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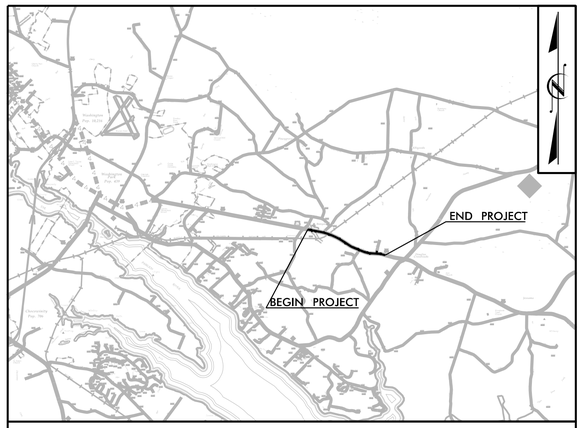
PROJECT: W-5702G\W-5702R

CONTRACT: DB00486\DB00540

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



VICINITY MAP = NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BEAUFORT COUNTY

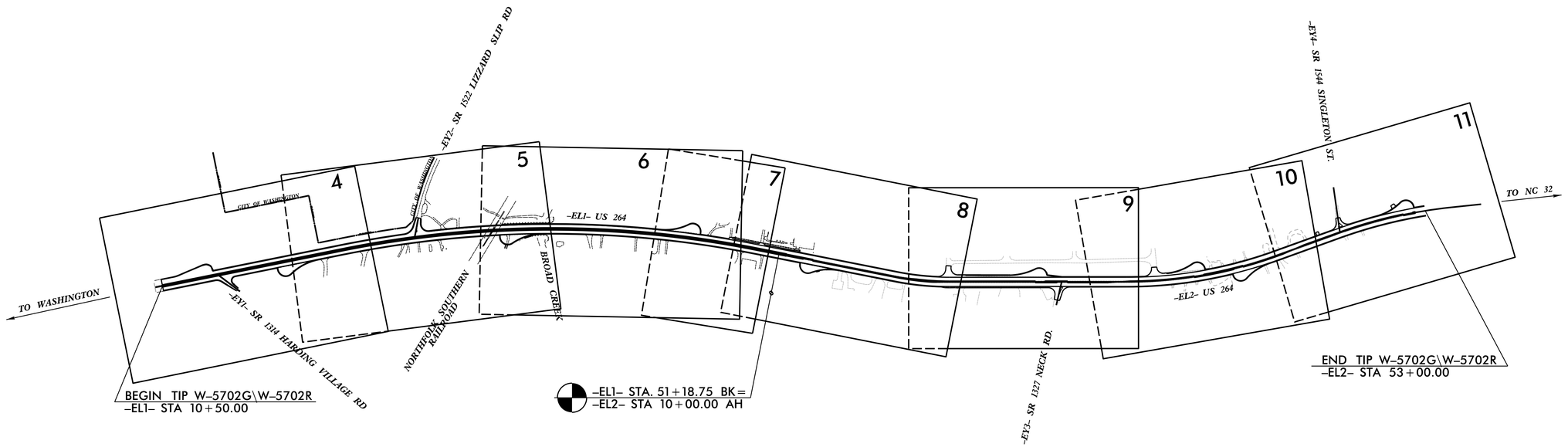
LOCATION: US 264 FROM APPROXIMATELY 800' EAST OF SR 1311 (ASBURY CHURCH RD.) TO 0.45 MILES WEST OF NC 32 NEAR BEAUFORT COMMUNITY COLLEGE IN WASHINGTON.

TYPE OF WORK: RESURFACING, WIDENING, DRAINAGE, PAVEMENT MARKING AND SIGNING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5702G\W-5702R	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
44848.1.7\44848.1.18	HSIP-0264(064)\HSIP-0264(071)	PE
44848.2.7\44848.2.18	HSIP-0264(064)\HSIP-0264(071)	UTIL, ROW
44848.3.7\44848.3.18	HSIP-0264(064)\HSIP-0264(071)	CONST.

NAD 83/2001



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2022 = 16,000
ADT 2042 = 19,500
K = 10%
D = 60%
T = 7% *
V = 60 MPH
* TTST = 3% DUAL = 4%
FUNC. CLASS = MINOR RURAL ARTERIAL
(Subregional Tier)

PROJECT LENGTH

LENGTH ROADWAY PROJECT W-5702G\W-5702R = 1.585 MILES

TOTAL LENGTH PROJECT W-5702G\W-5702R = 1.585 MILES

Prepared in the Office of:
WETHERILL ENGINEERING
1223 Jones Franklin Rd. Raleigh, N.C. 27606
License No. F-0377
Bus: 919.851.8077 Fax: 919.851.8107

Prepared for:
DIVISION OF HIGHWAYS
DIVISION 2
2815 Rouse Road Extension
Kinston, NC 28504

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 26, 2022

LETTING DATE:
DECEMBER 13, 2023

NCDOT CONTACT:

EDWARD G. WETHERILL, PE
PROJECT ENGINEER

BOB A. MAY, PE
PROJECT DESIGN ENGINEER

LARRY L. JONES, PE
DIVISION PROJECT ENGINEER

HYDRAULICS ENGINEER
11/17/2023
DocuSigned by: Matthew L. Harvey
DB419C2087B94EE
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY

ROADWAY DESIGN ENGINEER 11/17/2023
DocuSigned by: Bob A. May
513D8442442B493
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

11/17/2023
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5702GW-5702R	1-A

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A WAY

Bob A Way

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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 II.

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.

GUARDRAIL:

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

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE BEAUFORT COUNTY WATER, CENTURYLINK, MCNC, TRI-COUNTY TELEPHONE MEMBERSHIP CORP., SUDDENLINK COMMUNICATIONS AND CITY OF WASHINGTON.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
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
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.22	Frames and Wide Slot Sag Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.45	Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
852.01	Concrete Islands
852.06	Method for Placement of Drop Inlets in Concrete Islands
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-4	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-5	ROADWAY DETAILS
2C-1 THRU 2C-7	SPECIAL DETAILS
3B-1	ROADWAY SUMMARIES
3D-1 THRU 3D-2	DRAINAGE SUMMARY
3P-1	PARCEL INDEX SHEET
4 THRU 15	PLAN AND PROFILE SHEET
RW02C-2	SURVEY CONTROL SHEET
TMP-1 THRU TMP-17	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-11	PAVEMENT MARKING PLANS
EC-1 THRU EC-11	EROSION CONTROL PLANS
RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN-14	SIGNING PLANS
UO-1 THRU UO-5	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-22	CROSS-SECTIONS

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12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5702GW-5702R	1-B

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.

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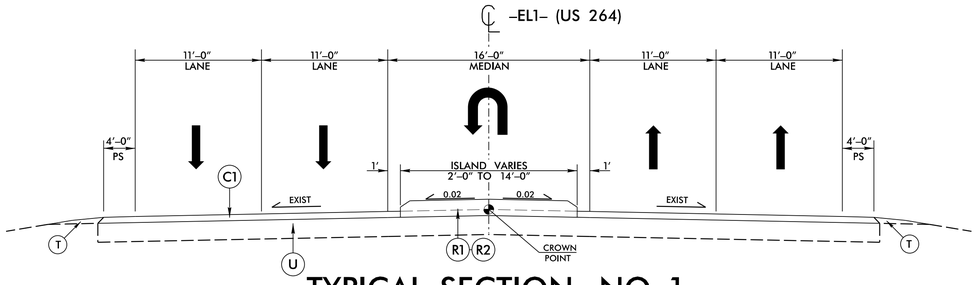
6/2/99

PAVEMENT SCHEDULE

FINAL PAVEMENT DESIGN

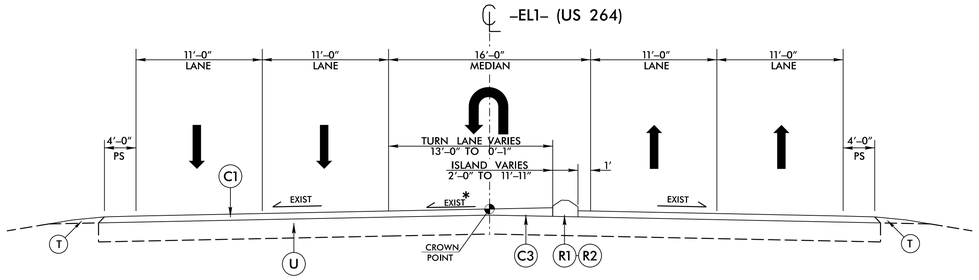
C1	PROP. APPROX. 1 1/2″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	J1	PROP. 6″ AGGREGATE BASE COURSE
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R1	5″ MONOLITHIC CONCRETE ISLAND (KEYED IN).
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 TO EXCEED 1½″ IN DEPTH.	R2	5″ MONOLITHIC CONCRETE ISLAND (SURFACE MTD.).
D1	PROP. APPROX. 4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R3	2′-6″ CONCRETE CURB & GUTTER
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.	T	EARTH MATERIAL.
E1	PROP. APPROX. 5½″ ALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E2	PROP. APPROX. 4½″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	V	INCIDENTAL MILLING.
E3	PROP. APPROX. 6″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

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



TYPICAL SECTION NO. 1

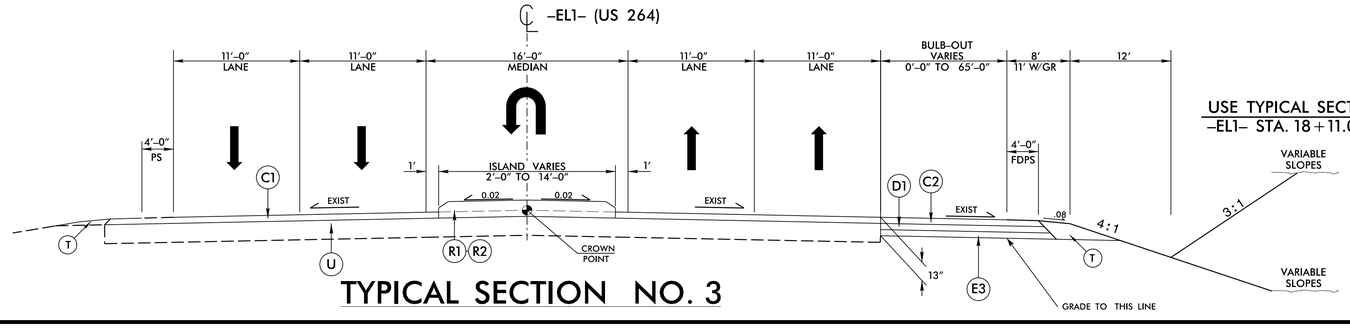
USE TYPICAL SECTION NO. 1
-EL1- STA. 10+50.00 TO 15+27.00
-EL1- STA. 18+00.00 TO 18+11.00
-EL1- STA. 20+79.63 TO 22+56.13
-EL1- STA. 49+60.69 TO 51+18.75



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
-EL1- STA. 15+27.00 TO 18+00.00

*NOTE: CROSS SLOPE FOR PROPOSED TURN LANE TO MATCH EXISTING CROSS SLOPE FOR WEST BOUND LANES FOR STATION RANGE NOTED ABOVE. SEE CROSS SECTIONS FOR PROPOSED CROSS SLOPES.



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
-EL1- STA. 18+11.00 TO 20+79.63

SINCE 1881
Prepared in the Office of:
FROEHLING & ROBERTSON, INC.
Engineering Stability Since 1881
310 Hubert Street
Raleigh, North Carolina 27603-2302
License No. F-0266
Bus: 919.828.3441 Fax: 919.828.5751

PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2A-1

ROADWAY DESIGN ENGINEER
11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BRADLEY A. MAY
Brad A. May
5130844244294...

PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 33758 ENGINEER MATTHEW PATRICK AUTRY

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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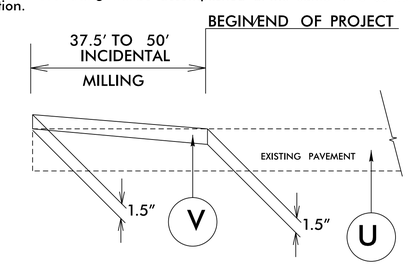
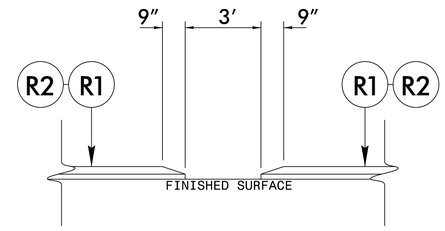
INCIDENTAL MILLING DETAIL

Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.

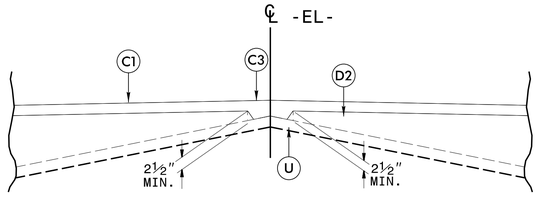


NOTE: UTILIZE INCIDENTAL MILLING TO MAKE PAVEMENT TIE-INS SEE SHEET 3B-1 FOR LOCATIONS

DETAIL FOR 5″ MONOLITHIC CONCRETE ISLAND CURB CUTS



NOTE: SEE SHEET 2B-5 FOR CUT CUT LOCATIONS



Detail Showing Method of Wedging

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Raleigh, North Carolina 27603-2302
License No. F-0266
Bus: 919.828.3441 Fax: 919.828.5751

PROJECT REFERENCE NO.	SHEET NO.
W-5702G W-5702R	2A-2

ROADWAY DESIGN ENGINEER
11/17/2023
SEAL 21116
NORTH CAROLINA PROFESSIONAL ENGINEER ROB A. MAY

PAVEMENT DESIGN ENGINEER
SEAL 33758
NORTH CAROLINA PROFESSIONAL ENGINEER PATRICK ALTON

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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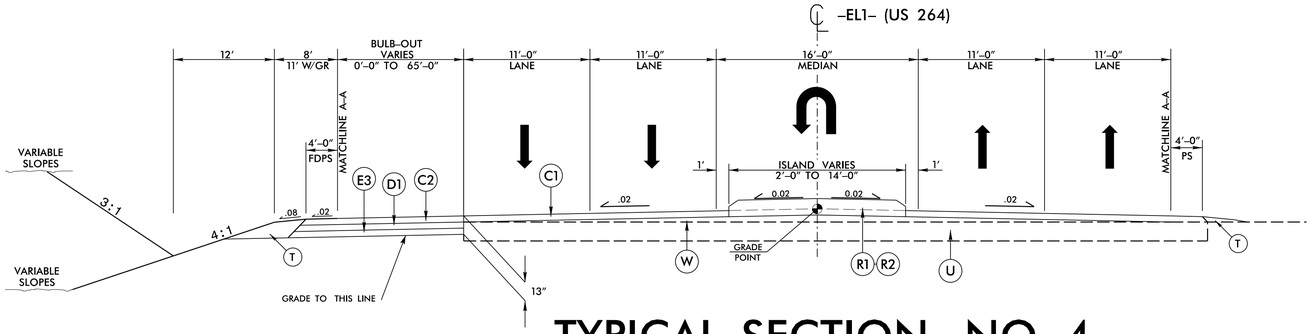
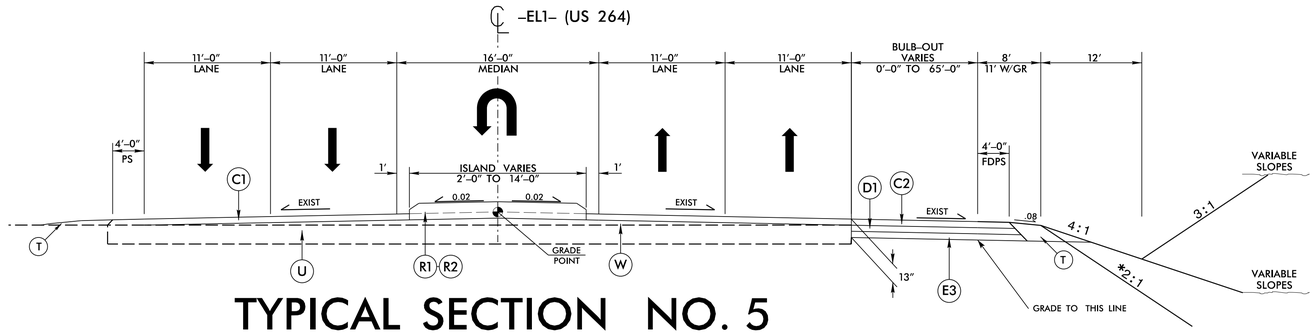


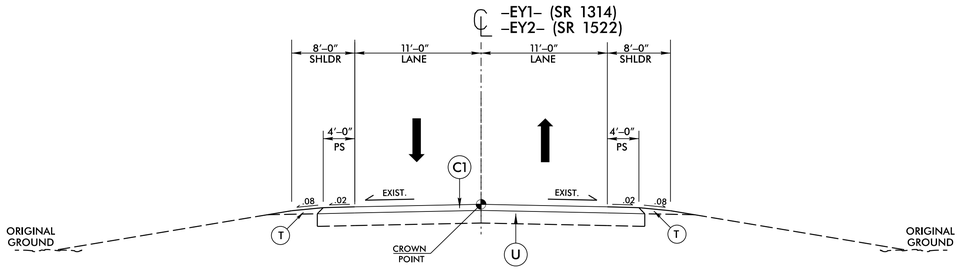
TYPICAL SECTION NO. 4

–EL1– STA. 22+56.13 TO 32+80.80
–EL1– STA. 43+27.97 TO 49+60.69



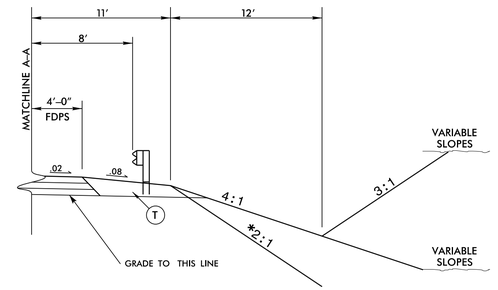
TYPICAL SECTION NO. 5

–EL1– STA. 32+42.10 TO 43+27.97



TYPICAL SECTION NO. 6

–EY1– STA. 10+00.00 TO 11+19.81
–EY2– STA. 10+00.00 TO 11+04.82



PARTIAL TYPICAL SECTION NO. 4A

USE PARTIAL TYPICAL SECTION 4A IN CONJUNTION WITH TYPICAL SECTION 4 & 5

–EL1– STA. 33+00.00 TO 36+37.26 LT.
–EL1– STA. 34+43.51 TO 36+02.81 RT.

*NOTE: UTILIZE 2:1 FILL SLOPE FROM –EL1– STA. 34+00.00 to 35+00.00

FINAL PAVEMENT SCHED.	
C1	1.5" TYPE S9.5B
C2	3" TYPE S9.5B
D1	4" TYPE 119.0C
E1	5½" TYPE B25.0C
E2	4½" TYPE B25.0C
E3	6" TYPE B25.0C
JI	6" ABC
R1	MONO. ISLAND (KEYED-IN)
R2	MONO. ISLAND (SURF. MTD.)
R3	2'-6" C&G
T	EARTH MATERIAL
U	EXISTING ASPHALT PAVEMENT
V	INCIDENTAL MILLING
W	WEDGING

11/16/2023
W-5702R_rdy_PSH_02A-2_typ.dgn
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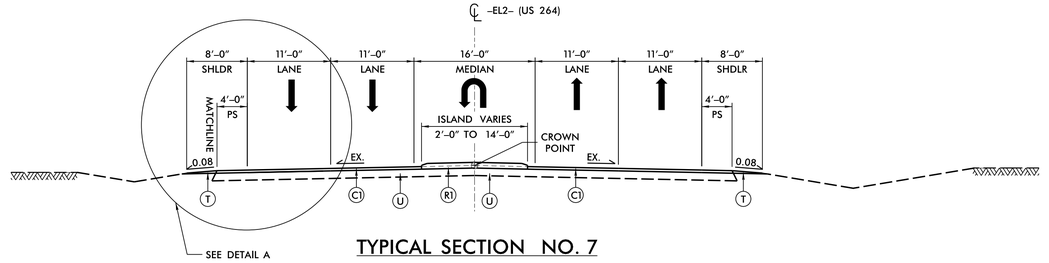
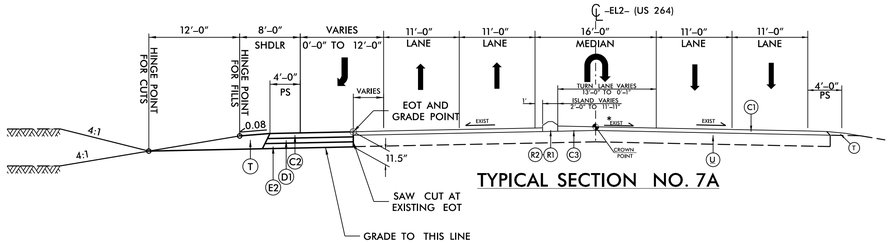


TYPICAL SECTION NO. 7

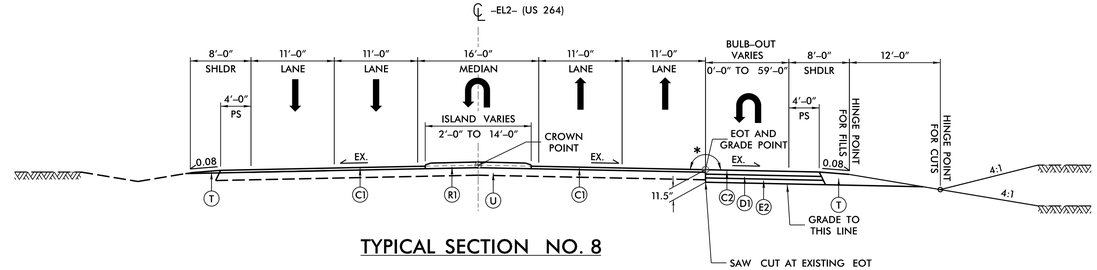
USE TYPICAL SECTION NO. 7 FROM:
-EL2- STA 10+00.00 TO STA 11+46.00
-EL2- STA 14+09.09 TO STA 20+75.00
-EL2- STA 28+65.15 TO STA 34+10.00
-EL2- STA 38+09.30 TO STA 39+76.71
-EL2- STA 42+25.17 TO STA 49+83.76
-EL2- STA 52+33.35 TO STA 53+00.00



TYPICAL SECTION NO. 7A

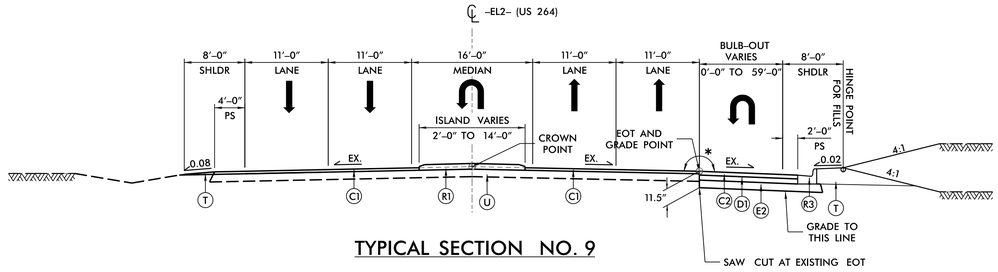
USE TYPICAL SECTION NO. 7A
-EL2- STA. 23+00.00 TO 25+25.05

*NOTE: CROSS SLOPE FOR PROPOSED TURN LANE TO MATCH EXISTING CROSS SLOPE FOR WEST BOUND LANES FOR STATION RANGE NOTED ABOVE. SEE CROSS SECTIONS FOR PROPOSED CROSS SLOPES.



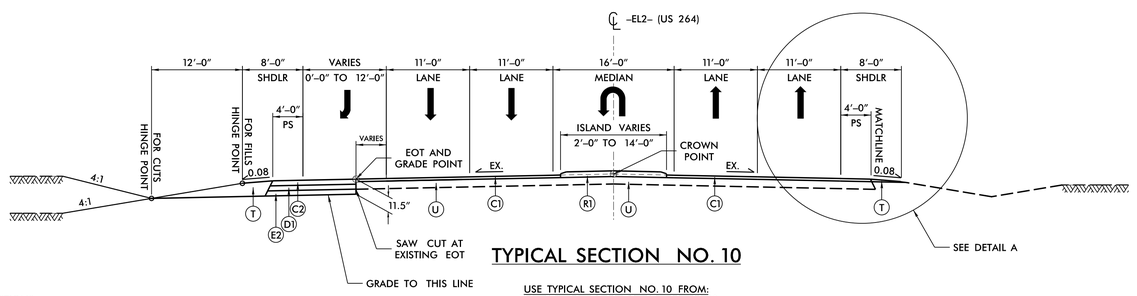
TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8 FROM:
-EL2- STA 11+46.00 TO STA 11+50.00
-EL2- STA 13+19.49 TO STA 14+09.09
-EL2- STA 39+76.71 TO STA 39+88.58
-EL2- STA 41+24.36 TO STA 42+25.17



TYPICAL SECTION NO. 9

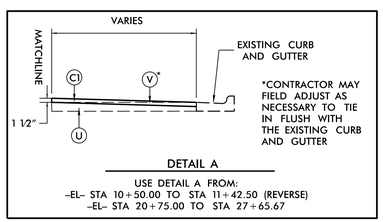
USE TYPICAL SECTION NO. 9 FROM:
-EL2- STA 11+50.00 TO STA 13+19.49
-EL2 STA 39+88.58 TO STA 41+24.36



TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10 FROM:
-EL2- STA 20+75.00 TO STA 23+00.00
-EL2- STA 27+61.22 TO STA 28+65.15

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



DETAIL A

USE DETAIL A FROM:
-EL- STA 10+50.00 TO STA 11+42.50 (REVERSE)
-EL- STA 20+75.00 TO STA 27+65.67

* NOTE: APPLY 6.0% BREAKOVER ON HIGH SIDE OF SUPERELEVATED SECTIONS. SEE CROSS SECTIONS FOR CROSS SLOPE.

PROJECT REFERENCE NO.	SHEET NO.
W-5702GW-5702R	2A-3

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ERIC A. MAY

Digitally signed by Eric A. May
5130844244249493

PAVEMENT DESIGN ENGINEER

ETHERILL 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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FINAL PAVEMENT SCHED.	
C1	1.5" TYPE S9.5B
C2	3" TYPE S9.5B
D1	4" TYPE II9.0C
E1	5½" TYPE B25.0C
E2	4½" TYPE B25.0C
E3	6" TYPE B25.0C
JI	6" ABC
R1	MONO. ISLAND (KEYED-IN)
R2	MONO. ISLAND (SURF. MTD.)
R3	2'-6" C&G
T	EARTH MATERIAL
U	EXISTING ASPHALT PAVEMENT
V	INCIDENTAL MILLING
W	WEDGING

11/16/2023
W-5702GW-5702R_RDY_PSH_02A-3_TYP.dgn
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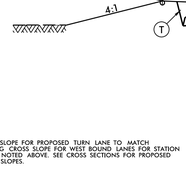


PARTIAL TYPICAL SECTION NO. 11

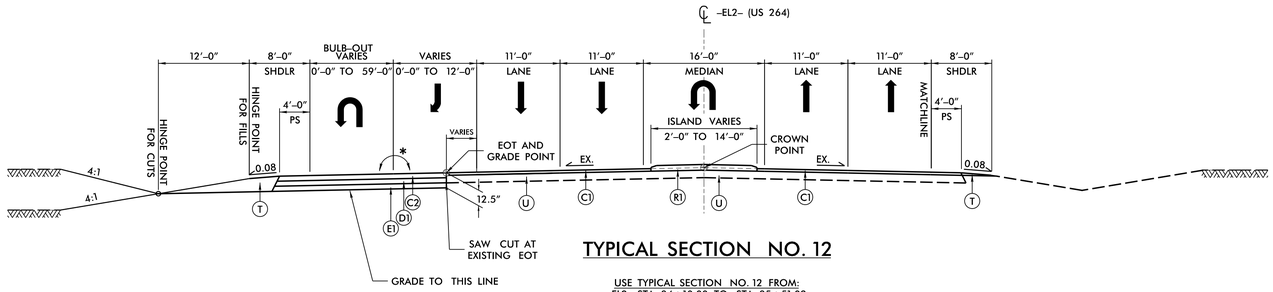
USE PARTIAL TS NO. 11 IN CONJUNCTION WITH TS NO. 11

USE PARTIAL TYPICAL SECTION NO. 11
-EL2- STA. 25+25.05 TO 27+55.00

*NOTE: CROSS SLOPE FOR PROPOSED TURN LANE TO MATCH EXISTING CROSS SLOPE FOR WEST BOUND LANES FOR STATION RANGE NOTED ABOVE. SEE CROSS SECTIONS FOR PROPOSED CROSS SLOPES.

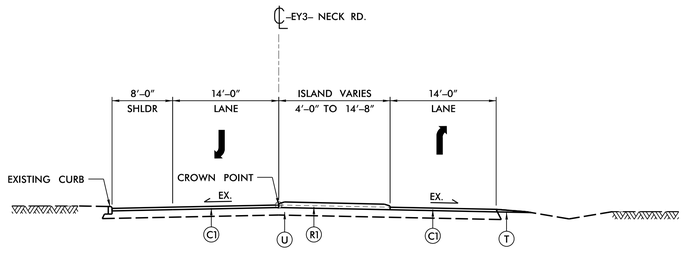
TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11 FROM:
-EL2- STA 25+25.05 TO STA 27+61.22
-EL2- STA 35+51.09 TO STA 38+08.20



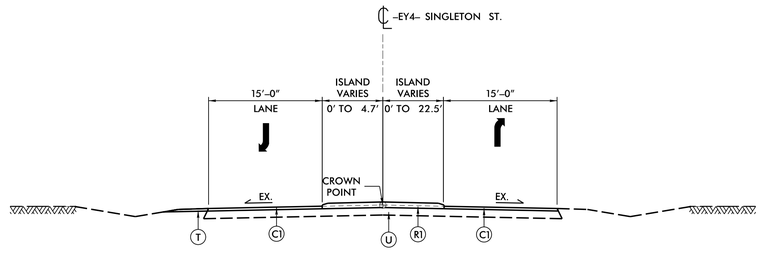
TYPICAL SECTION NO. 12

USE TYPICAL SECTION NO. 12 FROM:
-EL2- STA 34+10.00 TO STA. 35+51.09
-EL2- STA. 38+08.20 TO STA 38+09.30
-EL2- STA 49+83.76 TO STA 52+33.35



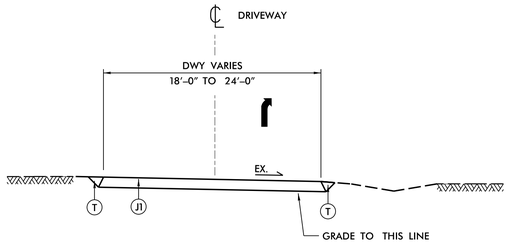
TYPICAL SECTION NO. 13

USE TYPICAL SECTION NO. 13 FROM:
-EY3- STA 10+33.65 TO STA 11+25.18



TYPICAL SECTION NO. 14

USE TYPICAL SECTION NO. 14 FROM:
-EY4- STA 10+30.61 TO STA 10+97.93



TYPICAL SECTION NO. 15

USE TYPICAL SECTION NO. 15 FROM:
SEE PLANS FOR DRIVEWAY LOCATION
-EL2- STA 45+80 +/-
-EL2- STA 50+95 +/-

PROJECT REFERENCE NO.	SHEET NO.
W-5702G W-5702R	2A-4

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROB A. MAY

5130F6E8A5429B3...

PAVEMENT DESIGN ENGINEER

PAVEMENT DESIGN PROVIDED BY NCDOT

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FINAL PAVEMENT SCHED.	
C1	1.5" TYPE S9.5B
C2	3" TYPE S9.5B
D1	4" TYPE II9.0C
E1	5½" TYPE B25.0C
E2	4½" TYPE B25.0C
E3	6" TYPE B25.0C
JI	6" ABC
R1	MONO. ISLAND (KEYED-IN)
R2	MONO. ISLAND (SURF. MTD.)
R3	2'-6" C&G
T	EARTH MATERIAL
U	EXISTING ASPHALT PAVEMENT
V	INCIDENTAL MILLING
W	WEDGING

11/17/2023
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USER:RHamm

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ERIK A. MAY

Erik A. May
5130844424429493...

HYDRAULICS ENGINEER

NOT APPLICABLE

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

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

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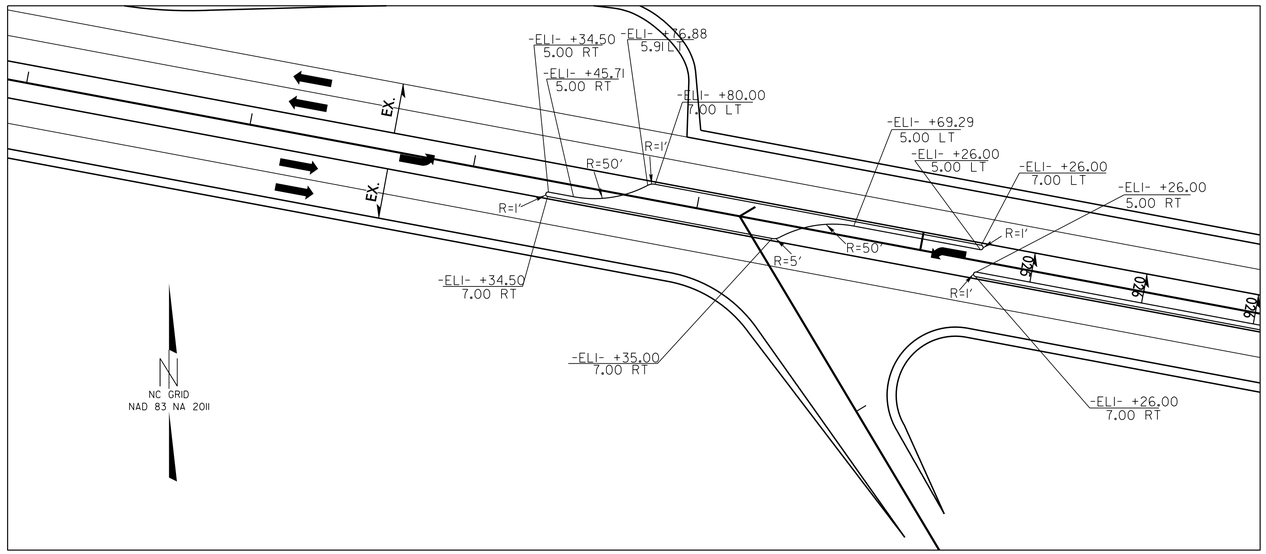
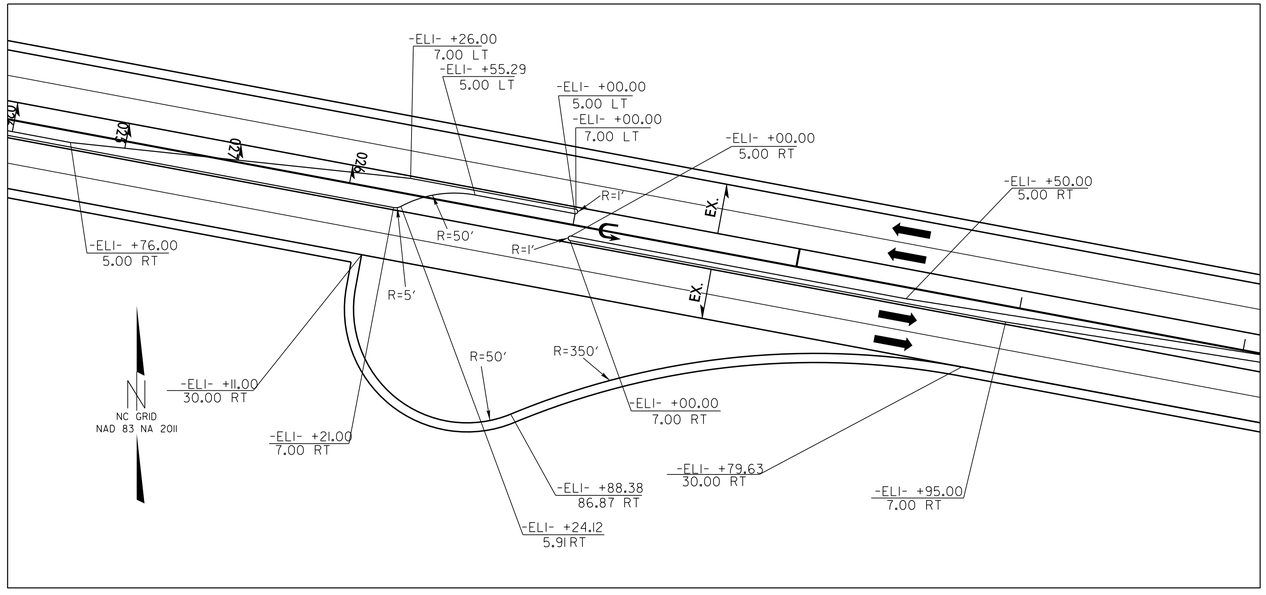


-ELI- INTERSECTION WITH -EYI- (NTS)

NOTES:
FOR PLANS SEE SHEET 4.



BULB OUT AT -ELI- STA. 19+00.00 (NTS)

NOTES:
FOR PLANS SEE SHEET 4.

REVISIONS

8/17/99

11/17/2023
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USER:rhimpl

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8/17/99

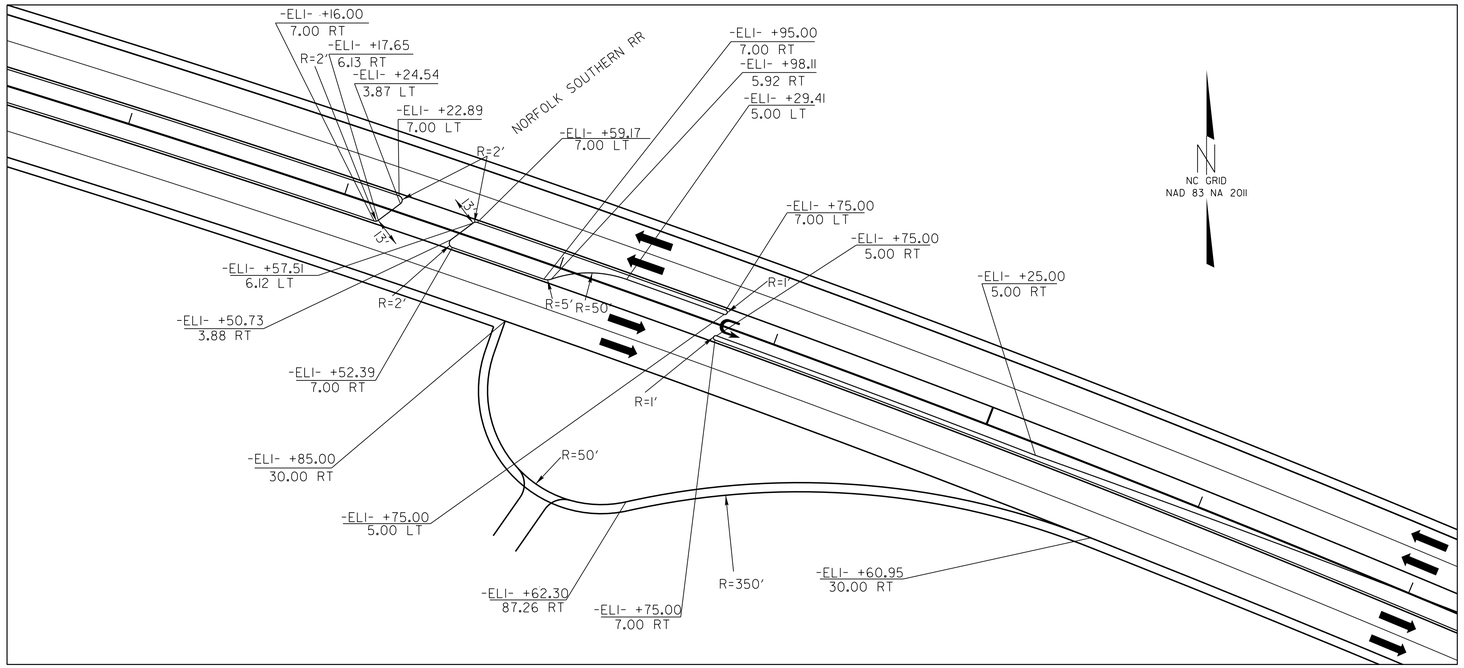
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER 11/17/2023	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY	NOT APPLICABLE

Developed by: Bob A. May 5130844244294931

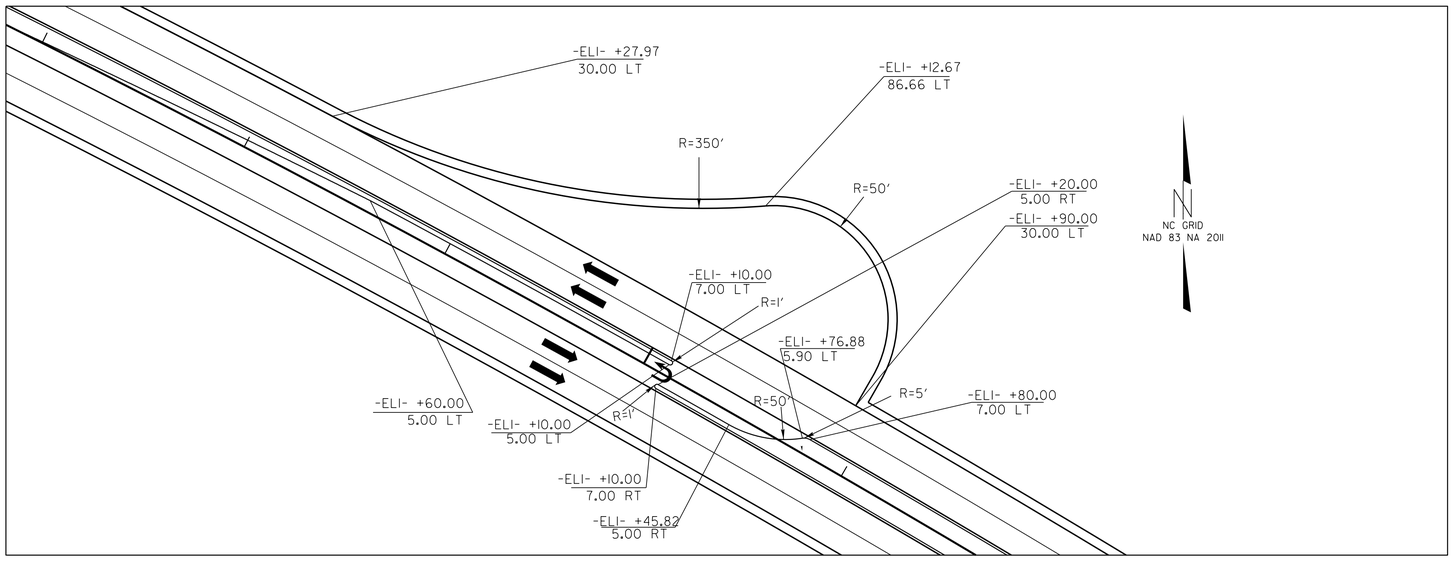
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



BULB OUT AT -ELI- STA. 33+00.00 (NTS)

NOTES:
FOR PLANS SEE SHEET 5&6.



BULB OUT AT -ELI- STA. 44+00.00 (NTS)

NOTES:
FOR PLANS SEE SHEET 6.

11/17/2023
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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	2B-3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROBERT A. MAY

HYDRAULICS ENGINEER

NOT APPLICABLE

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
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REVISIONS

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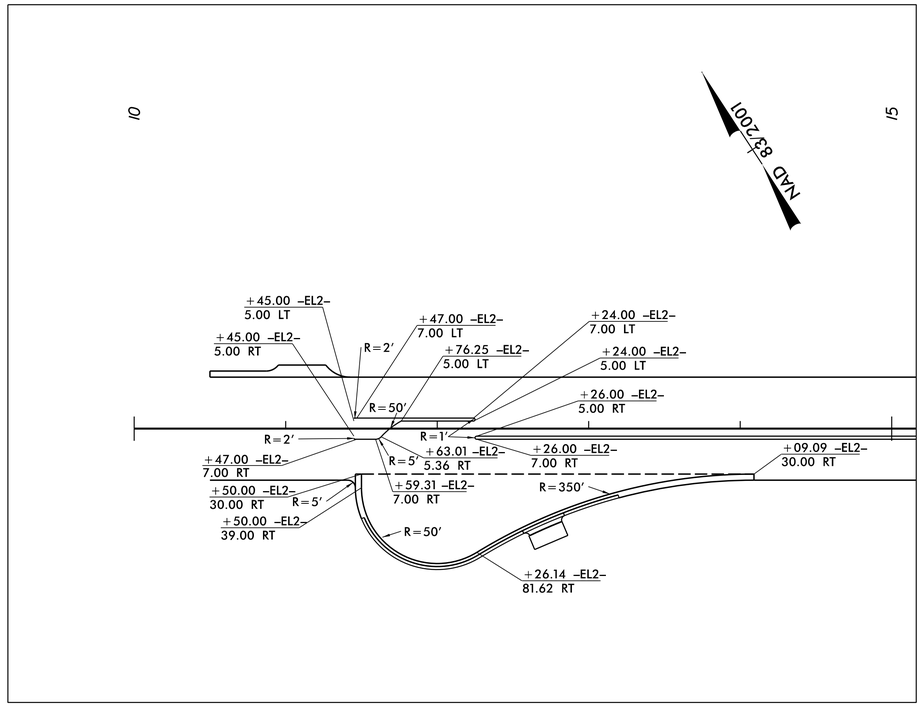
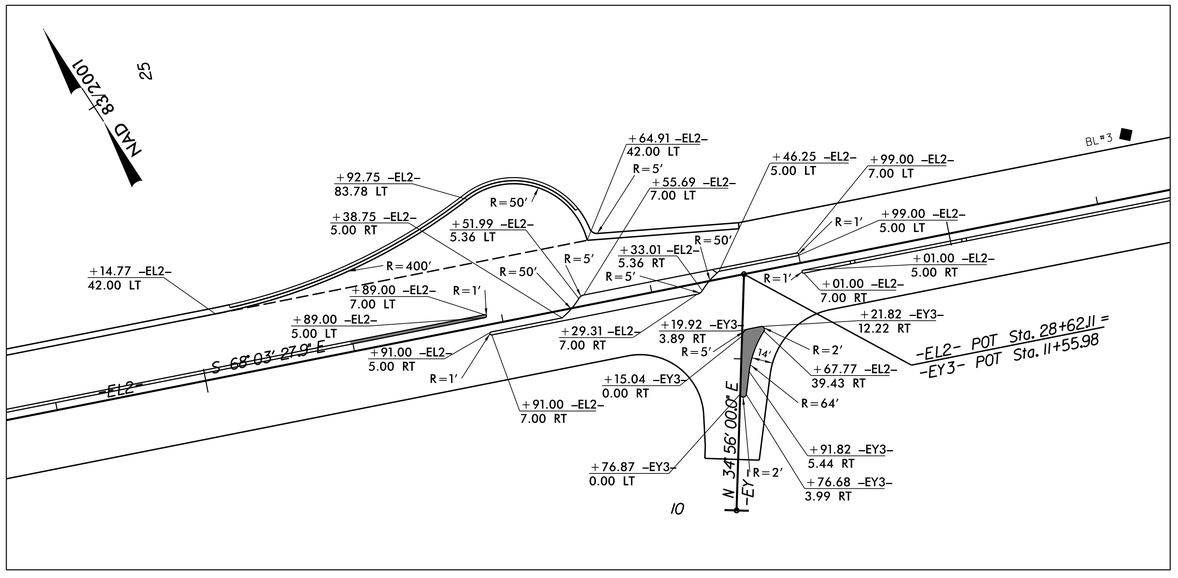


BULB OUT AT -EL2- STA. 10+45



BULB OUT AT -EL2- STA. 10+45 AND MEDIAN AT -EY3-

11/17/2023
W-5702G_W-5702R_ROY_PSH_02B-3.dgn
USER:rbray

DocuSign Envelope ID: 16311966-9EDC-40B1-A3D4-2A1A5D2BA24F

PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	2B-4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023

HYDRAULICS ENGINEER

NOT APPLICABLE

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ERIK A. MAY

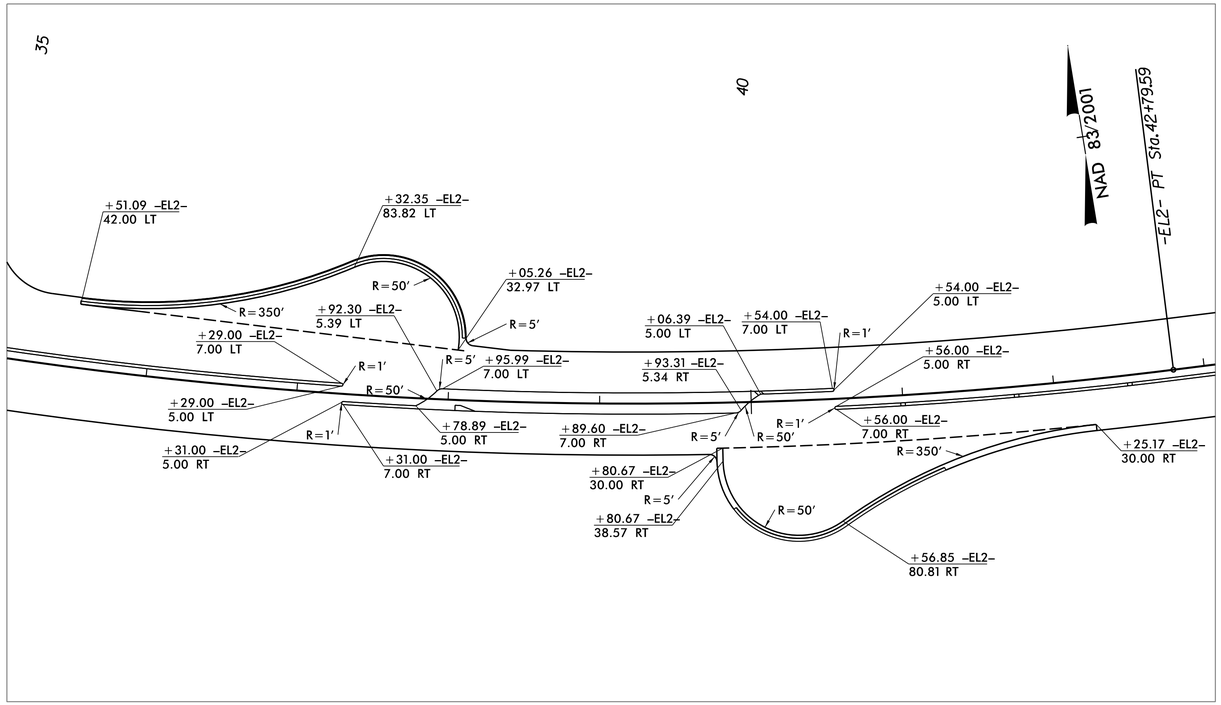
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

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

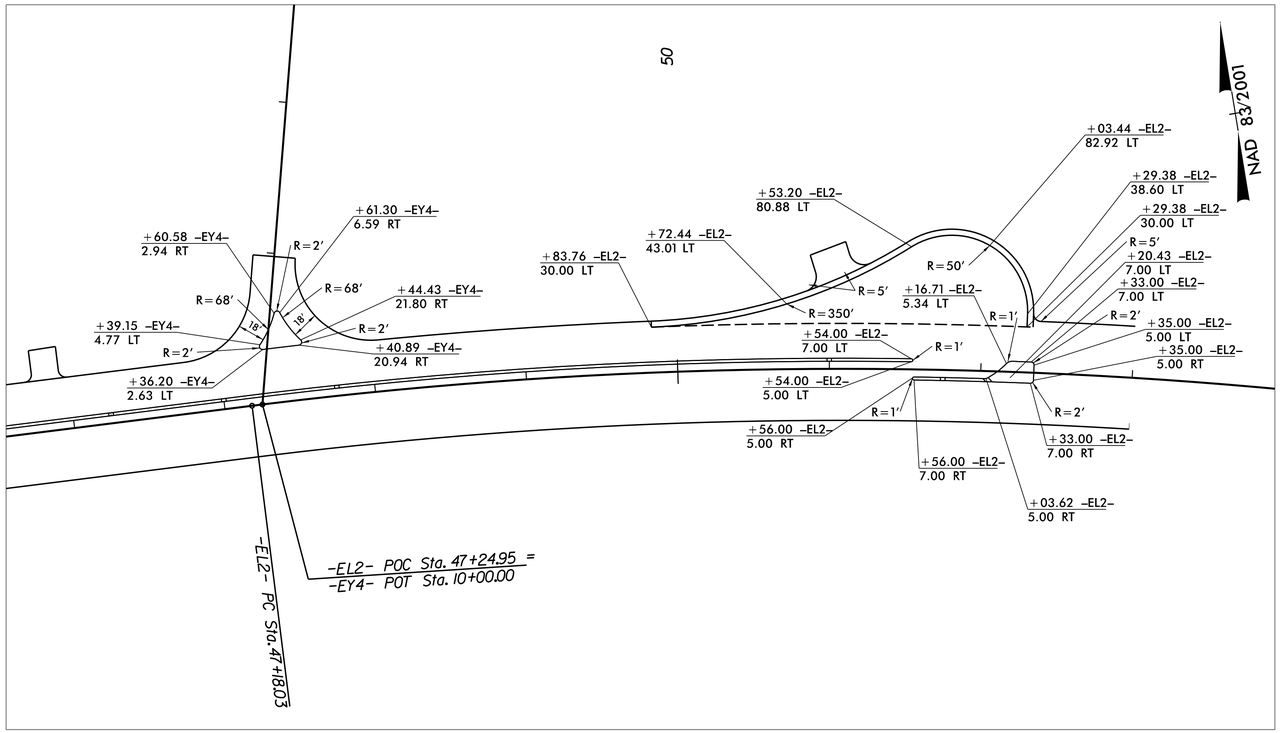
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99



BULB OUTS AT -EL- STA. 35+00 AND 40+00



MEDIAN AT -EYI- AND BULB OUT AT -EL- STA. 50+00

11/17/2023
W-5702G_W-5702R_RDY_PSH_02B-4.dgn
USER:rbray

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8/17/99

REVISIONS

5" MONOLITHIC CONCRETE ISLAND CURB CUTS

(NOTE: STATION CALLOUTS ARE FROM CENTER ISLAND CURB CUTS)

SURVEY LINE	STATION	CUT (EA)
–EL1–	21+13.5	1.00
–EL1–	21+43.5	1.00
–EL1–	21+53.5	1.00
–EL1–	21+63.5	1.00
–EL1–	21+83.5	1.00
–EL1–	22+03.5	1.00
–EL1–	22+23.5	1.00
–EL1–	22+43.5	1.00
–EL1–	22+63.5	1.00
–EL1–	22+94.5	1.00
–EL1–	23+22.5	1.00
–EL1–	23+51.5	1.00
–EL1–	23+81.5	1.00
–EL1–	24+11.5	1.00
–EL1–	24+43.5	1.00
–EL1–	24+76.5	1.00
–EL1–	25+10.5	1.00
–EL1–	25+43.5	1.00
–EL1–	25+76.5	1.00
–EL1–	26+09.5	1.00
–EL1–	26+42.5	1.00
–EL1–	26+73.5	1.00
–EL1–	26+98.5	1.00
–EL1–	27+23.5	1.00
–EL1–	27+51.5	1.00
–EL1–	27+84.5	1.00
–EL1–	28+18.5	1.00
–EL1–	28+58.5	1.00
–EL1–	28+98.5	1.00
–EL1–	29+38.5	1.00
–EL1–	29+78.5	1.00
–EL1–	30+86.5	1.00
–EL1–	31+26.5	1.00
–EL1–	31+66.5	1.00
–EL1–	33+06.5	1.00
–EL1–	33+26.5	1.00
–EL1–	33+91.5	1.00
–EL1–	34+21.5	1.00
–EL1–	34+51.5	1.00
–EL1–	34+76.5	1.00
–EL1–	35+01.5	1.00
–EL1–	35+26.5	1.00
–EL1–	35+56.5	1.00
	COLUMN TOTAL:	43.00

SURVEY LINE	STATION	CUT (EA)
–EL1–	35+91.5	1.00
–EL1–	36+26.5	1.00
–EL1–	36+61.5	1.00
–EL1–	37+01.5	1.00
–EL1–	37+41.5	1.00
–EL1–	37+91.5	1.00
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–EL1–	41+41.5	1.00
–EL1–	42+01.5	1.00
–EL1–	42+41.5	1.00
–EL1–	42+81.5	1.00
–EL1–	43+21.5	1.00
–EL1–	43+61.5	1.00
–EL1–	44+01.5	1.00
–EL1–	44+41.5	1.00
–EL1–	45+21.5	1.00
–EL1–	45+36.5	1.00
–EL1–	45+56.5	1.00
–EL1–	45+81.5	1.00
–EL1–	46+11.5	1.00
–EL1–	46+51.5	1.00
–EL1–	46+91.5	1.00
–EL1–	47+31.5	1.00
–EL1–	47+71.5	1.00
–EL1–	48+11.5	1.00
–EL1–	48+51.5	1.00
–EL1–	49+01.5	1.00
–EL1–	49+71.5	1.00
	COLUMN TOTAL:	33.00

SURVEY LINE	STATION	CUT (EA)
–EL2–	31+69.5	1.00
–EL2–	32+09.5	1.00
–EL2–	32+44.5	1.00
–EL2–	32+76.5	1.00
–EL2–	33+06.5	1.00
–EL2–	33+31.5	1.00
–EL2–	33+56.5	1.00
–EL2–	33+81.5	1.00
–EL2–	34+06.5	1.00
–EL2–	34+31.5	1.00
–EL2–	34+56.5	1.00
–EL2–	34+81.5	1.00
–EL2–	35+06.5	1.00
–EL2–	35+31.5	1.00
–EL2–	35+56.5	1.00
–EL2–	35+81.5	1.00
–EL2–	36+06.5	1.00
–EL2–	36+31.5	1.00
–EL2–	36+56.5	1.00
–EL2–	36+81.5	1.00
–EL2–	37+06.5	1.00
–EL2–	37+34.5	1.00
–EL2–	37+71.5	1.00
–EL2–	40+07.5	1.00
–EL2–	40+23.5	1.00
–EL2–	41+03.5	1.00
–EL2–	41+53.5	1.00
–EL2–	42+03.5	1.00
–EL2–	42+53.5	1.00
–EL2–	43+03.5	1.00
–EL2–	43+38.5	1.00
–EL2–	43+48.5	1.00
–EL2–	43+58.5	1.00
–EL2–	43+68.5	1.00
–EL2–	43+38.5	1.00
–EL2–	46+58.5	1.00
–EL2–	46+78.5	1.00
–EL2–	47+13.5	1.00
–EL2–	47+42.5	1.00
–EL2–	47+73.5	1.00
–EL2–	48+08.5	1.00
–EL2–	48+48.5	1.00
–EL2–	48+88.5	1.00
	COLUMN TOTAL:	43.00

SURVEY LINE	STATION	CUT (EA)
–EL2–	49+28.5	1.00
–EL2–	49+68.5	1.00
–EL2–	50+08.5	1.00
–EL2–	50+48.5	1.00
–EL2–	51+08.5	1.00
–EL2–	51+48.5	1.00
–EL2–	51+78.5	1.00
–EL2–	52+01.5	1.00

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W-5702G\W-5702R	2C-1

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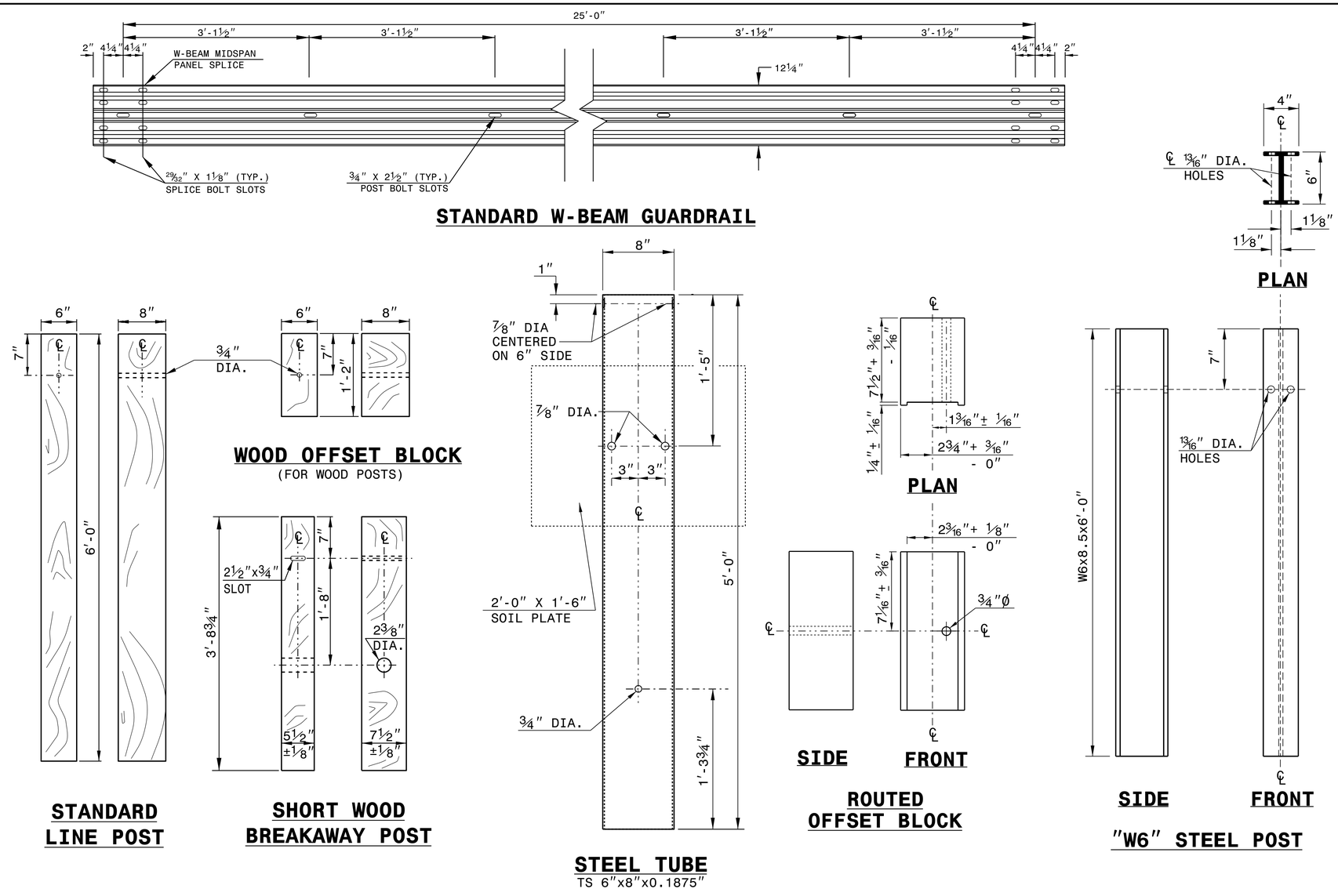
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION



STANDARD W-BEAM GUARDRAIL

PLAN

WOOD OFFSET BLOCK
(FOR WOOD POSTS)

STANDARD LINE POST

SHORT WOOD BREAKAWAY POST

STEEL TUBE
TS 6"x8"x0.1875"

PLAN

SIDE FRONT

ROUTED OFFSET BLOCK

SIDE FRONT

"W6" STEEL POST

SYSTEM PARTS

SHEET 6 OF 8
862D02

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 6 OF 8
862D02

11/16/2023

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLE M. HACKLER

DocuSigned by: Nicole M. Hackler
5884323D34164C5...

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

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ORIGINAL BY: J.HOWERTON DATE: 3-7-2018
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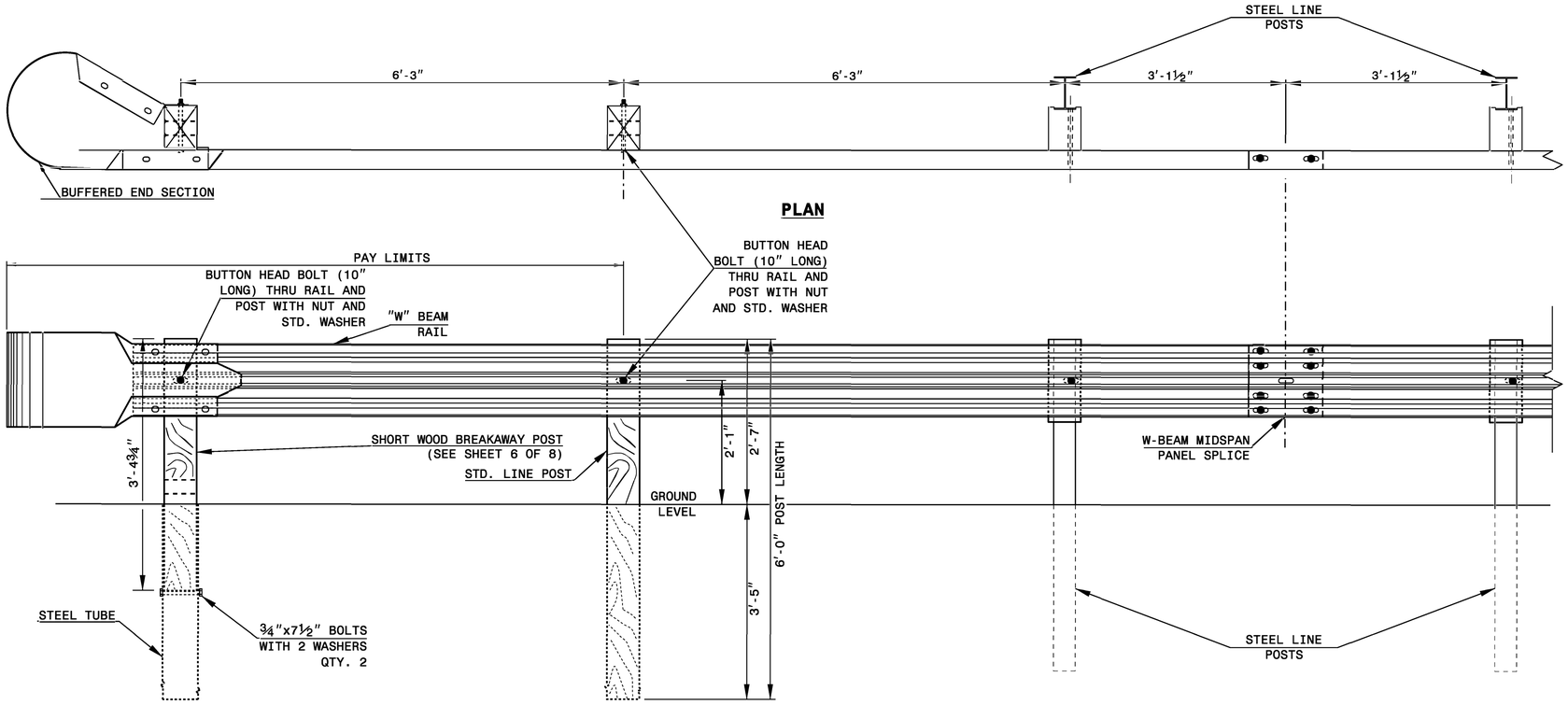
PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2C-2

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION



TRAILING END UNIT ASSEMBLY

A.T.-1 SYSTEM

SHEET OF

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET OF

11/16/2023

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLE M. HACKLER

DocuSigned by:
Nicole M. Hackler
5864323D34164C5...

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

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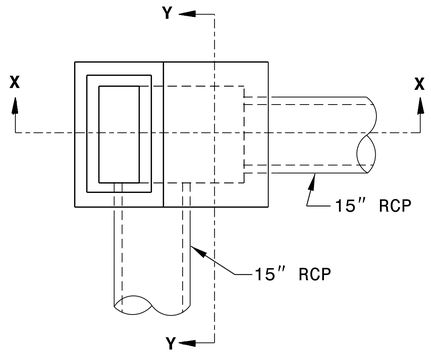
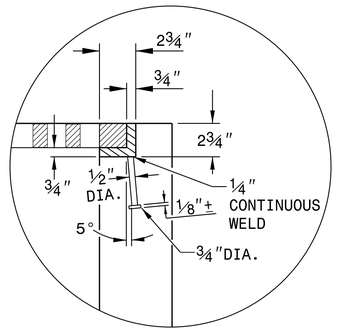
PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2C-3

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

ENGLISH DETAIL DRAWING FOR
CONCRETE NARROW DROP INLET
15″ PIPE



PLAN
WITH GRATE & FRAME REMOVED



INSET 'A'
SHOWING DETAIL OF ANCHOR

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

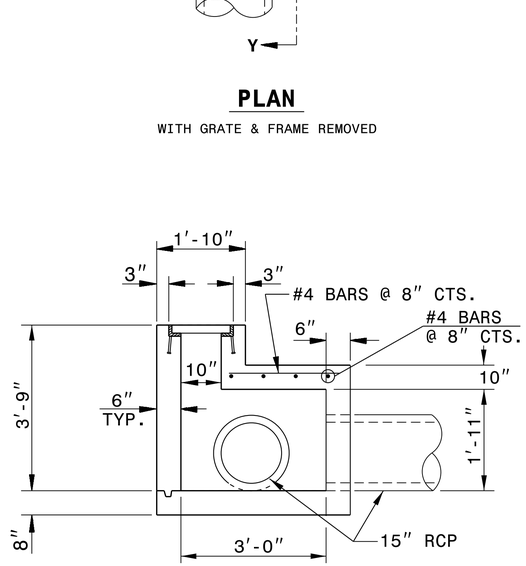
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2″ KEYWAY, OR #4 BAR DOWELS AT 12″ CENTER, AS DIRECTED BY ENGINEER.

USE FORMS TO CONSTRUCT THE BOTTOM SLAB.

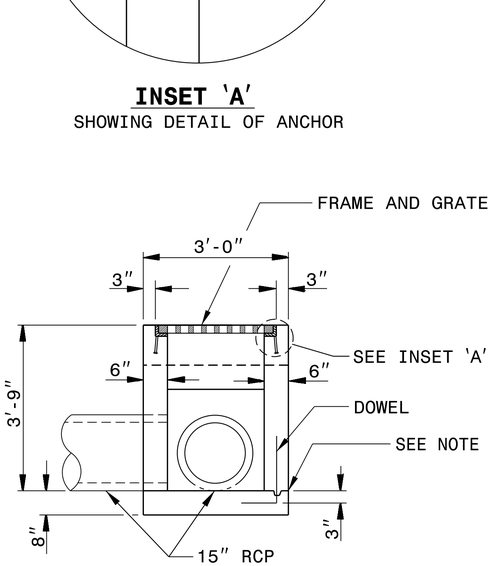
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STANDARD 840.00.

ALL PROPOSED REQUIREMENTS TO CONSTRUCT THIS DRAINAGE STRUCTURE SHALL BE OF ACCEPTBLE QUALITY AND APPROVED BY THE ENGINEER.

DRAINAGE STRUCTURE DIMENSIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.



SECTION X-X



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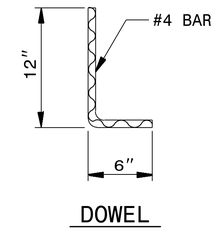

DOWEL

QUANTITIES FOR DROP INLET

TOTAL CONCRETE	REINFORCING STEEL			DEDUCTIONS FOR ONE PIPE	
CU.YDS.	QTY.	LENGTH	LBS.	PIPE SIZE	CU.YDS.
1.284	8	2′-3″	23	15″	0.036

SHEET 1 OF 1
840D11

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

ENGLISH DETAIL DRAWING FOR
CONCRETE NARROW DROP INLET
15″ PIPE

SHEET 1 OF 1
840D11

11/16/2023

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLE M. HACKLER

DocuSigned by:
Nicole M. Hackler
588432303041645...

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

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MODIFIED BY: T.S.Spell DATE: 3-21-03
CHECKED BY: DATE:
FILE SPEC.: s:tspell/details/stand/840d11e_15.dgn

08-OCT-2019 09:51
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jhowerton AT CSD-292595

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2C-4

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

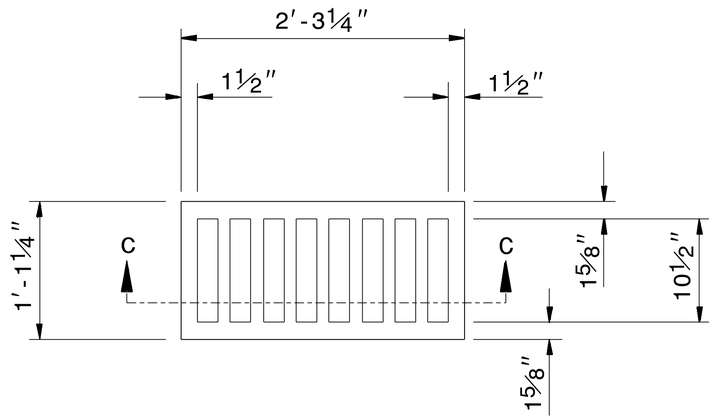
ENGLISH DETAIL DRAWING FOR

NARROW DROP INLET FRAME AND GRATE

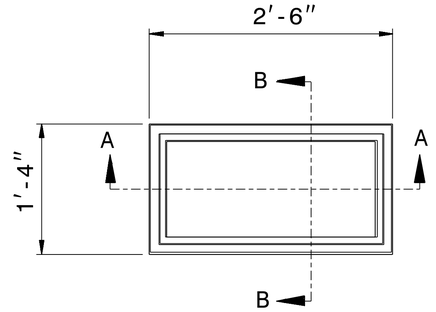
FOR USE WITH DETAIL DRAWING 840D12

SHEET 1 OF 1

840D13

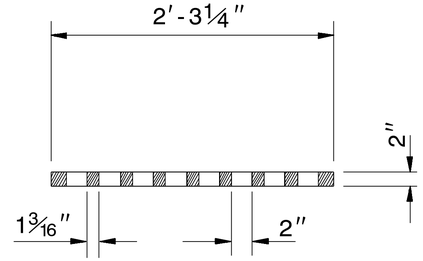


PLAN OF GRATING

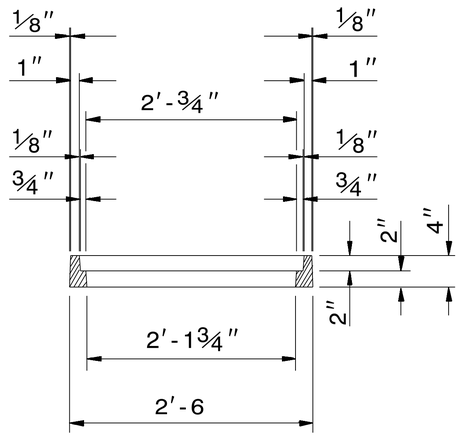


PLAN OF FRAME

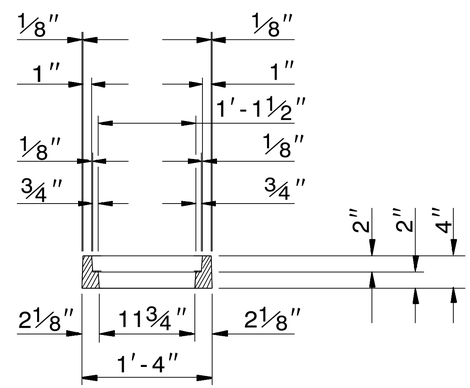
CAST IRON



SECTION C-C



SECTION A-A



SECTION B-B

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

ENGLISH DETAIL DRAWING FOR

NARROW DROP INLET FRAME AND GRATE

FOR USE WITH DETAIL DRAWING 840D12

SHEET 1 OF 1

840D13

11/16/2023

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLE M. HACKLER

DocuSigned by:
Nicole M. Hackler
588432303416 4C5...

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DESIGN SERVICES UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

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FILE SPEC.:

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jhowerton
AT CSD-292595

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PROJECT REFERENCE NO.	SHEET NO.
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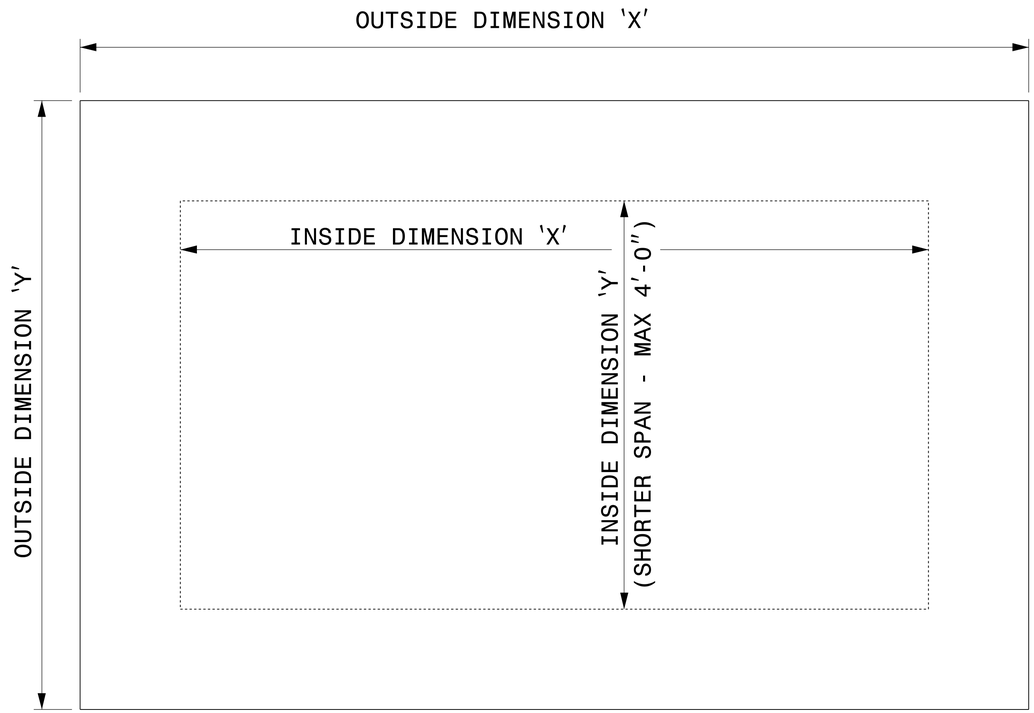
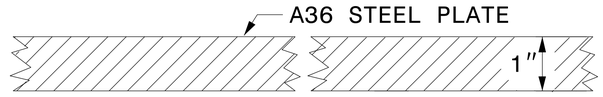


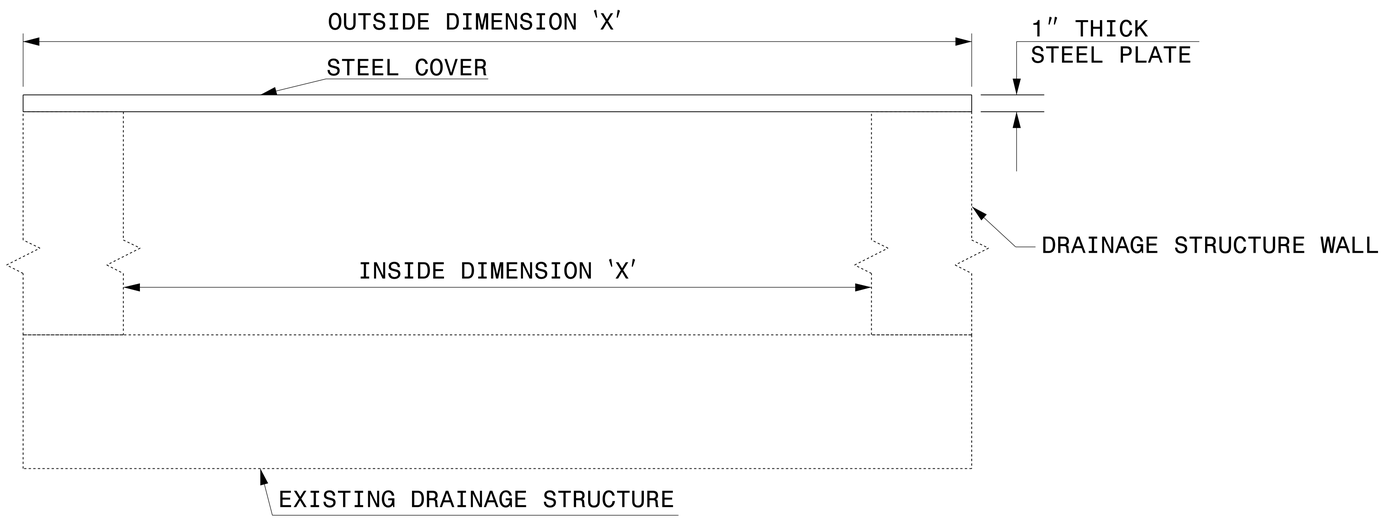
PLAN VIEWS

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

11/16/2023

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 33144

DocuSigned by:
Nicole M. Hechler
588432D34164C5...

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

DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE

ORIGINAL BY: E.E. WARD DATE: 2-2-98
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2C-6

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

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

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

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

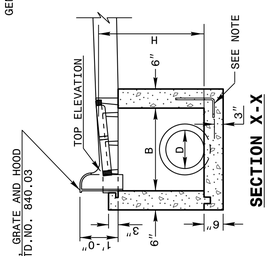
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.

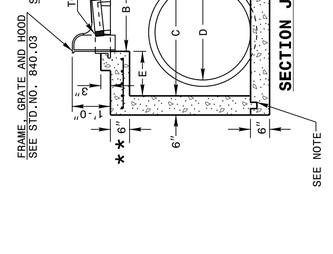
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

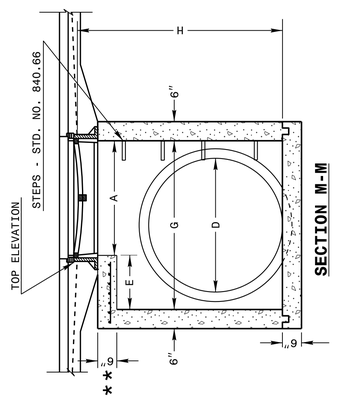
CONSTRUCT WITH PIPE CROWNS MATCHING.

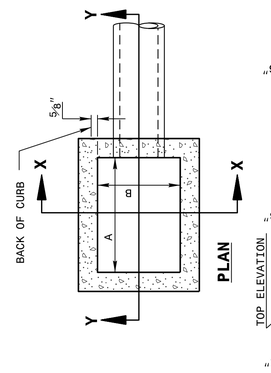
CHAMFER ALL EXPOSED CORNERS 1".

** FOR STRUCTURES WITH PIPE LARGER THAN 54", MAKE THE TOP SLAB 8" THICK.







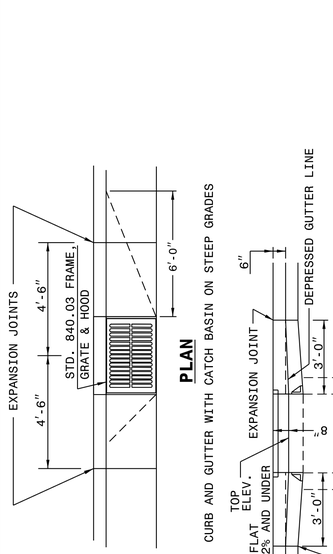


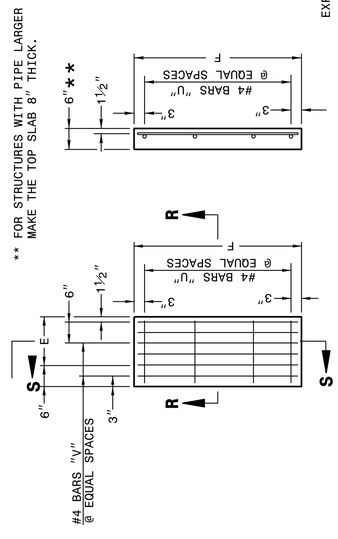
STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	ENGLISH DETAIL DRAWING FOR **MINIMUM DEPTH CONCRETE CATCH BASIN** 12" THRU 84" PIPE	SHEET 1 OF 2 **840D02**

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

ENGLISH DETAIL DRAWING FOR **MINIMUM DEPTH CONCRETE CATCH BASIN** 12" THRU 84" PIPE

SHEET 1 OF 2 **840D02**





* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN(BASED ON MIN. HEIGHT, H, WITH NO RISER) *

PIPE D	DIMENSIONS OF BOX AND PIPE COVER SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. HEIGHT H	BARS-U NO.	BARS-U LENGTH	DIMENSION E	DIMENSION F	CU.YDS. CONC. IN BOX TOP SLAB	CU.YDS. CONC. IN BOX BOTTOM SLAB	TOT. CONC. FOR MINIMUM HEIGHT H	DEDUCTIONS ONE PIPE C.M.	DEDUCTIONS ONE PIPE R.C.
12"	3'-0"	2'-2"	--	--	2'-0"	--	--	--	--	--	0.235	0.772	0.015	0.026
15"	3'-0"	2'-2"			2'-3"						0.235	0.829	0.023	0.036
18"	3'-0"	2'-2"			2'-6"						0.235	0.887	0.033	0.049
24"	3'-0"	2'-2"			3'-1"						0.235	1.001	0.059	0.085
30"	3'-0"	2'-2"	3'-4"	3'-4"	3'-10"	4	1'-6"	1'-2"	4'-4"	0.123	0.347	1.433	0.092	0.127
36"	3'-0"	2'-2"	3'-10"	3'-10"	4'-6"	4	1'-6"	1'-8"	4'-10"	0.161	0.432	1.714	0.132	0.178
42"	3'-0"	2'-2"	4'-5"	4'-5"	4'-11"	4	1'-6"	2'-2"	5'-5"	0.200	0.543	1.738	0.160	0.243
48"	3'-0"	2'-2"	5'-0"	5'-0"	5'-6"	5	2'-0"	2'-10"	6'-0"	0.235	0.667	2.052	0.235	0.317
54"	3'-0"	2'-2"	5'-7"	5'-7"	6'-0"	5	2'-0"	3'-5"	6'-7"	0.289	0.802	2.387	0.297	0.401
60"	3'-0"	2'-2"	6'-3"	6'-3"	6'-6"	6	2'-0"	4'-1"	7'-3"	0.340	0.973	2.722	0.363	0.546
66"	3'-0"	2'-2"	6'-11"	6'-11"	7'-0"	6	2'-0"	4'-9"	7'-11"	0.391	1.160	3.057	0.440	0.655
72"	3'-0"	2'-2"	7'-6"	7'-6"	7'-6"	7	2'-0"	5'-3"	8'-6"	0.442	1.340	3.392	0.524	0.774
78"	3'-0"	2'-2"	8'-1"	8'-1"	8'-0"	7	2'-0"	5'-11"	9'-1"	0.493	1.530	3.727	0.615	0.893
84"	3'-0"	2'-2"	8'-9"	8'-9"	8'-6"	8	2'-0"	6'-7"	9'-9"	0.544	1.760	4.062	0.713	1.010

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.	ENGLISH DETAIL DRAWING FOR **MINIMUM DEPTH CONCRETE CATCH BASIN** 12" THRU 84" PIPE	SHEET 2 OF 2 **840D02**

11/16/2023

SEAL 33144 NORTH CAROLINA PROFESSIONAL ENGINEER

DocuSigned by: Nicole M. Hackler

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SEE PLATE FOR TITLE

ORIGINAL BY: 2002 Std.840.01 DATE:
MODIFIED BY: E.E. WARD DATE: 3-1-02
CHECKED BY: DATE:
FILE SPEC.: s:Special Details/jhowerton/840d02.dgn

10-AUG-2017 10:11
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jhowerton
AT CSD-292595

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	2C-7

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

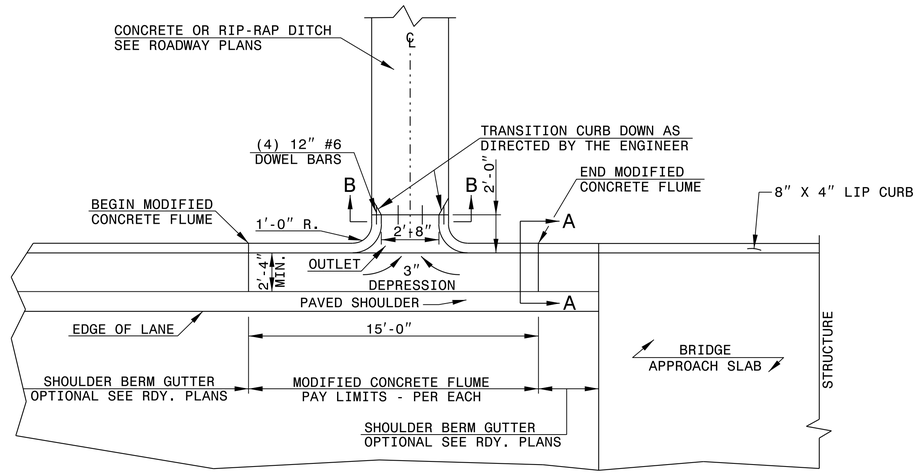
ENGLISH DETAIL DRAWING FOR

MODIFIED CONCRETE FLUME

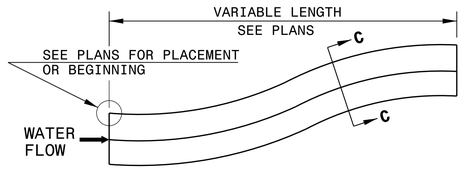
WITH CONCRETE OR RIP-RAP DITCH

SHEET 1 OF 1

MODFLMDTCH



PLAN VIEW



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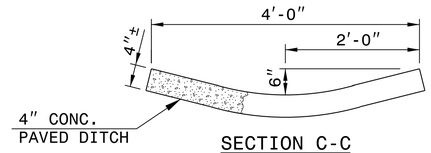
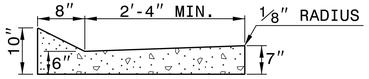


SECTION C-C



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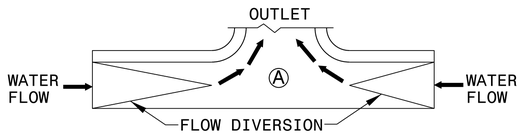

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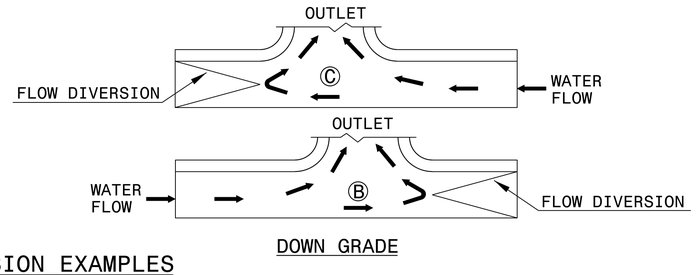
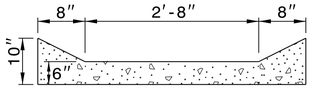


DOWN GRADE



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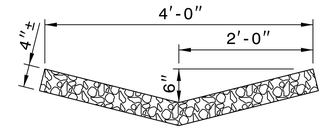

RIP-RAP LINED DITCH

FLOW DIVERSION EXAMPLES

NOTES:

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

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

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

SHEET 1 OF 1

MODFLMDTCH

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jhowerton AT CSD-212595

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UNLESS ALL SIGNATURES COMPLETED

11/16/2023

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLE M HACKLER

DocuSigned by:
Nicole M. Hackler
5884323D34164C5...

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

SEE PLATE FOR TITLE

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

DocuSign Envelope ID: 16311966-9EDC-40B1-A3D4-2A1A5D2BA24F

12/06/07

COMPUTED BY: bam DATE: 5/3/2022
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	3B-1

SUMMARY OF EARTHWORK

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
–EL1– LT.					
10+50.00	32+32.80	80	9		71
32+42.49	53+00.00	136	1357	1221	
SUBTOTALS:		216	1366	1221	71
–EL1– RT.					
10+50.00	32+32.80	412	225		187
32+42.49	53+00.00	190	1197	1007	
SUBTOTALS:		602	1422	1007	187
–EL2– 11+50	–EL2– 14+00	270	84	0	186
–EL2– 22+50	–EL2– 28+50	401	388	0	13
–EL2– 36+00	–EL2– 38+00	477	33	0	444
–EL2– 40+00	–EL2– 42+00	86	956	870	0
–EL2– 50+00	–EL2– 52+50	143	535	392	0
SUBTOTALS:		1377	1996	1262	643
PROJECT SUBTOTALS:		2195	4784	3490	901
MATERIAL FOR SHOULDER CONSTRUCTION			2102	2102	
WASTE IN LIEU OF BORROW				–901	–901
PROJECT TOTALS:		2195	6886	9691	0
ESTIMATED 5% TO REPLACE TOPSOIL ON BORROW PIT				485	
GRAND TOTALS:		2195		10176	
SAY:		2300		10500	

UNDERCUT EXCAVATION (CONTINGENCY) = 450 CY

SHALLOW UNDERCUT EXCAVATION (CONTINGENCY) = 100 CY

SHALLOW UNDERCUT EXCAVATION (GRADE POINT) = 100 CY

UNCLASSIFIED EXCAVATION FROM LOCATION LISTED BELOW ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL.

–EL1– STA. 19+25.00 TO –EL1– STA. 20+75.00

NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, SHOULDER BORROW, FINE GRADING, AND CLEARING & GRUBBINGWILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE OF "GRADING".

INCIDENTAL MILLING

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
–EL1–	10+50.00	11+00.00	CL	431.08
–EL1–	31+84.22	32+32.80	CL	371.15
–EL1–	32+42.49	32+86.11	CL	330.34
–EL1–	52+12.75	52+62.75	CL	437.78
			TOTAL:	1,570.35
			SAY:	1,650.00

PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD²
–EL2–	11+46.00	14+09.09	RT	86
–EL2–	22+35.00	28+65.15	LT	226
–EL2–	35+51.09	38+09.30	LT	69
–EL2–	39+76.71	42+25.17	RT	95
–EL2–	49+83.76	52+33.35	LT	108
			TOTAL:	584
			SAY:	590

RIGHT OF WAY AREA DATA

PARCEL NO.	PROPERTY OWNER NAMES	TOTAL AREA	AREA LT. TAKEN	AREA RT. TAKEN	AREA REMAINING	TEMP. CONST. EASE.	TEMP. DRAINAGE EASE.	PERM. DRAINAGE/ UTILITY EASE.
1	CAROLYN S. ERSKINE	4.04 AC		0.20 AC	3.84 AC			
2	DONALD FRANKLIN HARDING	6.21 AC		0.10 AC	6.11 AC			
3	CLARENCE MCKINDLEY HARDING	0.94 AC		2012.47 SF	0.89 AC			
4	BEAVER DAM							
5	RONALD W. ASBY	3.691 AC	0.201 AC		3.49 AC			
6	JAMES SNYDER	1.33 AC		3383.09 SF	1.25 AC	2030.21 SF		
7	CHARLES SINGLETON	21,906.89 SF						
8	BEAUFORT COUNTY COMMUNITY COLLEGE	62.86 AC	2904.95 SF		62.79 AC			0.14 AC
9	COUNTY OF BEAUFORT	4.33 AC	0.15 AC		4.18 AC	1998.35 SF		
10	SOHIR ASHKAR	1.91 AC		2116.15 SF	1.86 AC	0.13 AC		
11	RICHARD WOOLARD	3.50 AC						
12	JOHN BALDWIN	23.06 AC	0.17 AC		22.89 AC			

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GREU TYPE TL–3	M–350	XIII	CAT–1	VI MOD	BIC	AT–1	EA	G	NG				
–EL1–	33+00.00	36+37.26	LT	312.50′	50.59′		35+80.00	33+00.00	8′	11′										1			1					366.57′		
–EL1–	34+43.51	36+02.81	RT	135.36′	63.63′		35+28.88	35+80.27	8′	11′	50′		1′				1						1					254.64′		
PROJECT SUBTOTALS				447.86′	114.22′												1			1			2					621.21′		
DEDUCTION	FOR GUARDRAIL ANCHOR UNITS			(–) 56.25′	(–) 12.50′																									
PROJECT TOTALS				391.61′	101.72′										GUARDRAIL ANCHOR DEDUCTIONS														
																1 GREU TYPE TL–3 @ 50.00′			= 50.00′										
SAY				425.00′	125.00′											1 CAT–1 @ 6.25′			= 6.25										
																2 AT–1 @ 6.25′			= 12.50′										
																			= 68.75′										
ADDITIONAL GUARDRAIL POSTS = 5 EACH																														

11/16/2023
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USER:bam

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R4L-W5077

COMPUTED BY: MLH DATE: 3/18/2022

CHECKED BY: DATE:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5702R	3D-1

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

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

| LINE & STATION | OFFSET | | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | % MINIMUM REQUIRED SLOPE | Drainage Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | DO NOT USE PVC | DO NOT USE PP PIPE | C. A. A. PIPE SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | THICKNESS OR GAUGE .064 | .064 | .064 | .079 | .079 | .109 | .109 | R. C. PIPE CLASS III SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | R. C. PIPE CLASS IV SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | R. C. PIPE CLASS V SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | 24" SIDE DRAIN PIPE | ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B) A 0' THRU 5' EACH | A 5' THRU 10' LIN. FT. | B 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06 | C.B. STD. 852.05 | OPEN THROAT C.B. STD. 840.04 OR STD. 840.05 | CONCRETE BRIDGE APPROACH D.I. STD. 840.13 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24 | G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24 | G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29 | FLOWABLE FILL CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---

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COMPUTED BY: mlh DATE: 11/14/2023

CHECKED BY: DATE:

PROJECT NO.	SHEET NO.
W-5702G	3D-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

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

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

| LINE & STATION | OFFSET | | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | Side Drain Pipe (RCP, CSP, CAAP, HDPE, PVC, or PP PIPE) SIZE 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | Side Drain Pipe THICKNESS OR GAUGE: DO NOT USE RCP | DO NOT USE CSP | DO NOT USE HDPE | DO NOT USE PVC | DO NOT USE PP PIPE | C. S. PIPE .064 12 | .064 15 | .064 18 | .064 24 | R. C. PIPE CLASS III 12 | 15 | 18 | 24 | 30 | 36 | 42 | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | R. C. PIPE CLASS V 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | ENDWALLS STD. 838.11 AND STD. 838.11 (UNLESS NOTED OTHERWISE) CY | REINFORCED ENDWALLS CY | DRAINAGE STRUCTURE MASONRY CY | QUANTITIES FOR DRAINAGE STRUCTURES NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B) A: 0' THRU 5' EACH | A: 5' THRU 10' LIN. FT. | B: 10' AND ABOVE LIN. FT. | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 GRATE TYPE E | F | G | CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06 | C.B. STD. 852.05 | OPEN THROAT C.B. STD. 840.04 OR STD. 840.05 | CONCRETE BRIDGE APPROACH D.I. STD. 840.13 | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATES STD. 840.16 | G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26 | G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27 | G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28 | G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20 | G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20 | G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22 | G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22 | MODIFIED CONCRETE FLUME SEE SHEET 2C-7 | N.D.I SEE SHEET 2C-3 | N.G.D.I. FRAME AND GRATE SEE SHEET 2C-4 | T.B.D.I. STD. 840.35 | T.B.D.I. FOR STEEL GRATES STD. 840.36 | STEEL FRAME WITH TWO GRATES STD. 840.37 | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---

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PROJ. REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	CAROLYN S. ERSKINE
2	5	DONALD FRANLIN HARDING
3	5	CLARENCE MCKINDLEY HARDING
4	5,6	BEAVER DAM
5	6,7	RONALD W. ASBY
6	8	JAMES SNYDER
7	8	CHARLES SINGLETON
8	8-10	BEAUFORT COUNTY COMMUNITY COLLEGE
9	10	COUNTY OF BEAUFORT
10	10	SOHIR ASHKAR
11	11	RICHARD WOOLARD
12	11	JOHN BALDWIN

PARCEL No.	SHEET No.	PROPERTY OWNER NAME

DocuSign Envelope ID: 16311966-9EDC-40B1-A3D4-2A1A5D2BA24F

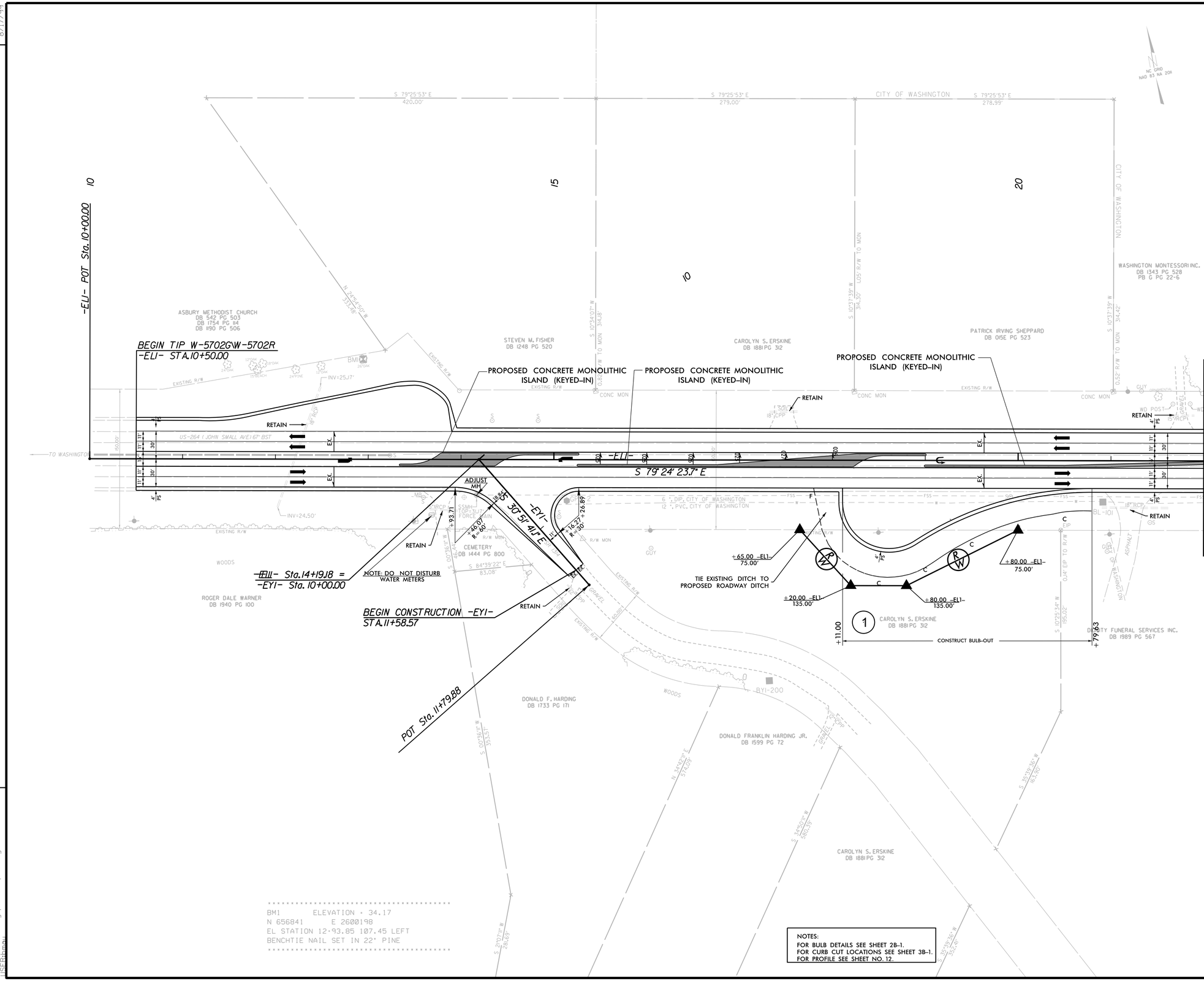
PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY

HYDRAULICS ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NOTES:
FOR BULB DETAILS SEE SHEET 2B-1.
FOR CURB CUT LOCATIONS SEE SHEET 3B-1.
FOR PROFILE SEE SHEET NO. 12.

REVISIONS

8/17/99

11/16/2023
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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
Bob A. May
5130644244294 9

HYDRAULICS ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Matthew L. Harvey
5130644244294 9

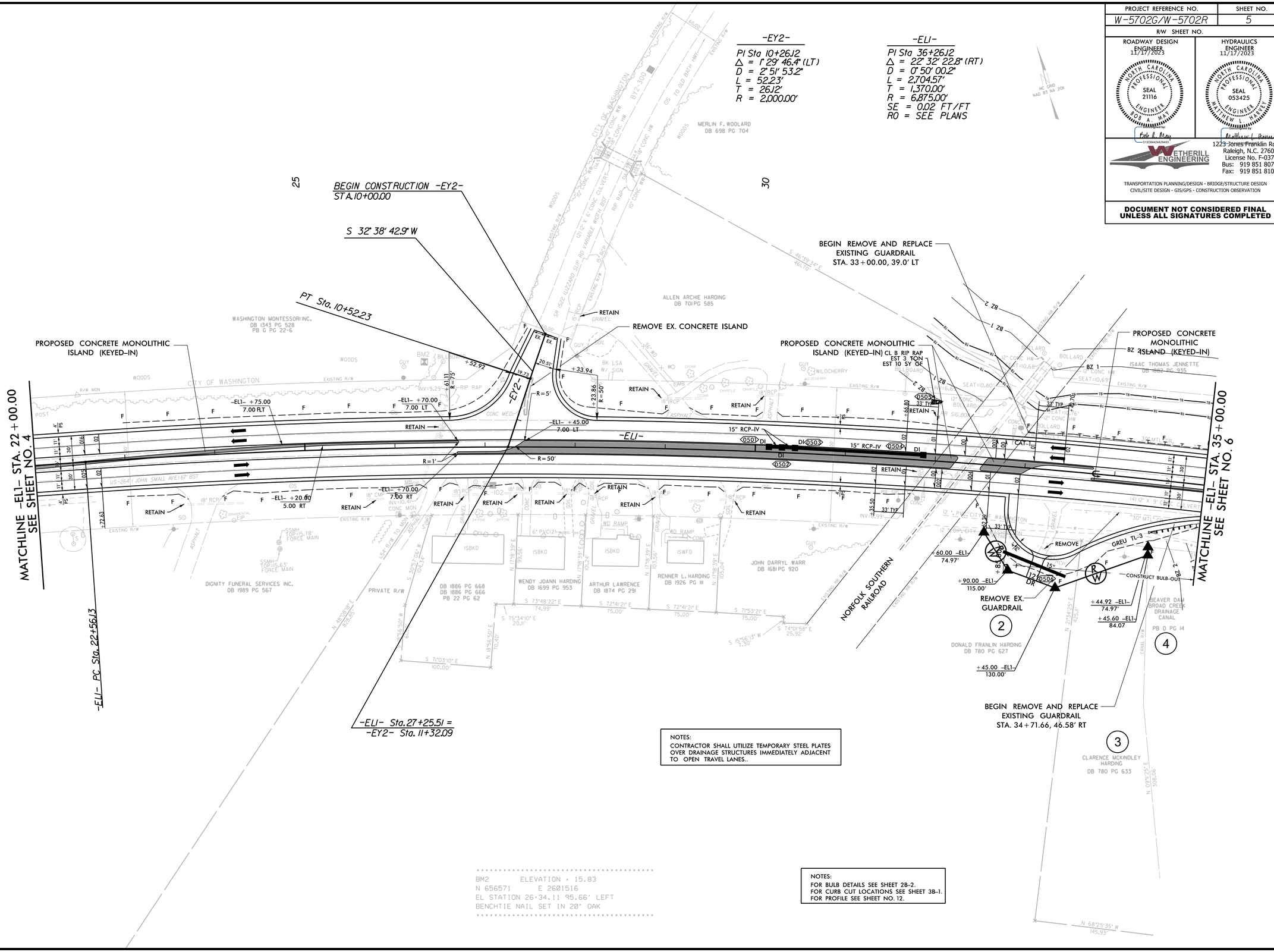
WETHERILL ENGINEERING
1223 Jones Franklin Rd.
Raleigh, N.C. 27606
License No. F-0377
Bus: 919 851 8077
Fax: 919 851 8107

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-EY2-
PI Sta 10+26.12
Δ = 1° 29' 46.4" (LT)
D = 2° 51' 53.2"
L = 52.23'
T = 26.12'
R = 2,000.00'

-ELI-
PI Sta 36+26.12
Δ = 22° 32' 22.8" (RT)
D = 0° 50' 00.2"
L = 2,704.57'
T = 1,370.00'
R = 6,875.00'
SE = 0.02 FT/FT
RO = SEE PLANS



NOTES:
CONTRACTOR SHALL UTILIZE TEMPORARY STEEL PLATES OVER DRAINAGE STRUCTURES IMMEDIATELY ADJACENT TO OPEN TRAVEL LANES..

BM2 ELEVATION = 15.83
N 656571 E 2601516
EL STATION 26+34.11 95.66' LEFT
BENCHTIE NAIL SET IN 20" OAK

NOTES:
FOR BULB DETAILS SEE SHEET 2B-2.
FOR CURB CUT LOCATIONS SEE SHEET 3B-1.
FOR PROFILE SEE SHEET NO. 12.

REVISIONS

8/17/99

11/16/2023
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USER:bmay

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
Docu Signed by: Bob A. May
5130844244294937

HYDRAULICS ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Docu Signed by: Matthew L. Harvey
5130844244294937

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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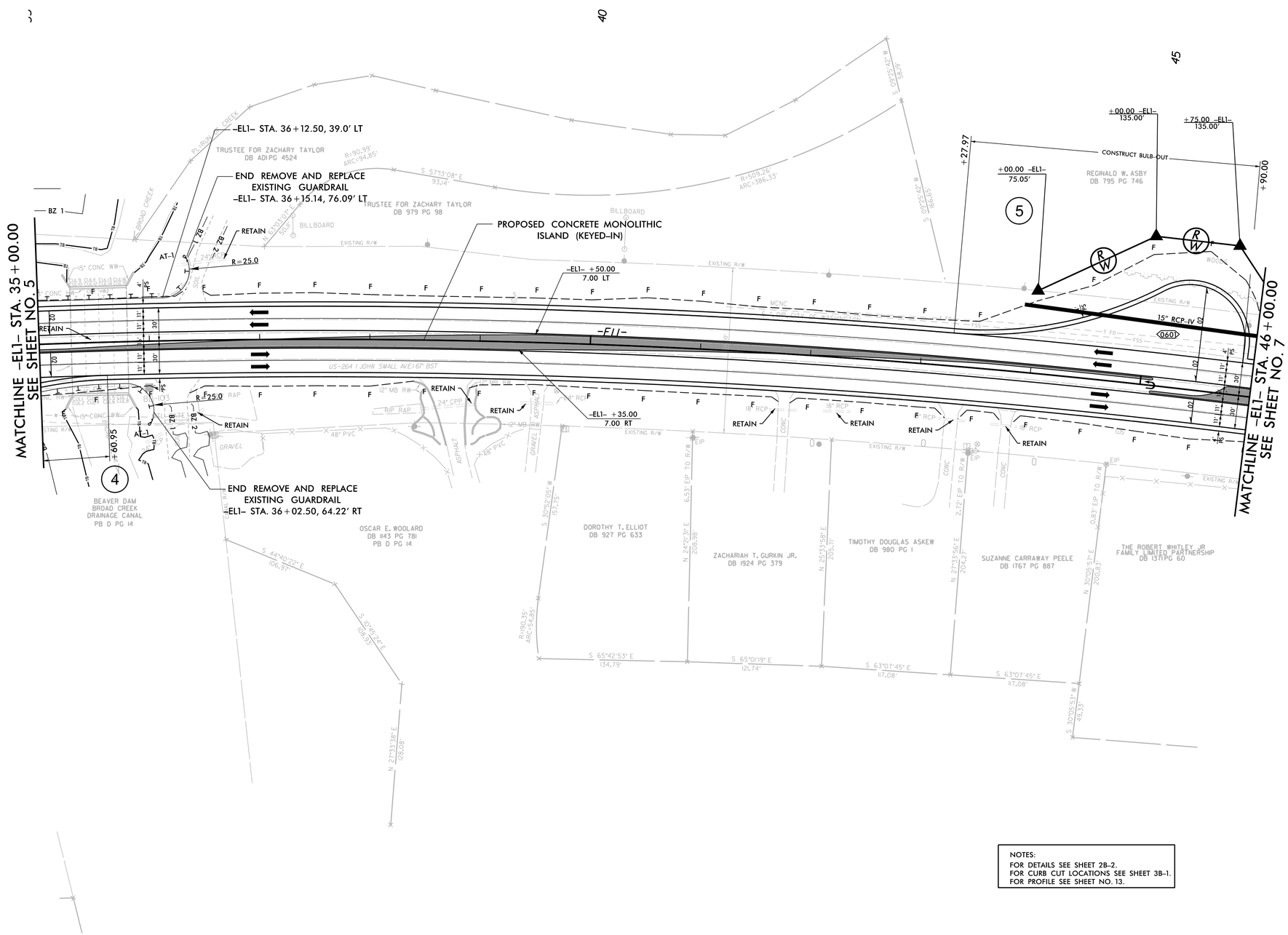
-EL1-
PI Sta 36+26.12
Δ = 22° 32' 22.8" (RT)
D = 0° 50' 00.2"
L = 2,704.57'
T = 1,370.00'
R = 6,875.00'
SE = 0.02 FT/FT
RO = SEE PLANS



NOTES:
FOR DETAILS SEE SHEET 2B-2.
FOR CURB CUT LOCATIONS SEE SHEET 3B-1.
FOR PROFILE SEE SHEET NO. 13.

REVISIONS

8/17/99

11/16/2023
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USER:bmay

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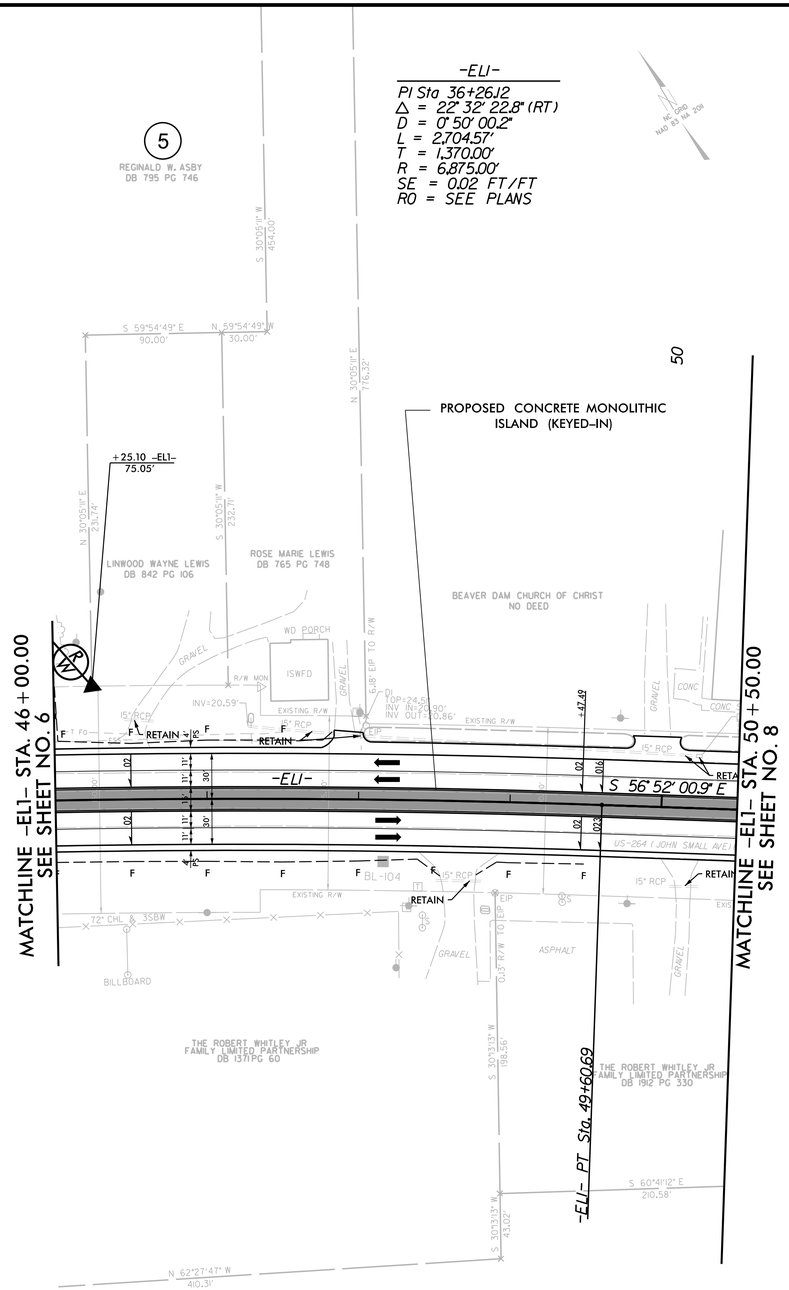

PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	7
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROB A. MAY
Docu Signed by:
Rob A. May
5130844242049E3...

HYDRAULICS ENGINEER
11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Docu Signed by:
Matthew L. Harvey
5130844242049E3...

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

NOTES:
FOR DETAILS SEE SHEET 2B-2.
FOR CURB CUT LOCATIONS SEE SHEET 3B-1.
FOR PROFILE SEE SHEET NO. 13.

11/16/2023
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USER:bmay

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	8
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER ROBERT A. MAY

Robert A. May
5130844244294931

HYDRAULICS ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY

Matthew L. Harvey

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

-EL2-
PI Sta 19+55.03
Δ = 11° 11' 27.0" (LT)
D = 3° 12' 00.0"
L = 349.71'
T = 175.44'
R = 1,790.73'

NC GRID
NAD 83 NSRS 2011

10 | 15

MATCHLINE -EL1- STA. 50+50.00
SEE SHEET NO.7

MATCHLINE -EL2- STA. 20+00
SEE SHEET NO.9

-EL2- PC Sta.17+79.59

8
BEAUFORT COUNTY COMMUNITY COLLEGE
DB 630 PG 235
MB 20 PG 10

BEAUFORT COUNTY COMMUNITY COLLEGE
DB 630 PG 235
PB 20 PG 10

BM#3 - 22" MAPLE
-EL- STA. 13+57.03 93.25' LT
ELEVATION = 21.53'
N 655354 E 2604100
N 42° 09'44.6" W

BM#3

2SBK CHURCH

ASPHALT

CONC

EXISTING R/W VARIES

INV=14.27'
0807
INV=13.91'
N 30°58'23" E
89.25'
56°11'37" W
60.00'
EIPO
18" RCP
N 33°28'23" E
183.03' R/W TO EIP

+8.78 -EL-
54.60 LT
+25.00 -EL-
60.00 LT
+75.00 -EL-
70.00 LT

MCNC, FO
RETAIN
FSS
6" PVC
T FO
2UTL
BL#5
INV=19.03'
18" RCP
0802
+79.69 -EL-
60.03 LT
R/W NON
+25.00 -EL-
69.00 LT
EXISTING R/W VARIES

City of Washington

480' STORAGE LENGTH
200' TAPER LENGTH
US 264/ JOHN SMALL AVE, 68' PAVED ROADWAY
S 56°52'00.9" E
-EL2
S 56°52'00.9" E

80'
0806
2GI
2GI
18" RCP-IV
18" RCP
NDI
0810
15" RCP-IV
0809
DI
0808
EK
PS
ED
+05.00
+00.00

BEGIN 2'-6" R/S&G
+50.00, 39.40' RT
+00.00 -EL-
62.5 RT
15" RCP
INV=22.09'
0801
12" PVC
2'-6" C&G
12" DIP
EXISTING R/W VARIES
FLOWABLE FILL
CB
0802
24"
END 2'-6" C&G
+52.92 -EL-
13' 19.49' 43.73' LT
INV=23.64'
+19.06 -EL-
62.08 RT
+35.23 -EL-
62.02 RT
+76.56 -EL-
107.00 RT
15" RCP-IV
+12.00 -EL-
97.00 RT
NEW DWY ACCESS. SEE TYPICAL 8.
-14.03 -EL-
107.00 RT
+80.00 -EL-
97.00 RT
+17.70 -EL-
63.00 RT
+95.58 -EL-
61.52 RT
JAMES SNYDER
DB E PG 105
THE ROBERT WHITLEY FAMILY LIMITED PARTNERSHIP
DB 1967 PG 93
CHARLES SINGLETON
DB 1767 PG 89
CHARLES ANTHONY
DB 1767 PG 89
6
7
N 31°40'25" E
183.68'
N 31°40'25" E
151.41'
N 31°40'25" E
9.82'
+46.00
+09.09
N 60°51'08" W
335.60'
N 60°25'09" W
143.61'
S 28°54'27" W
153.36'
2.4% R/W
CONSTRUCT BULB-OUT

-EL1- Sta 51+18.75 BK =
-EL2- Sta 10+00.00 AH

BM3 ELEVATION = 27.49
N 655425 E 2603711
EL STATION 51+11.32 60.29 RIGHT
BENCHTIE NAIL SET IN 27" PINE

NOTES:
FOR PROFILES SEE SHEET 13 & 14.
FOR DETAILS SEE SHEET 28-1

XX DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

11/16/2023
W-5702G_W-5702R_RDY_PSH_08_plan.dgn
USER:Rhmoll

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	9
R/W SHEET NO.	

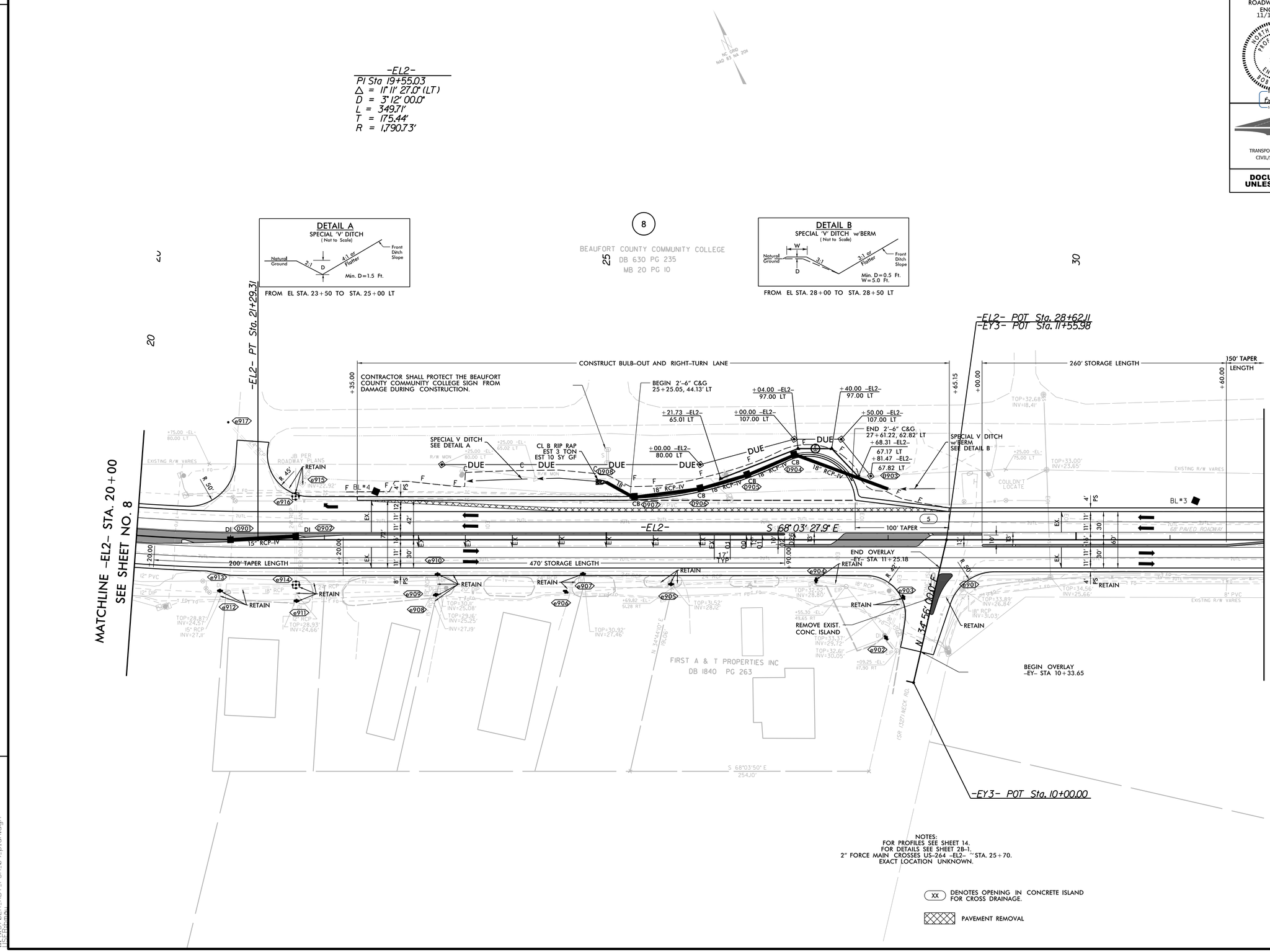
ROADWAY DESIGN ENGINEER 11/17/2023
SEAL 21116
NORTH CAROLINA PROFESSIONAL ENGINEER ROB A. MAY

HYDRAULICS ENGINEER 11/17/2023
SEAL 053425
NORTH CAROLINA PROFESSIONAL ENGINEER MATTHEW L. HARVEY

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



NOTES:
FOR PROFILES SEE SHEET 14.
FOR DETAILS SEE SHEET 2B-1.
2" FORCE MAIN CROSSES US-264 -EL2- ~ STA. 25+70.
EXACT LOCATION UNKNOWN.

XX DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

8/17/99

11/16/2023
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USERthomp

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	10
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
11/17/2023
SEAL 21116
ROB A. MAY

HYDRAULICS ENGINEER
11/17/2023
SEAL 053425
MATTHEW L. HARVEY

ETHERILL 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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS 8/17/99

DETAIL C
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)
NATURAL GROUND
3:1
3:1
B
Min. D = 0.5 Ft.
B = 4.0 Ft.
FROM EL STA. 36+50 TO STA. 38+20 LT

-EL2-
PI Sta 37+89.44
△ = 19° 48' 24.0" (LT)
D = 2° 00' 00.0"
L = 990.33'
T = 500.18'
R = 2,864.93'

NC GRID
NAD 83 NA 2011

BEAUFORT COUNTY COMM COLLEGE
DB 360 PG 235
MB 20 PG 10

COUNTY OF BEAUFORT
DB 1732 PG 386
PC H 42-5

SOHIR ASHKAR
DB 1896 PG 313

PEGGY WOOLARD
DB 694 PG 519

MATCHLINE -EL2- STA. 32+00
SEE SHEET NO. 9

MATCHLINE -EL2- STA. 44+00
SEE SHEET NO. 11

-EL2- PC Sta. 32+89.26
-EL2- PT Sta. 42+79.59
150' TAPER LENGTH
420' STORAGE LENGTH
270' STORAGE LENGTH
CONSTRUCT BULB-OUT
+10.00
+51.09
+09.30
+25.17
+74.71
+55.00
+25.00
+30.00

BM#2 - 27" PINE
-EL- STA. 34+10.31 89.75' LT
ELEVATION = 37.06'
N 654492 E 260593

BM#2
BL#2

+32.00 -EL2- 73.45 LT
+07.68 -EL2- 74.24 LT
+39.41 -EL2- 124.85 LT
+39.58 -EL2- 114.85 LT
+22.11 -EL2- 125.03 LT
+22.44 -EL2- 115.02 LT
SPECIAL BACK OF CURB DITCH SEE DETAIL C

+65.00 -EL2- 70.00 RT
+79.94 -EL2- 70.00 RT
+65.00 -EL2- 97.24 RT
+05.00 -EL2- 97.00 RT
+92.72 -EL2- 127.12 RT
+56.34 -EL2- 70.00 RT
+93.01 -EL2- 70.00 RT
+45.00 -EL2- 97.00 RT
+52.37 -EL2- 127.06 RT

BEGIN 2'-6" C&G 39+88.69 69.37' RT
END 2'-6" C&G 41+24.36 49.39' RT
CL B RIP RAP EST 2 TON
EST 7 SY GF
CONCRETE DWY REPAIRS

MCF 1007
MCF 1009
MCF 1010
C&G MCF 1008
DI 1003
CB 1004
CB 1005
15" RCP
18" RCP
RETAIN
EX.
PS
4'
60'
80'
30'
11'
12'
13'
10'
S 15°38' 286.2'
S 16°01'26" W 269.47'
S 16°01'05" W 120.26'
N 09°27'28" E 713.83'
S 00°08'42" E 263.02'
N 85°47'00" E 96.99'
S 00°13'44" W 46.98'
S 84°36'19" E 107.40'
N 80°43'00" W 364.02'

NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 2B-2.

(XX) DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

11/16/2023
W-5702G_W-5702R_RDY_PSH_10_plan.dgn
USER: hharris

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PROJECT REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	11
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER 11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY

Docusigned by: Bob A. May

HYDRAULICS ENGINEER 11/17/2023

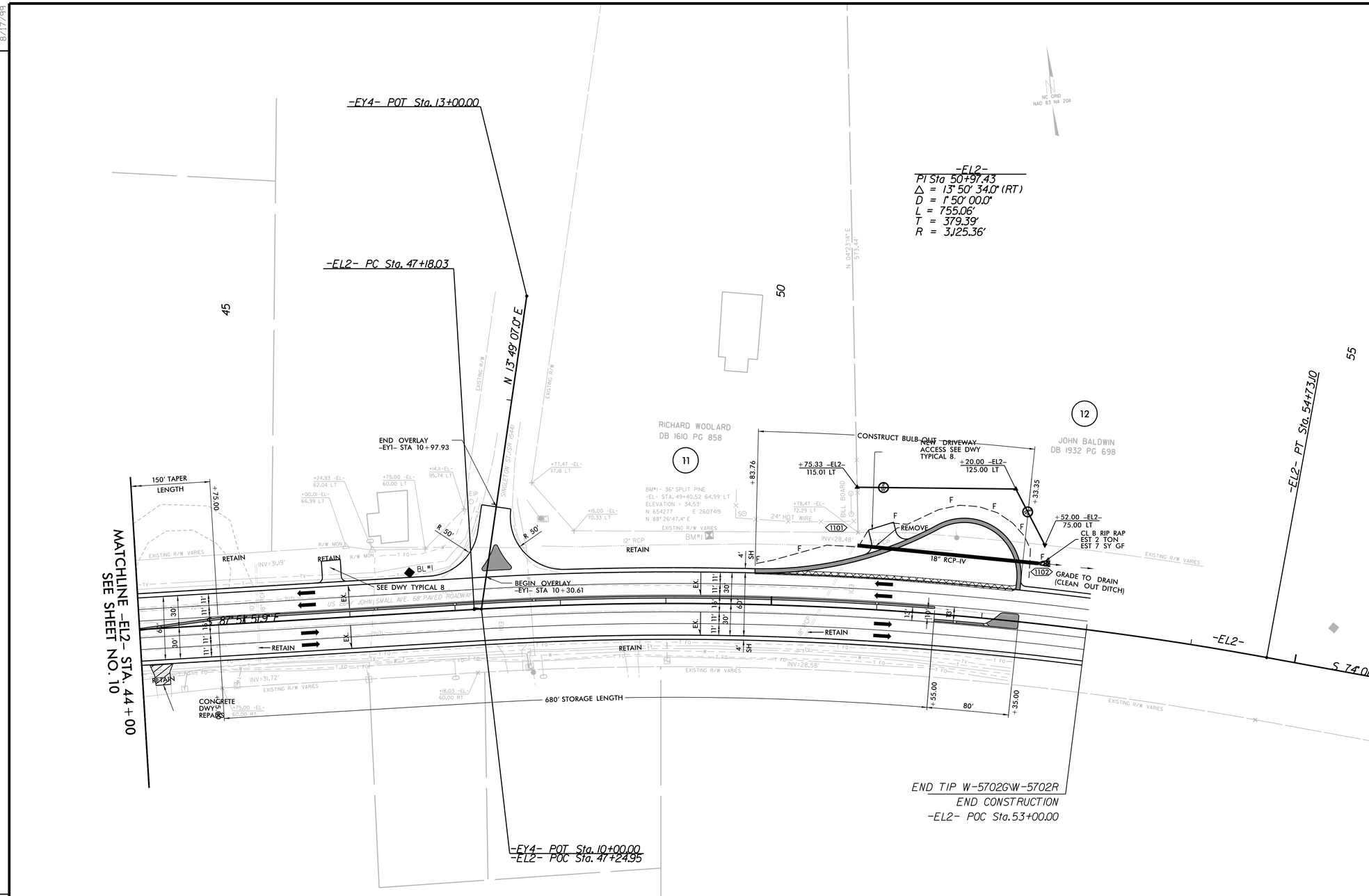
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY

Docusigned by: Matthew L. Harvey

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 2B-2.

XX DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

REVISIONS

8/17/99

11/16/2023
W-5702R_RDY_PSH_11_plan.dgn
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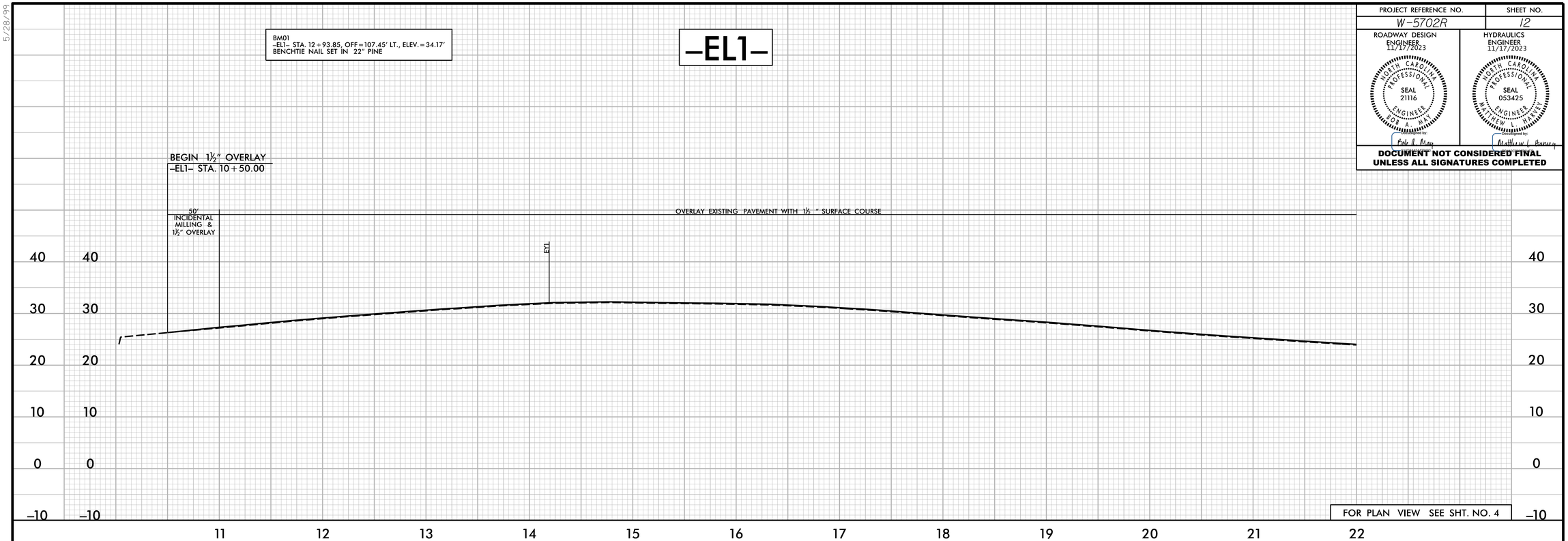
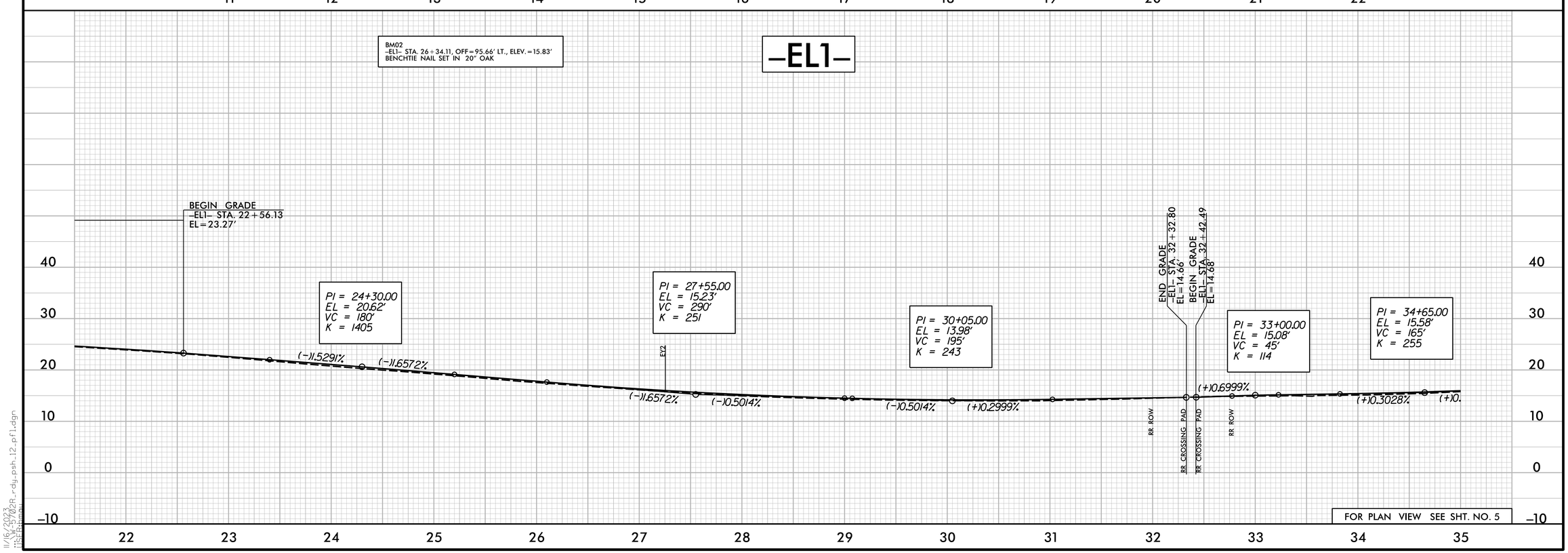
PROJECT REFERENCE NO.	SHEET NO.
W-5702R	12

ROADWAY DESIGN ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
Docusigned by: Bob A. May
Not Yet Reviewed

HYDRAULICS ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Docusigned by: Matthew L. Harvey
Not Yet Reviewed

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





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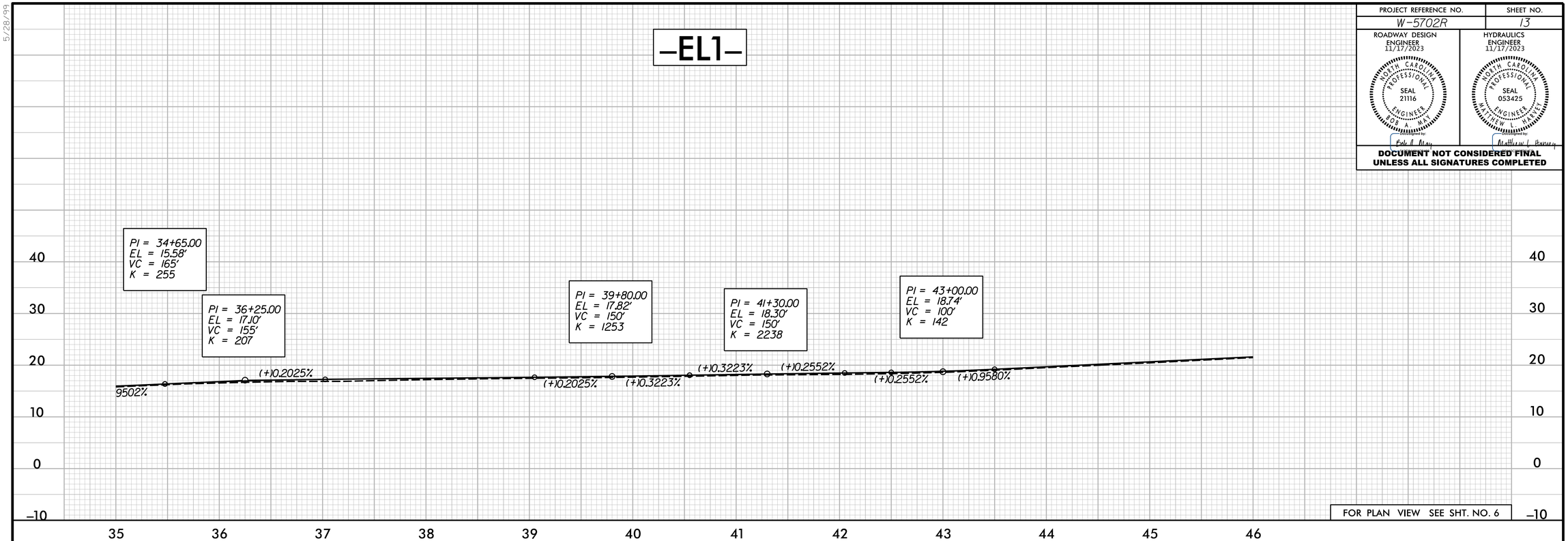
PROJECT REFERENCE NO.	SHEET NO.
W-5702R	13

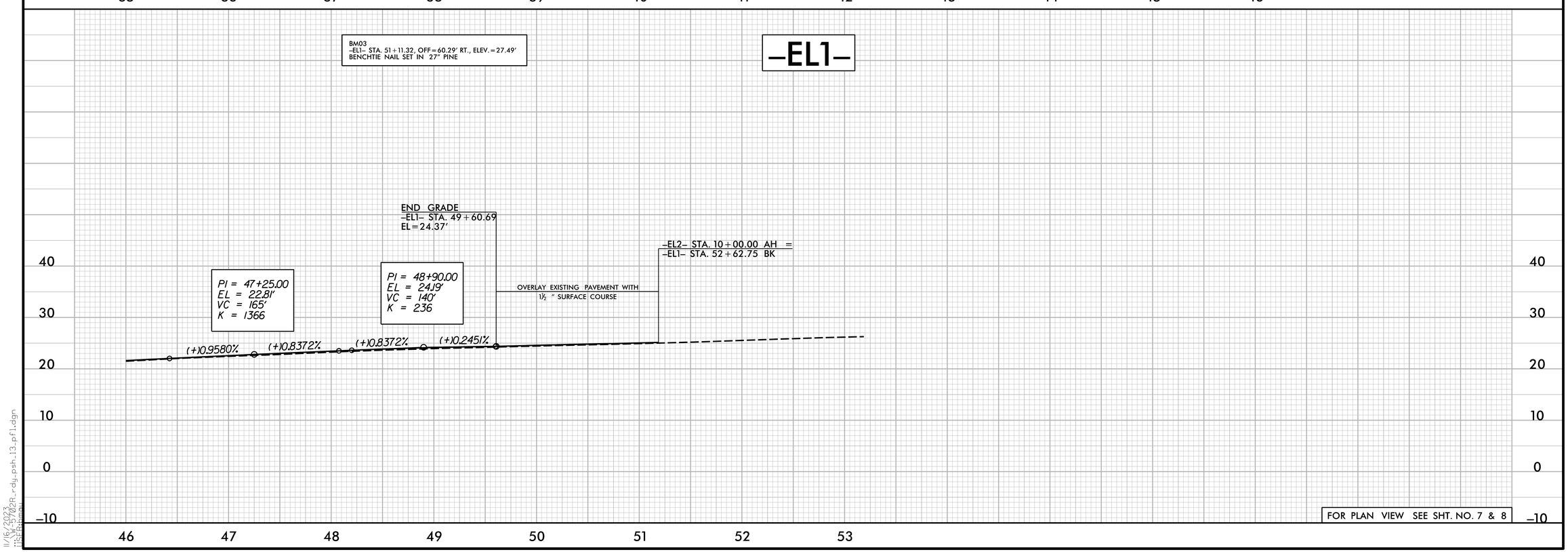
ROADWAY DESIGN ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
Docu Signed by: Bob A. May

HYDRAULICS ENGINEER 11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Docu Signed by: Matthew L. Harvey

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



FOR PLAN VIEW SEE SHT. NO. 6



FOR PLAN VIEW SEE SHT. NO. 7 & 8

5/28/99

11/16/2023
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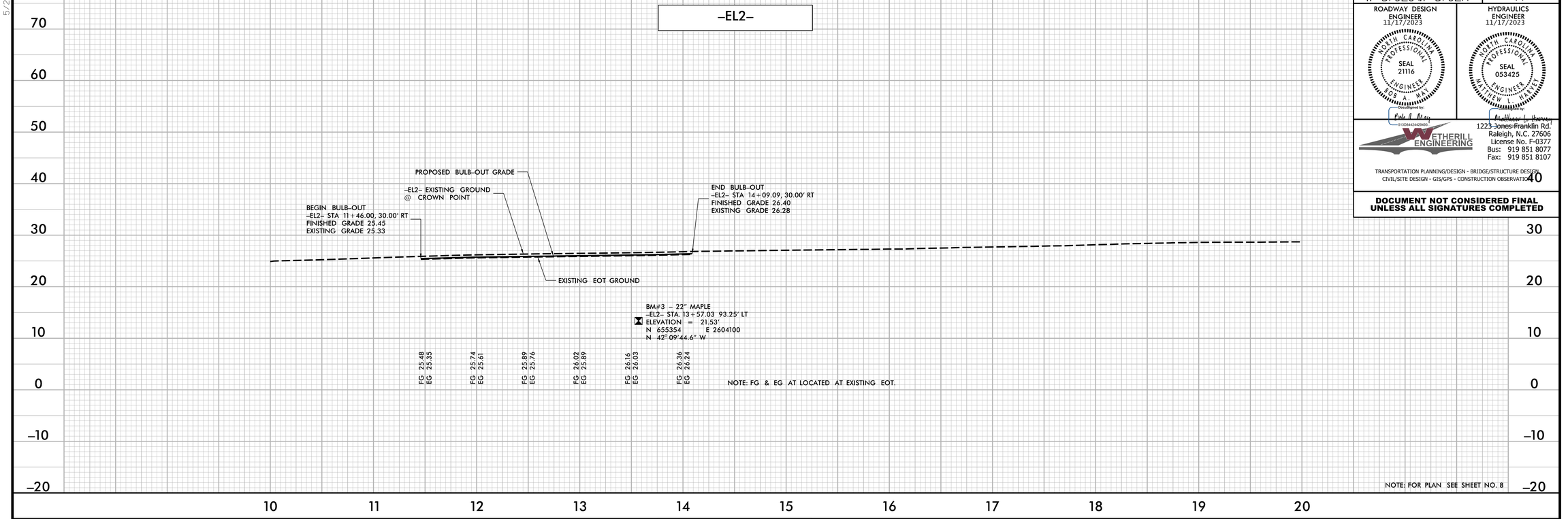
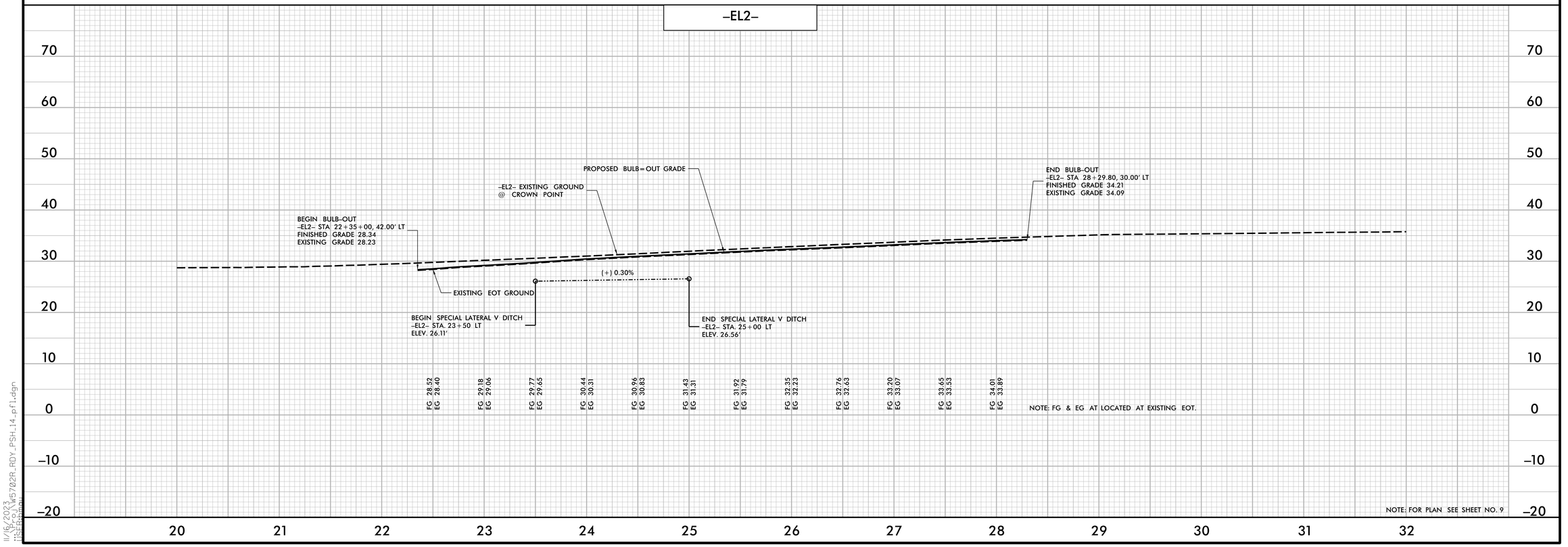
5/28/99





PROJECT REFERENCE NO.	SHEET NO.
W-5702GW-5702R	14

ROADWAY DESIGN ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOBBY A MAY

Docusigned by: Bobby A May
510D8482426493...

HYDRAULICS ENGINEER
11/17/2023

NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L HARVEY

Docusigned by: Matthew L Harvey
5D3B4E3A2A2E4E3...

ETHERILL 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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PROJECT REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	15

ROADWAY DESIGN ENGINEER
11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 21116 ENGINEER BOB A. MAY
Designed by: Bob A. May
51308442442949

HYDRAULICS ENGINEER
11/17/2023
NORTH CAROLINA PROFESSIONAL SEAL 053425 ENGINEER MATTHEW L. HARVEY
Designed by: Matthew L. Harvey

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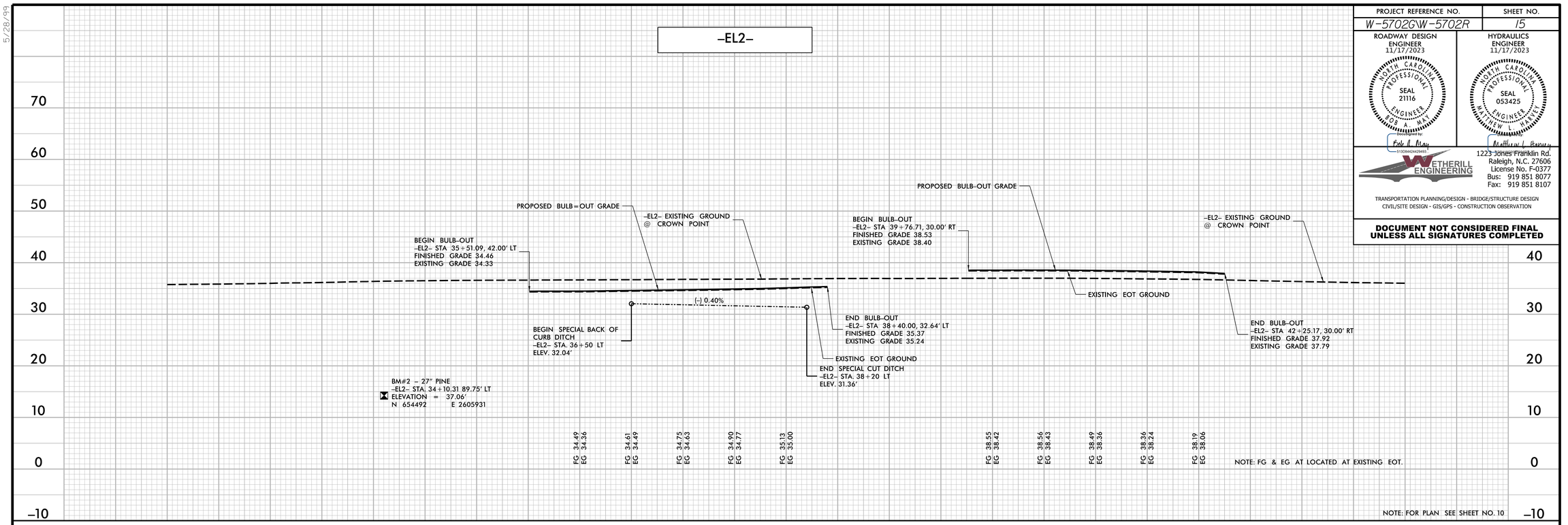
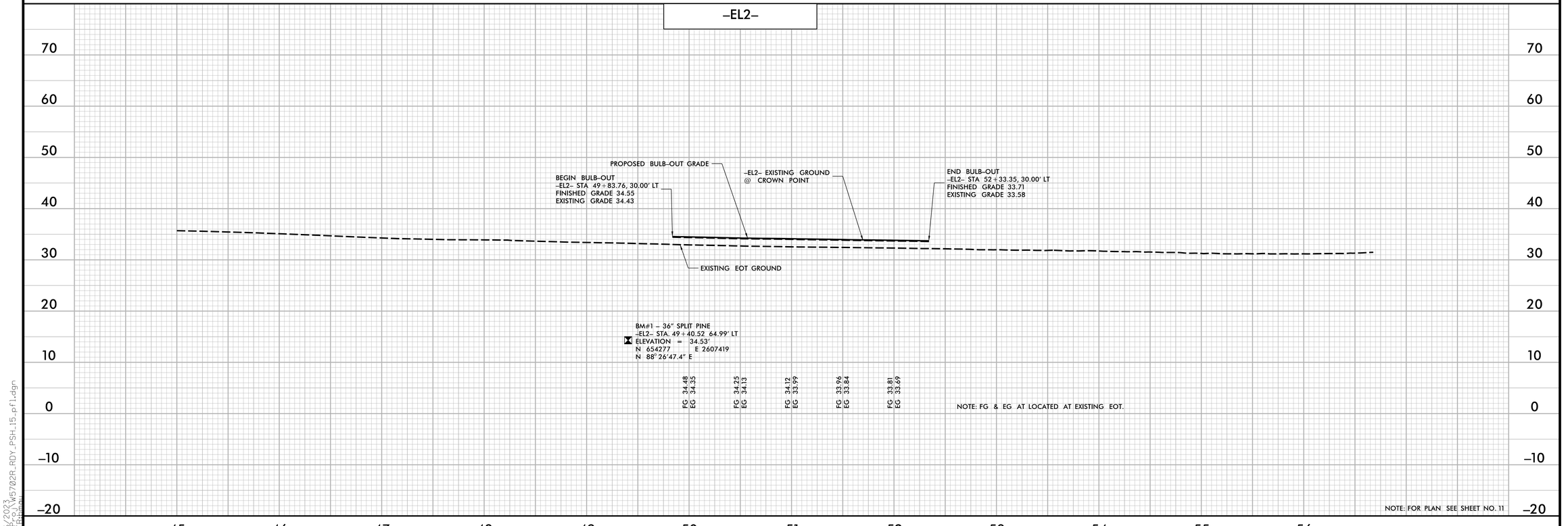
TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





5/28/99

11/16/2023
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USER:bmay

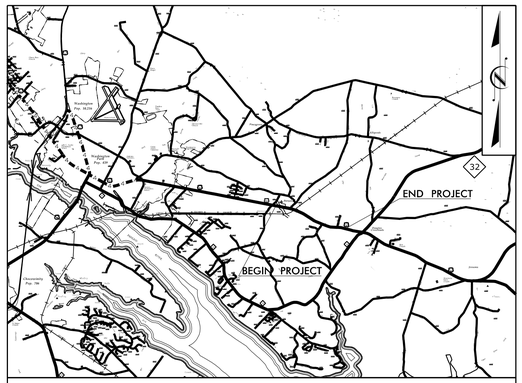
DocuSign Envelope ID: 9786840E-40A9-477F-A988-4C14371186D6

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

BEAUFORT COUNTY





VICINITY MAP = NOT TO SCALE

LOCATION: *US 264 FROM APPROXIMATELY 800' EAST OF SR 1311 (ASBURY CHURCH RD.) TO 0.45 MILES WEST OF NC 32 NEAR BEAUFORT COMMUNITY COLLEGE IN WASHINGTON.*

TYPE OF WORK: *RESURFACING, WIDENING, DRAINAGE, PAVEMENT MARKING AND SIGNING*



WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

PLANS PREPARED BY:

BOB MAY, P.E.

D. ALLEN HAYES, E.I.

NCDOT CONTACTS:

LARRY L. JONES, P.E.
DIVISION PROJECT ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-01	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-01A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS AND LEGEND
TMP-02	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-03	TEMPORARY TRAFFIC CONTROL PHASING
TMP-04 THRU 11	PHASE I DETAIL
TMP-12 THRU 17	PHASE II DETAIL

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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
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DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 047751 ENGINEER BOB A. MAY

SHEET NO.
TMP-01

W-5702G\W-5702R

TIP PROJECT:

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W-5702G/W-5702R	TMP-01A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - 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
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.15	PAVEMENT MARKINGS - SUPERSTREETS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- DRUM
- SKINNY DRUM

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION	PAY ITEM
P1	WHITE SOLID EDGE LINE	PAINT
P3	10 FT. - 30 FT./SP WHITE SKIP	PAINT
P4	3 FT. - 9 FT./SP WHITE MINISKIP	PAINT
P77	U-TURN ARROW	PAINT PAVEMENT MARKING SYMBOLS

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LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND

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W-5702G/W-5702R	TMP-02

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
1. -EL-	6:00 A.M. - 8:30 A.M. 4:30 P.M. - 7:00 P.M. MONDAY - FRIDAY

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

1. -EL- US 264

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

H) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

I) DO NOT INSTALL MORE THAN 1 MILE OF LANE CLOSURE ON US 264 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

J) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US 264.

PAVEMENT EDGE DROP OFF REQUIREMENTS

K) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

   BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

   BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

   BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

L) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT/MI IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

M) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

N) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

Q) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

R) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

S) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
1. US 264	PAINT	NONE

T) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

U) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

V) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

W) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

X) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

Y) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 500 FT AND 500 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

Z) ALL STATIONS ARE CONSIDERED +/- UNLESS OTHERWISE SHOWN ON THE PLANS.

AA) WHEN CONSTRUCTING DRAINAGE STRUCTURES ADJACENT TO TRAFFIC, INSTALL TEMPORARY STEEL PLATES, AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY WORK EACH LOCATION INDEPENDENTLY OR CONCURRENTLY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WORK IN A CONTINUOUS MANNER TO PERFORM THE WORK IN THE FOLLOWING SEQUENCE, STEPS '1' THRU '5'.

1: CLOSE THE APPROPRIATE TRAVEL LANE TO TRAFFIC USING ROADWAY STANDARD DRAWING NO. 1101.02.

2: CONSTRUCT PROPOSED STRUCTURE OR INSTALL PRE-CAST DRAINAGE STRUCTURE AS SHOWN IN THE CONSTRUCTION PLANS AND COVER WITH STEEL PLATES TO PROTECT STRUCTURE DURING CURING.

3: OPEN TRAVEL LANE TO EXISTING TRAFFIC PATTERN BY THE END OF EACH WORK PERIOD.

4: WHEN PROPERLY CURED, CLOSE THE APPROPRIATE TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02. BACKFILL & PAVE, IF REQUIRED, UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT (SEE CONSTRUCTION PLANS).

5: OPEN TRAVEL LANE TO EXISTING TRAFFIC PATTERN BY THE END OF THE WORK PERIOD.

BB) THE CONTRACTOR SHALL MAINTAIN ACCESS TO RESIDENTS AND BUSINESSES DURING CONSTRUCTION.

LOCAL NOTES

NOTIFY BEAUFORT COUNTY EMERGENCY SERVICES AND BEAUFORT COUNTY COMMUNITY COLLEGE AT LEAST THIRTY DAYS PRIOR TO CONSTRUCTION.

CALL 811 BEFORE YOU DIG.

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
- LANE SHIFTS OR CLOSURES
- SHOULDER CLOSURES
- ONE-LANE, TWO WAY OPERATION (FLAGGING)
- WORK HOUR RESTRICTIONS FOR PEAK TRAVEL

TRAFFIC / INCIDENT MANAGEMENT & SPEED ENFORCEMENT STRATEGIES:
- DEDICATED (PAID) LAW ENFORCEMENT

ETHERILL ENGINEERING
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Raleigh, N.C. 27606
License No. F-0377
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Fax: 919 851 8107
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TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES), AND TEMPORARY TRAFFIC CONTROL PHASING

11/21/2023
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W-5702G/W-5702R	TMP-03

NOTES:

BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL WORK ZONE ADVANCE WARNING SIGNS PER RSD 1101.01 ON -EL-, -EY- AND -EY1-.

CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO ALL RESIDENCES, BUSINESSES AND SIDE STREETS THROUGHOUT THE DURATION OF THE CONTRACT UNLESS OTHERWISE NOTED IN PHASING OR DIRECTED BY THE ENGINEER. FOLLOW THE TIME RESTRICTIONS AND REQUIREMENTS SHOWN IN THE GENERAL NOTES AND AS DIRECTED BY THE ENGINEER.

COMPLETE ANY PROPOSED WORK IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANE. STEEL PLATES MAY BE USED TEMPORARILY OVER DRAINAGE FEATURES ADJACENT TO TRAVEL WAY.

PAVE PROPOSED CONSTRUCTION, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE IN ALL PHASES UNTIL STATED TO INSTALL FINAL LAYER.

THE TERM ''RSD'' DENOTES ROADWAY STANDARD DRAWING.

PHASE I

***REFER TO SHEETS TMP-4 THRU TMP-10 FOR DETAILS
TRAFFIC WILL BE MAINTAINED IN THE CURRENT PATTERN FOR PHASE I.
***STEPS 1 THRU 2 MAY BE COMPLETED IN ANY ORDER BUT NOT SIMULTANEOUSLY. ***

STEP 1: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEET 3 OF 14, CONTRACTOR SHALL CLOSE THE RIGHT LANE OF US-264 EASTBOUND.

CONSTRUCT PROPOSED WIDENING FOR BULB-OUTS AND ASSOCIATED DRAINAGE AT THE FOLLOWING LOCATIONS:
- *-EL- FROM STA. 18+07 +/- TO STA. 20+80 +/- RT (W-5702R)*
- *-EL- FROM STA. 32+80 +/- TO STA. 35+61 +/- RT (W-5702R)*
- *-EL- FROM STA. 11+46 +/- TO STA. 14+40 +/- RT (W-5702G)*
- *-EL- FROM STA. 39+76 +/- TO STA. 42+25 +/- RT (W-5702G)*

CONTRACTOR SHALL ALSO INSTALL DRIVEWAY PIPES REPLACEMENTS AND ADJUST DRAINAGE STRUCTURES AS SHOWN IN TMP-4 THRU TMP-10.

STEP 2: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEET 3 OF 14, CONTRACTOR SHALL CLOSE THE RIGHT LANE OF US-264 WESTBOUND.

CONSTRUCT PROPOSED WIDENING FOR BULB-OUTS, ASSOCIATED DRAINAGE AND RIGHT TURN LANES AT THE FOLLOWING LOCATIONS:
- *-EL- FROM STA. 43+28 +/- TO STA. 45+94 +/- LT (W-5702R)*
- *-EL- FROM STA. 22+35 +/- TO STA. 28+70 +/- LT (W-5702G)*
- *-EL- FROM STA. 35+51 +/- TO STA. 38+20 +/- LT (W-5702G)*
- *-EL- FROM STA. 49+83 +/- TO STA. 52+50 +/- LT (W-5702G)*

CONTRACTOR SHALL ALSO INSTALL DRIVEWAY PIPES REPLACEMENTS AS SHOWN IN TMP-4 THRU TMP-10.

PHASE II

REFER TO SHEETS TMP-11 THRU TMP-17 FOR DETAILS

CHANGEABLE MESSAGE SIGNS (CMS) SHALL BE USED ON -EL- (US-264) AND -EY- (NECK ROAD) TO NOTIFY ON NEW TRAFFIC PATTERN AS NEEDED DURING STEP 3.

STEP 1: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEETS 3 AND 7 OF 14, CONTRACTOR SHALL REMOVE THE EXISTING PAVEMENT MARKINGS IN THE EASTBOUND AND WESTBOUND THROUGH LANES OF -EL- US 264. THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS AND MARKERS. NARROW THE THROUGH LANES TO 11 FEET AS SHOWN IN TMP-8 THRU TMP-11.

THE CONTRACTOR SHALL COMPLETE PHASE II, STEP 2 WITHIN 60 CONSECUTIVE CALENDAR DAYS. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 2: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEET 3 OF 14, CONTRACTOR SHALL TEMPORARILY CLOSE THE LEFT LANE OF US-264 EASTBOUND AND THE LEFT LANE OF US-264 WESTBOUND.

CONSTRUCT THE ASSOCIATED MEDIAN DRAINAGE AT THE FOLLOWING LOCATIONS:
- *-EL- FROM STA. 11+45 +/- TO STA. 52+35 +/- (W-5702G)*
- *-EL- FROM STA. 13+34 +/- TO STA. 52+65 +/- (W-5702R)*

THE CONTRACTOR SHALL USE DRUMS AND/OR SKINNY DRUMS TO MAINTAIN ACCESS FOR BUSINESSES AND RESIDENTS DURING CONSTRUCTION. CONTRACTOR SHALL BACKFILL AND PAVE, IF REQUIRED, UP TO THE EDGE AND ELEVATION OF THE EXISTING PAVEMENT.

STEP 3: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEET 3 OF 14, CONTRACTOR SHALL TEMPORARILY CLOSE THE LEFT LANE OF US-264 EASTBOUND AND THE LEFT LANE OF US-264 WESTBOUND.

REMOVE THE EXISTING CENTER TURN LANE MARKINGS AND/OR WEDGE -EL- AS NEEDED. CONSTRUCT THE MEDIAN ISLANDS FROM:
- *-EL- FROM STA. 11+45 +/- TO STA. 52+35 +/- (W-5702G) *
- *-EL- FROM STA. 13+34 +/- TO STA. 52+65 +/- (W-5702R) *

THE CONTRACTOR SHALL STAGE THE WORK OF STEP 3 TO MAINTAIN ACCESS FOR BUSINESSES AND RESIDENTS. CONTRACTOR SHALL USE CMSs, DRUMS AND/OR SKINNY DRUMS. THE CONTRACTOR MAY USE THE U-TURN BULBS PROVIDED THAT TIME FOR PROPER CURING OF THE MEDIAN AND THE SIGNAGE OF TRAFFIC MOVEMENTS IS HANDLED BY CMSs AND/OR PERMANENT SIGNING.

STEP 4: USING DRUMS AND FLAGGERS AS NEEDED PER RSD 1101.02 SHEETS 1 AND 3 OF 14, CONTRACTOR SHALL COMPLETE THE FOLLOWING WORK:
- *REMOVE THE EXISTING ISLANDS AND CONSTRUCT PROPOSED ISLANDS ON ALL -Y- LINES*
- *INSTALL ANY REMAINING TEMPORARY PAVEMENT MARKINGS ON PROJECT AS NEEDED*

PHASE III

***UNTIL DIRECTED, TRAFFIC WILL REMAIN IN THE SAME PATTERN AS PHASE II. ***

STEP 1: THE CONTRACTOR SHALL OPEN TRAFFIC TO U-TURN PATTERN FOR BULB-OUTS.

STEP 2: CONTRACTOR, USING TEMPORARY LANE CLOSURES PER RSD 1101.02 SHEET 1, 3, 11, AND 12 OF 14 AND FLAGGERS AS NEEDED, SHALL COMPLETE STEPS A THRU C. WORK IN STEPS A THRU C MAY BE PERFORMED SIMULTANEOUSLY.
- A: SHALL COMPLETE ANY NECESSARY REMAINING ROADWAY OR DRAINAGE WORK.
- B: SHALL PAVE THE FINAL SURFACE COURSE ON -EL-, -EY-, -EY1-.
- C: SHALL PLACE FINAL PAVEMENT MARKINGS ON -EL-, -EY-, -EY1- PER PMP-4 THRU PMP-7.

STEP 3: AT THE CONCLUSION OF ALL WORK, CONTRACTOR SHALL PLACE TRAFFIC IN FINAL PATTERN AND REMOVE ALL TRAFFIC CONTROL DEVICES FROM PROJECT.

ETHERILL ENGINEERING
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PHASING

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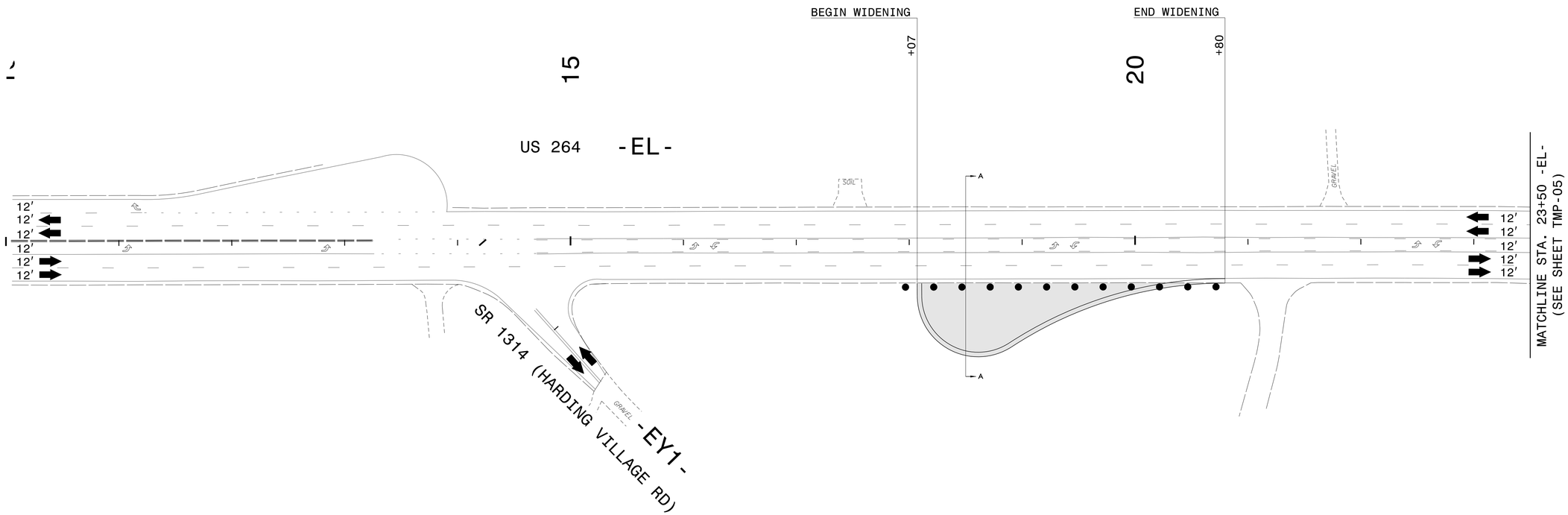
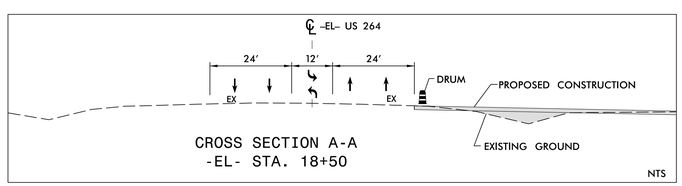
PROJ. REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	TMP-04





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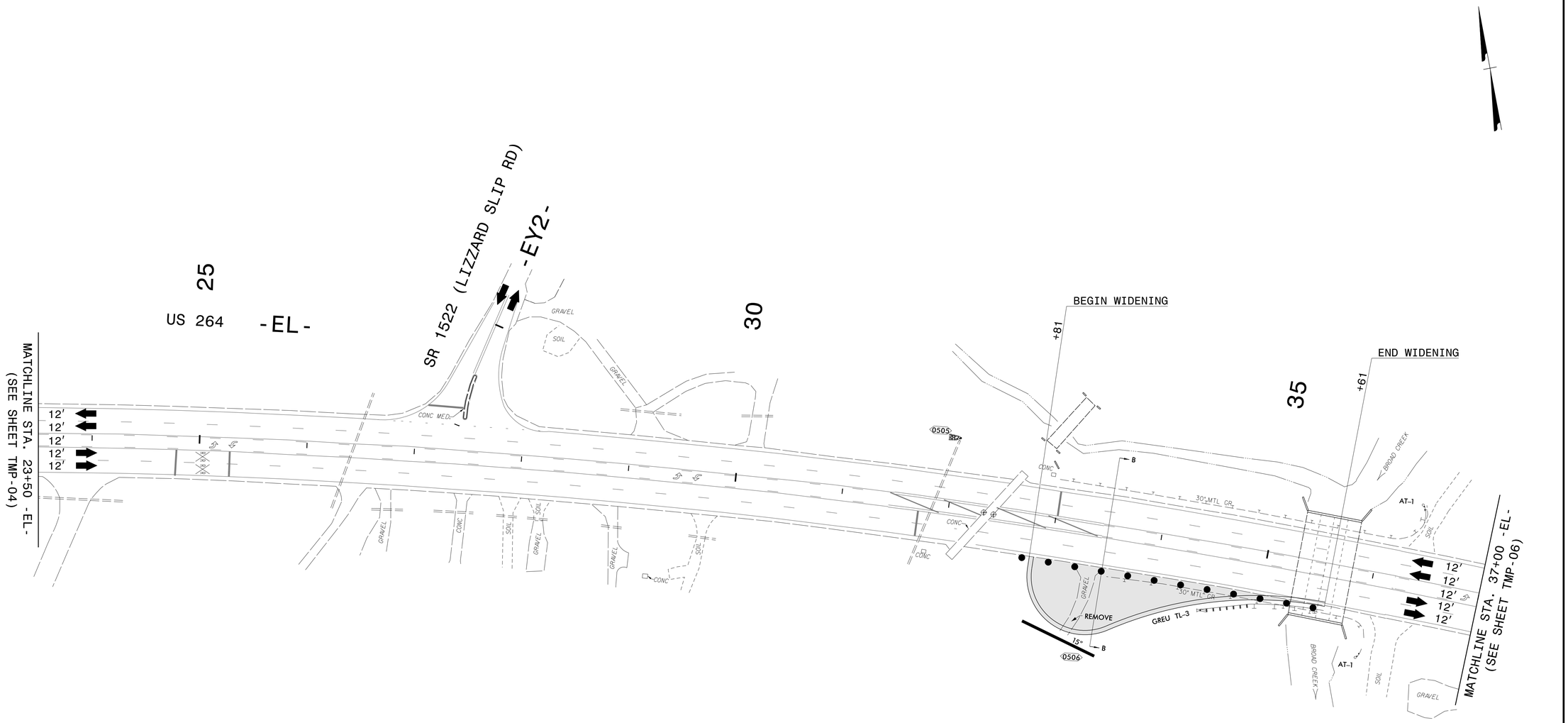

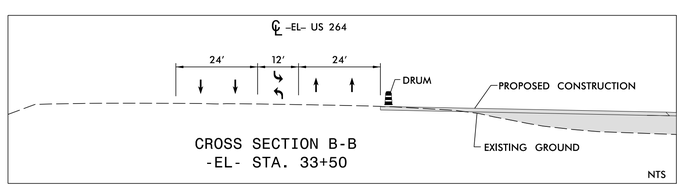

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NORTH CAROLINA PROFESSIONAL SEAL 047751 ENGINEER BOB A MAY

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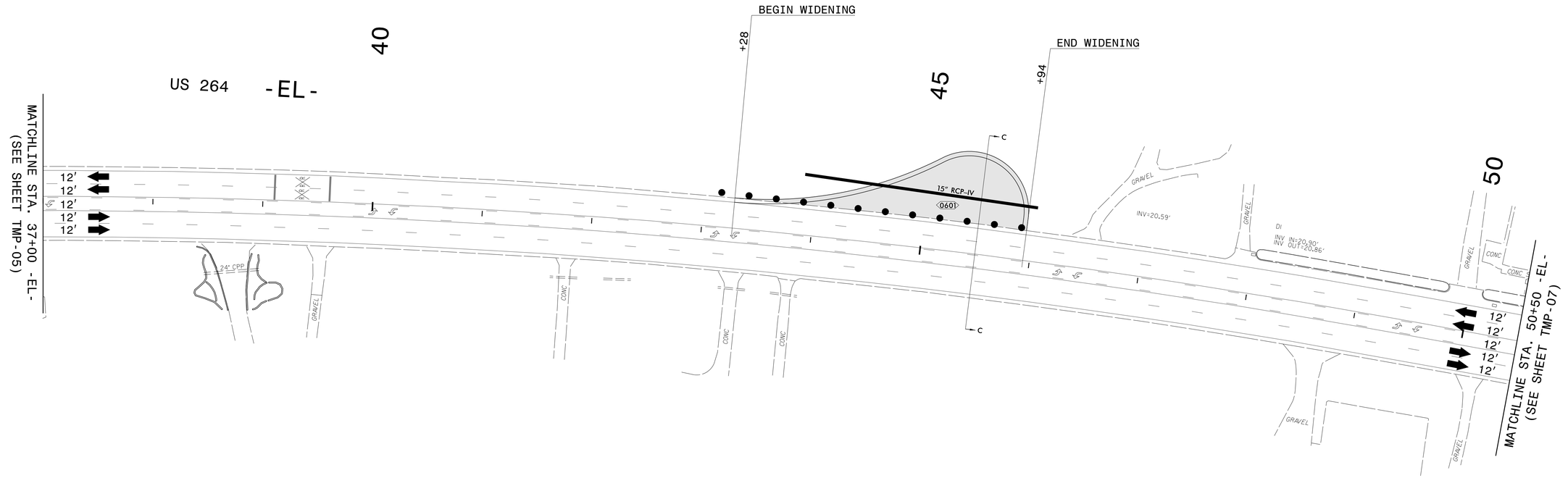

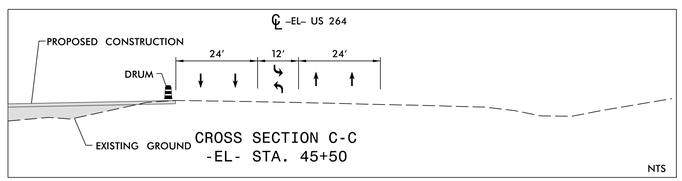

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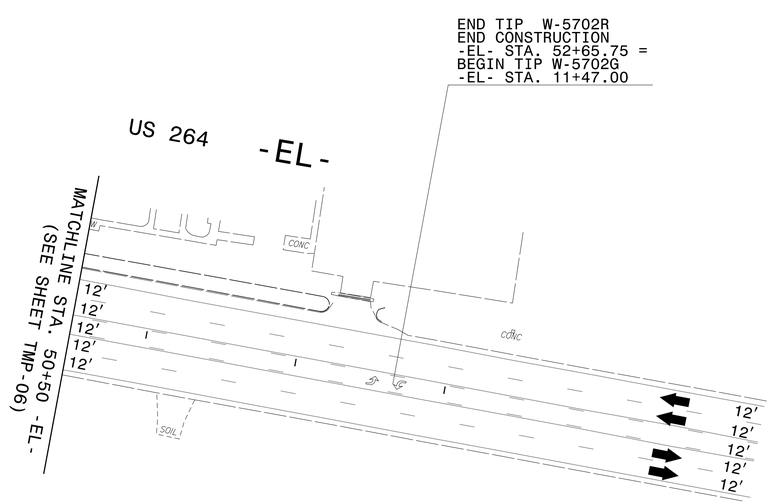

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PROJ. REFERENCE NO.	SHEET NO.
W-5702G/W-5702R	TMP-08

END TIP W-5702R
END CONSTRUCTION
-EL- STA. 52+65.75 =
BEGIN TIP W-5702G
-EL- STA. 11+47.00

BEGIN WIDENING
-EL- STA. 11+47.00

+46

END WIDENING

+40

15

20

US 264 -EL-

US 264/ JOHN SMALL AVE.

12'
12'
12'
12'
12'
12'

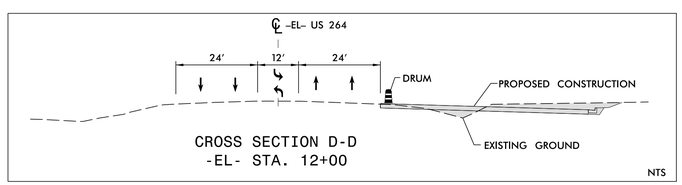
TB JB wMH
TB JB wMH
CB
CB
CB
2GI

D

BEGIN WIDENING

+35

MATCHLINE STA. 24+50 -EL-
(SEE SHEET TMP-09)



CROSS SECTION D-D
-EL- STA. 12+00

NTS

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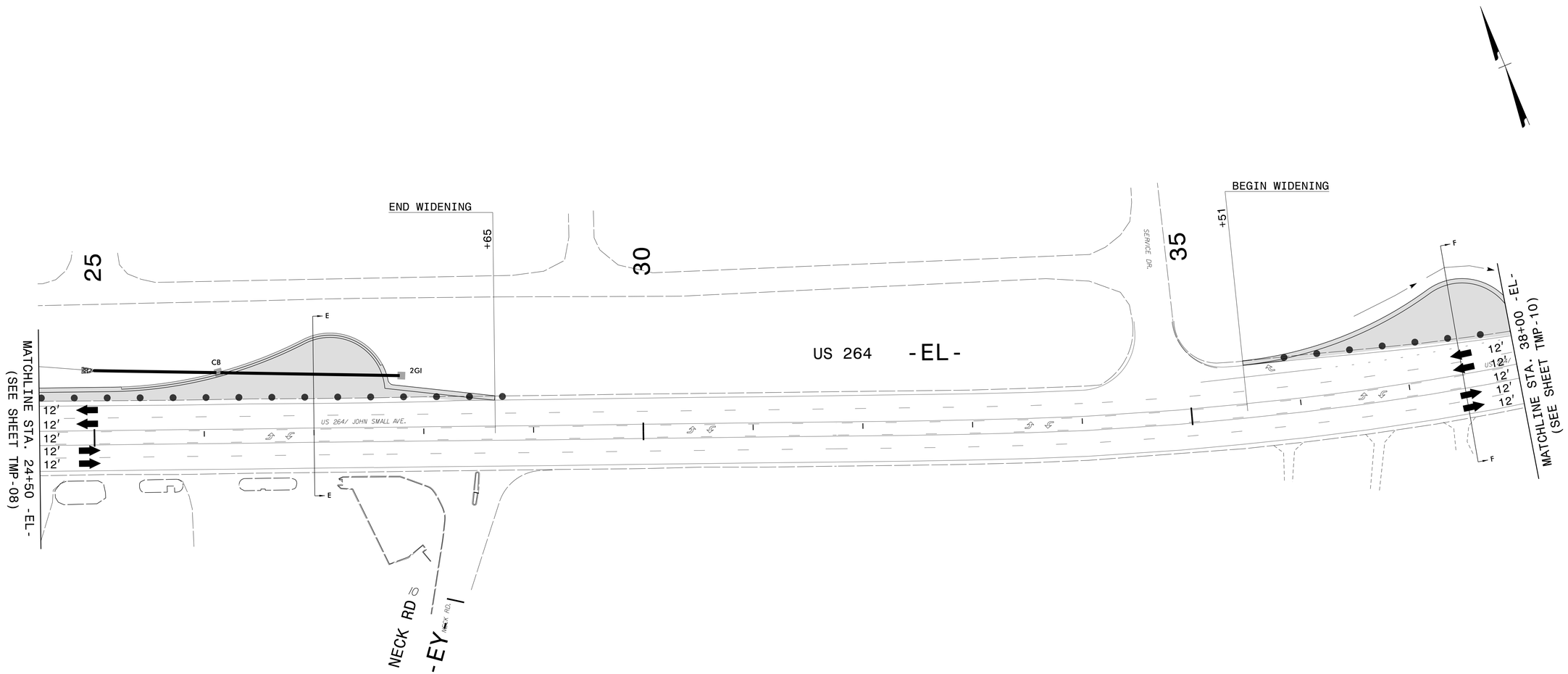

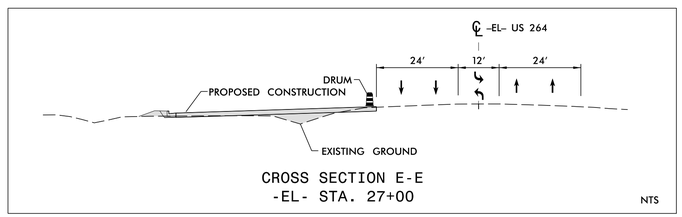

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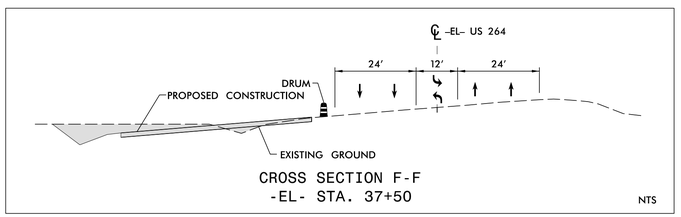
-EL- STA. 27+00
NTS



CROSS SECTION F-F
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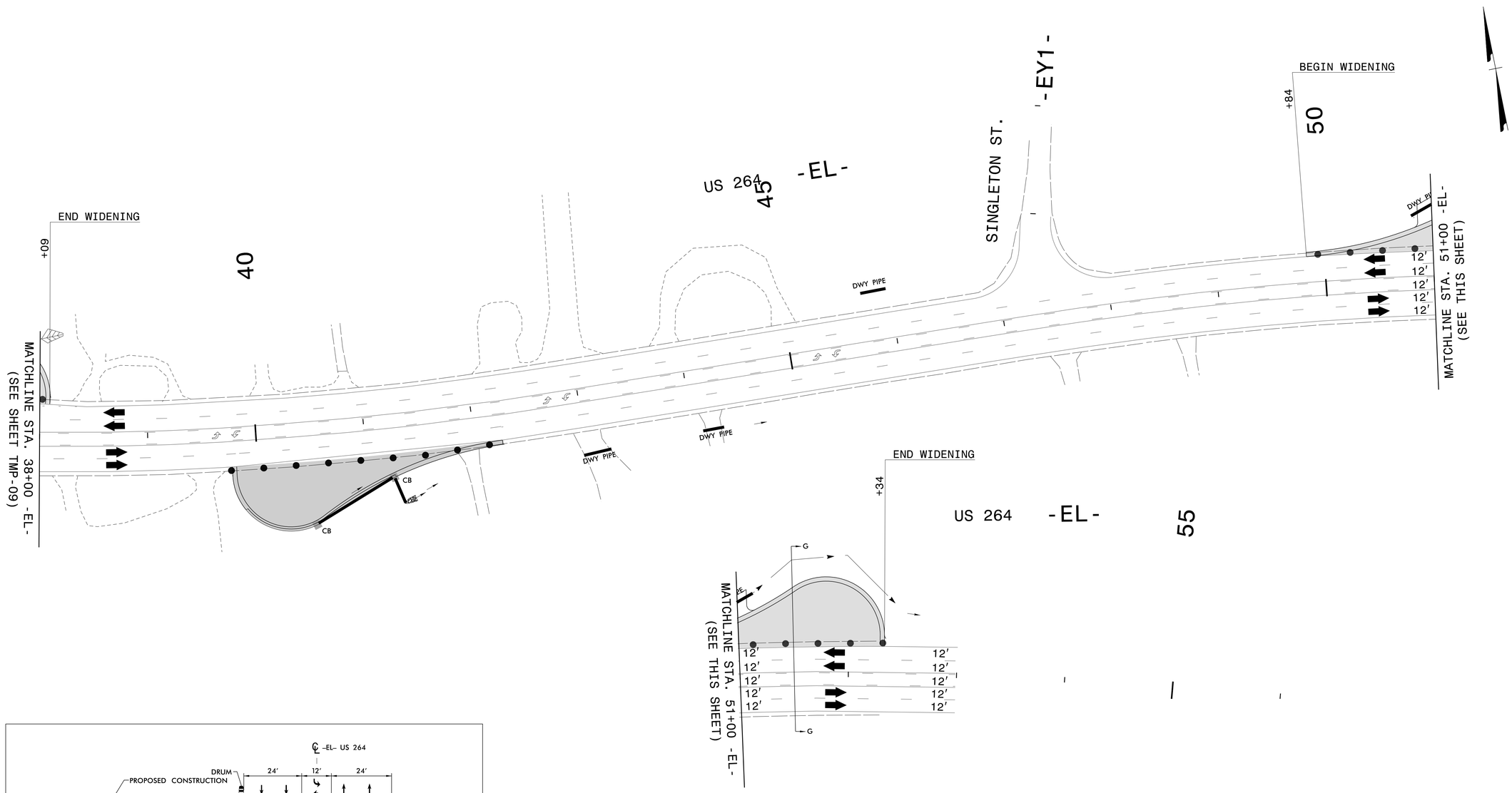

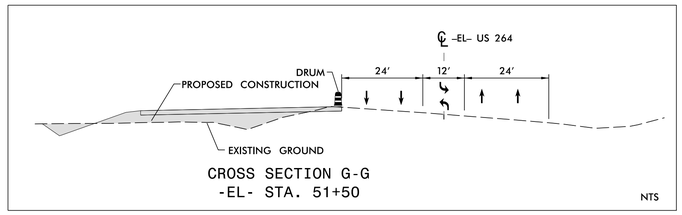

CROSS SECTION G-G
-EL- STA. 51+50

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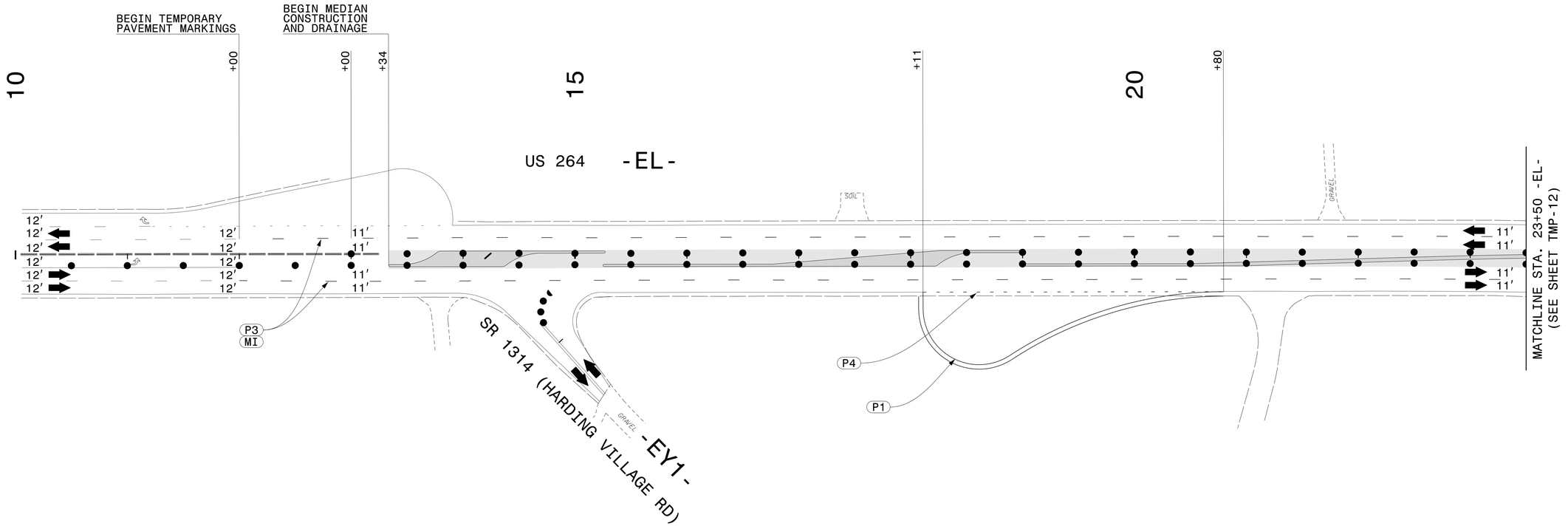

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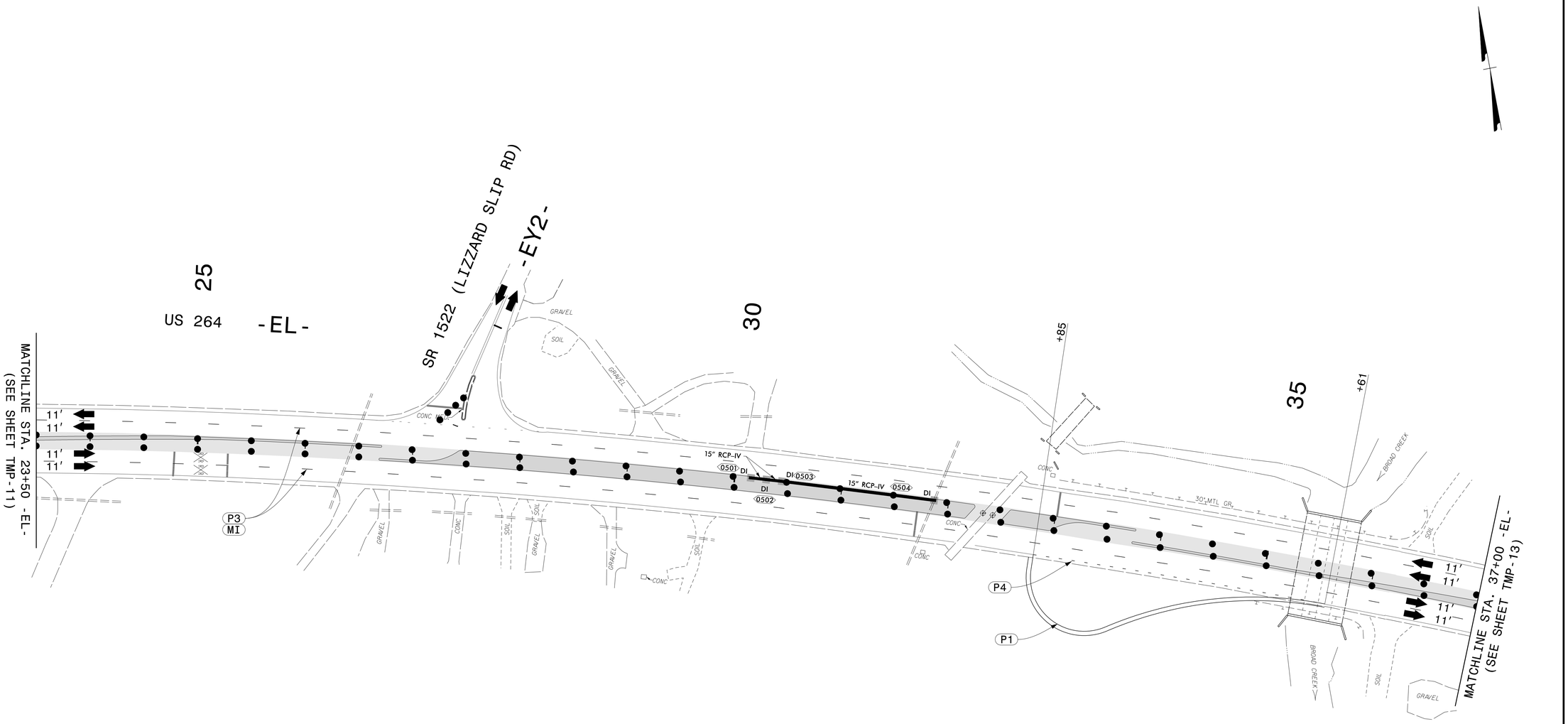

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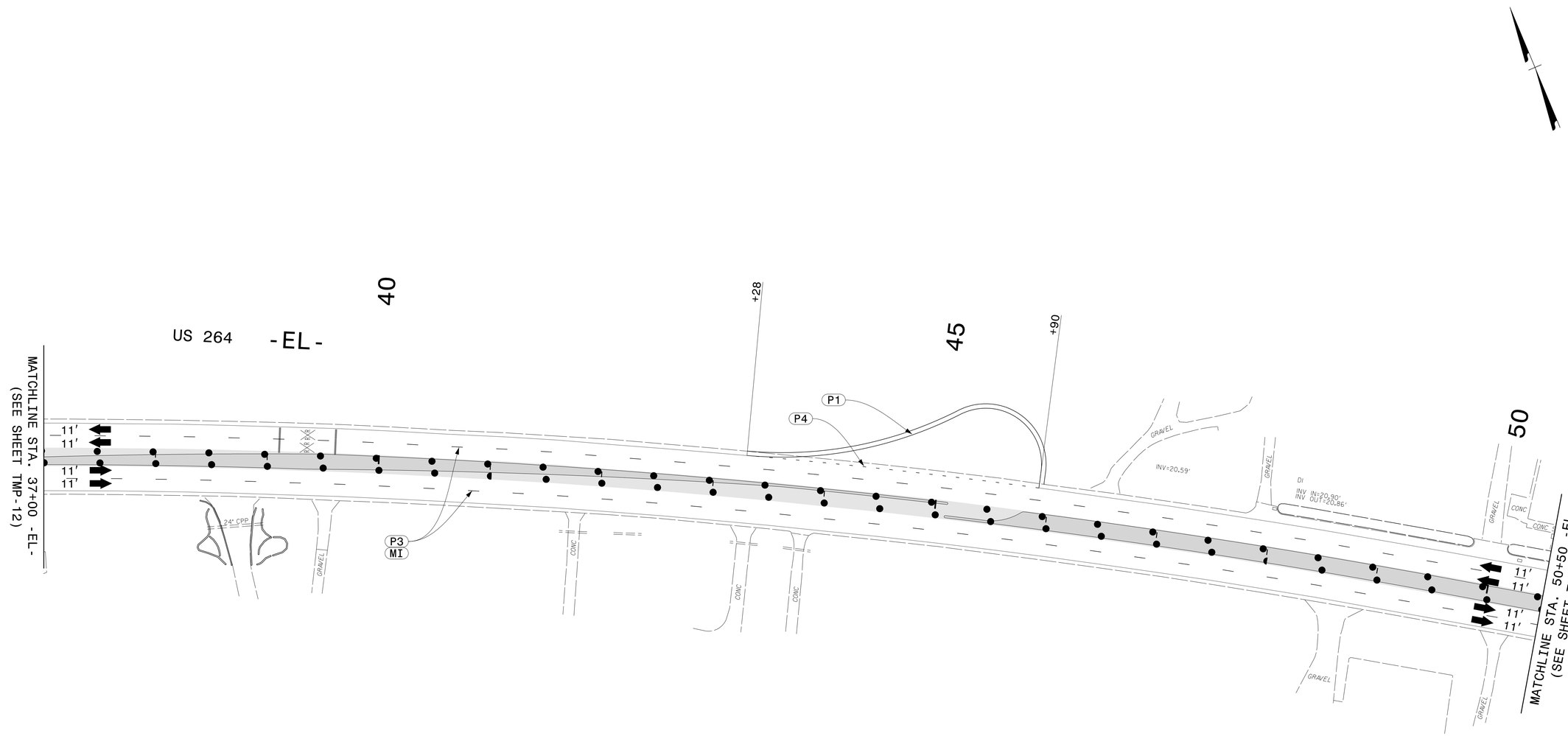

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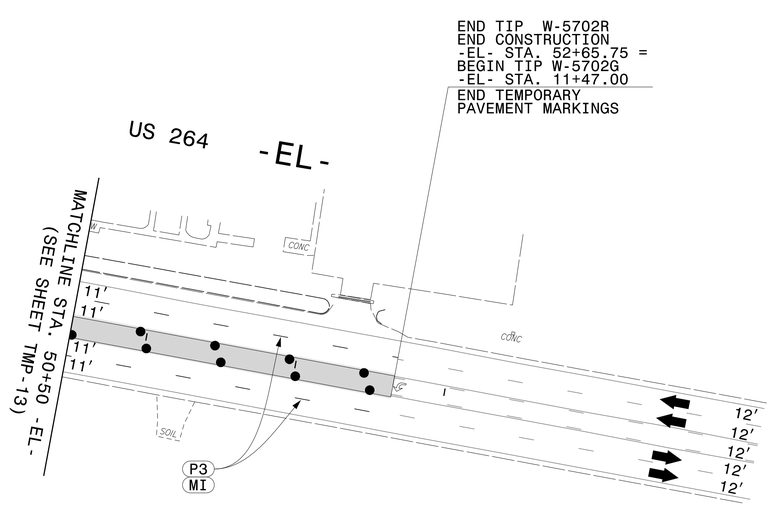

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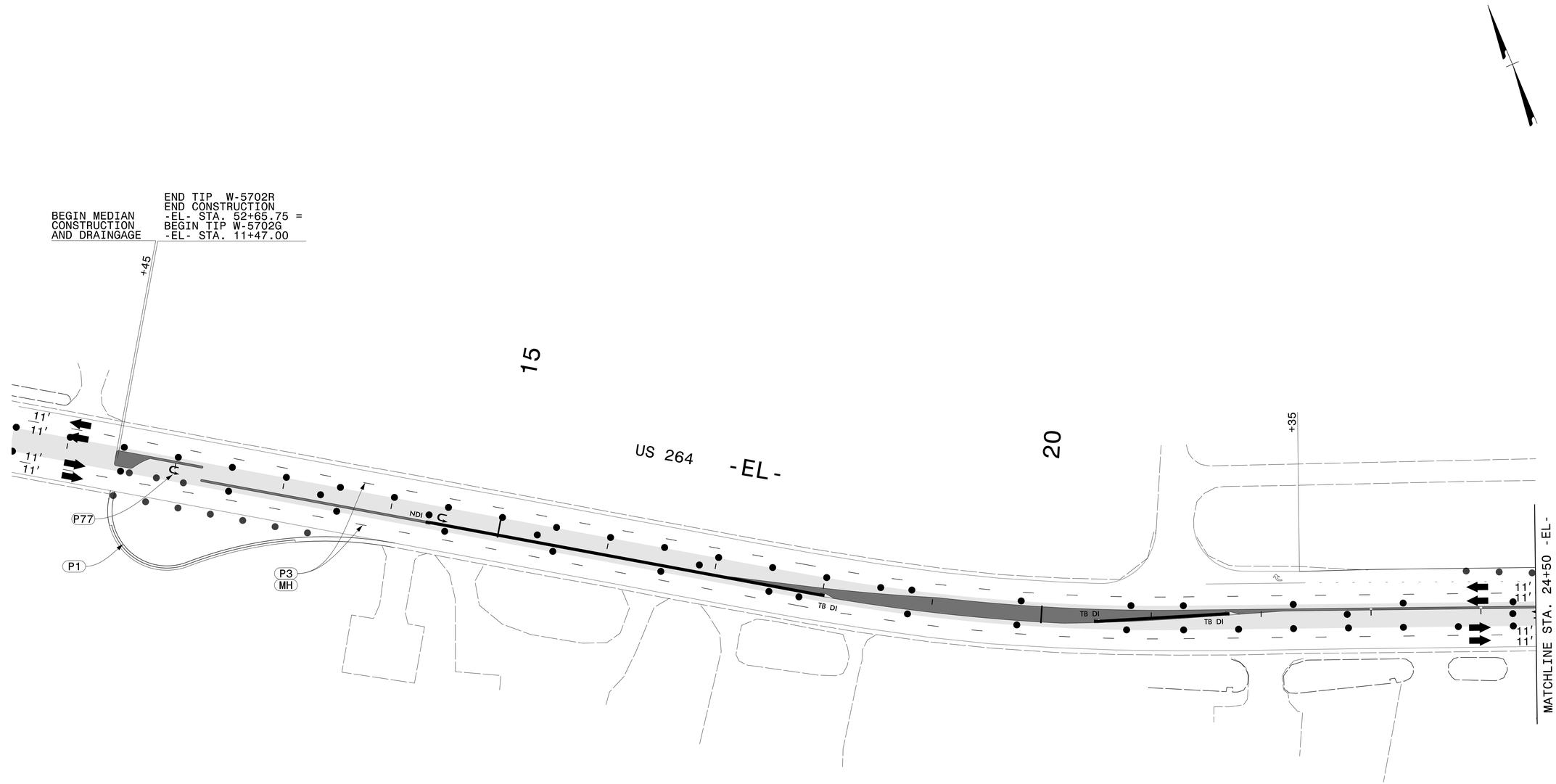

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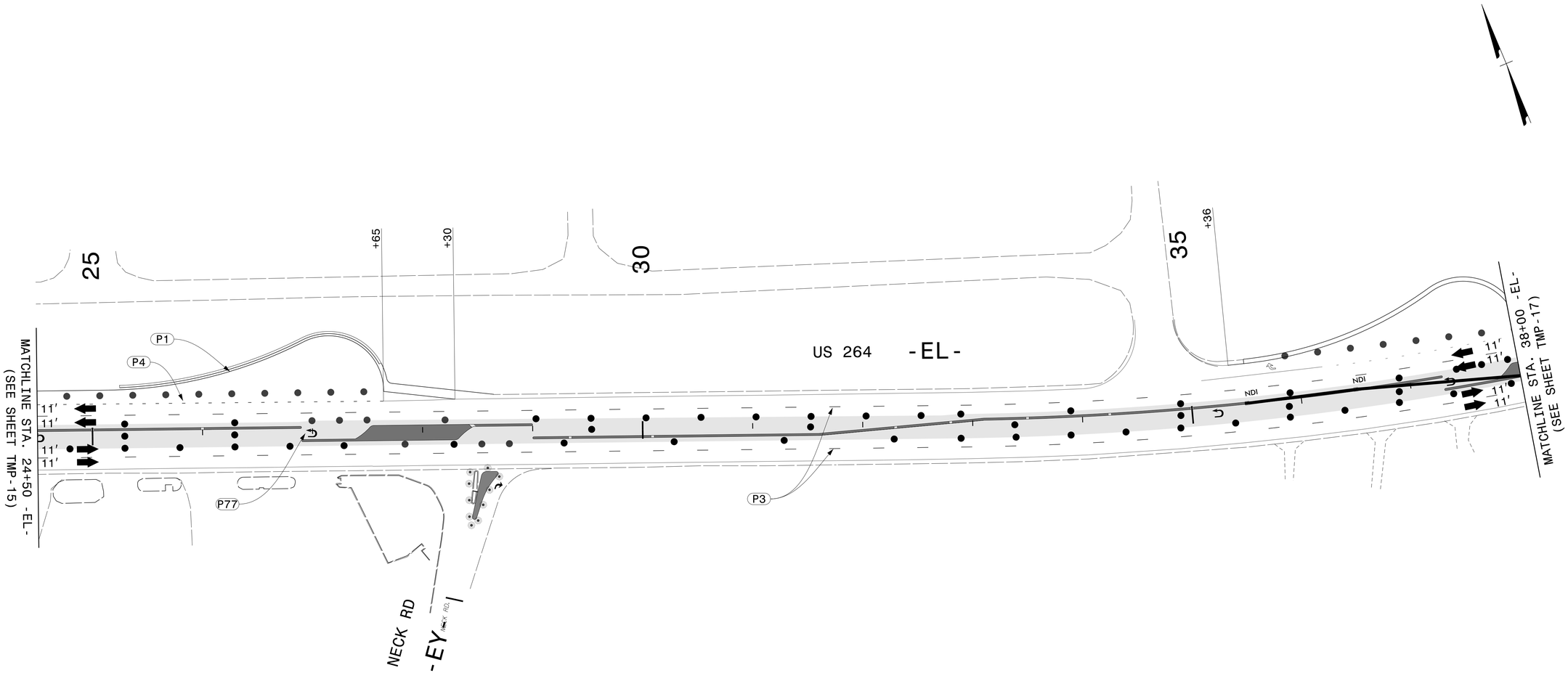

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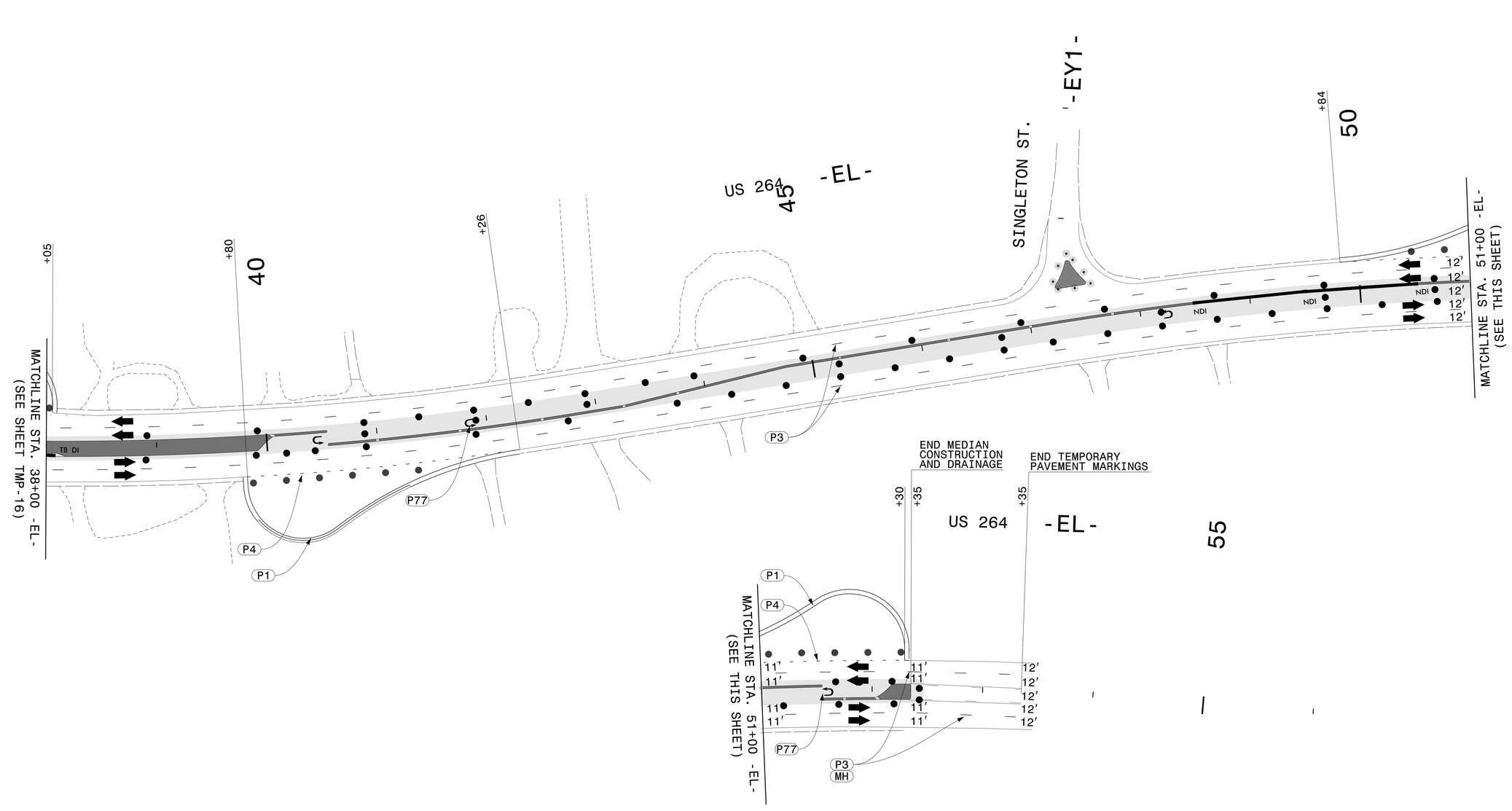

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PROJECT: W-5702R

CONTRACT: DB00540

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

TIP NO.	SHEET NO.
W-5702R	PMP-1

APPROVED: DocuSigned by: Regina M. Muncey C7FE51B522454FA...

DATE: 11/21/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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Stantec

PAVEMENT MARKING PLAN

BEAUFORT COUNTY

LOCATION: US 264 SUPER STREET BETWEEN WASHINGTON, NC AND BEAUFORT COUNTY COMMUNITY COLLEGE

TYPE OF WORK: RESURFACING, WIDENING, DRAINAGE, PAVEMENT MARKING AND SIGNING

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.02	PAVEMENT MARKINGS - 2 LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

FINAL PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	PAY ITEM	
T1	WHITE EDGELINE	(4", 90 MIL)	THERMOPLASTIC
T13	YELLOW DOUBLE CENTER	(4", 90 MIL)	THERMOPLASTIC
T20	WHITE EDGELINE	(6", 90 MIL)	THERMOPLASTIC
T22	10 FT. WHITE SKIP	(6", 90 MIL)	THERMOPLASTIC
T23	3 FT.-9 FT./SP WHITE MINISKIP	(6", 90 MIL)	THERMOPLASTIC
T24	2 FT.-6 FT/SP WHITE MINISKIP	(6", 90 MIL)	THERMOPLASTIC
T30	YELLOW EDGELINE	(6", 90 MIL)	THERMOPLASTIC
T34	2 FT.-6 FT./SP YELLOW MINISKIP	(6", 90 MIL)	THERMOPLASTIC
T42	YELLOW DIAGONAL	(8", 90 MIL)	THERMOPLASTIC
T50	WHITE GORELINE	(12", 90 MIL)	THERMOPLASTIC
T60	WHITE LINE, RR X	(16", 90 MIL)	THERMOPLASTIC
T61	WHITE STOPBAR	(24", 90 MIL)	THERMOPLASTIC
T70	LEFT TURN ARROW	(90 MIL)	THERMOPLASTIC
T71	RIGHT TURN ARROW	(90 MIL)	THERMOPLASTIC
T77	U-TURN ARROW	(90 MIL)	THERMOPLASTIC
T100	ALPHANUMERUIC CHAR.	(90 MIL)	THERMOPLASTIC
ME	YELLOW & YELLOW, SNOWPLOWABLE PAVEMENT MARKERS		
MF	CRYSTAL & RED, SNOWPLOWABLE PAVEMENT MARKERS		

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL ROADS	THERMOPLASTIC	SNOWPLOWABLE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
D) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS.

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING
PMP-3-6	PAVEMENT MARKING DETAIL

PLAN PREPARED BY:

REGINA MUNCEY, P.E. TRANSPORTATION ENGINEER

JAMES HAMBRIGHT SENIOR TRANSPORTATION TECHNICIAN

Stantec

Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

11/21/2023
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jhambright

TIP NO.	SHEET NO.
W-5702R	PMP-2

DocuSigned by:

APPROVED: Matthew V. Springer

DATE: 6/19/2019

SEAL

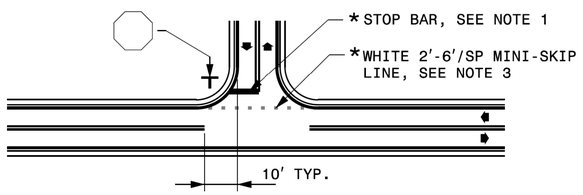
NORTH CAROLINA PROFESSIONAL SEAL 042546 ENGINEER MATTHEW V. SPRINGER

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

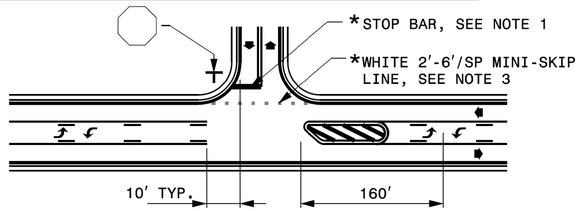
6-19

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
INTERSECTIONS

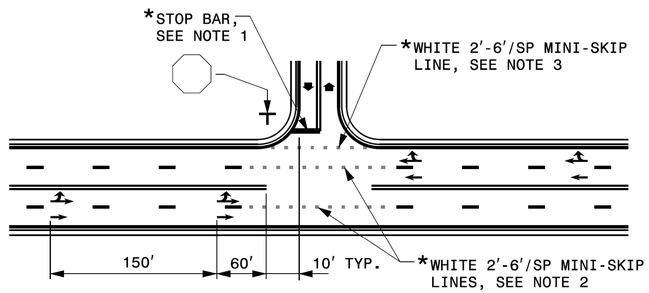
TWO-LANE, TWO-WAY ROADWAY



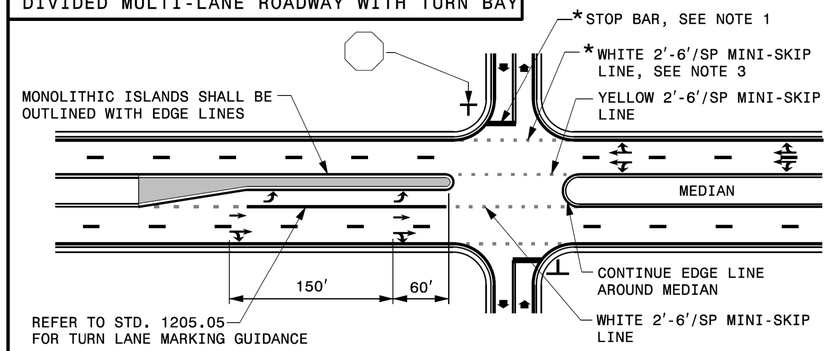
TWO-LANE, TWO-WAY ROADWAY WITH TWO-WAY LEFT TURN LANE



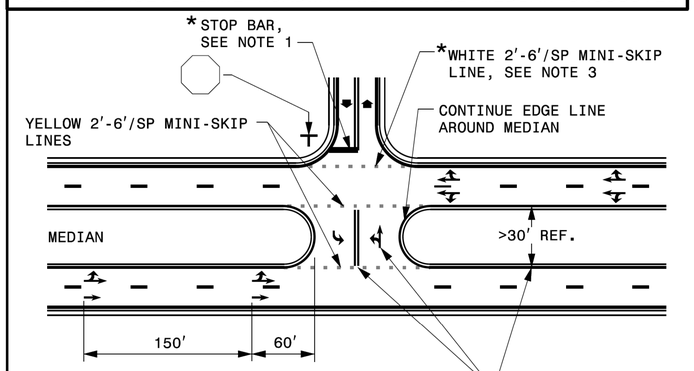
UNDIVIDED MULTI-LANE ROADWAY



DIVIDED MULTI-LANE ROADWAY WITH TURN BAY



DIVIDED MULTI-LANE ROADWAY WITH WIDE MEDIAN CROSSOVER



USE DOUBLE YELLOW CENTER LINE AND ARROW SYMBOLS IN MEDIAN CROSSOVER WHEN WIDTH OF MEDIAN EXCEEDS 30 FT, OTHERWISE THEY ARE NOT REQUIRED.

GENERAL NOTES:

1- PLACEMENT OF STOP BARS AT NON-SIGNALIZED INTERSECTIONS IS OPTIONAL AND USED WHERE IT IS IMPORTANT TO INDICATE THE POINT WHICH VEHICLES ARE REQUIRED TO STOP. PLACE STOP BARS NO LESS THAN 4 FEET AND NO MORE THAN 30 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. USE 10 FEET AS THE TYPICAL SETBACK DISTANCE OR AS DIRECTED BY THE ENGINEER.

2- MINI-SKIP LANE LINE EXTENSIONS SHOULD BE USED AT INTERSECTIONS THAT HAVE REDUCED VISIBILITY CONDITIONS SUCH AS OFFSET, SKEWED, OR CURVED ROADWAYS.

3- MINI-SKIP EDGE LINE EXTENSIONS MAY BE PLACED THROUGH INTERSECTIONS AND MAJOR DRIVEWAYS.

4- REFER TO ROADWAY STANDARD DRAWINGS 1205.01, 1205.02, 1205.05, 1205.08 AND 1205.09 FOR ADDITIONAL PAVEMENT MARKING GUIDANCE.

LEGEND

STOP SIGN	STATIONARY SIGN
DIRECTION OF TRAFFIC FLOW	PAVEMENT MARKING SYMBOLS
* OPTIONAL	

SHEET 2 OF 2

1205D04

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

6-19

ENGLISH DETAIL DRAWING FOR
PAVEMENT MARKINGS
INTERSECTIONS

SHEET 2 OF 2

1205D04

REVISED PAVEMENT MARKING ROADWAY STANDARD DRAWING

06/19/19
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User:dstokes

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TIP NO.	SHEET NO.
W-5702R	PMP-3

APPROVED: DocuSigned by: Regina M. Muncey CTFE51B522454FA...

DATE: 6/2/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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Stantec

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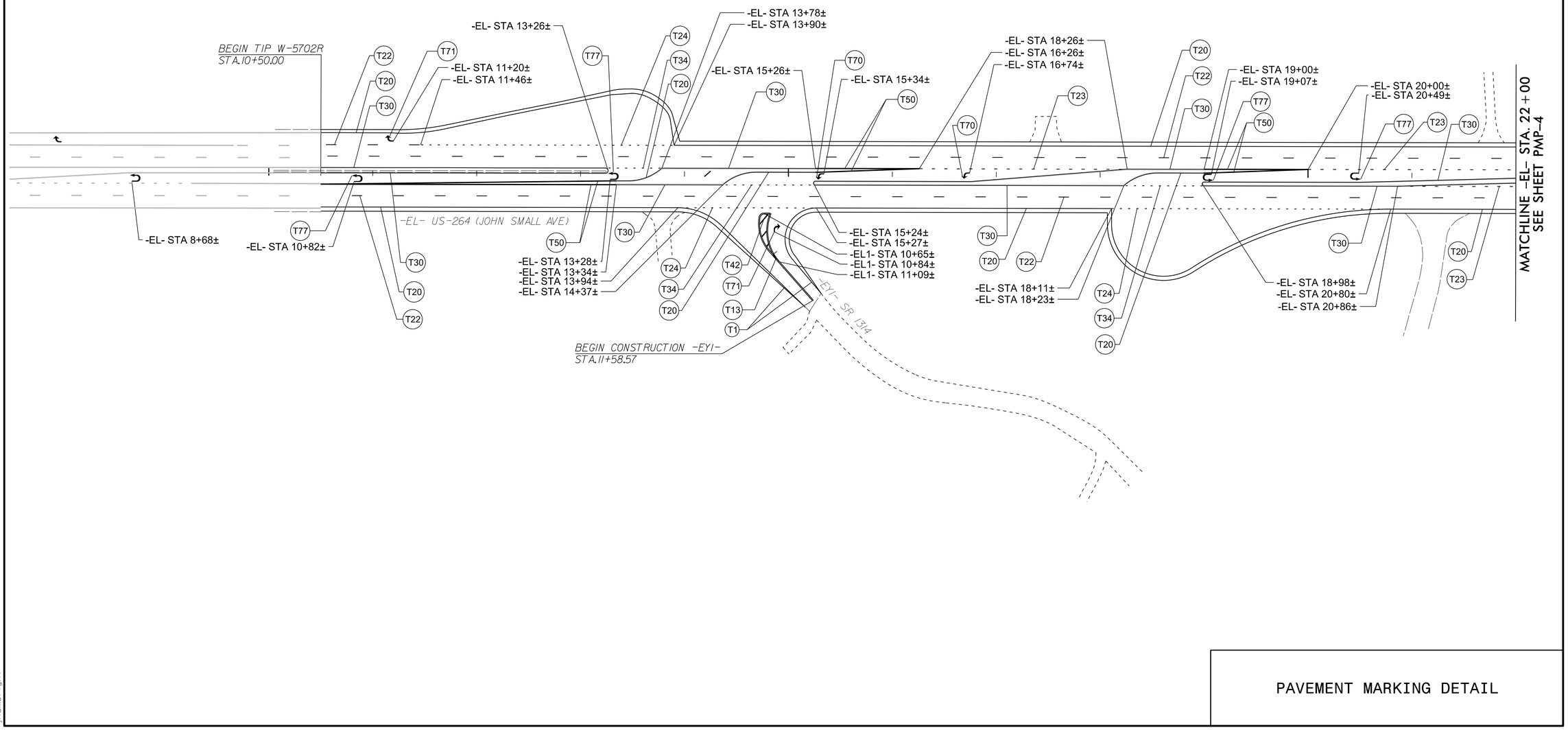

PAVEMENT MARKING DETAIL

6/2/2023
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lhambright

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W-5702R	PMP-4

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DATE: 6/2/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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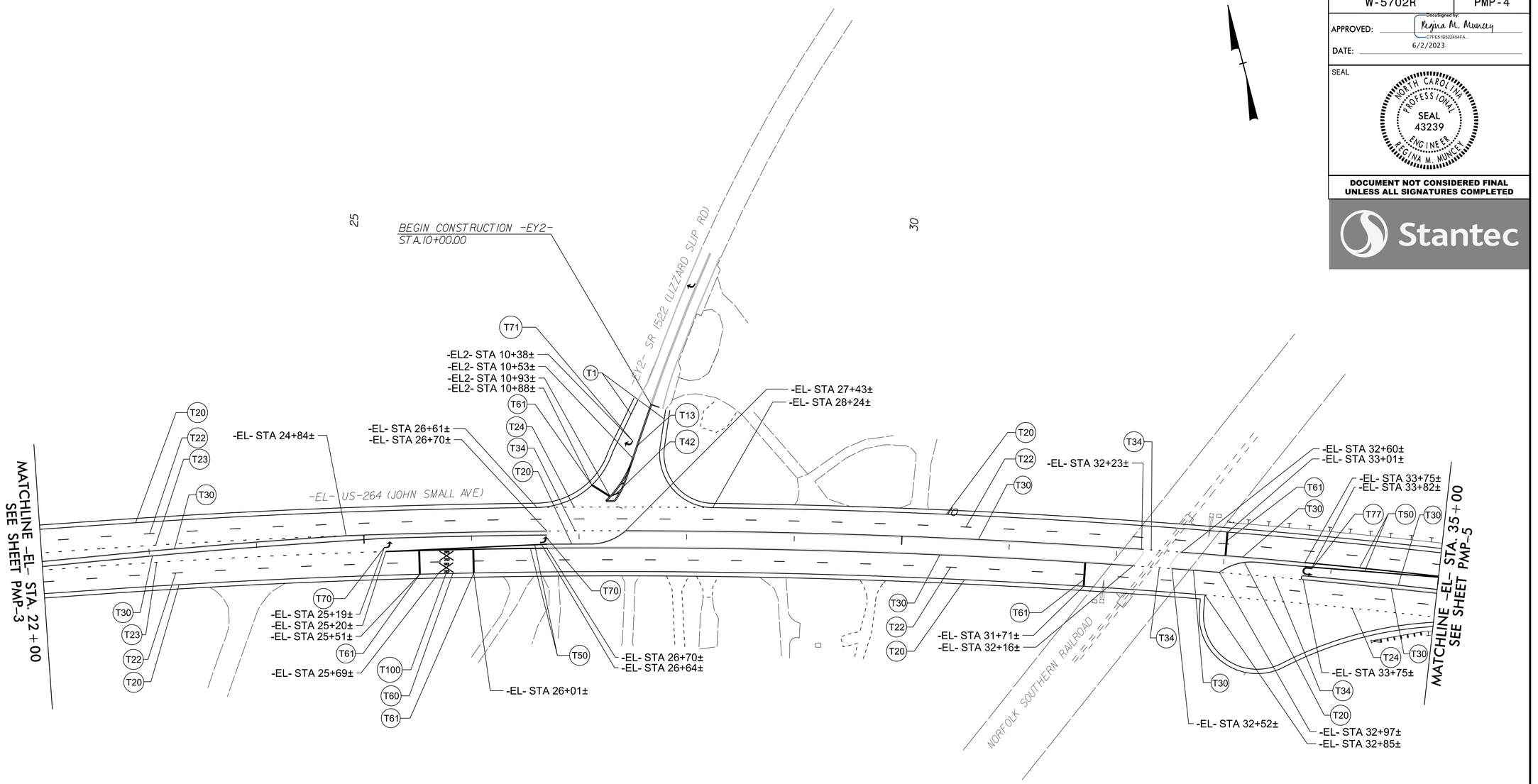

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TIP NO.	SHEET NO.
W-5702R	PMP-5

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DATE: 6/2/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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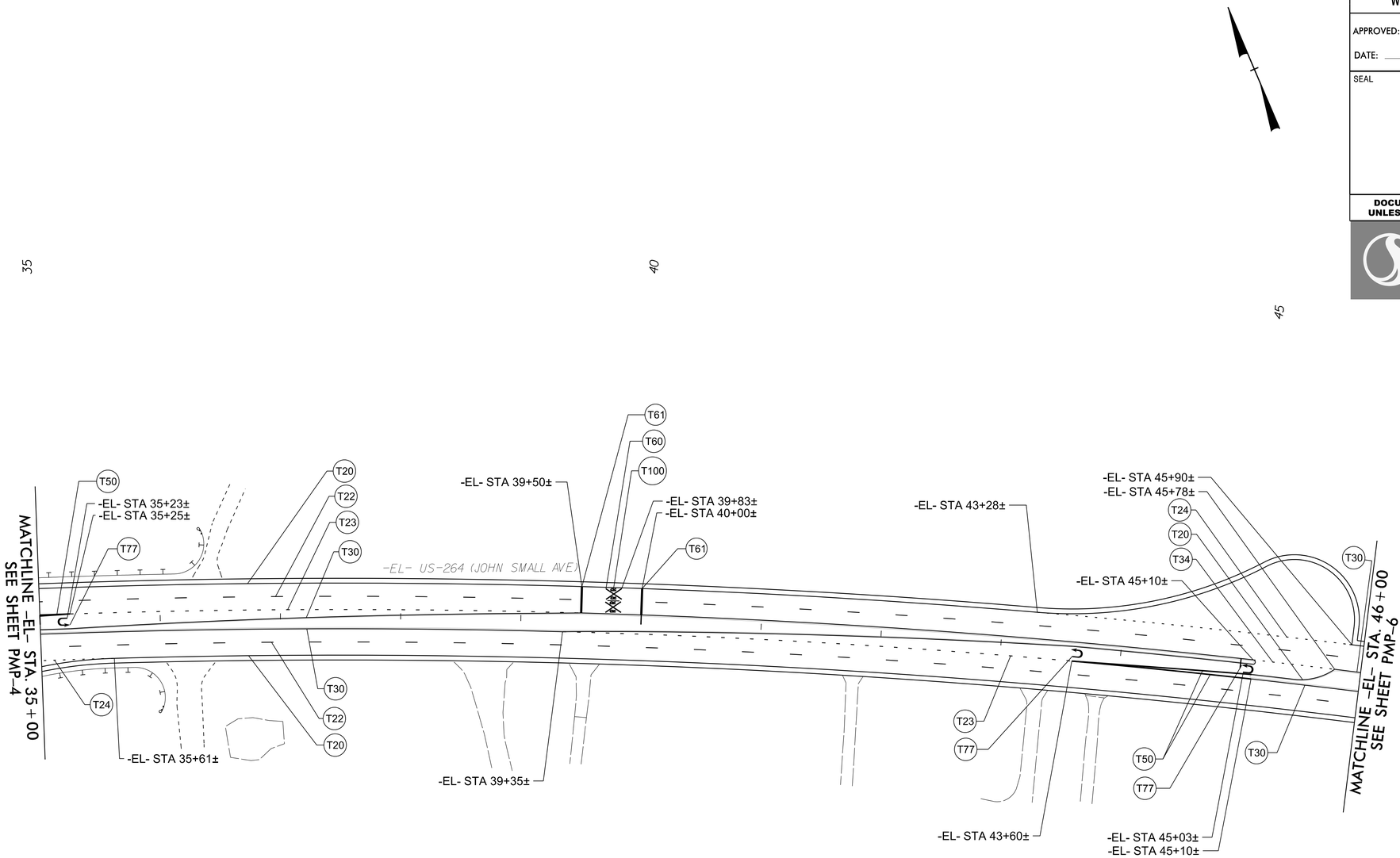

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TIP NO.	SHEET NO.
W-5702R	PMP-6

APPROVED: DocuSigned by: Regina M. Muncey C7FE51B522454FA...

DATE: 6/2/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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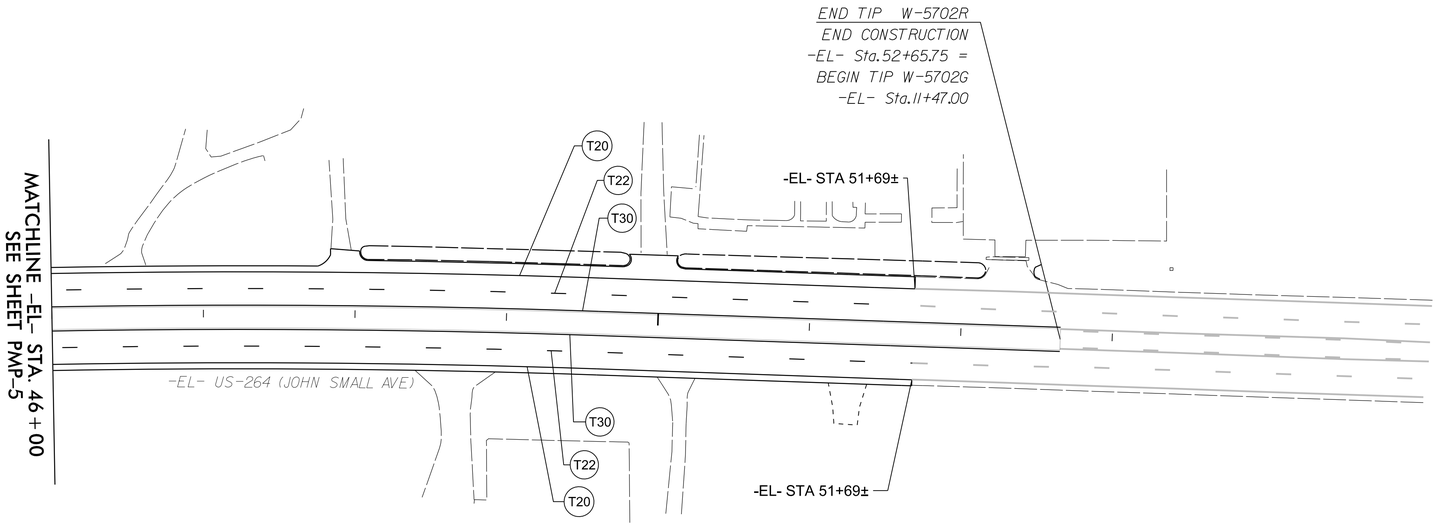

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6/2/2023
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T.I.P.: W-5702G\W-5702R

CONTRACT:DB00486\DB00540

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
BEAUFORT COUNTY

LOCATION: MM 11.5 US 264 SUPER STREET NEAR BEAUFORT COUNTY COMMUNITY COLLEGE

TIP NO.	SHEET NO.
W-5702G\W-5702R	PMP-7

APPROVED: DocuSigned by: Farrell Nicholson 91CCD153FDC0483... DATE: 11/21/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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INDEX

SHEET NO.	DESCRIPTION
PMP-7	PAVEMENT MARKING PLAN TITLE & SCHEDULE
PMP-8 TO 11	PAVEMENT MARKING DETAIL

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	TOTAL QUANTITY
	THERMOPLASTIC (6", 90 MILS)	
T20	WHITE EDGELINE	TOTAL 10,932 LF
T30	YELLOW EDGELINE	TOTAL 8,040 LF
T22	10 FT. WHITE SKIP	TOTAL 2,125 LF
T23	3FT. - 9FT. /SP WHITE MINISKIP	TOTAL 685 LF
T11	YELLOW SINGLE CENTER	TOTAL 202 LF
T13	YELLOW DOUBLE CENTER	TOTAL 1,280 LF
T23	2FT. - 6FT. /SP WHITE MINISKIP	TOTAL 262 LF
T34	2FT. - 6FT. /SP YELLOW MINISKIP	TOTAL 262 LF
	THERMOPLASTIC (8", 90 MILS)	
T42	YELLOW DIAGONAL	TOTAL 267 LF
	THERMOPLASTIC (24", 90 MILS)	
T61	WHITE STOPBAR	TOTAL 31 LF
	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)	
T70	LEFT TURN ARROW (90 MIL)	TOTAL 3 EA
T71	RIGHT TURN ARROW (90 MIL)	TOTAL 7 EA
T77	U-TURN ARROW (90 MIL)	TOTAL 15 EA
	SNOWPLOWABLE PAVEMENT MARKERS	
ME	YELLOW/YELLOW	TOTAL 50 EA
MF	CRYSTAL/RED	TOTAL 219 EA
	PERMANENT RAISED MARKERS	
MA	YELLOW/YELLOW	TOTAL 250 EA

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.15	PAVEMENT MARKINGS - SUPERSTREETS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
-EL-	THERMOPLASTIC	SNOWPLOWABLE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

PLAN REVIEWED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

Lang Jones, PE DIVISION DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: WETHERILL ENGINEERING

FARRELL NICHOLSON, P.E. PROJECT ENGINEER

FARRELL NICHOLSON, P.E. PROJECT DESIGN ENGINEER

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

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TIP NO.	SHEET NO.
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APPROVED: Farrell Nicholson (DocuSigned by: 91CCD153FDC0483...)

DATE: 11/21/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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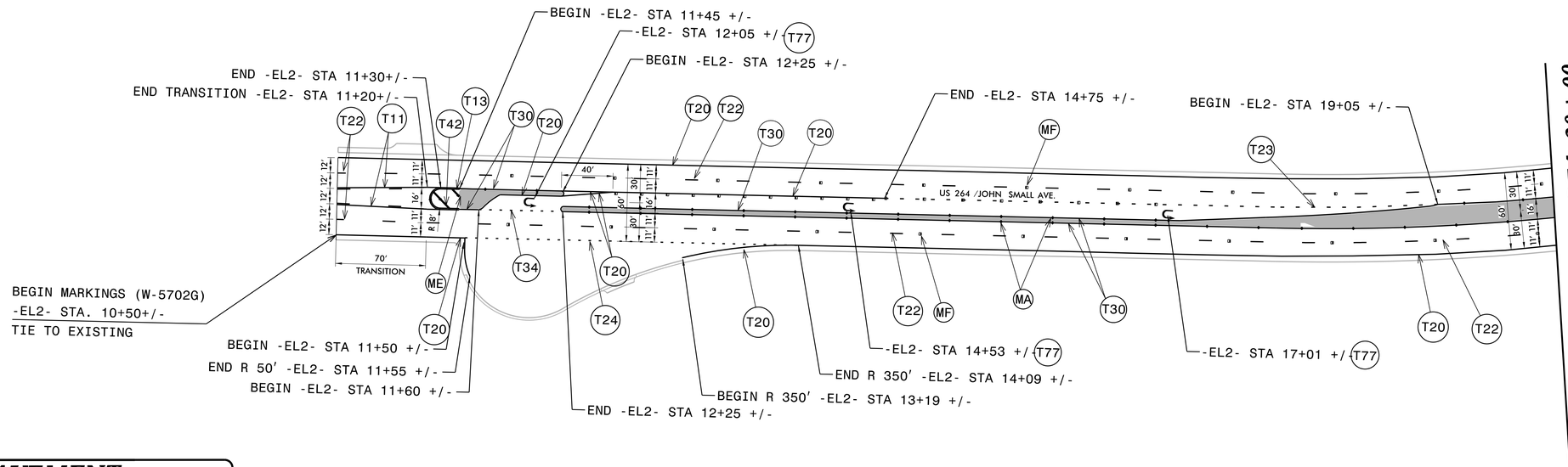

MATCHLINE -EL2- STA. 20+00
SEE SHEET PMP-9

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
T20	WHITE EDGELINE (6", 90 MIL)
T30	YELLOW EDGELINE (6", 90 MIL)
T22	10 FT. WHITE SKIP (6", 90 MIL)
T23	3FT. - 9FT. /SP WHITE MINISKIP (6", 90 MIL)
T11	YELLOW SINGLE CENTER (6", 90 MIL)
T13	YELLOW DOUBLE CENTER (6", 90 MIL)
T24	2FT. - 6FT. /SP WHITE MINISKIP (6", 90 MIL)
T34	YELLOW 2FT-6FT/SP MINISKIP (6", 90 MIL)
T42	YELLOW DIAGONAL (8", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
T70	LEFT TURN ARROW (90 MIL)
T71	RIGHT TURN ARROW (90 MIL)
T77	U-TURN ARROW (90 MIL)
MA	YELLOW & YELLOW RAISED PAVEMENT MARKER
ME	YELLOW & YELLOW SNOWPLOWABLE PAVEMENT MARKER
MF	CRYSTAL & RED SNOWPLOWABLE PAVEMENT MARKER

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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

PAVEMENT MARKING DETAIL

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TIP NO.	SHEET NO.
W-5702G\W-5702R	PMP-9

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DATE: 11/21/2023

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NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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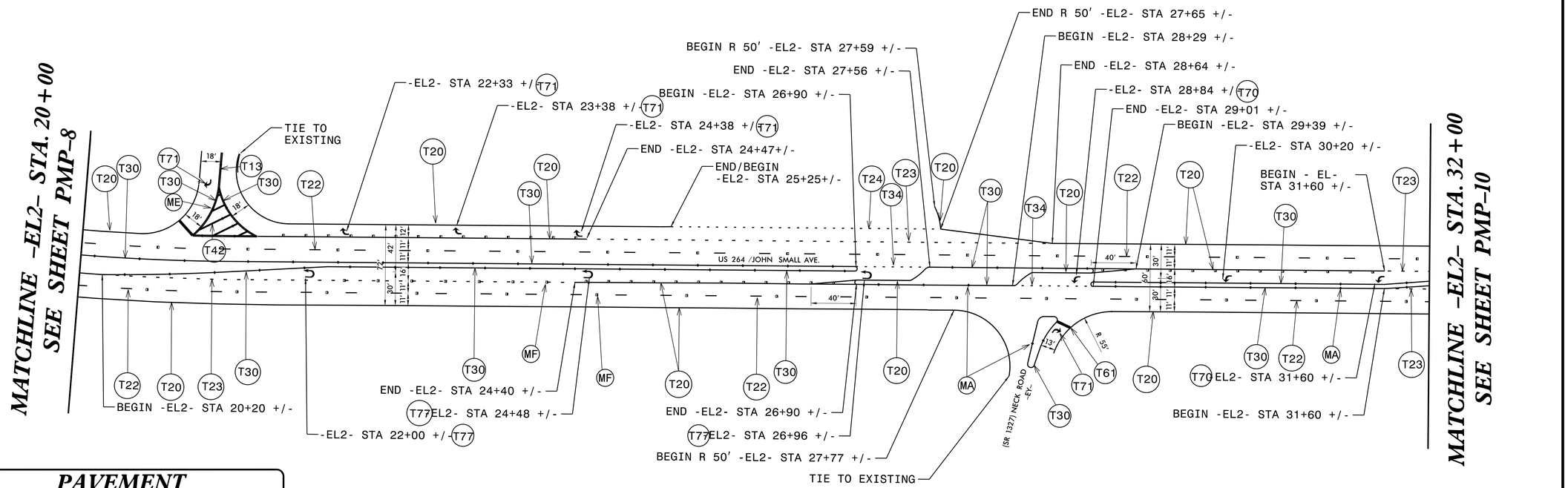

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
T20	WHITE EDGELINE (6", 90 MIL)
T30	YELLOW EDGELINE (6", 90 MIL)
T22	10 FT. WHITE SKIP (6", 90 MIL)
T23	3FT. - 9FT. /SP WHITE MINISKIP (6", 90 MIL)
T11	YELLOW SINGLE CENTER (6", 90 MIL)
T13	YELLOW DOUBLE CENTER (6", 90 MIL)
T24	2FT. - 6FT. /SP WHITE MINISKIP (6", 90 MIL)
T34	YELLOW 2FT-6FT/SP MINISKIP (6", 90 MIL)
T42	YELLOW DIAGONAL (8", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
T70	LEFT TURN ARROW (90 MIL)
T71	RIGHT TURN ARROW (90 MIL)
T77	U-TURN ARROW (90 MIL)
MA	YELLOW & YELLOW RAISED PAVEMENT MARKER
ME	YELLOW & YELLOW SNOWPLOWABLE PAVEMENT MARKER
MF	CRYSTAL & RED SNOWPLOWABLE PAVEMENT MARKER

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

PAVEMENT MARKING DETAIL

11/21/2023
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TIP NO.	SHEET NO.
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APPROVED: Farrell Nicholson (DocuSigned by: 91CCD153FDC0483...)

DATE: 11/21/2023

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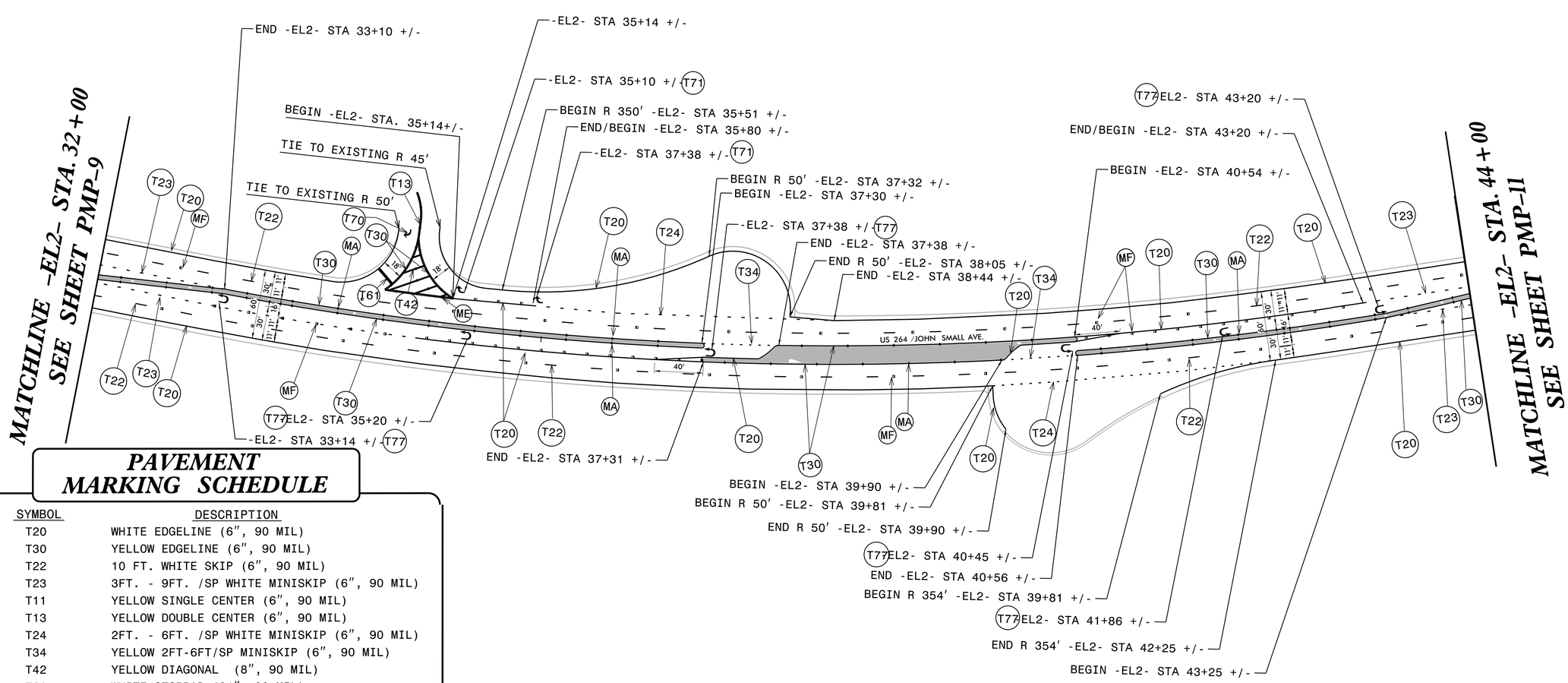

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
T20	WHITE EDGELINE (6", 90 MIL)
T30	YELLOW EDGELINE (6", 90 MIL)
T22	10 FT. WHITE SKIP (6", 90 MIL)
T23	3FT. - 9FT. /SP WHITE MINISKIP (6", 90 MIL)
T11	YELLOW SINGLE CENTER (6", 90 MIL)
T13	YELLOW DOUBLE CENTER (6", 90 MIL)
T24	2FT. - 6FT. /SP WHITE MINISKIP (6", 90 MIL)
T34	YELLOW 2FT-6FT/SP MINISKIP (6", 90 MIL)
T42	YELLOW DIAGONAL (8", 90 MIL)
T61	WHITE STOPBAR (24", 90 MIL)
T70	LEFT TURN ARROW (90 MIL)
T71	RIGHT TURN ARROW (90 MIL)
T77	U-TURN ARROW (90 MIL)
MA	YELLOW & YELLOW RAISED PAVEMENT MARKER
ME	YELLOW & YELLOW SNOWPLOWABLE PAVEMENT MARKER
MF	CRYSTAL & RED SNOWPLOWABLE PAVEMENT MARKER

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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

PAVEMENT MARKING DETAIL

11/21/2023
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DATE: 11/21/2023

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NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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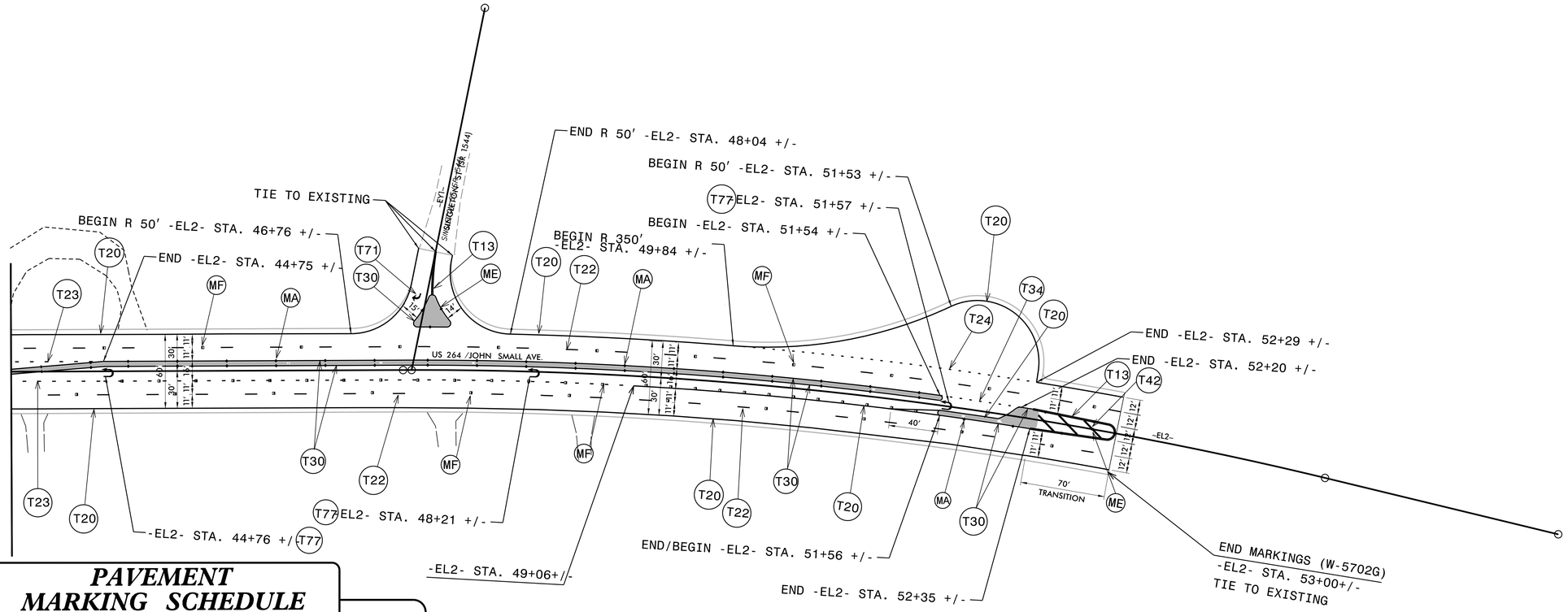


PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
T20	WHITE EDGELINE (6″, 90 MIL)
T30	YELLOW EDGELINE (6″, 90 MIL)
T22	10 FT. WHITE SKIP (6″, 90 MIL)
T23	3FT. - 9FT. /SP WHITE MINISKIP (6″, 90 MIL)
T11	YELLOW SINGLE CENTER (6″, 90 MIL)
T13	YELLOW DOUBLE CENTER (6″, 90 MIL)
T24	2FT. - 6FT. /SP WHITE MINISKIP (6″, 90 MIL)
T34	YELLOW 2FT-6FT/SP MINISKIP (6″, 90 MIL)
T42	YELLOW DIAGONAL (8″, 90 MIL)
T61	WHITE STOPBAR (24″, 90 MIL)
T70	LEFT TURN ARROW (90 MIL)
T71	RIGHT TURN ARROW (90 MIL)
T77	U-TURN ARROW (90 MIL)
MA	YELLOW & YELLOW RAISED PAVEMENT MARKER
ME	YELLOW & YELLOW SNOWPLOWABLE PAVEMENT MARKER
MF	CRYSTAL & RED SNOWPLOWABLE PAVEMENT MARKER

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

PAVEMENT MARKING DETAIL

11/21/2023
...\W5702G_PMP_PSH_11.dgn
USER:bmay

PROJECT: W-5702R

TIP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

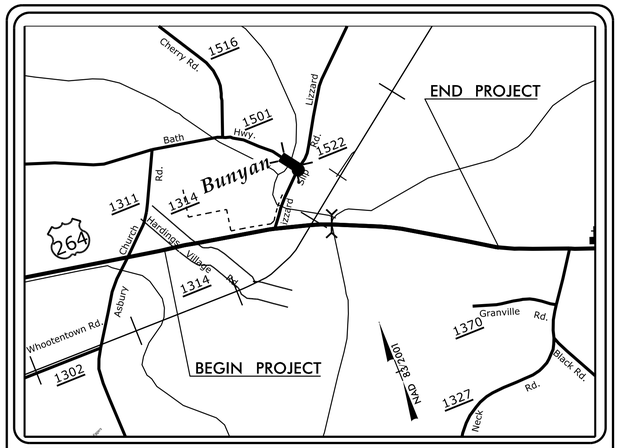
BEAUFORT COUNTY

LOCATION: *US 264 FROM APPROXIMATELY 800' EAST OF SR 1311 (ASBURY CHURCH RD.) TO APPROXIMATELY 1,600' WEST OF SR 1327 (NECK RD.) NEAR SR 1522 (LIZZARD SLIP RD.).*

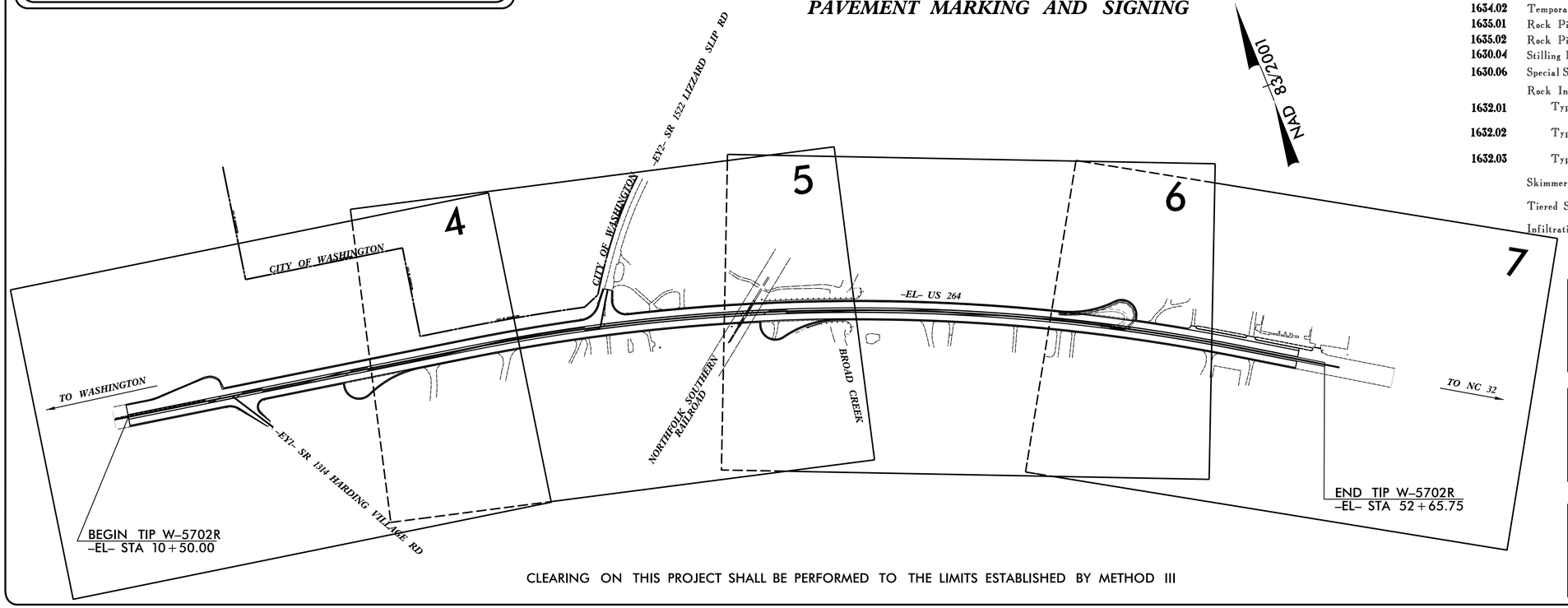
TYPE OF WORK: *RESURFACING, WIDENING, DRAINAGE, PAVEMENT MARKING AND SIGNING*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5702R	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44848.1.18	HSIP-0264 (071)	PE



VICINITY MAP
NOT TO SCALE



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

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

50 25 0 50 100

PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

WETHERILL ENGINEERING
1223 Jones Franklin Rd. Raleigh, N.C. 27606
License No. F-0377
Bus: 919.851.8077 Fax: 919.851.8107

Prepared in the Office of:

WETHERILL ENGINEERING
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27606

Designed by:

KEVIN ALFORD — ***3531***
NAME — *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

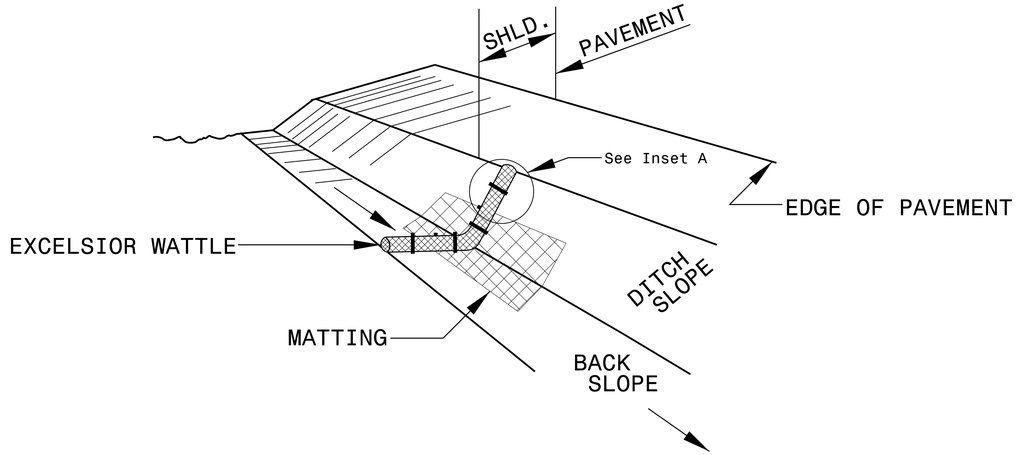
The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

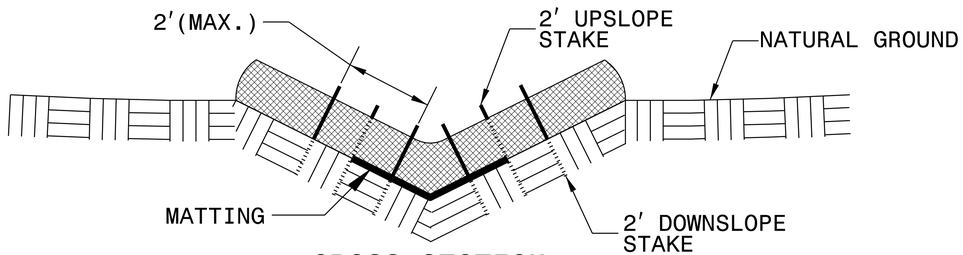
6/15/2023
W-5702R_EC_tsh.dgn
USER:tshaw

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

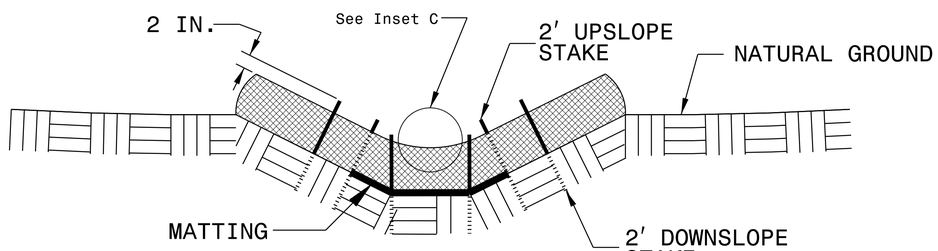
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

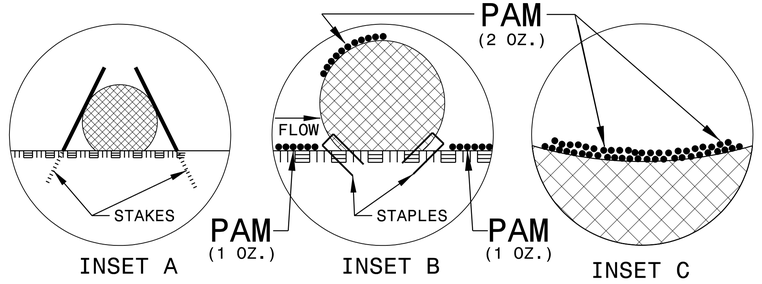
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

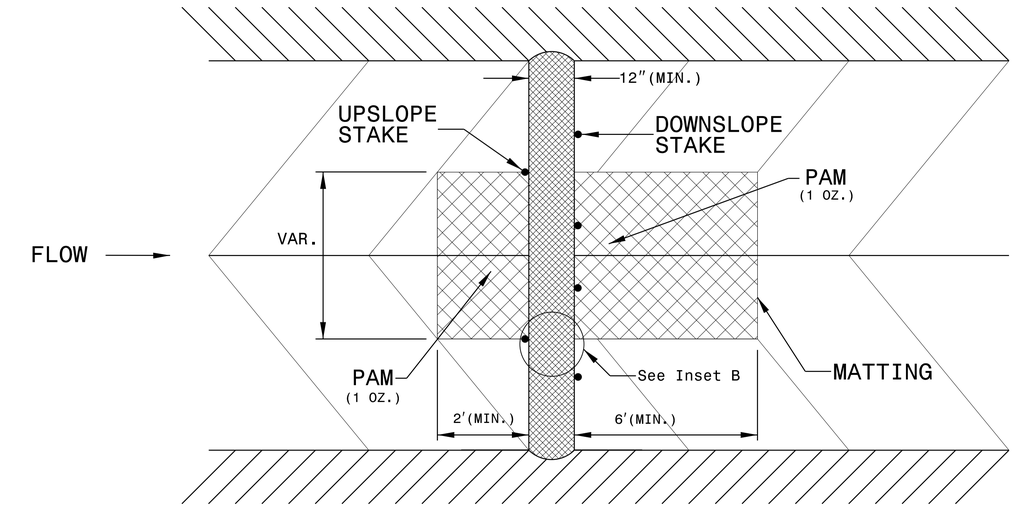
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

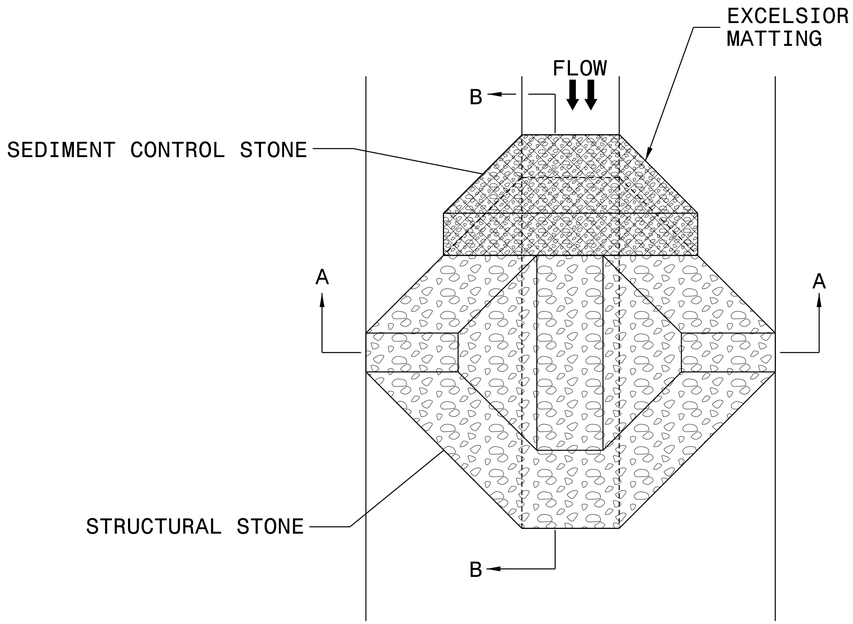




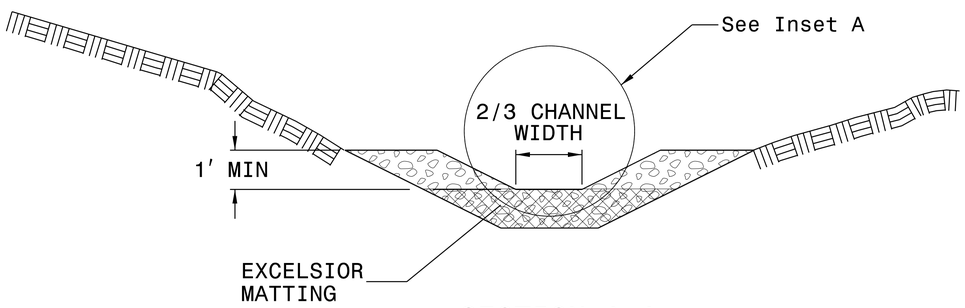
TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN



SECTION A-A

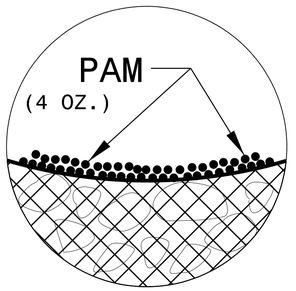
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

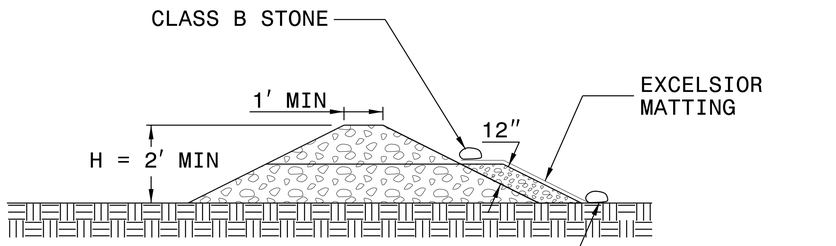
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RAILROAD EROSION CONTROL DETAIL

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

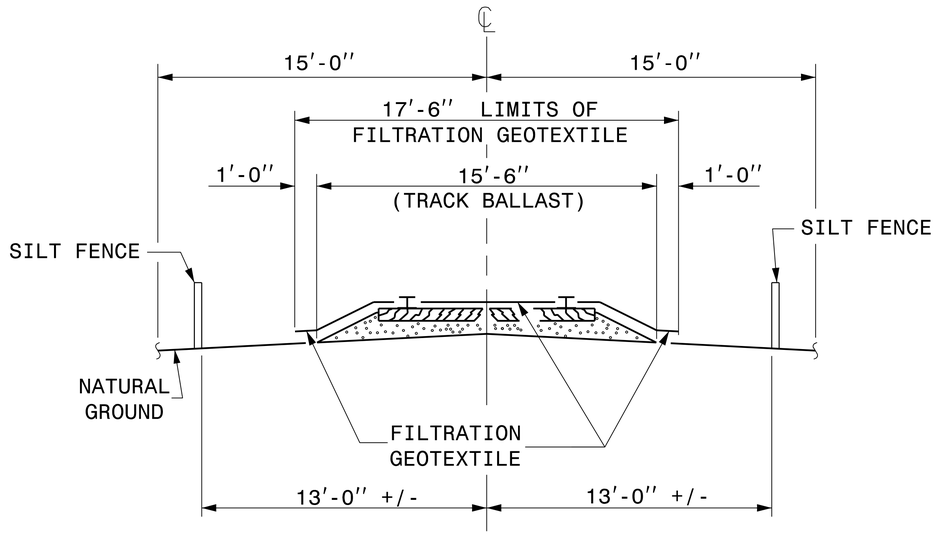
1-12

ENGLISH STANDARD DRAWING FOR

RAILROAD EROSION CONTROL DETAIL

SHEET 1 OF 1

1604.01



NOTES

INSTALL RAILROAD EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED.

MAKE NO SEPARATE PAYMENT FOR RAILROAD EROSION CONTROL MEASURES.

EXTEND LIMITS OF SILT FENCE AND FILTRATION GEOTEXTILE PARALLEL TO RAILROAD A MINIMUM OF 10′-0″ OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.

NAIL FILTRATION GEOTEXTILE TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. SECURE FILTRATION GEOTEXTILE ON SHOULDER AS DIRECTED BY THE RAILROAD AND NCDOT.

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

1-12

ENGLISH STANDARD DRAWING FOR

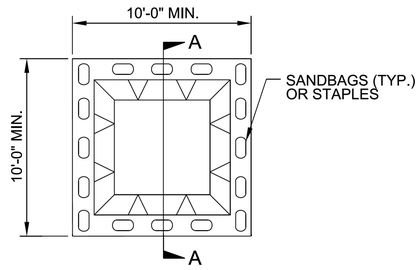
RAILROAD EROSION CONTROL DETAIL

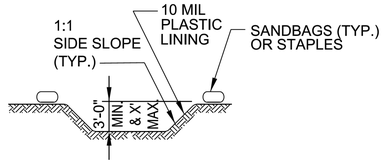
SHEET 1 OF 1

1604.01

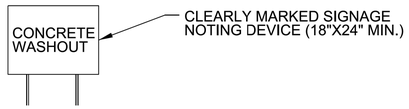
PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER





SECTION A-A



PLAN

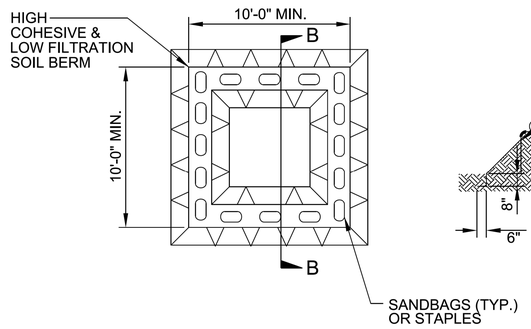
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

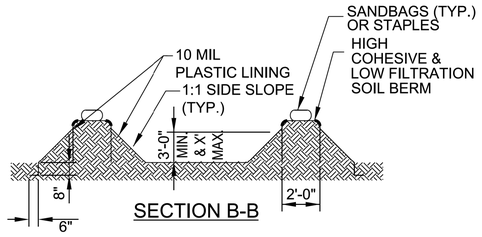
2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE





SECTION B-B



PLAN

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	17+91	20+75	RT	660
				SUBTOTAL	660
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1265
				TOTAL	1925
				SAY	1925

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-3B

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
9	-EL-	23+50	25+00	LT	160
10	-EL-	36+50	38+20	LT	170
			SUBTOTAL		330
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					150
				TOTAL	480
				SAY	480

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NC GRID NAD 83 NA 2011

S 79°25'53" E 420.00'

S 79°25'53" E 279.00'

CITY OF WASHINGTON

S 79°25'53" E 278.99'

ASBURY METHODIST CHURCH
DB 542 PG 503
DB 1754 PG 114
DB 1190 PG 506

BEGIN TIP W-5702R
STA.10+50.00

N 24°54'40" W 331.48'

STEVEN M. FISHER
DB 1248 PG 520

CAROLYN S. ERSKINE
DB 1881PG 312

PATRICK IRVING SHEPPARD
DB 015E PG 523

WASHINGTON MONTESSORI INC.
DB 1343 PG 528
PB C PG 22-6

S 10°34'07" W 394.08' TO MON

0.82' R/W

S 10°37'39" W 394.30' 1.05' R/W TO MON

S 10°37'39" W 394.42' 0.82' R/W TO MON

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

EXISTING R/W

CONC MON

RETAIN

B

BM1 EL=34.17

US-264 (JOHN SMALL AVE) 67' BST

TO WASHINGTON

S 79°24'23.7" E

MATCHLINE -EL- STA. 22+00.00
SEE SHEET NO. 5

INV=25.17'

18" RCP

INV=24.50'

6" DIP, CITY OF WASHINGTON

6" PVC, CITY OF WASHINGTON

GPR

MB

18" RCP

30" RCP

-EY1- STA. 10+00.00 TO STA. 11+79.88

R=30.00'

N 84°39'22" W 83.08'

CEMETERY
DB 1444 PG 800

R/W MON

-EL- Sta.14+19.18 =
-EY1- Sta.10+00.00

ROGER DALE WARNER
DB 1940 PG 100

BEGIN CONSTRUCTION -EY1-
STA.11+58.57

POT Sta. 11+79.88

DONALD F. HARDING
DB 1733 PG 171

DONALD FRANKLIN HARDING JR.
DB 1599 PG 72

CAROLYN S. ERSKINE
DB 1881PG 312

BY1-200

WOODS

S 00°36'16" W 355.51'

N 34°42'11" E 574.09'

S 34°50'11" W 580.39'

S 35°39'36" W 68.30'

S 35°39'36" W 35.24'

S 2°07'11" W 286.69'

+65.00 -EL- 75.00'

+80.00 -EL- 75.00'

+20.00 -EL- 135.00'

+80.00 -EL- 135.00'

TIE EXISTING DITCH TO PROPOSED ROADWAY DITCH

+11.00

+79.93

CONSTRUCT BULB-OUT

1 CAROLYN S. ERSKINE
DB 1881PG 312

0.14' EIP TO R/W

S 10°25'34" W 195.02'

DIGNITY FUNERAL SERVICES INC.
DB 1989 PG 567

ASPHALT

OPEN

GUY

WD PROP

18" RCP

RETAIN

OS

SGI

FSS

EIP

EX.

****
BM1 ELEVATION = 34.17
N 656841 E 2600198
EL STATION 12+93.85 107.45 LEFT
BENCHTIE NAIL SET IN 22" PINE
****

6/15/2022
W-5702R_EC_psh_EC-4.dgn
USER:psh

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

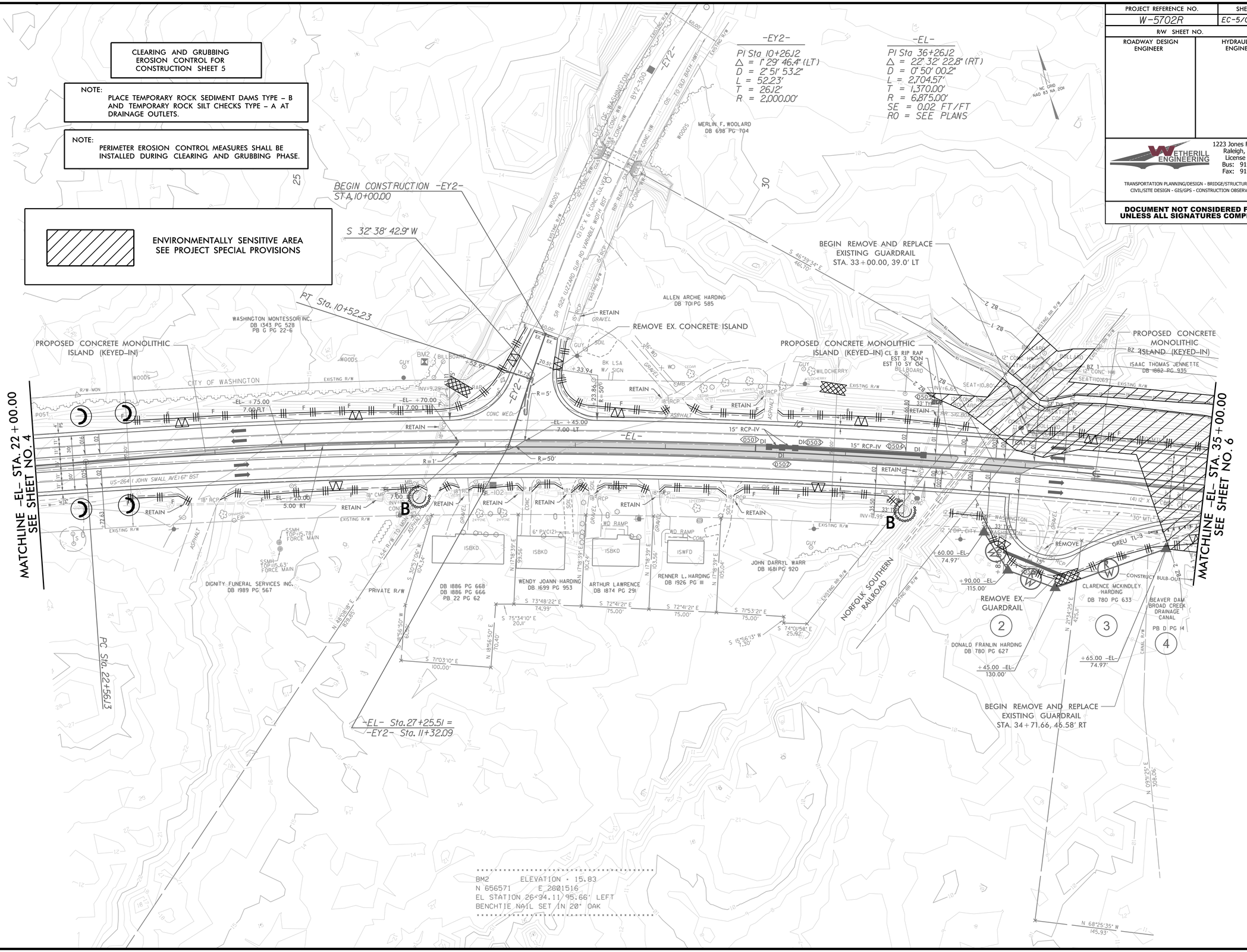
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS



REVISIONS

8/17/99

6/15/2022
...\W-5702R_EC_psh_EC-5.dgn
USER:RMau

8/17/99

REVISIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-EL-
PI Sta 36+26.12
△ = 22° 32' 22.8" (RT)
D = 0° 50' 00.2"
L = 2,704.57'
T = 1,370.00'
R = 6,875.00'
SE = 0.02 FT./FT.
RO = SEE PLANS

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-6/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -EL- STA. 35+00.00
SEE SHEET NO. 5

MATCHLINE -EL- STA. 46+00.00
SEE SHEET NO. 7

STA. 36+12.50, 39.0' LT
TRUSTEE FOR ZACHARY TAYLOR DB 401 PG 4524
END REMOVE AND REPLACE EXISTING GUARDRAIL STA. 36+15.14, 76.09' LT
TRUSTEE FOR ZACHARY TAYLOR DB 979 PG 98
PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)
-EL- +50.00 7.00 LT
-EL- +35.00 7.00 RT
-FI-
US-264 (JOHN SMALL AVE) 67' BST
END REMOVE AND REPLACE EXISTING GUARDRAIL STA. 36+02.50, 64.22' RT
BEAVER DAM BROAD CREEK DRAINAGE CANAL PB D PG 14
OSCAR E. WOOLARD DB 1143 PG 781 PB D PG 14
DOROTHY T. ELLIOT DB 927 PG 633
ZACHARIAH T. GURKIN JR. DB 1924 PG 379
TIMOTHY DOUGLAS ASKEW DB 980 PG 1
SUZANNE CARRAWAY PEELE DB 1767 PG 887
THE ROBERT WHITLEY JR FAMILY LIMITED PARTNERSHIP DB 1371 PG 60
REGINALD W. ASBY DB 795 PG 746
CONSTRUCT BULB-OUT
+00.00 -EL- 135.00
+75.00 -EL- 135.00
+00.00 -EL- 75.05'
+90.00
+27.97
BROAD CREEK
BILLBOARD
RETAIN
EXISTING R/W
15" CONC. W.W.
15" RCP-IV
24" CPP
12" MB R/W
24" RCP
18" RCP
30" RCP
48" PVC
GRAVEL
ASPHALT
RIP RAP
CONC
EIP
EIP TO R/W
FSS
MCR
DIR. CITY OF RALEIGH
R=90.99' ARC=94.85'
S 57°53'08" E 93.14'
R=509.26' ARC=386.15'
N 29°52'60" W 67.85'
N 29°52'60" W 69.99'
S 44°40'22" E 106.97'
S 40°46'24" E 108.53'
N 27°33'38" E 128.08'
R=190.35' ARC=54.85'
S 65°42'53" E 134.79'
S 65°01'19" E 121.74'
S 63°07'45" E 117.08'
S 63°07'45" E 117.08'
S 30°52'05" W 157.15'
N 24°01'38" E 208.98'
N 25°33'58" E 205.71'
N 27°33'56" E 204.27'
N 30°05'57" E 200.83'
S 30°05'53" W 49.33'
6.52' EIP TO R/W
2.72' EIP TO R/W
0.83' EIP TO R/W
BZ 1
AT 1
4
5

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-7/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

REVISIONS

8/17/99

MATCHLINE –EL– STA. 46+00.00
SEE SHEET NO. 6

-EL-
PI Sta 36+26.12
Δ = 22° 32' 22.8" (RT)
D = 0° 50' 00.2"
L = 2,704.57'
T = 1,370.00'
R = 6,875.00'
SE = 0.02 FT/FT
RO = SEE PLANS

NC GRID NAD 83 NA 2011

5
REGINALD W. ASBY
DB 795 PG 746

S 30°05'11" W 454.00'
S 59°54'49" E 90.00'
N 59°54'49" W 30.00'
N 30°05'11" E 16.32'
N 30°05'11" E 29.74'
+25.10 -EL- 75.05'
S 30°05'11" W 232.71'

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

LINWOOD WAYNE LEWIS
DB 842 PG 106

ROSE MARIE LEWIS
DB 765 PG 748

BEAVER DAM CHURCH OF CHRIST
NO DEED

END TIP W-5702R
END CONSTRUCTION
-EL- Sta.52+65.75 =
BEGIN TIP W-5702G
-EL- Sta.11+47.00

END OVERLAY
-EL- 51+68.79
2SBK CHURCH

POT Sta. 53+18.77
N 30°58'23" E 89.25'
N 56°11'37" W 60.00'
N 33°28'23" E 100.04'
1.83' R/W TO EIP

BEAUFORT COUNTY COMMUNITY COLLEGE
DB 530 PG 235
PB 20 PG 10

WD PORCH
ISWFD
GRAVEL
R/W MON
INV=20.59'
EXISTING R/W
15" RCP
6.18' EIP TO R/W
DI TOP=24.6' INV IN=19.90' INV OUT=20.86'
DI TOP=24.5' INV OUT=22.36'
CONC SW
CONC
ASPHALT
DI TOP=24.38' INV OUT=23.49'
4" PVC
18" RCP
EIP CONC
INV=22.35'
+47.49
+22.35

FL RETAIN
RETAIN
S 56°52'00.9" E
-EL-
US-264 (JOHN SMALL AVE) 67' BST
TO BATH
GPS-3

72" CHL & 3SBW
BILLBOARD
EIP
0.5' R/W
GRAVEL
ASPHALT
0.53' EIP TO R/W
BM3
1.5SWFD
INV=22.14'
0.95' R/W TO EIP
1.05' R/W TO EIP
CHARLES ANTHONY SINGLETON
DB 1767 PG 89
ISWFBUS

THE ROBERT WHITLEY JR FAMILY LIMITED PARTNERSHIP
DB 1371 PG 60

THE ROBERT WHITLEY JR FAMILY LIMITED PARTNERSHIP
DB 1912 PG 330

THE ROBERT WHITLEY JR FAMILY LIMITED PARTNERSHIP
DB 1967 PG 63

S 30°13'13" W 193.56'
S 30°13'13" W 184.94'
S 31°50'21" W 162.97'
N 28°42'12" E 153.50'
PT Sta. 49+60.69
S 60°41'12" E 210.58'
S 60°41'12" E 329.29'
S 60°41'12" E 143.43'
S 30°13'13" W 43.02'
N 62°27'47" W 410.31'

BM3 ELEVATION = 27.49
N 655425 E 2603711
EL STATION 51+11.32 60.29 RIGHT
BENCHTIE NAIL SET IN 27" PINE

6/15/2022
W-5702R_EC_psh_EC-7.dgn
USER:RMoore

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-8/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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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REVISIONS 8/17/99

NC GRID NAD 83 NA 2011

S 79°25'53" E 420.00'

S 79°25'53" E 279.00'

CITY OF WASHINGTON

S 79°25'53" E 278.99'

10 15 10 20

CITY OF WASHINGTON

ASBURY METHODIST CHURCH
DB 542 PG 503
DB 1754 PG 114
DB 1190 PG 506

STEVEN M. FISHER
DB 1248 PG 520

CAROLYN S. ERSKINE
DB 1881 PG 312

PATRICK IRVING SHEPPARD
DB 0155 PG 523

WASHINGTON MONTESSORI INC.
DB 1343 PG 528
PB C PG 22-6

N 24°54'40" W 332.48'

S 10°34'07" W 314.08' TO MON

S 10°37'39" W 314.30' 1.05' R/W TO MON

S 10°37'39" W 314.42' 0.62' R/W TO MON

BEGIN TIP W-5702R
STA. 10+50.00

EXISTING R/W

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

PROPOSED CONCRETE MONOLITHIC ISLAND (KEYED-IN)

CONC MON

RETAIN

BM1 ELEV=25.17'

18" RCP

US-264 (JOHN SMALL AVE) 67' BST

TO WASHINGTON

S 79°24'23.7" E

EX.

11' 11' 11' 11' 30' 30'

INV=24.50

MB

CIRCP

OPEN CUT MAIN

S 30°51'41" E 58.03'

R/W MON

CEMETERY
DB 1444 PG 800

S 84°39'22" E 83.08'

WOODS

-EL- Sta. 14+19.18 =
-EY1- Sta. 10+00.00

ROGER DALE WARNER
DB 1940 PG 100

BEGIN CONSTRUCTION -EY1-
STA. 11+58.57

POT Sta. 11+79.88

DONALD F. HARDING
DB 1733 PG 171

-EY1-

-EY1-200

DONALD FRANKLIN HARDING JR.
DB 1599 PG 72

CAROLYN S. ERSKINE
DB 1881 PG 312

S 00°36'16" W 395.51'

N 34°36'21" E 574.05'

S 34°50'10" W 580.39'

S 35°39'35" W 163.90'

S 21°07'11" W 246.69'

S 32°39'35" W 352.41'

+65.00 -EL- 75.00'

+80.00 -EL- 75.00'

+20.00 -EL- 135.00'

+80.00 -EL- 135.00'

TIE EXISTING DITCH TO PROPOSED ROADWAY DITCH

0.4' EIP TO R/W

S 10°25'34" W 195.02'

+11.00

+79.03

1 CAROLYN S. ERSKINE
DB 1881 PG 312

CONSTRUCT BULB-OUT

DIGNITY FUNERAL SERVICES INC.
DB 1989 PG 567

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.

MATCHLINE -EL- STA. 22+00.00
SEE SHEET NO. 5

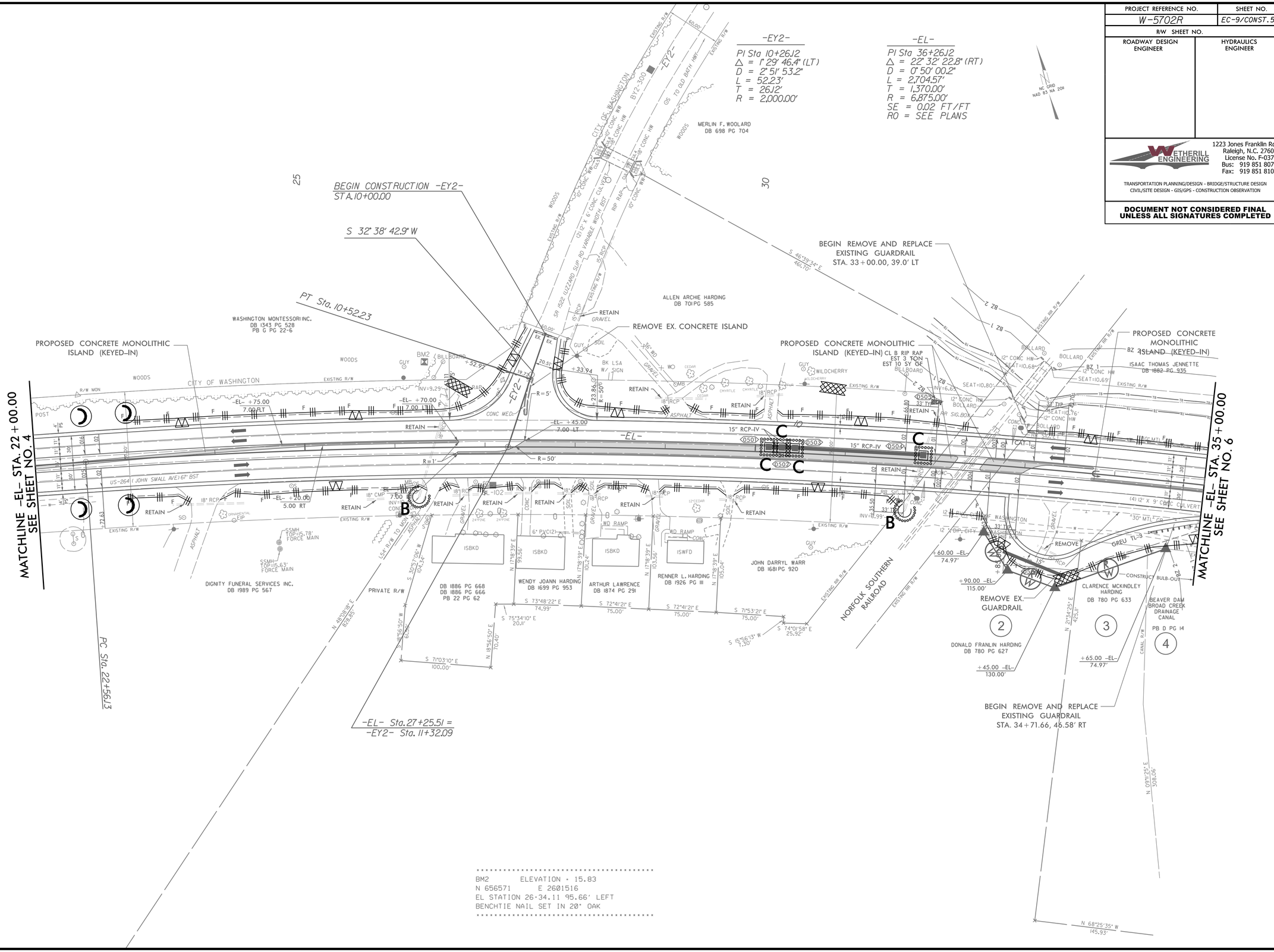
BM1 ELEVATION = 34.17
N 656841 E 2600198
EL STATION 12+93.85 107.45 LEFT
BENCHTIE NAIL SET IN 22" PINE

6/15/2022
W-5702R_EC_psh_EC-8_FINAL.dgn
USER:RMOI

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-9/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



BM2 ELEVATION · 15.83
N 656571 E 2601516
EL STATION 26+34.11 95.66' LEFT
BENCHTIE NAIL SET IN 20" OAK

REVISIONS

8/17/99

6/15/2022
W-5702R_EC_psh_EC-9_FINAL.dgn
USER:RMau

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-10/CONST.6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

-EL-
PI Sta 36+26.12
△ = 22° 32' 22.8" (RT)
D = 0° 50' 00.2"
L = 2,704.57'
T = 1,370.00'
R = 6,875.00'
SE = 0.02 FT/FT
RO = SEE PLANS

NC GRID
NAD 83 NA 2011

MATCHLINE -EL- STA. 35+00.00
SEE SHEET NO. 5

MATCHLINE -EL- STA. 46+00.00
SEE SHEET NO. 7

STA. 36+12.50, 39.0' LT

TRUSTEE FOR ZACHARY TAYLOR
DB ADI PG 4524

END REMOVE AND REPLACE
EXISTING GUARDRAIL
STA. 36+15.14, 76.09' LT

TRUSTEE FOR ZACHARY TAYLOR
DB 979 PG 98

PROPOSED CONCRETE MONOLITHIC
ISLAND (KEYED-IN)

BILLBOARD

BROAD CREEK

PI-RUN OF CREEK

BZ 1

RETAIN

EXISTING R/W

-EL- +50.00
7.00 LT

-EL- +35.00
7.00 RT

-Fl-

US-264 (JOHN SMALL AVE) 67' BST

15" CONC WW

24" CPP

12" MB RW

RIP RAP

24" RCP

48" PVC

GRAVEL

ASPHALT

CANAL R/W

END REMOVE AND REPLACE
EXISTING GUARDRAIL
STA. 36+02.50, 64.22' RT

BEAVER DAM
BROAD CREEK
DRAINAGE CANAL
PB D PG 14

OSCAR E. WOOLARD
DB 1143 PG 781
PB D PG 14

DOROTHY T. ELLIOT
DB 927 PG 633

ZACHARIAH T. GURKIN JR.
DB 1924 PG 379

TIMOTHY DOUGLAS ASKEW
DB 980 PG 1

SUZANNE CARRAWAY PEELE
DB 1767 PG 887

THE ROBERT WHITLEY JR
FAMILY LIMITED PARTNERSHIP
DB 1371 PG 60

REGINALD W. ASBY
DB 795 PG 746

CONSTRUCT BULB-OUT

+00.00 -EL-
135.00'

+75.00 -EL-
135.00'

+00.00 -EL-
75.05'

+27.97

+90.00

15" RCP-IV

Q60

W-BEAM

EIP

EIP TO R/W

CONC

S 57°13'08" E
93.14'

R=90.99'
ARC=94.85'

R=509.26'
ARC=386.33'

S 44°40'22" E
106.97'

S 01°46'24" E
108.93'

N 27°33'38" E
128.08'

S 30°52'05" W
157.75'

N 24°21'34" E
208.98'

N 25°33'58" E
205.71'

N 27°33'56" E
204.27'

N 30°05'57" E
200.83'

S 30°05'53" W
49.33'

S 65°42'53" E
134.79'

S 65°01'19" E
121.74'

S 63°07'45" E
117.08'

S 63°07'45" E
117.08'

R=190.35'
ARC=54.85'

6.35' EIP TO R/W

2.72' EIP TO R/W

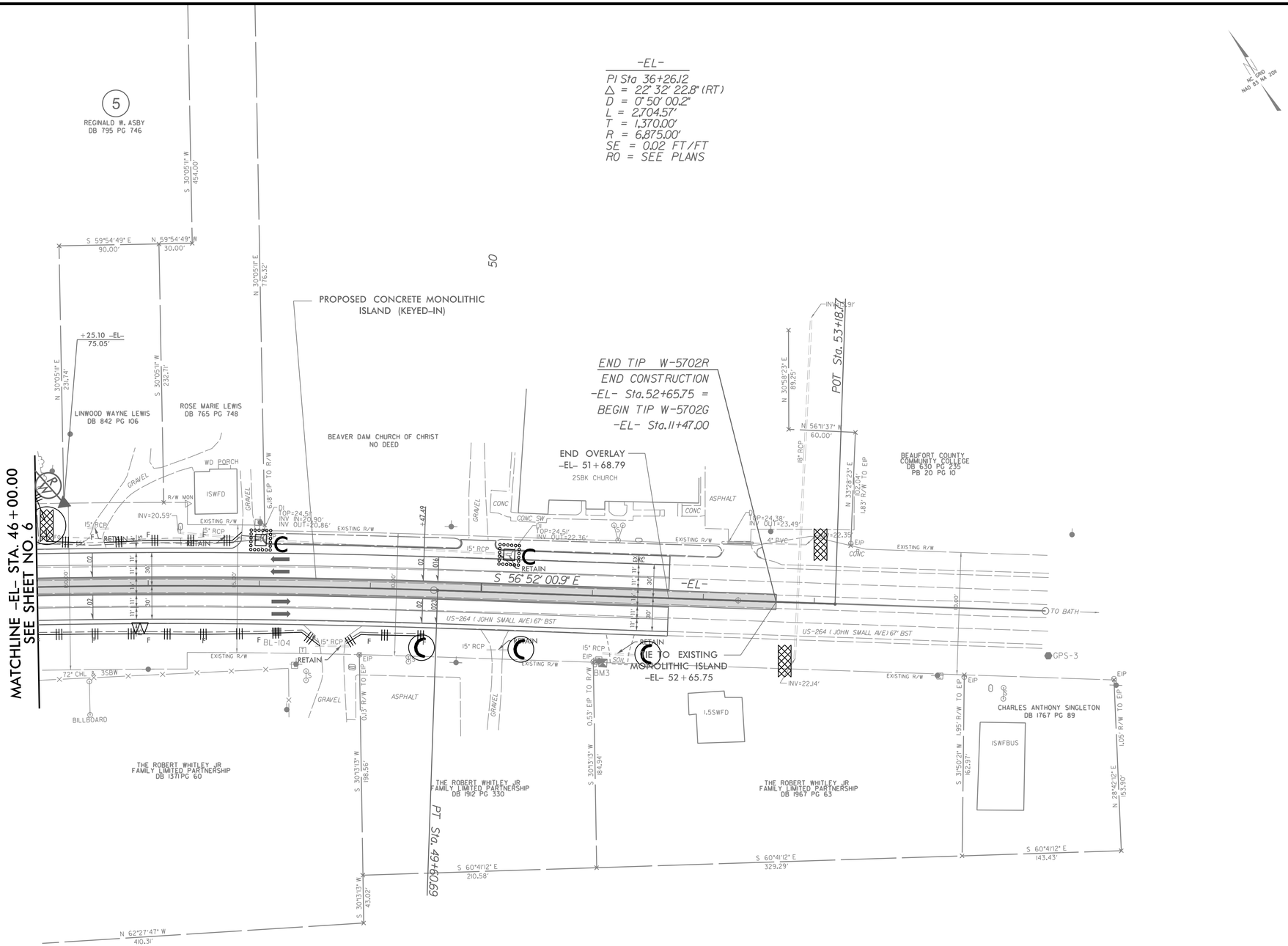
0.83' EIP TO R/W

6/15/2022
W-5702R_EC_psh_EC-10_FINAL.dgn
USER:RMcL

PROJECT REFERENCE NO.	SHEET NO.
W-5702R	EC-11/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



BM3 ELEVATION = 27.49
N 655425 E 2603711
EL STATION 51+11.32 60.29 RIGHT
BENCHTIE NAIL SET IN 27" PINE

REVISIONS

8/17/99

6/15/2022
W-5702R_EC_psh_EC-11_FINAL.dgn
USER:BMau

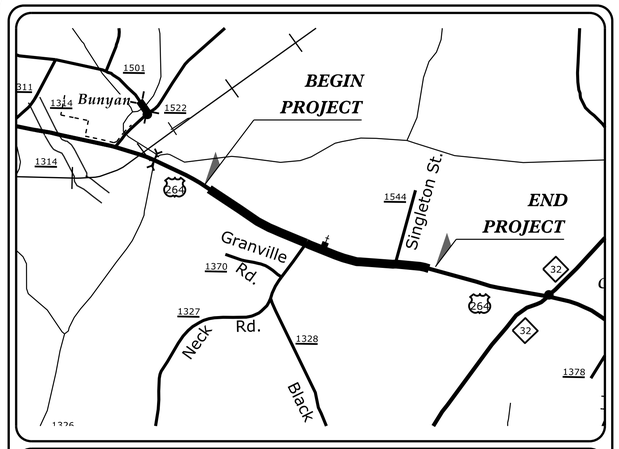
TIP PROJECT: W-5702G

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5702G	EC-12	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44848.1.7	HSIP-0264(064)	PE
44848.2.7	HSIP-0264(064)	RW
44848.3.7	HSIP-0264(064)	CONST

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

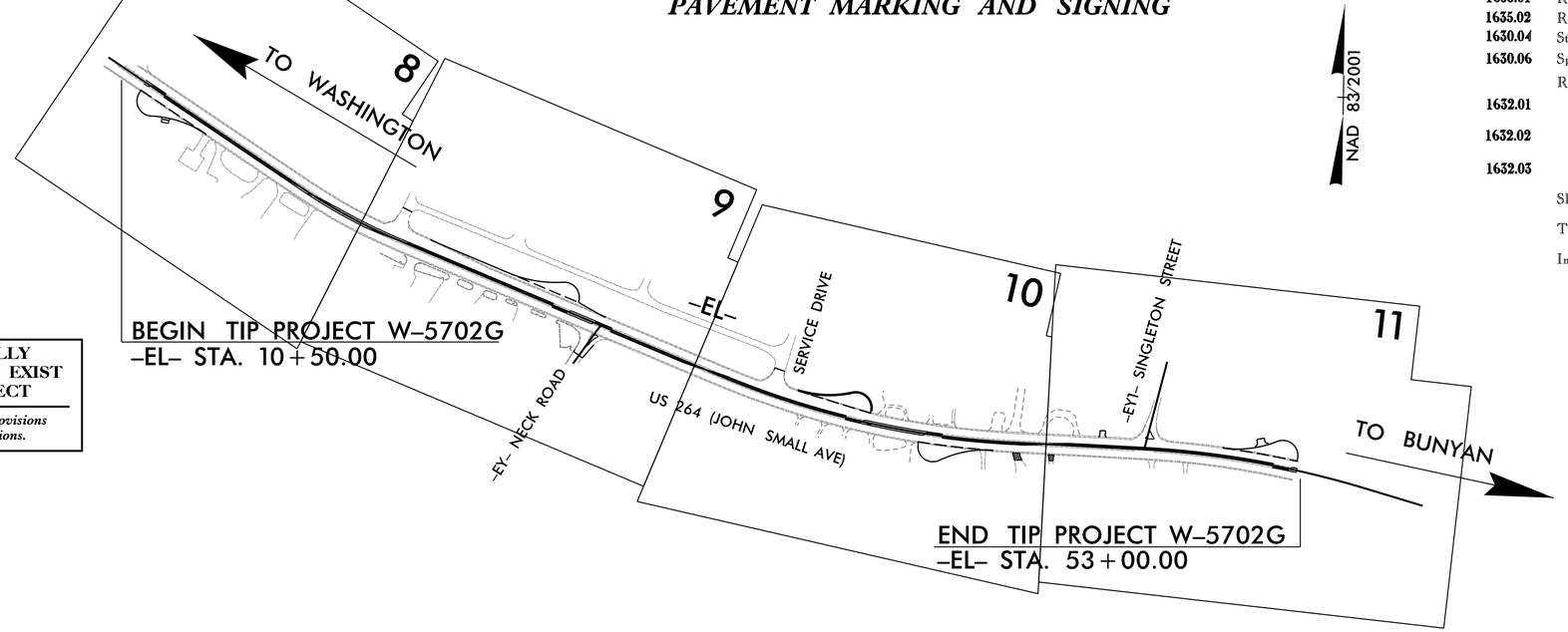
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL



VICINITY MAP
NOT TO SCALE

LOCATION: MM 11.5 US 264 SUPER STREET NEAR BEAUFORT COUNTY COMMUNITY COLLEGE
35° 31' 55"N 76° 57' 57"W

TYPE OF WORK: RESURFACING, WIDENING, DRAINAGE PAVEMENT MARKING AND SIGNING



NAD 83/2001

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

WETHERILL ENGINEERING
1223 Jones Franklin Rd. Raleigh, N.C. 27606
License No. P-0377
Bus: 919.851.8077 Fax: 919.851.8107

Prepared in the Office of:

WETHERILL ENGINEERING
1223 JONES FRANKLIN ROAD
RALEIGH, NC 27606

Designed by:

MATTHEW HARVEY ***3487***
NAME *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

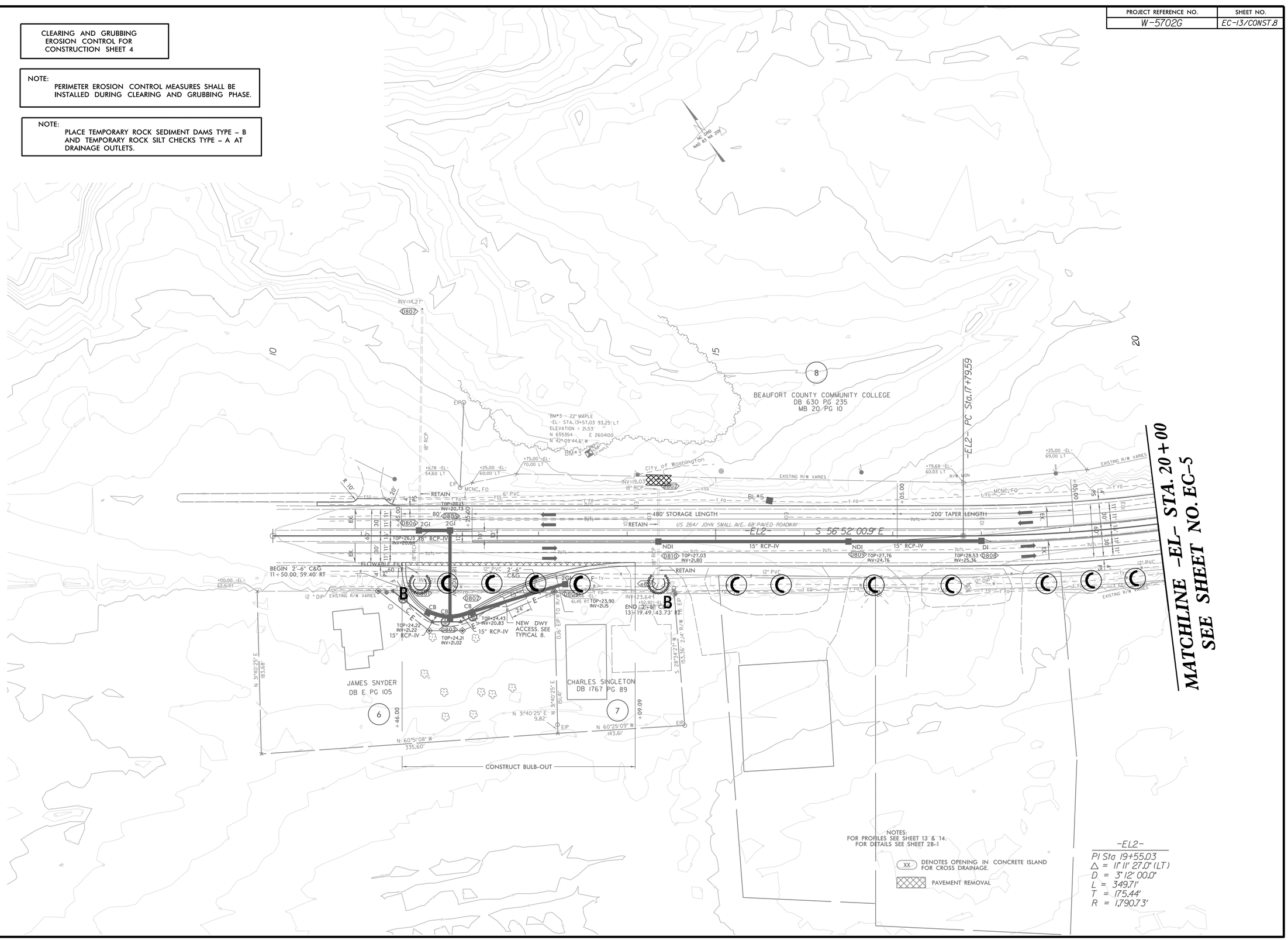
11/16/2023
W-5702G_EC_TSH.dgn
USER:MHarvey

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-13/CONST.8

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



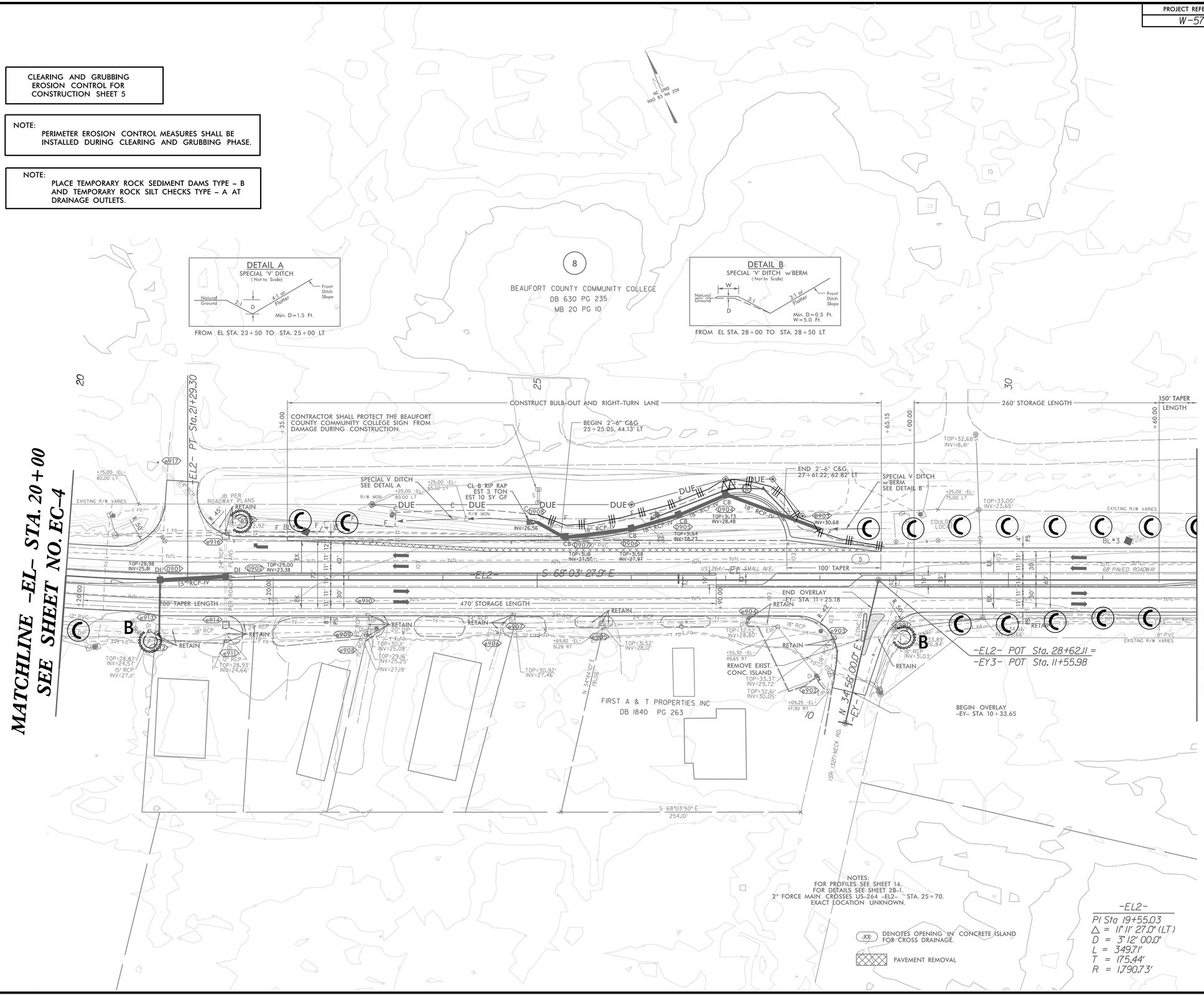
11/6/2023
W5702G_EC_PSH_13_FINAL_PLANS.dgn
USER:mharvey

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-14/CONST.9

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



NOTES:
FOR PROFILES SEE SHEET 14.
FOR DETAILS SEE SHEET 2B-1.
2" FORCE MAIN CROSSES US-264 -EL2- ~ STA. 25+70.
EXACT LOCATION UNKNOWN.

DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

-EL2-
PI Sta 19+55.03
Δ = 11° 11' 27.0" (LT)
D = 3° 12' 00.0"
L = 349.71'
T = 175.44'
R = 1,790.73'

11/16/2023
W5702G-EC_PSH_13_FINALPLANS.dgn
USER:MHarvey

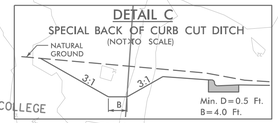
PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-15/CONST.10

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

DETAIL C
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



NC GRID
NAD 83 NA 208

BEAUFORT COUNTY COMM COLLEGE
DB 360 PG 235
MB 20 PG 10

8

9

COUNTY OF BEAUFORT
DB 1732 PG 386
PC H 42-5

10

SOHIR ASHKAR
DB 1896 PG 313

PEGGY WOOLARD
DB 694 PG 519

FROM STA. TO STA.

MATCHLINE -EL- STA. 32+00
SEE SHEET NO. EC-5

MATCHLINE -EL- STA. 44+00
SEE SHEET NO. EC-7

S 15°36'28" E 286.71'

S 16°50'26" W 269.47'

N 09°27'28" E 715.83'

S 16°10'05" W 120.06'

N 55°56'24" E 252.11'

S 34°14'00" W 159.36'

S 00°18'42" E 230.52'

N 80°43'00" W 364.02'

S 00°17'54" W 459.48'

S 68°03'27" E

150' TAPER LENGTH

420' STORAGE LENGTH

270' STORAGE LENGTH

CONSTRUCT BULB-OUT

BM#2 - 27" PINE
-EL- STA. 34+10.31 89.75' LT
ELEVATION = 37.06'
N 654492 E 2605931

SPECIAL BACK OF CURB DITCH SEE DETAIL C

-EL2- PC Sta. 32+89.26

-EL2- PT Sta. 42+79.59

-EL2-
PI Sta 37+89.44
Δ = 19° 48' 24.0" (LT)
D = 2° 00' 00.0"
L = 990.33'
T = 500.18'
R = 2,864.93'

BEGIN 7" CONCRETE APRON 39+88.77' RT

END 2'-6" C&G 41+24.36 49.39' RT

CL B RIP RAP EST 2 TON EST 7 SY GF

CONCRETE DWY REPAIRS

EXISTING R/W VARIES

NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 28-2.

(XX) DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

11/15/2023
W-5702G EC_PSH_15_FINALPLANS.dgn
USER:mfarney

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-16/CONST.11

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

MATCHLINE -EL- STA. 44+00
SEE SHEET NO. EC-6

NC GRID
NAD 83 NA 2011

POT Sta. 13+00.00

-EY1-

EXISTING R/W

SINGLETON ST. (SR 1540)

N 13° 49' 07.0" E

END OVERLAY
-EY1- STA 10+97.93

RICHARD WOOLARD
DB 1610 PG 858

11

12

JOHN BALDWIN
DB 1932 PG 698

CONSTRUCT BULB-OUT

NEW DRIVEWAY ACCESS SEE DWY TYPICAL 8.

150' TAPER LENGTH

+75.00'

+24.93 -EL- 62.04 LT

+00.01 -EL- 66.99 LT

+75.00 -EL- 60.00 LT

+14.8 -EL- 95.74 LT

+77.47 -EL- 87.08 LT

+15.00 -EL- 70.33 LT

BM#1- 36" SPLIT PINE
-EL- STA. 49+40.52 64.99' LT
ELEVATION = 34.53'
N 654277 E 2607419
N 88° 26' 47.4" E

+83.76

+78.47 -EL- 72.29 LT

24" HOT WIRE

BILL BOARD

+33.35

EXISTING R/W VARIES

12" RCP

RETAIN

BM#1

36" SPLIT PINE

INV=28.48

15" RCP

RCP-IV

REMOVE

CL B RIP RAP
EST 2 TON
EST 7 SY GF

TO DRAIN
OUT DITCH)

EXISTING R/W VARIES

EXISTING R/W VARIES

R/W MON

RETAIN

SEE DWY TYPICAL 8

BEGIN OVERLAY
-EY1- STA 10+30.61

-EL-

-EL2-

S 07° 51' 51.9" E

US 264/ JOHN SMALL AVE. 68' PAVED ROADWAY

2UTL

EXIST. RCP

EXIST. CURB INLET

TOP=33.16
INV=28.55

18" RCP

RETAIN

EXISTING R/W VARIES

CONCRETE DWY REPAIR

+75.00 -EL- 60.00 RT

+18.03 -EL- 60.00 RT

680' STORAGE LENGTH

-EL2- PC Sta. 47+18.03

-EL2- POC Sta. 47+24.95

-EY4- POT Sta. 10+00.00

END TIP W-5702G\W-5702R
END CONSTRUCTION
-EL2- POC Sta. 53+00.00

-EL2- PT Sta. 54+43.09

-EL2- POT Sta. 56+67.82

S 74° 51' 17.9" E

-EL2-

55

80'

+55.00

+35.00

-EL2-
PI Sta 50+97.43
△ = 13° 50' 34.0" (RT)
D = 1° 50' 00.0"
L = 755.06'
T = 379.39'
R = 3125.36'

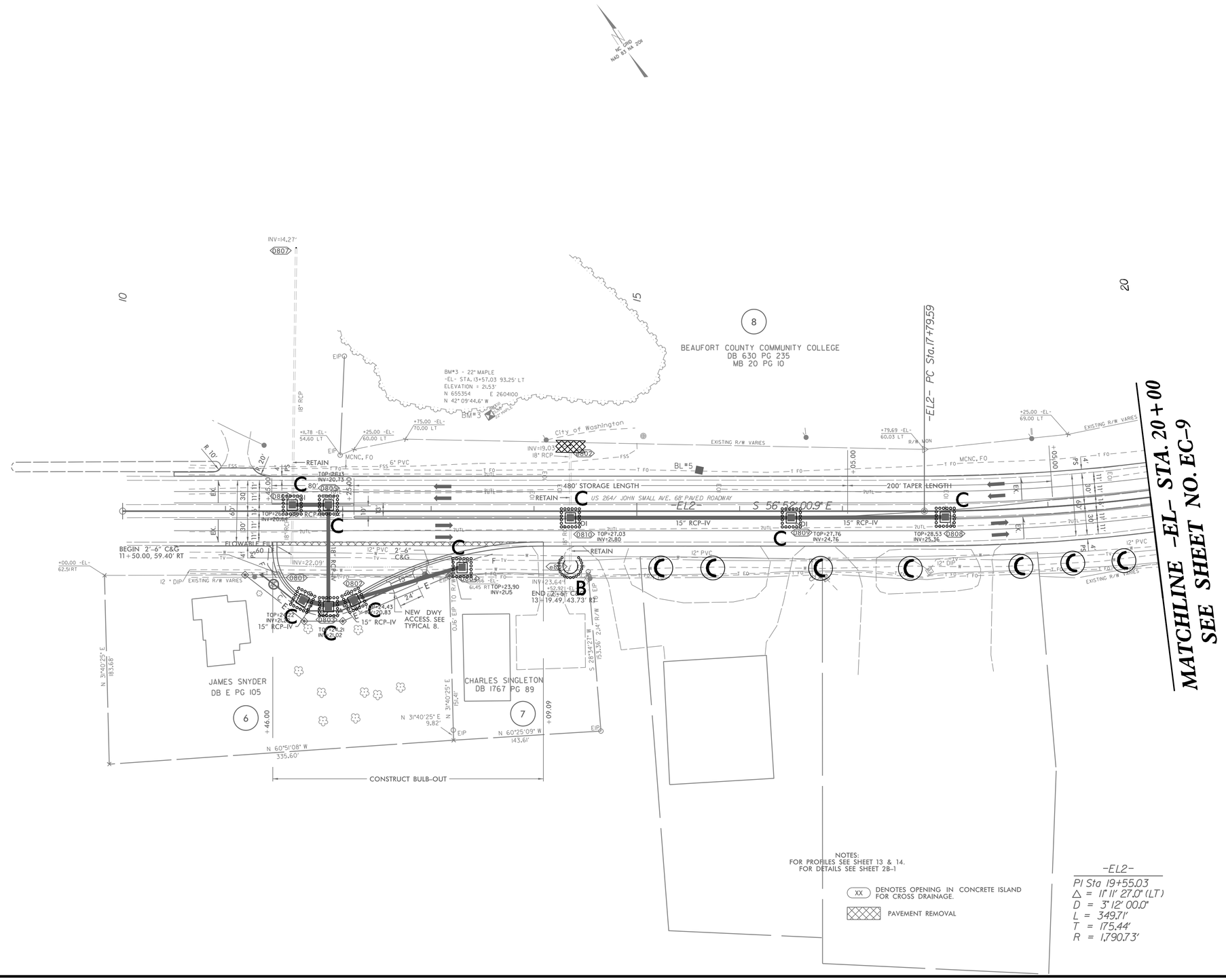
NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 28-2.

(XX) DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

11/6/2023
...\W-5702G_PSH_16_FINALPLANS.dgn
USER:hmhall

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-17/CONST.8

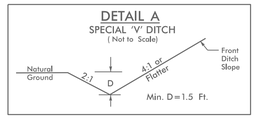


11/6/2023
W5702G_EC_PSH_17_FINAL_PLANS.dgn
USER:mharvey

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-18/CONST.9

NC GRID
NAD 83 NA 2011

DETAIL A
SPECIAL 'V' DITCH
(Not to Scale)

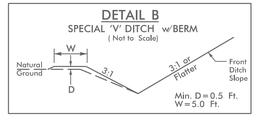


FROM EL STA. 23+50 TO STA. 25+00 LT

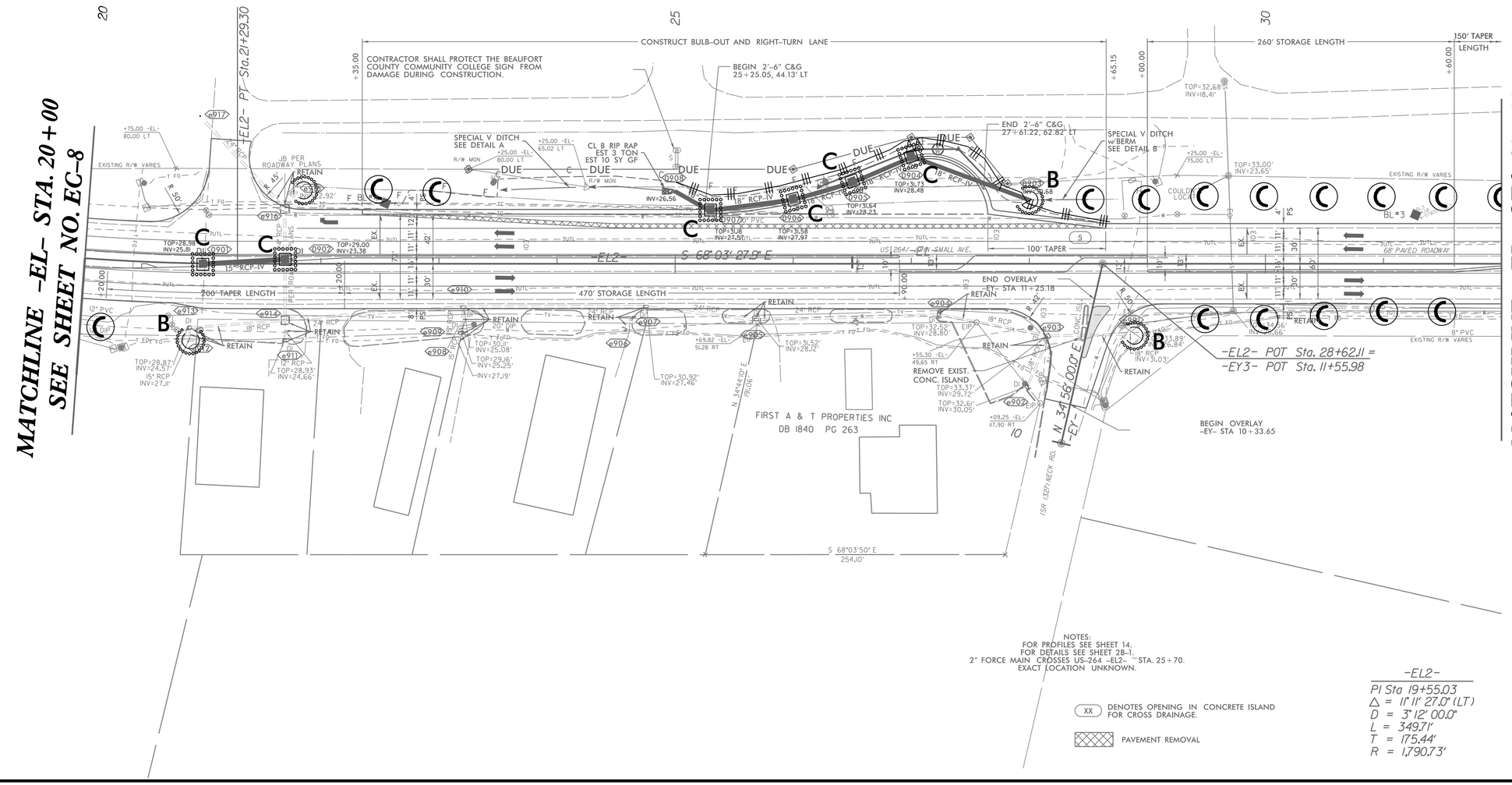
8

BEAUFORT COUNTY COMMUNITY COLLEGE
DB 630 PG 235
MB 20 PG 10

DETAIL B
SPECIAL 'V' DITCH w/BERM
(Not to Scale)



FROM EL STA. 28+00 TO STA. 28+50 LT



NOTES:
FOR PROFILES SEE SHEET 14.
FOR DETAILS SEE SHEET 28-1.
2" FORCE MAIN CROSSES US-264 -EL2- AT STA. 25+70.
EXACT LOCATION UNKNOWN.

XX DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

-EL2-
PI Sta 19+55.03
△ = 11° 11' 27.0" (LT)
D = 3° 12' 00.0"
L = 349.71'
T = 175.44'
R = 1,790.73'

V:\W5702G\EC_PSH_18_FINAL PLANS.dgn
USER:thhall
V:\W5702G\EC_PSH_18_FINAL PLANS.dgn

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-19/CONST.10

NC GRID
NAD 83 NA 208

DETAIL C
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

NATURAL GROUND
3:1
3:1
B
Min. D=0.5 Ft.
B=4.0 Ft.

BEAUFORT COUNTY COMM COLLEGE
DB 360 PG 235
MB 20 PG 10

8

FROM STA. TO STA.

9

COUNTY OF BEAUFORT
DB 1732 PG 386
PC H 42-5

150' TAPER LENGTH

-EL2- PC Sta 32+89.26

+10.00

BM#2 - 27" PINE
-EL- STA. 34+10.31 89.75' LT
ELEVATION = 37.06'
N 654492 E 2605931

35

+51.09

CONSTRUCT BULB-OUT

+09.30

40

150' TAPER LENGTH

-EL2- PT Sta. 42+79.59

+35.00

270' STORAGE LENGTH

+55.00

SPECIAL BACK OF CURB DITCH SEE DETAIL C

BM#2

R 40'

R 50'

MCF 1009

MCF 1010

C&G 1008

MCF 1007

S 68°03'27.9" E

RETAIN

e102

BL-2

EK.

4' PS

30'

11'

11'

12'

-EL2-

TOP=37.90
INV=34.32

1005

15"

F

BEGIN 2" C&G
39+88.89 69.39' RT

CL B RIP RAP
EST 2 TON
EST 7 SY GF

1006
INV=32.97

END 2" C&G
41+24.36 49.39' RT

CONCRETE DWY REPAIRS

TOP=37.61
INV=34.61

1004

1003

TOP=37.61
INV=34.61

+10.00

420' STORAGE LENGTH

+30.00

B

10

+76.71

CONSTRUCT BULB-OUT

+25.17

SOHIR ASHKAR
DB 1896 PG 313

PEGGY WOOLARD
DB 694 PG 519

MATCHLINE -EL- STA. 32+00
SEE SHEET NO. EC-9

MATCHLINE -EL- STA. 44+00
SEE SHEET NO. EC-11

NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 28-2.

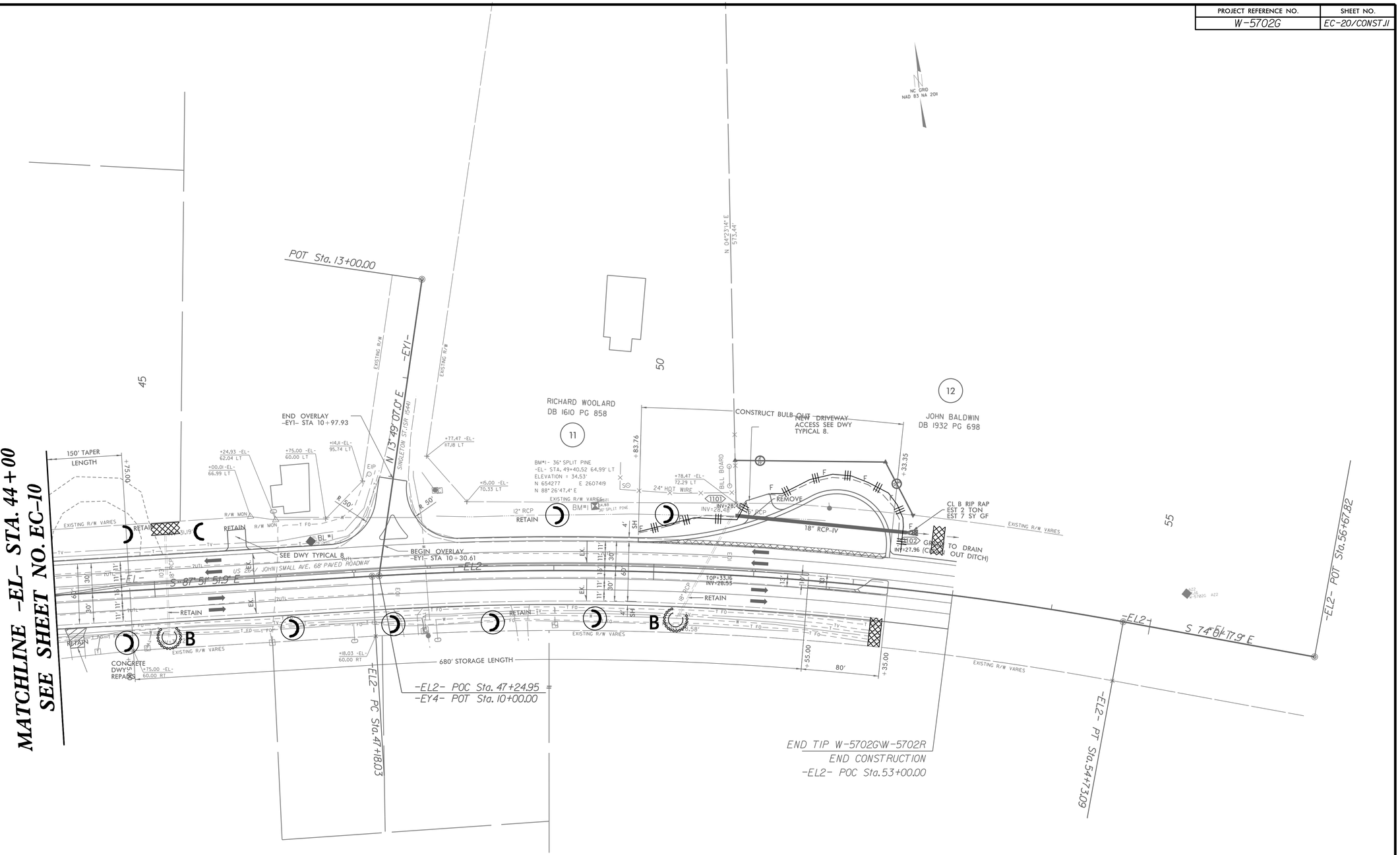
(XX) DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

-EL2-
PI Sta 37+89.44
△ = 19° 48' 24.0" (LT)
D = 2° 00' 00.0"
L = 990.33'
T = 500.18'
R = 2,864.93'

...\W5702G-EC-PSH-19_FINALPLANS.dgn
USER:thess
PLOT DATE: 1/6/2023

PROJECT REFERENCE NO.	SHEET NO.
W-5702G	EC-20/CONST.J1



-EL2-

PI Sta 50+97.43
△ = 13° 50' 34.0" (RT)
D = 1° 50' 00.0"
L = 755.06'
T = 379.39'
R = 3,125.36'

NOTES:
FOR PROFILES SEE SHEET 15.
FOR DETAILS SEE SHEET 2B-2.

XX DENOTES OPENING IN CONCRETE ISLAND FOR CROSS DRAINAGE.

PAVEMENT REMOVAL

11/16/2023
W-5702G-EC_PSH_20_FINALPLANS.dgn
USER:MHarvey

DocuSign Envelope ID: 7C730120-DD69-4F46-A6F3-01AE7AFF613E

TIP NO.	SHEET NO.
W-5702R	SIGN-1

APPROVED: DocuSigned by: Regina M. Muncey C7FE51B522454FA...
DATE: 6/27/2022

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
BEAUFORT COUNTY

LOCATION: US 264 SUPER STREET BETWEEN WASHINGTON, NC AND BEAUFORT COUNTY COMMUNITY COLLEGE

T.I.P.: W-5702R

CONTRACT: DB00540

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
901.50	ARROWS AND SHIELDS
901.70	SIGN STRINGERS AND SUPPORT SPACING
903.20	MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON WOOD POSTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
910.30	SIGNING SUPERSTREET

GENERAL NOTES

- SIGNS FURNISHED BY STATE.
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO WOOD POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.
- ALL EXISTING SIGNS ON WOOD POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.
- FOR ALL SIGNS SHOWN TO BE MOUNTED ON CONCRETE ISLAND, CONTRACTOR SHALL USE 2" X 2" SQUARE POST SURFACE MOUNT BREAKAWAY SYSTEM.

SUMMARY OF QUANTITIES

ITEM NO. DESC. NO.	ITEM NO. SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4082000000	903	SUPPORTS, WOOD	600	LF
4096000000	904	SIGN ERECTION, TYPE D	3	EA
4102000000	904	SIGN ERECTION, TYPE E	21	EA
4108000000	904	SIGN ERECTION, TYPE F	2	EA
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	1	EA
4158000000	907	DISPOSAL OF SIGN SYSTEM, WOOD	13	EA
4360000000	SP	GENERIC SIGNING ITEM, 2"X2" SQUARE POST SURFACE MOUNT BREAKAWAY SYSTEM	6	EA

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	TYPE "E" & "F" SIGNS
SIGN-2A	U-TURN SIGN DETAIL
SIGN-3	SIGN DESIGNS
SIGN-4-7	SIGNING PLAN SHEETS

PLAN PREPARED FOR THE N.C.D.O.T. SIGNING AND DELINEATION UNIT

Ayman I. Alqudwah, P.E. Signing & Delineation Regional Engineer
Mitch Eaton, P.E. Signing & Delineation Project Design Engineer

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

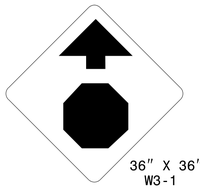
PLAN PREPARED BY:

Regina Muncey, PE TRANSPORTATION ENGINEER
James Hambright SENIOR TRANSPORTATION TECHNICIAN

Stantec
Stantec Consulting Services Inc.
801 Jones Franklin Road
Suite 300
Raleigh, NC 27606
Tel. (919) 851-6866
Fax. (919) 851-7024
www.stantec.com
License No. F-0672

DocuSign Envelope ID: 7C730120-DD69-4F46-A6F3-01AE7AFF613E

401 QUANTITY REQ'D 1



36″ X 36″
W3-1

ONE WOOD POST PER SIGN

402 QUANTITY REQ'D 2



36″ X 36″
R1-1

TWO WOOD POST PER SIGN

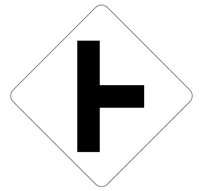
403 QUANTITY REQ'D 2



36″ X 36
W10-1

ONE WOOD POST PER SIGN

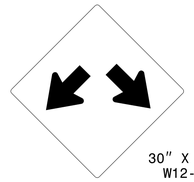
404 QUANTITY REQ'D 2



36″ X 36″
W2-2R

ONE WOOD POST PER SIGN

405 QUANTITY REQ'D 6



30″ X 30″
W12-1

MOUNT ON 2″X2″ SQUARE POST
SURFACE MOUNT BREAKAWAY SYSTEM

407 QUANTITY REQ'D 6



54″ X 18″
R6-1

TWO WOOD POST PER SIGN

408 QUANTITY REQ'D 2

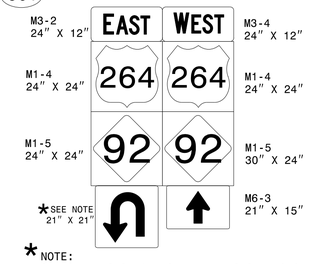


36″ X 12″
R6-1

TWO WOOD POST PER SIGN

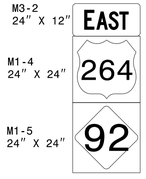
MOUNT ABOVE SIGN NO. 402
IN 2 INSTALLATIONS

501



*NOTE:
SEE SHEET SIGN-2A FOR U-TURN SIGN DESIGN
(TWO WOOD POSTS PER ASSBMBLY)

502



(ONE WOOD POST PER ASSBMBLY)

TIP NO.	SHEET NO.
W-5702R	SIGN-2

APPROVED: DocuSigned by: Regina M. Muncey C7FE518522454FA...

DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Stantec

TYPE "E" & "F" SIGNS

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

DocuSign Envelope ID: 7C730120-DD69-4F46-A6F3-01AE7AFF613E

TIP NO.	SHEET NO.
W-5702R	SIGN-2A

APPROVED: DocuSigned by: Regina M. Muncey C7FE518522454FA...

DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Stantec

ARROW DIMENSIONS (INCHES)	F	G	H	M	N	P	Q	R
	2.625	2.625	8.659	5.25	3	5.25	0.375	0.5

SIGN NUMBER: U-Turn
TYPE: F
QUANTITY: 1

SIGN WIDTH: 1′-9″
HEIGHT: 1′-9″
TOTAL AREA: 3.1 Sq.Ft.

BORDER TYPE: RECESSED
RECESS: 0.375″
WIDTH: 0.625″
RADII: 1.5″

NO. Z BARS:
LENGTH:

BACKG COLOR: White
COPY COLOR: Black

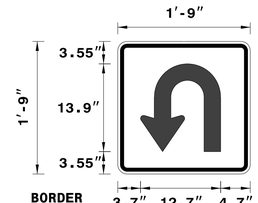
SYMBOL	X	Y	WID	HT
uturn	3.6	3.5	12.7	13.9

MAT'L: 0.125″ (3.2 mm) ALUMINUM

NOTES:

1. Legend and border shall be direct applied, non-reflective sheeting.
2. Background shall be Grade C reflective sheeting.

DESIGN BY: J. Hambright CHECKED BY: DATE: Oct 15, 2019
PROJECT ID: W-5207R DIV: 5
DESCRIPTION: U-Turn Arrow sign for Type "F" assembly #501 (21" X 21")



BORDER
R=1.5″
TH=0.625″
IN=0.375″

Panel Style: regulatory.ssi
M.U.T.C.D.: 2009 Edition

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter locations are panel edge to lower left corner

Series/Size
Text Length

FILENAME: Guidsign_English_8-2-13

NORTH CAROLINA D.O.T. SIGN DETAIL

$$$$$$SYSTIME$$$$$$
$$$$$$

DocuSign Envelope ID: 7C730120-DD69-4F46-A6F3-01AE7AFF613E

SIGN NUMBER: 301

BACKG COLOR: Green
COPY COLOR: White

TYPE: D
QUANTITY: 1

SIGN WIDTH: 7'-6"
HEIGHT: 3'-6"
TOTAL AREA: 26.3 Sq.Ft.

BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 1"
RADII: 3"

SYMBOL	X	Y	WID	HT

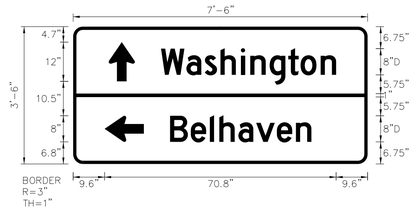
MAT'L: 0.125" (3.2 mm) ALUMINUM

No. Z BARS:
LENGTH:

NOTES:

1. Legend and border shall be direct applied, Grade "C" sheeting (except those that are colored black).
2. Background shall be Grade "C" reflective sheeting.

PROJECT ID: W-5702R CHECKED BY: Name DIVISION: 2
DESIGN BY: James Hambright
LOCATION: -EL- Sta. 23+00 (LT) DATE: Oct 15, 2019



Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

| | | | |

DocuSign Envelope ID: 7C730120-DD69-4F46-A6F3-01AE7AFF613E

TIP NO.	SHEET NO.
W-5702R	SIGN-4

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DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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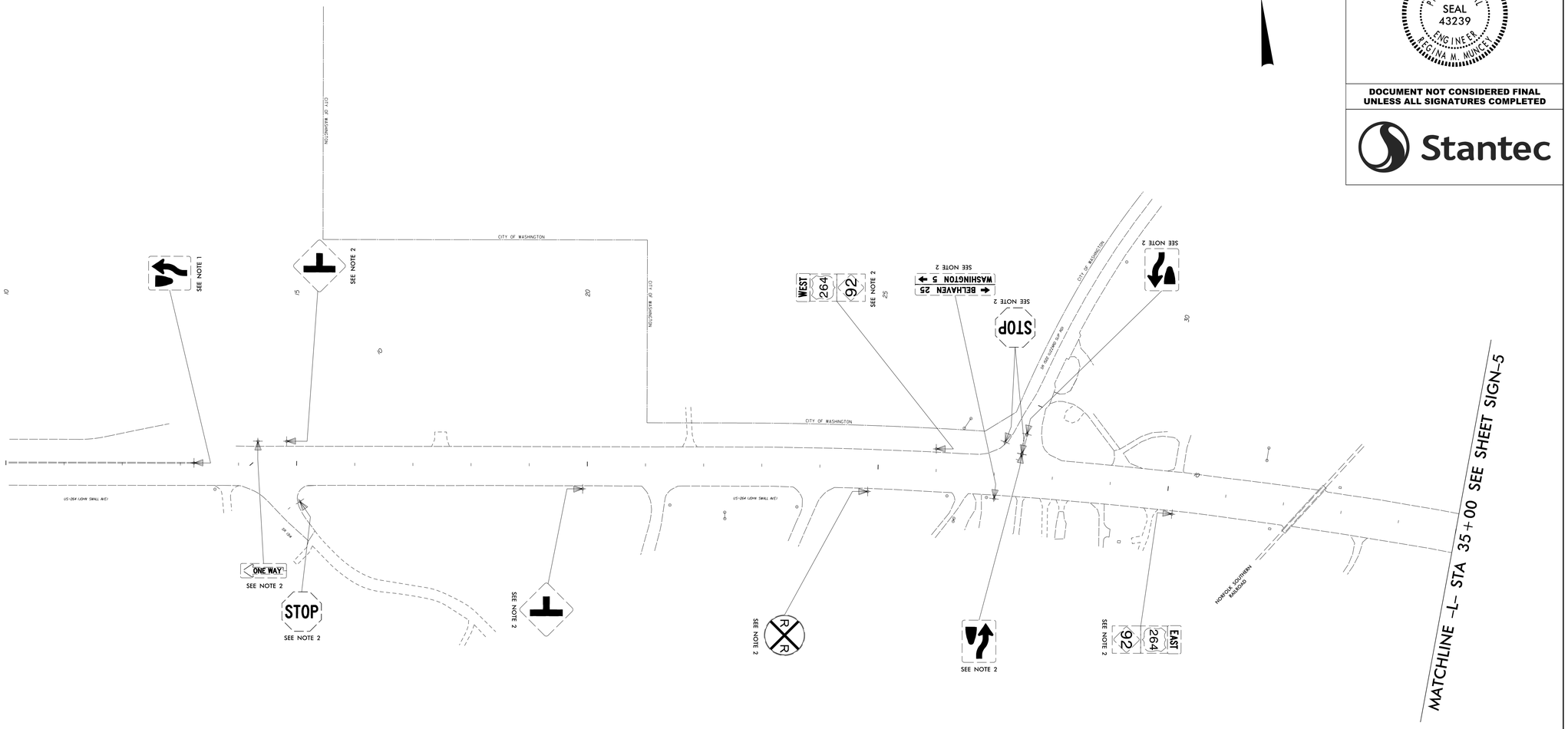
Stantec



PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2 DISPOSAL OF SIGN SYSTEM, WOOD

EXISTING SIGNING
US 264
-L- STA 10+00 TO 35+00

$$$$$$$CSYSTIME$$$$$
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TIP NO.	SHEET NO.
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DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

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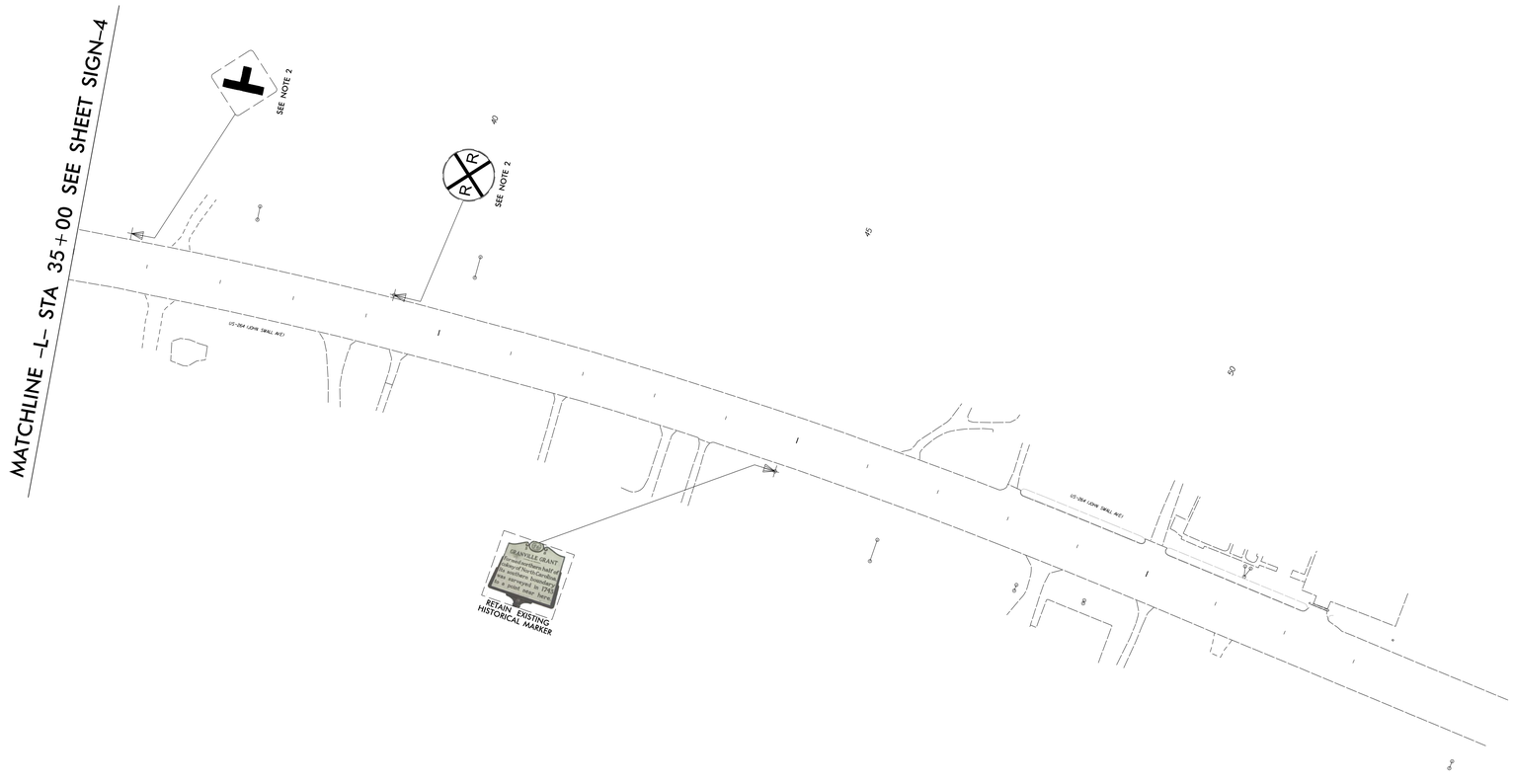

PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2 DISPOSAL OF SIGN SYSTEM, WOOD

EXISTING SIGNING
US 264
-L- STA 35+00 TO 55+00

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TIP NO.	SHEET NO.
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DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNGEY

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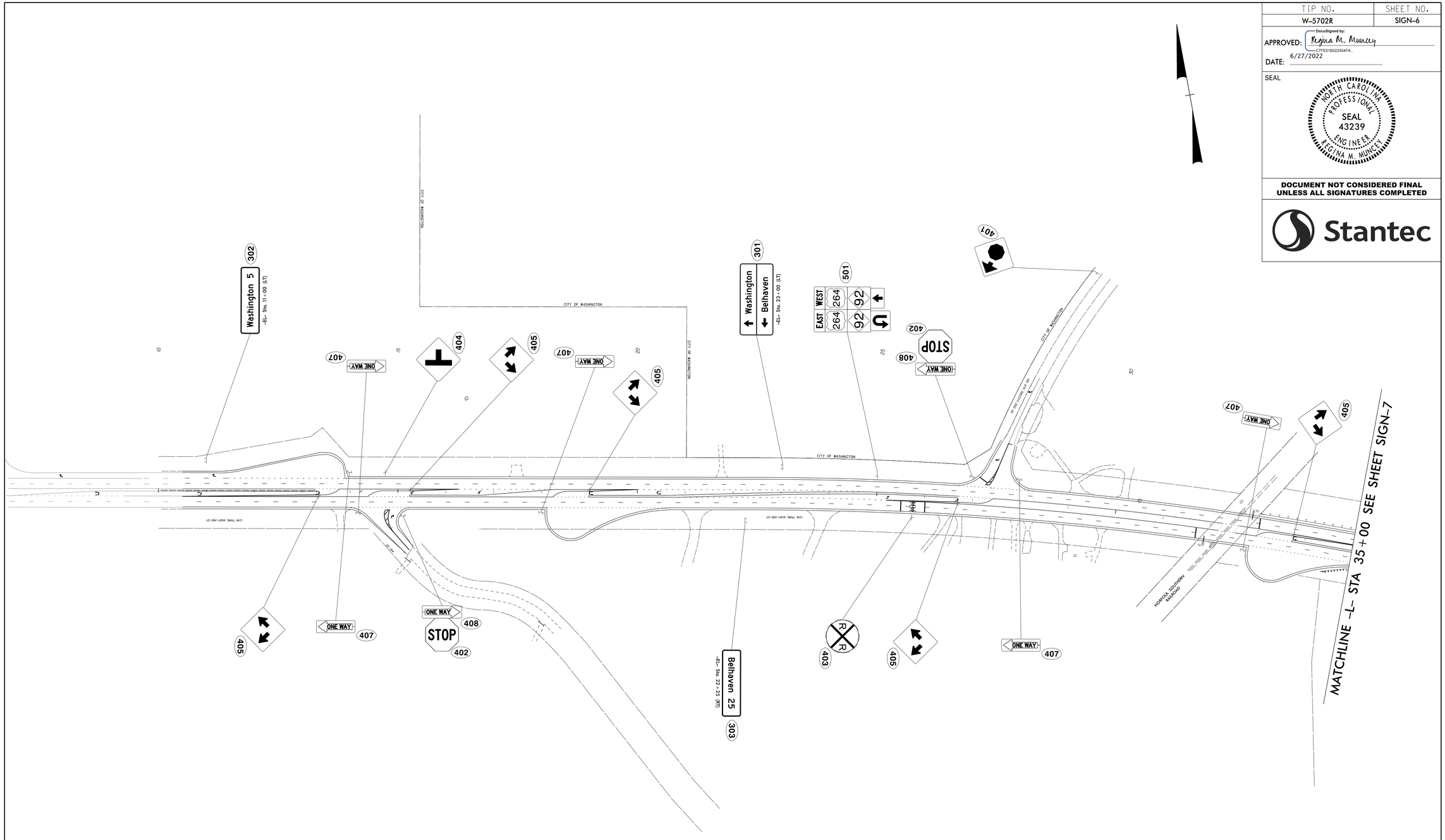

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US 264
-L- STA 10+00 TO 35+00

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TIP NO.	SHEET NO.
W-5702R	SIGN-7

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DATE: 6/27/2022

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 43239 ENGINEER REGINA M. MUNCEY

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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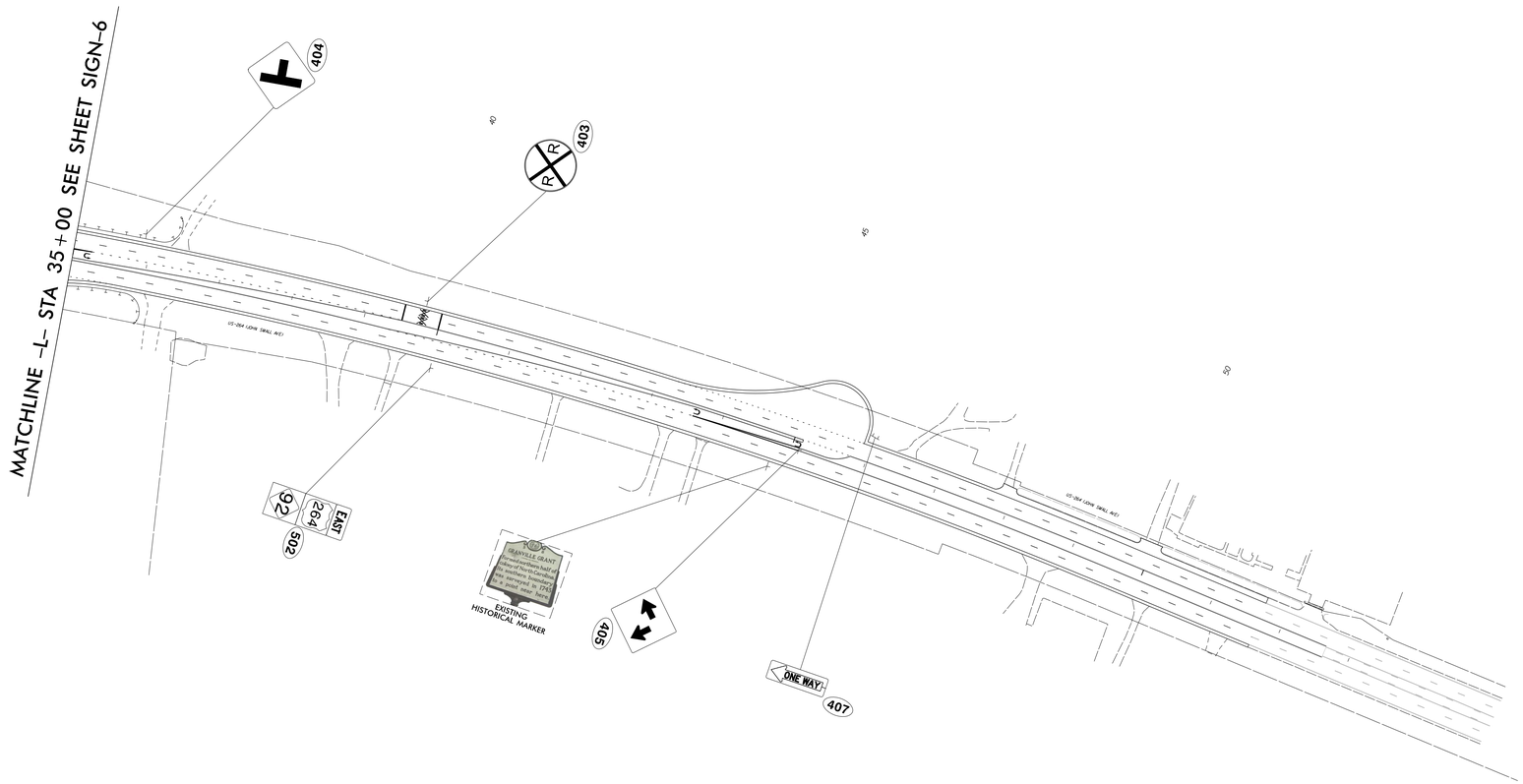

PROPOSED SIGNING
US 264
-L- STA 35+00 TO 55+00

$$$$$$SYSTIME$$$$$$
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T.I.P.: W-5702G/W-5702R

CONTRACT:DB00486\DB00540

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

TIP NO.	SHEET NO.
W-5702G\W-5702R	SIGN-8

APPROVED: DocuSigned by: Farrell Nicholson 91CCD133FDC0483...

DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 045691 FARRELL NICHOLSON

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SIGNING PLAN
BEAUFORT COUNTY

LOCATION: MM 11.5 US 264 (JOHN SMALL AVE) NEAR BEAUFORT COUNTY COMMUNITY COLLEGE

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
903.20	WOOD SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
910.30	SIGNING SIGNALIZED AND UNSIGNALIZED SUPERSTREET

GENERAL NOTES

. IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.

. WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER.

. ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.

. WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.

. THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4082000000	903	SUPPORTS, WOOD	494	L.F.
4102000000	904	SIGN ERECTION, TYPE E	15	EA.
4108000000	904	SIGN ERECTION, TYPE F	5	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE D	1	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE E	1	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE F	2	EA.
4141000000	907	DISPOSAL OF SUPPORT, WOOD	9	EA.
4158000000	907	DISPOSAL OF SIGN SYSTEM, WOOD	4	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-8	TITLE SHEET
SIGN-9	E AND F SIGNS
SIGN-10A THRU 10B	REVISED SIGNING RSD
SIGN-11 THRU 14	SIGNING PLAN SHEETS

PLAN REVIEWED BY: N.C.D.O.T. DIVISION 2

Lang Jones, PE — DIVISION DESIGN ENGINEER

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: WETHERILL ENGINEERING

Farrell Nicholson, PE — PROJECT ENGINEER

Farrell Nicholson, PE — PROJECT DESIGN ENGINEER

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

11/16/2023
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USER:rbmay

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TIP NO.	SHEET NO.
W-5702G\W-5702R	SIGN-9

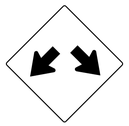
APPROVED: DocuSigned by: Farrell Nicholson 91CCD153FDC0483... DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

401 QUANTITY REQ'D 6



24" X 24"
W12-1

ONE 4" X 4" WOOD POST PER SIGN

402 QUANTITY REQ'D 5



54" X 18"
R6-1 (L)

TWO 4" X 4" WOOD POSTS PER SIGN

403 QUANTITY REQ'D 2



24" X 30"
R4-7

ONE 4" X 4" WOOD POST PER SIGN

404 QUANTITY REQ'D 2



18" X 18"
OM1-3

MOUNT BELOW SIGN 403
IN 2 INSTALLATIONS

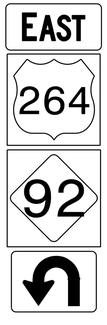
501 QUANTITY REQ'D 3



1- 24" X 12"
1- 24" X 24"
1- 24" X 24"
1- 21" X 15"

ONE 4" X 4" WOOD POST PER ASSEMBLY

502 QUANTITY REQ'D 2



1- 24" X 12"
1- 24" X 24"
1- 24" X 24"
1- 21" X 15"

ONE 4" X 4" WOOD POST PER ASSEMBLY

503 QUANTITY REQ'D 2



36x12
R6-1 (R)

48"x48"
R1-1

TWO 4" X 4" WOOD POST PER ASSEMBLY

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

TYPE "E" AND TYPE "F" SIGNS

11/16/2023
W-5702G_SGN_PSH_09.dgn
USER:rbmay

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TIP NO.	SHEET NO.
W-5702G W-5702R	SIGN-10A

APPROVED: DocuSigned by: Matthew V. Springer 6/23/2021

DATE: 3F6B2B6E2B384403...

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 042546 ENGINEER MATTHEW V. SPRINGER

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

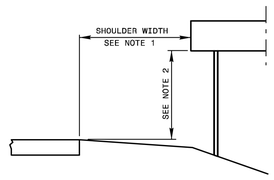
6-21

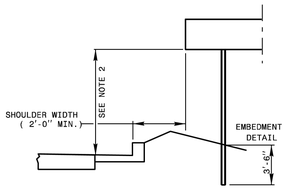
ENGLISH DETAIL DRAWING FOR

MOUNTING OF TYPE 'D','E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

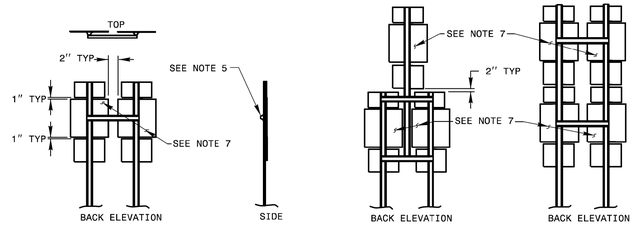
SHEET 1 OF 2

904D50

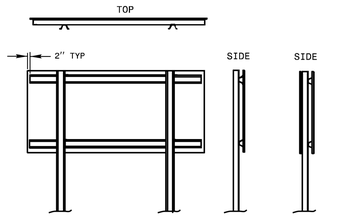




HORIZONTAL AND VERTICAL CLEARANCES



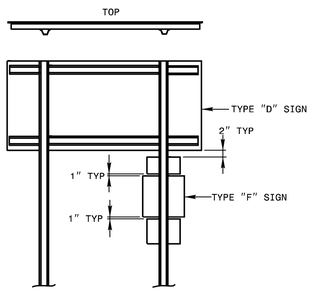
FRAMING AND CROSS-BRACING DETAILS
TYPE "F" SIGNS



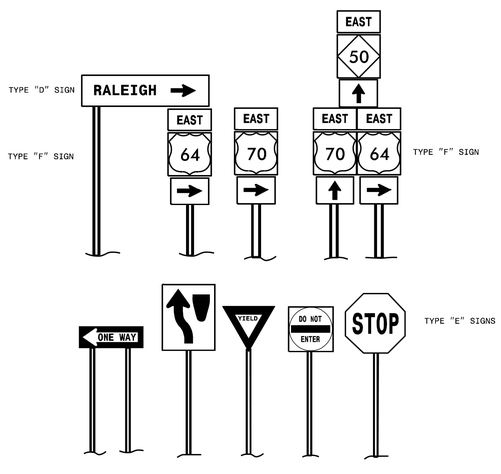
TYPE "D" & "E" SIGN
CROSS BRACING

BACK-TO-BACK
MOUNT

FRAMING AND CROSS BRACE DETAILS
FOR COMBINATION TYPE "D" & "E" SIGNS
WIDE SIDE OF CROSS BRACE GOES TO BACK OF SIGN



FRAMING AND CROSS BRACE DETAILS
FOR COMBINATION TYPE "D" & "F" SIGNS
WIDE SIDE OF FLANGE TO BACK OF "F" SIGN



TYPICAL SIGN SHAPES AND COMBINATIONS

NOTES:

1. ERECT TYPE "D", "E", AND "F" SIGNS ON FREEWAYS WITH THE NEAR EDGE OF THE SIGN 20 FT. FROM THE TRAVEL LANE. ERECT ALL OTHER "D", "E", AND "F" SIGNS WITH THE NEAR EDGE OF THE SIGN AT THE EDGE OF THE SHOULDER BREAK (6 FT. MINIMUM CLEARANCE, 12 FT. DESIRABLE, FROM THE EDGE OF TRAVEL LANE), OR AS DIMENSIONED ON PLAN SHEETS.
2. ERECT TYPE "D", "E", AND "F" SIGNS WITH THE BOTTOM OF SIGN ASSEMBLY AT LEAST 7 FT. ABOVE THE EDGE OF THE TRAVEL LANE ON ROADS WITH 2 OR MORE LANES IN THE SAME DIRECTION AND AT LEAST 5 FT. ON OTHER ROUTES. THE VERTICAL CLEARANCE IS 7 FT. WHERE REQUIRED FOR PEDESTRIAN TRAFFIC AND/OR PARKED VEHICLES.
3. THE VERTICAL DIMENSION BETWEEN MOUNTING HOLE CENTERS ON ALL TYPES "D", "E", AND "F" SIGNS IS 30" MAXIMUM. THE VERTICAL AND HORIZONTAL DIMENSIONS BETWEEN MOUNTING HOLES IS TO THE WHOLE INCH. EACH SIGN PANEL HAS A MINIMUM OF 2 BOLTS PER SUPPORT.
4. ATTACH SIGN W/ 5/16" HEX HEAD BOLT, NYLON WASHER, SHIM, FLAT WASHER, LOCK WASHER, HEX NUT
   NO BUCKLING OF THE SIGN WILL BE PERMITTED. SEE ASSEMBLY DETAIL SHEET# 2 OF 904.50.
5. FURNISH AND INSTALL CROSS-BRACING AS SHOWN IN DETAIL. PAINT ENDS OF CROSS BRACES W/ APPROVED. ZINC PAINT
6. INSTALL POST AND CROSS-BRACING WITH THE WIDE SIDE OF THE FLANGE TOWARD THE BACK OF SIGN(S) FOR COMBINATION TYPE "D" AND "F" SIGNS.
7. THE SHIELD HEIGHTS IN THESE ASSEMBLIES CAN NOT BE LARGER THAN 24".
8. IF SIGN ASSEMBLIES REQUIRE MORE THAN TWO U-CHANNEL SUPPORTS, THE SUPPORTS SHALL BE PLACED A MINIMUM OF 4 FT. BETWEEN POSTS. NO MORE THAN TWO POSTS SHALL FALL WITHIN 7 FT. PATH, OR THE SIGN ASSEMBLY MUST BE PLACED BEHIND BARRIER PROTECTION.

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

6-21

ENGLISH DETAIL DRAWING FOR

MOUNTING OF TYPE 'D','E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

SHEET 1 OF 2

904D50

REVISED SIGNING
ROADWAY STANDARD DRAWING

04-18-21

6/18/2021
S:\S&DU\Standards Group\Standards and Drawings\Drawings\2018 Standard Dwgs\Division 9 Final\0904_50_sgn_sht01_uchannelpost_6-21.dgn
User:dstokes

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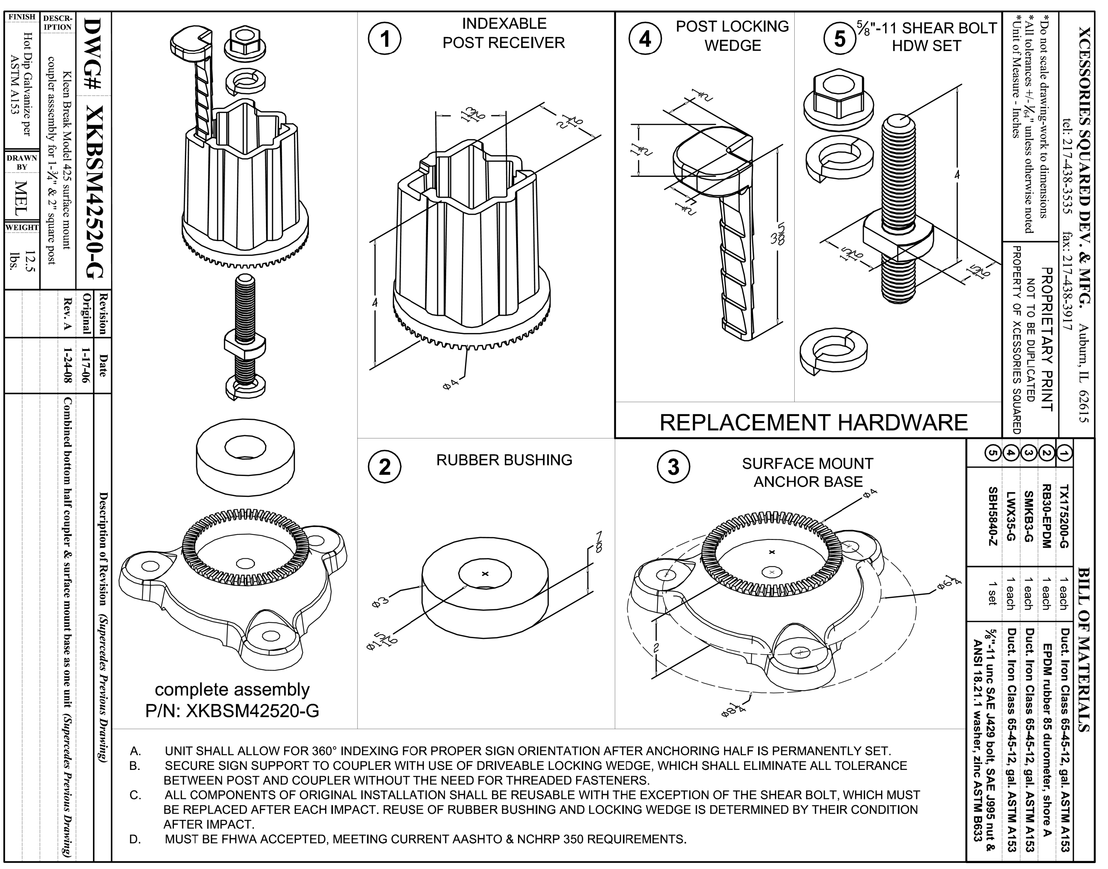


XCESSORIES SQUARED DEV. & MFG. Auburn, IL 62615
tel: 217-438-3535 fax: 217-438-3917

*Do not scale drawing-work to dimensions
*All tolerances +/- 1/64" unless otherwise noted
*Unit of Measure - Inches

PROPRIETARY PRINT
NOT TO BE DUPLICATED
PROPERTY OF XCESSORIES SQUARED

FINISH	DESCRIPTION
Hot Dip Galvanize per ASTM A153	Kleen Break Model 425 surface mount coupler assembly for 1-1/2" & 2" square post
DRAWN BY: MEL	
WEIGHT: 12.5 lbs.	

DWG# XKBSM42520-G

Revision	Date	Description of Revision (Supercedes Previous Drawing)
Original	1-17-06	
Rev. A	1-24-08	Combined bottom half coupler & surface mount base as one unit (Supercedes Previous Drawing)

BILL OF MATERIALS

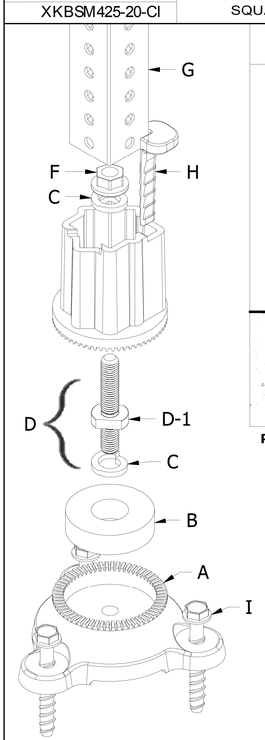
1	TX175200-G	1 each	Duct. Iron Class 65-45-12, gal. ASTM A153
2	RB30-EPDM	1 each	EPDM rubber 85 durometer, shore A
3	SMKB3-G	1 each	Duct. Iron Class 65-45-12, gal. ASTM A153
4	LWX35-G	1 each	Duct. Iron Class 65-45-12, gal. ASTM A153
5	SBH5840-Z	1 set	5/8"-11 unc SAE J429 bolt, SAE J995 nut & ANSI 18.21.1 washer, zinc ASTM B633

A. UNIT SHALL ALLOW FOR 360° INDEXING FOR PROPER SIGN ORIENTATION AFTER ANCHORING HALF IS PERMANENTLY SET.
B. SECURE SIGN SUPPORT TO COUPLER WITH USE OF DRIVEABLE LOCKING WEDGE, WHICH SHALL ELIMINATE ALL TOLERANCE BETWEEN POST AND COUPLER WITHOUT THE NEED FOR THREADED FASTENERS.
C. ALL COMPONENTS OF ORIGINAL INSTALLATION SHALL BE REUSABLE WITH THE EXCEPTION OF THE SHEAR BOLT, WHICH MUST BE REPLACED AFTER EACH IMPACT. REUSE OF RUBBER BUSHING AND LOCKING WEDGE IS DETERMINED BY THEIR CONDITION AFTER IMPACT.
D. MUST BE FHWA ACCEPTED, MEETING CURRENT AASHTO & NCHRP 350 REQUIREMENTS.

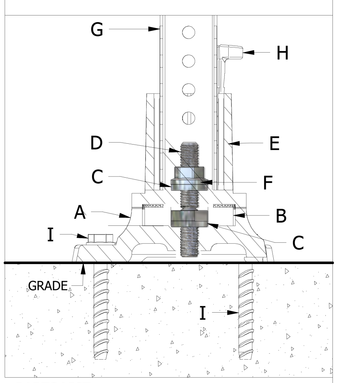
DRAWING # XKBSM425-20-CI

KLEEN BREAK MODEL 425 FOR SURFACE MOUNT CONCRETE INSTALLATIONS
SQUARE POST SIGN SUPPORT INSTALLATION INSTRUCTIONS (RECEIVES 1-3/4"& 2" SQUARE POST)

DATE: 12-6-12



INSTALLED CROSS SECTION VIEW



PARTS LIST

A	SURFACE MOUNT ANCHOR BASE
B	RUBBER BUSHING
C	LOCK WASHER
D	5/8"-11 x 4" SHEAR BOLT
D-1	SHOULDER
E	TOP HALF COUPLER
F	5/8"-11 SERRATED FLANGE NUT
G	SIGN SUPPORT
H	SIGN SUPPORT LOCKING WEDGE
I	CONCRETE MOUNTING FASTENER (not included)

INSTALLATION PROCEDURE

TOOLS NEEDED:
15/16" SOCKET, XKBW-1516 KLEEN BREAK WRENCH AND 16 OZ. HAMMER

STEP 1 Using the surface mount anchor base (A) as a template, mark and drill three holes in the concrete, corresponding to the three holes in the anchor base (A). (1/2"Ø x 4" minimum concrete mounting fastener recommended)
NOTE: *Orientation of the surface mount anchor base (A) does not need to be set at this step, the top half post receiving coupler (E) can be indexed for proper sign orientation during step 4.*
NOTE: *The stub height after impact will be less than 3", exceeding FHWA/NCHRP350 requirements.*

STEP 2 Thread short end of shear bolt (D), with lock washer (C) under shoulder (D-1), into threaded hole in surface mount anchor base (A). Tighten with XKBW-1516 Kleen Break Wrench or a 15/16" open end wrench until split ring lock washer (C) is fully compressed.
NOTE: *Be sure that the shear point of shear bolt (D) is now above shoulder (D-1).*

STEP 3 Slide rubber bushing (B) over shear bolt (D) until seated firmly into round cavity in surface mount anchor base (A).

STEP 4 Slide top half of coupler (E) over shear bolt (D) until it rests on the rubber bushing (B). Using lock washer (C), thread 5/8" flange nut (F) onto top of shear bolt (D) with a 15/16" deep well socket. Rotate top receiving half of coupler (E) to proper orientation of sign before tightening flange nut (F). Be sure serrated teeth are fully meshed. Total Kleen Break coupler assembly should be completely tight before proceeding to the next step.

STEP 5 Insert sign support (G) into top half of coupler (E). Locking wedge (H) should be postioned at a corner of the sign support (G). With a hammer, drive the sign support locking wedge (H) between sign support (G) and top half coupler (E) at pre-determined location until seated in corresponding depression of top half coupler (E).
NOTE: *It is not neccessary to drive the locking wedge (H) until it has bottomed out in the post receiving coupler (E). Due to the tolerance when hot dip galvanizing (thickness, runs, or drips) the locking wedge can be fully engaged at different depths.*
NOTE*: The sign support locking wedge (H) will keep the sign support (G) secure without need of additional fasteners or hardware.*

REINSTALATION AFTER IMPACT

Remove sign support locking wedge (H) from top half coupler (E) with hammer. Remove both ends of broken shear bolt (D) from both coupler halves (A) & (E). Reassemble following steps 2 through 5 from the installation procedure.

Xcessories Squared Development & Mfg., Inc. AUBURN, IL 62615 TEL#: (217) 438-3535 FAX#: (217) 438-3917

SUPPORT INFORMATION

PROJ. REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	SIGN-10B

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TIP NO.	SHEET NO.
W-5702G\W-5702R	SIGN-11

APPROVED: DocuSigned by: Farrell Nicholson 91CCD153FDC0483...

DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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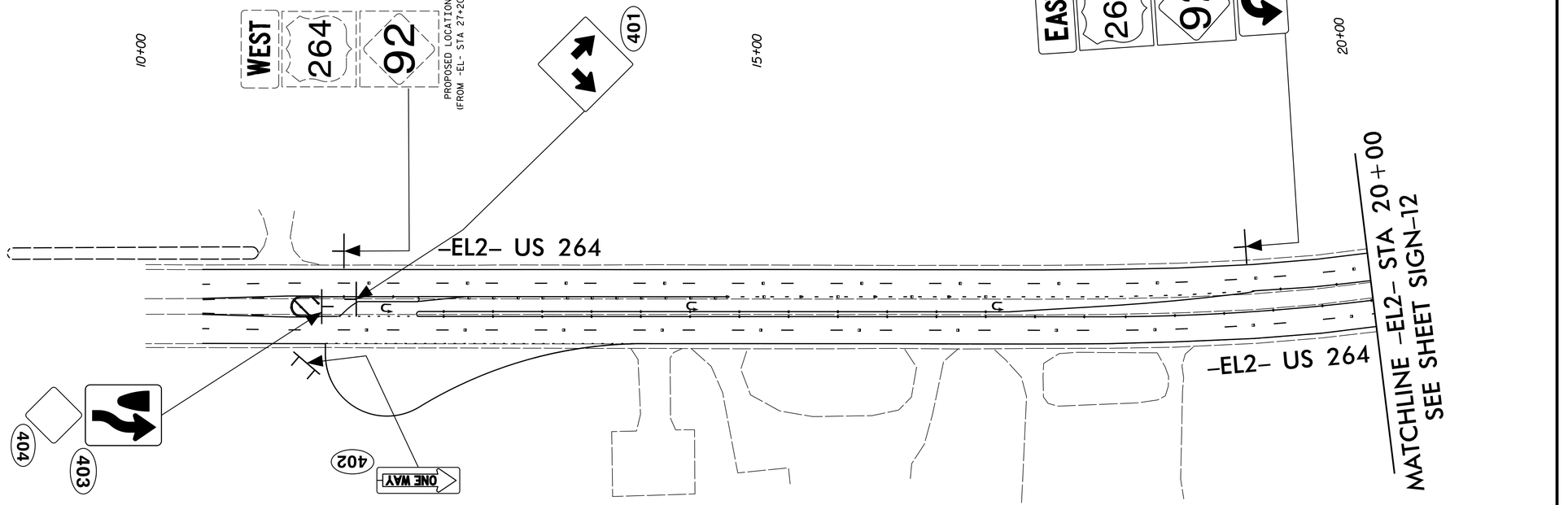

PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, WOOD
2. SIGN ERECTION, RELOCATE SIGN TYPE E
3. SIGN ERECTION, RELOCATE SIGN TYPE F
4. DISPOSAL OF SUPPORT, WOOD

11/16/2023
W5702G_SGN_PSH_11.dgn
USER:bmay

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

SIGNING PLAN

DocuSign Envelope ID: 03E94670-00F2-48D8-B909-8A719E4A59EF

TIP NO.	SHEET NO.
W-5702G\W-5702R	SIGN-12

APPROVED: DocuSigned by: Farrell Nicholson 91CCD153FDC0483...

DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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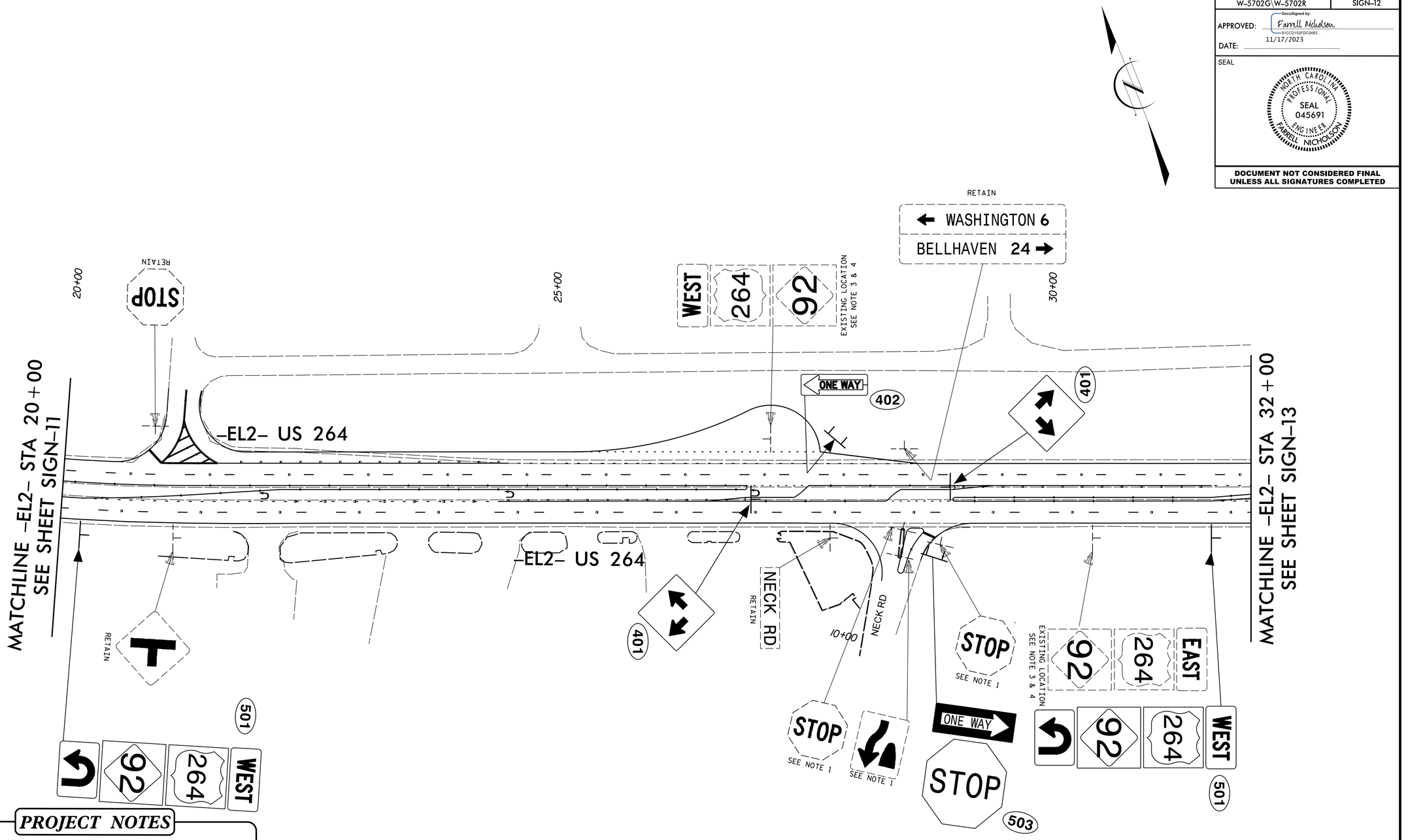

PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, WOOD
2. SIGN ERECTION, RELOCATE SIGN TYPE E
3. SIGN ERECTION, RELOCATE SIGN TYPE F
4. DISPOSAL OF SUPPORT, WOOD

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

SIGNING PLAN

11/6/2023
...\W-5702G_SGN_PSH_11.dgn
USER:tbmaj

DocuSign Envelope ID: 03E94670-00F2-48D8-B909-8A719E4A59EF

TIP NO.	SHEET NO.
W-5702W-5702R	SIGN-13

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DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

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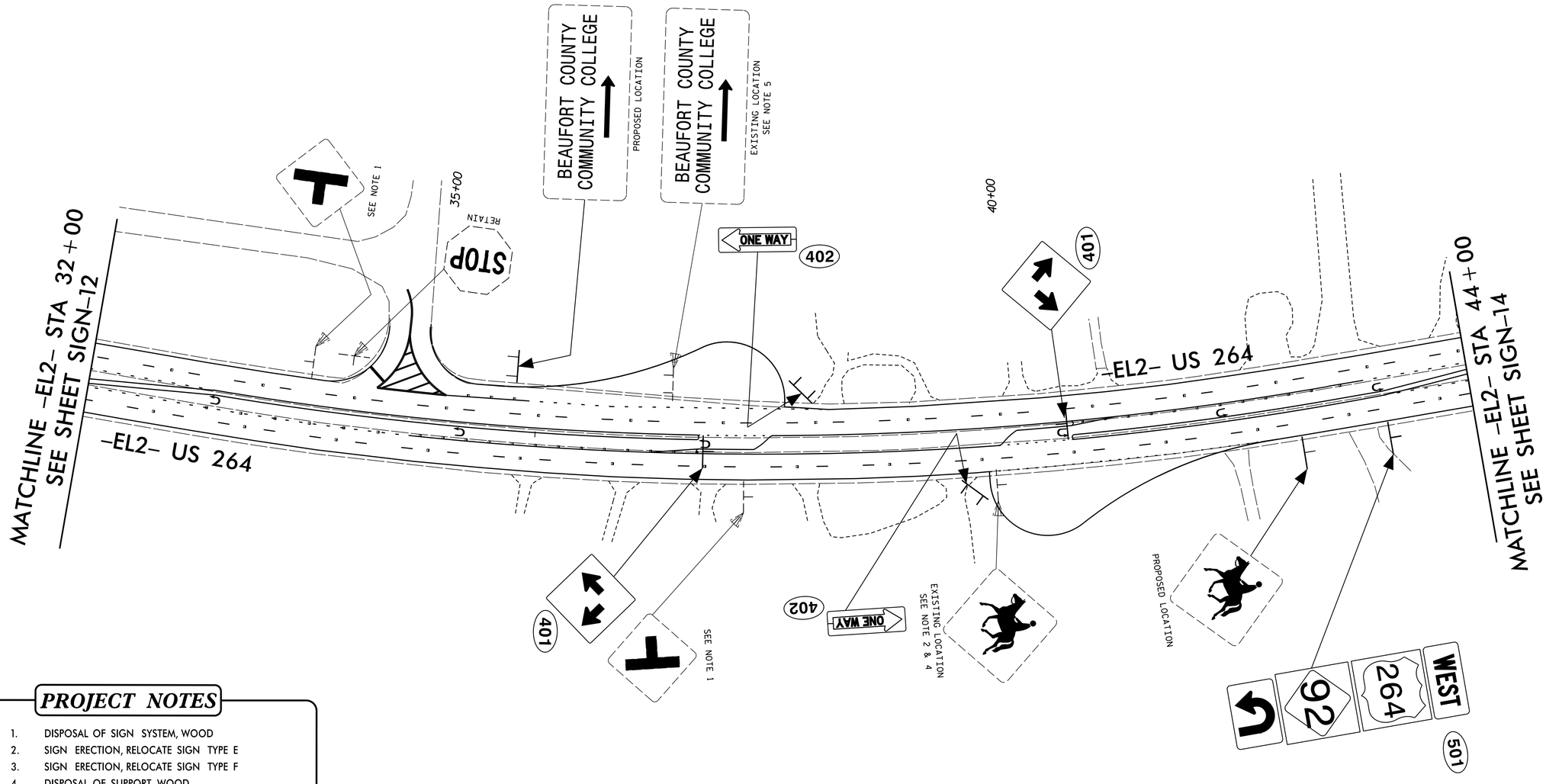

PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, WOOD
2. SIGN ERECTION, RELOCATE SIGN TYPE E
3. SIGN ERECTION, RELOCATE SIGN TYPE F
4. DISPOSAL OF SUPPORT, WOOD
5. SIGN ERECTION, RELOCATE SIGN TYPE D

WETHERILL ENGINEERING
1223 Jones Franklin Rd.
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TRANSPORTATION PLANNING/DESIGN - BRIDGE/STRUCTURE DESIGN
CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

SIGINING PLAN

11/6/2023
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USER:timay

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TIP NO.	SHEET NO.
W-5702G\W-5702R	SIGN-14

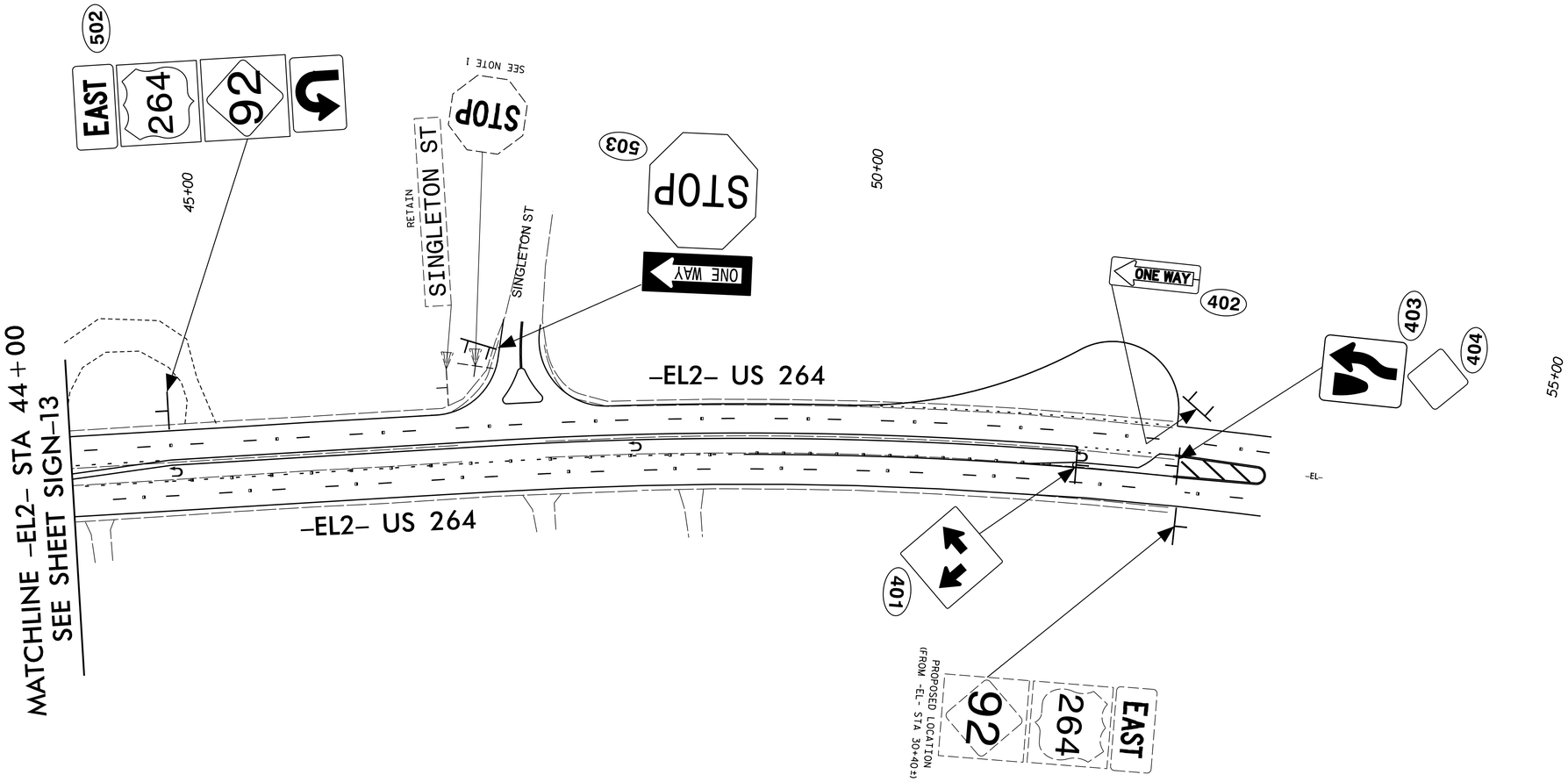
APPROVED: DocuSigned by: Farrell Nicholson 91CCD153FDC0483...

DATE: 11/17/2023

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 045691 ENGINEER FARRELL NICHOLSON

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, WOOD
2. SIGN ERECTION, RELOCATE SIGN TYPE E
3. SIGN ERECTION, RELOCATE SIGN TYPE F
4. DISPOSAL OF SUPPORT, WOOD

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CIVIL/SITE DESIGN - GIS/GPS - CONSTRUCTION OBSERVATION

SIGNING PLAN

11/16/2023
...\W5702G_SGN_PSH_11.dgn
USER:bmay

PROJ. REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	X-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

CROSS-SECTION SUMMARY

Station EL1 LT	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station EL1 LT	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station EL1 RT	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station EL2	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station EL2	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
12+00.00	0	0	42+50.00	3	0	32+50.00	0	0	10+50.00			35+50.00		
13+50.00	0	0	43+00.00	4	0	33+00.00	14	144	11+00.00			36+00.00	0	0
15+50.00	0	0	43+50.00	6	0	33+50.00	18	302	11+50.00	0	0	36+50.00	34	1
16+00.00	0	1	44+00.00	7	29	34+00.00	15	264	12+00.00	100	13	37+00.00	85	5
16+50.00	0	1	44+50.00	8	122	34+50.00	10	155	12+50.00	102	16	37+50.00	166	9
17+00.00	0	1	45+00.00	9	239	35+00.00	7	49	13+00.00	37	22	38+00.00	192	11
17+50.00	0	1	45+50.00	8	396	35+50.00	5	2	13+50.00	17	14	38+50.00		
18+00.00	0	0	46+00.00	7	251	36+00.00	3	1	14+00.00	14	0	39+00.00		
18+50.00	0	0	46+50.00	6	0	36+50.00	3	0	14+50.00			39+50.00		
23+00.00	2	0	47+00.00	6	0	37+00.00	2	1	15+00.00			40+00.00	0	0
23+50.00	4	0	47+50.00	6	0	37+50.00	2	1	15+50.00			40+50.00	21	320
24+00.00	4	0	48+00.00	2	0	38+00.00	2	1	16+00.00			41+00.00	21	272
24+50.00	4	0	52+65.75	0	1	38+50.00	4	0	16+50.00			41+50.00	22	121
25+00.00	4	0				39+00.00	5	0	17+00.00			42+00.00	22	23
25+50.00	5	0	Station	Uncl. Exc.	Embt	39+50.00	5	0	17+50.00			42+50.00		
26+00.00	5	0				40+00.00	5	0	18+00.00			43+00.00		
26+50.00	5	0	EL1 RT	(cu. yd.)	(cu. yd.)	40+50.00	5	0	18+50.00			43+50.00		
27+00.00	5	0	13+50.00	0	0	41+00.00	5	0	19+00.00			44+00.00		
27+50.00	5	0	14+00.00	0	0	41+50.00	5	0	19+50.00			44+50.00		
28+00.00	5	0	14+50.00	0	0	42+00.00	5	0	20+00.00			45+00.00		
28+50.00	4	0	15+50.00	0	1	42+50.00	6	0	20+50.00			45+50.00		
29+00.00	5	0	16+00.00	0	2	43+00.00	5	0	21+00.00			46+00.00		
29+50.00	6	0	16+50.00	0	2	43+50.00	5	0	21+50.00			46+50.00		
30+00.00	6	0	17+00.00	0	2	44+00.00	5	0	22+00.00			47+00.00		
30+44.00	4	0	17+50.00	0	1	44+50.00	5	0	22+50.00	0	0	47+50.00		
30+50.00	0	0	18+00.00	0	0	45+00.00	5	0	23+00.00	16	0	48+00.00		
31+00.00	2	1	18+50.00	68	26	45+50.00	4	0	23+50.00	28	6	48+50.00		
31+50.00	2	1	19+00.00	114	51	46+00.00	4	0	24+00.00	58	18	49+00.00		
32+00.00	3	1	19+50.00	71	44	46+50.00	4	0	24+50.00	86	23	49+50.00		
			20+00.00	39	27	47+00.00	3	0	25+00.00	84	21	50+00.00	0	0
Station	Uncl. Exc.	Embt	20+50.00	28	8	47+50.00	3	0	25+50.00	42	28	50+50.00	16	11
			21+00.00	13	0	48+00.00	4	0	26+00.00	12	39	51+00.00	15	29
EL1 LT	(cu. yd.)	(cu. yd.)	23+00.00	2	0	48+50.00	4	0	26+50.00	13	41	51+50.00	34	108
32+50.00	0	0	23+50.00	3	0	49+00.00	5	0	27+00.00	17	42	52+00.00	50	177
33+00.00	3	0	24+00.00	3	0	49+50.00	5	0	27+50.00	19	47	52+50.00	28	87
33+50.00	2	1	24+50.00	3	2	50+00.00	3	0	28+00.00	14	29	53+00.00		
34+00.00	2	1	25+00.00	2	2	51+00.00	0	0	28+50.00	12	5			
34+50.00	4	0	25+50.00	3	1	52+65.75	0	1	29+00.00					
35+00.00	4	0	26+00.00	2	1				29+50.00					
35+50.00	5	0	26+50.00	4	1				30+00.00					
36+00.00	5	0	27+00.00	4	1				30+50.00					
36+50.00	4	0	27+50.00	4	1				31+00.00					
37+00.00	3	0	28+00.00	5	0				31+50.00					
37+50.00	2	1	28+50.00	5	0				32+00.00					
38+00.00	2	1	29+00.00	5	0				32+50.00					
38+50.00	3	0	29+50.00	5	0				33+00.00					
39+00.00	4	0	30+00.00	5	0				33+50.00					
39+50.00	4	0	30+44.00	5	0				34+00.00					
40+00.00	4	0	30+50.00	1	0				34+50.00					
40+50.00	4	0	31+00.00	6	0				35+00.00					
41+00.00	3	1	31+50.00	7	0									
41+50.00	3	1	32+00.00	5	0									
42+00.00	3	0												

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-2

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

30

EX EX

32.06

14+50.00

30

EX EX

31.76

14+00.00

30

EX EX

31.19

13+50.00

30

EX EX

30.53

13+00.00

30

EX EX

29.78

12+50.00

30

EX EX

29.00

12+00.00

30

EX EX

28.13

11+50.00

EX EX

27.22

11+00.00

20

EX EX

26.30

BEGIN TIP W-5702R

10+50.00

-EL1-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
W-5702R_RDY_xpl.dgn
USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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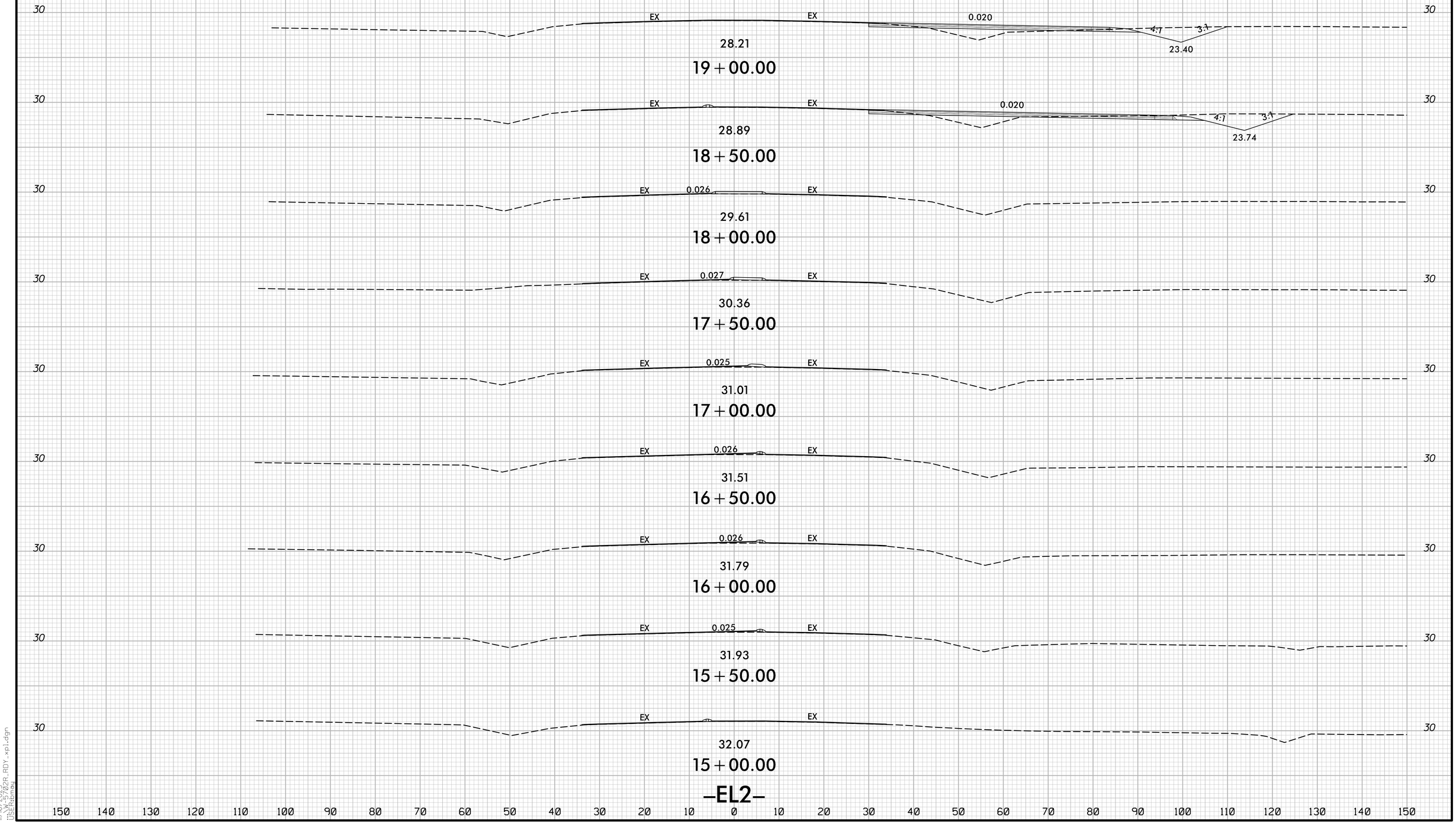

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W-5702R_RDY_xpl.dgn
USER:bmay

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	X-4

0 5 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

20

3:1 0.02 0.02 4:1

21.60

23+50.00

3:1 0.02 0.02 4:1

22.45

23+00.00

EX EX

23.24

22+50.00

EX EX

23.91

22+00.00

EX EX

24.53

21+50.00

EX EX

25.18

21+00.00

EX EX 0.020 4:1 3:1

21.89

25.86

20+50.00

EX EX 0.020 4:1 3:1

22.58

26.62

20+00.00

30

EX EX 0.020 4:1 3:1

23.07

27.44

19+50.00

–EL1–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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W-5702R_RDY_xpl.dgn
USER:bmay

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-5

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10

4:1 0.02 0.02 4:1

14.59

28+50.00

4:1 0.02 0.02 4:1

14.95

28+00.00

25:1 0.02 0.02 4:1

15.45

27+50.00

4:1 0.02 0.02 4:1

16.13

27+00.00

4:1 0.02 0.02 4:1

16.82

26+50.00

4:1 0.02 0.02 4:1

17.55

26+00.00

4.47:1 0.02 0.02 4:1

18.37

25+50.00

20

3.4:1 0.02 0.02 4:1

19.20

25+00.00

3.264:1 0.02 0.02 4:1

19.97

24+50.00

3.458:1 0.02 0.02 4:1

20.76

24+00.00

–EL1–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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W-5702R_RDY_xpl.dgn
USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10

4:1 0.007 0.02 3:1

14.91

33+00.00

45.2:1 0.002 0.006 4:1

14.77

32+50.00

4:1 0.010 0.000 16.542:1

14.50

32+00.00

4:1 0.02 0.016 4:1

14.25

31+50.00

4:1 0.02 0.02 4:1

14.03

31+00.00

4:1 0.02 0.02 4:1

13.97

30+50.00

4:1 0.02 0.02 4:1

14.00

30+00.00

4:1 0.02 0.02 4:1

14.12

29+50.00

4:1 0.02 0.02 4:1

14.32

29+00.00

–EL1–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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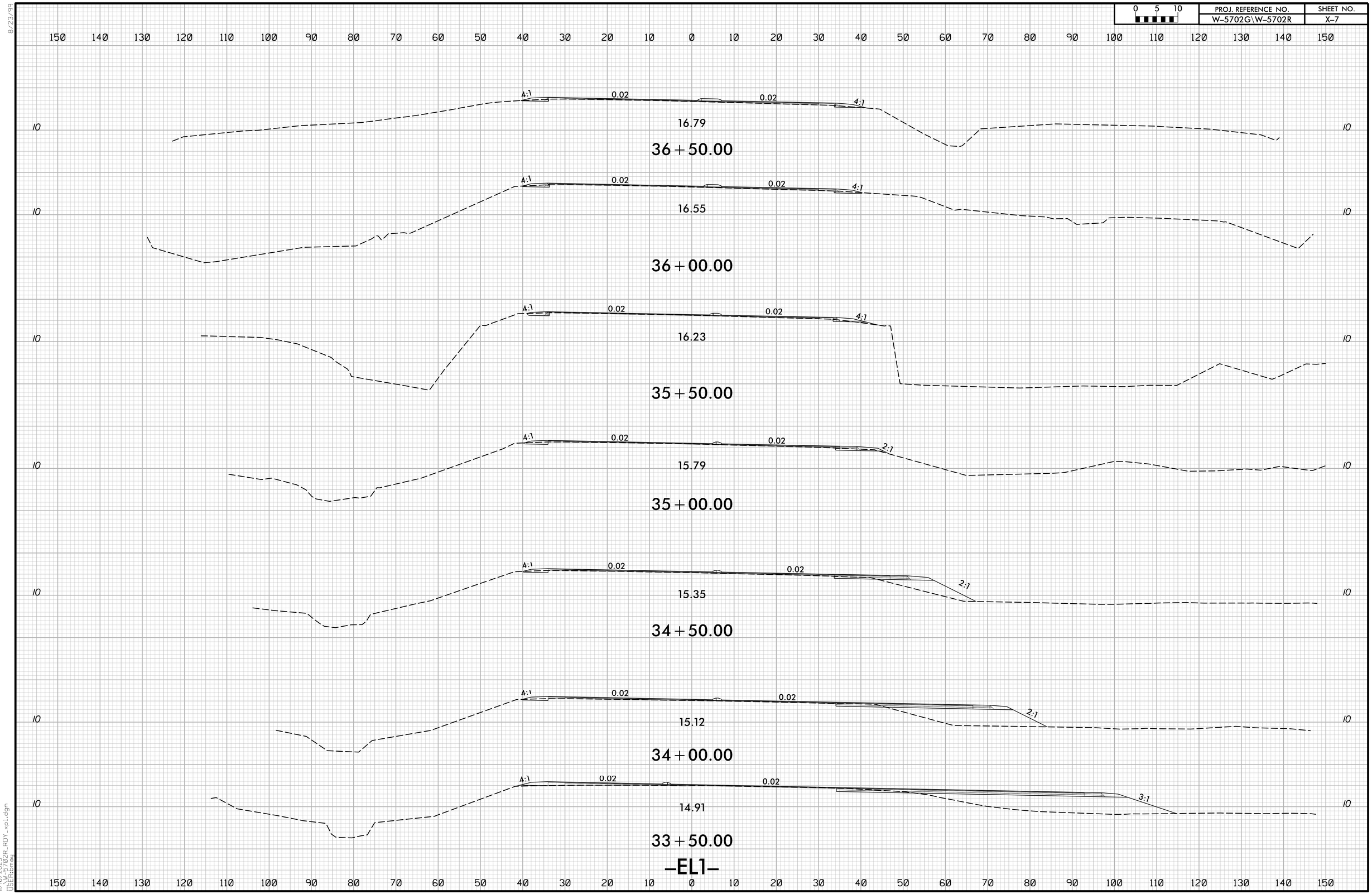
USER:bmay



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USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-8

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

20 / 10

3:1 | 0.02 | 0.02 | 4:1

18.03
41+00.00

3:1 | 0.02 | 0.02 | 4:1

17.85
40+50.00

3.325:1 | 0.02 | 0.02 | 4:1

17.68
40+00.00

3.178:1 | 0.02 | 0.02 | 12.5:1

17.56
39+50.00

3:1 | 0.02 | 0.02 | 4:1

17.46
39+00.00

2.845:1 | 0.02 | 0.02 | 4:1

17.35
38+50.00

3.22:1 | 0.02 | 0.02 | 3.66:1

17.20
38+00.00

4:1 | 0.02 | 0.02 | 3.454:1

17.01
37+50.00

4:1 | 0.02 | 0.02 | 4:1

16.87
37+00.00

–EL1–

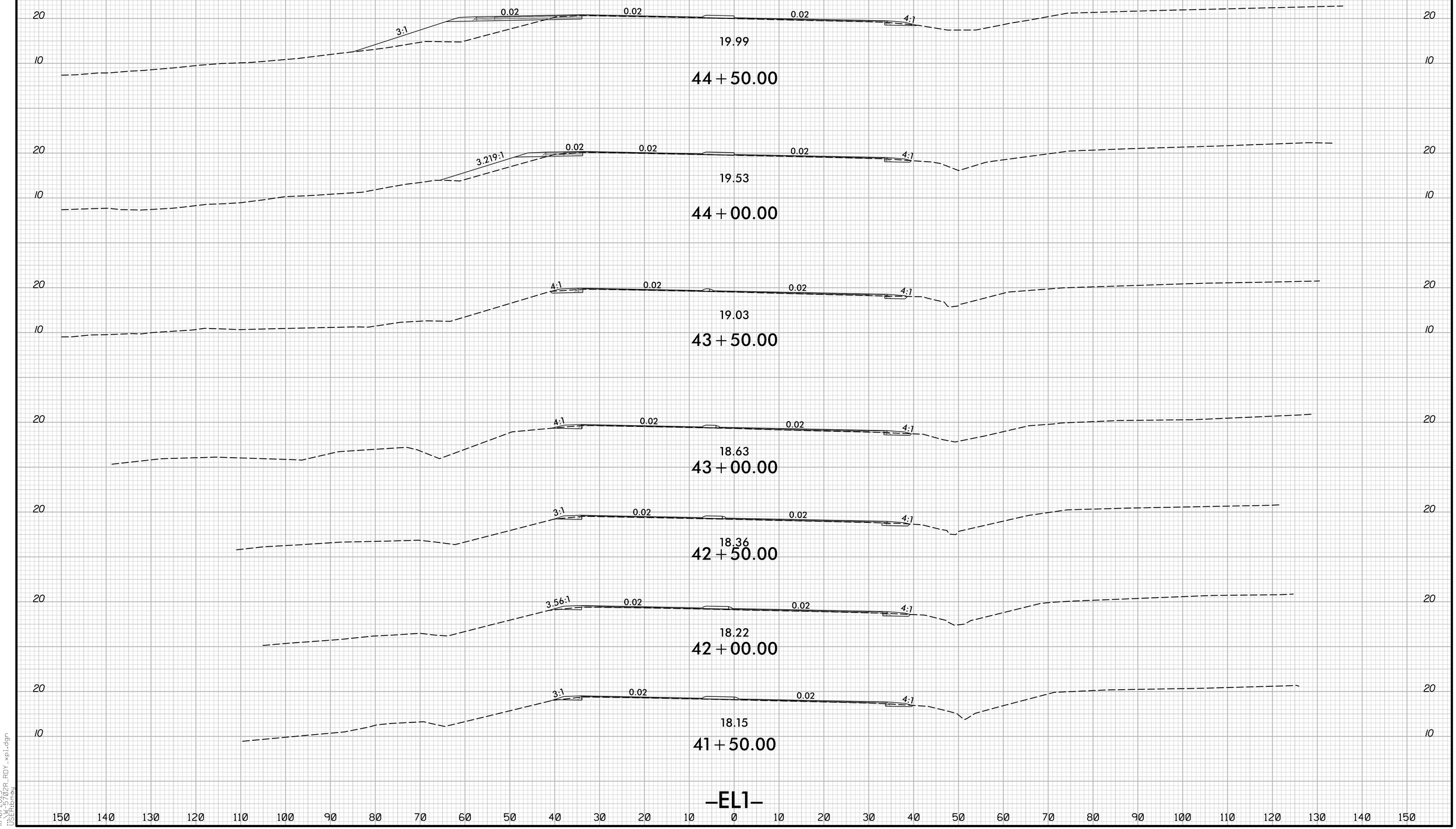
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/6/2023
W-5702R_RDY_xs1.dgn
USERbmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-9

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



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11/16/2023
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USERbmay

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
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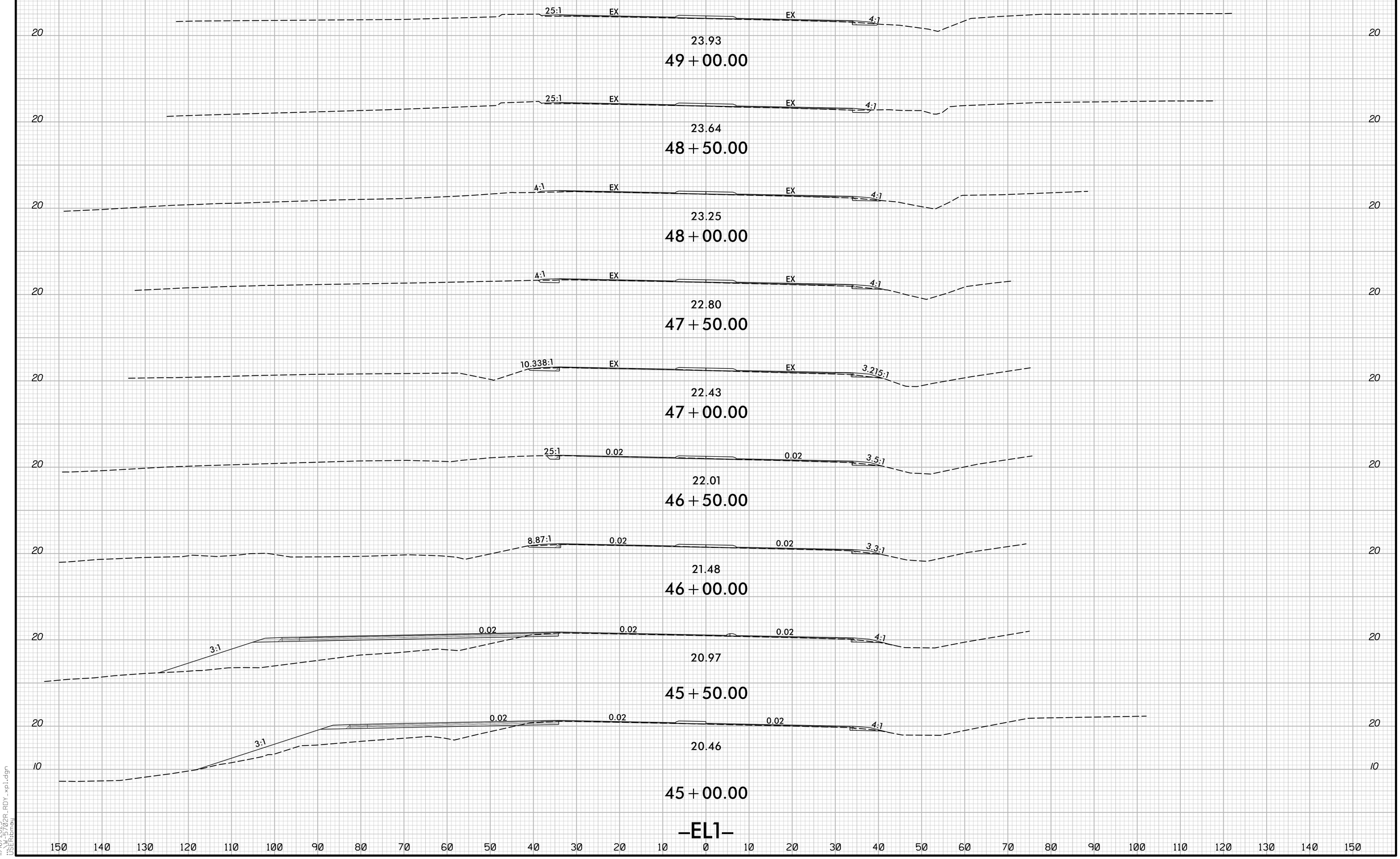

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11/16/2023
W-5702R_RDY_xpl.dgn
USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-11

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

20

EX EX

24.91

51+00.00

EX EX

24.67

50+50.00

EX EX

24.44

50+00.00

24.534:1 EX EX 4:1

24.18

49+50.00

–EL1–

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
W-5702R_RDY_xpl.dgn
USERbmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-12

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

30 20

26.60

13+50.00

26.16 0.02 0.08

30 20

26.48

13+00.00

26.02 0.02 25.46 0.02 19.25:1

30 20

26.35

12+50.00

25.89 0.02 24.93 0.01 4.64:1

30

26.20

12+00.00

25.74 0.02 24.38 0.02 4:1

30

25.92

11+50.00

25.48 0.02 24.76 0.02 4:1

25.59

11+00.00

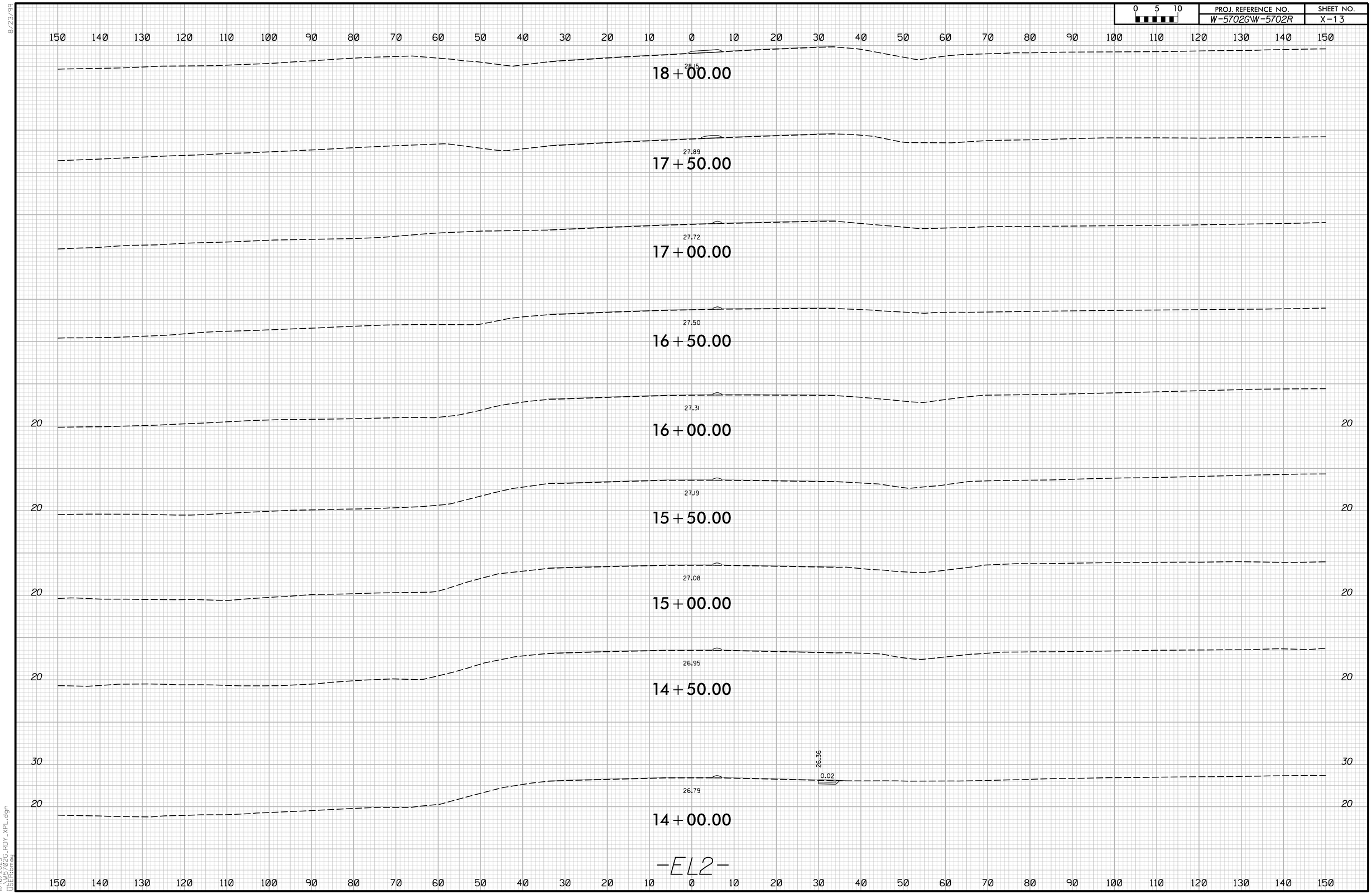
25.24

10+50.00

-EL2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
W5702G_RDY_XPL.dgn
USER:bmay



8/23/99

11/16/2023
...\W5702G_RDY_XPL.dgn
USER:bmay

8/23/99

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	W-5702G\W-5702R	X-14

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

30

28.58

4:1 0.08 0.03

29.77

22+50.00

29.40

22+00.00

29.07

21+50.00

28.87

21+00.00

28.77

20+50.00

28.72

20+00.00

28.64

19+50.00

28.60

19+00.00

28.41

18+50.00

-EL2-

11/16/2023
...\W5702G_RDY_XPL.dgn
USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-15

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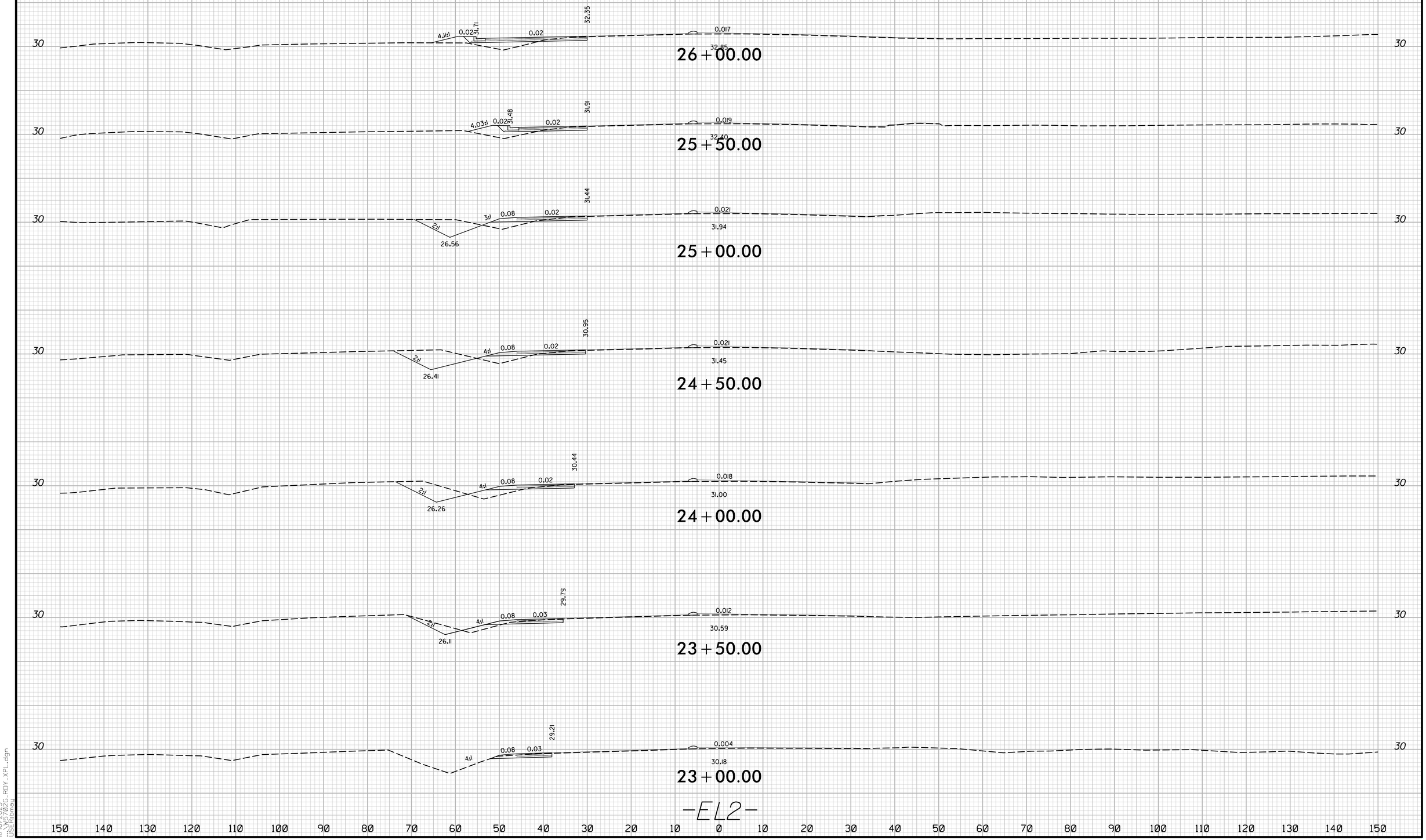

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USER:tbmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-16

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

30+50.00 35.45

30+00.00 35.35

29+50.00 35.27

29+00.00 35.14

28+50.00 34.82 3:1

28+00.00 34.50 3:1 0.08 0.02 34.02

27+50.00 34.14 0.026 4.68:1 0.00 32.52 0.02 33.65

27+00.00 33.72 0.026 4.14:1 0.02 31.92 0.02 33.20

26+50.00 33.29 0.019 4.27:1 0.02 31.81 0.02 32.76

40 30

-EL2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
W5702G_RDY_XPL.dgn
USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-17

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

35+00.00 (36.58)

34+50.00 (36.51)

34+00.00 (36.37)

33+50.00 (36.16)

33+00.00 (36.00)

32+50.00 (35.85)

32+00.00 (35.76)

31+50.00 (35.66)

31+00.00 (35.56)

-EL2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

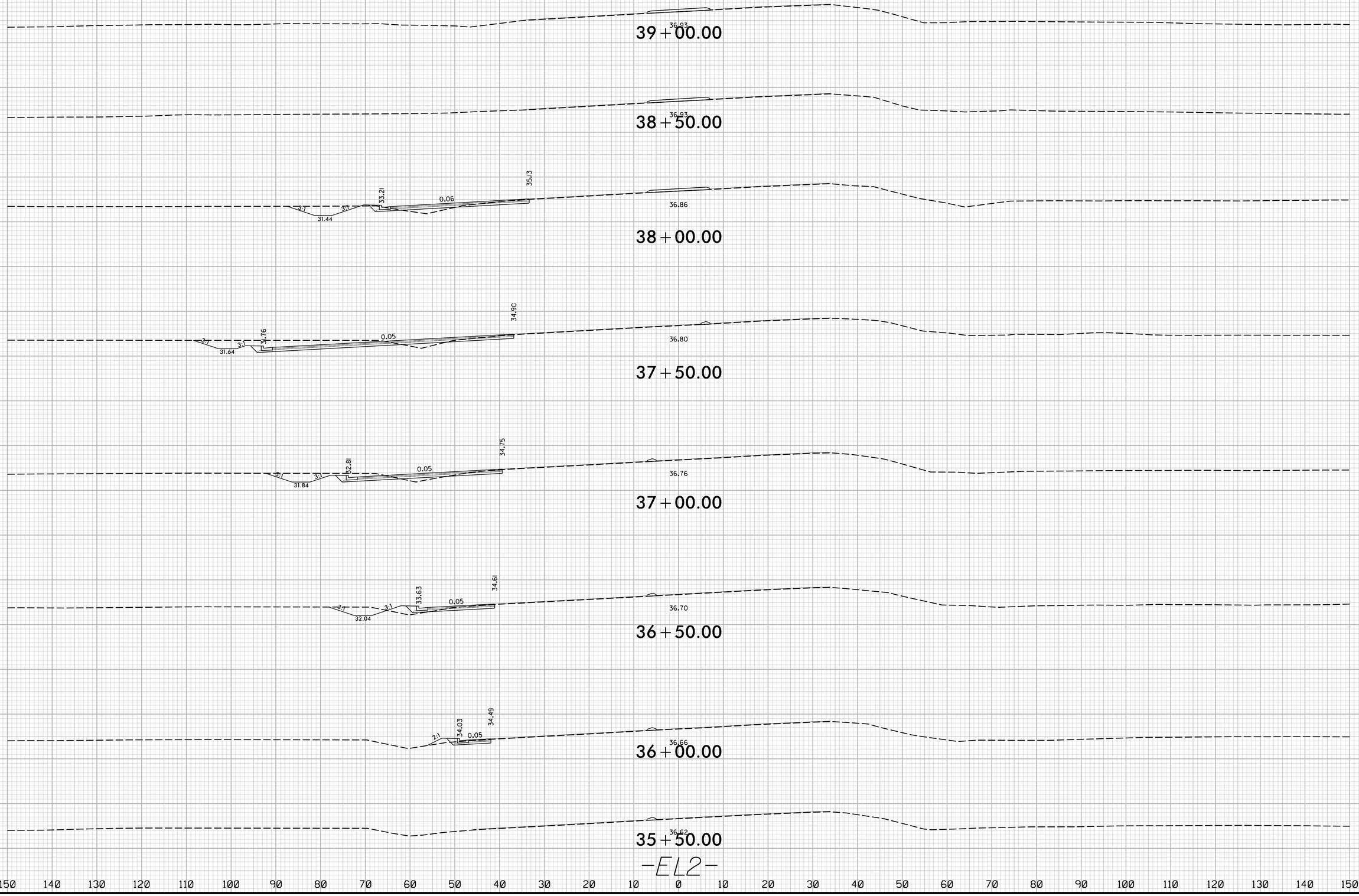
11/16/2023
W-5702G_RDY_XPL.dgn
USER:ramay

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
W-5702G\W-5702R	X-18

0 5 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
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USER:bmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-19

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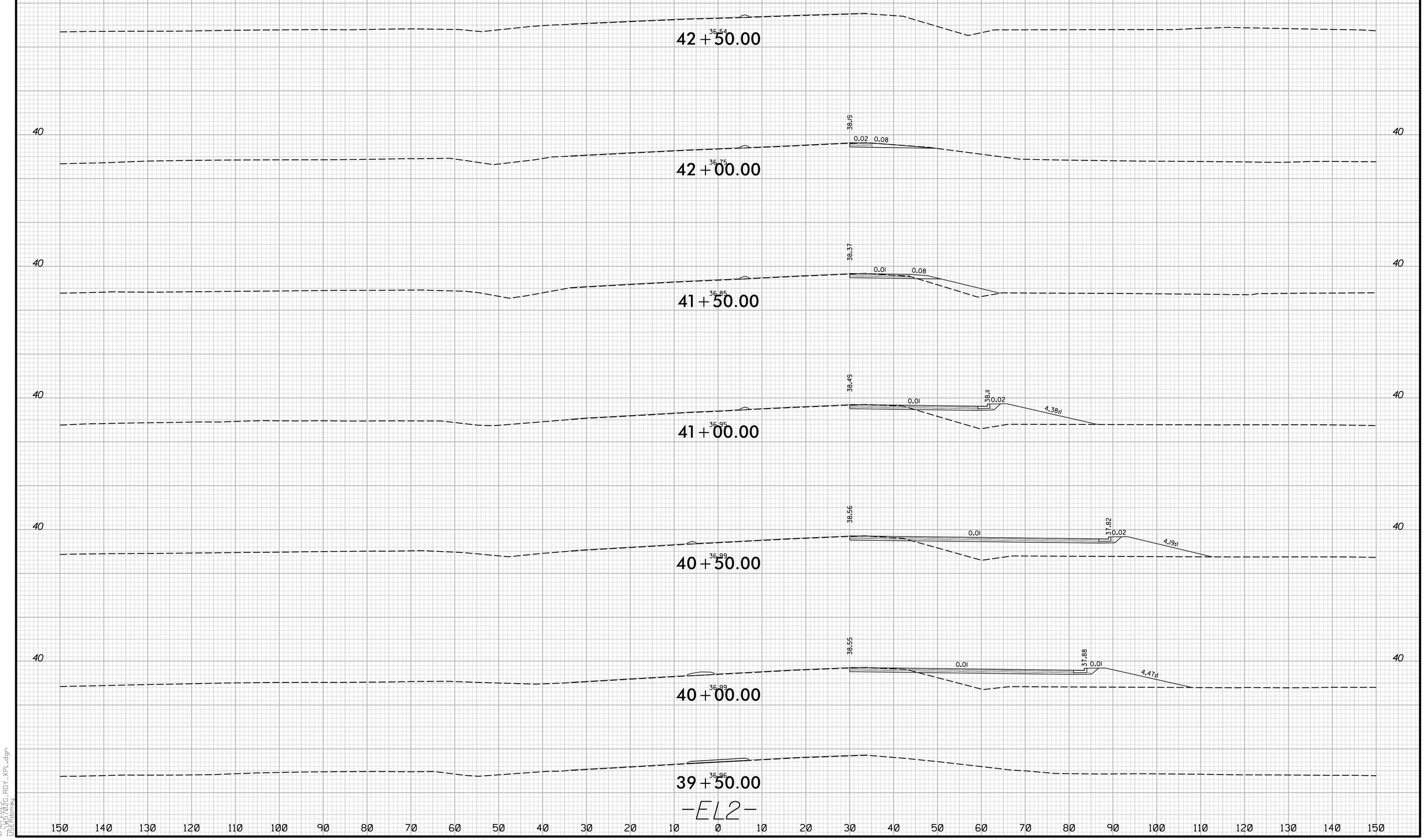

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
W5702G_RDY_XPL.dgn
USER:tbmay

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	W-5702G\W-5702R	X-20

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

47+50.00 34.00

47+00.00 34.27

46+50.00 34.69

46+00.00 35.09

45+50.00 35.43

45+00.00 35.69

44+50.00 35.87

44+00.00 36.02

43+50.00 36.15

43+00.00 36.34

-EL2-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

11/16/2023
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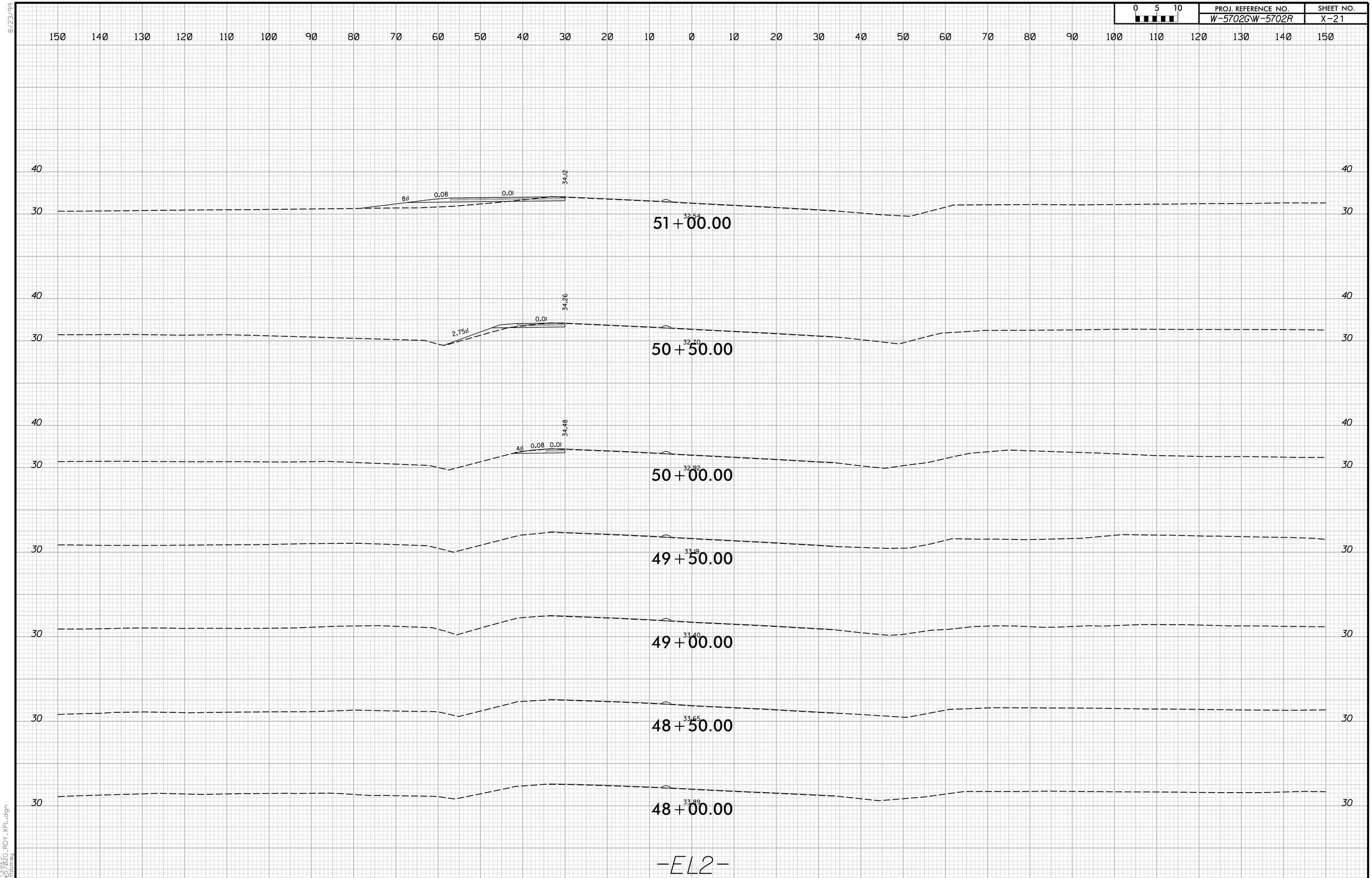
USER:bmay



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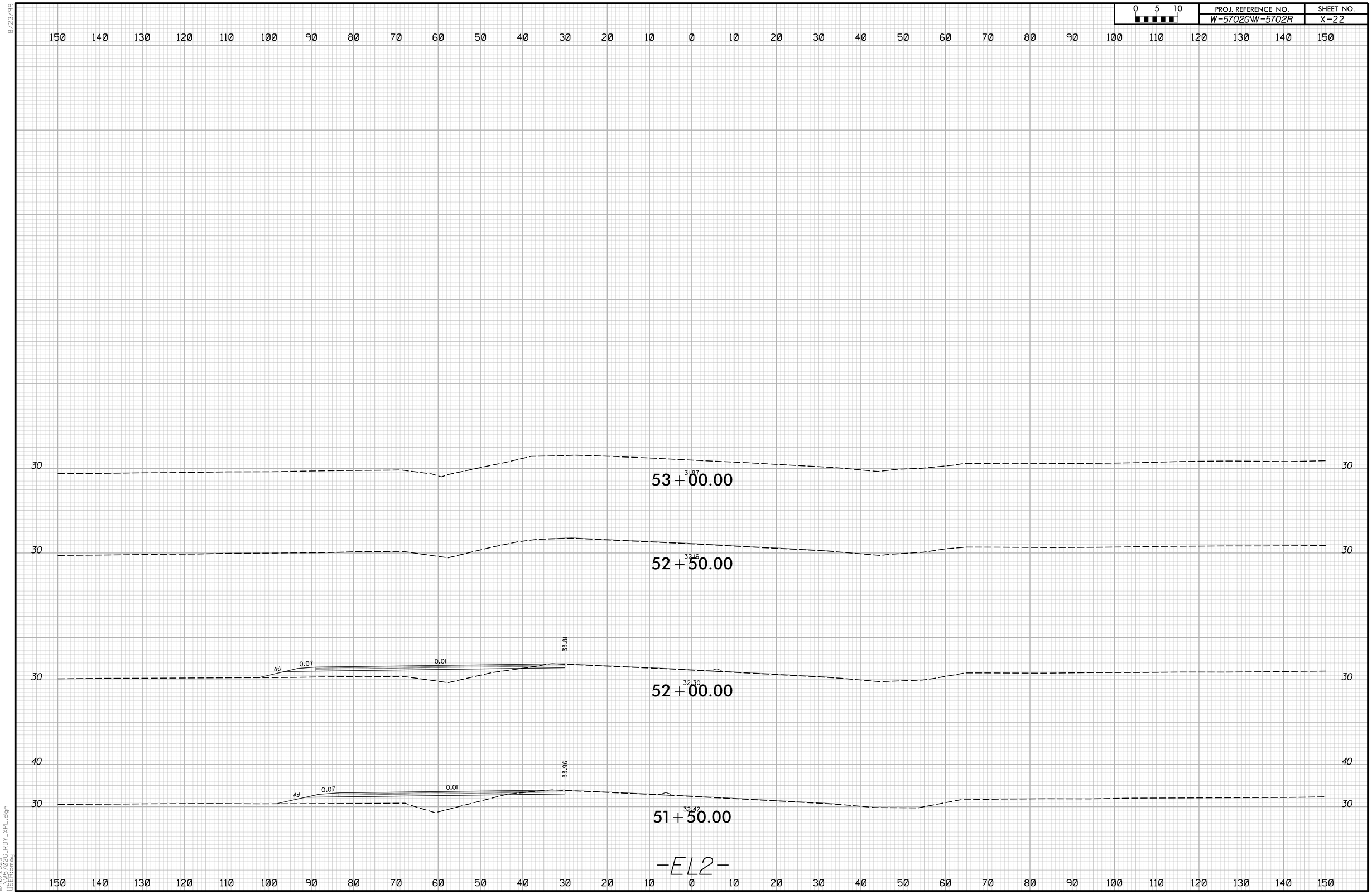

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11/16/2023
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