)
				534+00	2GI (0705 & 0711)
				535+02	2GI (0706 & 0712)
				536+81	2GI (0708 & 0713)
				538+50	2GI (0709)
				541+00	2GI (0710 & 0714)
				543+54	2GI (0801)
				550+00	2GI (0802 & 0805)
				553+00	2GI (0803 & 0804)
				556+00	2GI (0901 & 0903)
				559+00	2GI (0902 & 0904)
-L-	570+69	597+33	MED	572+50	2GI (1003 & 1004)
				572+95	2GI (1017)
				574+36	2GI (1020)
				574+85	2GI (1007)
				575+00	2GI (1008 & 1009)
				577+20	2GI (1101 & 1102)
				581+00	2GI (1103 & 1104)
				584+75	2GI (1105 & 1106)
				587+53	2GI (1107 & 1108)
				592+84	2GI (1205 & 1206)
				595+25	2GI (1207 & 1208)
				595+50	2GI (1209 & 1210)
				597+00	2GI (1211 & 1212)
-L-	611+80	621+88	MED	612+55	2GI (1323)
				615+68	2GI (1322 & 1328)
				620+94	2GI (1308)

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	631+73	816+72	MED	633+50	2GI (1403 & 1405)
				634+39	2GI (1402)
				634+52	2GI (1404)
				635+50	2GI (1407 & 1409)
				638+50	2GI (1408 & 1410)
				642+30	2GI (1502 & 1504)
				645+00	2GI (1503 & 1505)
				652+00	2GI (1610 & 1611)
				655+28	2GI (1604 & 1605)
				656+00	2GI (1601 & 1602)
				661+00	2GI (1607 & 1608)
				671+00	2GI (1706 & 1706)
				672+70	2GI (1701)
				673+34	2GI (1702 & 1703)
				683+70	2GI (1807 & 1808)
				684+00	2GI (1803 & 1804)
				684+50	2GI (1802)
				687+00	2GI (1910)
				692+00	2GI (1901)
				693+44	2GI (1911)
				694+95	2GI (1903 & 1904)
				696+00	2GI (1905 & 1906)
				701+00	2GI (2066 & 2067)
				708+00	2GI (2058 & 5059)
				710+00	2GI (2104 & 2105)
				712+50	2GI (2110 & 2111)
				713+00	2GI (2108 & 2109)
				713+75	2GI (2107)
				718+00	2GI (2114 & 2115)
				721+00	2GI (2116)
				729+00	2GI (2248)
				729+50	2GI (2250 & 2251)
				734+50	2GI (2308)
				735+00	2GI (2310 & 2311)
				739+00	2GI (2320)
				739+92	2GI (2321 & 2324)
				750+50	2GI (2410 & 2412)
				756+00	2GI (2520 & 2521)

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-12

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARGO

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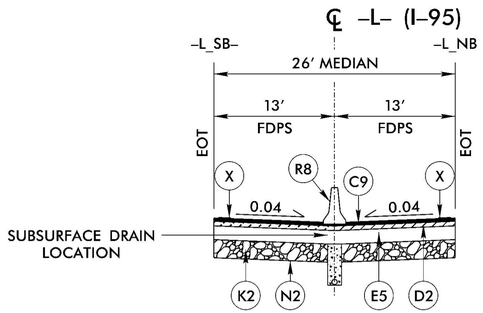
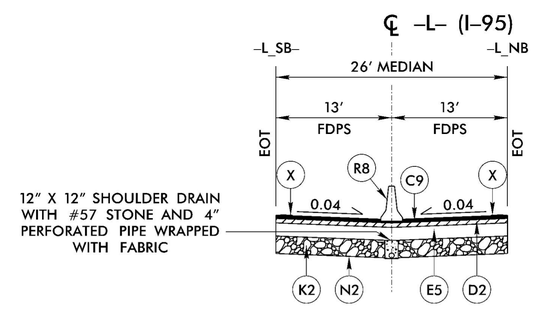


–L– (I–95)/–LSB & LNB– MEDIAN COMBINED SHOULDER DRAIN & SUBSURFACE DRAIN DETAIL



–L– (I–95)/–LSB & LNB– MEDIAN SHOULDER DRAIN DETAIL

PAVEMENT SCHEDULE	
C9	3″ S9.5D
D2	4″ I19.0C
E5	12″ B25.0C
K2	CLASS IV AGGREGATE SUBGRADE
N2	GEOTEXTILE FOR SOIL STABILIZATION
R8	DOUBLE FACED CONC. BARRIER
T	EARTH
X	MILLED RUMBLE STRIPS

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

SEE SHEET 3G-1 FOR SUBSURFACE DRAIN LOCATION
CLASS IV SUBGRADE STABILIZATION AND GEOTEXTILE TO BE PLACED AT THE DISCRETION OF THE ENGINEER

SUMMARY OF SHOULDER DRAIN

LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
-L-	631+73	816+72	MED	758+70 S	2GI (2521 & 2520)
				763+00	2GI (2503 & 2505)
				770+50	2GI (2604 & 2602)
				771+62	2GI (2612 & 2610)
				776+50	2GI (2633 & 2635)
				777+00	2GI (2640 & 2642)
				781+50	2GI (2709)
				782+00	2GI (2710 & 2712)
				786+50	2GI (2739)
				787+00	2GI (2740 & 2742)
				791+17.88	2GI (2810 & 2812)
				794+00	2GI (2820 & 2822)
				795+00	2GI (2819)
				799+00	2GI (2840 & 2842)
				801+77	2GI (2912 & 2914)
				804+53	2GI (2924 & 2926)
				808+85	2GI (2941 2943)
				811+50	2GI (3002 & 3004)
				814+47	2GI (3010 & 3012)
-L-	827+86	915+07.85	MED	831+50	2GI (3120 & 3122)
				834+00	2GI (3222 & 3224)
				839+00	2GI (3210 & 3212)
				845+06	2GI (3310 & 3312)
				846+50	2GI (3321 & 3323)
				856+00	2GI (3402 & 3404)
				858+00	2GI (3410 & 3412)
				861+86	2GI (3420)
				864+83	2GI (3432 & 3434)
				871+17	2GI (3510 & 3512)
				874+00	2GI (3520 & 3522)
				882+50	2GI (3610 & 3612)
				887+50	2GI (3650 & 3652)
				892+50	2GI (3704 & 3706)
				898+50	2GI (3720 & 3722)
				899+37	2GI (3724 & 3726)
				900+35	2GI (3728 & 3730)
				908+35	2GI (3810 & 3812)
				913+00	2GI (3820 & 3822)
				915+00	2GI (3826 & 3828)

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-13

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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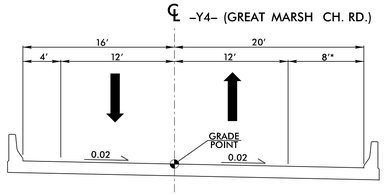
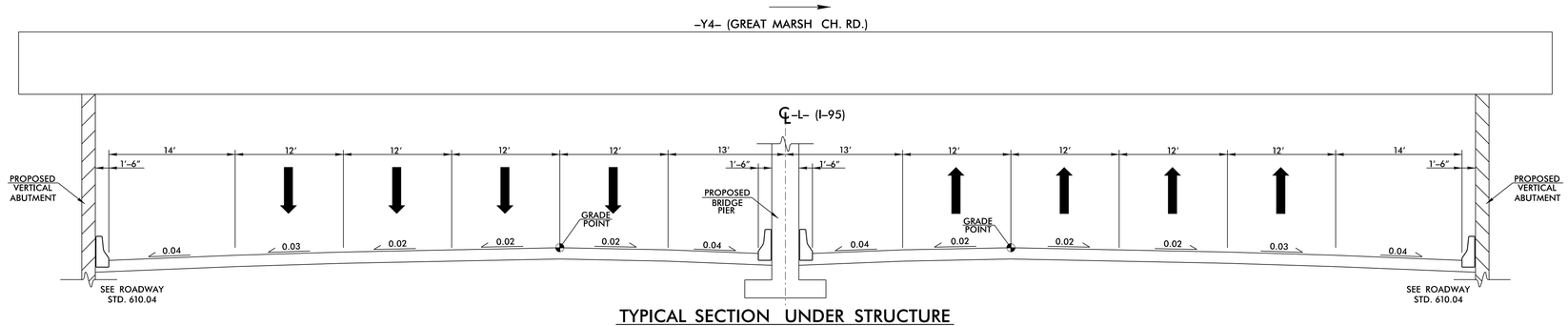
BRIDGE AT –Y4– STA. 24+76.86
OVER –L– STA. 573+67.87



STRUCTURE TYPICAL SECTION

*ADDITIONAL SHOULDER WIDTH PROVIDED TO CONTROL HYDRAULIC SPREAD



TYPICAL SECTION UNDER STRUCTURE
MINIMUM VERTICAL CLEARANCE = 17′-0″

4/15/2022
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CDK8251G

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-14

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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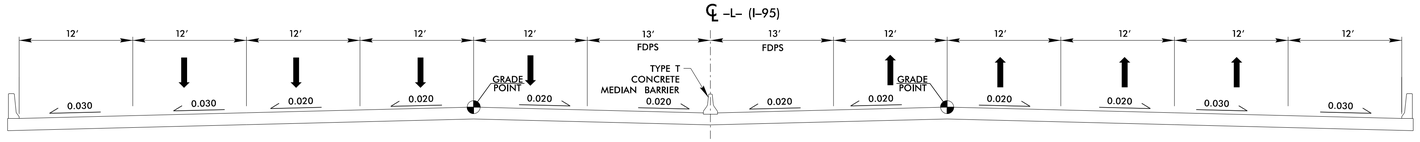
BRIDGE AT –L– STA. 586+14.00
OVER BIG MARSH SWAMP



PROPOSED BRIDGE TYPICAL SECTION
–L– (I-95 WIDENING)

4/15/2022
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CDK82519

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-15

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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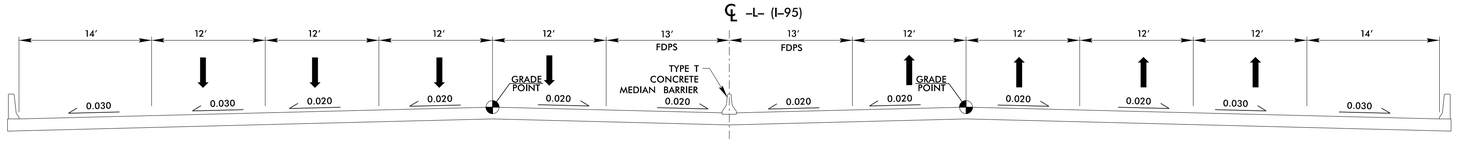
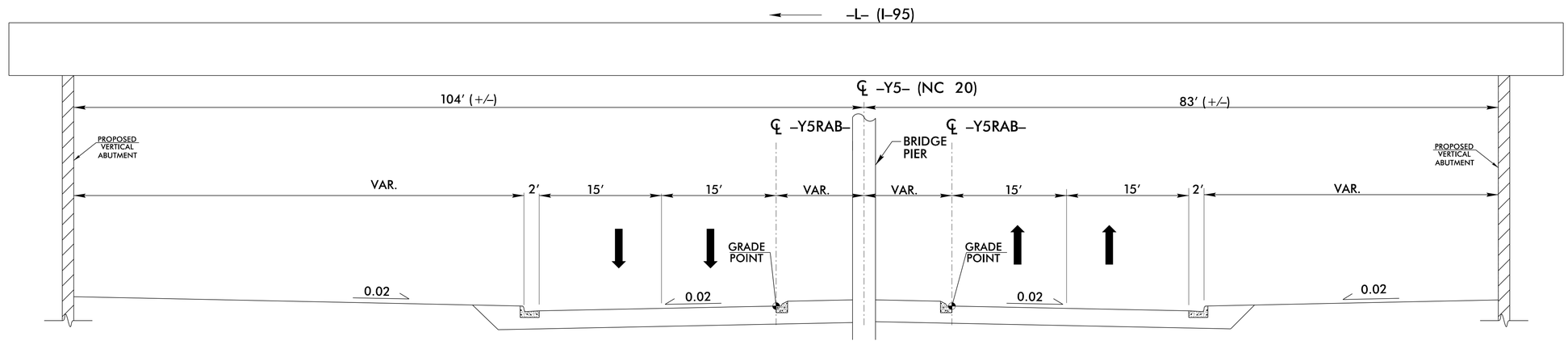
BRIDGE AT –L– STA. 617+12.20
OVER –Y5– STA. 40+91.02



PROPOSED BRIDGE TYPICAL SECTION
–L– (I–95 WIDENING)



TYPICAL SECTION UNDER STRUCTURE
MINIMUM VERTICAL CLEARANCE = 15′–6″

4/15/2022
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CDK82519

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-16

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROBERT A. MAY

WETHERILL ENGINEERING LLC.
LICENSE NO. F-0377

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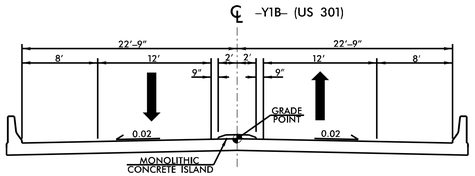
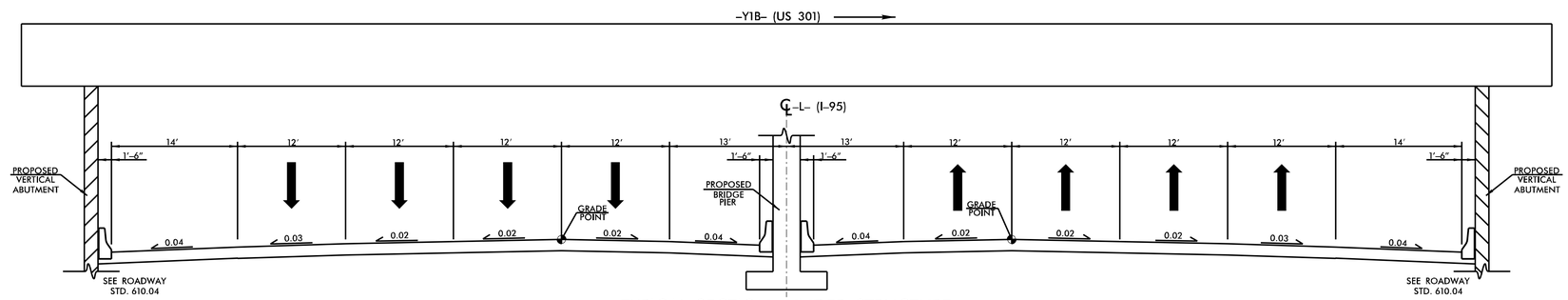
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

BRIDGE AT –Y1B– STA. 29+51.04
OVER –L– STA. 702+75.43



STRUCTURE TYPICAL SECTION



TYPICAL SECTION UNDER STRUCTURE
MINIMUM VERTICAL CLEARANCE = 17'-0"

4/28/2022
R:\Roadway\Proj\I5987b_rdy_TYP_BRG.dgn
mkeen

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-17

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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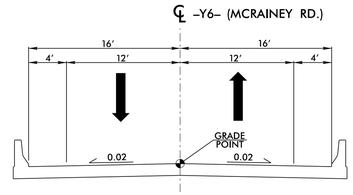
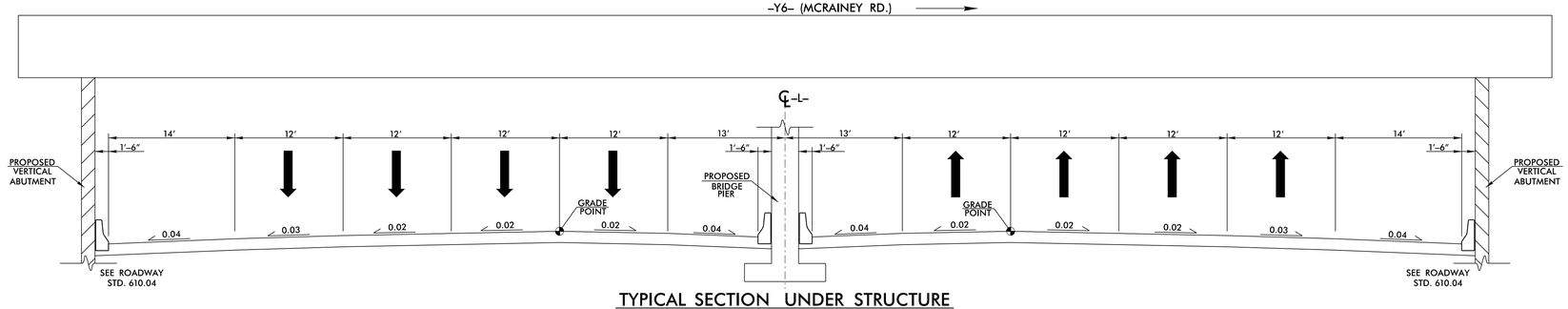
MOTT MACDONALD
7621 Parfoy Rd., Suite 115
Fuquay-Varina, NC 27526
www.mottmac.com/americas

BRIDGE AT –Y6– STA. 30+28.11
OVER –L– STA. 761+20.96



STRUCTURE TYPICAL SECTION



TYPICAL SECTION UNDER STRUCTURE
MINIMUM VERTICAL CLEARANCE = 17′–0″

4/15/2022
R:\Projects\Proj\I5987b_rdy_TYP_BRG.dgn
CDK8251G

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-18

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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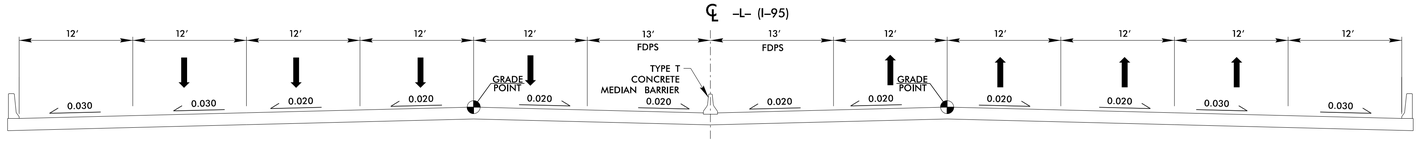
BRIDGE AT –L– STA. 803+15.00
OVER LITTLE MARSH SWAMP



PROPOSED BRIDGE TYPICAL SECTION
–L– (I-95 WIDENING)

4/15/2022
R:\Projects\I5987b_rdy_TYP_BRG.dgn
CDK8261G

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-19

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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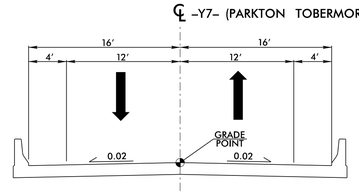
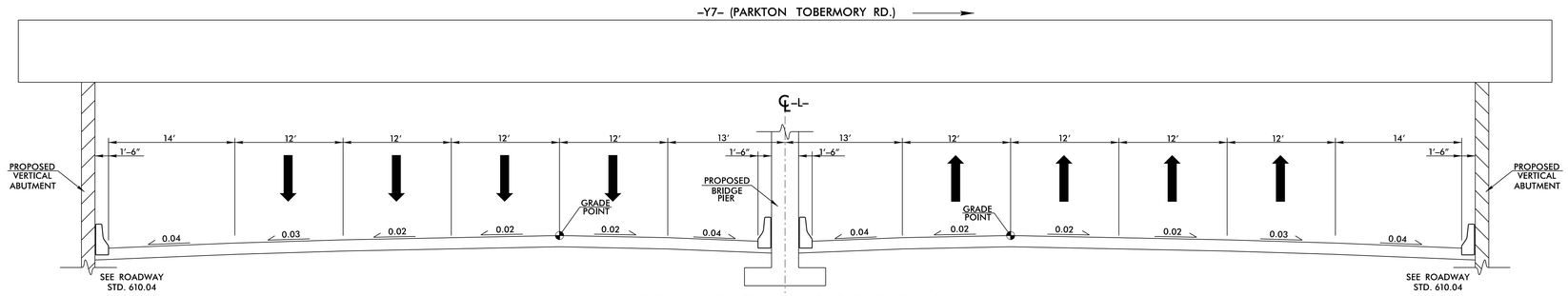
Fuquay-Varina, NC 27526
www.mottmac.com/americas

BRIDGE AT –Y7– STA. 29+70.72
OVER –L– STA. 883+36.60



STRUCTURE TYPICAL SECTION



TYPICAL SECTION UNDER STRUCTURE
MINIMUM VERTICAL CLEARANCE = 17′–0″

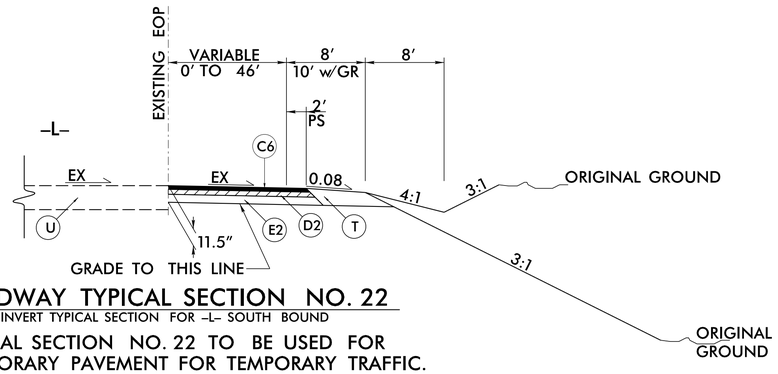
4/15/2022
R:\Projects\Proj\I5987b_rdy_TYP_BRG.dgn
CDK8251G

6/2/99

PAVEMENT SCHEDULE (FINAL TEMPORARY PAVEMENT DESIGN - 1/7/22)	
C1	1.5″ S9.5B
C4	1.5″ S9.5C
C6	3″ S9.5C
D2	4″ I19.0C
E1	4″ B25.0C
E2	4.5″ B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT

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

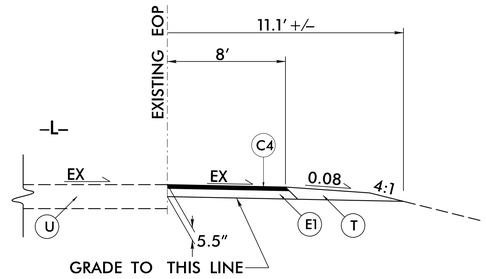
TEMPORARY PAVEMENT TYPICAL SECTIONS



ROADWAY TYPICAL SECTION NO. 22

INVERT TYPICAL SECTION FOR –L– SOUTH BOUND

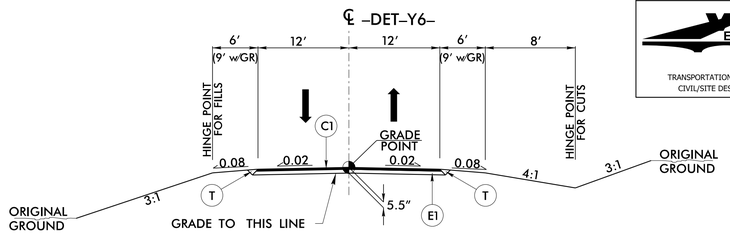
TYPICAL SECTION NO. 22 TO BE USED FOR TEMPORARY PAVEMENT FOR TEMPORARY TRAFFIC. SEE TMP PLANS FOR LOCATIONS.



ROADWAY TYPICAL SECTION NO. 22A

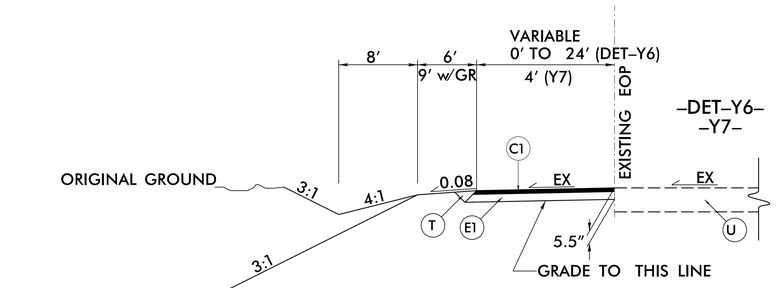
INVERT TYPICAL SECTION FOR –L– SOUTH BOUND

TYPICAL SECTION NO. 22A TO BE USED FOR TEMPORARY PAVEMENT FOR TEMPORARY PCB. SEE TMP PLANS FOR LOCATIONS.



ROADWAY TYPICAL SECTION NO. 23

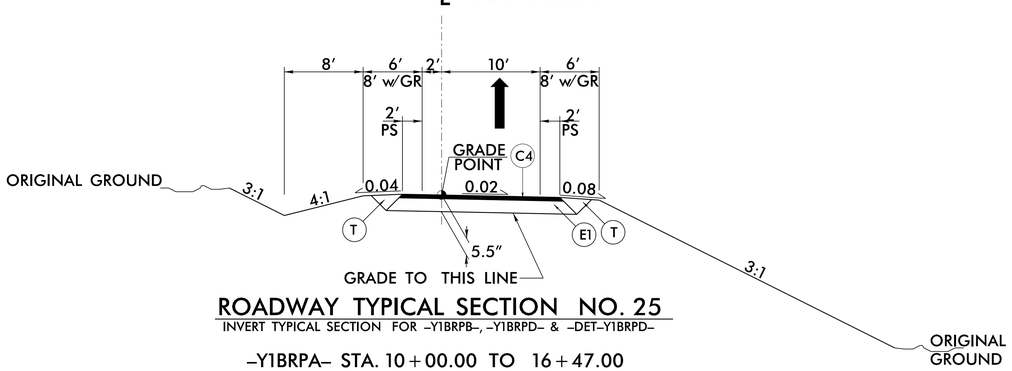
–DET–Y6– STA. 12+51.49 TO 17+23.05



ROADWAY TYPICAL SECTION NO. 24

–DET–Y6– STA. 10+00.00 TO 12+51.49
–DET–Y6– STA. 17+23.05 TO 20+10.03
–Y7– STA. 20+50+/– TO 25+30+/–
–Y7– STA. 31+00+/– TO 48+00+/–

–Y1BRPA–
–Y1BRPB–
–Y1BRPC–
–Y1BRPD–
–DET–Y1BRPA–
℄ –DET–Y1BRPD–

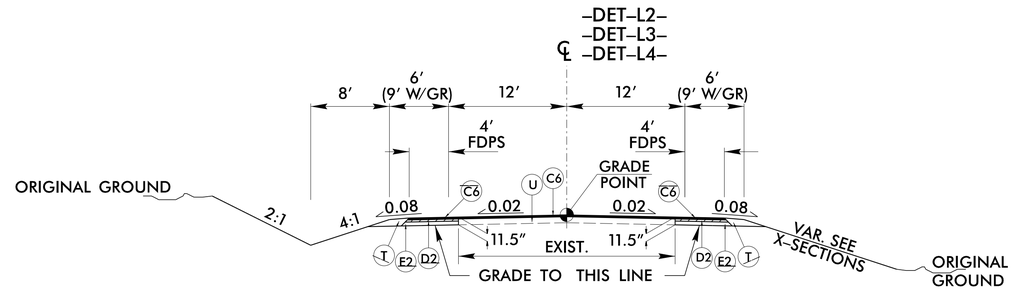


ROADWAY TYPICAL SECTION NO. 25

INVERT TYPICAL SECTION FOR –Y1BRPB–, –Y1BRPD– & –DET–Y1BRPD–

–Y1BRPA– STA. 10+00.00 TO 16+47.00
–Y1BRPB– STA. 10+00.00 TO 15+42.00
–Y1BRPC– STA. 10+00.00 TO 15+67.00
–Y1BRPD– STA. 10+00.00 TO 14+59.00
–DET–Y1BRPA– STA. 13+92.99 TO 18+57.62
–DET–Y1BRPD– STA. 12+77.94 TO 22+71.92

–DET–L2–
–DET–L3–
℄ –DET–L4–



ROADWAY TYPICAL SECTION NO. 26

–DET–L2– STA. 10+00.00 TO 20+47.08
–DET–L3– STA. 16+37.54 TO 25+70.35
–DET–L4– STA. 17+46.93 TO 20+36.02

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2A-20

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 044590 ENGINEER ANDREW D. WARCO

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7621 Purfoy Rd., Suite 115
Fuquay-Varina, NC 27526
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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

5/3/2022
R:\Projects\Proj\5987b_rdy_TYP.dgn
WALTERS

PROJECT REFERENCE NO. I-5987B
SHEET NO. 2A-21

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

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 044590 ANDREW D. WARGO

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Fuquay-Varina, NC 27526
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Raleigh, N.C. 27606
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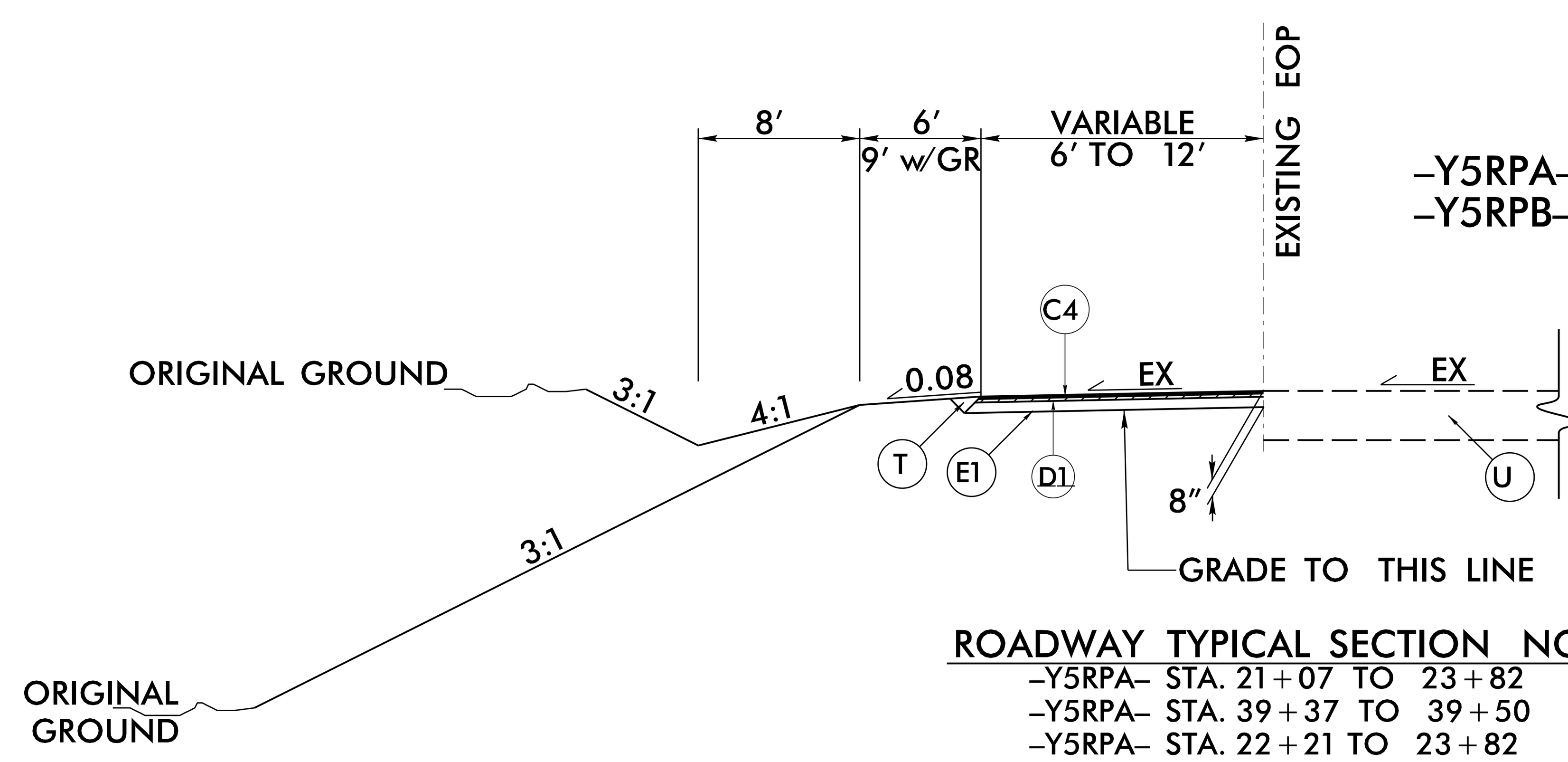
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

TEMPORARY PAVEMENT TYPICAL SECTIONS

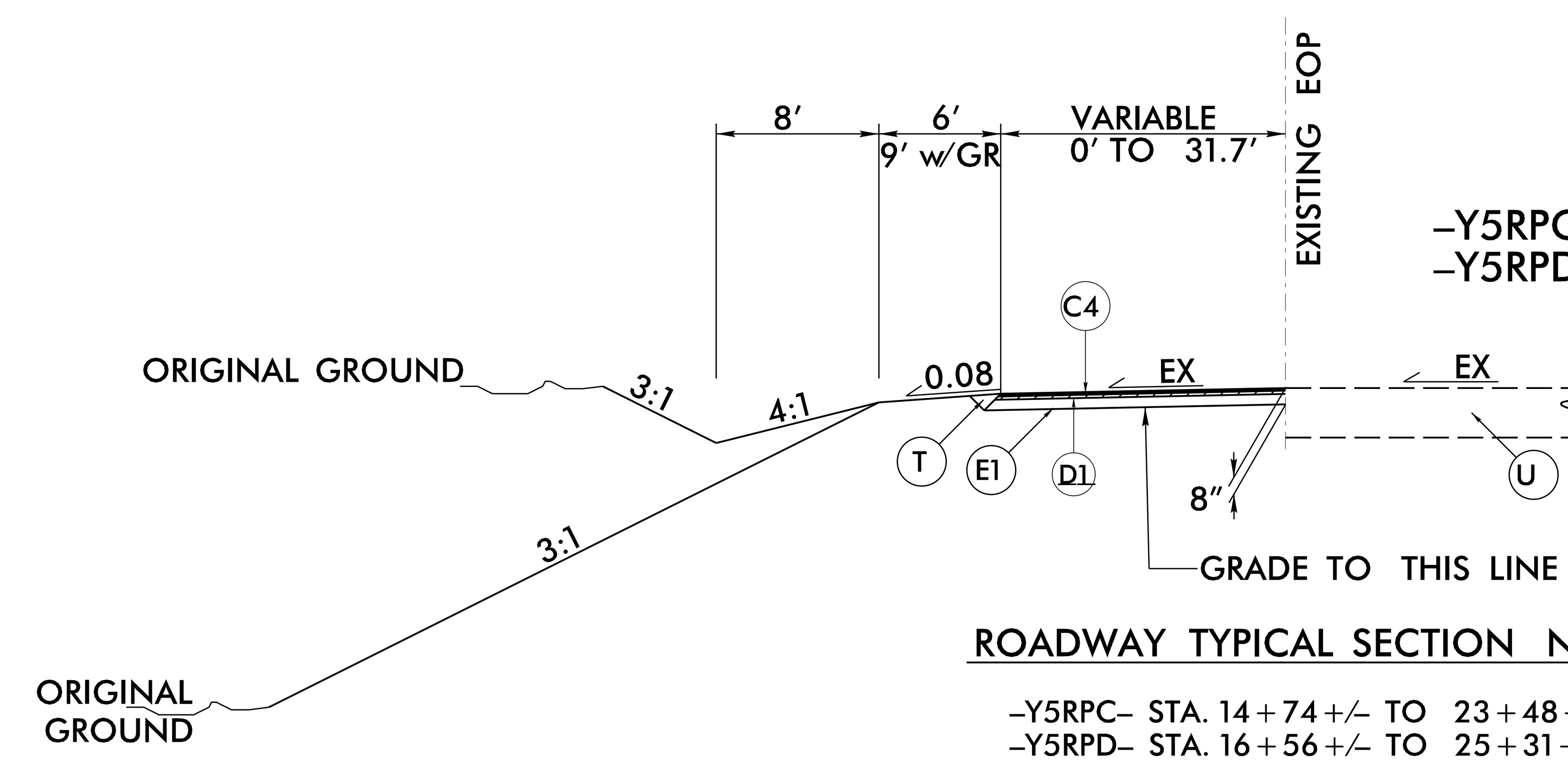
PAVEMENT SCHEDULE (FINAL TEMPORARY PAVEMENT DESIGN - 1/7/22)	
C4	1.5" S9.5C
C5	2" S9.5C
D1	2.5" I19.0C
E1	4" B25.0C
E2	4.5" B25.0C
T	EARTH MATERIAL
U	EXIST. PAVEMENT

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



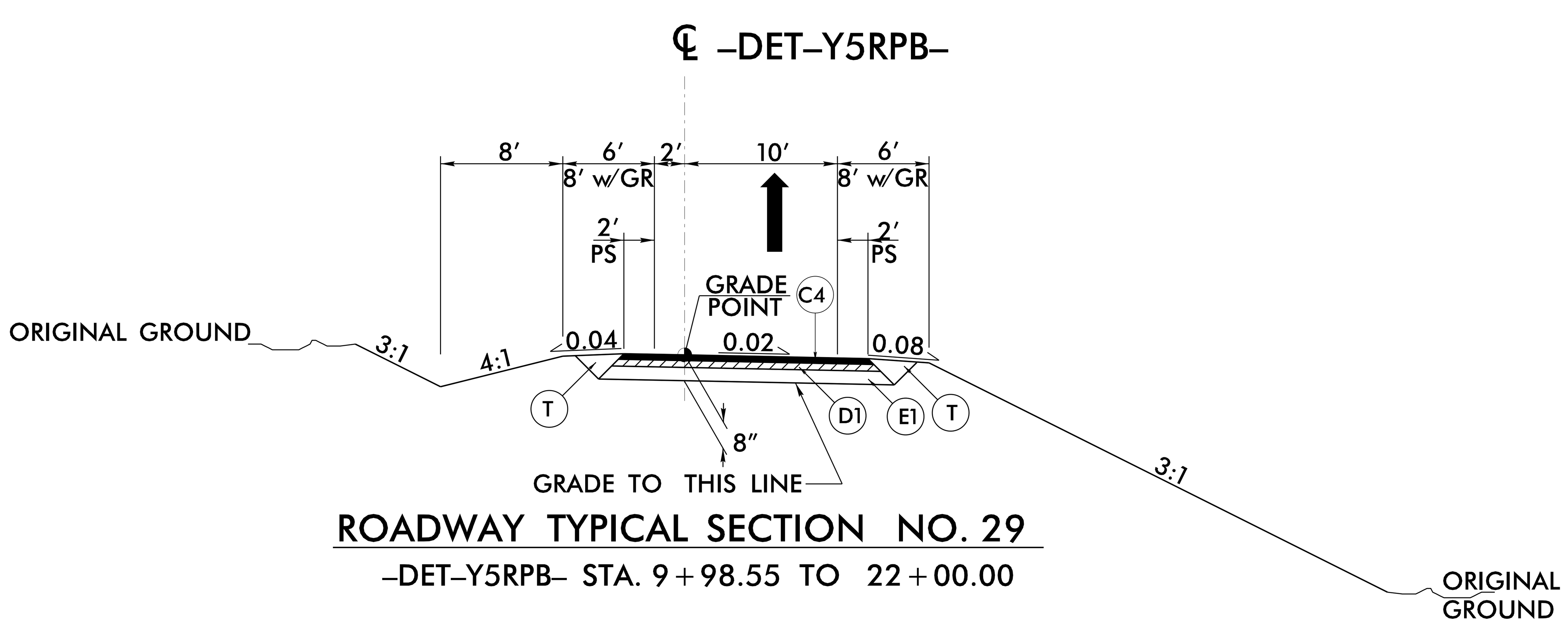
ROADWAY TYPICAL SECTION NO. 27

-Y5RPA- STA. 21+07 TO 23+82
-Y5RPA- STA. 39+37 TO 39+50
-Y5RPA- STA. 22+21 TO 23+82
-Y5RPA- STA. 14+42 TO 17+03
-Y5RPB- STA. 10+00 TO 21+09+/-



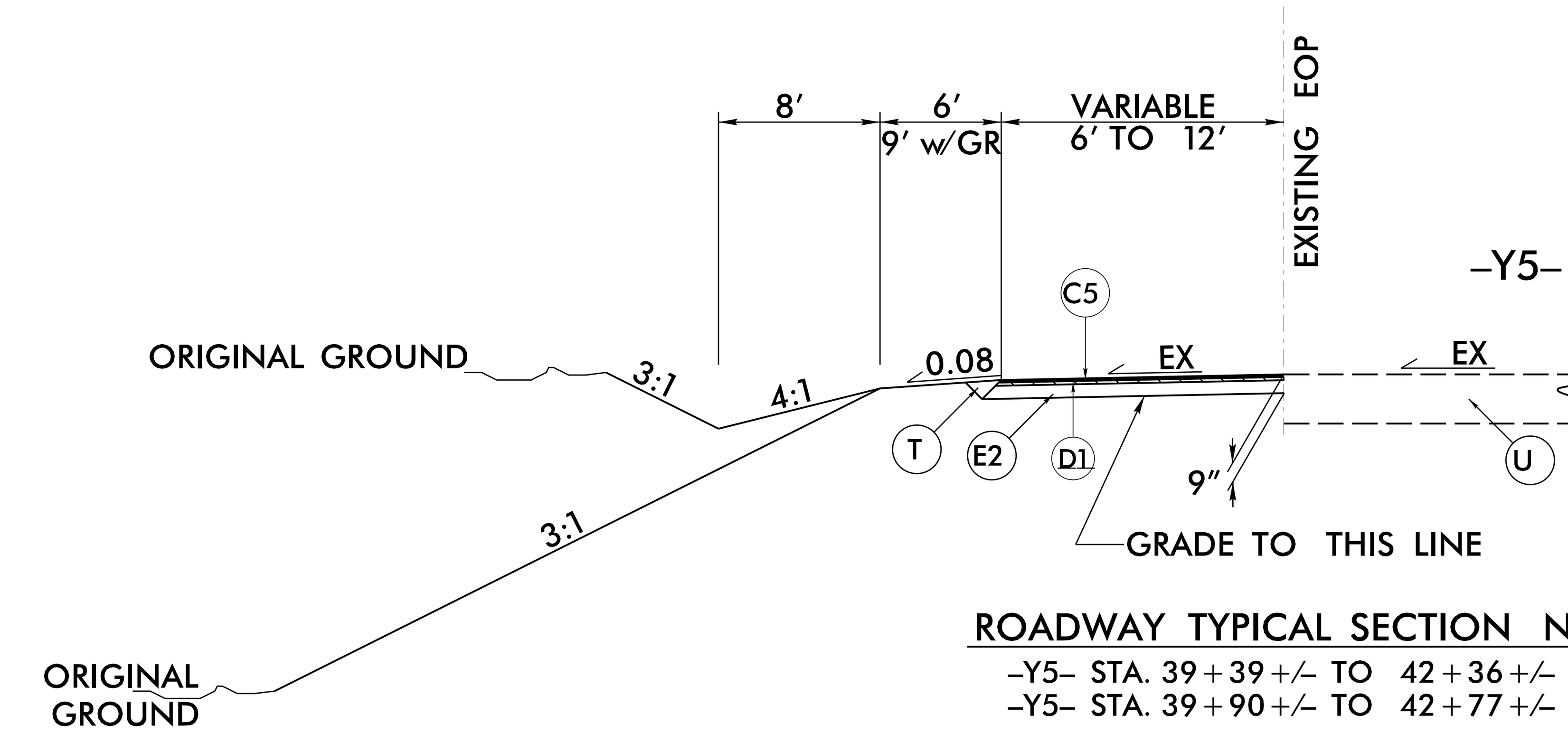
ROADWAY TYPICAL SECTION NO. 28

-Y5RPC- STA. 14+74+/- TO 23+48+/-
-Y5RPD- STA. 16+56+/- TO 25+31+/-



ROADWAY TYPICAL SECTION NO. 29

-DET-Y5RPB- STA. 9+98.55 TO 22+00.00



ROADWAY TYPICAL SECTION NO. 30

-Y5- STA. 39+39+/- TO 42+36+/- LT.
-Y5- STA. 39+90+/- TO 42+77+/- RT.

8/17/99

INTERSECTION DETAIL

DETAIL SHOWING ROUNDABOUT (–Y5RAB–)
SEE SHEET NO. 13 FOR INTERCHANGE DESIGN

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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Fuquay-Varina, NC 27526
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NAD 83/2011

-Y5RAB- PC Sta. 10+00.00 =
-Y5RAB- PT Sta. 20+19.26 =
-Y5- POT Sta. 38+93.23

-Y5RPA- PT Sta. 23+82.07 =
-Y5RAB- POC Sta. 19+71.35
OFF = 30' RT

-Y5RPB- PT Sta. 27+14.40 =
-Y5RAB- POC Sta. 10+80.08
OFF = 30' RT

-Y5RPC- PT Sta. 25+86.38 =
-Y5RAB- POC Sta. 14+59.69
OFF = 30' RT

-Y5RPD- PT Sta. 25+33.54 =
-Y5RAB- POC Sta. 15+93.81
OFF = 30' RT

-Y5RAB- POC Sta. 15+07.42 =
-Y5- POT Sta. 43+31.03

-Y5RAB- PT Sta. 18+52.32
-Y5RAB- PC Sta. 17+51.96
-Y5RAB- PT Sta. 16+24.71
-Y5RAB- PC Sta. 15+76.12
-Y5RAB- PT Sta. 15+52.61
-Y5RAB- PCC Sta. 15+23.73
-L- POT Sta. 617+12.20
-Y5- POT Sta. 40+91.10
-Y5RAB- PCC Sta. 14+77.37
-Y5RAB- PC Sta. 14+02.41
-Y5RAB- PC Sta. 12+45.83
-Y5RAB- PT Sta. 13+50.64
-Y5RAB- PCC Sta. 10+15.37
-Y5RAB- PT Sta. 10+44.15
-Y5RAB- PC Sta. 10+67.42
-Y5RAB- PT Sta. 11+14.30
-Y5RAB- PC Sta. 19+13.66
-Y5RAB- PCC Sta. 19+89.21

N 25° 26' 57.7" W
N 61° 23' 14.1" W
N 14° 59' 28.4" W
S 16° 23' 41.8" E
S 61° 09' 36.9" E
S 23° 37' 45.7" E

R=298'
R=56'
R=98'
R=2'
R=4'

PROP. 2'-6" CURB & GUTTER
PROP. 1'-6" CURB & GUTTER
LIMITS OF CONCRETE CAP (UNDER BRIDGE)
RETAINING WALL (UNDER BRIDGE)
BRIDGE PIER
9" X 18" CURB
CONC. TRUCK APRON
LOW PT. +30.46
LOW PT. +01.18
HIGH PT. +00
HIGH PT. +18.91

-Y5RAB- CURVE DATA

PI Sta 10+07.72 Δ = 13° 32' 58.2" (LT) D = 88° 08' 50.5" L = 15.37' T = 7.72' R = 65.00'	PI Sta 10+30.98 Δ = 54° 57' 45.0" (LT) D = 190° 59' 09.4" L = 28.78' T = 15.60' R = 30.00'	PI Sta 10+92.13 Δ = 44° 45' 55.0" (LT) D = 95° 29' 34.7" L = 46.88' T = 24.71' R = 60.00'	PI Sta 13+00.19 Δ = 37° 31' 51.1" (RT) D = 35° 48' 35.5" L = 104.81' T = 54.36' R = 160.00'	PI Sta 14+46.43 Δ = 75° 20' 50.8" (LT) D = 100° 31' 08.1" L = 74.96' T = 44.01' R = 57.00'	PI Sta 15+01.59 Δ = 40° 51' 51.6" (LT) D = 88° 08' 50.5" L = 46.36' T = 24.21' R = 65.00'
PI Sta 15+39.40 Δ = 55° 09' 00.3" (LT) D = 190° 59' 09.3" L = 28.88' T = 15.67' R = 30.00'	PI Sta 16+01.84 Δ = 46° 23' 45.7" (LT) D = 95° 29' 34.7" L = 48.59' T = 25.71' R = 60.00'	PI Sta 18+03.86 Δ = 35° 56' 16.4" (RT) D = 35° 48' 35.5" L = 100.36' T = 51.89' R = 160.00'	PI Sta 19+58.15 Δ = 75° 56' 49.7" (LT) D = 100° 31' 08.1" L = 75.56' T = 44.49' R = 57.00'	PI Sta 20+04.51 Δ = 26° 29' 11.3" (LT) D = 88° 08' 50.5" L = 30.05' T = 15.30' R = 65.00'	

5/5/2022
R:\I-5987B\Roadway\Proj\I5987b_rdy_PSH_02B-1_Y5RAB.dgn
Wallace, David

INTERSECTION DETAIL

DETAIL SHOWING ROUNDABOUT (–Y1BRAB–1)
SEE SHEET NO. 20 FOR INTERCHANGE DESIGN

NAD 83/2011

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY

WETHERILL ENGINEERING LLC. LICENSE NO. F-0377

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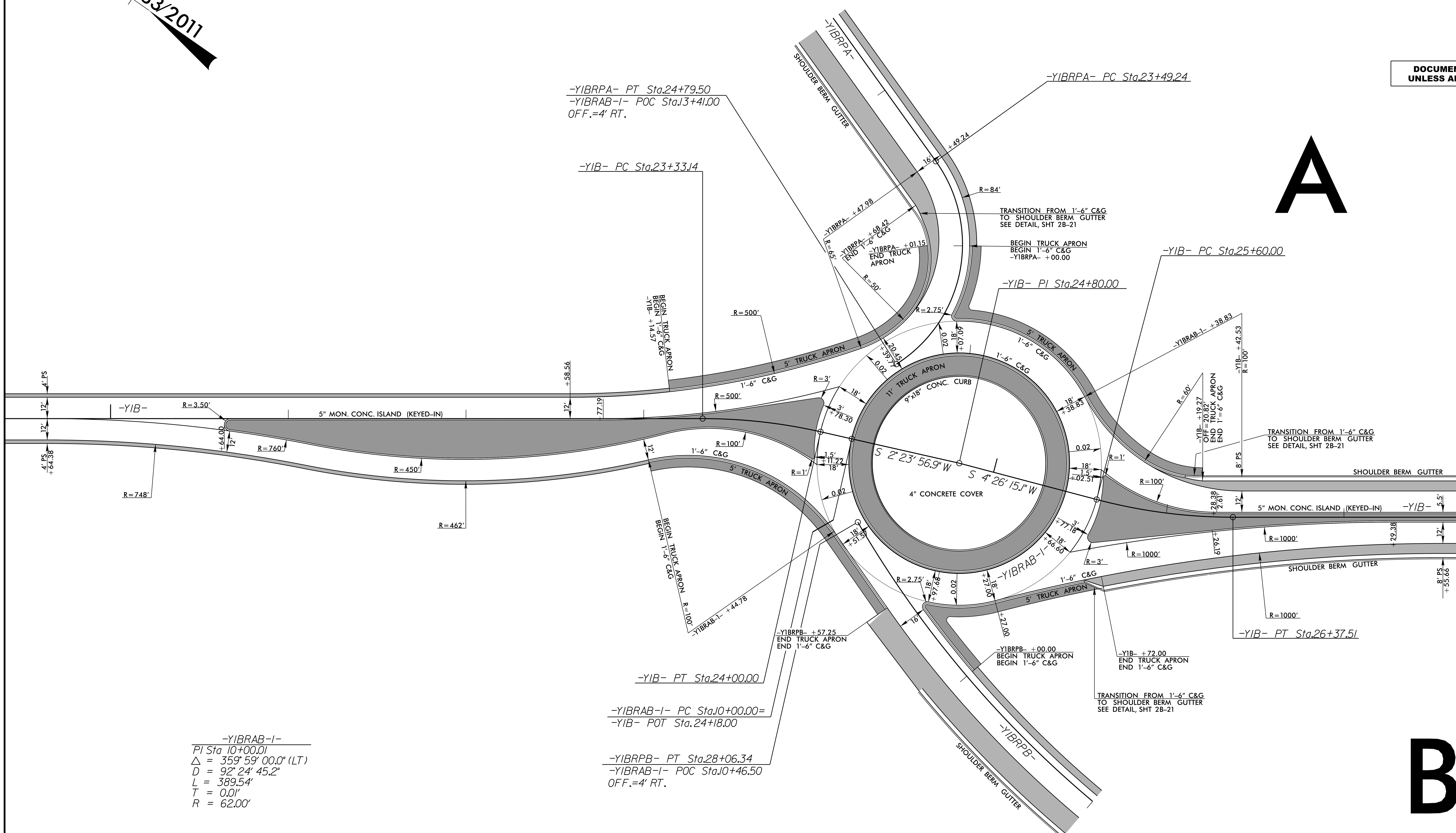


-YIBRAB-I-
PI Sta 10+00.01
Δ = 359° 59' 00.0" (LT)
D = 92° 24' 45.2"
L = 389.54'
T = 0.01'
R = 62.00'

FOR PLAN VIEW SEE SHT. 20

30' 0' 30' 60'
15'

INTERSECTION DETAIL

DETAIL SHOWING ROUNDABOUT (-Y1BRAB-2)
SEE SHEET NO. 20 FOR INTERCHANGE DESIGN

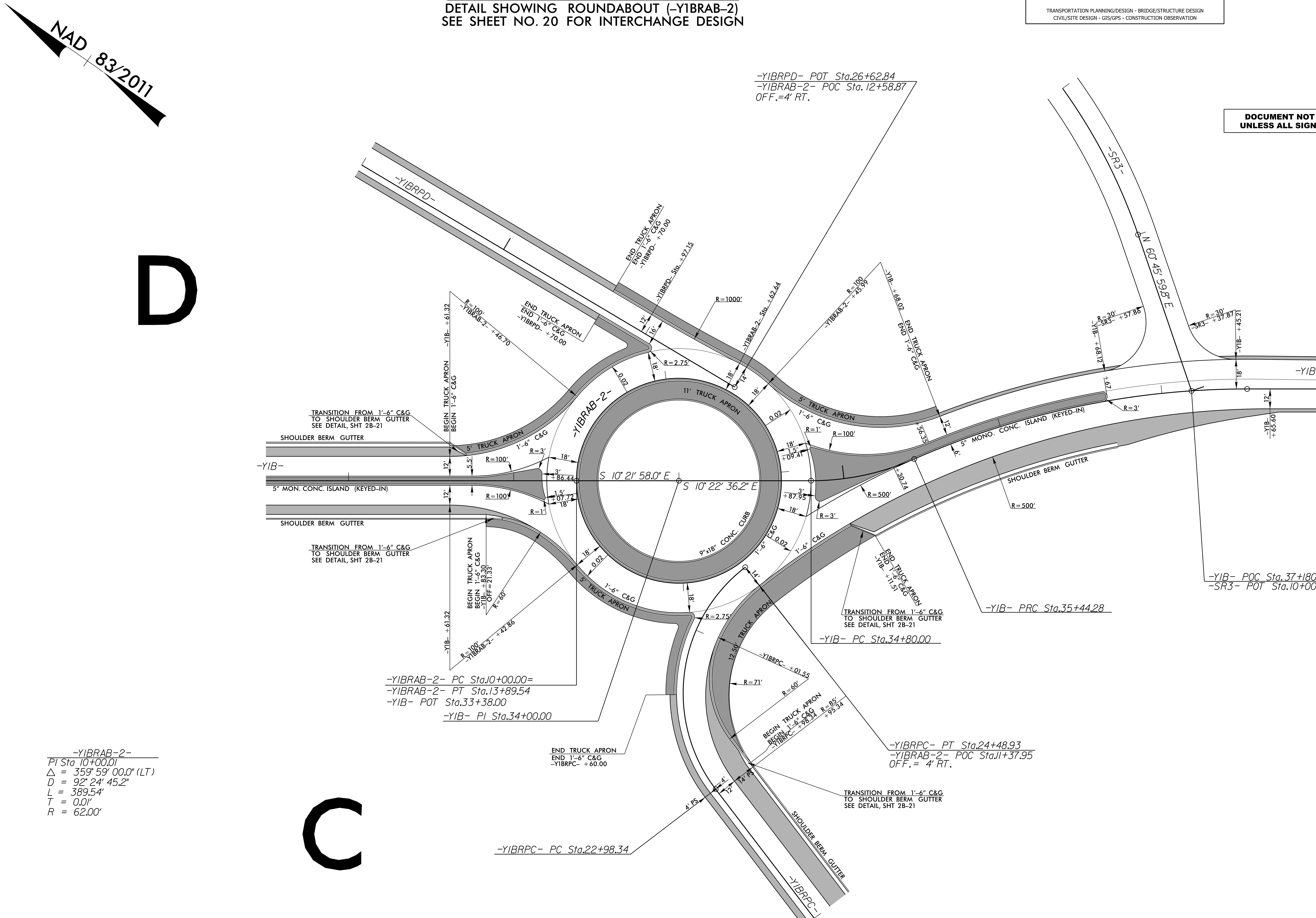
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
WETHERILL ENGINEERING LLC. LICENSE NO. F-0377

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-YIBRAB-2-
PI Sta 10+00.01
Δ = 359° 59' 00.0" (LT)
D = 92° 24' 45.2"
L = 389.54'
T = 0.01'
R = 62.00'

FOR PLAN VIEW SEE SHT. 20

30' 0' 30' 60'
15'

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER	NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. RIGGS
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669	MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

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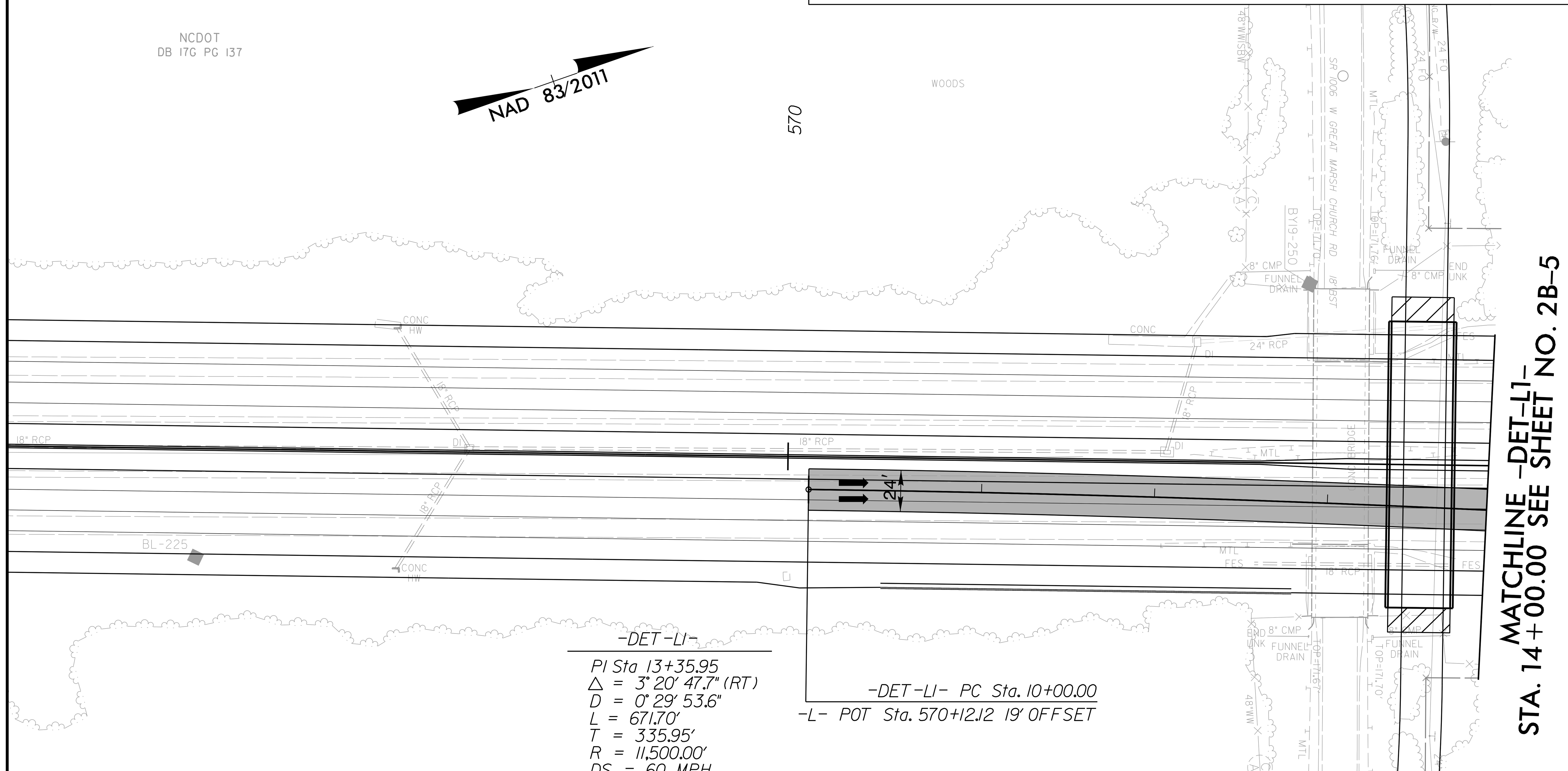
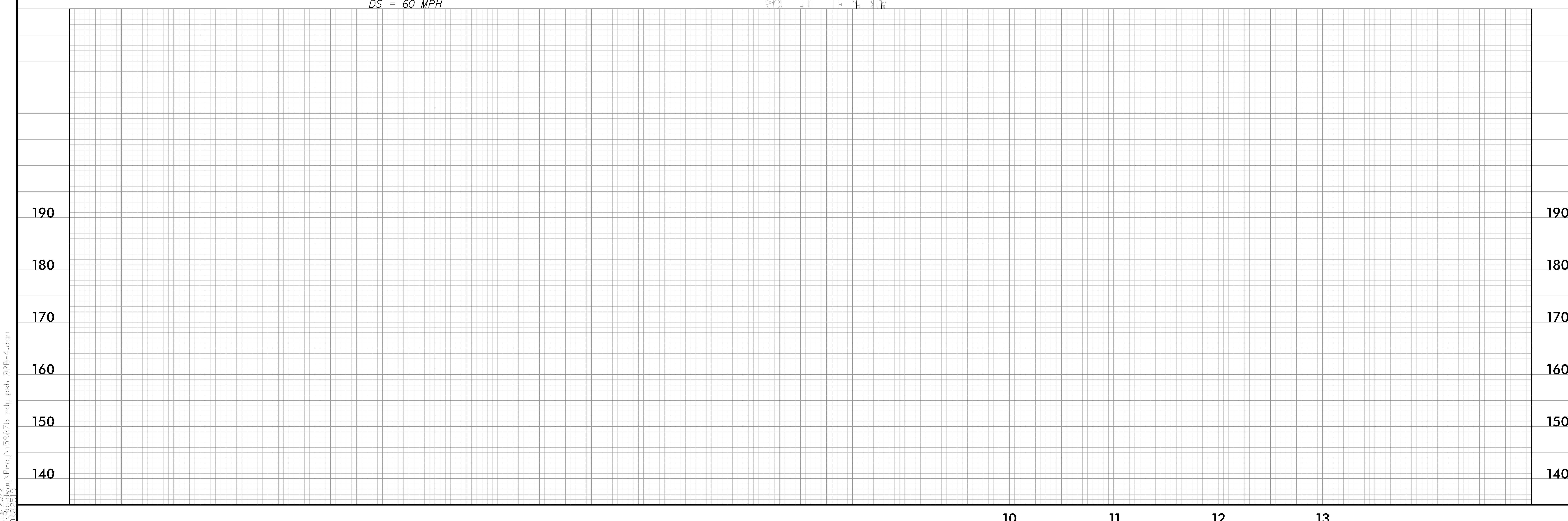
DETAIL OF TEMPORARY DETOUR -DET-L1-

TO BE CONSTRUCTED DURING PHASE III



FOR PLAN VIEW SEE SHEET 10



4/15/2022
R:\Roadway\Proj\i5987b_rdy_psh_02B-4.dgn

8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L1– & –DET–L2–

TO BE CONSTRUCTED DURING PHASE III

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-5
R/W SHEET NO.	

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. RIGGS
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

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PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

NAD 83/2011

MATCHLINE –DET–L1– STA. 14+00.00 SEE SHEET NO. 2B–4

–DET–L2– PC Sta. 10+00.00

–DET–L2– PRC Sta. 15+02.13

–DET–L2– PT Sta. 20+47.08

–DET–L1– PRC Sta. 16+71.70

–DET–L1– PT Sta. 24+34.27

–L– POT Sta. 584+45.23 54.05' OFFSET

–DET–L2–

PI Sta 12+51.24
Δ = 5° 18' 29.1" (RT)
D = 1° 03' 25.6"
L = 502.13'
T = 251.24'
R = 5,420.00'
DS = 60 MPH

PI Sta 17+74.83
Δ = 5° 45' 38.9" (LT)
D = 1° 03' 25.6"
L = 544.95'
T = 272.71'
R = 5,420.00'
DS = 60 MPH

–DET–L1–

PI Sta 13+35.95
Δ = 3° 20' 47.7" (RT)
D = 0° 29' 53.6"
L = 671.70'
T = 335.95'
R = 11,500.00'
DS = 60 MPH

PI Sta 20+53.12
Δ = 3° 47' 57.5" (LT)
D = 0° 29' 53.6"
L = 762.57'
T = 381.42'
R = 11,500.00'
DS = 60 MPH

TEMP V DITCH SEE DETAIL AF

TEMP 18" w/ 2 ELBOWS

CL. B RIP RAP
EST. 3 TONS
EST. 10 SY GT

FOR PLAN VIEW SEE SHEETS 10 & 11
FOR DITCH DETAILS, SEE SHEETS 2D–1 THRU 2D–3

–DET–L2–

BEGIN GRADE
–DET–L2– STA. 12+76.05
ELEV = 154.34'

END GRADE
–DET–2– STA. 16+75.60
ELEV = 155.41'

(+)0.3000%
(+)0.2678%
(+)0.3000%

BEGIN DITCH
STA. 19+55 – LT.
ELEV. 149.75

(–)0.30%

END DITCH
STA. 20+65 – LT.
ELEV. 149.42

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8/17/99

DETAIL OF TEMPORARY DETOUR –DET–Y5RPB–

TO BE CONSTRUCTED DURING PHASE IV.1

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-6
R/W SHEET NO.	

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. RIGGS
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

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NAD 83/2011

-DET-Y5RPB-
PI Sta 13+72.71
△ = 15° 18' 32.3" (LT)
D = 2° 03' 28.9"
L = 743.86'
T = 374.16'
R = 2,784.00'
DS = 50 MPH

PI Sta 20+77.78
△ = 15° 18' 31.6" (RT)
D = 4° 22' 25.4"
L = 350.02'
T = 176.06'
R = 1,310.00'
DS = 45 MPH

-Y5RPB- CS Sta. 15+24.04
-DET-Y5RPB- PT Sta. 17+42.41
-Y5RPB- SRS Sta. 16+74.04
-Y5RPB- SC Sta. 18+24.04
-DET-Y5RPB- PC Sta. 19+01.72
-DET-Y5RPB- PC Sta. 9+98.55
-Y5RPB- SC Sta. 11+50.00
-Y5RPB- POT Sta. 599+29.62 OFFSET 13.01'
-Y5RPB- TS Sta. 10+00.00
-DET-Y5RPB- PT Sta. 22+51.74
-Y5RPB- POC Sta. 21+62.74 OFFSET 0.00'

CL. B RIP RAP EST. 3 TONS EST. 10 SY GT
TEMP 18" RCP-V
54" RCP-III
SP. DET. MIN 2GI-A
FS SEE DETAIL E
18" RCP-IV
TB 2GI
18" w/ 2 ELBOWS
36" w/2 ELBOWS
HW
JB w/MH
TRENCHLESS 48" WELDED STEEL
SP. DET. 2GI-A SEE SHEET 2C-8
FLOWABLE FILL
TEMP 15"
TEMP STEEL PLATE
15" RCP-IV
REMOVE
REMOVE 24 LF EXIST. 15" RCP
FLOWABLE FILL
FOR PLAN VIEW SEE SHEETS 12 & 13

–DET–Y5RPB–

BEGIN GRADE
-DET-Y5RPB- STA. 9+98.55
ELEV = 158.80'

PI = 11+50.00
EL = 161.94'
VC = 160'
K = 186
DS = 70 MPH

PI = 13+50.00
EL = 167.80'
VC = 150'
K = 138
DS = 50 MPH

PI = 18+50.00
EL = 177.02'
VC = 320'
K = 85
DS = 50 MPH

END GRADE
-DET-Y5RPB- STA. 22+00
ELEV = 170.31'

158.83
(+)2.0716%
(+)2.9313%
(+)2.9313%
(+)1.8440%
(+)1.8440%
(–)1.9171%

190 180 170 160 150 140

10 11 12 13 14 15 16 17 18 19 20 21 22 23

4/15/2022
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8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L3–

TO BE CONSTRUCTED DURING PHASE II.2

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-7
R/W SHEET NO.	

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. RIGGS
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

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NAD 83/2011

DEIRDRE E. MARTIN AND REBECCA MARTIN
DB 1989 PG 638

KEITH-PERRY, LLC
DB 550 PG 633
DB 1056 PG 535
MB 12 PG 65

-DET-L3-
PI Sta 12+02.82
△ = 2° 01' 15.0" (LT)
D = 0° 29' 53.6"
L = 405.60'
T = 202.82'
R = 11,500.00'
DS = 65 MPH

PI Sta 16+48.19
△ = 2° 25' 00.6" (RT)
D = 0° 29' 53.6"
L = 485.09'
T = 242.58'
R = 11,500.00'
DS = 65 MPH

-DET-L3-
PC Sta. 10+00.00
-LBI- POT
Sta. 633+48.78 OFFSET 18.89'

-L- PC Sta. 633+49.05

-DET-L3- PRC Sta. 14+05.60

-L- PT Sta. 641+83.86 LB =
-L- PT Sta. 641+84.17 LA

-DET-L3- PT Sta. 18+90.70

CL. I RIP RAP
EST. 30 TONS
EST. 60 SY GT

STANDARD BASE DITCH TRANSITION SEE DETAIL BF

TEMP 15" <T107>
TEMP 2GI-D
TEMP STEEL PLATE <T108>
18" RCP-IV
GRADE TO DRAIN
TB 2GI-A <1403>
TB 2GI <1404>
24" RCP-IV
TEMP STEEL PLATE <T109>
TRENCHLESS INSTALLATION 30" WELDED STEEL
<1401>
24"

EW <1508>
EW <1501>
TRENCHLESS INSTALLATION 36" WELDED STEEL
<T111> TEMP STEEL PLATE
TB 2GI <1502>
15" RCP-IV
GRADE TO DRAIN
GRADE TO DRAIN
36" RCP-IV
<1504> TB 2GI
<T110> TEMP TB 2GI
TEMP STEEL PLATE <T112>
TEMP 15" TO BE REMOVED
TRENCHLESS INSTALLATION 36" WELDED STEEL
<1507> HW
<1506> HW

I-95 SB 33' BST
I-95 NB 33' BST
48"WWISBW
EXISTING R/W
BL-234
I5987-L3

MATCHLINE –DET–L3–
STA. 22+00.00 SEE SHEET NO. 2B-8

FOR PLAN VIEW SEE SHEETS 14 & 15

–DET–L3–

BEGIN GRADE
-DET-L3- STA.12+76.79
ELEV = 166.73'

END GRADE
-DET-L3- STA.18+94.07
ELEV = 168.82'

(+)0.3373%
(+)0.3386%
(+)0.3386%
(+)0.3161%

190 180 170 160 150 140

12 13 14 15 16 17 18 19 20

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8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L3–

TO BE CONSTRUCTED DURING PHASE II.2

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-8
R/W SHEET NO.	

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 036821 ENGINEER ELENI M. RIGGS
MOTT MACDONALD I & E, LLC LICENSE NO. F-0669

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-DET-L3-
PI Sta 32+38.04
△ = 1° 32' 05.7" (RT)
D = 0° 26' 39.0"
L = 345.59'
T = 172.80'
R = 12,900.00'
DS = 65 MPH

NAD 83/2011

MATCHLINE –DET–L3–
STA. 22+00.00 SEE SHEET NO. 2B-7

N 8° 10' 15.3" E

-DET-L3- PC Sta. 30+65.24

-DET-L3- PT Sta. 34+10.83
-L- POT Sta. 657+58.98 OFFSET = 49'

FOR PLAN VIEW SEE SHEETS 15 & 16

4/15/2022
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190 180 170 160 150 140

12 13 14 15 16 17 18 19 20

DETAIL OF TEMPORARY DETOUR –DET–Y1BRPA–

TO BE CONSTRUCTED DURING PHASE 1.2.2

FOR PLAN VIEW SEE SHEETS 20 THRU 21

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-9
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — SEAL 21116 — BOB A. MAY — WETHERILL ENGINEERING, LLC. LICENSE NO. F-0377

HYDRAULICS ENGINEER — SEAL 31977 — KEVIN B. ALFORD — WETHERILL ENGINEERING, LLC. LICENSE NO. F-0377

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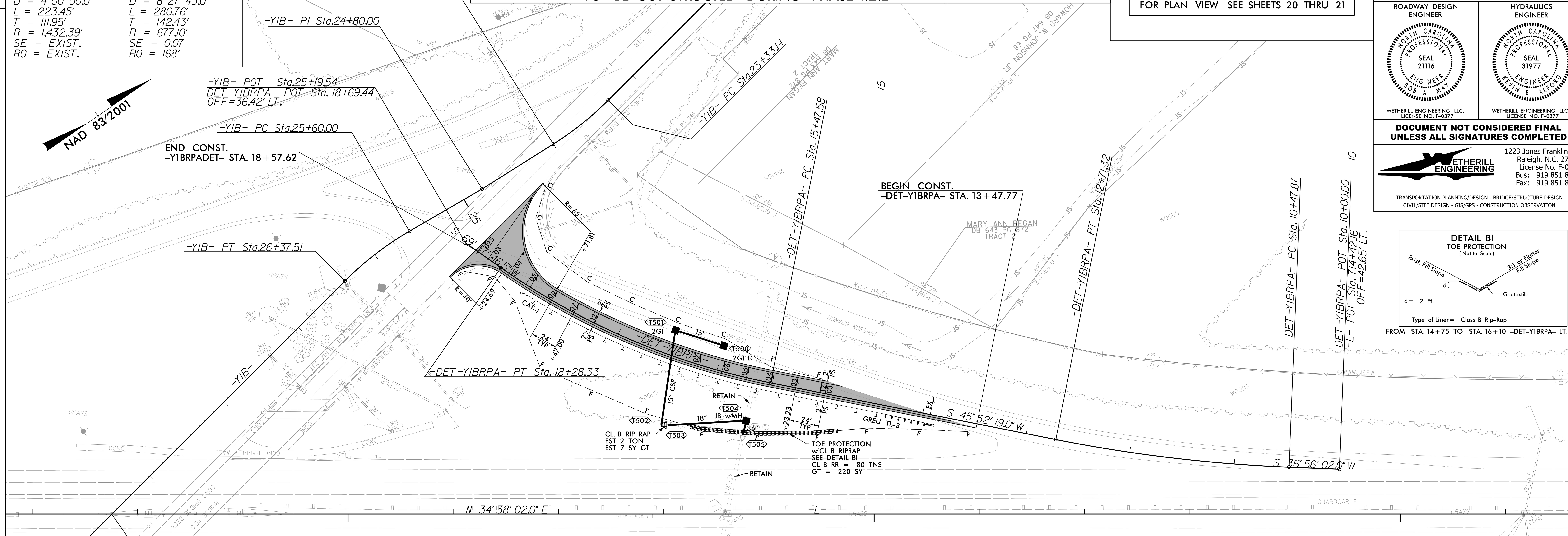
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

–DET–YIBRPA–	
PI Sta 11+59.82	PI Sta 16+90.00
Δ = 8° 56′ 17.0″ (RT)	Δ = 23° 45′ 27.5″ (RT)
D = 4° 00′ 00.0″	D = 8° 27′ 43.0″
L = 223.45′	L = 280.76′
T = 111.95′	T = 142.43′
R = 1,432.39′	R = 677.10′
SE = EXIST.	SE = 0.07
RO = EXIST.	RO = 168′



DETAIL BI
TOE PROTECTION
(Not to Scale)

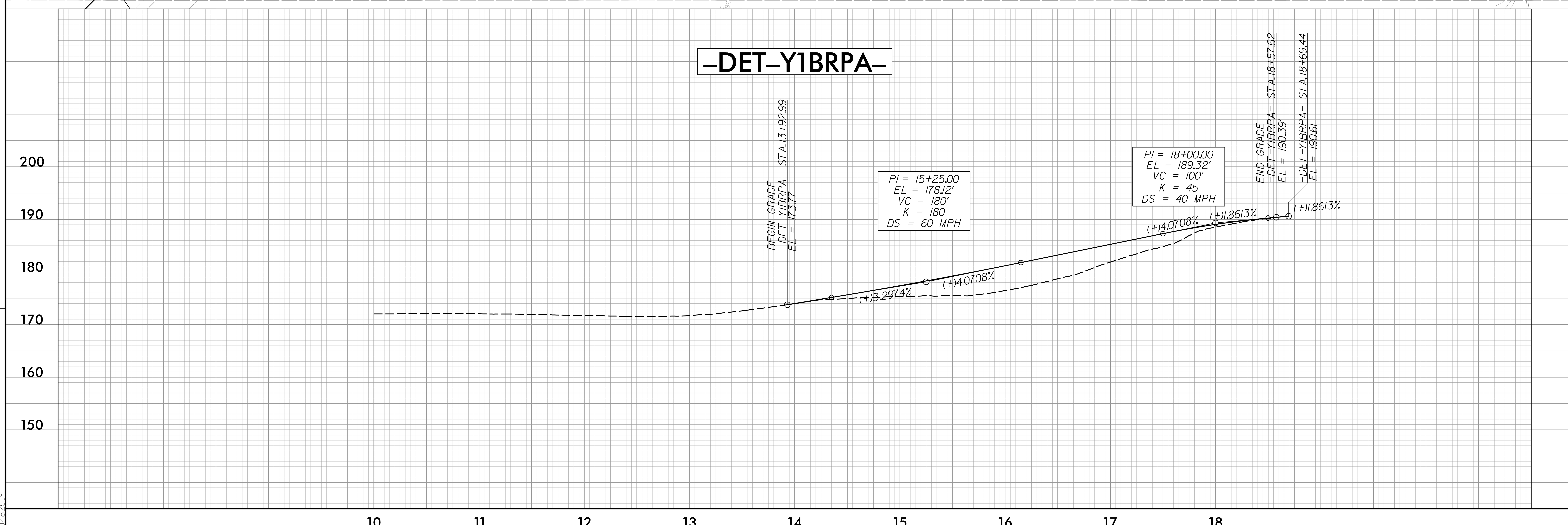
Exist. Fill Slope
3:1 or Flatter Fill Slope
Geotextile

d= 2 Ft.

Type of Liner= Class B Rip-Rap

FROM STA. 14+75 TO STA. 16+10 –DET–Y1BRPA– LT.

–DET–Y1BRPA–



REVISIONS

8/17/99

4/15/2022
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DETAIL OF TEMPORARY DETOUR –DET–Y1BRPD–

TO BE CONSTRUCTED DURING PHASE 1.2.2

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-10
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROB A. MAY — WETHERILL ENGINEERING LLC. LICENSE NO. F-0377

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B. ALFORD — WETHERILL ENGINEERING LLC. LICENSE NO. F-0377

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

REVISIONS

8/17/99

-L- POT Sta.702+75.43
-YIB- POT Sta.29+51.04
△ = 45° 00' 00.0"

TIE TO EXISTING GUARDRAIL
-YIB- STA. 31+17.98

-YIBRPDDET- POT Sta. 22+83.74
-YIB- POT Sta. 31+86.04
OFF=55.55' LT.

END CONST.
-DET-Y1BRPD- STA. 22+71.92
-DET-YIBRPD- PT Sta. 22+58.74

TOE PROTECTION w/CL B RIPRAP SEE DETAIL BI
CL B RR = 160 TNS
GT = 450 SY

CL. B RIP RAP EST. 1 TON EST. 5 SY GT

COLLAR AND EXTEND

RETAIN

-DET-YIBRPD- PC Sta. 10+00.00
-L- POT Sta. 713+89.44
OFF=40.40' RT.

-DET-YIBRPD- PT Sta. 12+48.04

BEGIN CONST.
-DET-Y1BRPD- STA. 12+66.03

-DET-YIBRPD- PC Sta. 18+69.79

-DET-YIBRPD- PRC Sta. 20+27.72

-DET-YIBRPD- PCC Sta. 21+30.40

TOE PROTECTION w/CL B RIPRAP SEE DETAIL BI
CL B RR = 60 TNS
GT = 160 SY

15" RCP-III

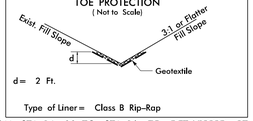
15" W/ 2 ELBOWS

REMOVE

OAKLAND RD 27' BST

MONOLITHIC CONC ISLAND

DETAIL BI
TOE PROTECTION
(Not to Scale)



Type of Liner = Class B Rip-Rap

FROM STA. 14+00 TO STA. 16+75 –DET–Y1BRPD– RT.
FROM STA. 21+50 TO STA. 22+50 –DET–Y1BRPD– LT.

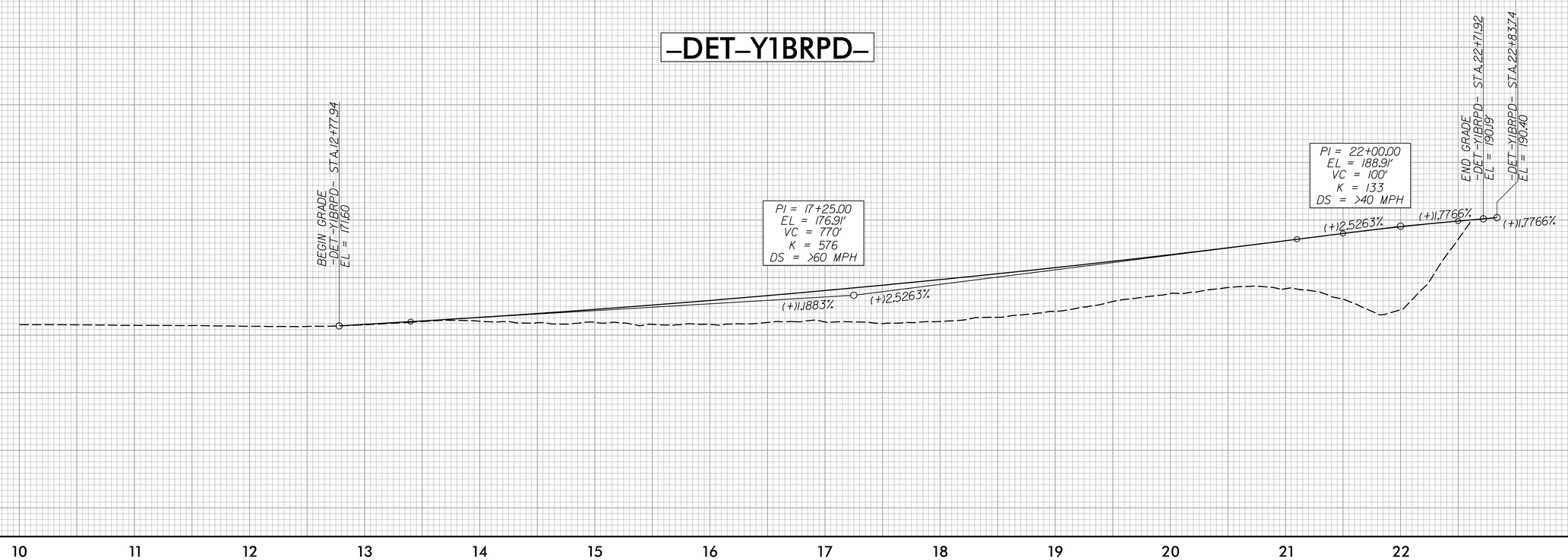
-DET-YIBRPD-

PI Sta 11+24.46	PI Sta 19+48.87	PI Sta 20+79.25	PI Sta 21+99.48
△ = 11° 50' 35.2" (LT)	△ = 7° 23' 12.3" (LT)	△ = 11° 53' 07.6" (RT)	△ = 52° 31' 26.1" (RT)
D = 4° 46' 28.7"	D = 4° 40' 37.9"	D = 11° 34' 29.7"	D = 40° 55' 32.0"
L = 248.04'	L = 157.93'	L = 102.68'	L = 128.34'
T = 124.46'	T = 79.07'	T = 51.53'	T = 69.08'
R = 1,200.00'	R = 1,225.00'	R = 495.00'	R = 140.00'
SE = EXIST.	SE = 0.05	SE = SEE PLANS	SE = 0.02
RO = EXIST.	RO = 105'	RO = SEE PLANS	RO = 42'

FOR PLAN VIEW SEE SHEETS 20 THRU 21

NAD 83/2001

–DET–Y1BRPD–



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-DET-Y6-

PI Sta 10+79.43
△ = 7° 38' 13.1" (LT)
D = 4° 48' 53.2"
L = 158.62'
T = 79.43'
R = 1,190.00'
DS = 45mph

PI Sta 13+55.24
△ = 7° 22' 05.1" (RT)
D = 4° 48' 53.2"
L = 153.03'
T = 76.62'
R = 1,190.00'
DS = 45mph

PI Sta 16+02.64
△ = 6° 52' 47.8" (RT)
D = 4° 48' 53.2"
L = 142.89'
T = 71.53'
R = 1,190.00'
DS = 45mph

PI Sta 19+02.31
△ = 10° 24' 03.9" (LT)
D = 4° 48' 53.2"
L = 216.02'
T = 108.31'
R = 1,190.00'
DS = 45mph

DETAIL OF TEMPORARY DETOUR –DET–Y6–

NAD 83/2011

-DET-Y6- PT Sta. 11+58.62

-DET-Y6- PRC Sta. 25+07.57

-Y6- PT Sta. 28+78.11

-DET-Y6- PC Sta. 17+94.00

-DET-Y6- PC Sta. 12+78.62

-DET-Y6- PT Sta. 14+31.65

-DET-Y6- PC Sta. 15+31.11

-DET-Y6- PT Sta. 16+74.00

-DET-Y6- PC Sta. 10+00.00

-Y6- POC Sta. 18+66.17 OFFSET = 4.69'

-DET-Y6- PT Sta. 20+10.03

-Y6- POC Sta. 28+71.87 OFFSET = 57.06'

FOR PLAN VIEW SEE SHEETS 25 & 44

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-11

R/W SHEET NO.

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B. ALFORD
WETHERILL ENGINEERING, LLC.
LICENSE NO. F-0377

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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

–DET–Y6–

BEGIN GRADE
-DET-Y6- STA. 11+55.14
ELEV = 165.48'

END GRADE
-DET-Y6- STA. 18+35.23
ELEV = 179.85'

PI = 14+85.00
EL = 162.00'
VC = 5.30'
K = 86
DS = 45 MPH

PROPOSED GRADE

(–)1.0550%

(+)5.0967%

EXISTING GROUND

190 180 170 160 150 140

10 11 12 13 14 15 16 17 18 19 20

4/15/2022
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8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L6–

TO BE CONSTRUCTED DURING PHASE III

NAD 83/2011

–DET–L6– POT Sta. 10+00.00
–L– POT Sta. 901+00.00 OFFSET = 23'

–DET–L6– PC Sta. 11+96.95

–DET–L6– PRC Sta. 21+01.89

N 8° 21' 30.0" E

N 8° 21' 30.0" E

–DET–L7– PC Sta. 14+68.89

–DET–L7– POT Sta. 10+00.00
–L– POT Sta. 901+00.00 OFFSET = 57'

–DET–L7– PRC Sta. 19+38.50

MATCHLINE –DET–L6–
STA. 22+00.00

JOSEPH MANNING BARNHILL, JR.
DB 996 PG 460

–DET–L6–	
PI Sta 16+49.65	PI Sta 25+54.60
△ = 4° 30' 31.2" (LT)	△ = 4° 30' 31.2" (RT)
D = 0° 29' 53.6"	D = 0° 29' 53.6"
L = 904.94'	L = 904.94'
T = 452.71'	T = 452.71'
R = 11,500.00'	R = 11,500.00'
DS = 60 mph	DS = 60 mph

FOR PLAN VIEW SEE SHEETS 37 & 38

–DET–L7–	
PI Sta 17+03.72	PI Sta 21+73.33
△ = 2° 20' 23.0" (LT)	△ = 2° 20' 23.0" (RT)
D = 0° 29' 53.6"	D = 0° 29' 53.6"
L = 469.61'	L = 469.61'
T = 234.84'	T = 234.84'
R = 11,500.00'	R = 11,500.00'
DS = 60 mph	DS = 60 mph

–L– POT Sta. 915+07.85=
(U–2519) –Y– POT Sta. 22+89.87

–DET–L6– PT Sta. 30+06.84

–DET–L6– POT Sta. 30+97.57
(U–2519) –Y– POT Sta. 29+77.73 OFFSET = 49'

N 8° 21' 30.0" E

FOR PLAN VIEW SEE SHEETS 25 & 44

N 8° 21' 30.0" E

MATCHLINE –DET–L6–
STA. 22+00.00

BM#61

–L– PT Sta. 913+74.76

–DET–L7– POT Sta. 24+97.76
(U–2519) –Y– POT Sta. 23+79.53 OFFSET = 37'

–DET–L7– PT Sta. 24+08.11

CHARLES GILL MCNEILL & HILDA R MCNEILL

PROJECT REFERENCE NO.	SHEET NO.
I–5987B	2B–12
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER
MOTT MACDONALD I & E, LLC
LICENSE NO. F–0669

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B ALFORD
WETHERILL ENGINEERING LLC.
LICENSE NO. F–0377

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WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F–0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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mkbarclay

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-13
R/W SHEET NO.	

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

HYDRAULICS ENGINEER — SEAL 31977, KEVIN B. ALFORD — WETHERILL ENGINEERING, LLC. LICENSE NO. F-0377

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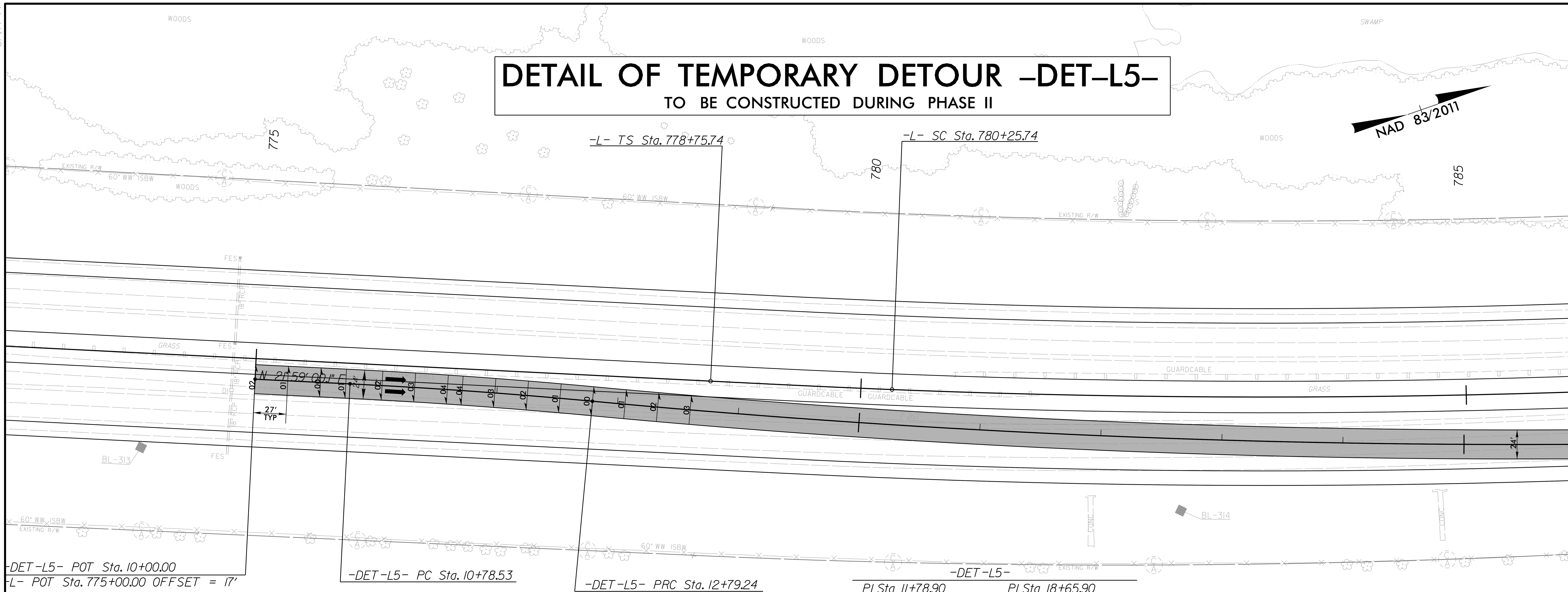
WETHERILL ENGINEERING, 1223 Jones Franklin Rd., Raleigh, N.C. 27606, License No. F-0377, Bus: 919 851 8077, Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

DETAIL OF TEMPORARY DETOUR -DET-L5-

TO BE CONSTRUCTED DURING PHASE II

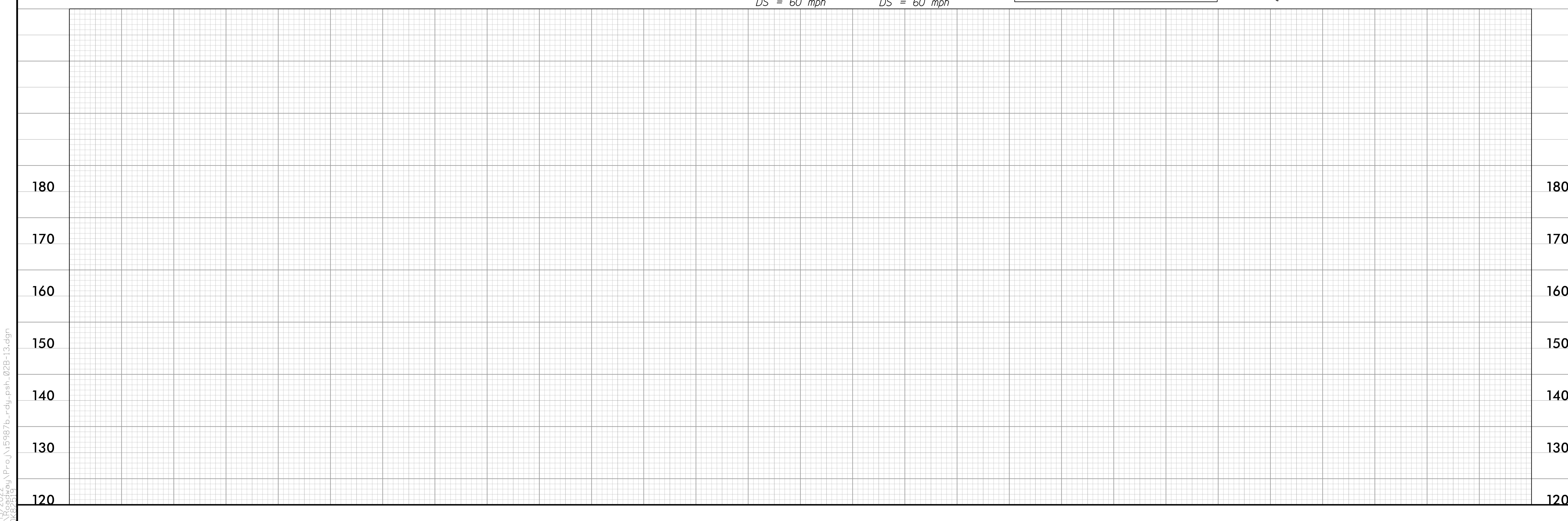


-DET-L5-

PI Sta 11+78.90	PI Sta 18+65.90
Δ = 2° 30' 39.2" (RT)	Δ = 8° 11' 03.4" (LT)
D = 1° 15' 03.6"	D = 0° 41' 55.4"
L = 200.71'	L = 1,171.31'
T = 100.37'	T = 586.65'
R = 4,580.00'	R = 8,200.00'
DS = 60 mph	DS = 60 mph

FOR PLAN VIEW SEE SHEETS 26 & 27

MATCHLINE -DET-L5- STA. 21+00.00 SEE SHEET NO. 2B-14



8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L5–

TO BE CONSTRUCTED DURING PHASE II

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-14
R/W SHEET NO.	

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

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B. ALFORD
WETHERILL ENGINEERING LLC.
LICENSE NO. F-0377

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

NAD 83/2011

MATCHLINE –DET–L5–
STA. 21+00.00 SEE SHEET NO. 2B-13

–L– CS Sta. 797+30.32

–DET–L5– PCC Sta. 24+50.55

–DET–L5– PCC Sta. 27+67.66

–DET–L5– PT Sta. 30+09.66

–L– POC Sta. 795+00.00 OFFSET = 57.66'

–DET–L5–

PI Sta 18+65.90	PI Sta 26+09.17	PI Sta 28+88.67
Δ = 8° 11' 03.4" (LT)	Δ = 3° 58' 01.3" (LT)	Δ = 1° 46' 08.8" (LT)
D = 0° 41' 55.4"	D = 1° 15' 03.6"	D = 0° 43' 51.7"
L = 1,171.31'	L = 317.11'	L = 242.00'
T = 586.65'	T = 158.62'	T = 121.01'
R = 8,200.00'	R = 4,580.00'	R = 7,837.66'
DS = 60 mph	DS = 60 mph	DS = 60 mph

FOR PLAN VIEW SEE SHEETS 27 & 28

4/15/2022
R:\Scoping\Proj\I5987b_rdy_psh_02B-14.dgn
Chk 82519

8/17/99

DETAIL OF TEMPORARY DETOUR –DET–L4–

TO BE CONSTRUCTED DURING PHASE II

NAD 83/2011

–DET–L4–

PI Sta 14+21.73
△ = 6° 20' 44.4" (RT)
D = 1° 15' 03.6"
L = 507.25'
T = 253.88'
R = 4,580.00'
DS = 60 mph

PI Sta 21+31.27
△ = 8° 13' 27.4" (LT)
D = 1° 15' 03.6"
L = 657.42'
T = 329.27'
R = 4,580.00'
DS = 60 mph

–DET–L4– POT Sta. 10+00.00
–L– POT Sta. 767+50.00 OFFSET = 49'

–DET–L4– PC Sta. 11+67.85

–DET–L4– PT Sta. 16+75.10

–DET–L4– PC Sta. 18+01.99

WOODS
60" WW ISBW
EXISTING R/W
CONC
FES
24" RCP
GUARDCABLE
I-95 NB 38' BST
DITCH
BL-313
BM=5.7
+41.85
27' TYP
N 59° 00' 10" W
02 03 04 05 06 07 08 09 10
24'
N 28° 13' 44.5" E
46.55
TEMP STEEL PLATE SEE SHEET 2C-3
T520
T521
T522
T523
15
20
770
775
780

MATCHLINE –DET–4–
STA. 23+00.00 SEE SHEET NO. 2B-16

FOR PLAN VIEW SEE SHEETS 26 & 27

–DET–L4–

END GRADE
–DET–L4– STA. 20+36.02
ELEV = 163.85'

BEGIN GRADE
–DET–L4– STA. 17+46.93
ELEV = 165.91'

165.91
163.85
PROPOSED GRADE
(–)0.7126%
(–)0.7126%
EXISTING GROUND

180 170 160 150 140 130 120

12 13 14 15 16 17 18 19 20 21 22 23 24 25

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-15

R/W SHEET NO.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALKER
MOTT MACDONALD I & E, LLC
LICENSE NO. F-0669

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 31977 ENGINEER KEVIN B. ALFORD
WETHERILL ENGINEERING LLC.
LICENSE NO. F-0377

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Fax: 919 851 8107

TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

4/15/2022
R:\Projects\Proj\I5987b_rdy_psh_02B-15.dgn
DGN:02B15

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-16

R/W SHEET NO.

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

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31977 KEVIN B. ALFORD — WETHERILL ENGINEERING, LLC LICENSE NO. F-0377

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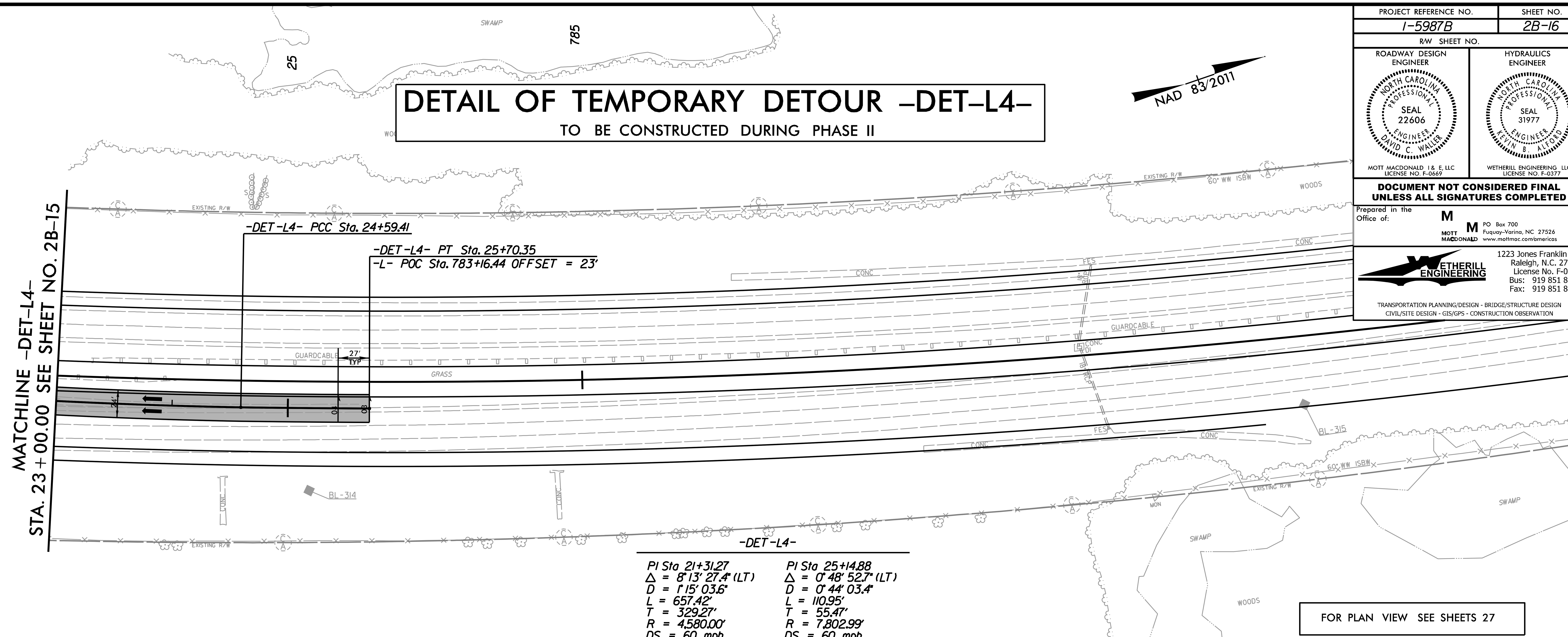
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

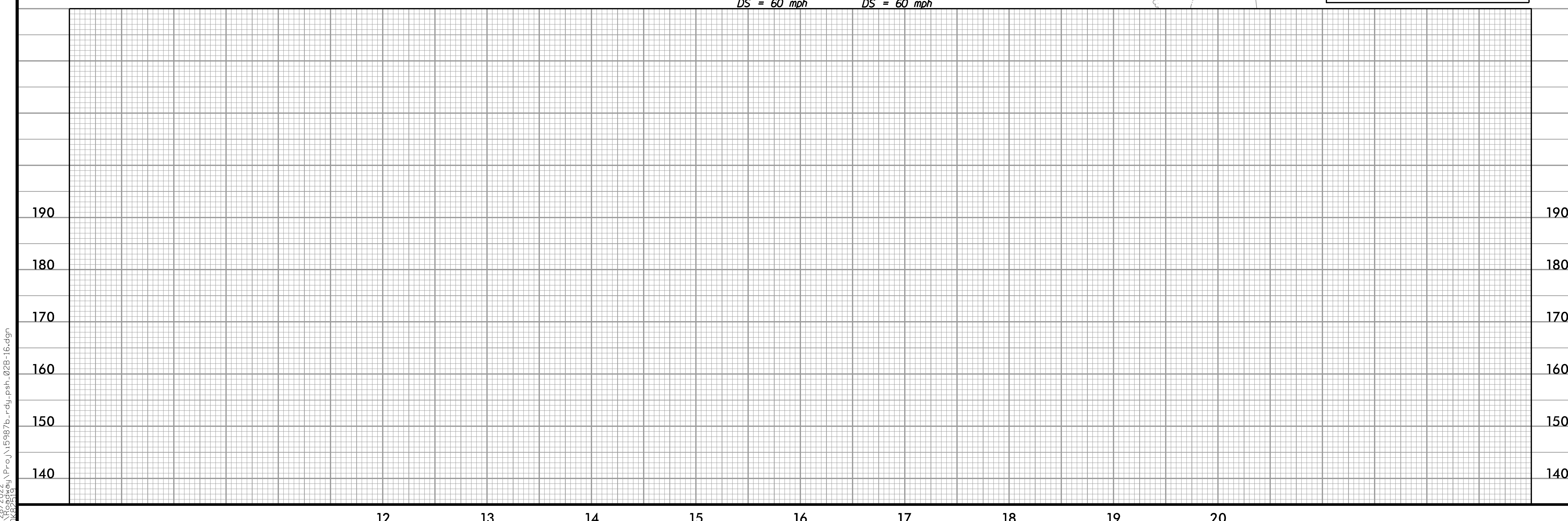
DETAIL OF TEMPORARY DETOUR -DET-L4-

TO BE CONSTRUCTED DURING PHASE II



-DET-L4-

PI Sta 21+31.27	PI Sta 25+14.88
Δ = 8° 13' 27.4" (LT)	Δ = 0° 48' 52.7" (LT)
D = 1° 15' 03.6"	D = 0° 44' 03.4"
L = 657.42'	L = 110.95'
T = 329.27'	T = 55.47'
R = 4,580.00'	R = 7,802.99'
DS = 60 mph	DS = 60 mph



8/17/99
4/28/2022 R:\Roadway\Proj\I5987b_rdy_psh_02B-16.dgn

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-17

R/W SHEET NO.

ROADWAY DESIGN ENGINEER (FOR FINAL PAVEMENT LAYER)

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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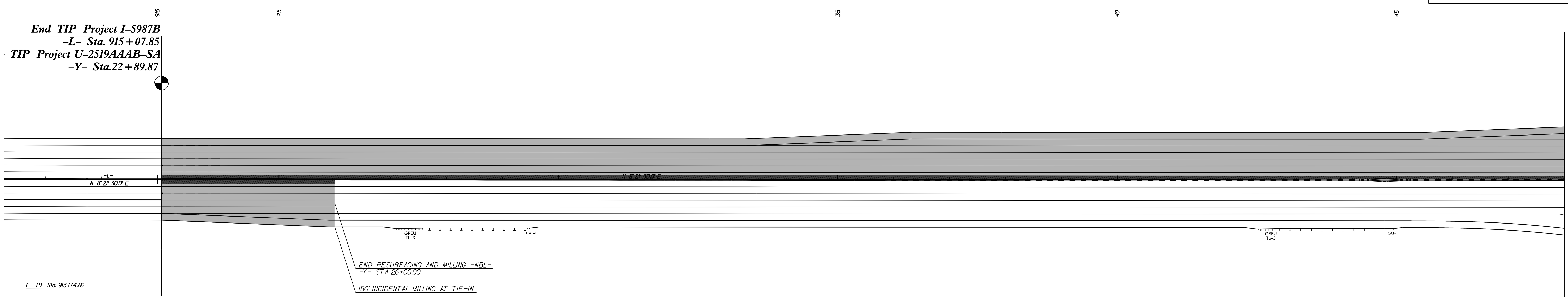
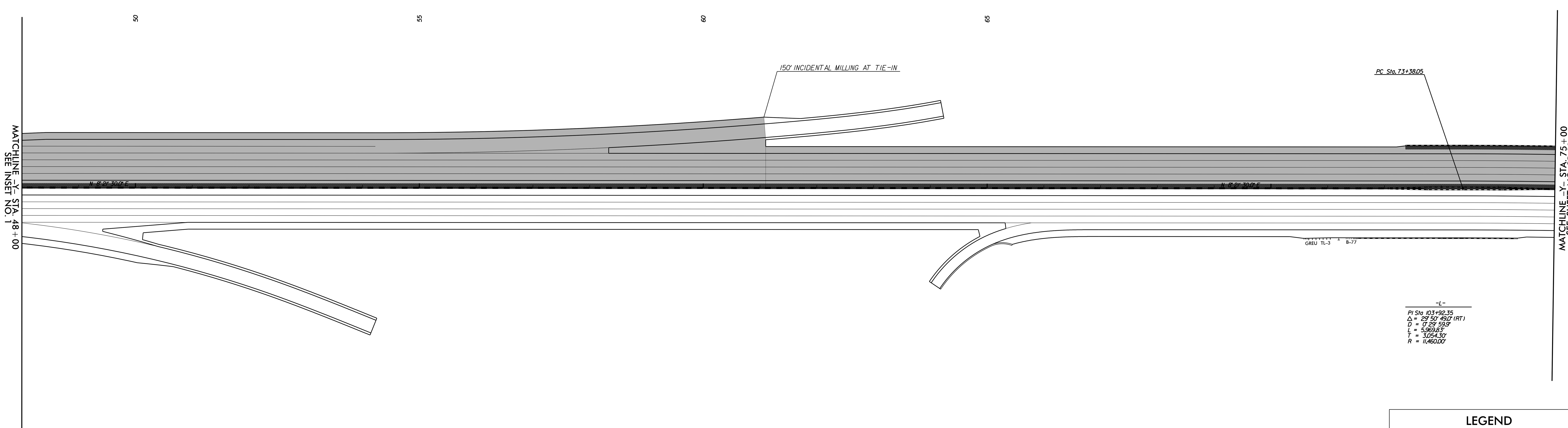
www.mottmac.com/americas

DETAIL OF FINAL PAVEMENT LAYER

THIS PLAN SHOWN FOR FINAL PAVEMENT LAYER ONLY.
ROADWAY DESIGN AND CONSTRUCTION WILL BE BY U-2519AAAB-SA
PROJECT EXCEPT FOR FINAL PAVEMENT LAYER IN THESE AREAS.
SEE TYPICAL SECTION SHEET NO. 2A-3

NAD 83/2011





-L-
PI Sta 103+92.35
Δ = 29° 50' 49.0" (RT)
D = 0° 29' 59.9"
L = 5,969.83'
T = 3,054.30'
R = 11,460.00'

100 50 0 100 200

LEGEND

- 1.5" SURFACE PAVEMENT LAYER
- INCIDENTAL MILLING (0" – 1.5")

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-18
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER (FOR FINAL PAVEMENT LAYER)

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22606 DAVID C. WALLER

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

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DETAIL OF FINAL PAVEMENT LAYER

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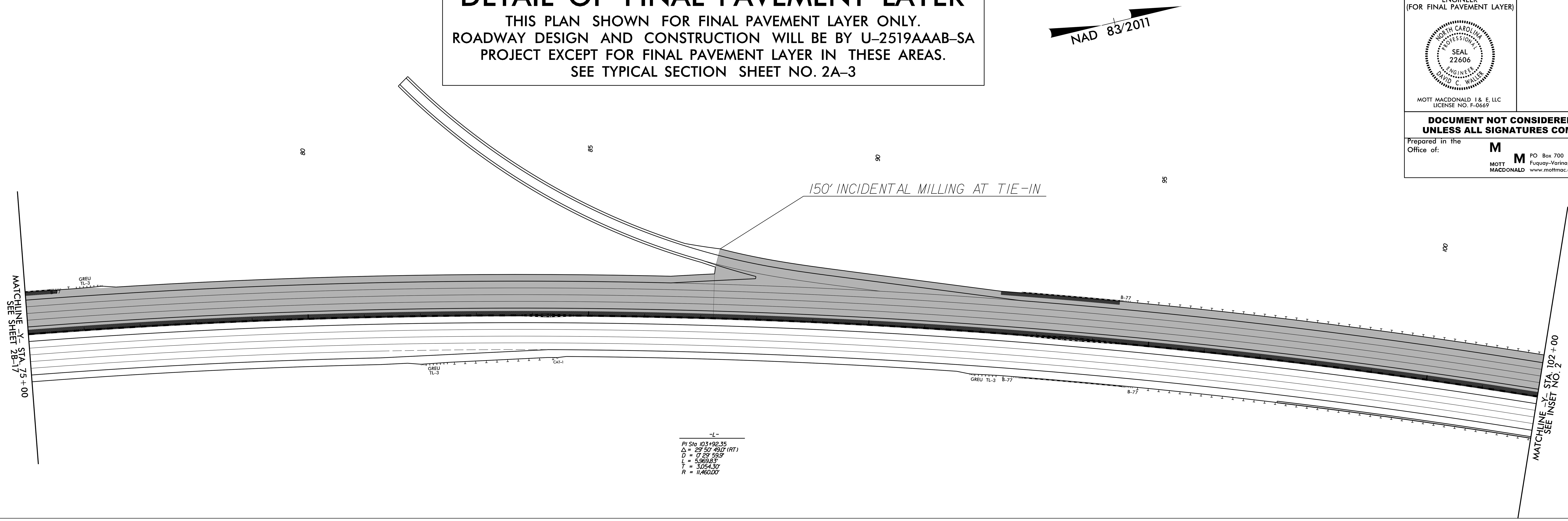
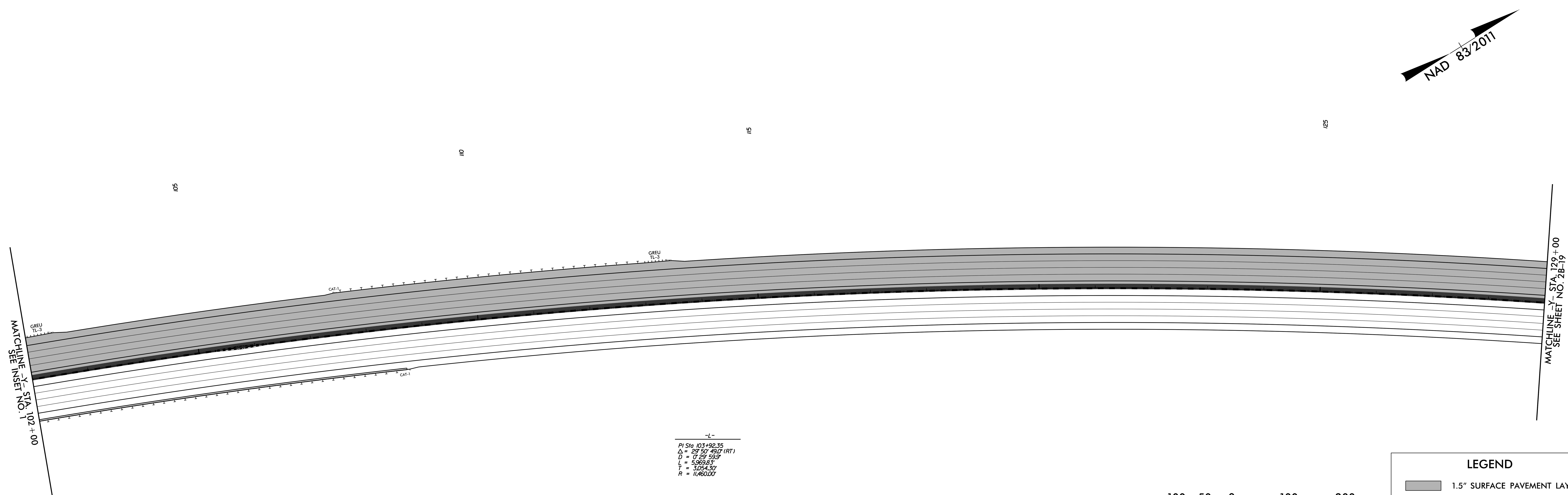
SEE TYPICAL SECTION SHEET NO. 2A-3



-L-
PI Sta 103+92.35
Δ = 29° 50' 49.0" (RT)
D = 0° 29' 59.9"
L = 5,969.83'
T = 3,054.30'
R = 11,460.00'



-L-
PI Sta 103+92.35
Δ = 29° 50' 49.0" (RT)
D = 0° 29' 59.9"
L = 5,969.83'
T = 3,054.30'
R = 11,460.00'

100 50 0 100 200

LEGEND

- 1.5" SURFACE PAVEMENT LAYER
- INCIDENTAL MILLING (0" – 1.5")

5/5/2022
R:\Roadway\Proj\i5987b_rdy_psh_02B-18.dgn

DETAIL OF FINAL PAVEMENT LAYER

THIS PLAN SHOWN FOR FINAL PAVEMENT LAYER ONLY.
ROADWAY DESIGN AND CONSTRUCTION WILL BE BY U-2519AAAB-SA
PROJECT EXCEPT FOR FINAL PAVEMENT LAYER IN THESE AREAS.
SEE TYPICAL SECTION SHEET NO. 2A-3

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-19
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER (FOR FINAL PAVEMENT LAYER)

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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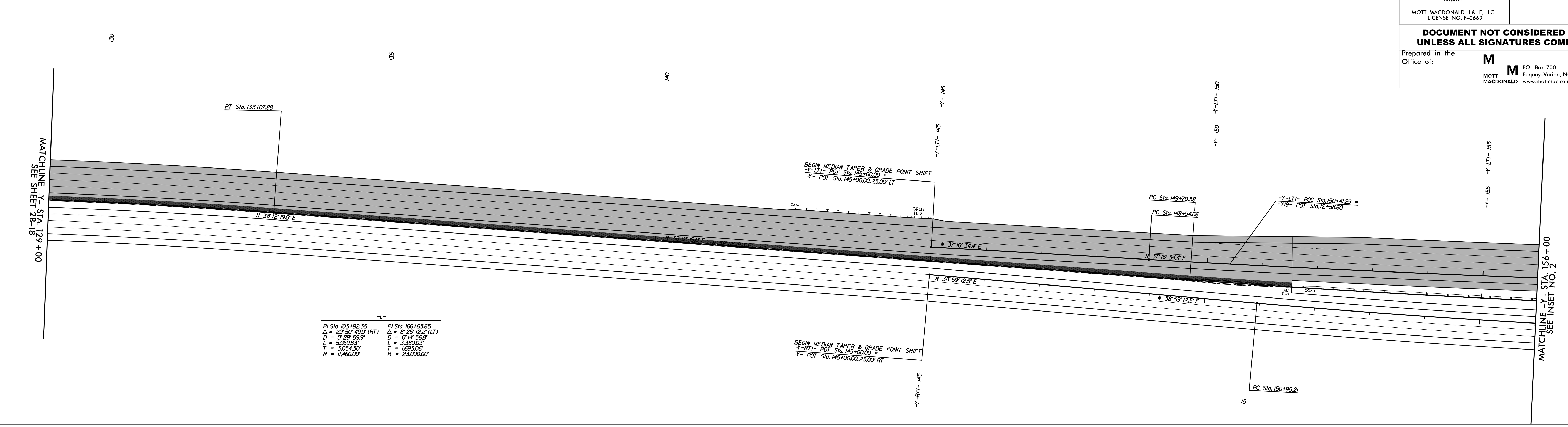

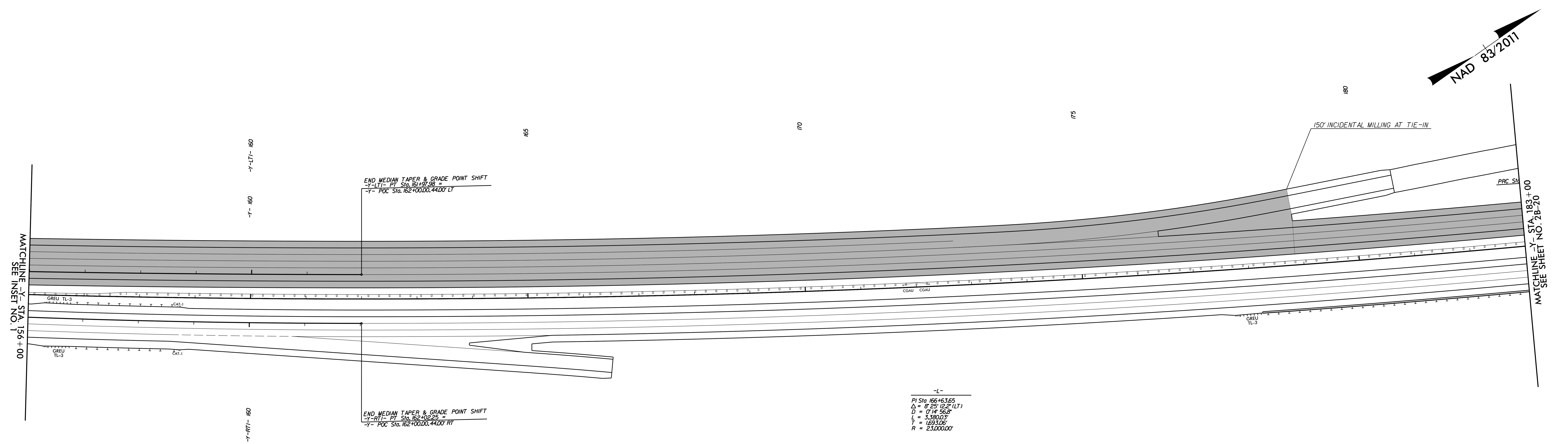

100 50 0 100 200

LEGEND

- 1.5" SURFACE PAVEMENT LAYER
- INCIDENTAL MILLING (0" – 1.5")

5/5/2022 R:\Roadway\Proj\i5987b_rdy_psh_02B-19.dgn

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-20
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER (FOR FINAL PAVEMENT LAYER)

NORTH CAROLINA PROFESSIONAL SEAL 22606 ENGINEER DAVID C. WALLER

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

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DETAIL OF FINAL PAVEMENT LAYER

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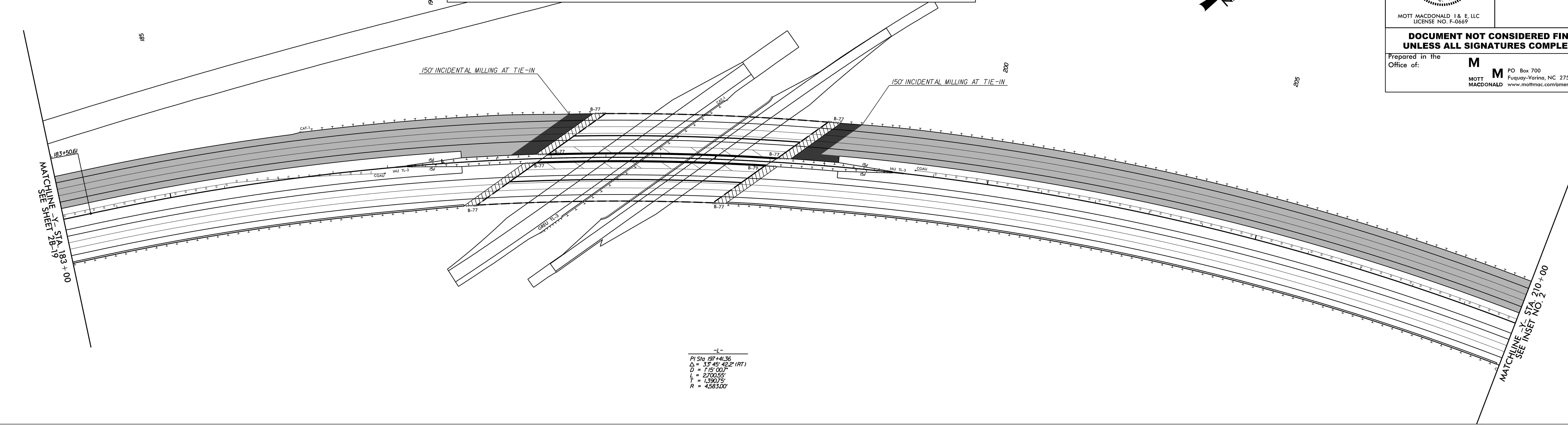
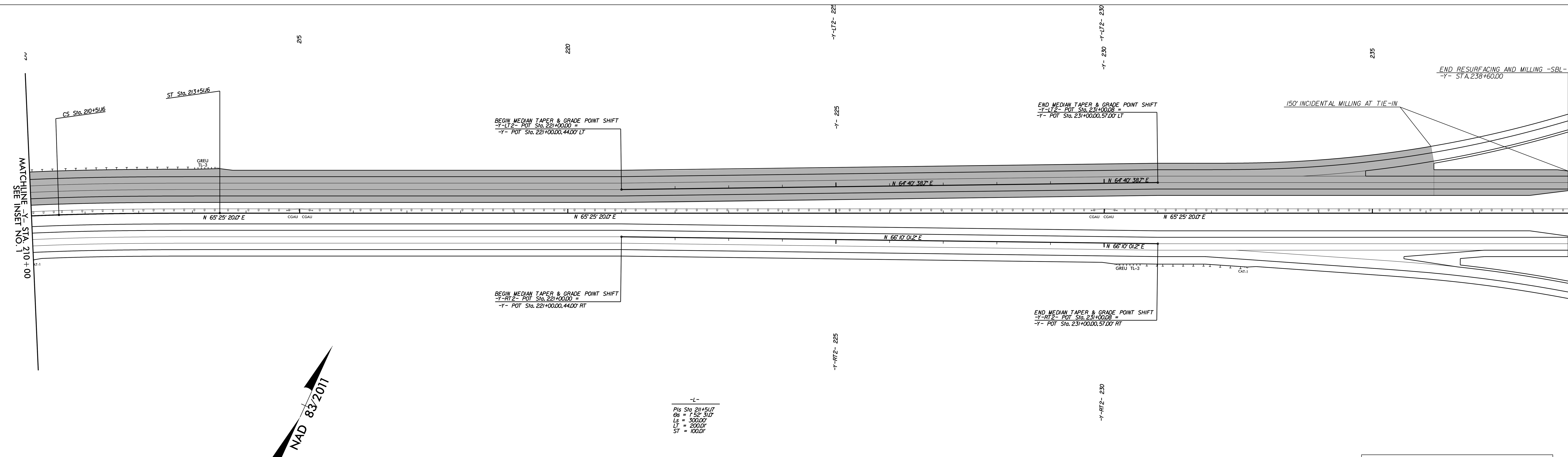
SEE TYPICAL SECTION SHEET NO. 2A-3





LEGEND

1.5" SURFACE PAVEMENT LAYER

INCIDENTAL MILLING (0" – 1.5")

100 50 0 100 200

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Raleigh, N.C. 27606
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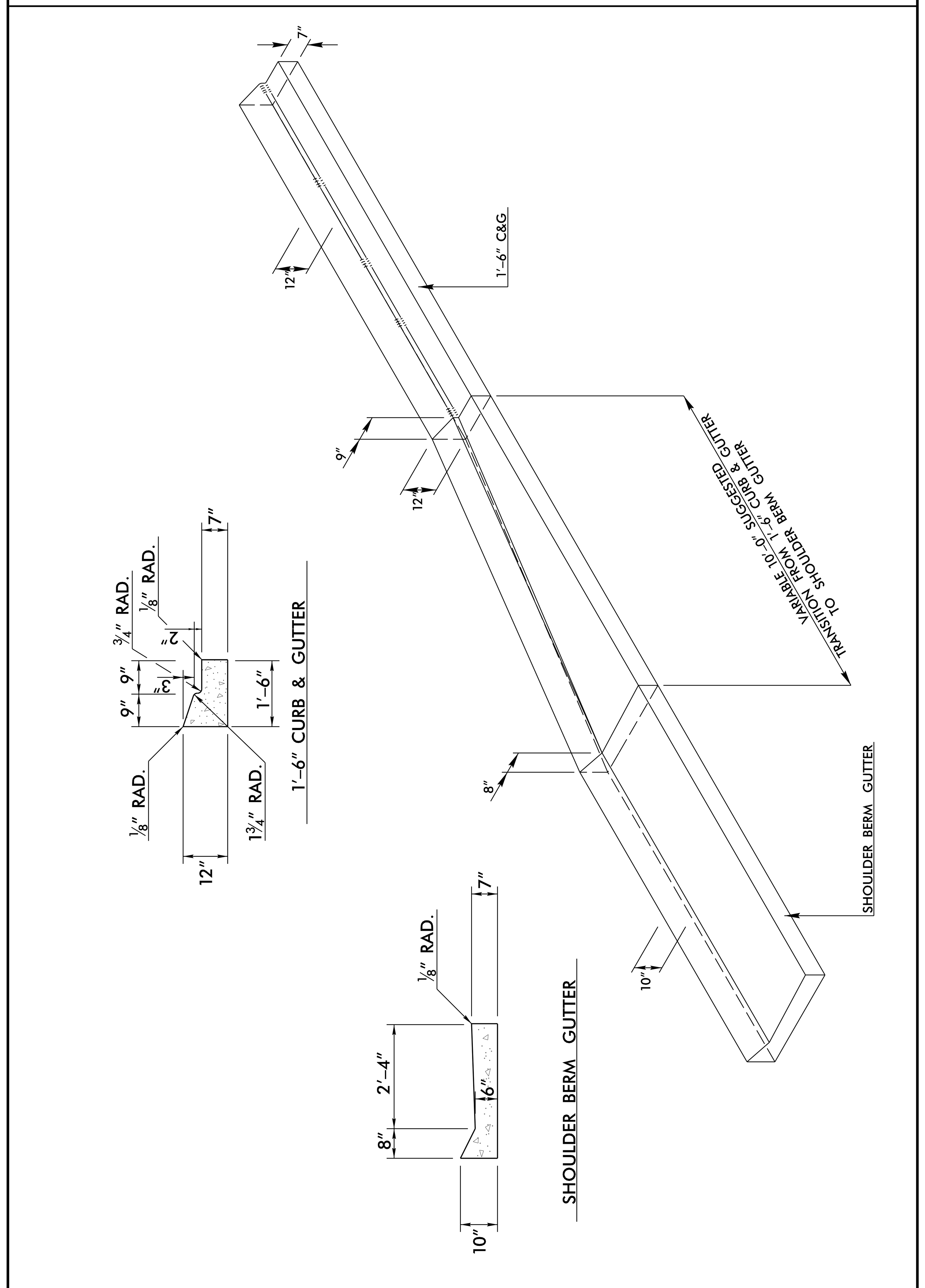
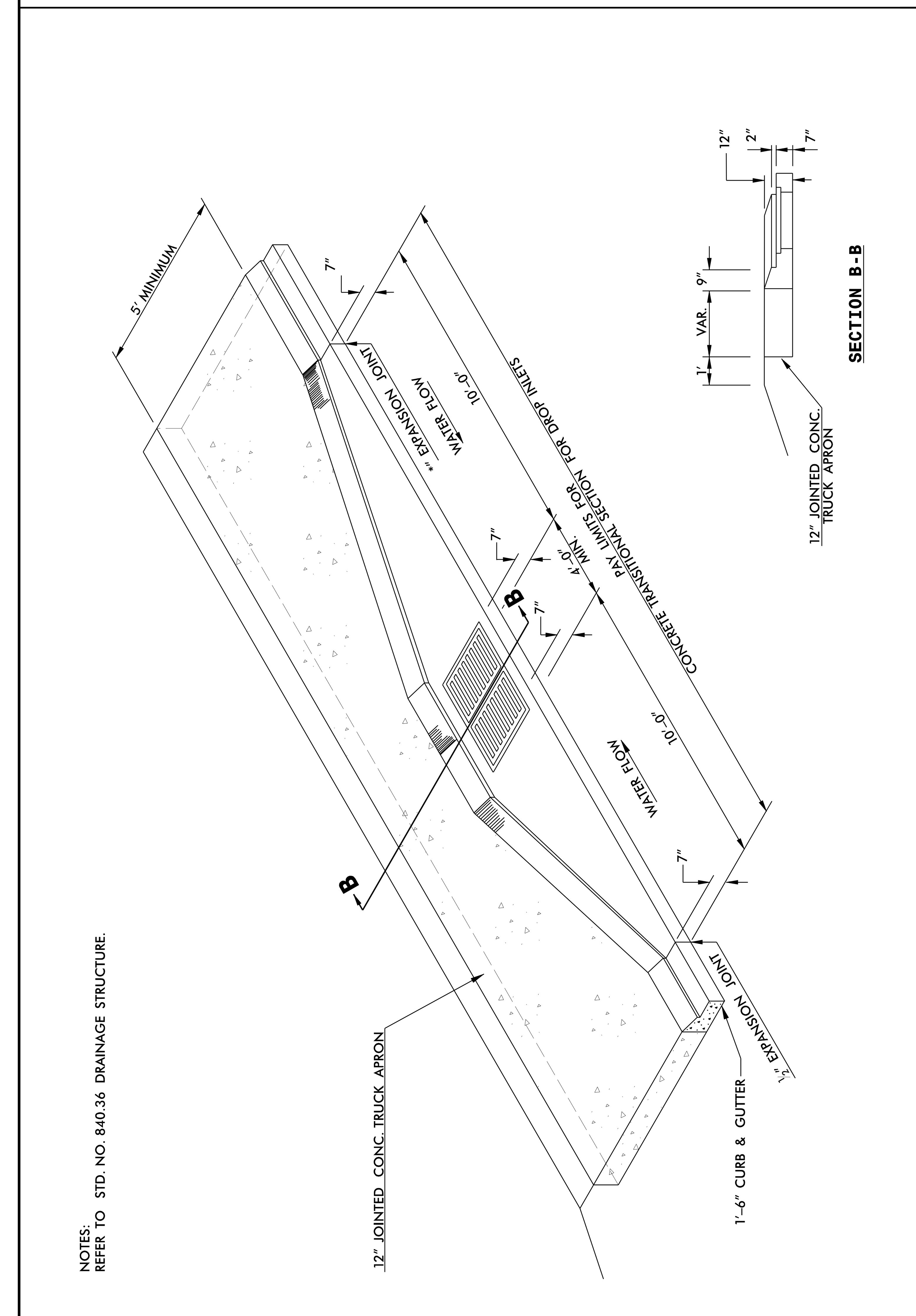
PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2B-21

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 21116 BOB A. MAY



DETAIL FOR FOR TRANSITION FROM 1'-6" CURB & GUTTER TO SHOULDER BERM GUTTER



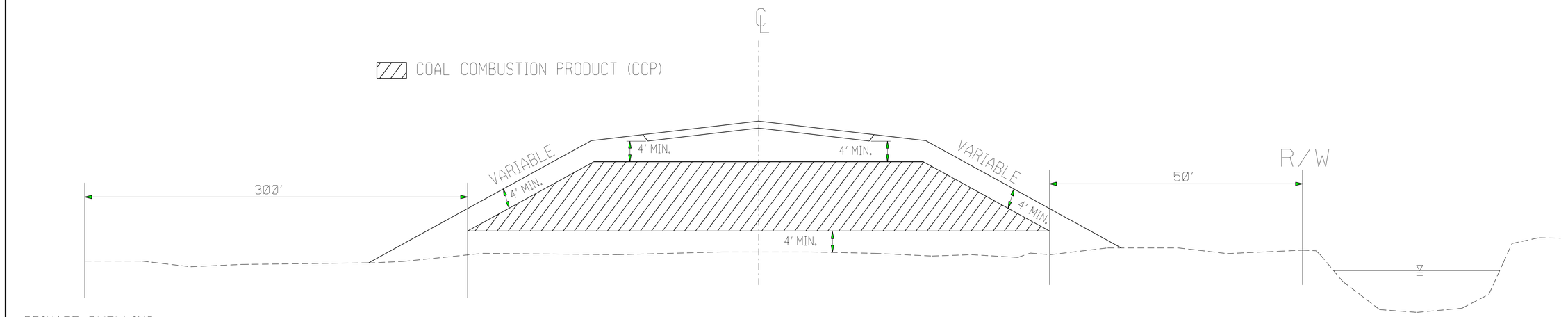
NOTES:
REFER TO STD. NO. 840.36 DRAINAGE STRUCTURE.

DETAIL FOR CONCRETE TRANSITIONAL SECTION

8/17/99
4/29/2022
R:\Roadway\Proj\I5987b_rdy_psh_02B-21_Det_CurbTransition.dgn

PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2C-1

COAL COMBUSTION PRODUCT PLACEMENT



*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

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

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

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

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

NORTH CAROLINA PROFESSIONAL SEAL 022071 ENGINEER RONALD STEVEN DAVENPORT

DocuSigned by: Ron Davenport F81B6038A47A442... 3/29/2022

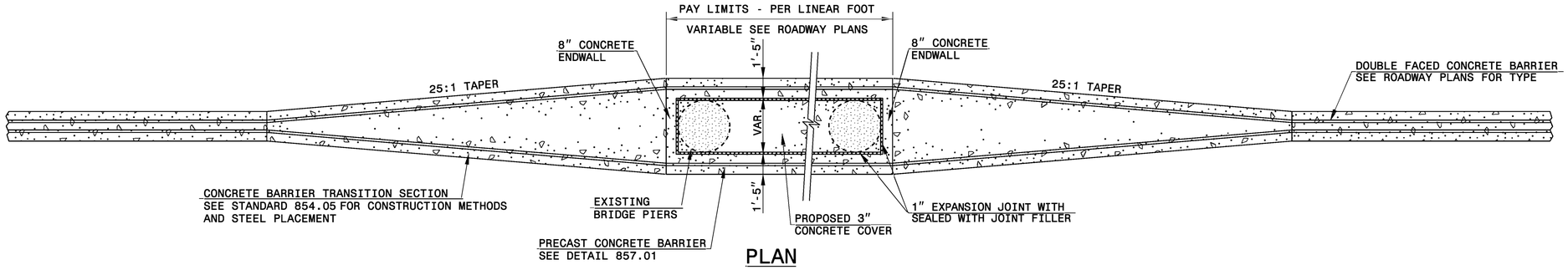
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

COAL COMBUSTION PRODUCT PLACEMENT DETAIL

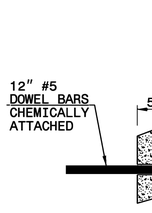
ORIGINAL BY: J.S.H. DATE: 3/16/15
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: joel/coal combustion material detail.dgn

$$$$SYSTIME$$$$
$$$$TIME$$$$
$$$$USERNAME$$$$

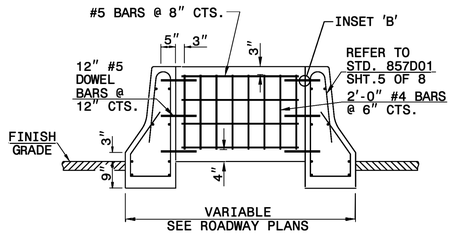
PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2C-2



PLAN



INSET 'B'



8" CONCRETE ENDWALL

GENERAL NOTES:

CONSTRUCT CONCRETE BARRIER WITH CLASS 'AA' CONCRETE. (SEE SPECIFICATIONS SECTION 854).

CONSTRUCT EXPANSION AND CONTRACTION JOINTS AS SHOWN IN STANDARD DRAWING 854.01.

SEAL EXPANSION JOINTS WITH JOINT FILLER. (SEE SECTION 1028 OF THE SPECIFICATIONS).

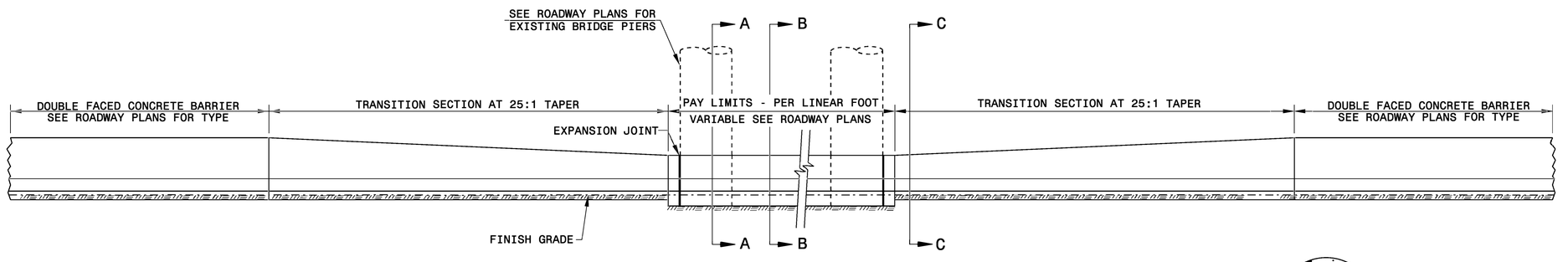
SUBMIT ALTERNATIVE METHODS FOR STEEL FABRICATION PLACEMENT FOR REVIEW AND APPROVAL.

SEE STANDARD DRAWING 854.05 FOR STEEL LAYOUT OF TRANSITION BARRIER.

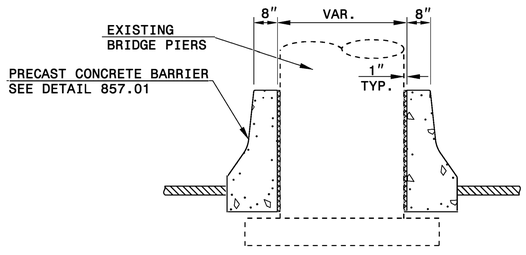
*THE 2" DIMENSION FROM FINSIH GRADE TO THE BASE IS A MINIMUM DIMENSION.

INSET FIRST 1" DIA. GALVANIZED BAR 12'-6" AND SPACE THE REMAINING 1' BARS AT 25'-0".

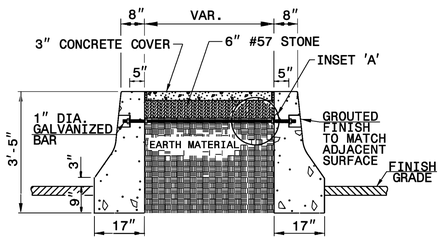
USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081 OF THE STANDARD SPECIFICATIONS.



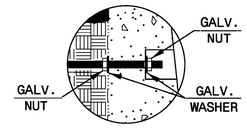
ELEVATION



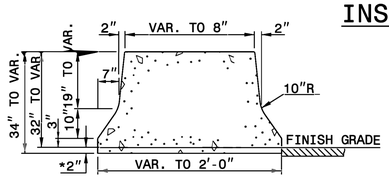
SECTION A-A



SECTION B-B



INSET 'A'



SECTION C-C

4/29/2022

DocuSigned by:
Ken Davenport
F81B6038A47A442...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

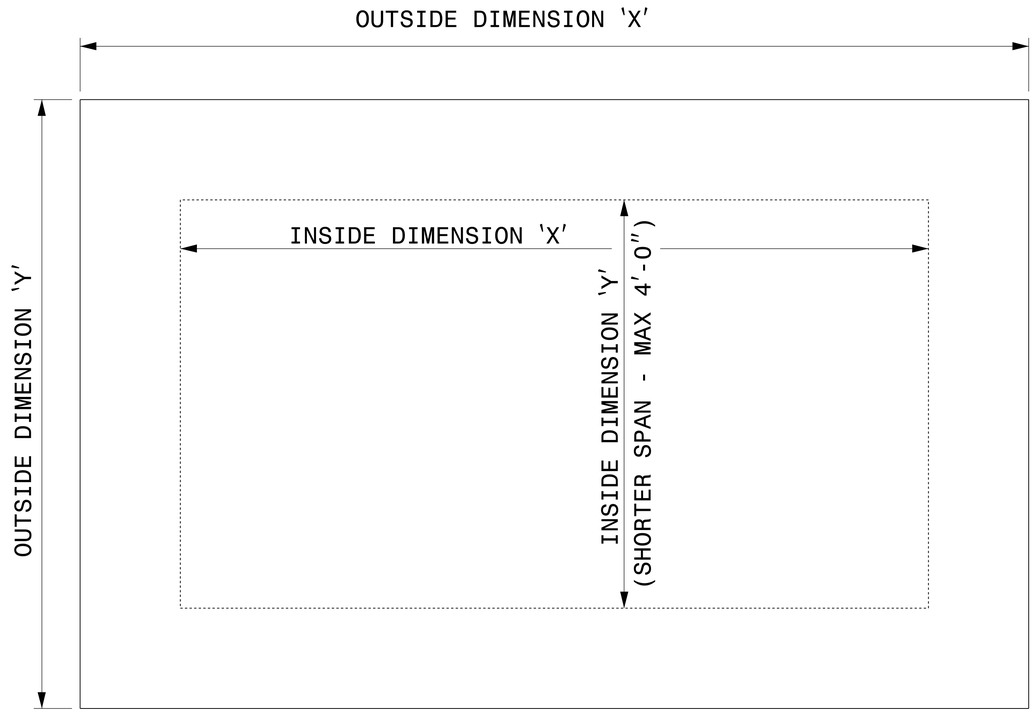
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

MEDIAN HAZARD PIER PROTECTION

ORIGINAL BY: E.E. WARD DATE: 7-28-03
MODIFIED BY: E.E. WARD DATE: 8-26-04
CHECKED BY: _____ DATE: _____
FILE SPEC.: \usr\details\stand\transition barrier.dgn

07-JUN-2017 08:44
S:\Contracts\Special Details\Vericward\usr\details\stand\Median Pier transition barrier.dgn
jhowerton AT CSD-292595

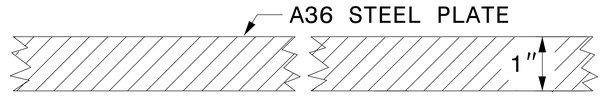
PROJECT REFERENCE NO.	SHEET NO.
I-5987B	2C-3



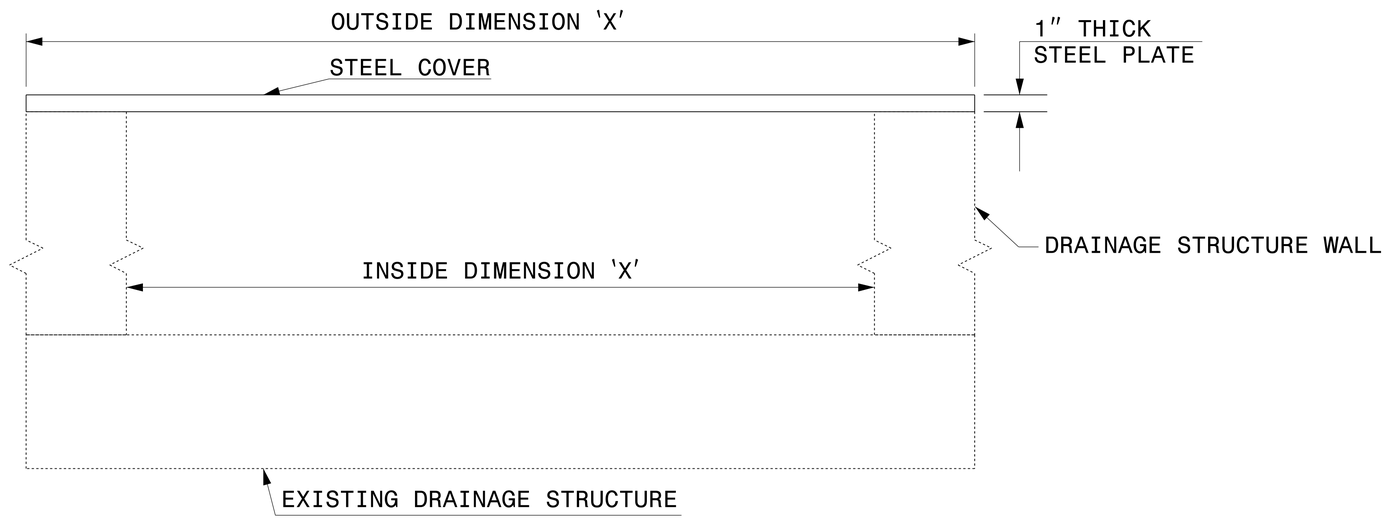
PLAN VIEWS

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 SEAL 022071 ENGINEER KENNETH DAVENPORT

DocuSigned by: Ken Davenport F81B6036A47A442... 7/29/2022

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
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