

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	1000
				TOTAL LF:	1000

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

SUMMARY OF GEOTEXTILE
FOR SUBGRADE STABILIZATION

LINE	Station	Station	Geotextile for Subgrade Stabilization SY
-L-	15+75	24+75	6000
-L-	61+25	69+75	5660
-Y4-	10+10	13+50	2270
-RPB-	10+00	13+75	1460
-RPC-	10+00	25+67	8710
-RPD-	17+75	25+10	4090
CONTINGENCY			
		TOTAL SY:	28190*

*Total square yards of "Geotextile for Subgrade Stabilization" is only the estimated quantity for subgrades and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU(1/2)/ AST	Aggregate Thickness INCHES [8" for ASU(2)]	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY					500	1000	1500	500	
			TOTAL CY/TONS/SY:		500	1000**	1500**	500	0

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

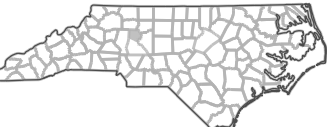
PARCEL INDEX SHEET

PARCEL NO.	SHEET NO.	PROPERTY OWNER NAME
1	4	TONYA STANLEY CARTER
2	4	TRIPLE P REAL ESTATE, LLC
3	4	TIM PAUL MCCULLOH
4	4	ELIZAH BROWN AND SARAH L. BROWN
5	4	HATTIE S. MCCULLOH
6	4, 5	PAUL H. MCCULLOH AND HATTIE S. MCCULLOH
6A	9	HOUSE FARMERS LLC
7	4	THOMAS J. TRADER
8	4	TRIPLE P REAL ESTATE INVESTMENTS, LLC
9	4	BROWN STREET PROPERTIES, INC.
10	4	PAUL ANDREW FOSTER & SHIRLEY ANNETTE FOSTER, TRUSTEES
11	4	MICHAEL J. LANIER AND CRYSTAL L. LANIER
12	4	DENNIS MCBRAYER AND PATRICIA P. MCBRAYER
13	4, 5	HATTIE S. MCCULLOH
14	5, 9	MICHAEL NEAL WILSON AND HILARY C. WILSON
15	5	OSCAR A. SMITH, JR.
16	5, 10	REDLAND PENTECOSTAL HOLINESS CHURCH, INC.
17	5, 6, 7	CAROLINE DULIN MCLAUGHLIN
900	5	DEPARTMENT OF TRANSPORTATION
19	5, 10	SMITH CREEK APARTMENTS, LLC
20	5	MELVIN L. WALKER AND BETTY M. WALKER
21	5, 6	ERNEST JOHN PETROS AND JULIE W. PETROS
22	7, 8, 12	DAVID EUGENE ROBERTSON AND JANET A. ROBERTSON
23	6, 7	FGM DEVELOPMENT, LLC
24	8	JULIE W. PETROS
25	8, 11	THOMAS M. MELTON
26	8	RONNIE HALL RIDDLE AND SUSAN W. RIDDLE
27	8	ALVIA L. OWENS, TRUSTEE
28	8	RICHARD BUCHIN AND THERESA N. BUCHIN
29	8	JEREMY M. GORDON
30	8	GEOFFREY BEANE AND SARAH BEANE
31	8	DANIEL CORBIN AND LAURA CORBIN
32	8	SHELIA BROWN
33	8	APRIL RAE-MARIE MILEVOI
34	8	MATTHEW A. WILSON AND AMBER N. WILSON
35	8	NEAL S. GORDON, JR
36	8	ROY L. POTTS AND DIANE H. POTTS
37	9	HELEN LOUISE ARMSWORTHY WILSON
38	9	WILLIAM C. ARMSWORTHY AND PEGGY P. ARMSWORTHY
39	9	DENNIS C. MCCULLOH
40	9	ELIZABETH ANN COOK
41	9	MEDFORD BRENT SHOAF AND CAROLYN HAHN SHOAF
42	9, 5	JOEL E. WALKER AND LORI L. WALKER
43	10	JEFFREY BRYAN HARPE AND JOHN LEE HARPE, JR
44	10	RICHARD J. BREMER
45	10	NORMAN EUGENE COOK, JR. AND GAYLENE D. COOK

U-6187

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIE COUNTY

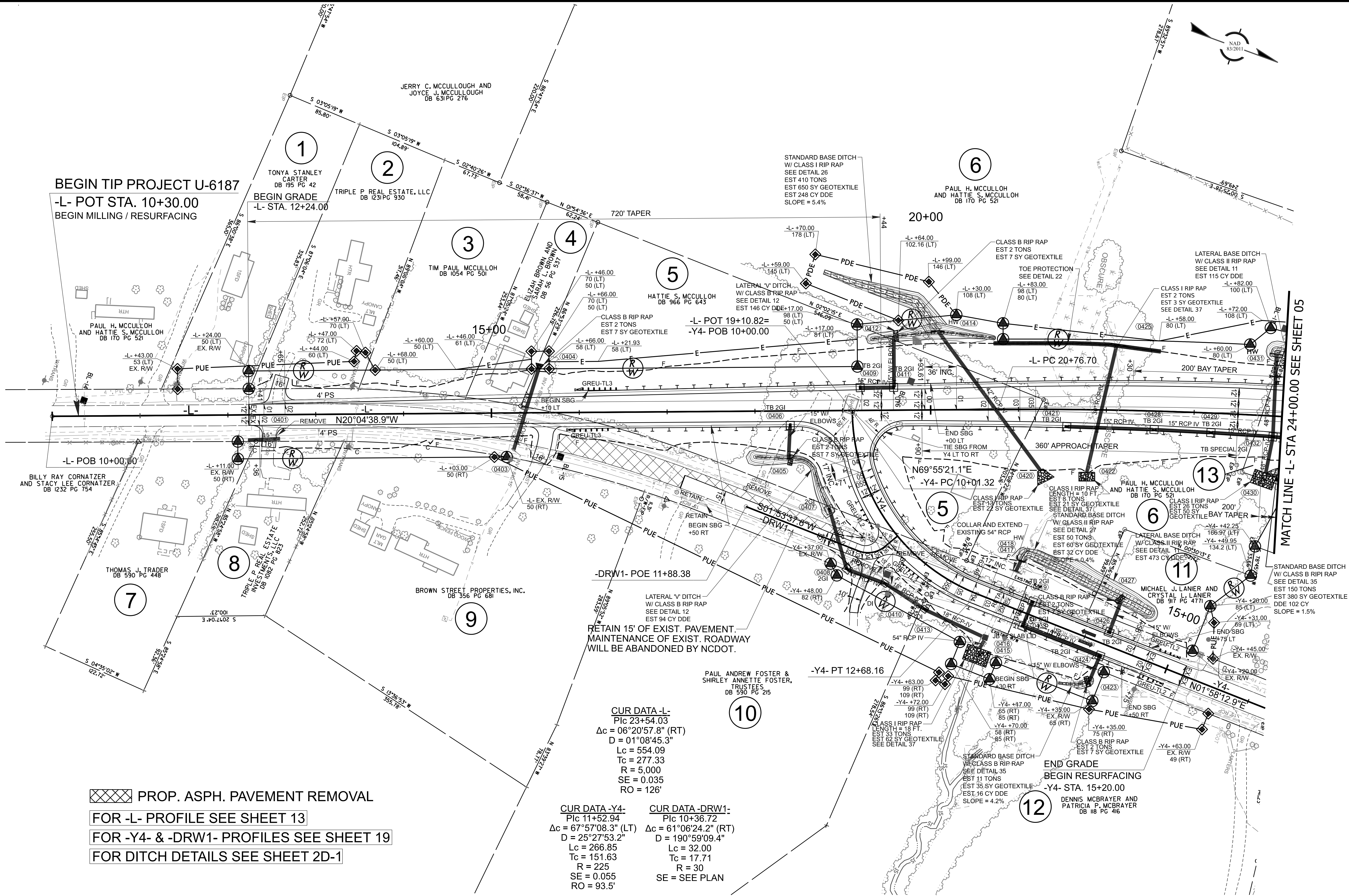


ROADWAY DESIGN UNIT

PREPARED BY



VHB Engineering NC, P.C. (C-3705)
540 Main Campus Drive, Suite 500
Raleigh, NC 27606



XXXX PROP. ASPH. PAVEMENT REMOVAL
FOR -L- PROFILE SEE SHEET 13
FOR -Y4- & -DRW1- PROFILES SEE SHEET 19
FOR DITCH DETAILS SEE SHEET 2D-1

CUR DATA -L-
Plc 23+54.03
 $\Delta c = 06^{\circ}20'57.8''$ (RT)
 $D = 01^{\circ}08'45.3''$
 $Lc = 554.09$
 $Tc = 277.33$
 $R = 5.000$
 $SE = 0.035$
 $RO = 126'$

CUR DATA -Y4-
Plc 11+52.94
 $\Delta c = 67^{\circ}57'08.3''$ (LT)
 $D = 25^{\circ}27'53.2''$
 $Lc = 266.85$
 $Tc = 151.63$
 $R = 225$
 $SE = 0.055$
 $RO = 93.5'$

CUR DATA -DRW1-
Plc 10+36.72
 $\Delta c = 61^{\circ}06'24.2''$ (RT)
 $D = 190^{\circ}59'09.4''$
 $Lc = 32.00$
 $Tc = 17.71$
 $R = 30$
 $SE = \text{SEE PLAN}$

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FINAL004

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIE COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

SEAL
033822

JOHNATHAN P. SOWA
9/8/2019

HYDRAULICS
ENGINEER

SEAL
043870

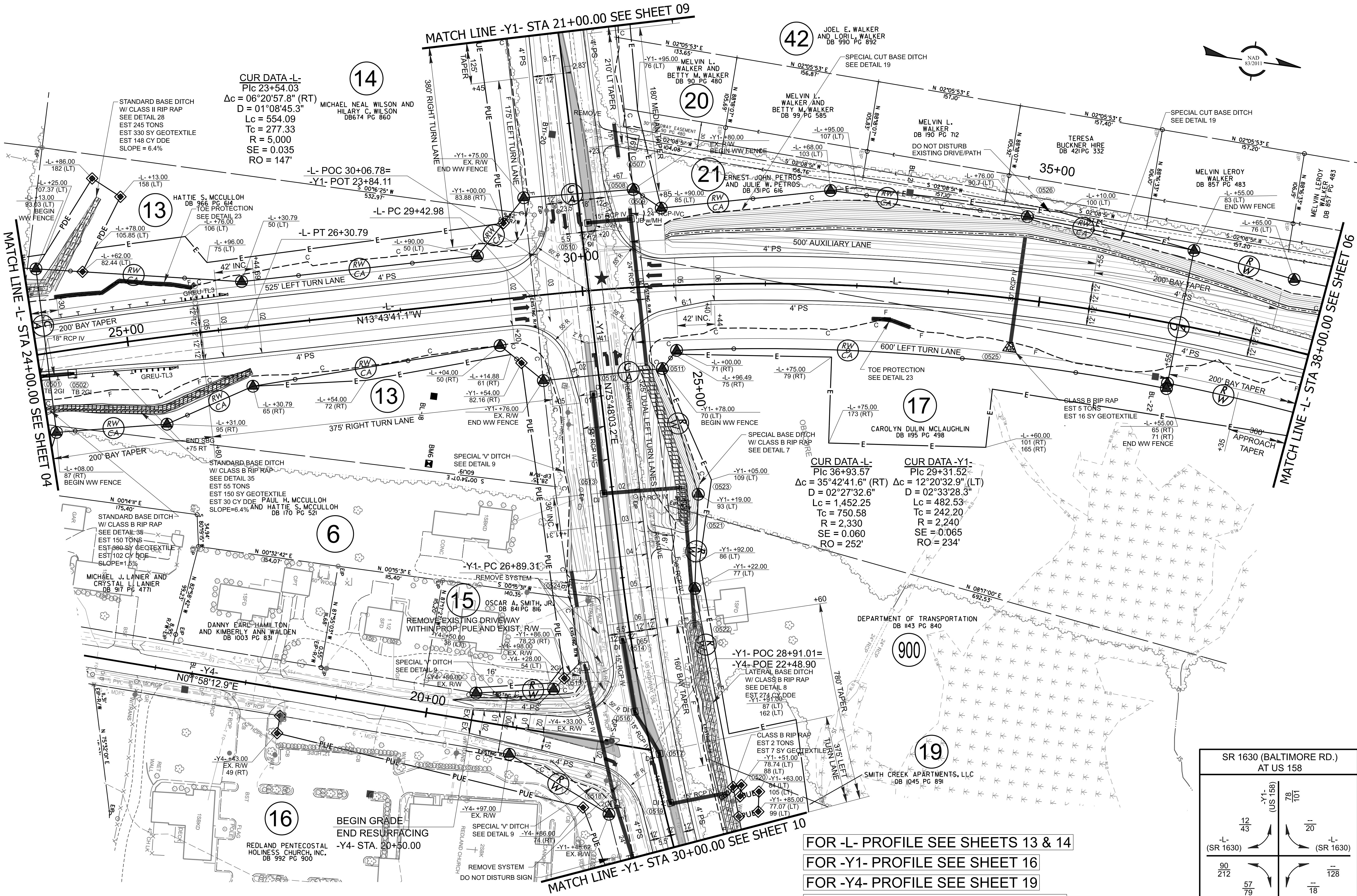
REID B. ROBOLO
9/8/2019

PREPARED BY

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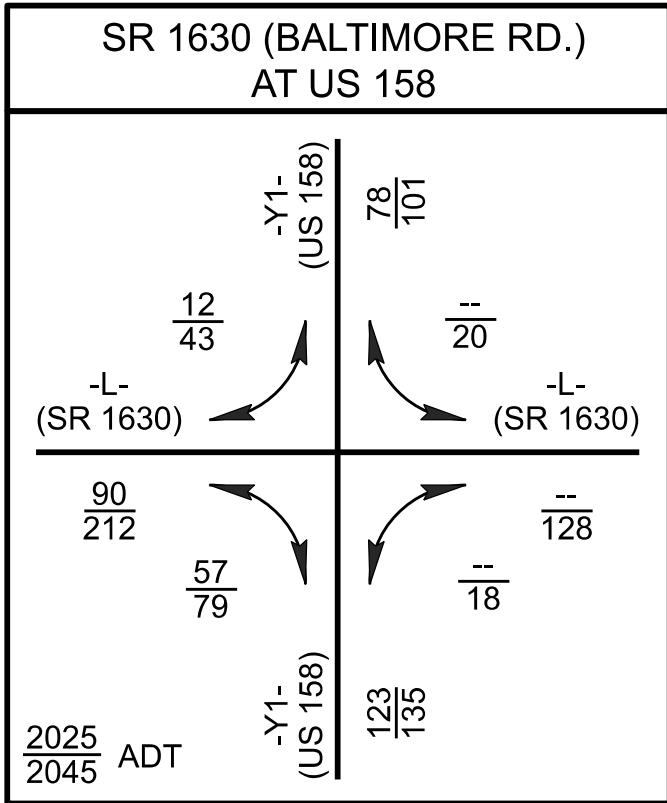
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- FOR -L- PROFILE SEE SHEETS 13 & 14
- FOR -Y1- PROFILE SEE SHEET 16
- FOR -Y4- PROFILE SEE SHEET 19
- FOR DITCH DETAILS SEE SHEET 2D-1
- FOR RAISED ISLAND DETAILS SEE SHEETS 2B-3 & 2B-4

★ PROP. TRAFFIC SIGNAL



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FINAL005

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DAVIE COUNTY

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ENGINEER

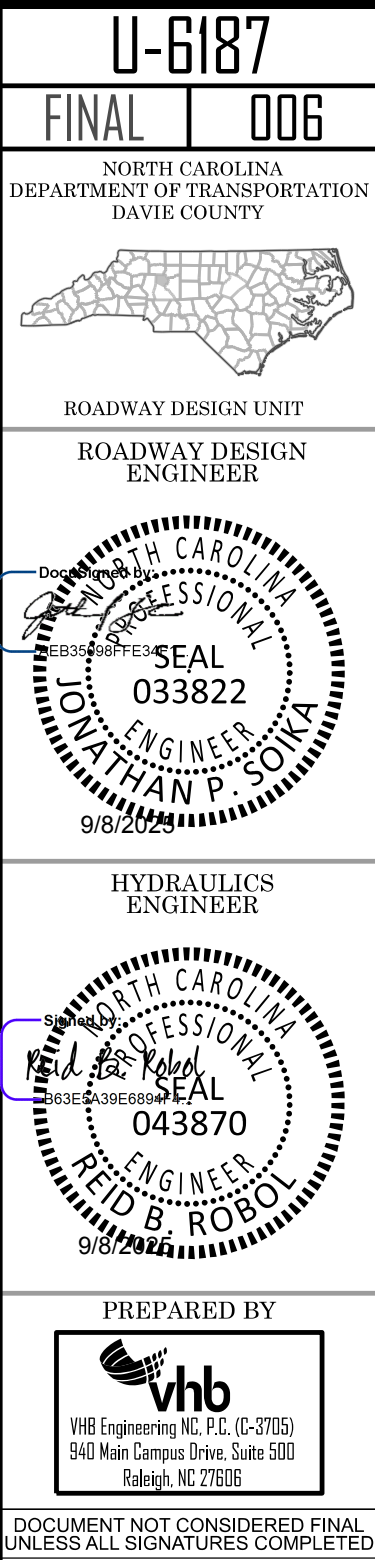
SEAL
033822
NATHAN P. SOWA
9/8/2025

HYDRAULICS
ENGINEER

SEAL
043870
RICH B. ROBOLO
9/8/2025

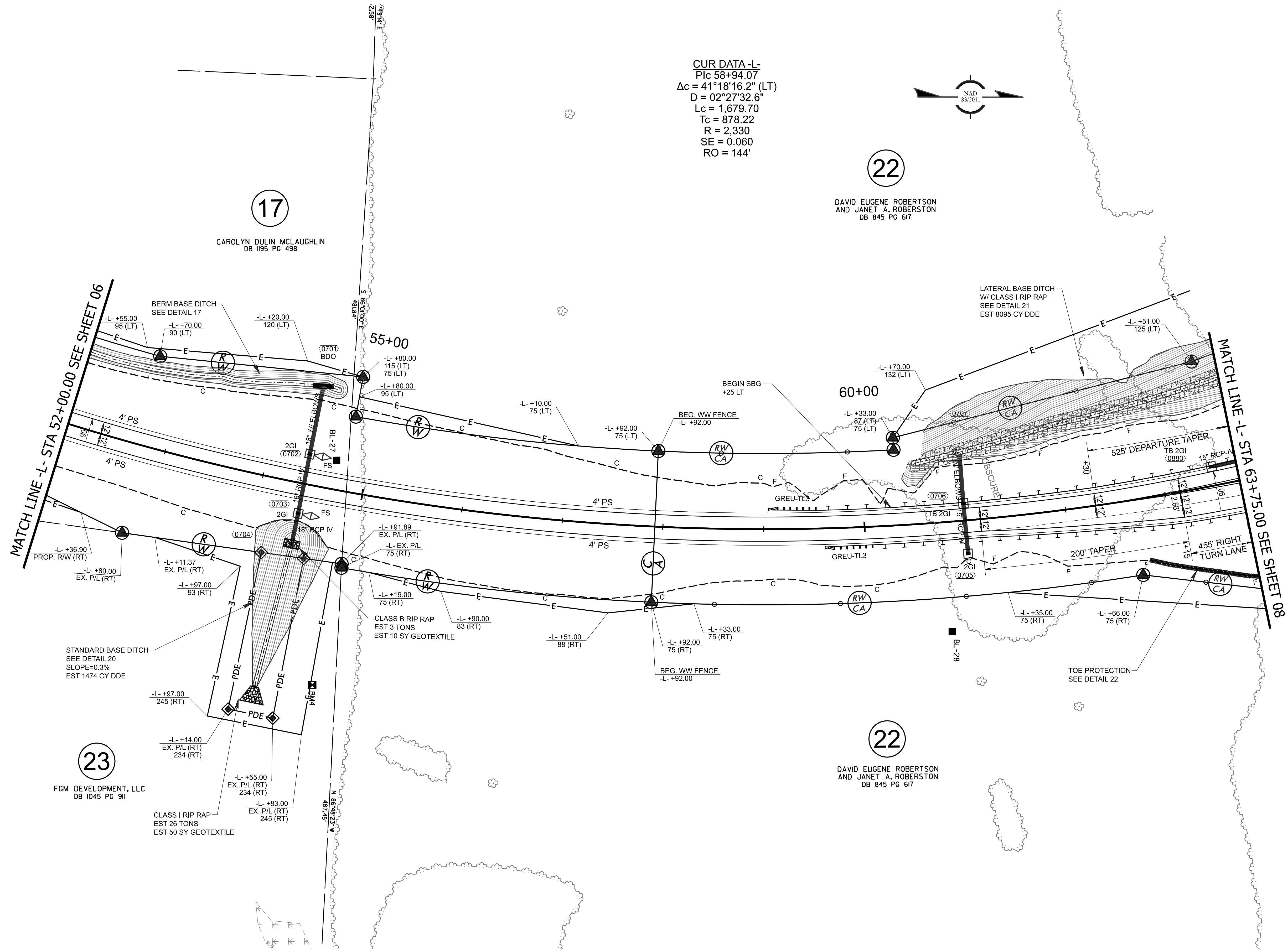
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FOR -L- PROFILE SEE SHEET 14

FOR DITCH DETAILS SEE SHEET 2D-1



FOR -L- PROFILE SEE SHEETS 14 & 15
FOR DITCH DETAILS SEE SHEET 2D-1

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVID COUNTY

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ROADWAY DESIGN
ENGINEER

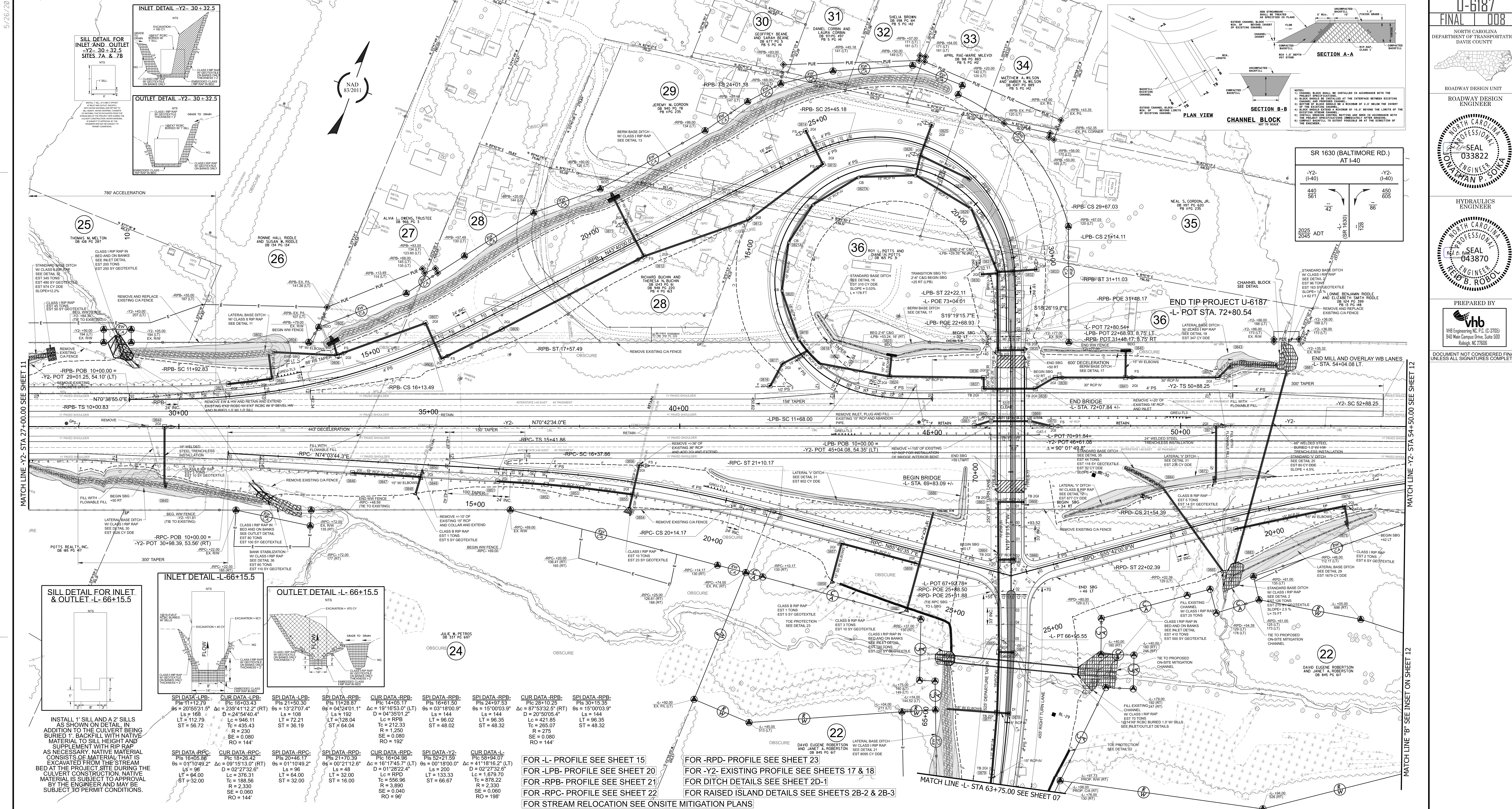
SEAL
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NATHAN P. SONA
9/8/2019

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043870
DAVID B. ROBERTSON
9/8/2019

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DAVIE COUNTY

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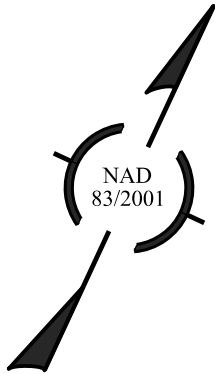
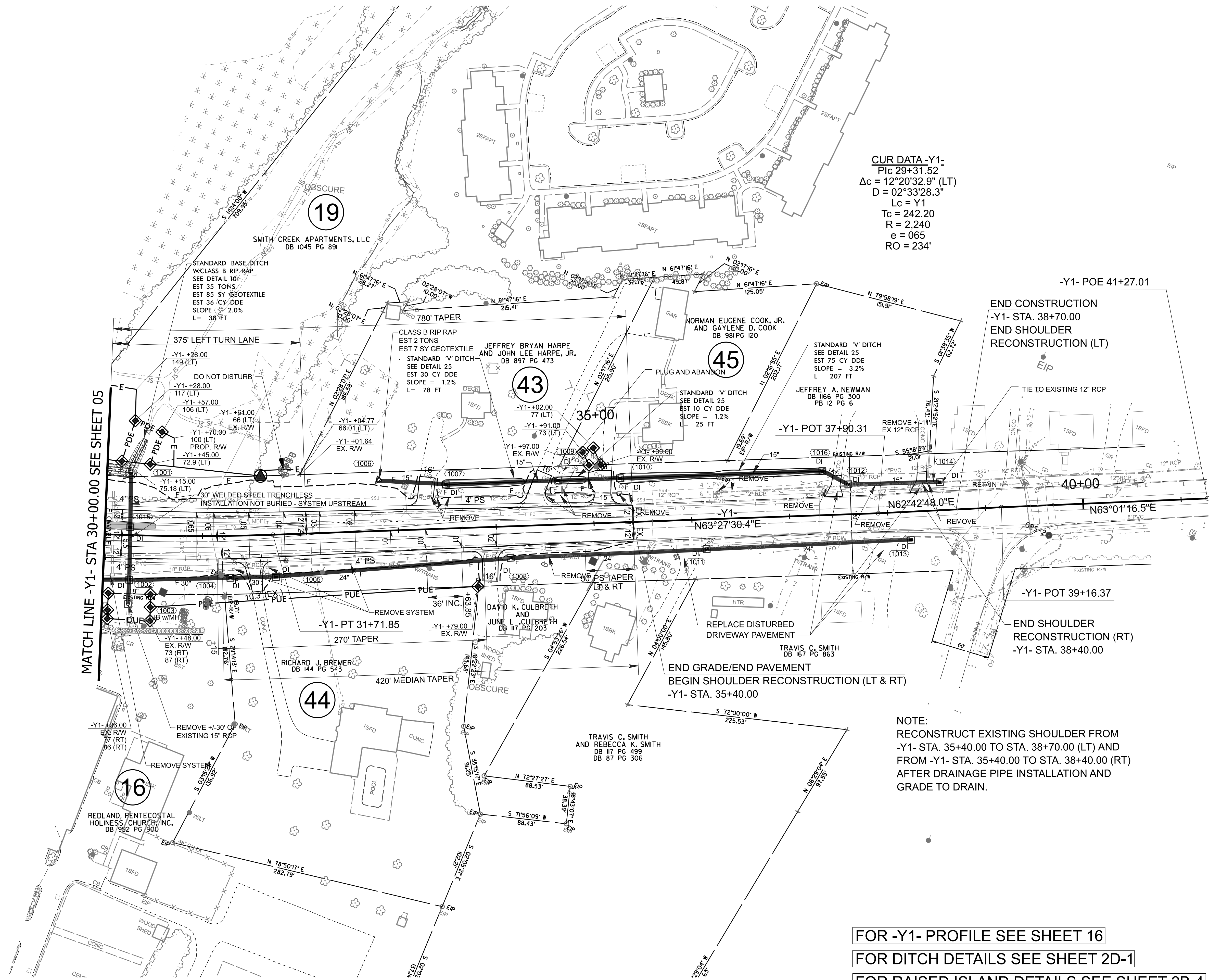
SEAL 033822
NORTH CAROLINA
PROFESSIONAL
ENGINEER
JAN P. SOIKA

HYDRAULICS
ENGINEER

SEAL 043870
NORTH CAROLINA
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R. B. ROBOLO

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CUR DATA -Y1-
Plc 29+31.52
 $\Delta c = 12^\circ 20' 32.9''$ (LT)
 $D = 02^\circ 33' 28.3''$
 $L_c = Y1$
 $T_c = 242.20$
 $R = 2,240$
 $e = 065$
 $RO = 234'$

END CONSTRUCTION
-Y1- STA. 38+70.00
END SHOULDER RECONSTRUCTION (LT)

END SHOULDER RECONSTRUCTION (RT)
-Y1- STA. 38+40.00

NOTE:
RECONSTRUCT EXISTING SHOULDER FROM
-Y1- STA. 35+40.00 TO STA. 38+70.00 (LT) AND
FROM -Y1- STA. 35+40.00 TO STA. 38+40.00 (RT)
AFTER DRAINAGE PIPE INSTALLATION AND
GRADE TO DRAIN.

FOR -Y1- PROFILE SEE SHEET 16
FOR DITCH DETAILS SEE SHEET 2D-1
FOR RAISED ISLAND DETAILS SEE SHEET 2B-4

U-6187

FINAL

010

NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

DAVIE COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN ENGINEER

SEAL

033822

JOHNATHAN P. SOWA

9/8/2016

HYDRAULICS ENGINEER

SEAL

043870

REID B. ROBOLO

9/8/2016

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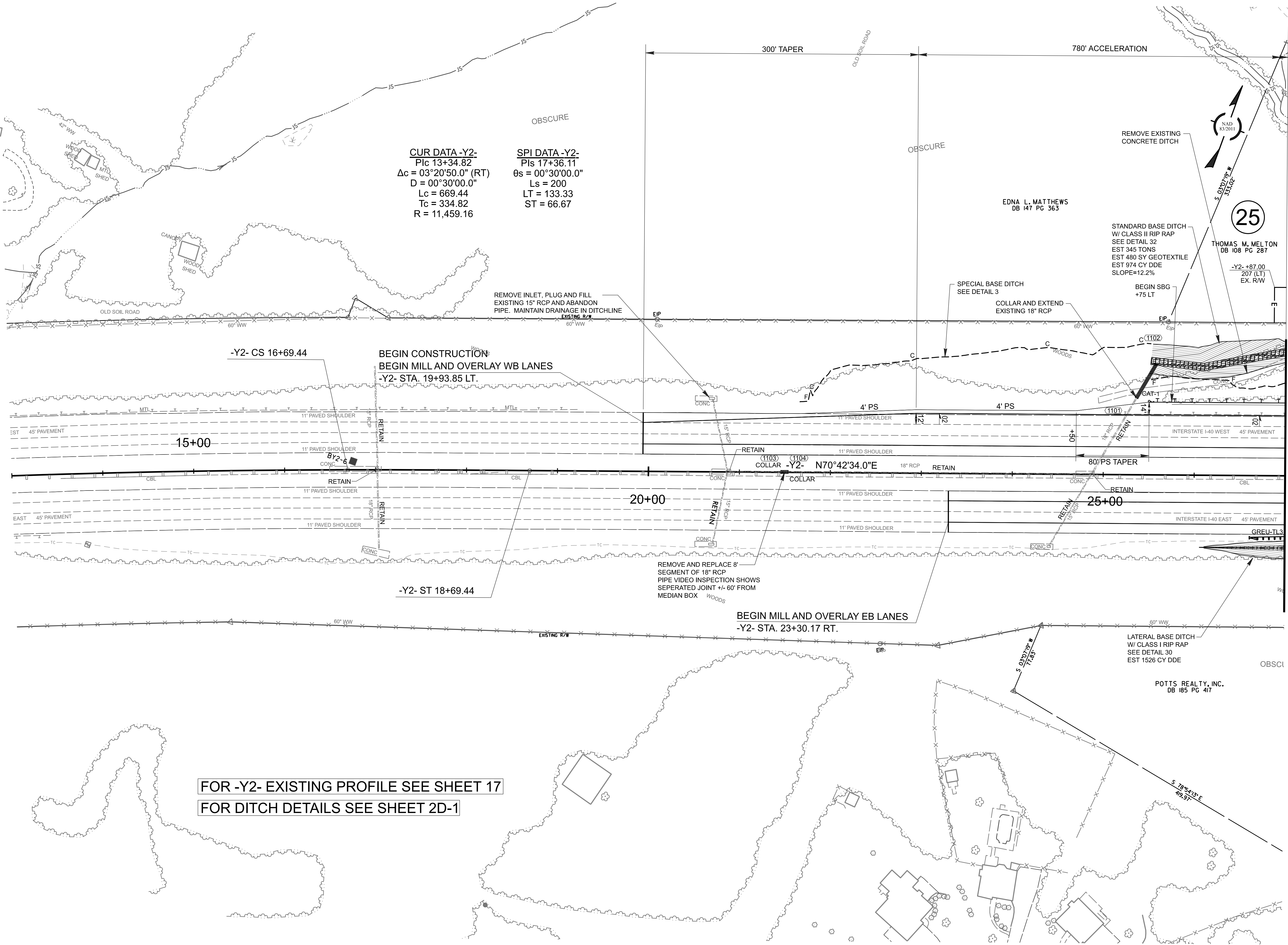
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FOR -Y2- EXISTING PROFILE SEE SHEET 17
FOR DITCH DETAILS SEE SHEET 2D-1

MATCH LINE -Y2- STA 27+00.00 SEE SHEET 08

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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DAVIE COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

Professional Engineer Seal

SEAL
033822
THOMAS M. MELTON
9/8/2019

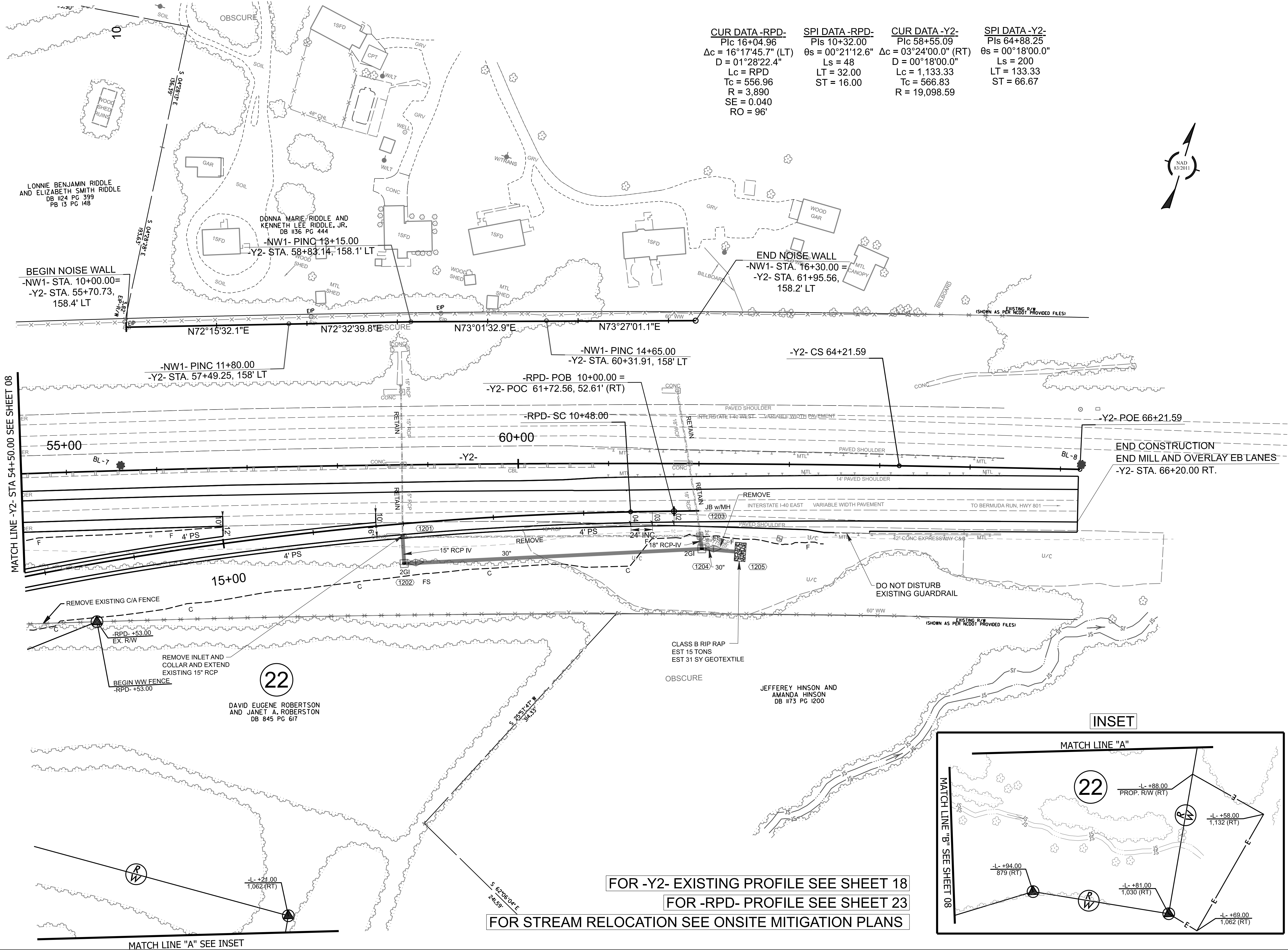
HYDRAULICS
ENGINEER

Professional Engineer Seal

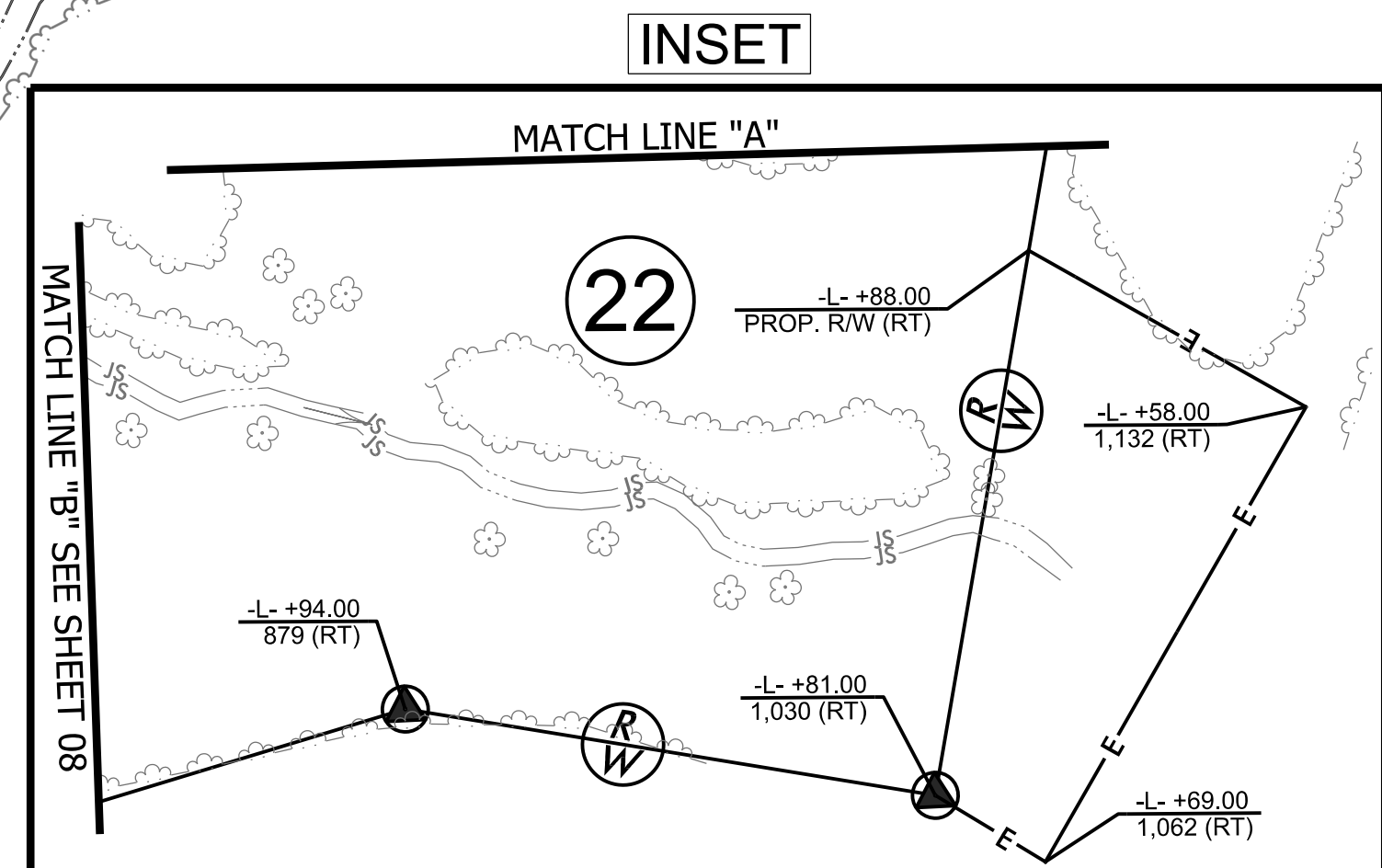
SEAL
043870
THOMAS M. MELTON
9/8/2019

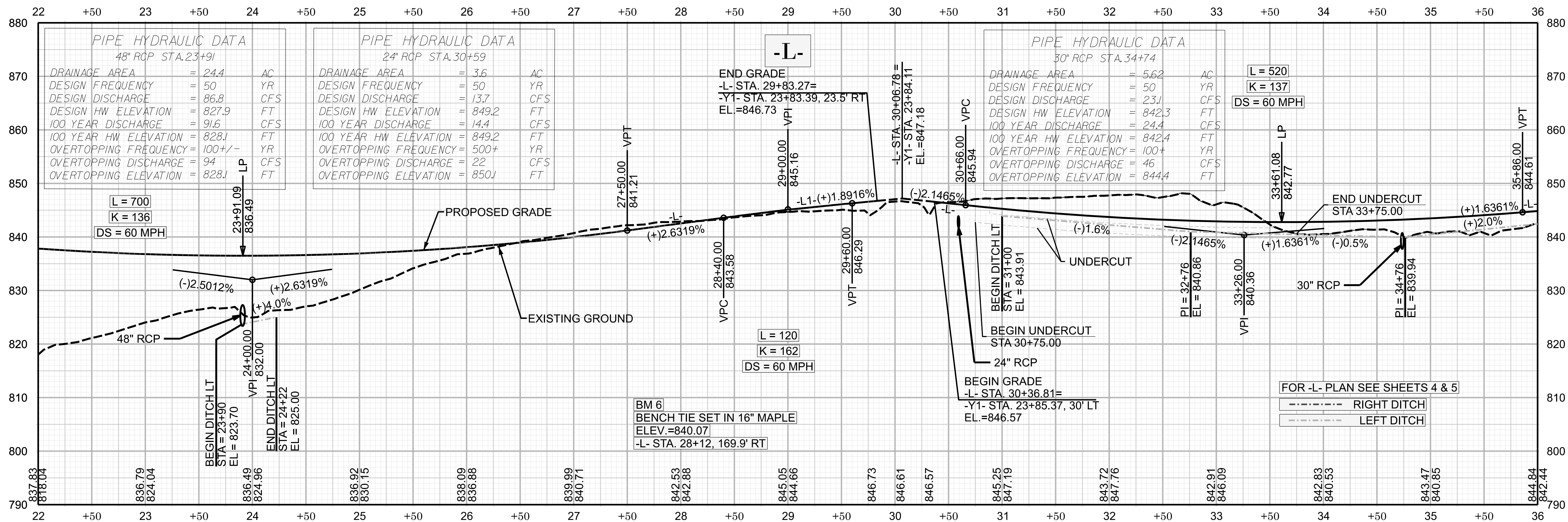
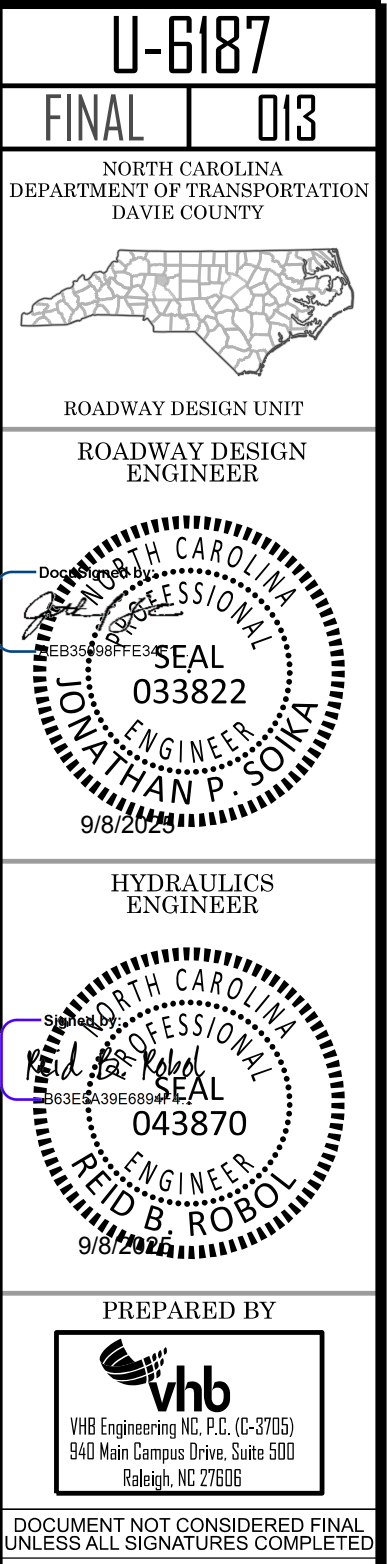
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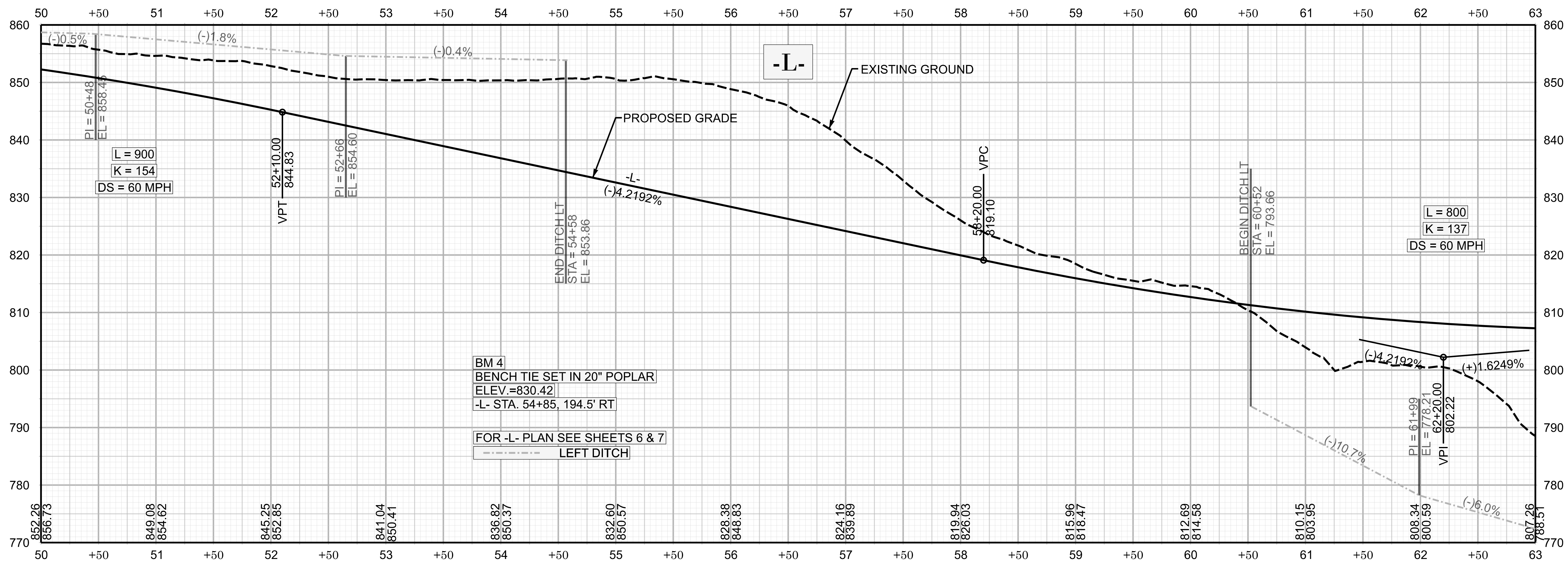
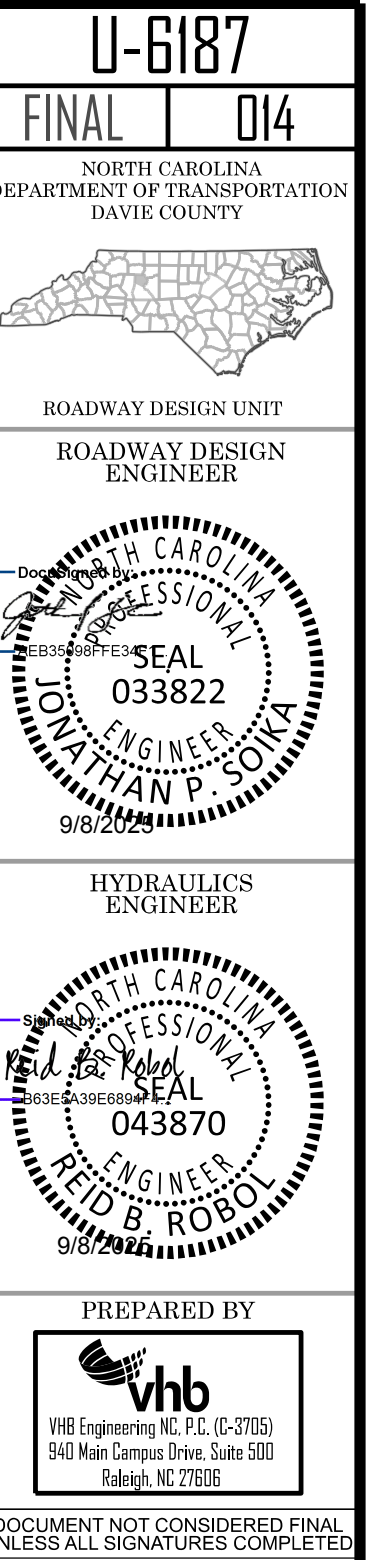
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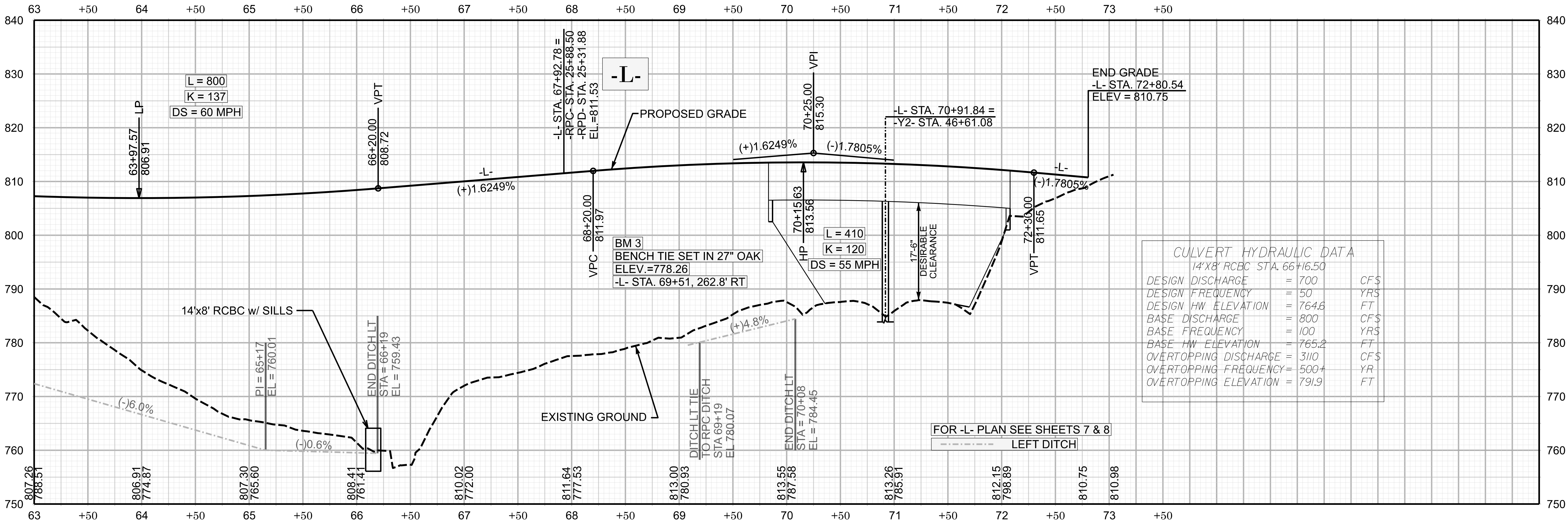


FOR STREAM RELOCATION SEE ONSITE MITIGATION PLANS









CULVERT HYDRAULIC DATA		
14'x8' RCBC STA. 66+16.50		
DESIGN DISCHARGE	= 700	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 764.6	FT
BASE DISCHARGE	= 800	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 765.2	FT
OVERTOPPING DISCHARGE	= 3110	CFS
OVERTOPPING FREQUENCY	= 500+	YR
OVERTOPPING ELEVATION	= 791.9	FT

FOR -L- PLAN SEE SHEETS 7 & 8
LEFT DITCH

U-6187

FINAL015

NORTH CAROLINA
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DAVIE COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
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Professional Engineer
Seal
033822
NATHAN P. SONA
9/8/2016

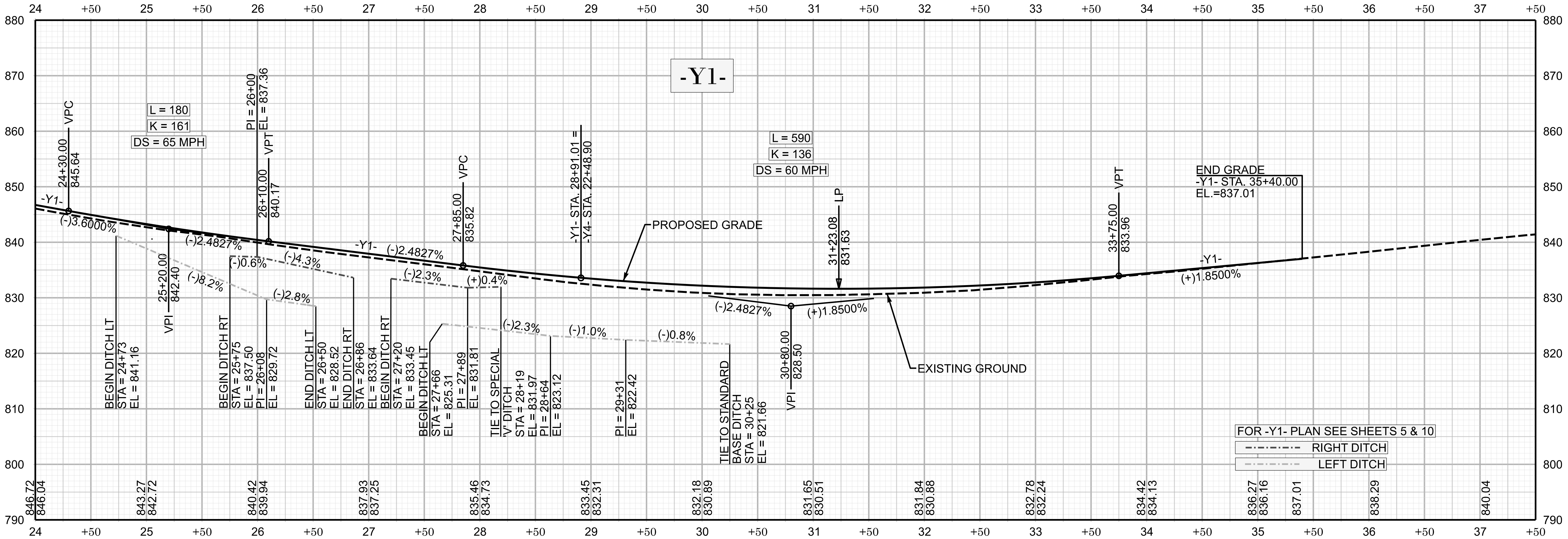
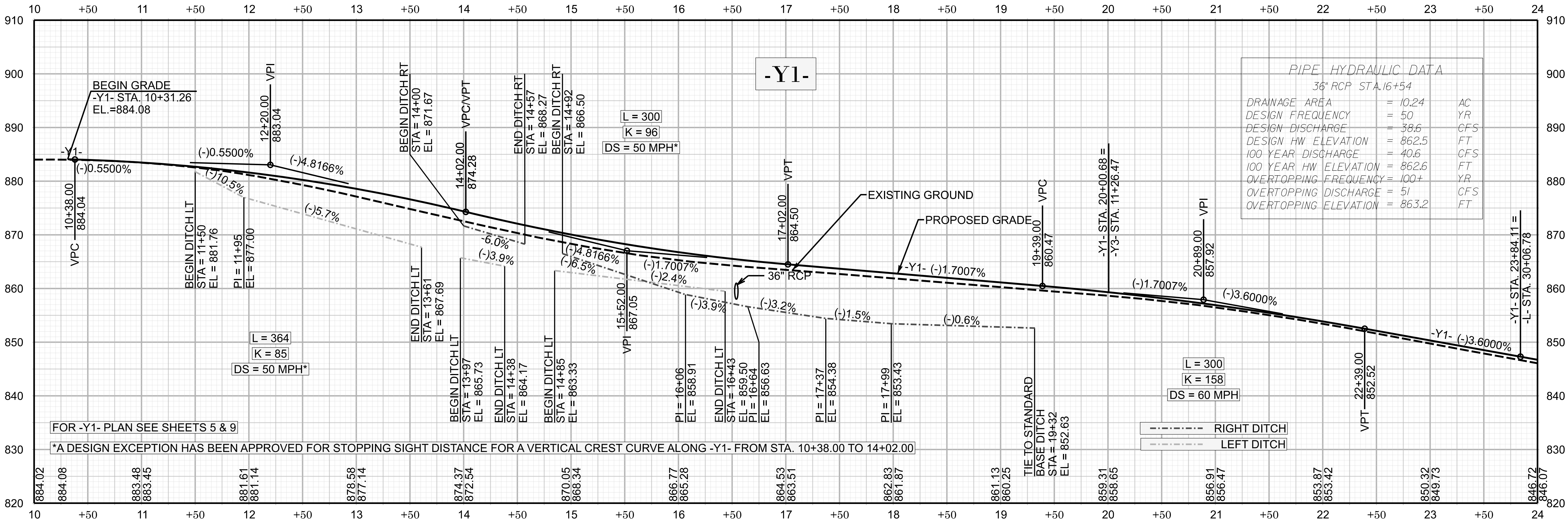
Professional Engineer
Seal
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RICH B. ROBOT
9/8/2016

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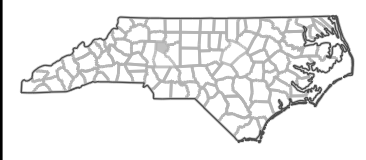
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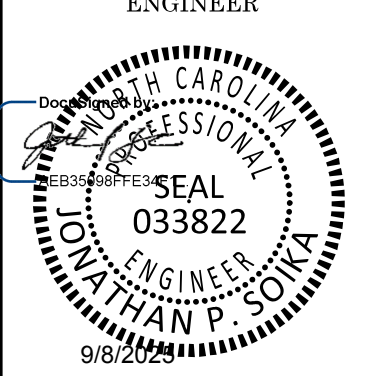
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DAVIE COUNTY

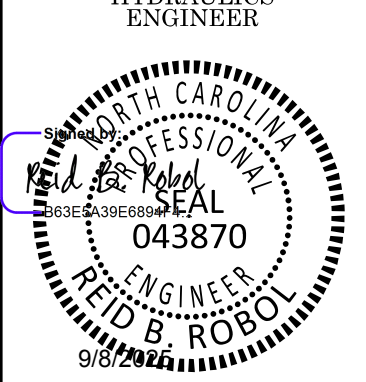


ROADWAY DESIGN UNIT

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ENGINEER



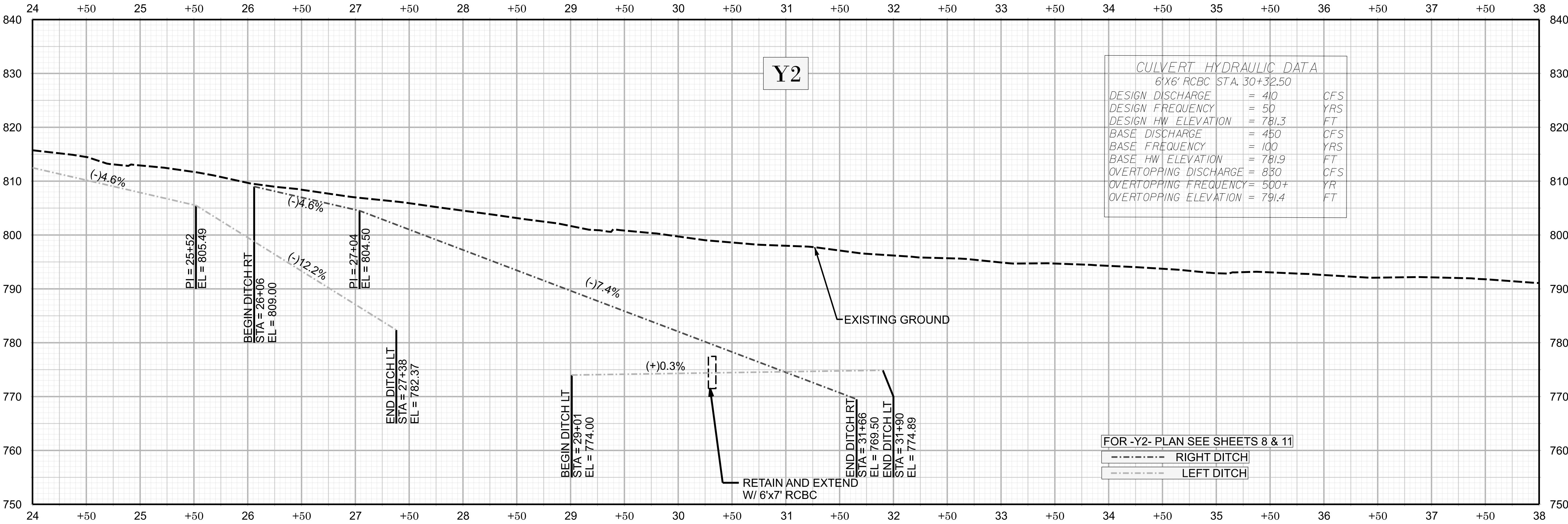
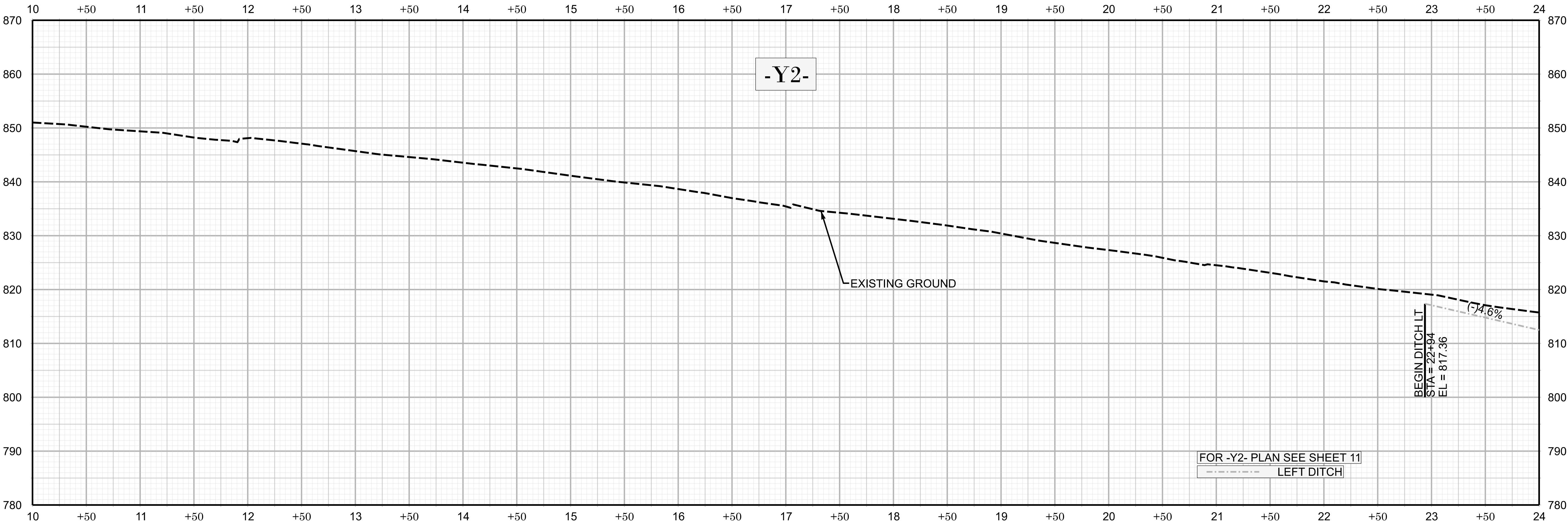
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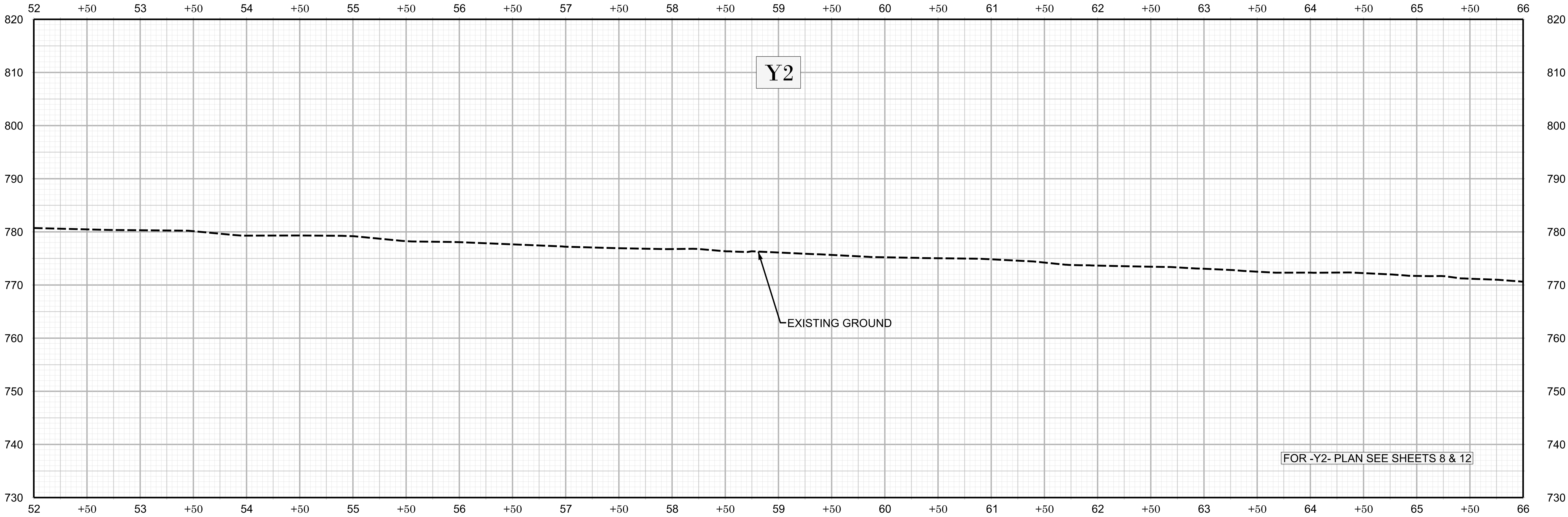
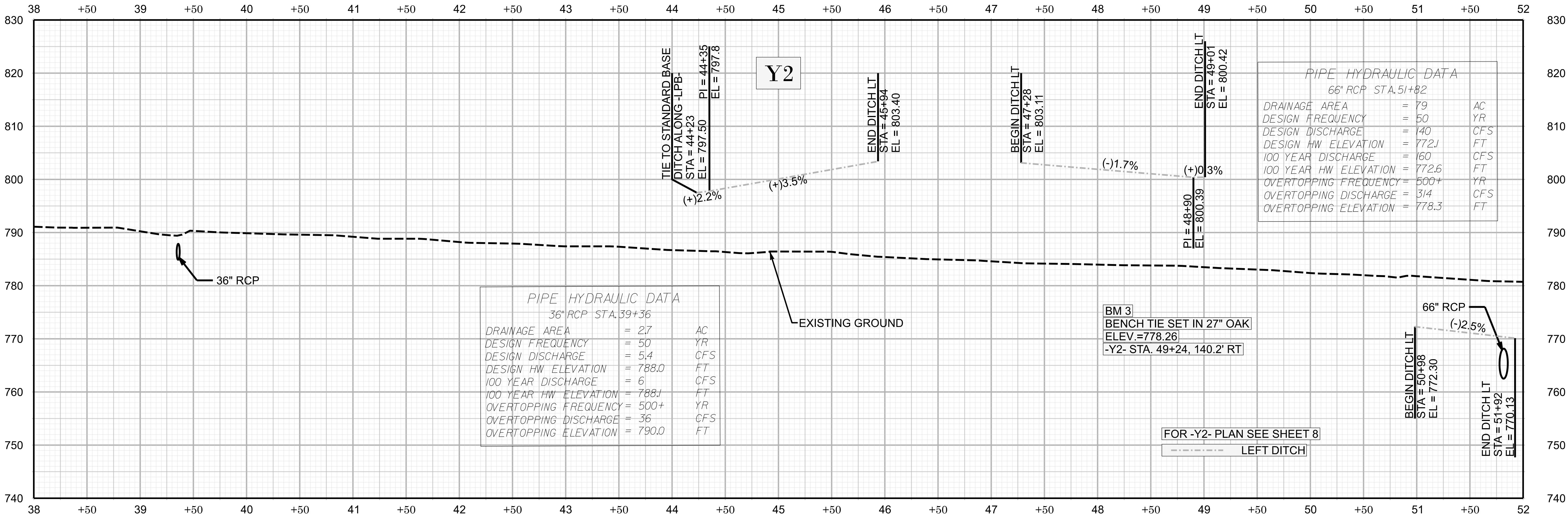
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FINAL 017
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DAVID COUNTY
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ROADWAY DESIGN
ENGINEER
NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
033822
NATHAN P. SONIA
9/8/2016
HYDRAULICS
ENGINEER
NORTH CAROLINA
PROFESSIONAL
ENGINEER
SEAL
043870
RICH B. ROBOT
9/8/2016
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FINAL 018

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DAVIE COUNTY

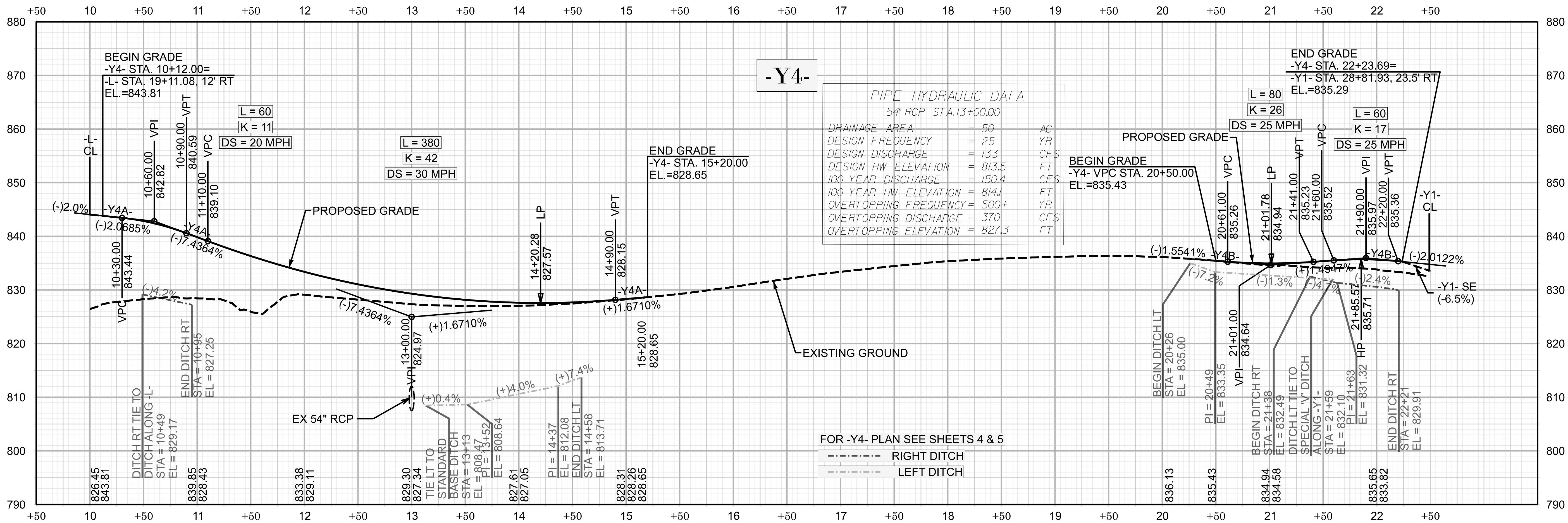
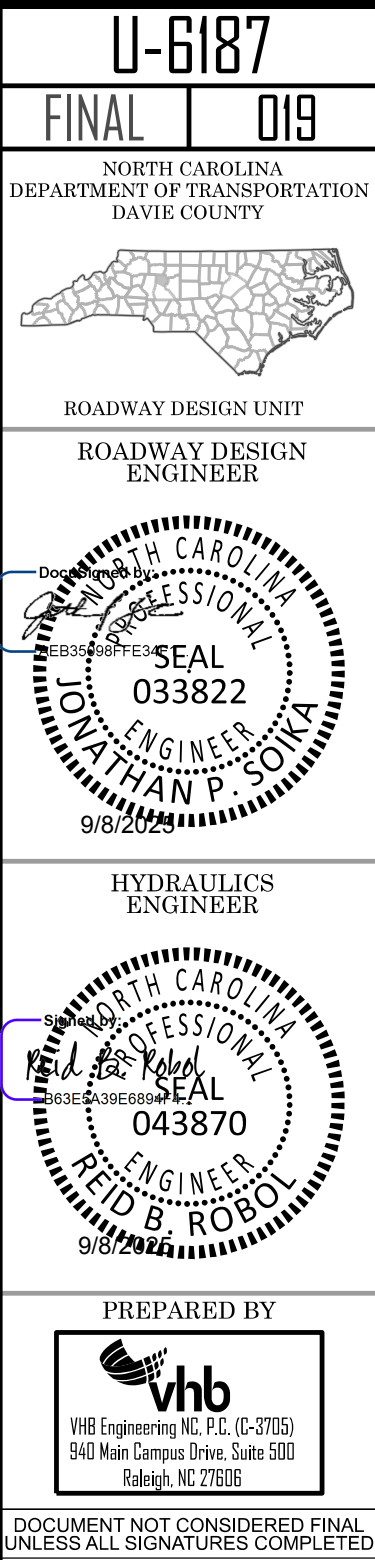
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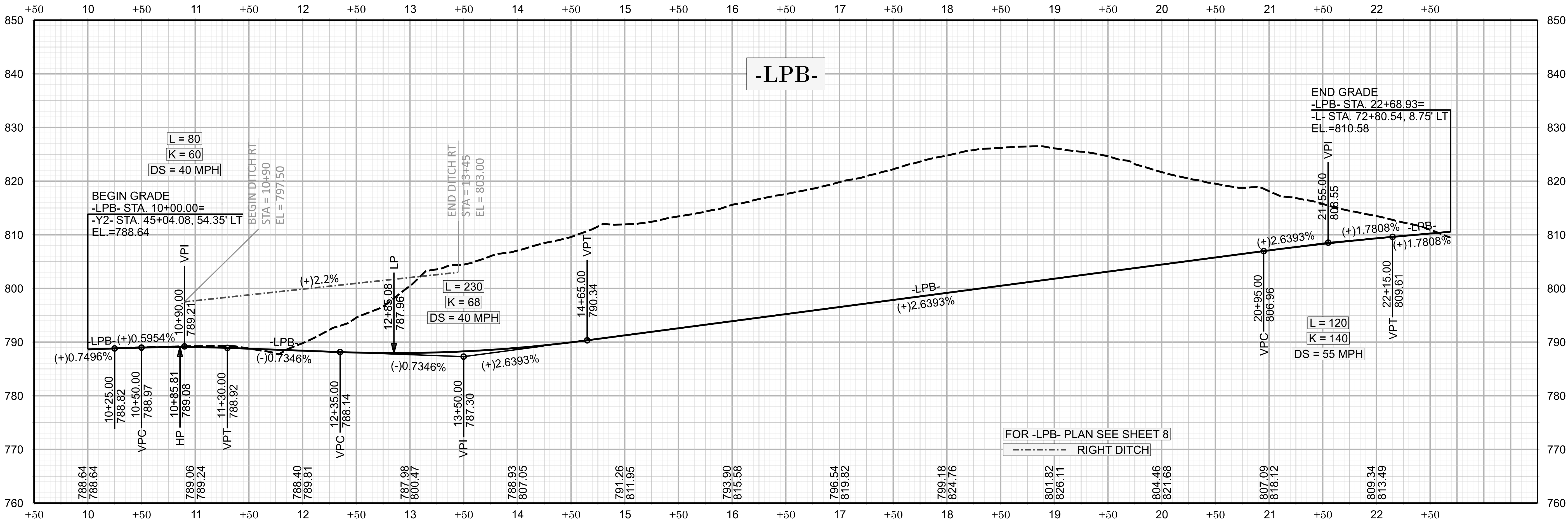
Professional Engineer
Nathan P. Soma
033822
9/8/2016

Professional Engineer
David B. Robol
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9/8/2016

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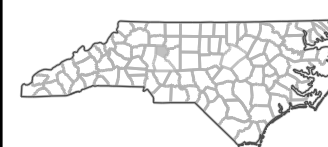




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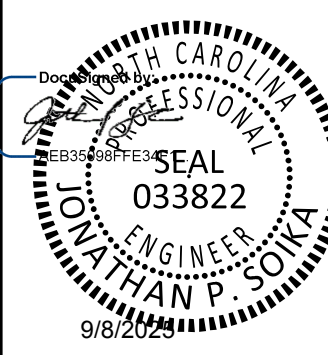
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NORTH CAROLINA
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DAVID COUNTY



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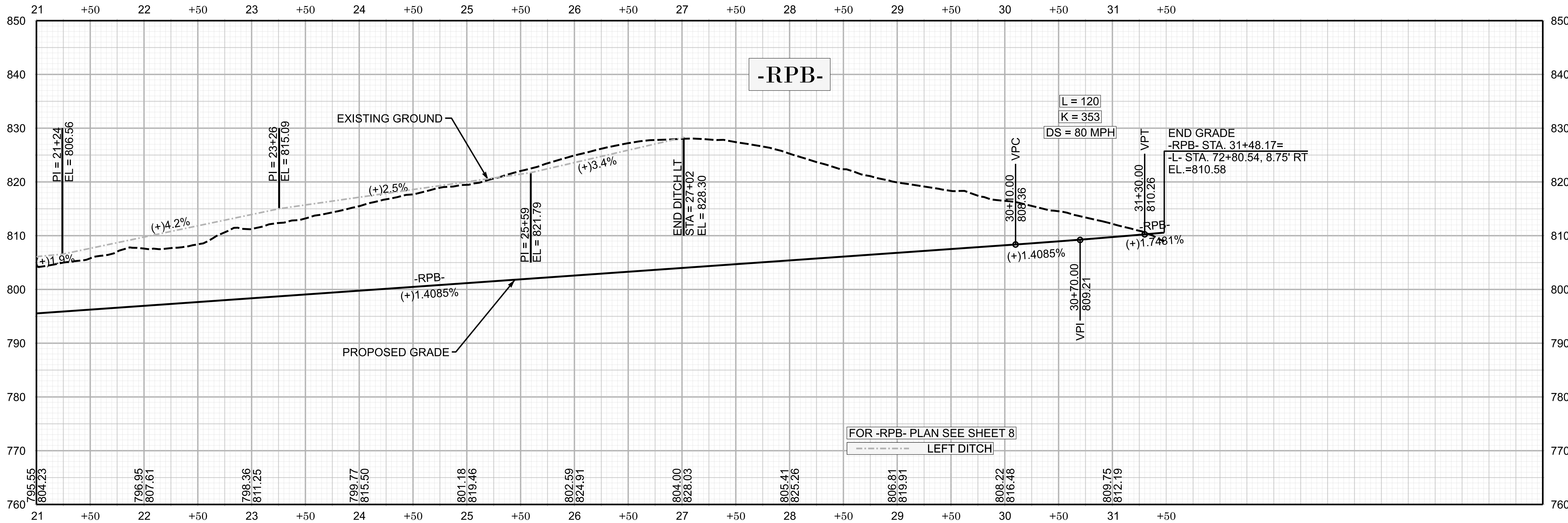
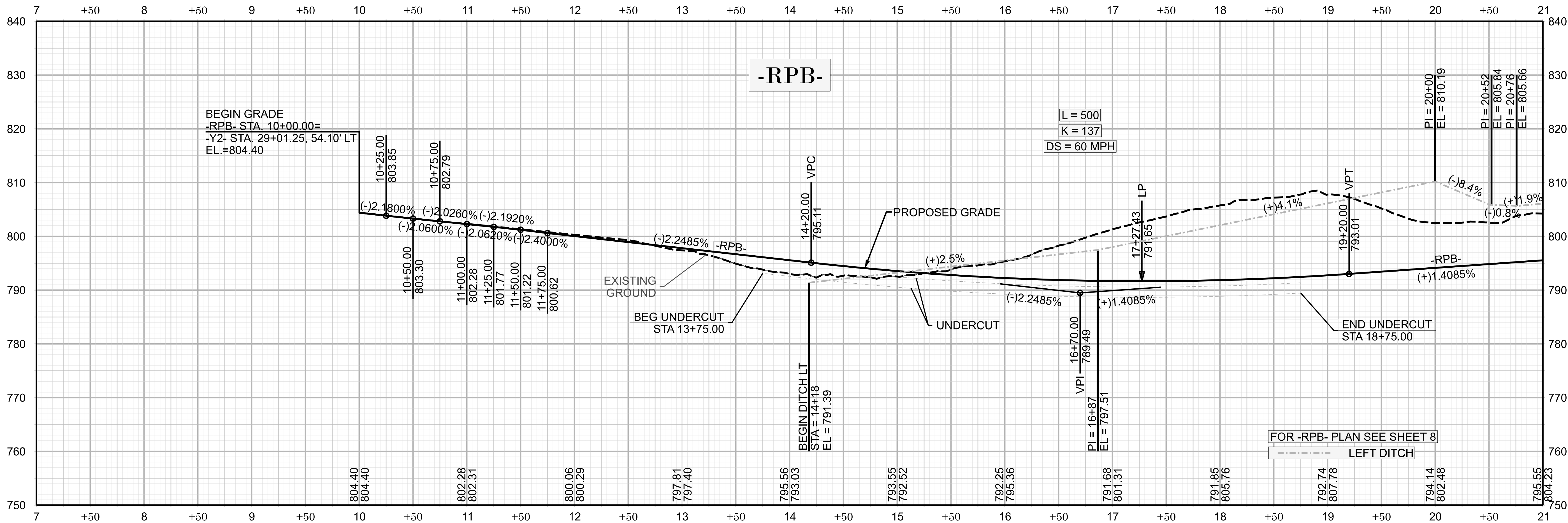
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DAVIE COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

SEAL
033822
NATHAN P. SORIA
9/8/2026
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ENGINEER

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9/8/2026
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