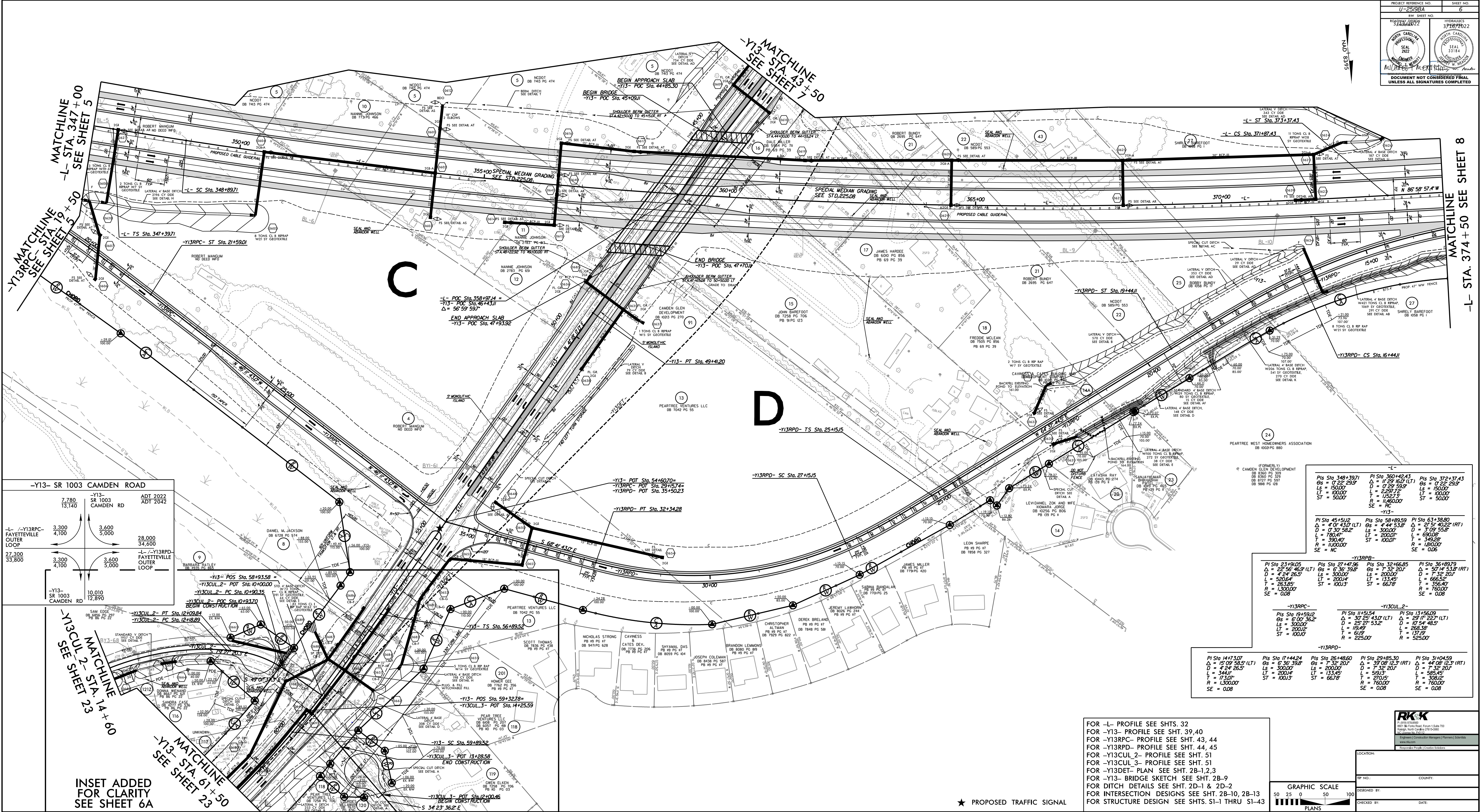


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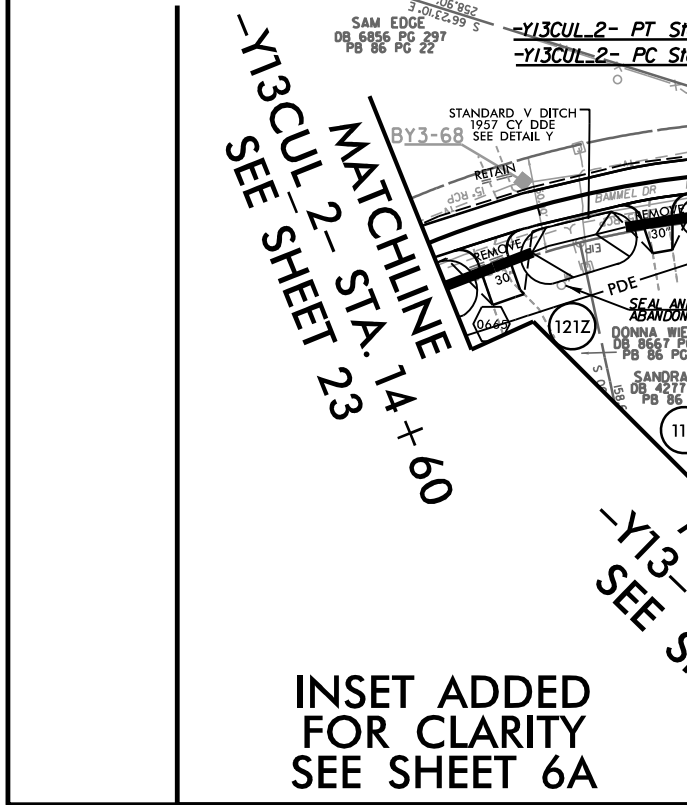


-Y13- SR 1003 CAMDEN ROAD

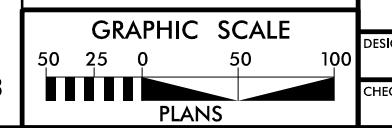
7,780	-Y13	ADT 2022
13,140	SR 1003	ADT 2042
	CAMDEN RD	

3,200	3,600	28,000
4,100	5,000	34,600
27,300	3,300	3,600
33,800	4,100	5,000
	10,010	FAYETTEVILLE
	12,890	OUTER LOOP

PI Sta 348+39.71 $\Delta = 0'22'29.5"$ $D = 150.00'$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 11,600.00'$ $SE = 0.08$	PI Sta 360+42.43 $\Delta = 0'22'29.5"$ $D = 150.00'$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 11,600.00'$ $SE = 0.08$	PI Sta 372+37.43 $\Delta = 0'22'29.5"$ $D = 150.00'$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 11,600.00'$ $SE = 0.08$
PI Sta 45+50.12 $\Delta = 4'04'43.0"$ $D = 0'30'58.2"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 1,300.00'$ $SE = 0.08$	PI Sta 58+99.59 $\Delta = 4'04'43.0"$ $D = 0'30'58.2"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 1,300.00'$ $SE = 0.08$	PI Sta 63+38.80 $\Delta = 4'04'43.0"$ $D = 0'30'58.2"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 1,300.00'$ $SE = 0.08$
PI Sta 23+91.02 $\Delta = 22'56'46.9"$ $D = 4'24'26.5"$ $L = 3,441'$ $T = 1,730.7'$ $R = 1,300.00'$ $SE = 0.08$	PI Sta 27+47.36 $\Delta = 0'36'39.8"$ $D = 30'25'43.0"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$	PI Sta 32+66.85 $\Delta = 0'36'39.8"$ $D = 30'25'43.0"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$
PI Sta 19+59.12 $\Delta = 0'07'35.2"$ $D = 25'29'53.2"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$	PI Sta 11+51.54 $\Delta = 0'07'35.2"$ $D = 25'29'53.2"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$	PI Sta 13+56.09 $\Delta = 22'17'22.7"$ $D = 17'54'48.5"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$
PI Sta 14+73.07 $\Delta = 19'09'58.5"$ $D = 4'24'26.5"$ $L = 3,441'$ $T = 1,730.7'$ $R = 1,300.00'$ $SE = 0.08$	PI Sta 17+44.24 $\Delta = 0'36'39.8"$ $D = 30'25'43.0"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$	PI Sta 26+48.60 $\Delta = 0'36'39.8"$ $D = 30'25'43.0"$ $L = 2,281.2'$ $T = 1,152.73'$ $R = 2,250.0'$
PI Sta 29+85.30 $\Delta = 35'08'12.3"$ $D = 7'32'20.7"$ $L = 5,913'$ $T = 2,701.5'$ $R = 760.00'$ $SE = 0.08$	PI Sta 31+04.59 $\Delta = 44'08'15.3"$ $D = 7'32'20.7"$ $L = 5,913'$ $T = 2,701.5'$ $R = 760.00'$ $SE = 0.08$	



FOR -L- PROFILE SEE SHTS. 32
 FOR -Y13- PROFILE SEE SHT. 39, 40
 FOR -Y13RPC- PROFILE SEE SHT. 43, 44
 FOR -Y13RPD- PROFILE SEE SHT. 44, 45
 FOR -Y13CUL 2- PROFILE SEE SHT. 51
 FOR -Y13CUL 3- PROFILE SEE SHT. 51
 FOR -Y13DET- PLAN SEE SHT. 2B-1,2,3
 FOR -Y13- BRIDGE SKETCH SEE SHT. 2B-9
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGNS SEE SHT. 2B-10, 2B-13
 FOR STRUCTURE DESIGN SEE SHTS. S1-1 THRU S1-43

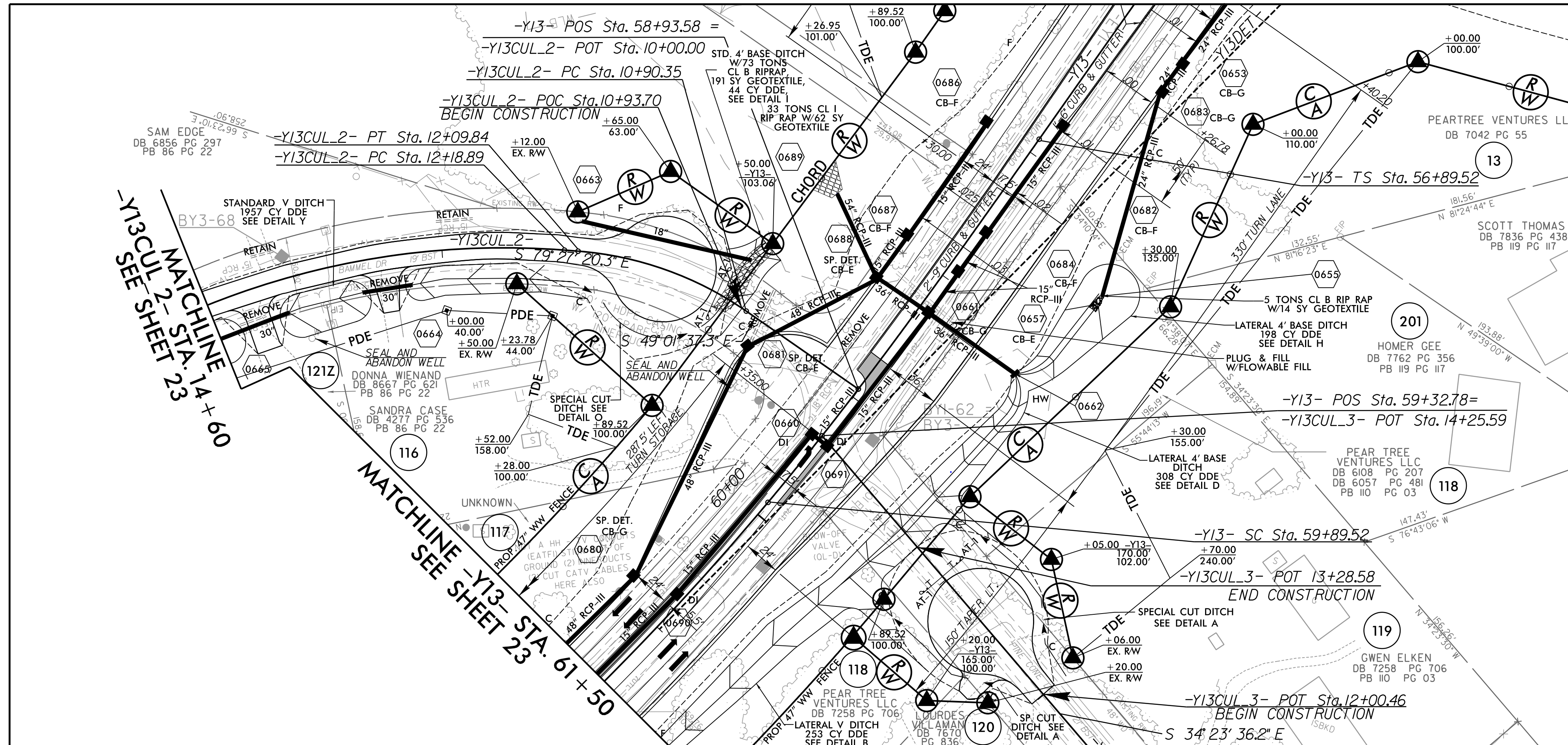


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 REGISTERED PROFESSIONAL ENGINEER
 ENGINEERING CONSULTANTS (MANAGEMENT) INCORPORATED
 10000 RAYBURN DRIVE, SUITE 100
 RAYBURN, NORTH CAROLINA 27056
 PHONE: 704.771.1111
 FAX: 704.771.1112
 WWW.RKKENGINEERS.COM

LOCATION: _____ COUNTY: _____
 TP NO.: _____
 DESIGNED BY: _____
 CHECKED BY: _____ DATE: _____

★ PROPOSED TRAFFIC SIGNAL

INSET FROM SHEET 6

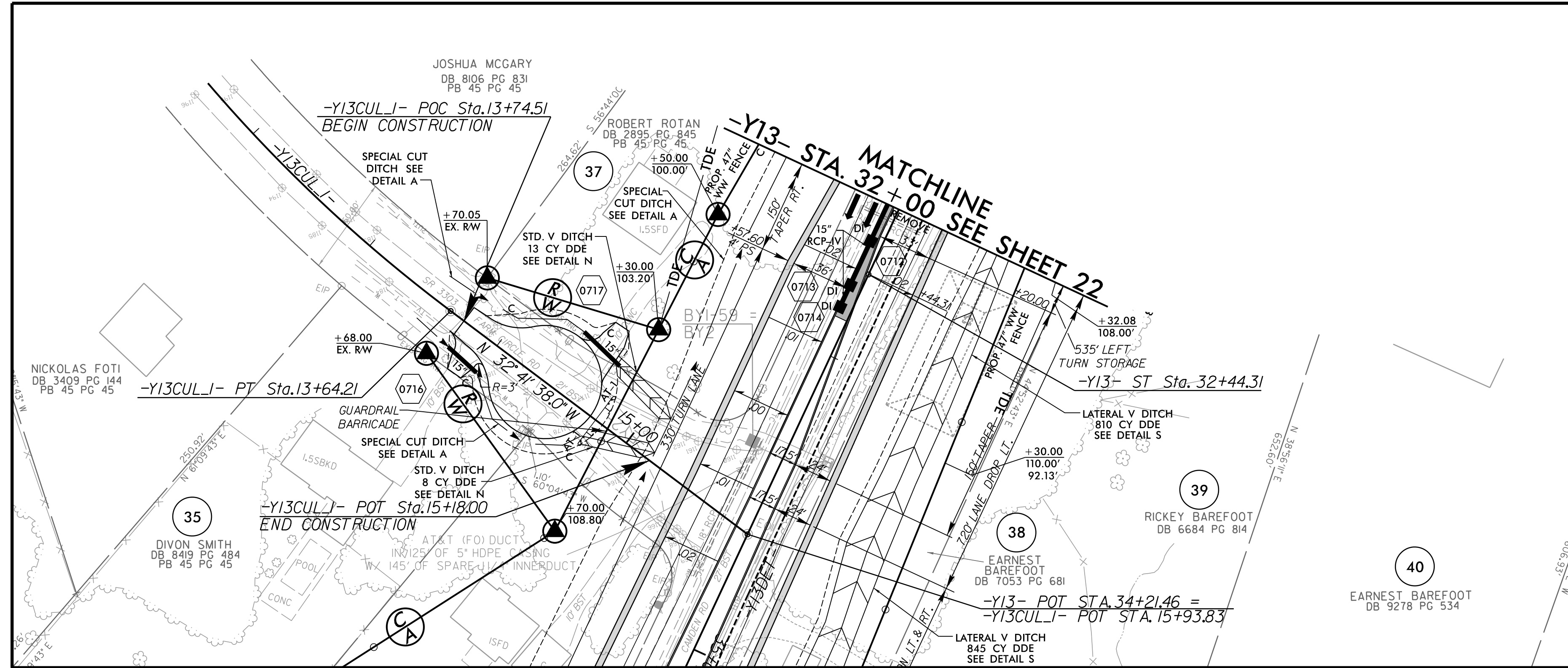


-Y13-		-Y13CUL_2-	
PIs Sta 58+89.59	PI Sta 63+38.80	PI Sta 11+51.54	PI Sta 13+56.09
$\theta_s = 4' 44'' 53.8''$	$\Delta = 2' 51'' 40.22''$ (RT)	$\Delta = 30' 25'' 43.0''$ (LT)	$\Delta = 29' 17'' 22.7''$ (LT)
$L_s = 300.00'$	$D = 3' 09'' 55.8''$	$D = 25' 27'' 53.2''$	$D = 10' 54'' 48.5''$
$LT = 200.07'$	$L = 690.08'$	$L = 119.49'$	$L = 268.38'$
$ST = 100.07'$	$T = 349.28'$	$T = 61.9'$	$T = 137.19'$
	$R = 1,810.00'$	$R = 225.00'$	$R = 525.00'$
	$SE = 0.06$		

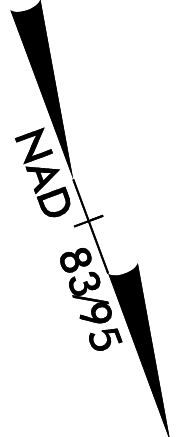
5/14/2022
 R:\Projects\2022\U2519BA_Roadway\psh06A.dgn

PROJECT REFERENCE NO. U-2519BA	SHEET NO. 7A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 FREY W. MEADOR
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INSET FROM SHEET 7



-Y13-	-Y13CUL-I-
PI Sta 31+44.31	PI Sta 11+84.37
Os = 0° 51' 34.0"	Δ = 2° 57' 58.6" (LT)
Ls = 150.00'	D = 6' 01' 52.1"
LT = 100.00'	L = 364.21'
ST = 50.00'	T = 184.37'
	R = 950.00'



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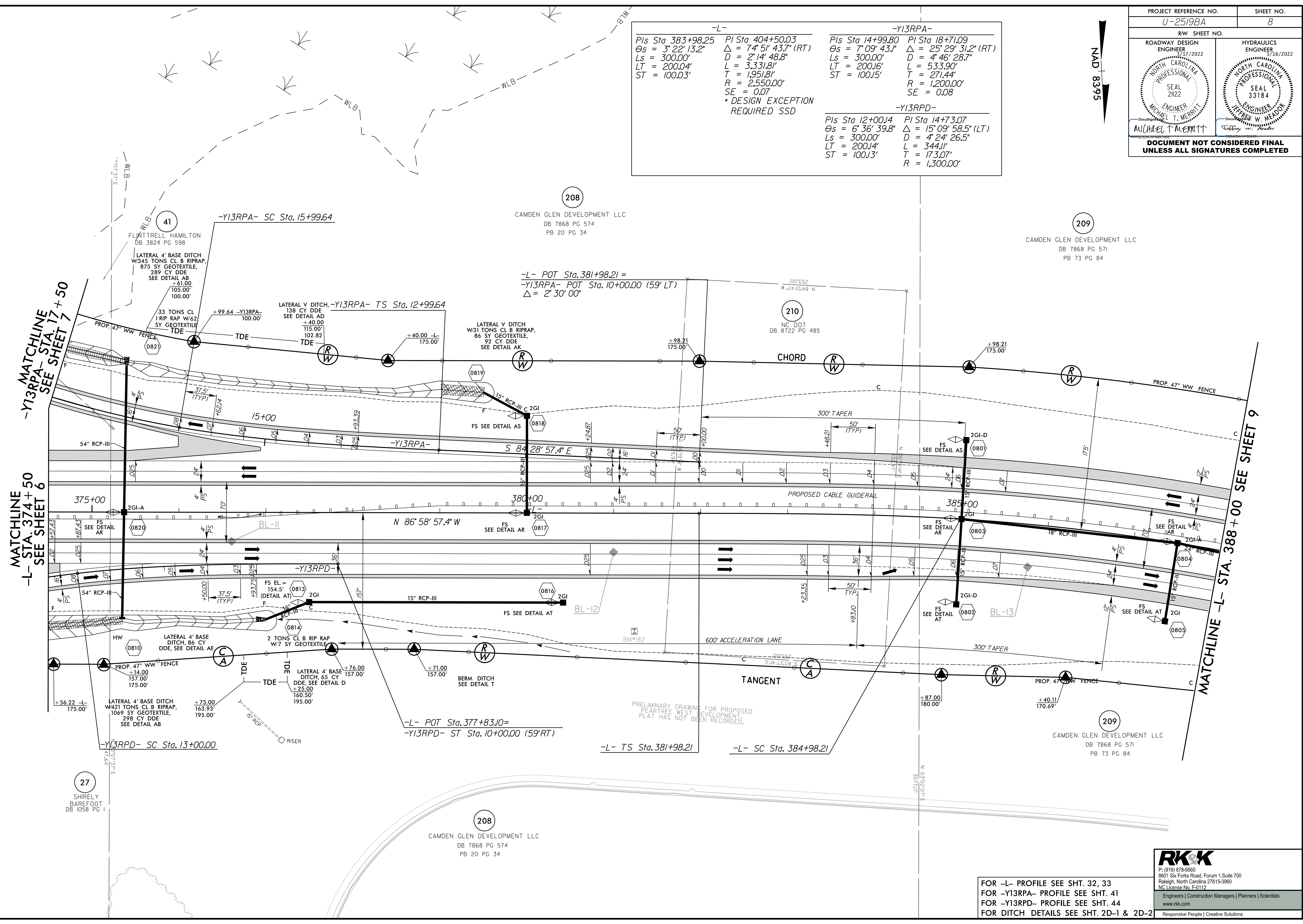
FOR -Y13- PROFILE SEE SHT. 39
FOR -Y13CUL-I- PROFILE SEE SHT. 51
FOR -Y13DET- PLAN SEE SHT. 2B-2
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

5/14/99
2/24/2022
R:\Projects\2022\U2519BA_Rdwy_psh07A.dgn

-L-		-Y13RPA-	
PIs Sta 383+98.25	PI Sta 404+50.03	PIs Sta 14+99.80	PI Sta 18+71.09
Os = 3° 22' 13.2"	Δ = 74° 51' 43.7" (RT)	Os = 7° 09' 43.1"	Δ = 25° 29' 31.2" (RT)
LS = 300.00'	D = 2° 14' 48.8"	LS = 300.00'	D = 4° 46' 28.7"
LT = 200.04'	L = 3,331.81'	LT = 200.16'	L = 533.90'
ST = 100.03'	T = 1,951.81'	ST = 100.15'	T = 271.44'
	R = 2,550.00'		R = 1,200.00'
	SE = 0.07		SE = 0.08
	* DESIGN EXCEPTION REQUIRED SSD		

-Y13RPD-	
PIs Sta 12+00.14	PI Sta 14+73.07
Os = 6° 36' 39.8"	Δ = 15° 09' 58.5" (LT)
LS = 300.00'	D = 4° 24' 26.5"
LT = 200.14'	L = 344.11'
ST = 100.13'	T = 173.07'
	R = 1,300.00'

NAD 83 95



MATCHLINE -Y13RPA- STA. 17+50
SEE SHEET 7

MATCHLINE -L- STA. 374+50
SEE SHEET 6

MATCHLINE -L- STA. 388+00
SEE SHEET 9

208
CAMDEN GLEN DEVELOPMENT LLC
DB 7868 PG 574
PB 20 PG 34

209
CAMDEN GLEN DEVELOPMENT LLC
DB 7868 PG 571
PB 73 PG 84

209
CAMDEN GLEN DEVELOPMENT LLC
DB 7868 PG 571
PB 73 PG 84

208
CAMDEN GLEN DEVELOPMENT LLC
DB 7868 PG 574
PB 20 PG 34

27
SHIRELY
BAREFOOT
DB 1058 PG 1

PRELIMINARY DRAWING FOR PROPOSED
PEAR TREE WEST DEVELOPMENT.
PLAT HAS NOT BEEN RECORDED.

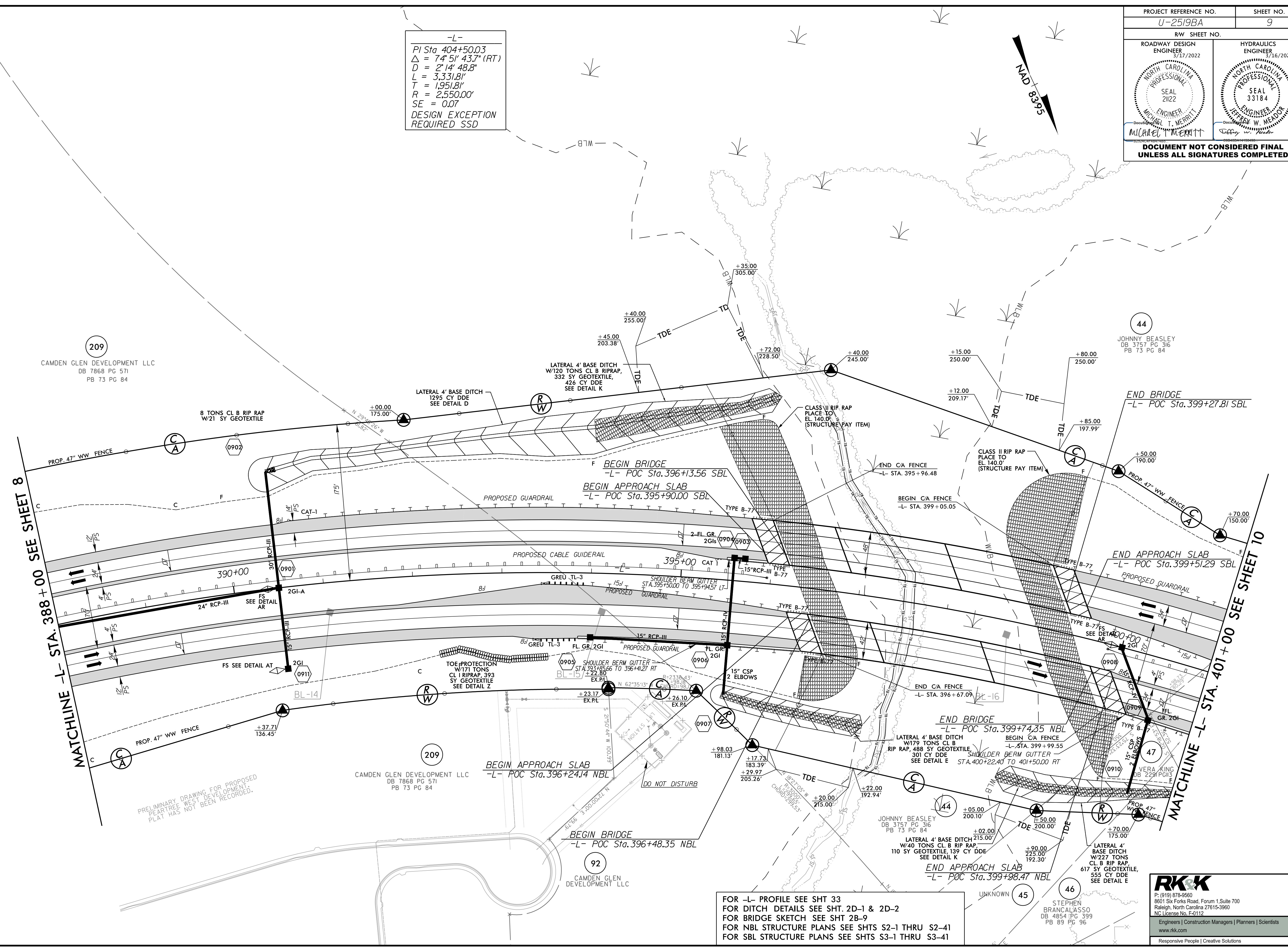
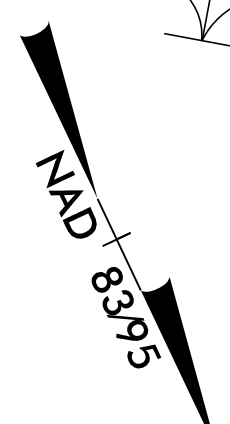
FOR -L- PROFILE SEE SHT. 32, 33
FOR -Y13RPA- PROFILE SEE SHT. 41
FOR -Y13RPD- PROFILE SEE SHT. 44
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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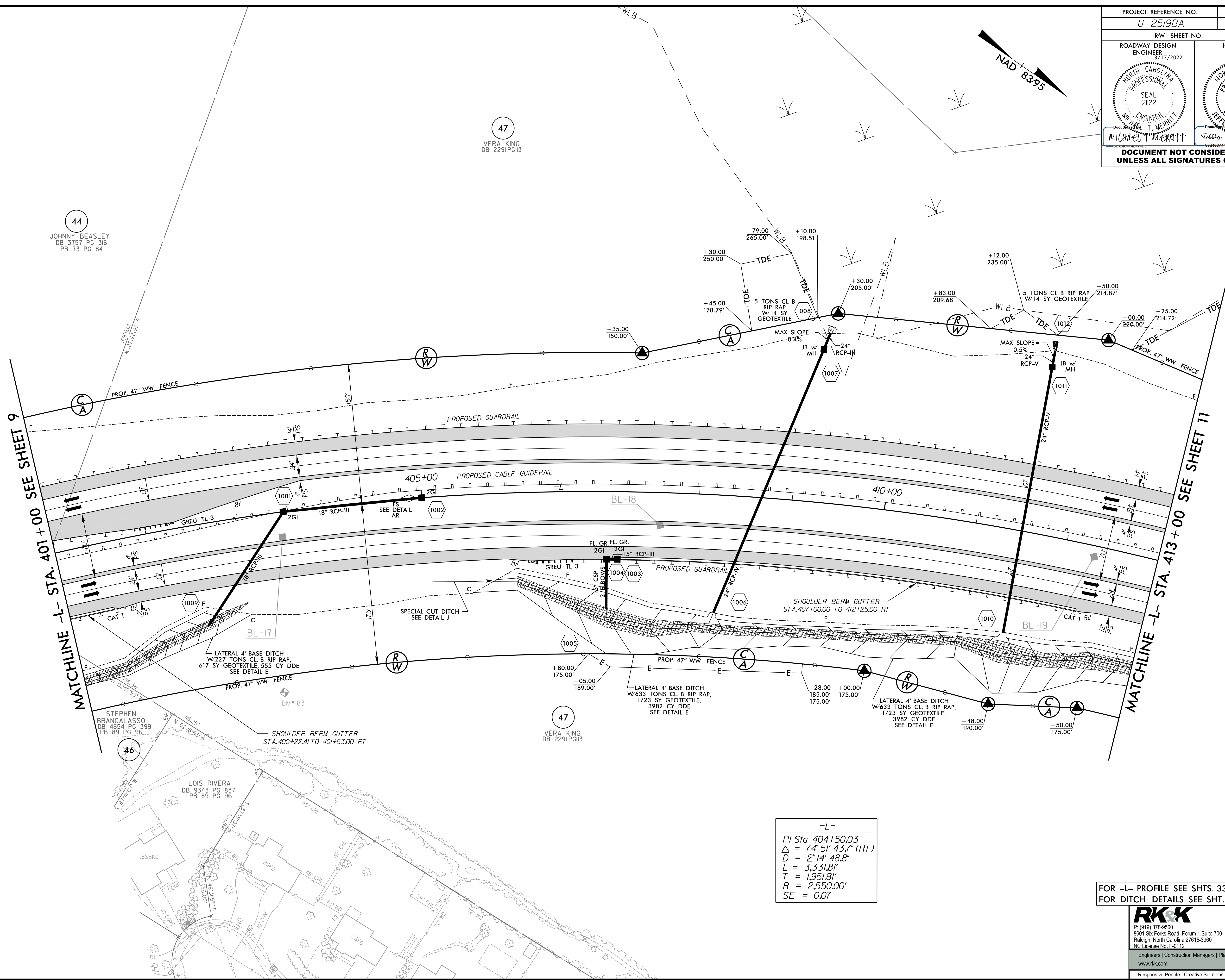
-L-
 PI Sta 404+50.03
 $\Delta = 74^{\circ} 51' 43.7" (RT)$
 $D = 2' 14" 48.8"$
 $L = 3,331.81'$
 $T = 1,951.81'$
 $R = 2,550.00'$
 $SE = 0.07$
 DESIGN EXCEPTION
 REQUIRED SSD



FOR -L- PROFILE SEE SHT 33
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR BRIDGE SKETCH SEE SHT 2B-9
 FOR NBL STRUCTURE PLANS SEE SHTS S2-1 THRU S2-41
 FOR SBL STRUCTURE PLANS SEE SHTS S3-1 THRU S3-41

8/17/199
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022
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MATCHLINE -L- STA. 401+00 SEE SHEET 9

MATCHLINE -L- STA. 413+00 SEE SHEET 11

-L-

PI Sta. 404+50.03
 $\Delta = 74' 51" 43.7" (RT)$
 $D = 2' 14" 48.8"$
 $L = 3,331.81'$
 $T = 1,951.81'$
 $R = 2,550.00'$
 $SE = 0.07$

FOR -L- PROFILE SEE SHTS. 33, 34
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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44
 JOHNNY BEASLEY
 DB 3757 PG 316
 PB 73 PG 84

47
 VERA KING
 DB 2291PG13

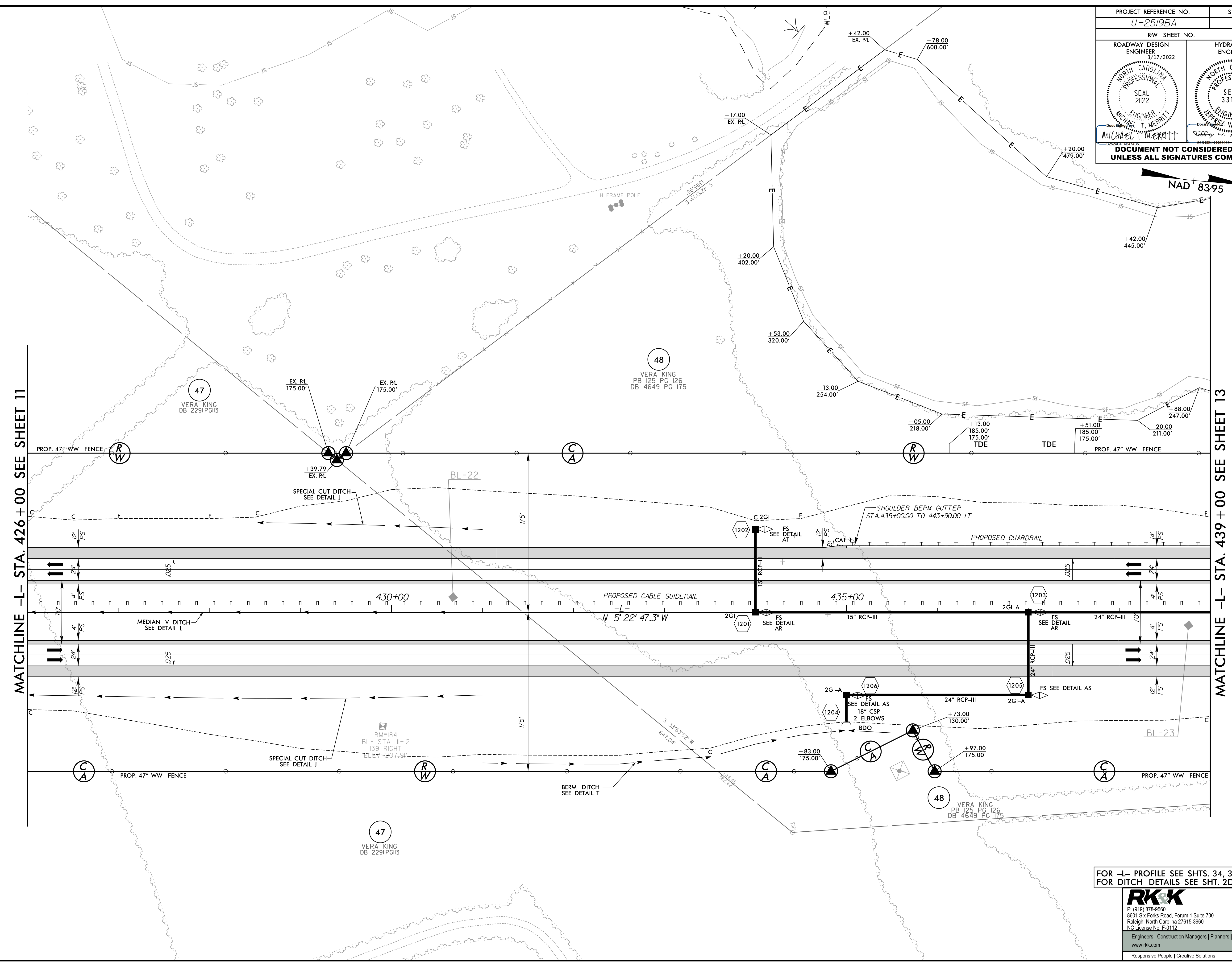
46
 STEPHEN BRANCALASSO
 DB 4954 PG 399
 PB 89 PG 96

LOIS RIVERA
 DB 9343 PG 837
 PB 89 PG 96

47
 VERA KING
 DB 2291PG13

PROJECT REFERENCE NO. U-2519BA	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 NORTH CAROLINA PROFESSIONAL SEAL 21122 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 NORTH CAROLINA PROFESSIONAL SEAL 33184 JEFFREY W. MEADOR
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

8/17/199



MATCHLINE -L- STA. 426+00 SEE SHEET 11

MATCHLINE -L- STA. 439+00 SEE SHEET 13

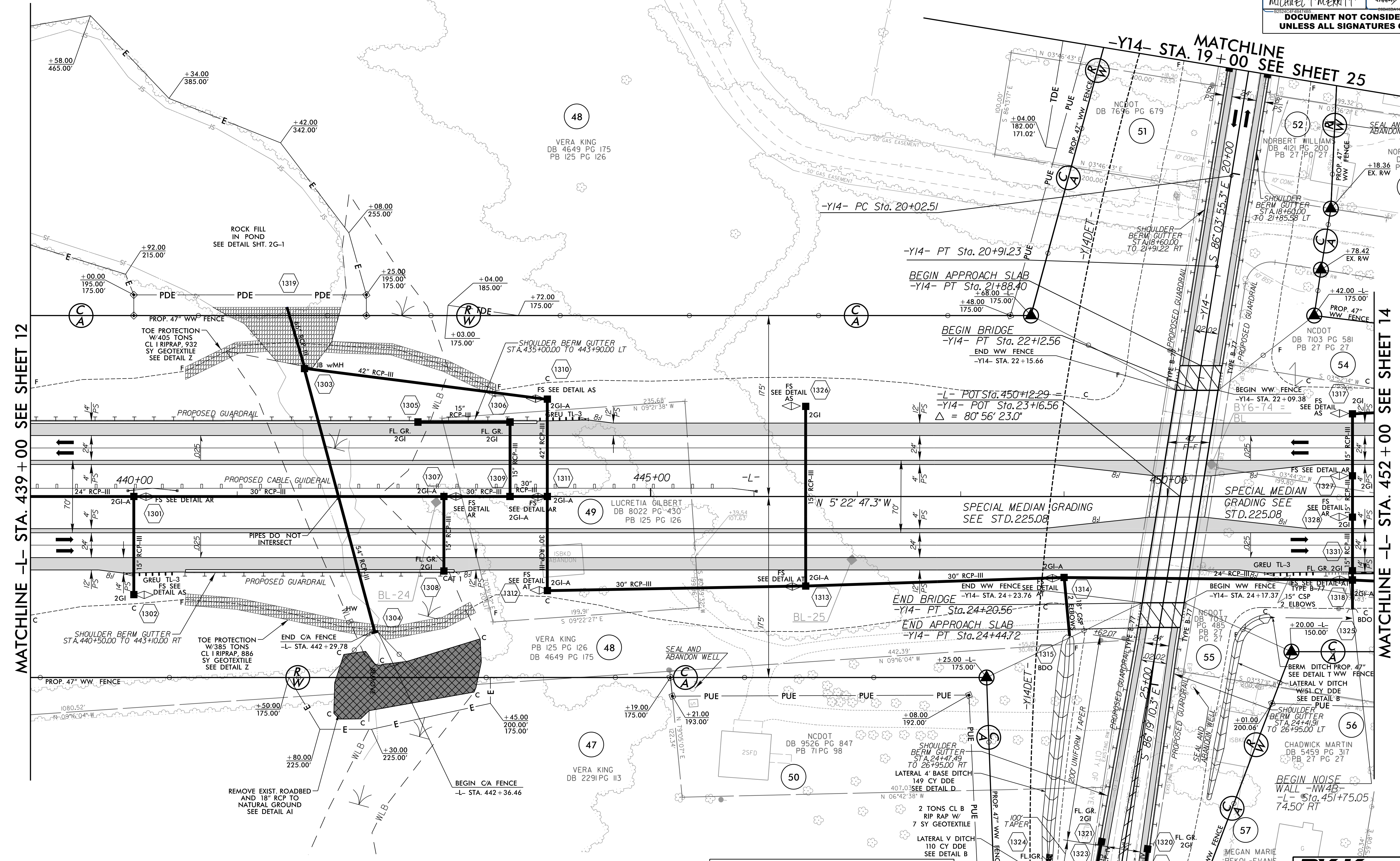
FOR -L- PROFILE SEE SHTS. 34, 35
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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 11:00:00

NAD 8395

-Y14-
PI Sta 20+46.87
 $\Delta = 0^{\circ}15'15.0''$ (LT)
 $D = 0^{\circ}17'11.3''$
 $L = 88.72'$
 $T = 44.36'$
 $R = 20,000.00'$
SE = NC



MATCHLINE -L- STA. 439 + 00 SEE SHEET 12

MATCHLINE -L- STA. 452 + 00 SEE SHEET 14

FOR -L- PROFILE SEE SHT. 35
FOR -Y14- PROFILE SEE SHT. 47
FOR -Y14DET- PROFILE SEE SHT. 2B-4, 2B-5
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
FOR -Y14- BRIDGE SKETCH SEE SHT. 2B-9
FOR STRUCTURE PLANS SEE SHT. S4-1 THRU S4-32
FOR -NW4B- SEE SHT. 2N-3

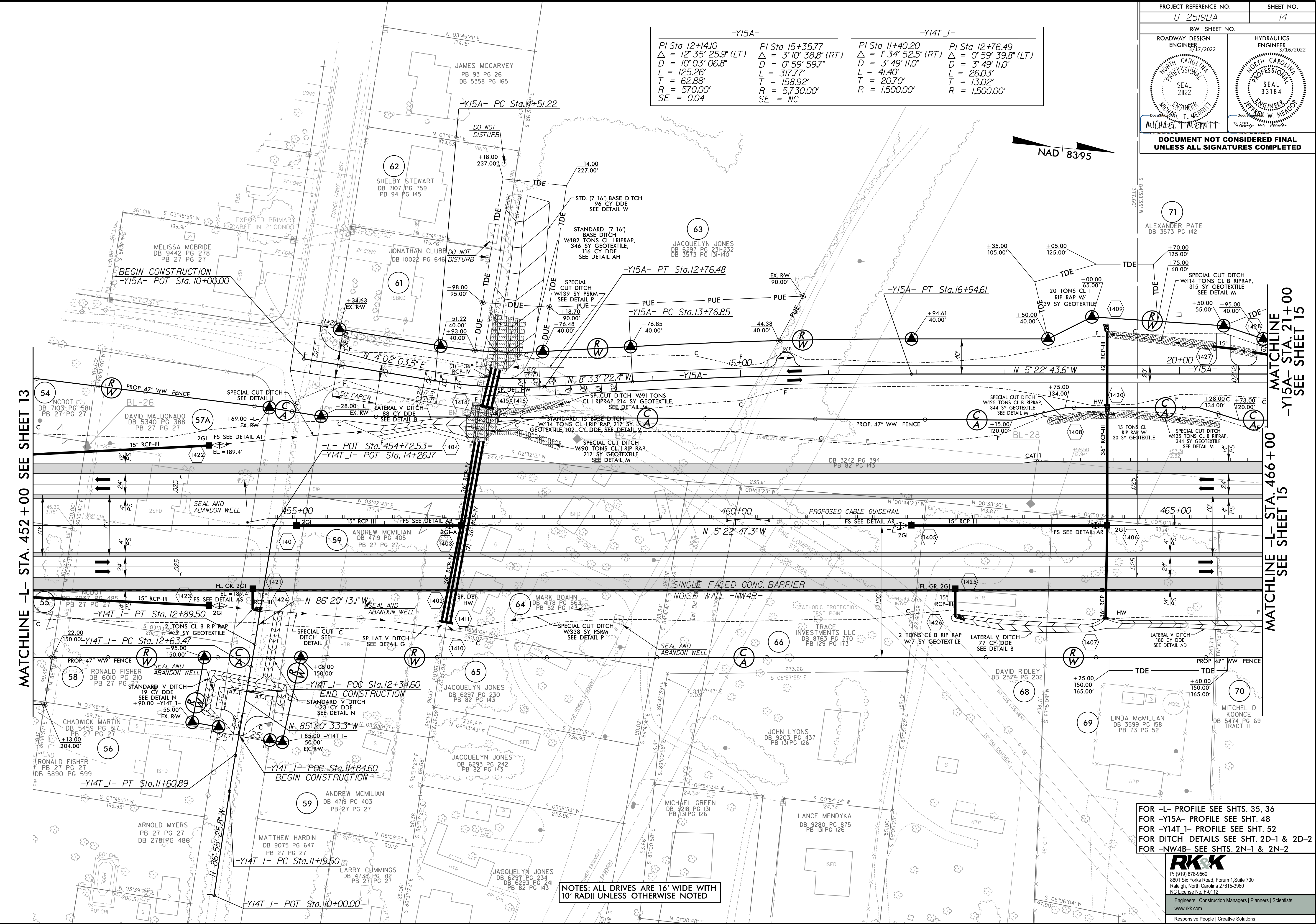
MATCHLINE -Y14- STA. 27 + 00
SEE SHEET 26

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3/17/2022
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-Y15A-		-Y14T_I-	
PI Sta 12+14.10	PI Sta 15+35.77	PI Sta 11+40.20	PI Sta 12+76.49
$\Delta = 12' 35" 25.9" (LT)$	$\Delta = 3' 10" 38.8" (RT)$	$\Delta = 1' 34" 52.5" (RT)$	$\Delta = 0' 59" 39.8" (LT)$
$D = 10' 03" 06.8"$	$D = 0' 59" 59.7"$	$D = 3' 49" 11.0"$	$D = 3' 49" 11.0"$
$L = 125.26'$	$L = 317.77'$	$L = 41.40'$	$L = 26.03'$
$T = 62.88'$	$T = 158.92'$	$T = 20.70'$	$T = 13.02'$
$R = 570.00'$	$R = 5,730.00'$	$R = 1,500.00'$	$R = 1,500.00'$
$SE = 0.04$	$SE = NC$		



MATCHLINE -L- STA. 452 + 00 SEE SHEET 13

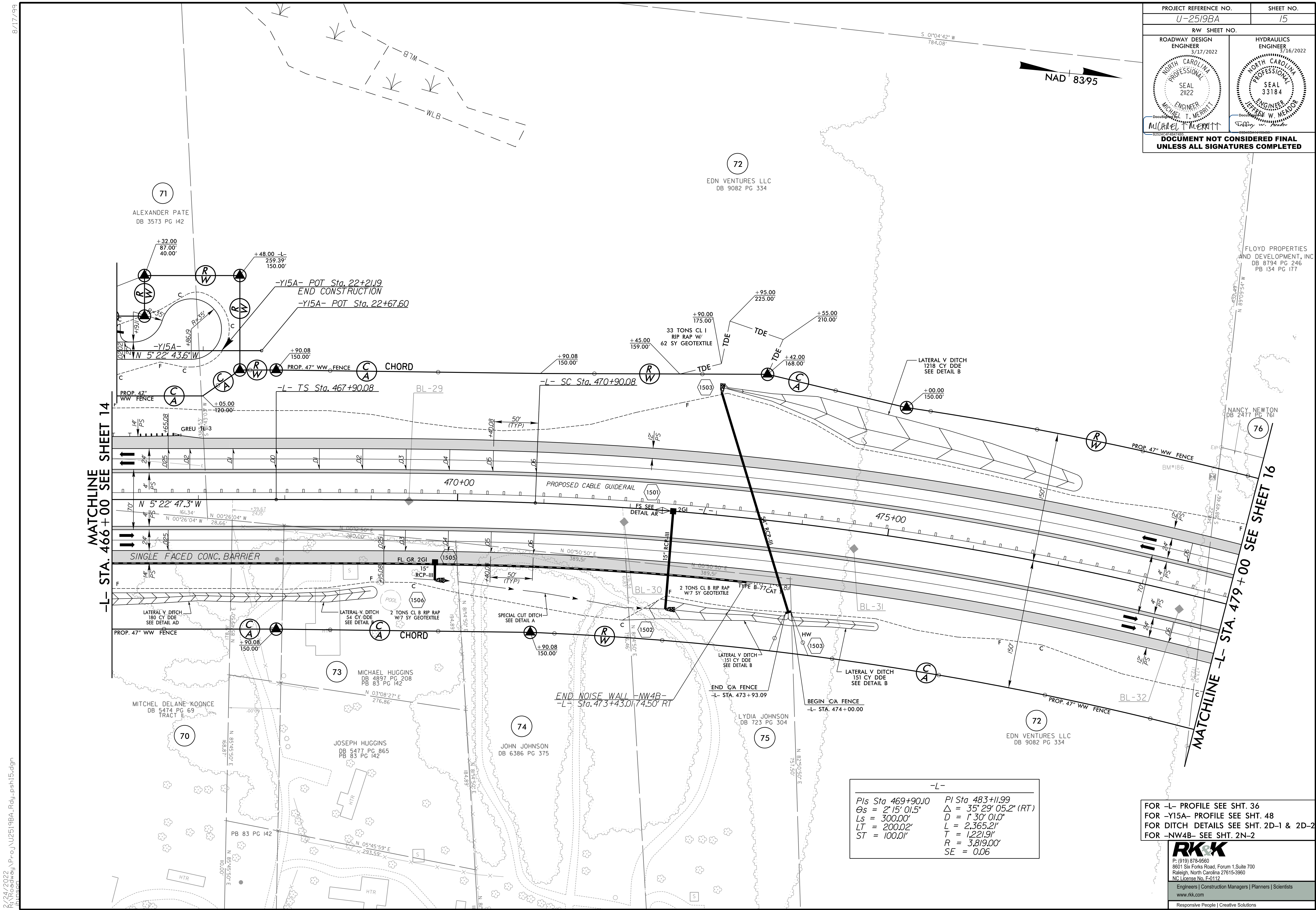
MATCHLINE -L- STA. 466 + 00
-Y15A- STA. 21 + 00
SEE SHEET 15

FOR -L- PROFILE SEE SHTS. 35, 36
FOR -Y15A- PROFILE SEE SHT. 48
FOR -Y14T_I- PROFILE SEE SHT. 52
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
FOR -NW4B- SEE SHTS. 2N-1 & 2N-2

NOTES: ALL DRIVES ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 NORTH CAROLINA PROFESSIONAL SEAL 21122 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 NORTH CAROLINA PROFESSIONAL SEAL 33184 EFFIE W. MEADOR
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-L-	
PI Sta 469+90.10	PI Sta 483+11.99
θs = 2°15'01.5"	Δ = 35°29'05.2" (RT)
Ls = 300.00'	D = 1°30'01.0"
LT = 200.02'	L = 2,365.21'
ST = 100.01'	T = 1,221.91'
	R = 3,819.00'
	SE = 0.06

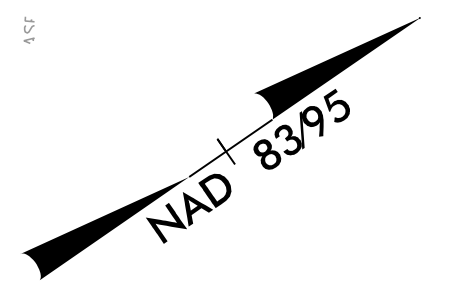
FOR -L- PROFILE SEE SHT. 36
 FOR -Y15A- PROFILE SEE SHT. 48
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR -NW4B- SEE SHT. 2N-2

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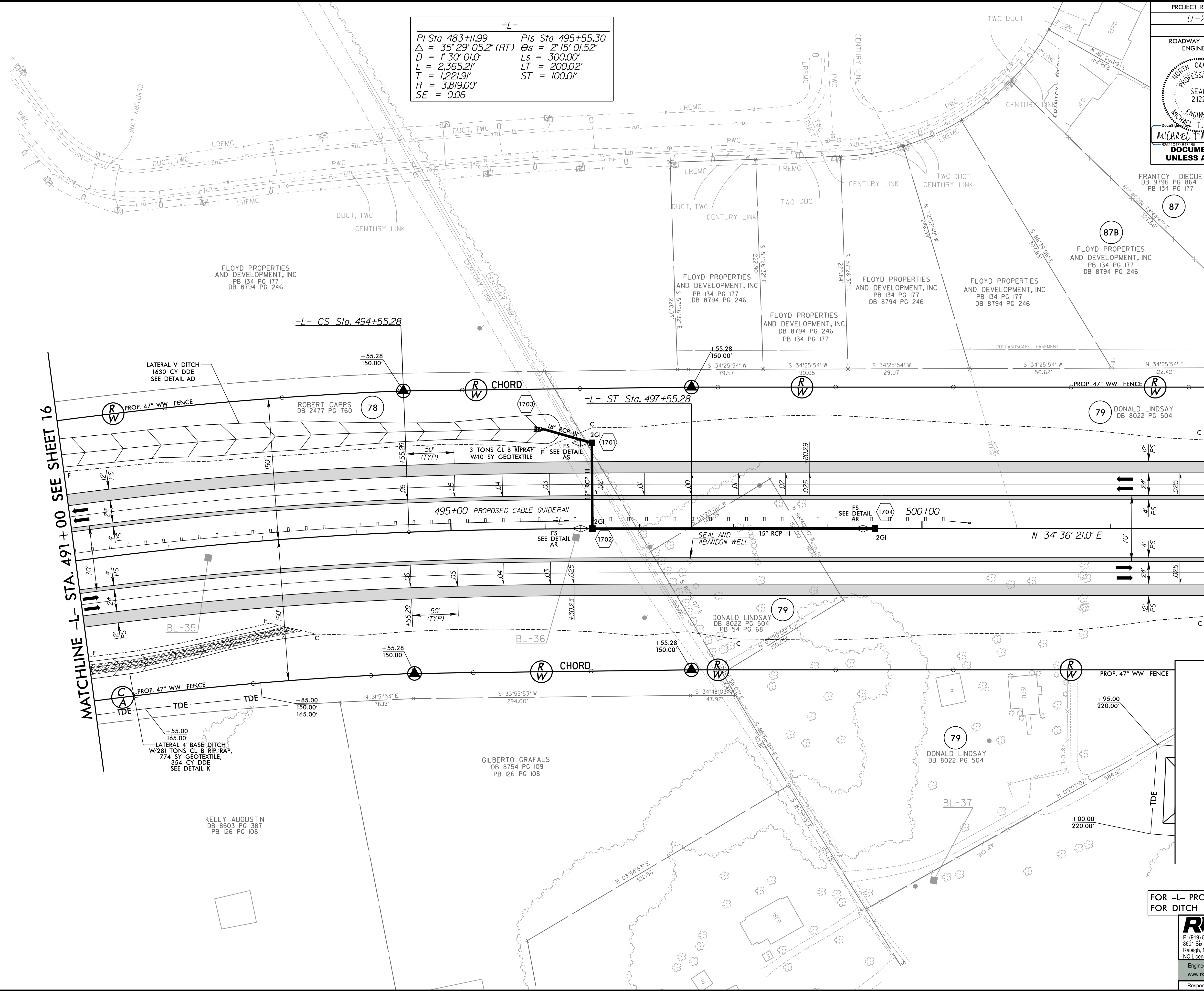
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 NORTH CAROLINA PROFESSIONAL SEAL 21122 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 NORTH CAROLINA PROFESSIONAL SEAL 33184 FRANK W. MEADOR

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-L-
 PI Sta 483+11.99 PIs Sta 495+55.30
 $\Delta = 35^{\circ}29'05.2''$ (RT) $\Theta_s = 2^{\circ}15'01.52''$
 $D = 1^{\circ}30'01.0''$ $L_s = 300.00'$
 $L = 2,365.21'$ $LT = 200.02'$
 $T = 1,221.91'$ $ST = 100.01'$
 $R = 3,819.00'$
 $SE = 0.06$



MATCHLINE -L- STA. 491+00 SEE SHEET 16

MATCHLINE -L- STA. 503+00 SEE SHEET 18

FOR -L- PROFILE SEE SHT. 37
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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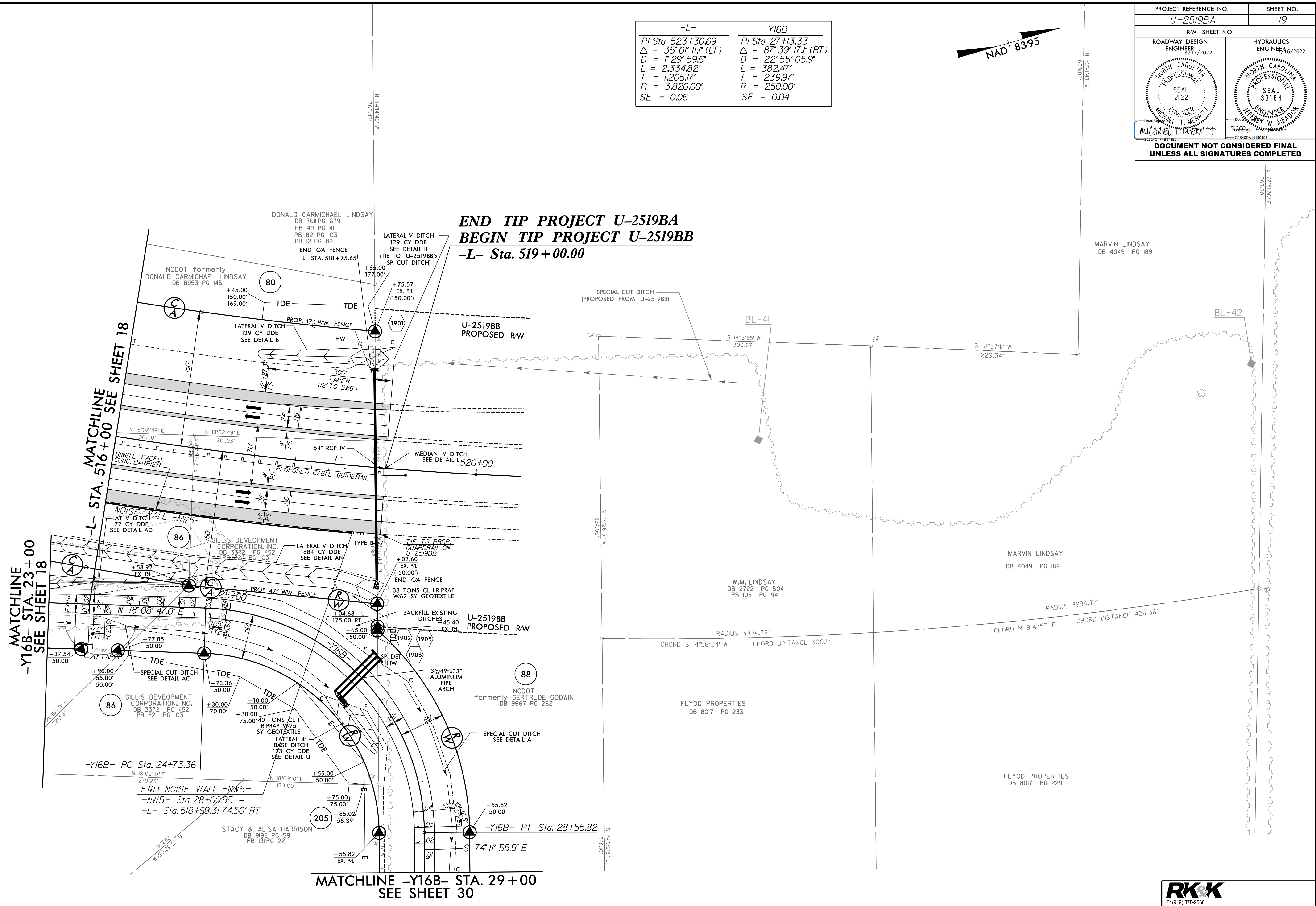
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 3/18/2022
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-L-	-Y16B-
PI Sta 523+30.69	PI Sta 27+13.33
$\Delta = 35^{\circ}01'11''$ (LT)	$\Delta = 87^{\circ}39'17''$ (RT)
$D = 1^{\circ}29'59.6''$	$D = 22^{\circ}55'05.9''$
$L = 2,334.82'$	$L = 382.47'$
$T = 1,205.17'$	$T = 239.97'$
$R = 3,820.00'$	$R = 250.00'$
$SE = 0.06$	$SE = 0.04$

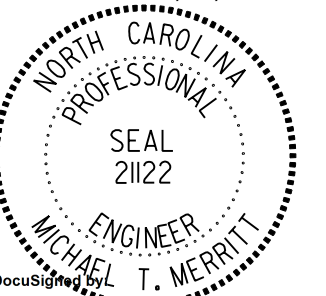
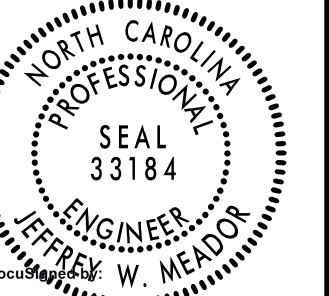


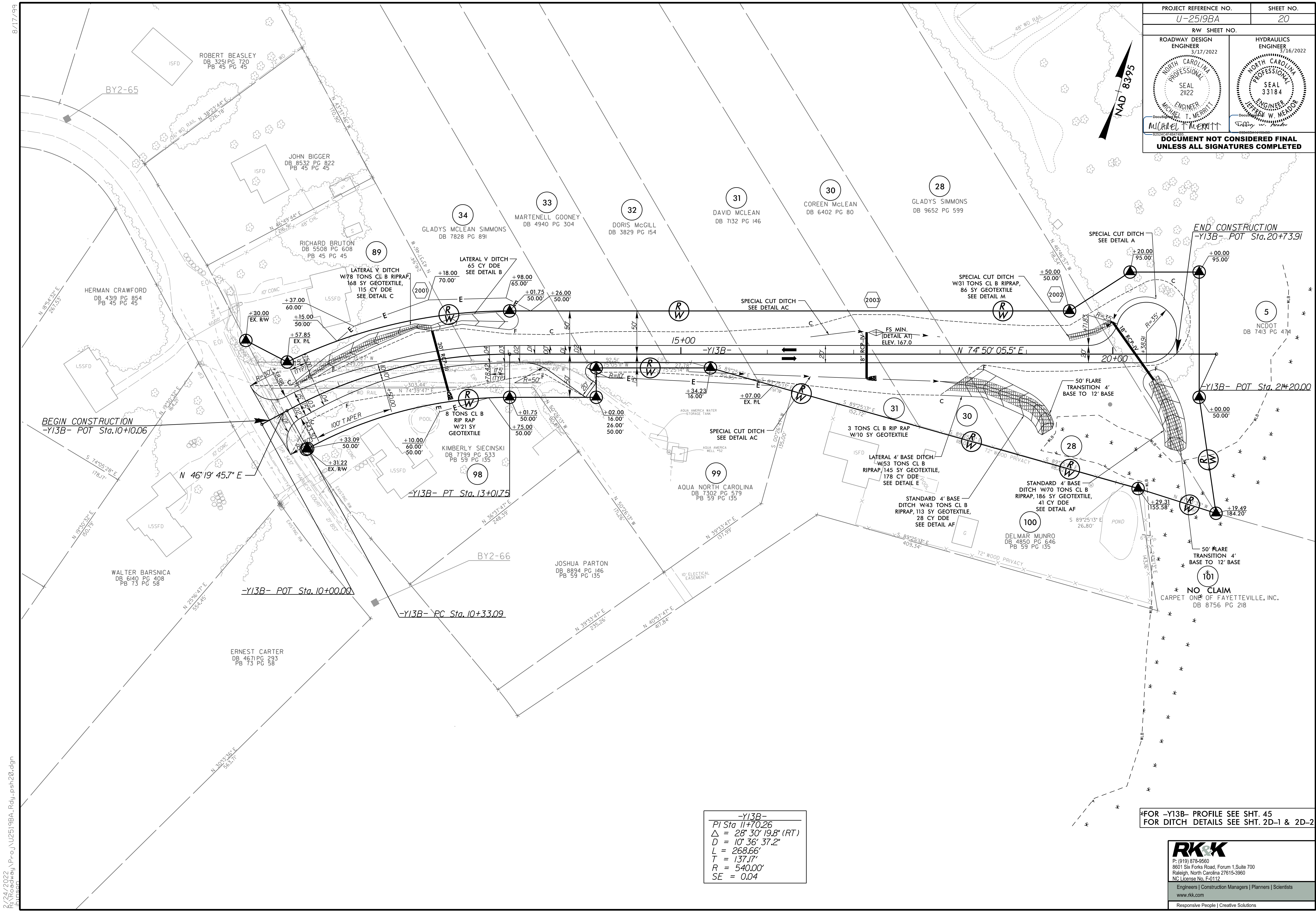
PROJECT REFERENCE NO. U-2519BA	SHEET NO. 19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 6/2022 JEREMY W. MEADOWS
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FOR -L- PROFILE SEE SHT. 38
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR -NW5- DETAILS SEE SHT. 2N-4

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RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER 3/17/2022		HYDRAULICS ENGINEER 3/16/2022	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



8/17/199

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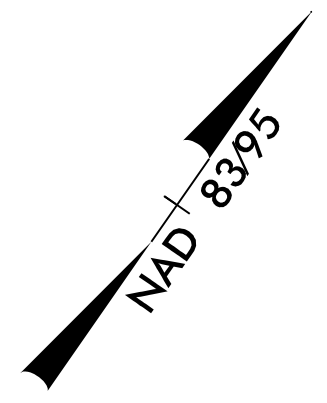
-Y13B-
 PI Sta. 11+70.26
 $\Delta = 28^{\circ} 30' 19.8''$ (RT)
 $D = 10^{\circ} 36' 37.2''$
 $L = 268.66'$
 $T = 137.17'$
 $R = 540.00'$
 $SE = 0.04$

FOR -Y13B- PROFILE SEE SHT. 45
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

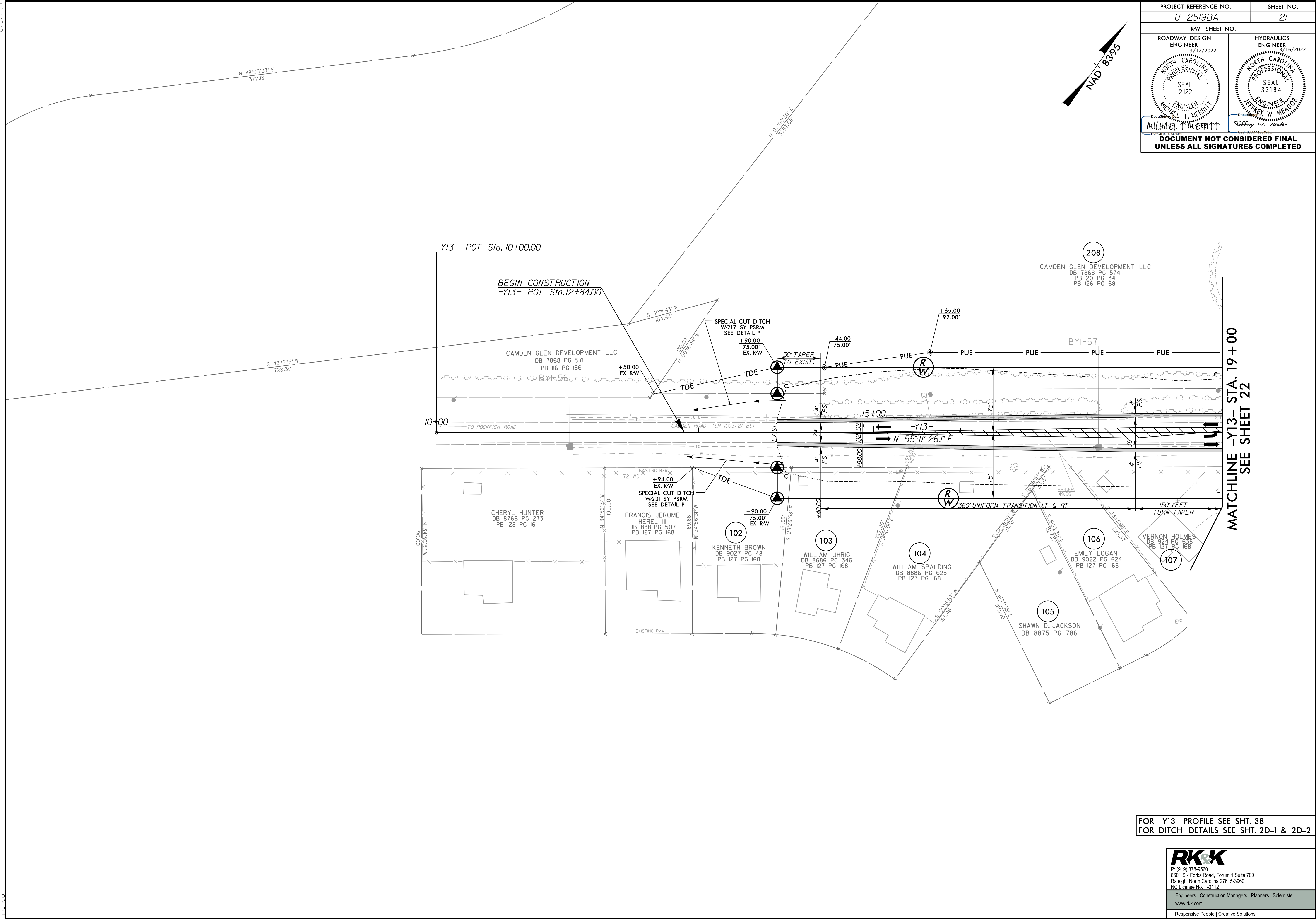
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 NORTH CAROLINA PROFESSIONAL SEAL 21122 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 NORTH CAROLINA PROFESSIONAL SEAL 33184 JEFFREY W. MEADOR
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



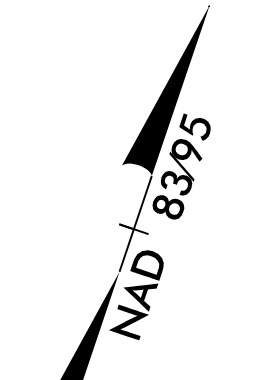
8/17/199
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MATCHLINE -Y13- STA. 19 + 00
SEE SHEET 22

FOR -Y13- PROFILE SEE SHT. 38
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

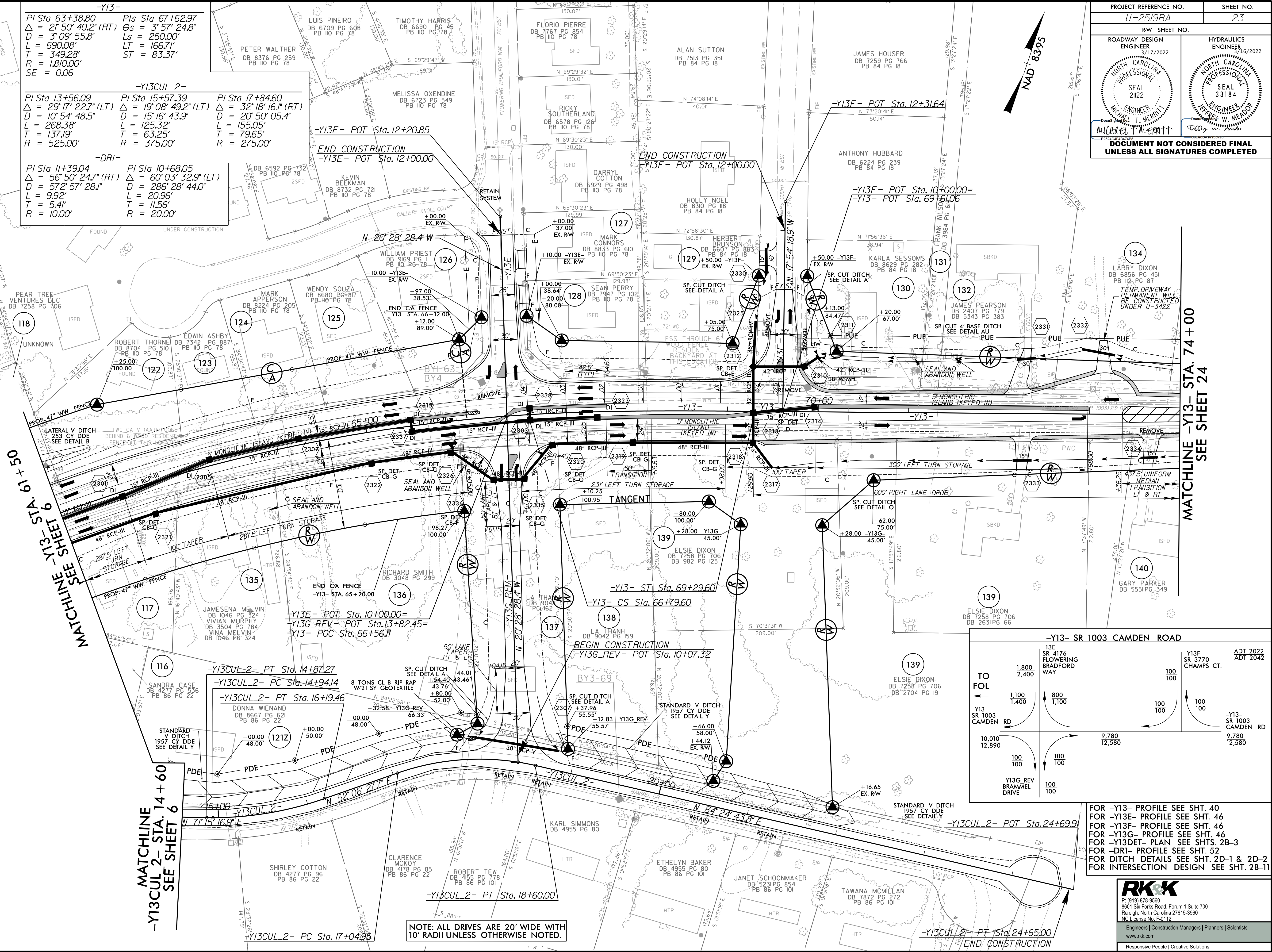
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-Y13-
 PI Sta 63+38.80 Δ = 2° 50' 40.2" (RT) D = 3° 09' 55.8" L = 690.08' T = 349.28' R = 1,810.00' SE = 0.06
 PIs Sta 67+62.97 Δs = 3° 57' 24.8" Δ = 250.00' LT = 166.71' ST = 83.37'

-Y13CUL 2-
 PI Sta 13+56.09 Δ = 29° 17' 22.7" (LT) D = 10° 54' 48.5" L = 268.38' T = 137.19' R = 525.00'
 PI Sta 15+57.39 Δ = 19° 08' 49.2" (LT) D = 15° 16' 43.9" L = 125.32' T = 63.25' R = 375.00'
 PI Sta 17+84.60 Δ = 32° 18' 16.1" (RT) D = 20° 50' 05.4" L = 155.05' T = 79.65' R = 275.00'

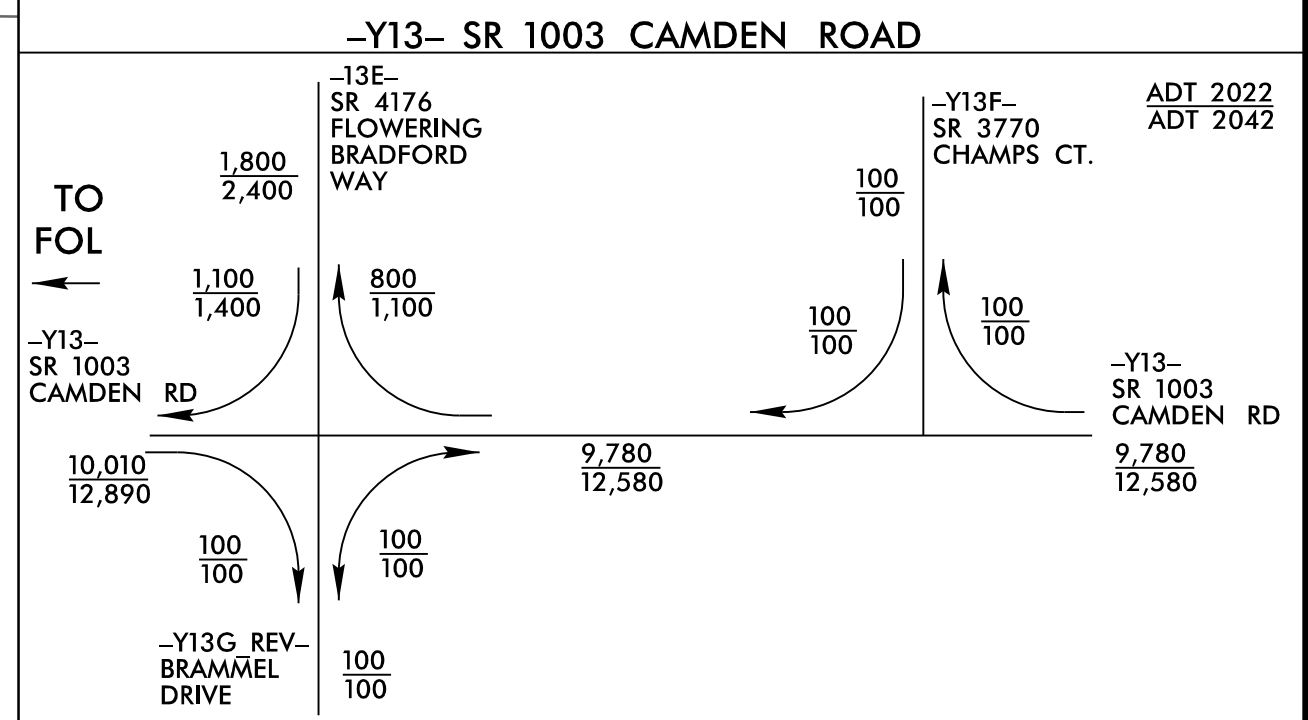
-DRI-
 PI Sta 11+39.04 Δ = 56° 50' 24.7" (RT) D = 57° 57' 28.1" L = 9.92' T = 5.41' R = 10.00'
 PI Sta 10+68.05 Δ = 60° 03' 32.9" (LT) D = 286° 28' 44.0" L = 20.96' T = 11.56' R = 20.00'



MATCHLINE SEE SHEET 191619105

MATCHLINE -Y13CUL 2- STA. 14 + 60 SEE SHEET 6

MATCHLINE -Y13- STA. 74 + 00 SEE SHEET 24



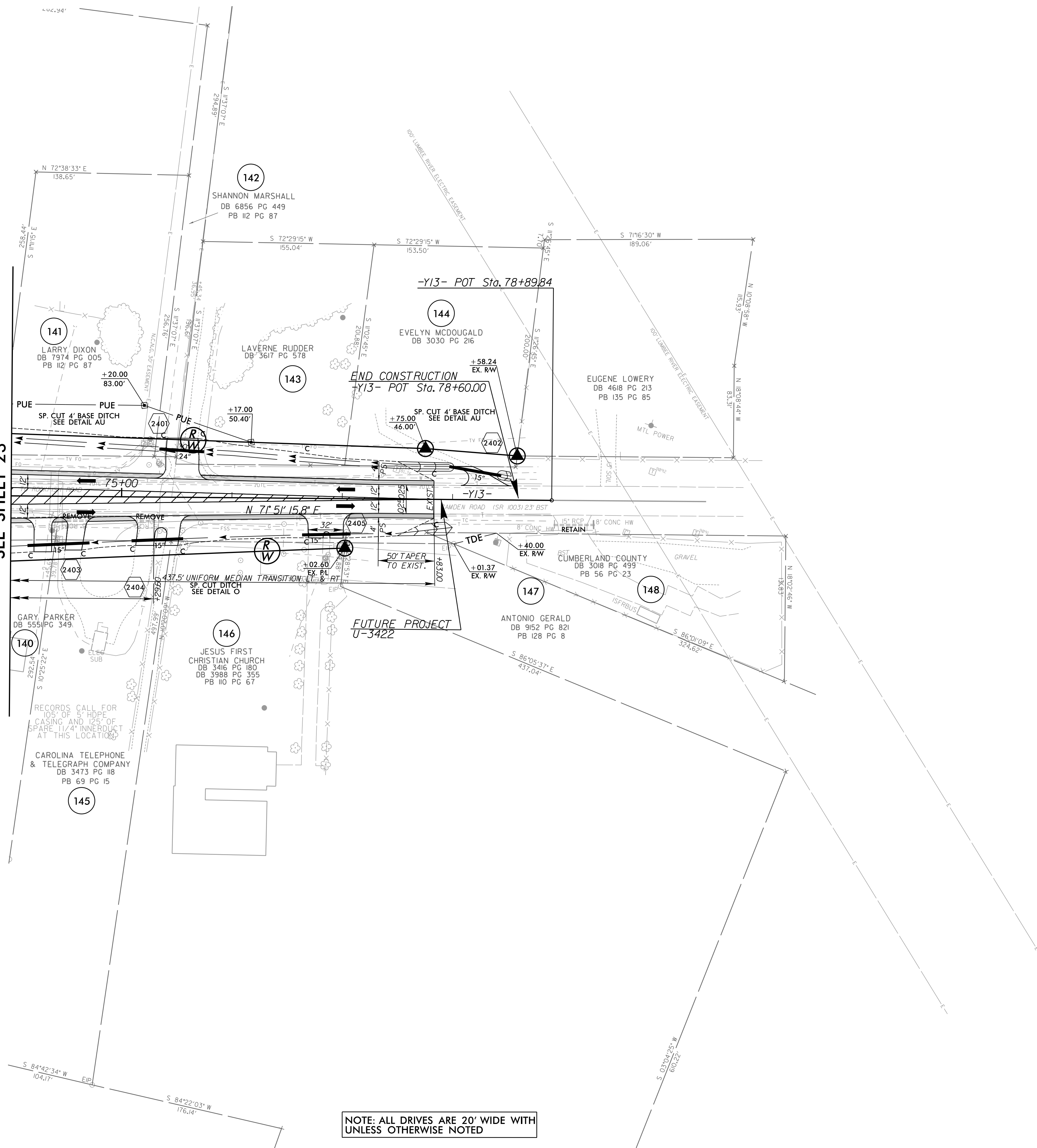
FOR -Y13- PROFILE SEE SHT. 40
 FOR -Y13E- PROFILE SEE SHT. 46
 FOR -Y13F- PROFILE SEE SHT. 46
 FOR -Y13G- PROFILE SEE SHT. 46
 FOR -Y13DET- PLAN SEE SHTS. 2B-3
 FOR -DRI- PROFILE SEE SHT. 52
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-11

NOTE: ALL DRIVES ARE 20' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED.

8/17/199

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MATCHLINE -Y13- STA. 74+00
SEE SHEET 23



NOTE: ALL DRIVES ARE 20' WIDE WITH UNLESS OTHERWISE NOTED



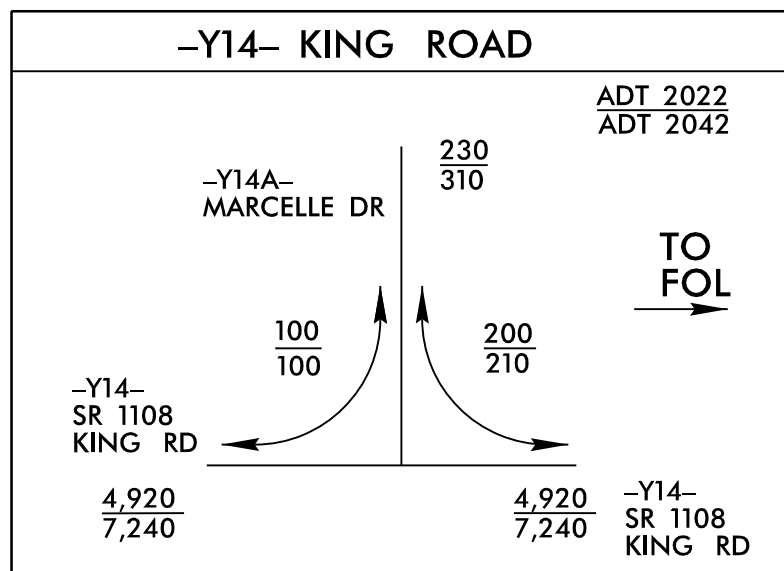
PROJECT REFERENCE NO. U-25198A	SHEET NO. 24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 JEFFREY W. MEADOR
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

FOR -Y13- PROFILE SEE SHT. 40
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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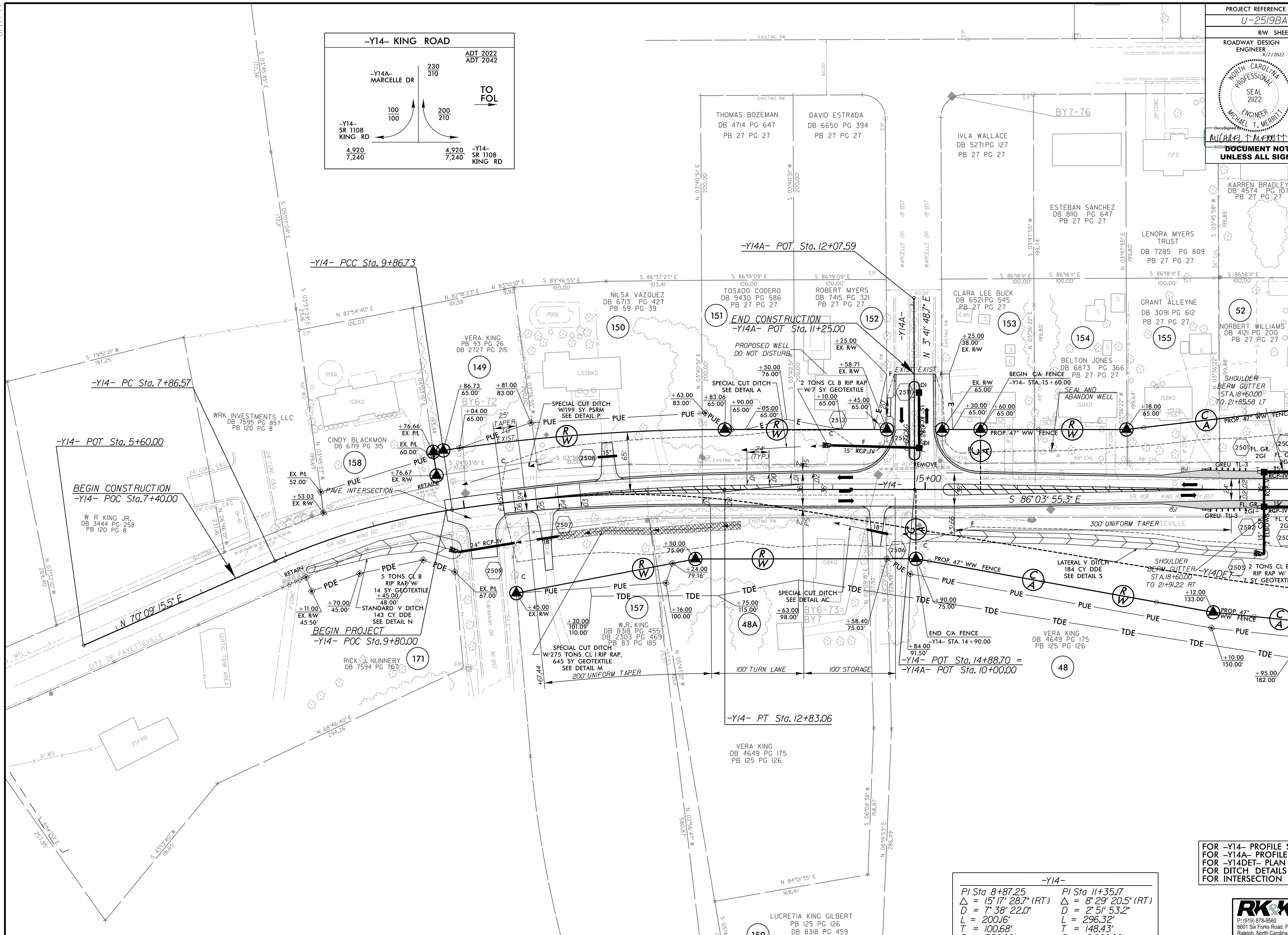
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NAD 8395

MATCHLINE -Y14- STA. 19 + 00 SEE SHEET 13



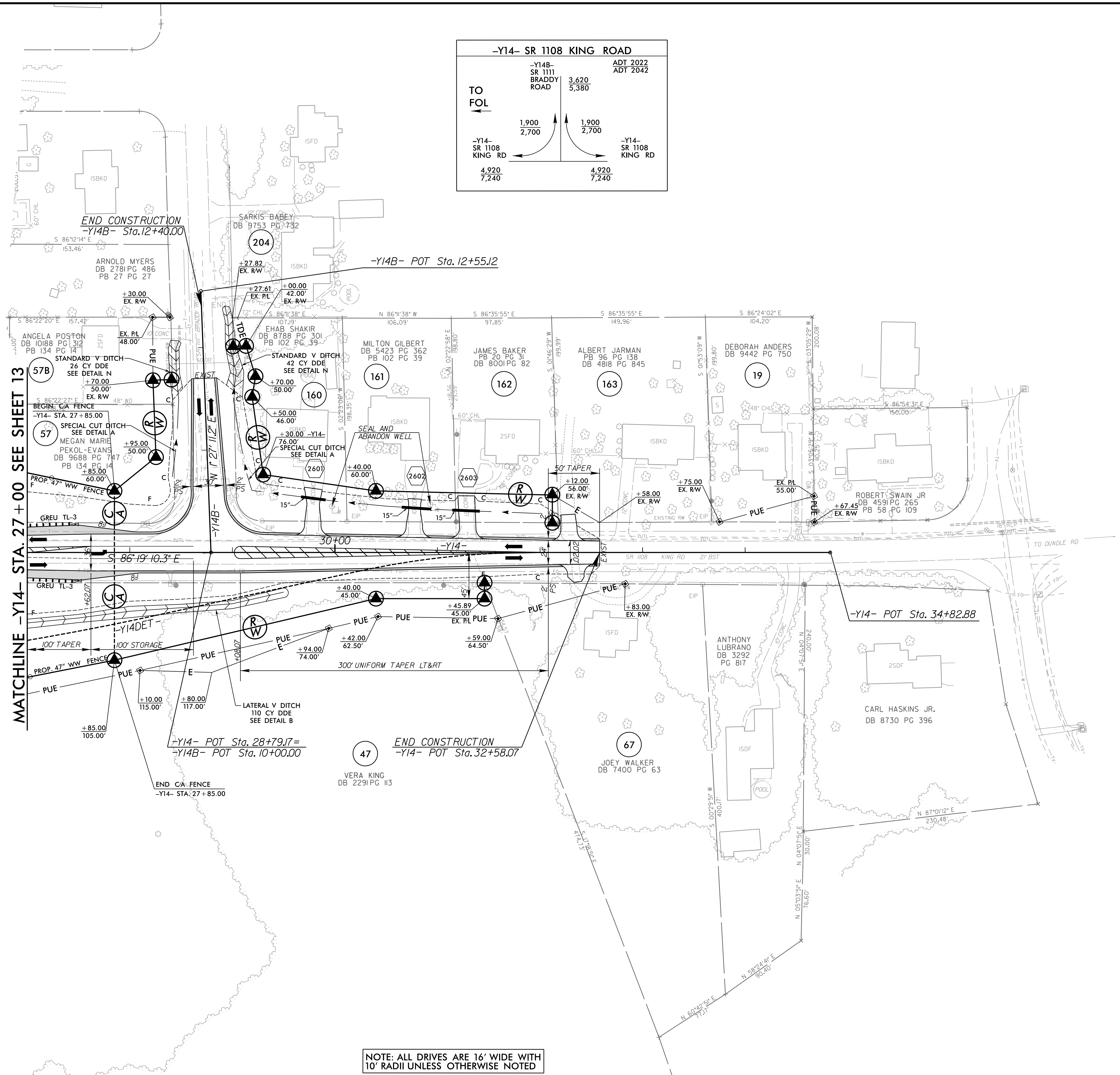
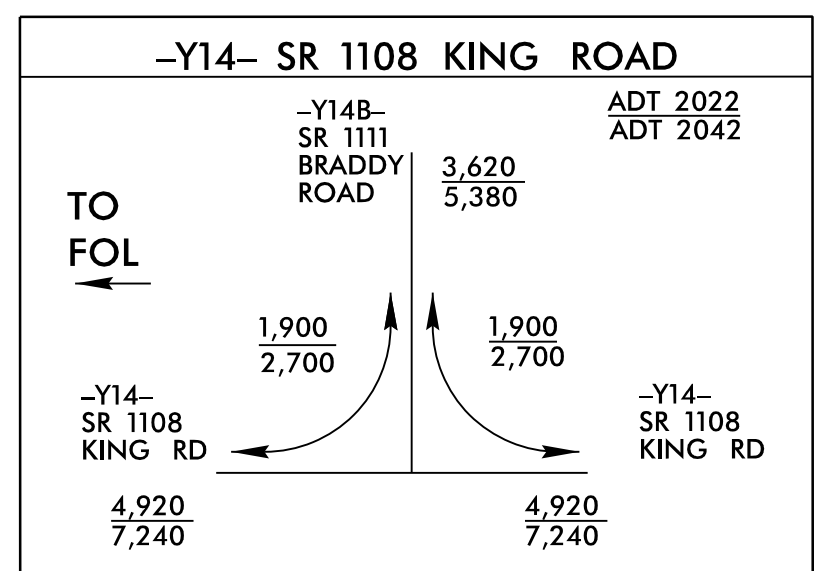
NOTE: ALL DRIVES ARE 16' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED

-Y14-	
PI Sta 8+87.25	PI Sta 11+35.17
$\Delta = 15' 17" 28.7" (RT)$	$\Delta = 8' 29" 20.5" (RT)$
$D = 7' 38" 22.0"$	$D = 2' 51" 53.2"$
$L = 200.16'$	$L = 296.32'$
$T = 100.68'$	$T = 148.43'$
$R = 750.00'$	$R = 2,000.00'$
	SE = SEE PLANS

FOR -Y14- PROFILE SEE SHT. 47
 FOR -Y14A- PROFILE SEE SHT. 47
 FOR -Y14DET- PLAN SEE SHTS. 2B-4
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-12

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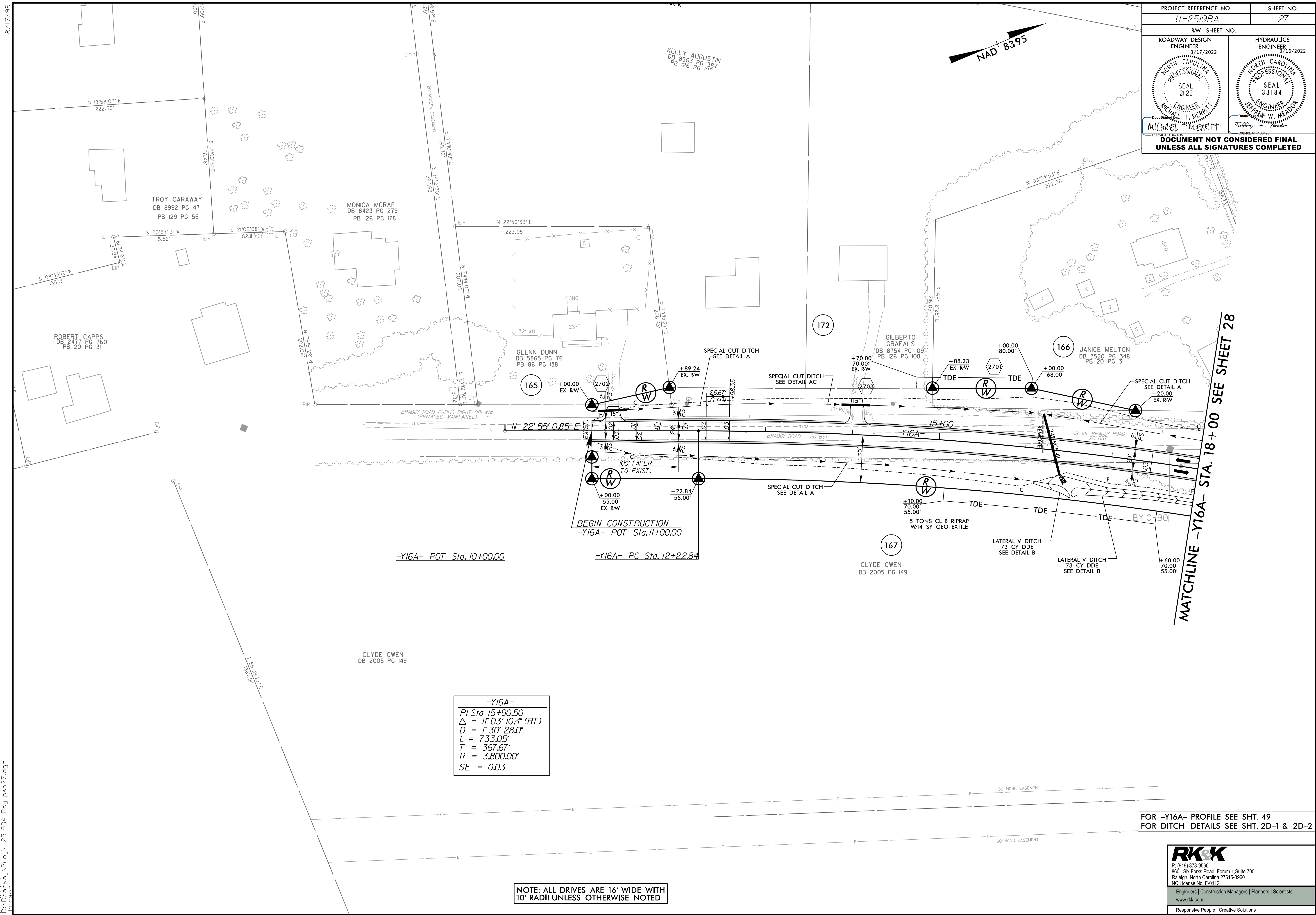
NAD 8395



FOR -Y14- PROFILE SEE SHT. 47
 FOR -Y14B- PROFILE SEE SHT. 47
 FOR -Y14DET- PLAN SEE SHTS. 2B-5
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-12

8/17/1999
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 EFFIE W. MEADOR
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



MATCHLINE -Y16A- STA. 18 + 00 SEE SHEET 28

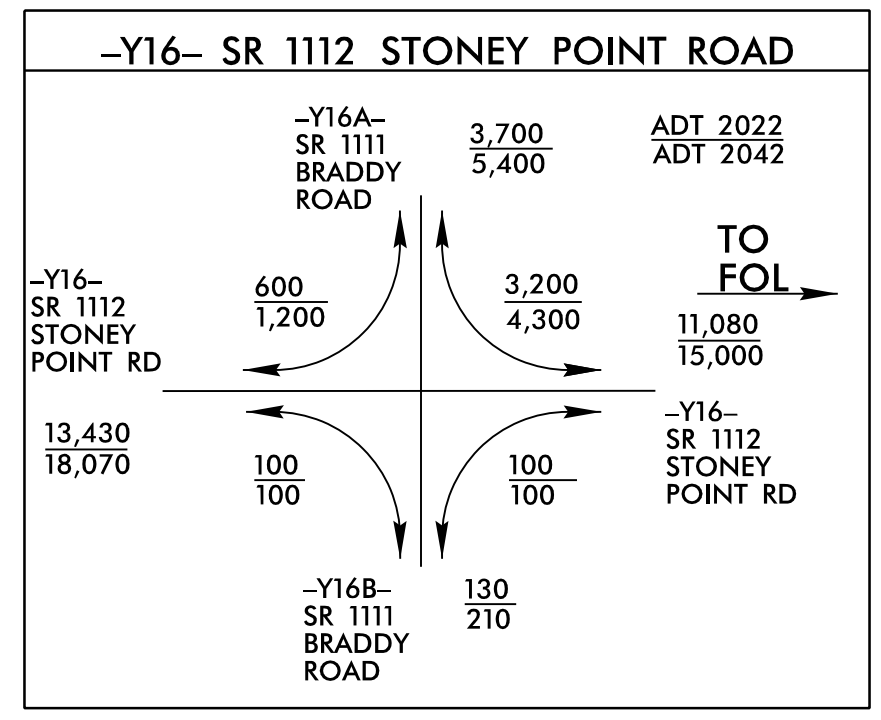
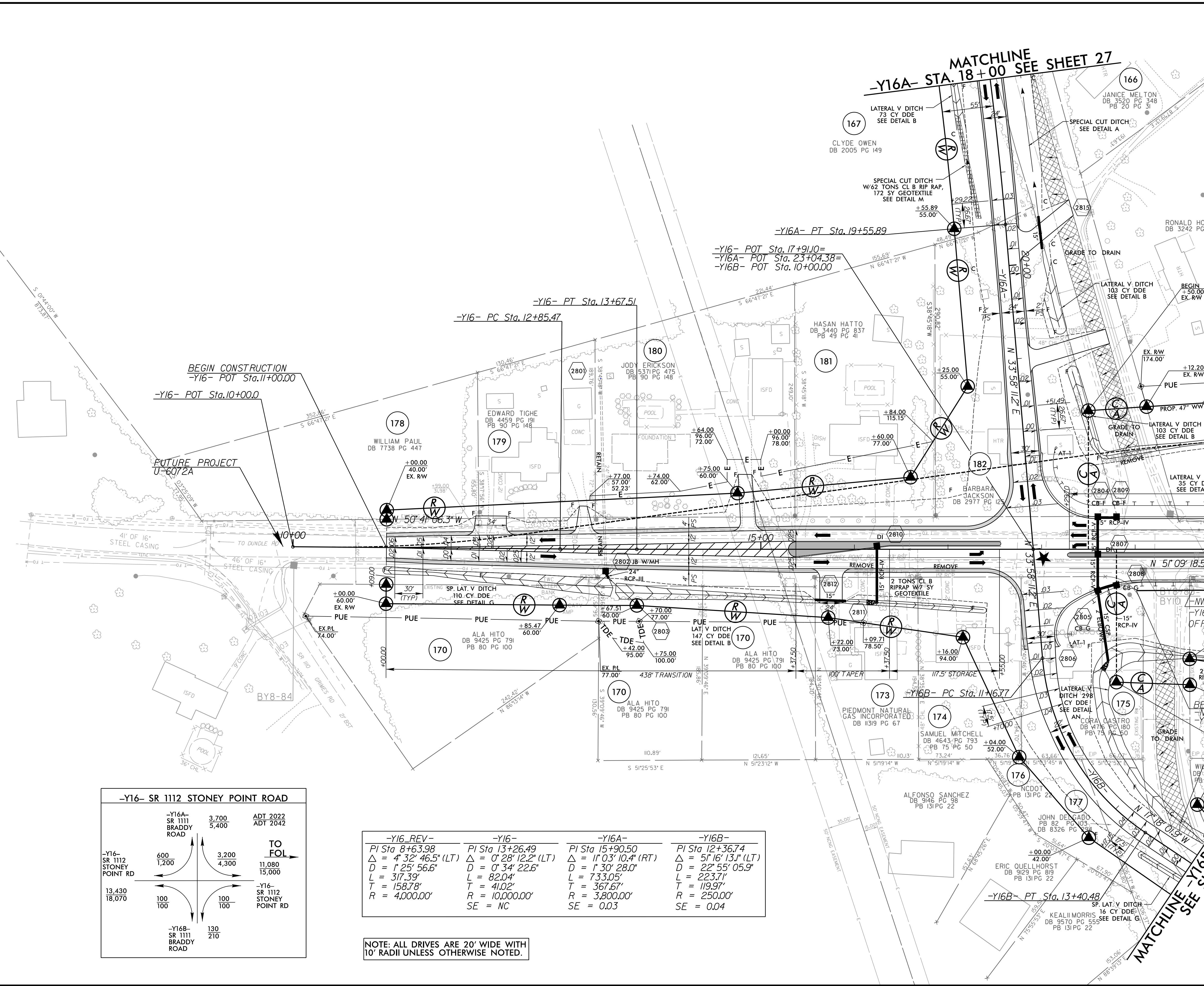
-Y16A-
 PI Sta 15+90.50
 $\Delta = 11^{\circ} 03' 10.4''$ (RT)
 $D = 1^{\circ} 30' 28.0''$
 $L = 733.05'$
 $T = 367.67'$
 $R = 3,800.00'$
 $SE = 0.03$

NOTE: ALL DRIVES ARE 16' WIDE WITH
10' RADII UNLESS OTHERWISE NOTED

FOR -Y16A- PROFILE SEE SHT. 49
FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2

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 13/17/20



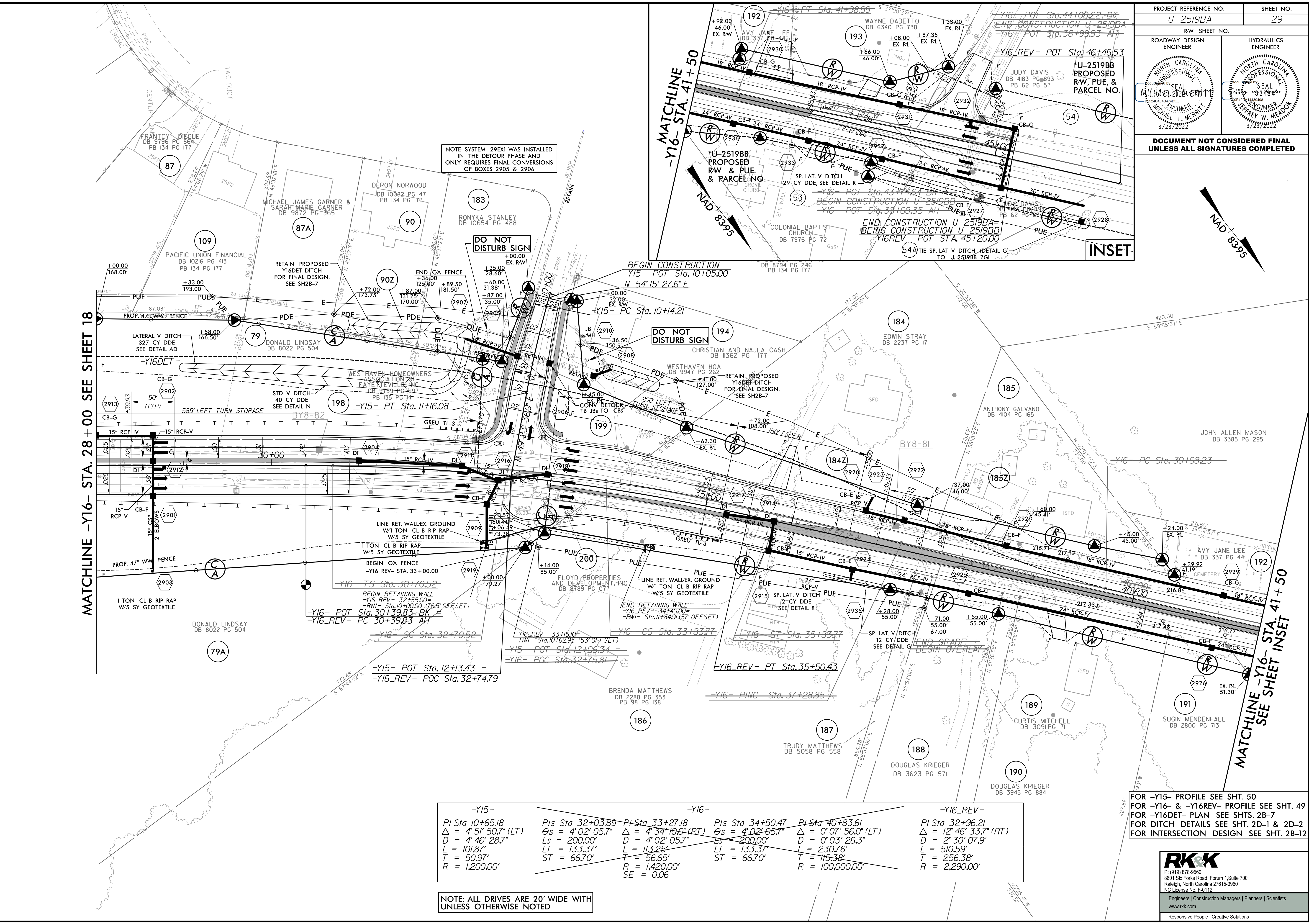
-Y16-REV-	-Y16-	-Y16A-	-Y16B-
PI Sta 8+63.98	PI Sta 13+26.49	PI Sta 15+90.50	PI Sta 12+36.74
$\Delta = 4' 32' 46.5''$ (LT)	$\Delta = 0' 28' 12.2''$ (LT)	$\Delta = 1' 03' 10.4''$ (RT)	$\Delta = 5' 16' 13.1''$ (LT)
$D = 1' 25' 56.6''$	$D = 0' 34' 22.6''$	$D = 1' 30' 28.0''$	$D = 22' 55' 05.9''$
$L = 317.39'$	$L = 82.04'$	$L = 733.05'$	$L = 223.71'$
$T = 158.78'$	$T = 41.02'$	$T = 367.67'$	$T = 119.97'$
$R = 4,000.00'$	$R = 10,000.00'$	$R = 3,800.00'$	$R = 250.00'$
	SE = NC	SE = 0.03	SE = 0.04

NOTE: ALL DRIVES ARE 20' WIDE WITH 10' RADII UNLESS OTHERWISE NOTED.

FOR -Y16- PROFILE SEE SHT. 48
 FOR -Y16A- PROFILE SEE SHT. 49
 FOR -Y16B- PROFILE SEE SHT. 50
 FOR -Y16DET- PLAN SEE SHTS. 2B-6
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-12
 FOR -NW5- SEE SHT. 2N-3

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8/17/2022
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 3/23/2022



PROJECT REFERENCE NO. U-2519BA	SHEET NO. 29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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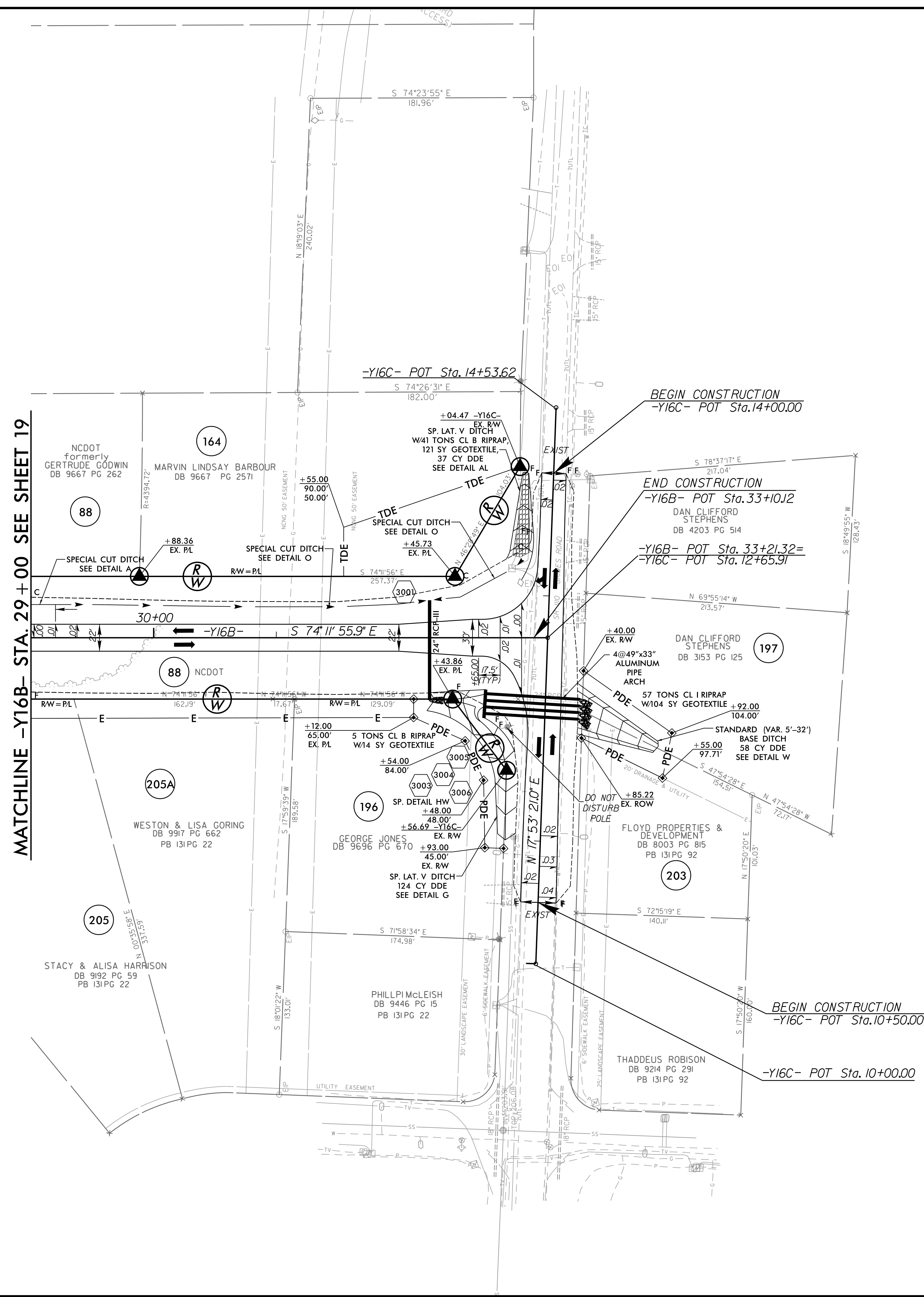
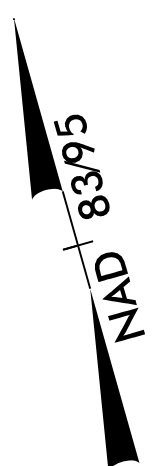
FOR -Y15- PROFILE SEE SHT. 50
 FOR -Y16- & -Y16REV- PROFILE SEE SHT. 49
 FOR -Y16DET- PLAN SEE SHTS. 2B-7
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-12

-Y15-		-Y16-		-Y16_REV-	
PI Sta 10+65.18	PI Sta 32+03.89	PI Sta 33+27.18	PI Sta 34+50.47	PI Sta 40+83.61	PI Sta 32+96.21
$\Delta = 4' 51'' 50.7''$ (LT)	$\Delta s = 4' 02'' 05.7''$	$\Delta = 4' 34'' 10.9''$ (RT)	$\Delta s = 4' 02'' 05.7''$	$\Delta = 0' 07'' 56.0''$ (LT)	$\Delta = 12' 46'' 33.7''$ (RT)
$D = 4' 46'' 28.7''$	$Ls = 200.00'$	$D = 4' 02'' 05.7''$	$Ls = 200.00'$	$D = 0' 03'' 26.3''$	$D = 2' 30'' 07.9''$
$L = 101.87'$	$L = 133.37'$	$L = 113.25'$	$LT = 133.37'$	$L = 230.76'$	$L = 510.59'$
$T = 50.97'$	$ST = 66.70'$	$T = 56.65'$	$ST = 66.70'$	$T = 115.38'$	$T = 256.38'$
$R = 1,200.00'$		$R = 1,420.00'$		$R = 100,000.00'$	$R = 2,290.00'$
		$SE = 0.06$			

NOTE: ALL DRIVES ARE 20' WIDE WITH UNLESS OTHERWISE NOTED

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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 3/17/2022 NORTH CAROLINA PROFESSIONAL SEAL 21122 MICHAEL T. MERRITT	HYDRAULICS ENGINEER 3/16/2022 NORTH CAROLINA PROFESSIONAL SEAL 33184 BREY W. MEADOR
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



FOR -Y16B- PROFILE SEE SHT. 50
 FOR -Y16C- PROFILE SEE SHT. 52
 FOR DITCH DETAILS SEE SHT. 2D-1 & 2D-2
 FOR INTERSECTION DESIGN SEE SHT. 2B-13

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 3/17/2022

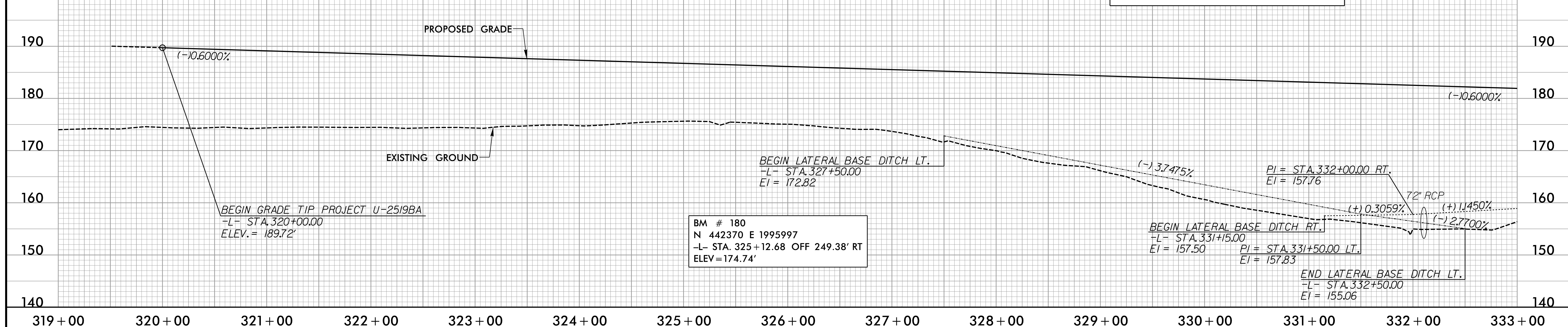
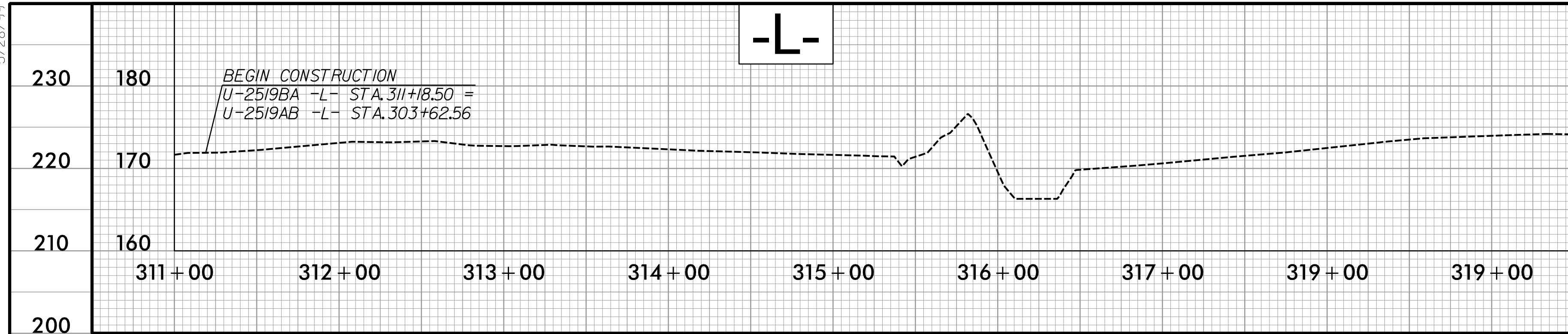
5/28/22

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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 31
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022
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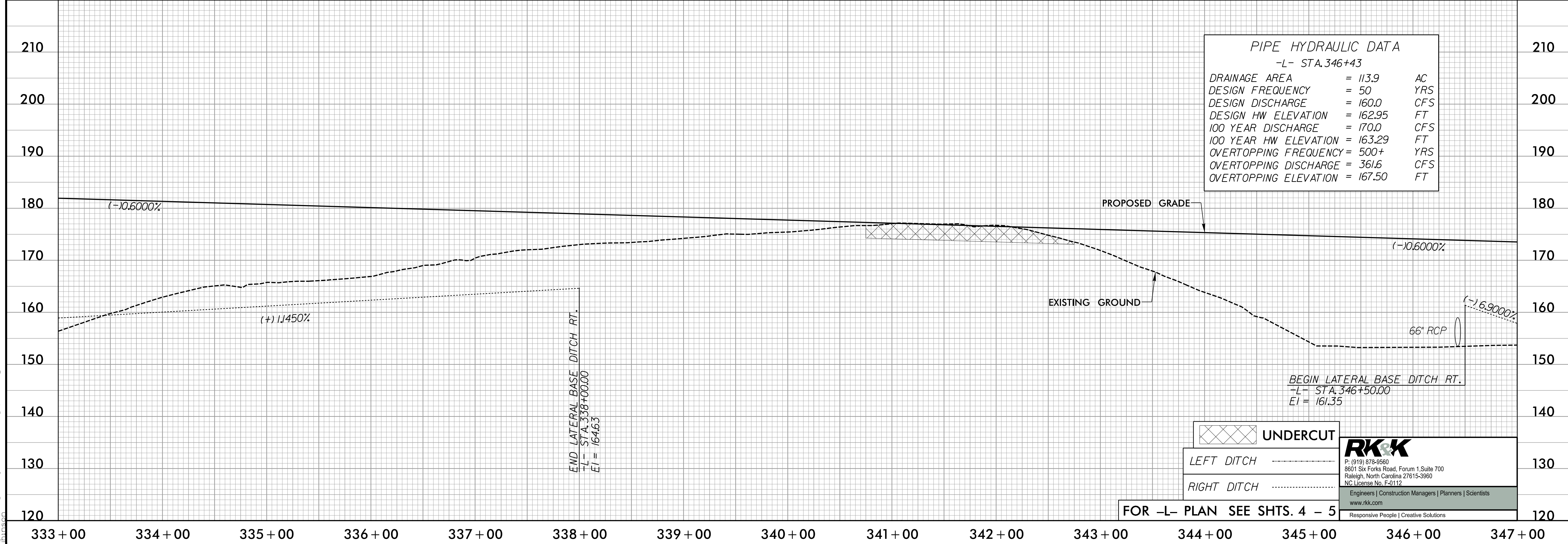
PIPE HYDRAULIC DATA
-L- STA. 332+11

DRAINAGE AREA	= 152.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 190.0	CFS
DESIGN HW ELEVATION	= 161.83	FT
100 YEAR DISCHARGE	= 200.0	CFS
100 YEAR HW ELEVATION	= 162.05	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 504.8	CFS
OVERTOPPING ELEVATION	= 175.00	FT



PIPE HYDRAULIC DATA
-L- STA. 346+43

DRAINAGE AREA	= 113.9	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 160.0	CFS
DESIGN HW ELEVATION	= 162.95	FT
100 YEAR DISCHARGE	= 170.0	CFS
100 YEAR HW ELEVATION	= 163.29	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 361.6	CFS
OVERTOPPING ELEVATION	= 167.50	FT



	UNDERCUT
LEFT DITCH
RIGHT DITCH
FOR -L- PLAN SEE SHTS. 4 - 5	

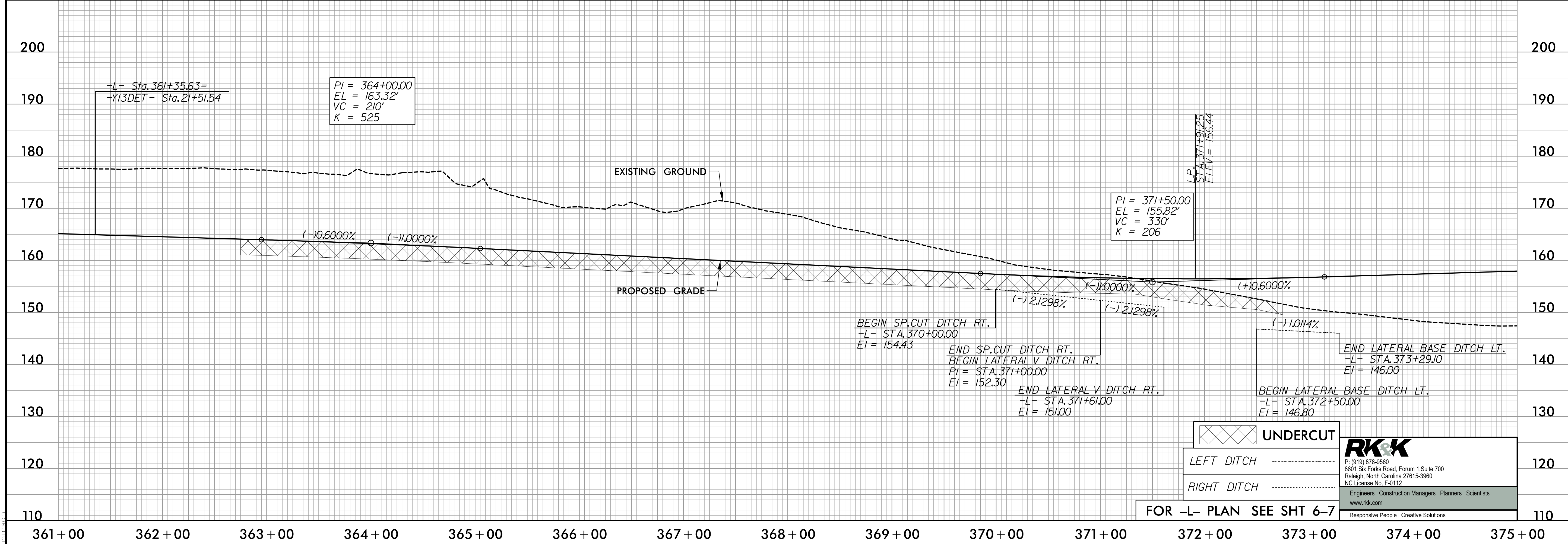
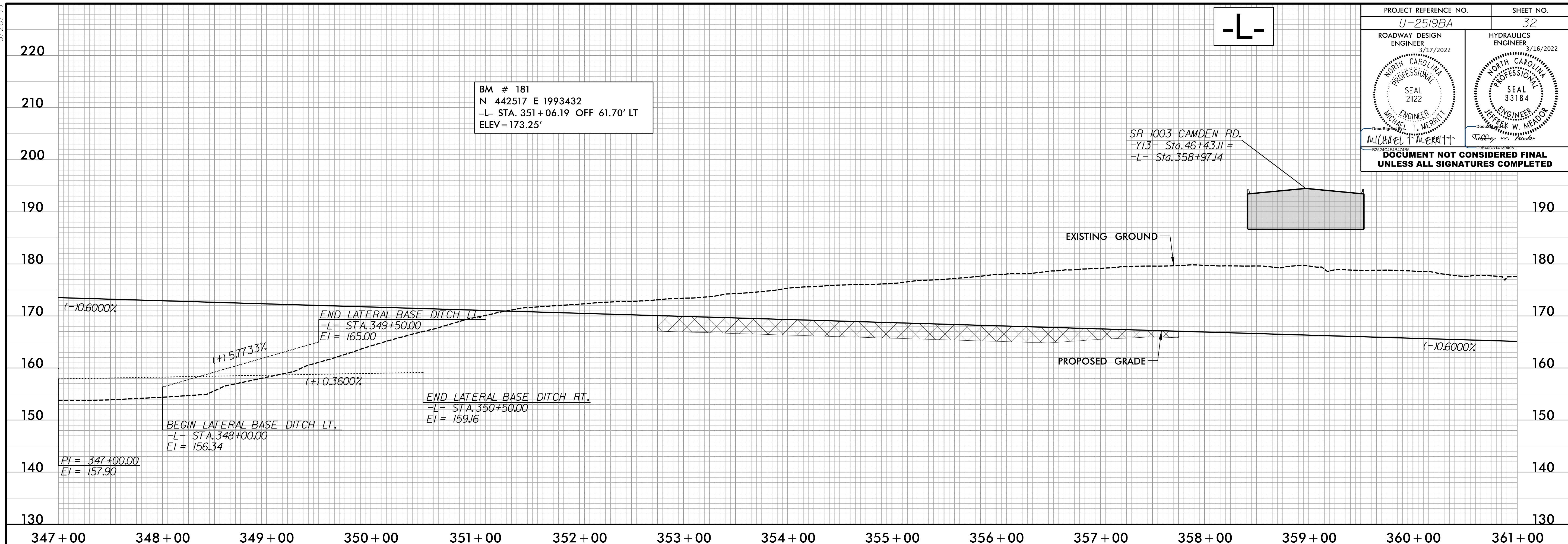
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 32
ROADWAY DESIGN ENGINEER 2/17/2022	HYDRAULICS ENGINEER 3/16/2022
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-L-

BM # 181
N 442517 E 1993432
-L- STA. 351+06.19 OFF 61.70' LT
ELEV=173.25'

SR 1003 CAMDEN RD.
-Y13- Sta. 46+43.11 =
-L- Sta. 358+97.14



5/28/22
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-L-

PROJECT REFERENCE NO. U-2519BA	SHEET NO. 35
ROADWAY DESIGN ENGINEER MICHAEL T. MERRITT 3/17/2022	HYDRAULICS ENGINEER JEFFREY W. MEADOR 3/16/2022
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PIPE HYDRAULIC DATA
-L- STA. 441+99

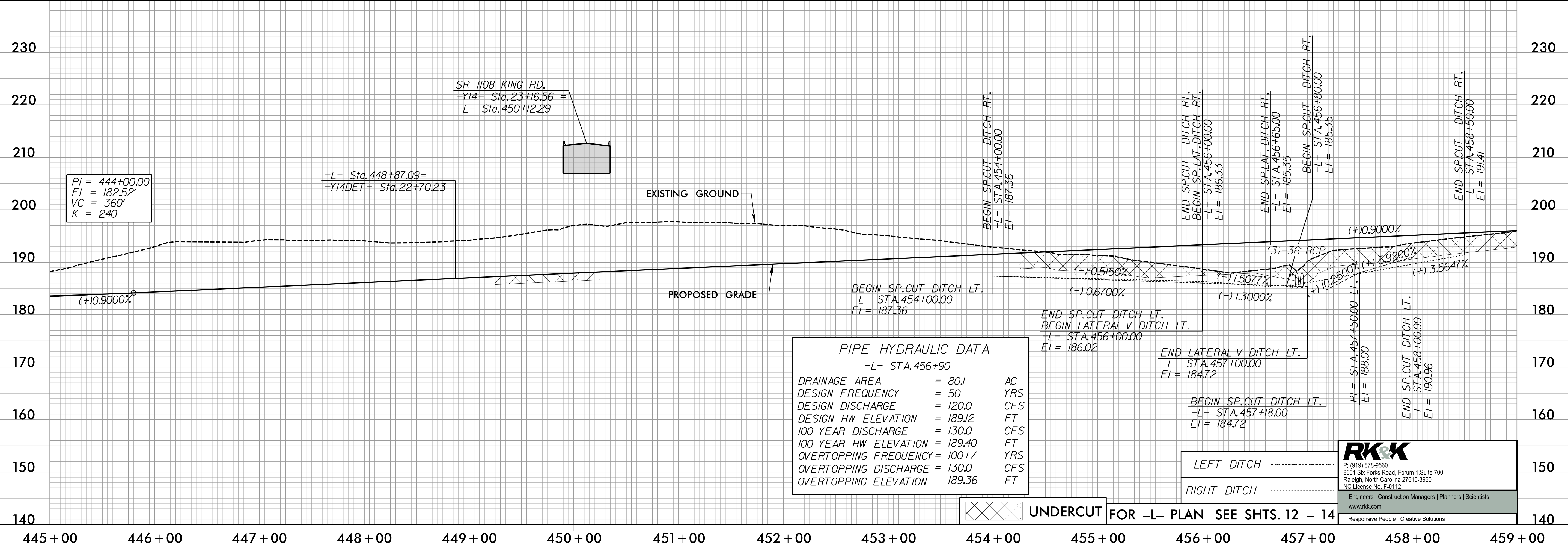
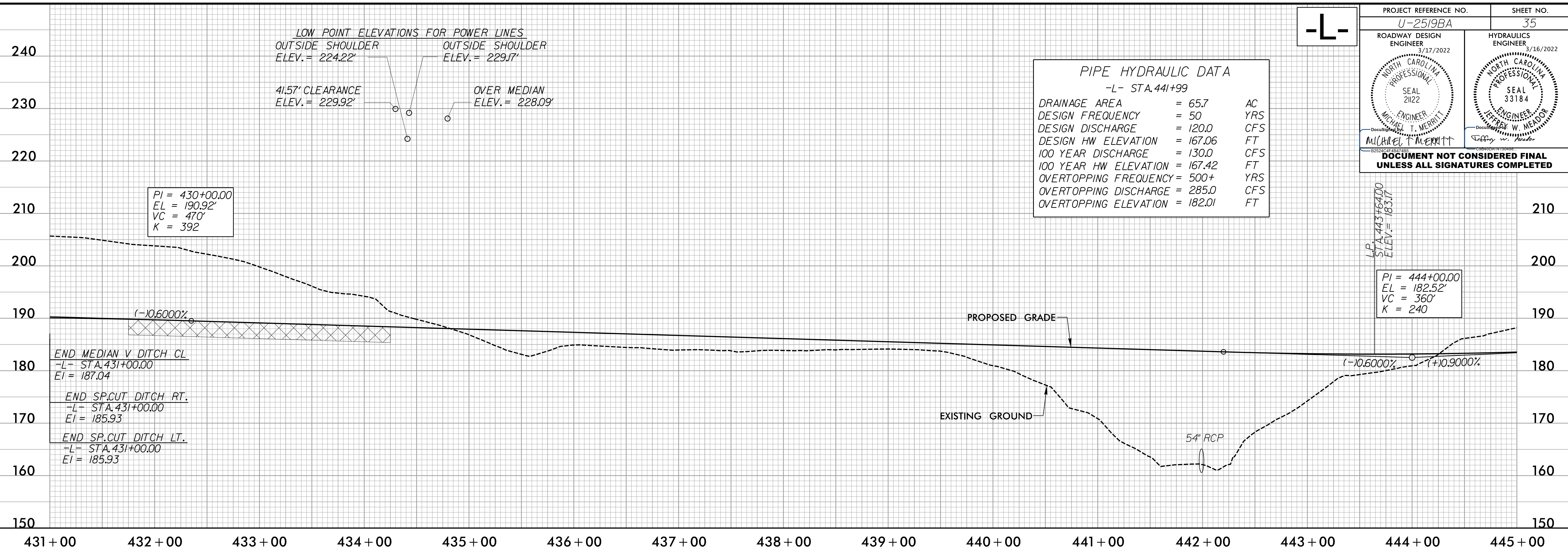
DRAINAGE AREA	= 65.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 120.0	CFS
DESIGN HW ELEVATION	= 167.06	FT
100 YEAR DISCHARGE	= 130.0	CFS
100 YEAR HW ELEVATION	= 167.42	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 285.0	CFS
OVERTOPPING ELEVATION	= 182.01	FT

LOW POINT ELEVATIONS FOR POWER LINES
 OUTSIDE SHOULDER ELEV. = 224.22'
 OUTSIDE SHOULDER ELEV. = 229.17'
 41.57' CLEARANCE ELEV. = 229.92'
 OVER MEDIAN ELEV. = 228.09'

PI = 430+00.00
 EL = 190.92'
 VC = 470'
 K = 392

PI = 444+00.00
 EL = 182.52'
 VC = 360'
 K = 240

END MEDIAN V. DITCH CL.
 -L- STA. 431+00.00
 EI = 187.04
 END SP. CUT DITCH RT.
 -L- STA. 431+00.00
 EI = 185.93
 END SP. CUT DITCH LT.
 -L- STA. 431+00.00
 EI = 185.93



PIPE HYDRAULIC DATA
-L- STA. 456+90

DRAINAGE AREA	= 80J	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 120.0	CFS
DESIGN HW ELEVATION	= 189.12	FT
100 YEAR DISCHARGE	= 130.0	CFS
100 YEAR HW ELEVATION	= 189.40	FT
OVERTOPPING FREQUENCY	= 100+/-	YRS
OVERTOPPING DISCHARGE	= 130.0	CFS
OVERTOPPING ELEVATION	= 189.36	FT

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LEFT DITCH
 RIGHT DITCH

UNDERCUT FOR -L- PLAN SEE SHTS. 12 - 14

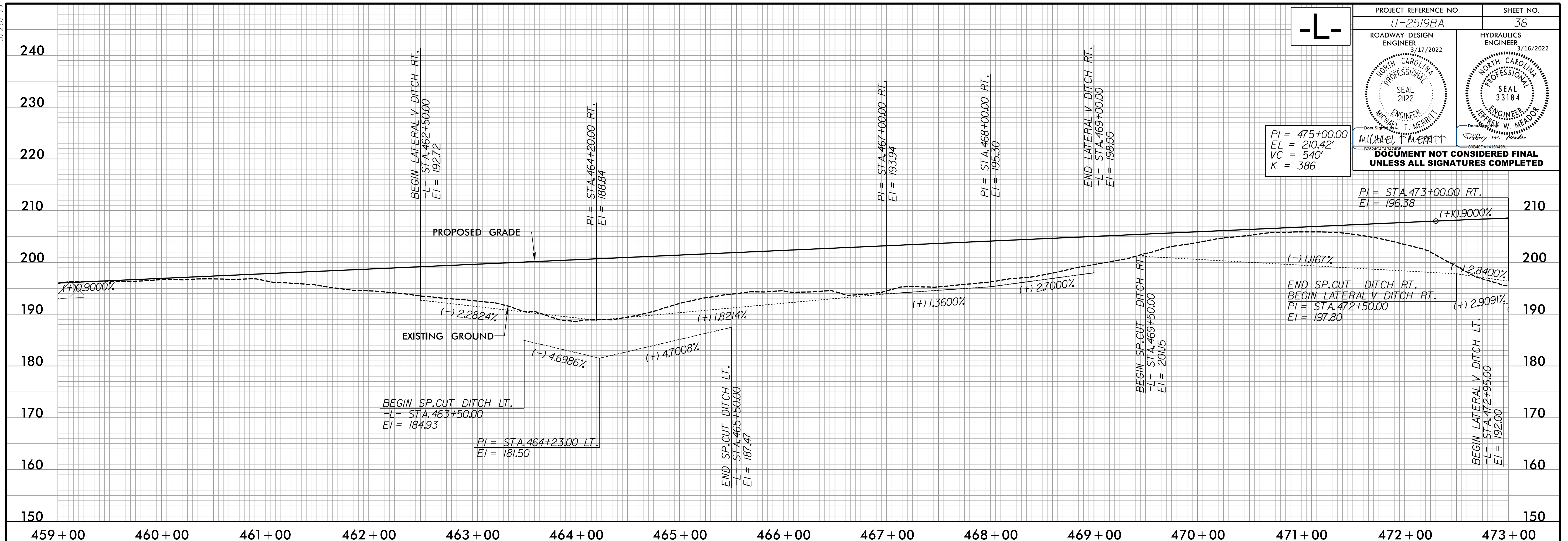
5/28/99
 2/13/2022
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-L-

PROJECT REFERENCE NO. U-2519BA	SHEET NO. 36
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022

PI = 475+00.00
EL = 210.42'
VC = 540'
K = 386

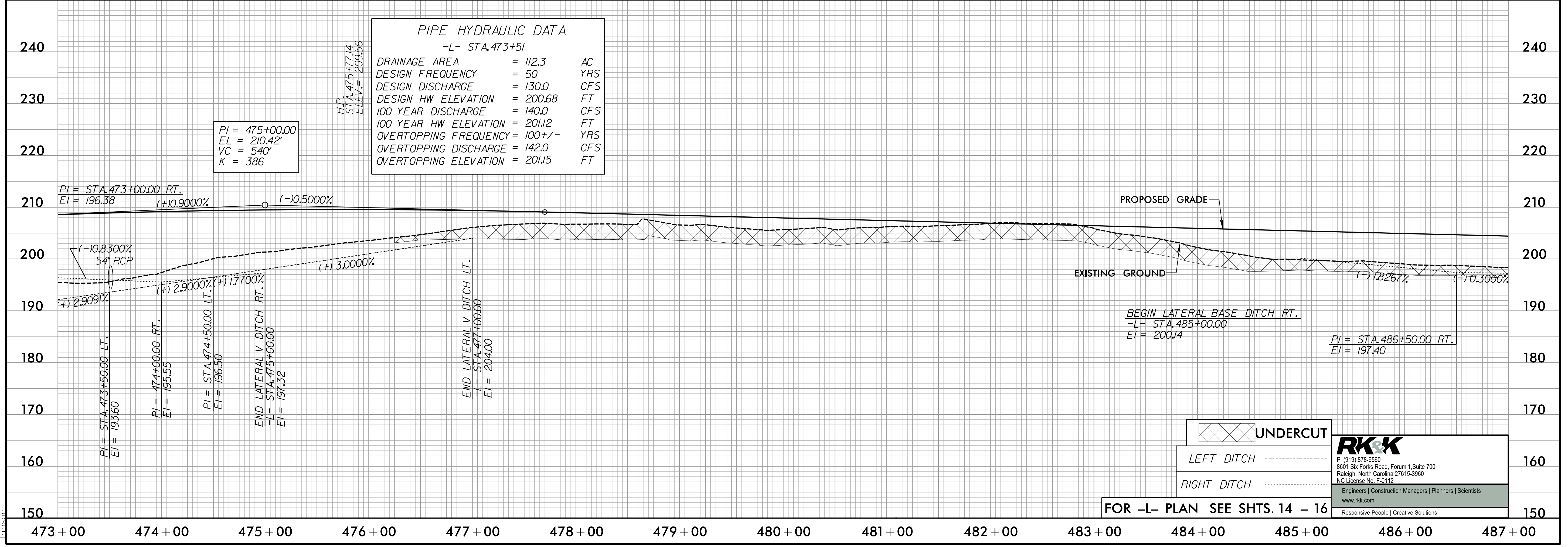
**DOCUMENT NOT CONSIDERED FINAL
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PIPE HYDRAULIC DATA
-L- STA. 473+51

DRAINAGE AREA	= 112.3	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 130.0	CFS
DESIGN HW ELEVATION	= 200.68	FT
100 YEAR DISCHARGE	= 140.0	CFS
100 YEAR HW ELEVATION	= 201.2	FT
OVERTOPPING FREQUENCY	= 100 +/-	YRS
OVERTOPPING DISCHARGE	= 142.0	CFS
OVERTOPPING ELEVATION	= 201.5	FT

PI = 475+00.00
EL = 210.42'
VC = 540'
K = 386



UNDERCUT
LEFT DITCH
RIGHT DITCH

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FOR -L- PLAN SEE SHTS. 14 - 16

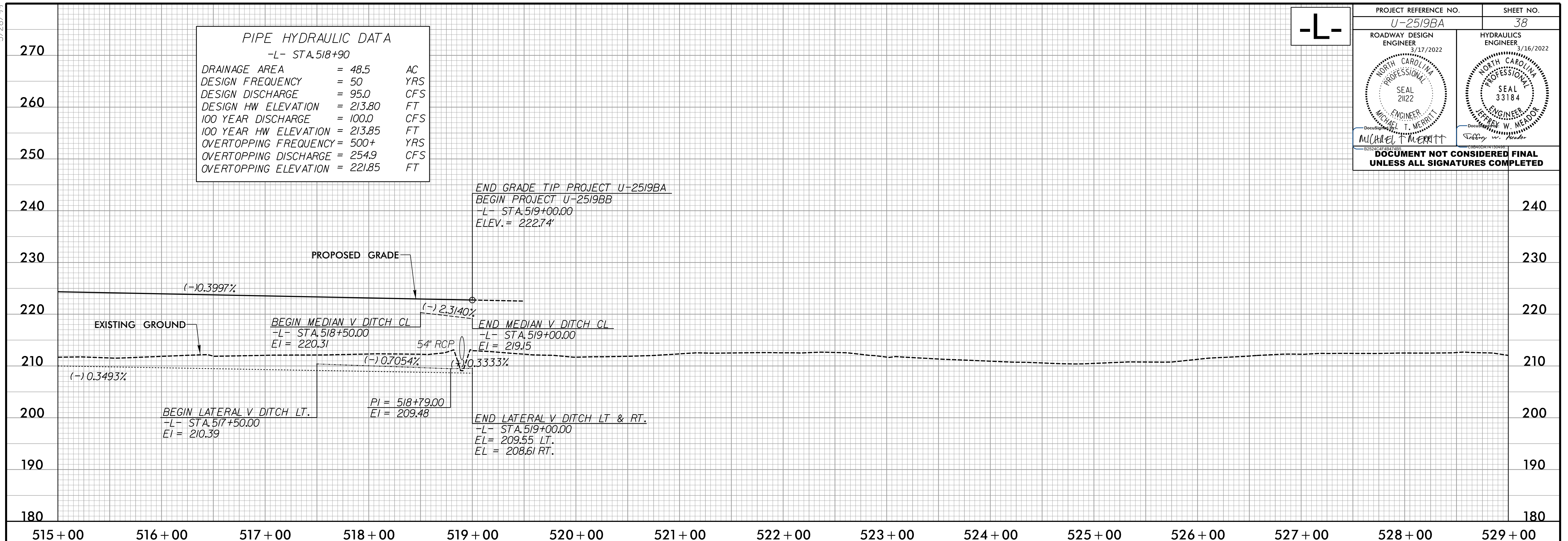
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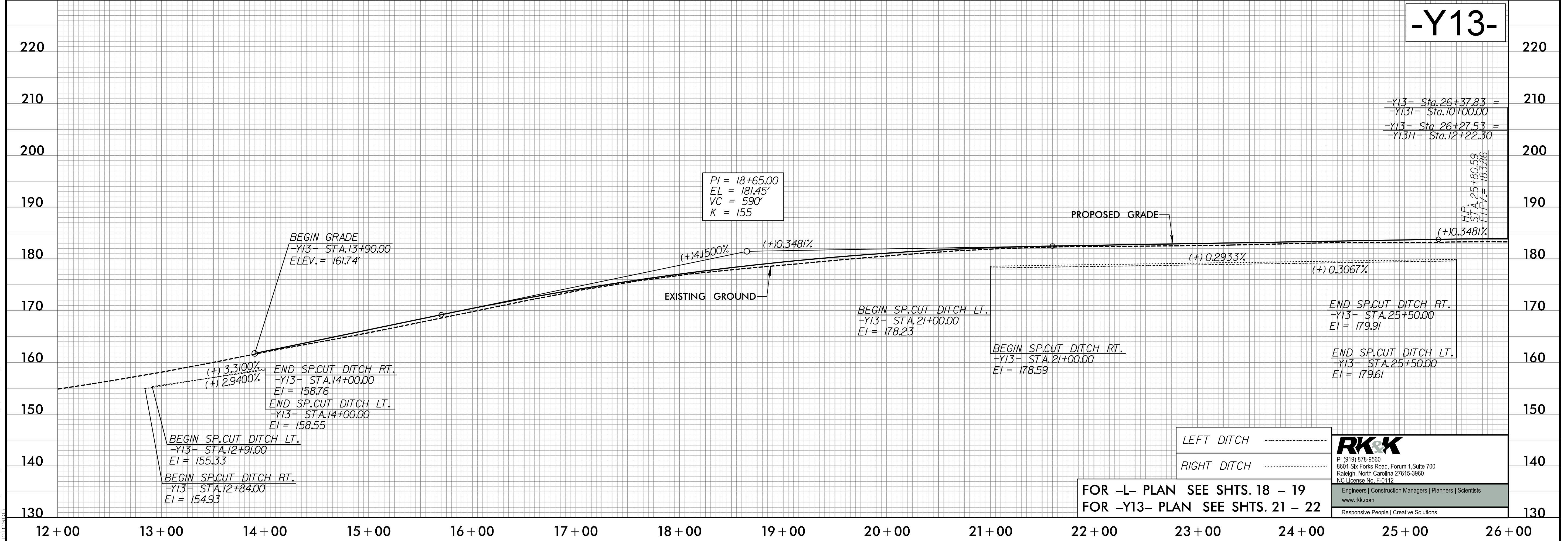
PROJECT REFERENCE NO. U-2519BA	SHEET NO. 38
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PIPE HYDRAULIC DATA
-L- STA. 518+90

DRAINAGE AREA	= 48.5	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 95.0	CFS
DESIGN HW ELEVATION	= 213.80	FT
100 YEAR DISCHARGE	= 100.0	CFS
100 YEAR HW ELEVATION	= 213.85	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 254.9	CFS
OVERTOPPING ELEVATION	= 221.85	FT



-Y13-



LEFT DITCH
RIGHT DITCH

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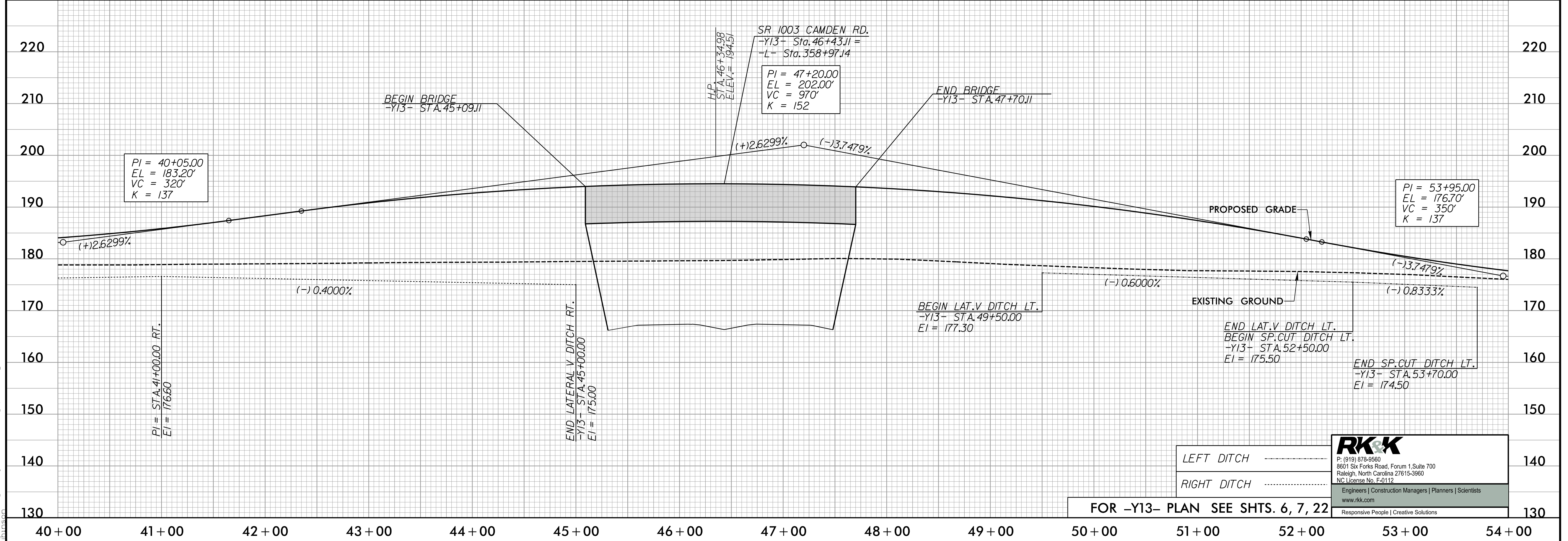
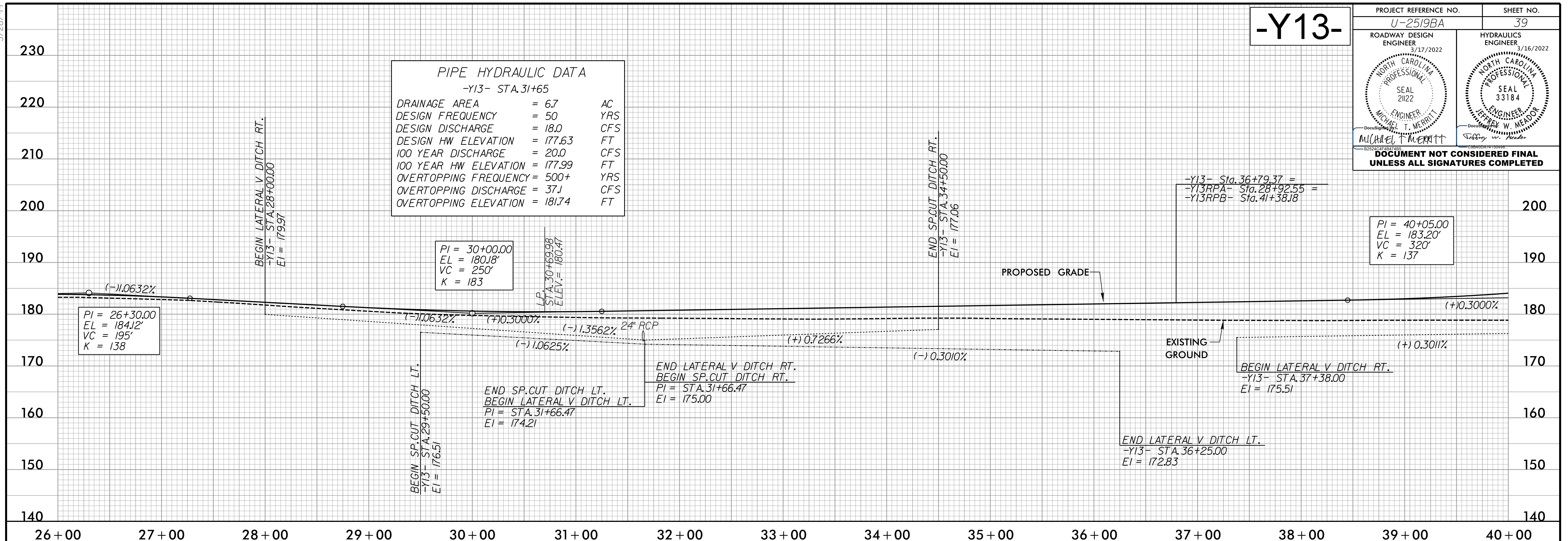
FOR -L- PLAN SEE SHTS. 18 - 19
FOR -Y13- PLAN SEE SHTS. 21 - 22

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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 39
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DRAINAGE AREA	= 6.7	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 18.0	CFS
DESIGN HW ELEVATION	= 177.63	FT
100 YEAR DISCHARGE	= 20.0	CFS
100 YEAR HW ELEVATION	= 177.99	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 37.1	CFS
OVERTOPPING ELEVATION	= 181.74	FT



LEFT DITCH
RIGHT DITCH
FOR -Y13- PLAN SEE SHTS. 6, 7, 22	
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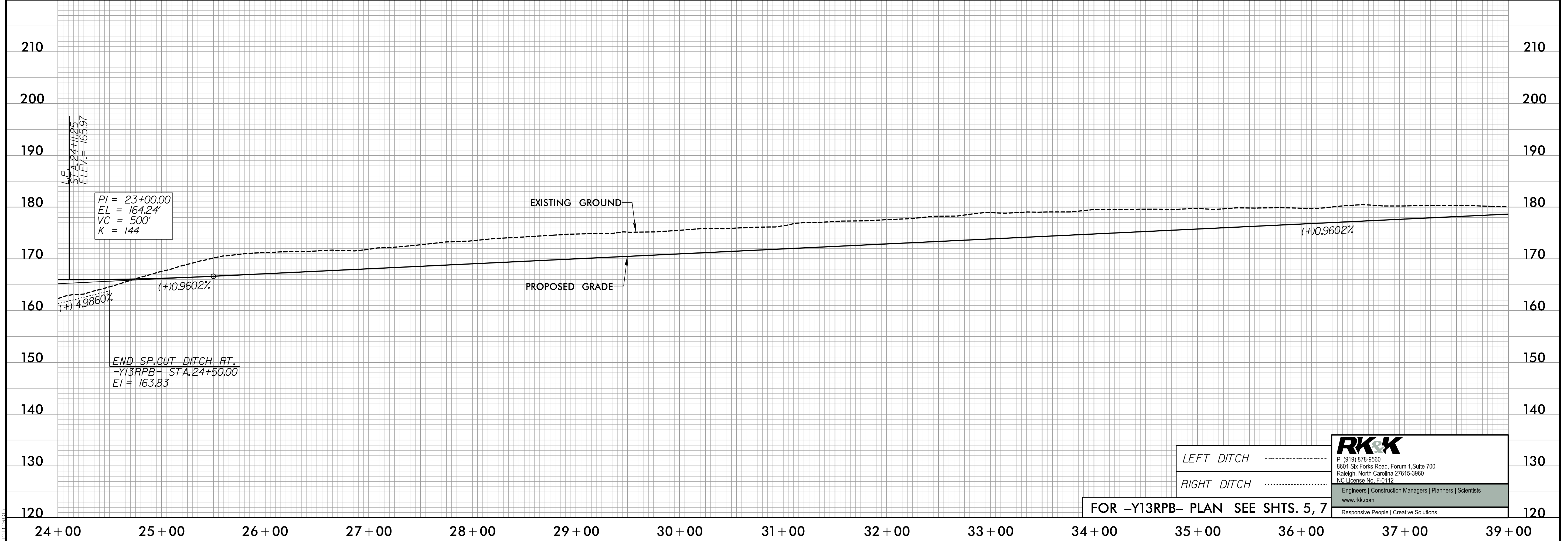
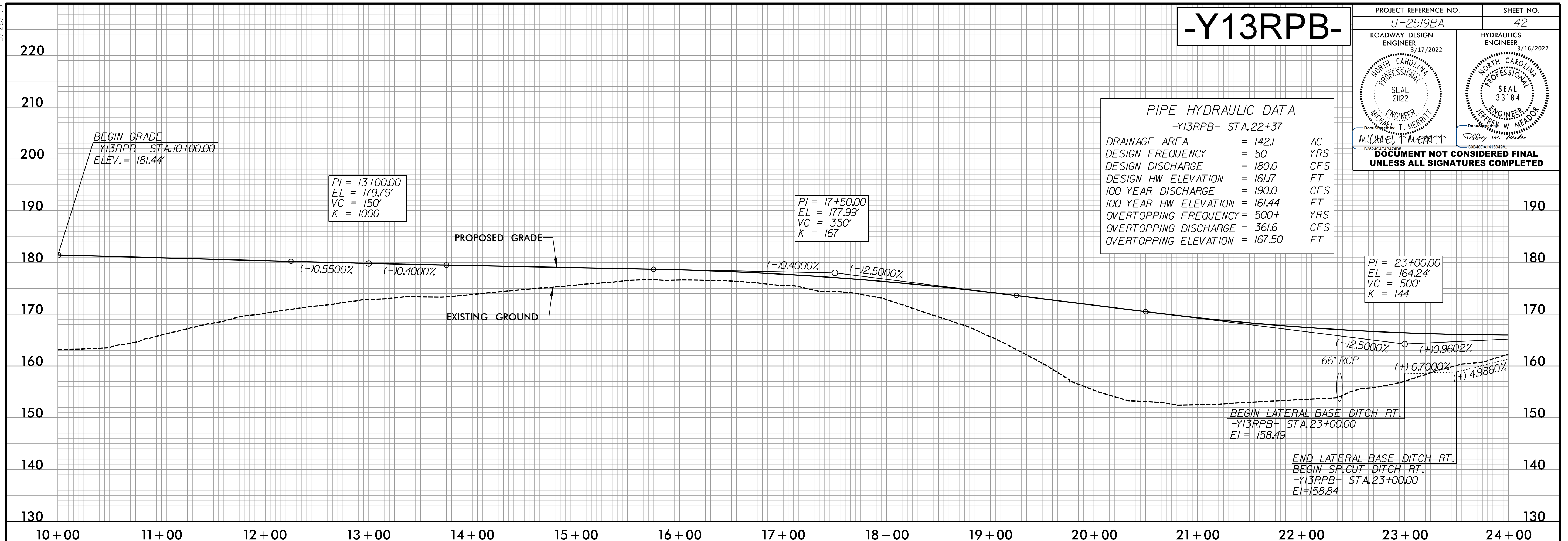
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-Y13RPB-

PROJECT REFERENCE NO. U-2519BA	SHEET NO. 42
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PIPE HYDRAULIC DATA
-Y13RPB- STA.22+37

DRAINAGE AREA	= 142.1	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 180.0	CFS
DESIGN HW ELEVATION	= 161.7	FT
100 YEAR DISCHARGE	= 190.0	CFS
100 YEAR HW ELEVATION	= 161.44	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 361.6	CFS
OVERTOPPING ELEVATION	= 167.50	FT



LEFT DITCH
RIGHT DITCH

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FOR -Y13RPB- PLAN SEE SHTS. 5, 7

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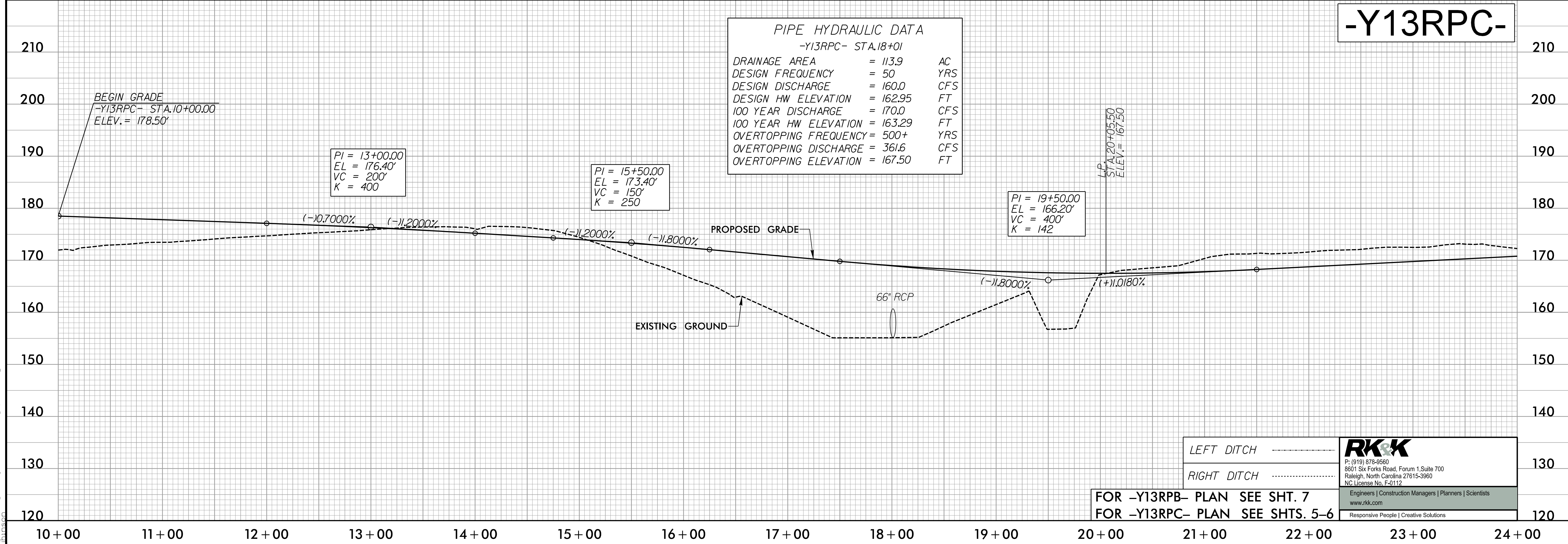
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 43
ROADWAY DESIGN ENGINEER 3/17/2022	HYDRAULICS ENGINEER 3/16/2022
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-Y13RPC-



PIPE HYDRAULIC DATA
-Y13RPC- STA. 18+01

DRAINAGE AREA	= 113.9	AC
DESIGN FREQUENCY	= 50	YRS
DESIGN DISCHARGE	= 160.0	CFS
DESIGN HW ELEVATION	= 162.95	FT
100 YEAR DISCHARGE	= 170.0	CFS
100 YEAR HW ELEVATION	= 163.29	FT
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING DISCHARGE	= 361.6	CFS
OVERTOPPING ELEVATION	= 167.50	FT

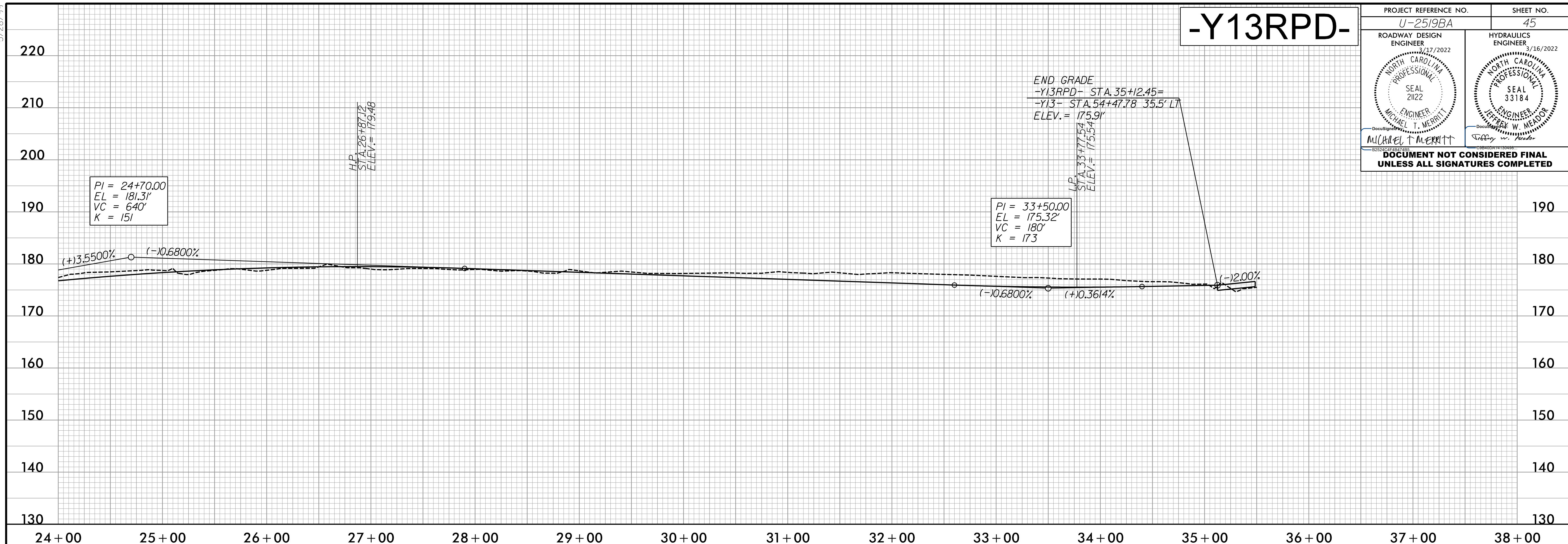
LEFT DITCH
RIGHT DITCH

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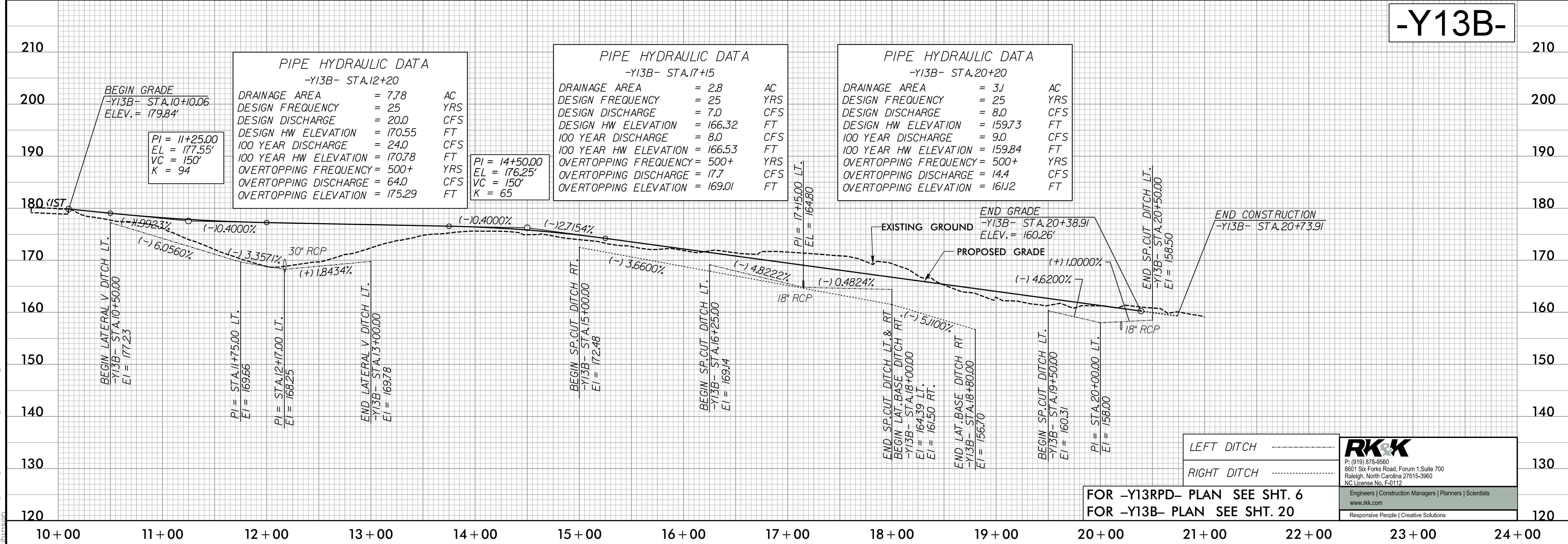
FOR -Y13RPB- PLAN SEE SHT. 7
FOR -Y13RPC- PLAN SEE SHTS. 5-6

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-Y13RPD-



-Y13B-



LEFT DITCH -----

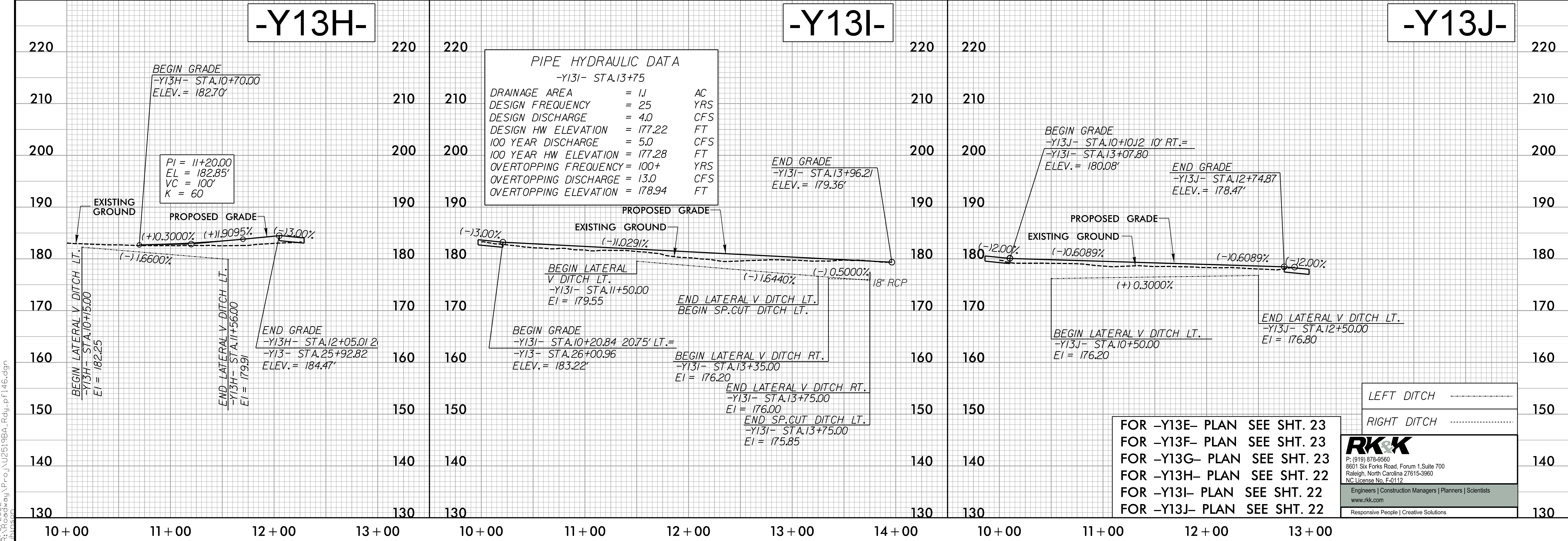
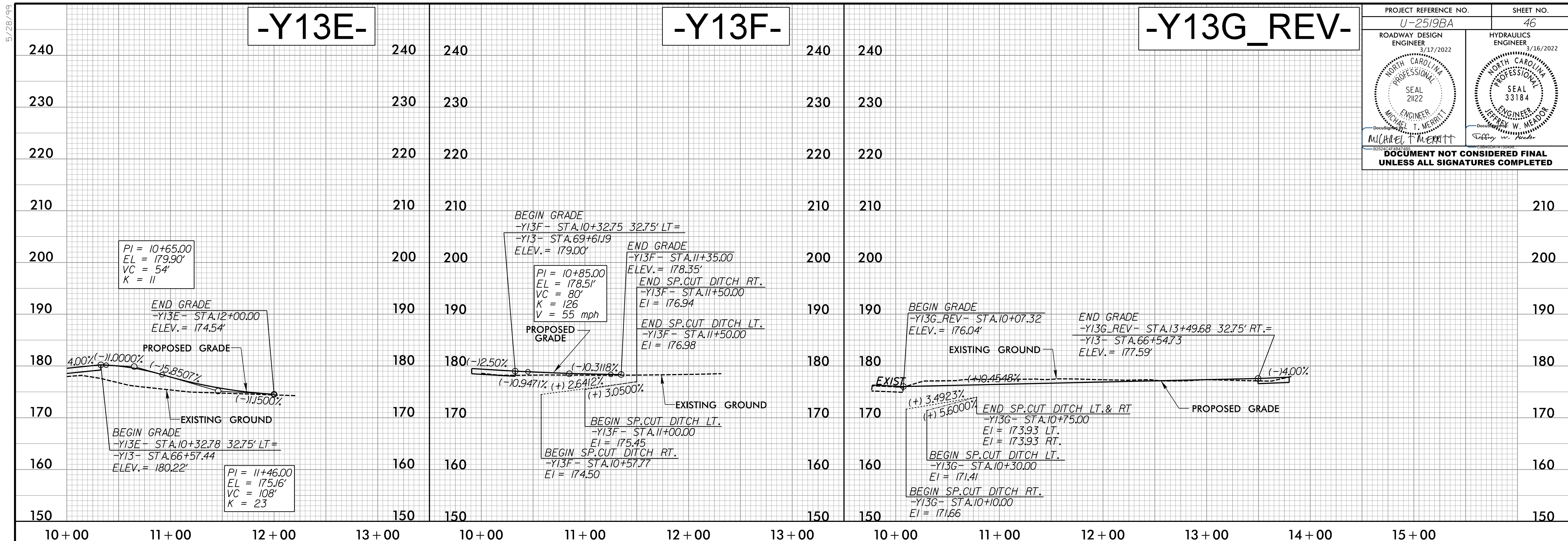
RIGHT DITCH -----

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FOR -Y13RPD- PLAN SEE SHT. 6
FOR -Y13B- PLAN SEE SHT. 20

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FOR -Y13E- PLAN SEE SHT. 23
 FOR -Y13F- PLAN SEE SHT. 23
 FOR -Y13G- PLAN SEE SHT. 23
 FOR -Y13H- PLAN SEE SHT. 22
 FOR -Y13I- PLAN SEE SHT. 22
 FOR -Y13J- PLAN SEE SHT. 22

LEFT DITCH
 RIGHT DITCH

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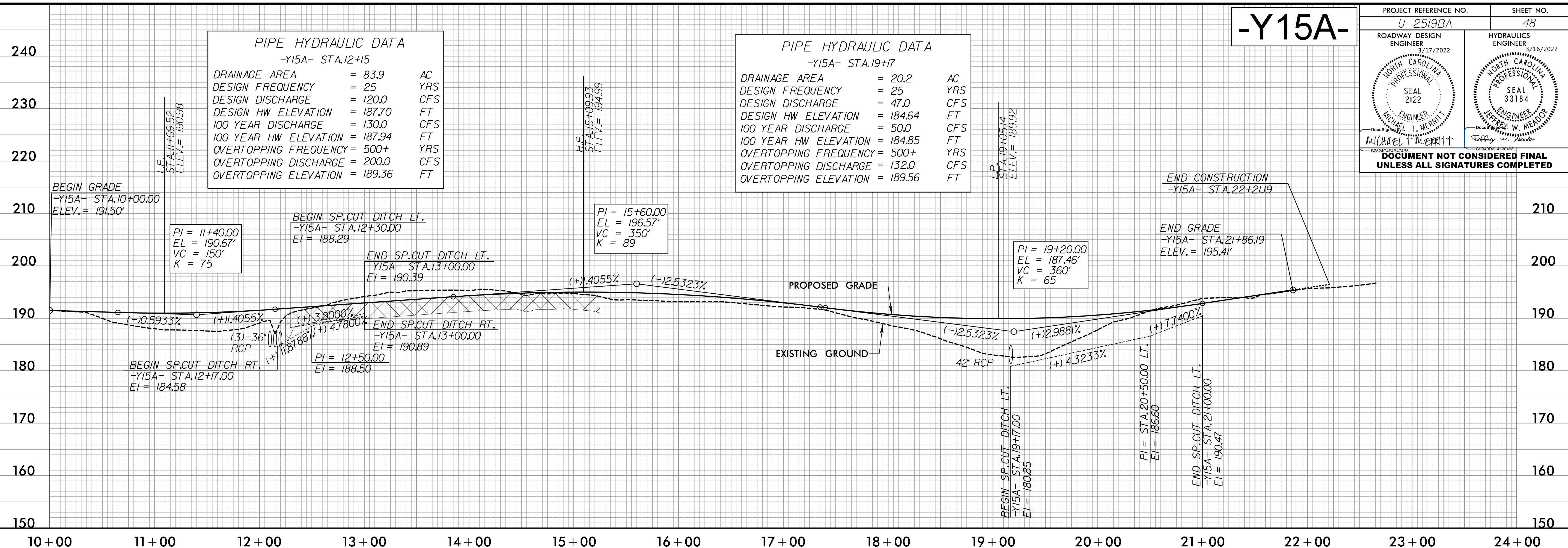
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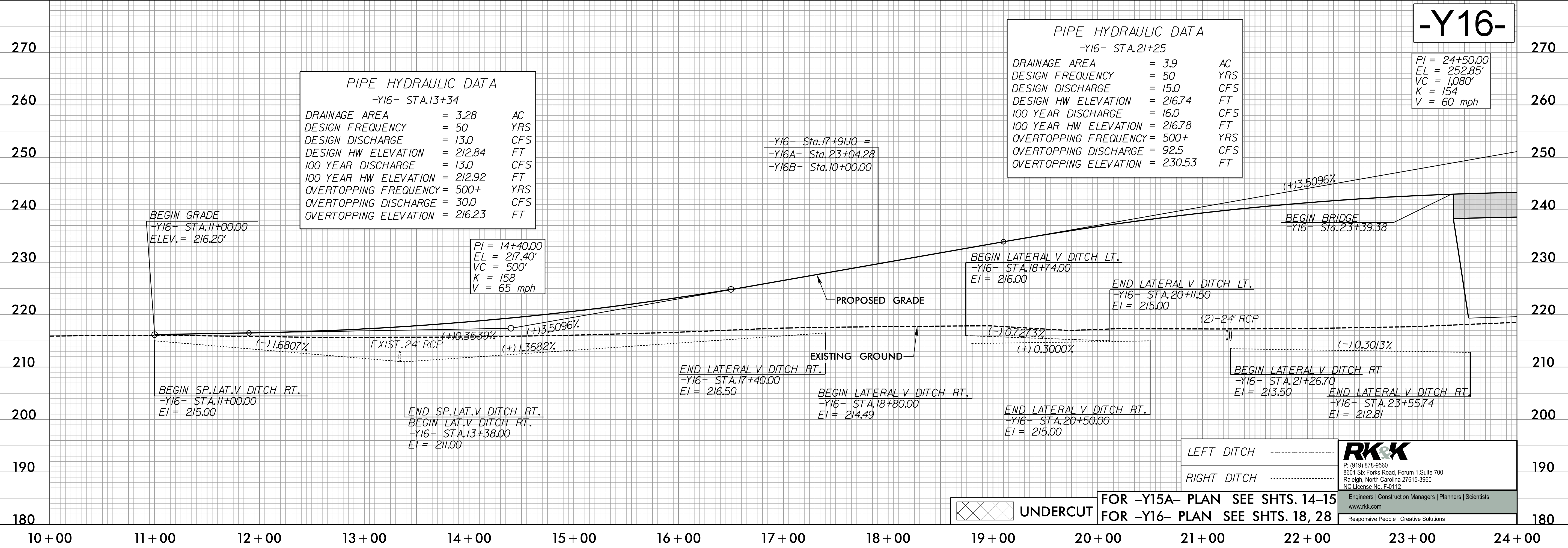
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PROJECT REFERENCE NO. U-2519BA	SHEET NO. 48
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JEFFREY W. MEADOR	
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-Y15A-

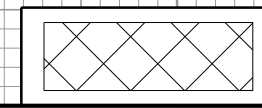


-Y16-



LEFT DITCH
RIGHT DITCH

FOR -Y15A- PLAN SEE SHTS. 14-15
FOR -Y16- PLAN SEE SHTS. 18, 28



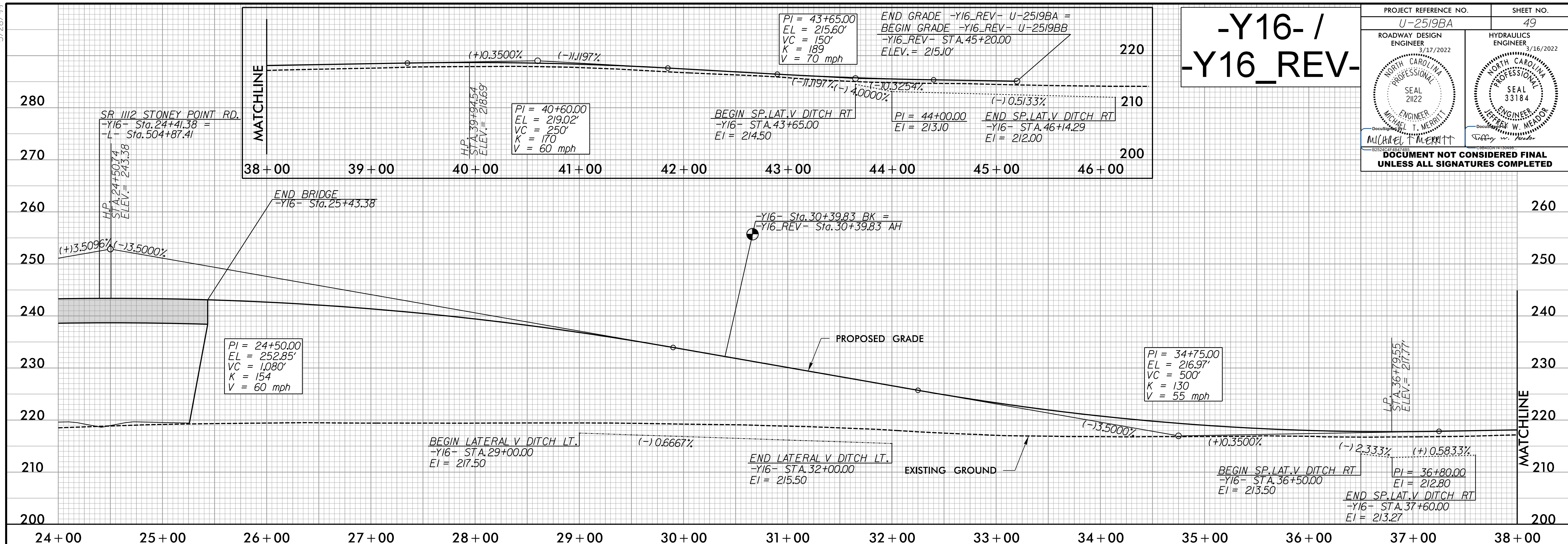
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RK&K

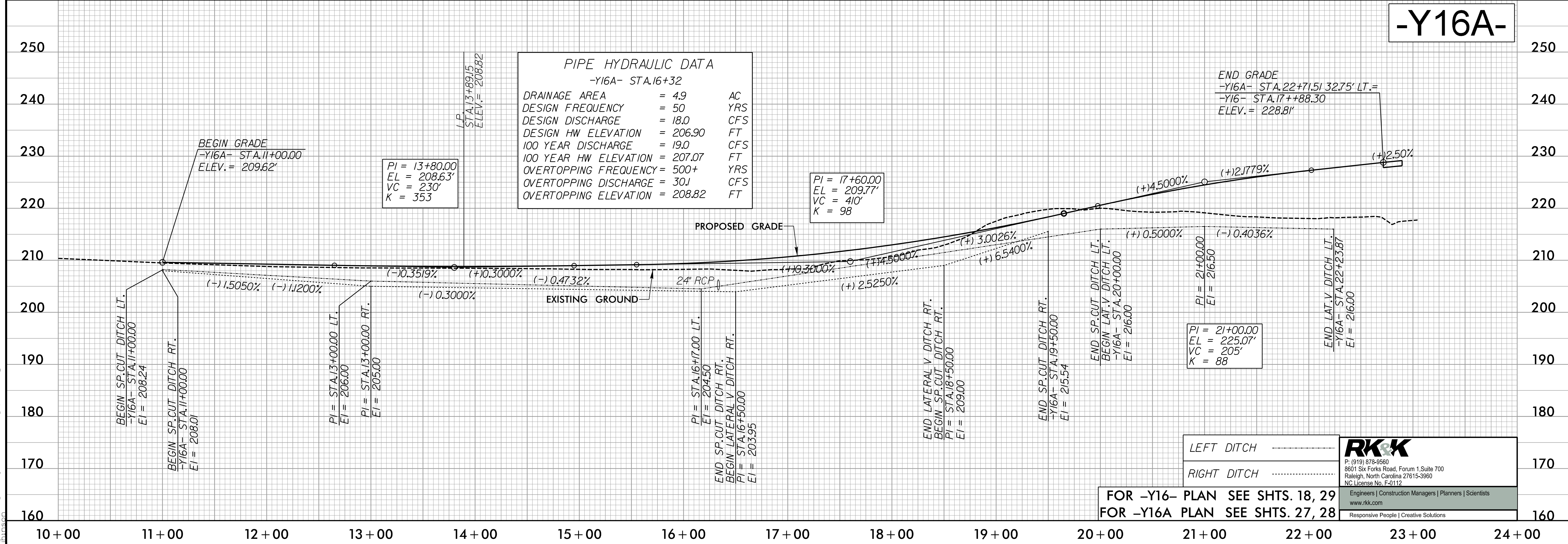
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-Y16- / -Y16_REV-



-Y16A-



FOR -Y16- PLAN SEE SHTS. 18, 29
FOR -Y16A PLAN SEE SHTS. 27, 28

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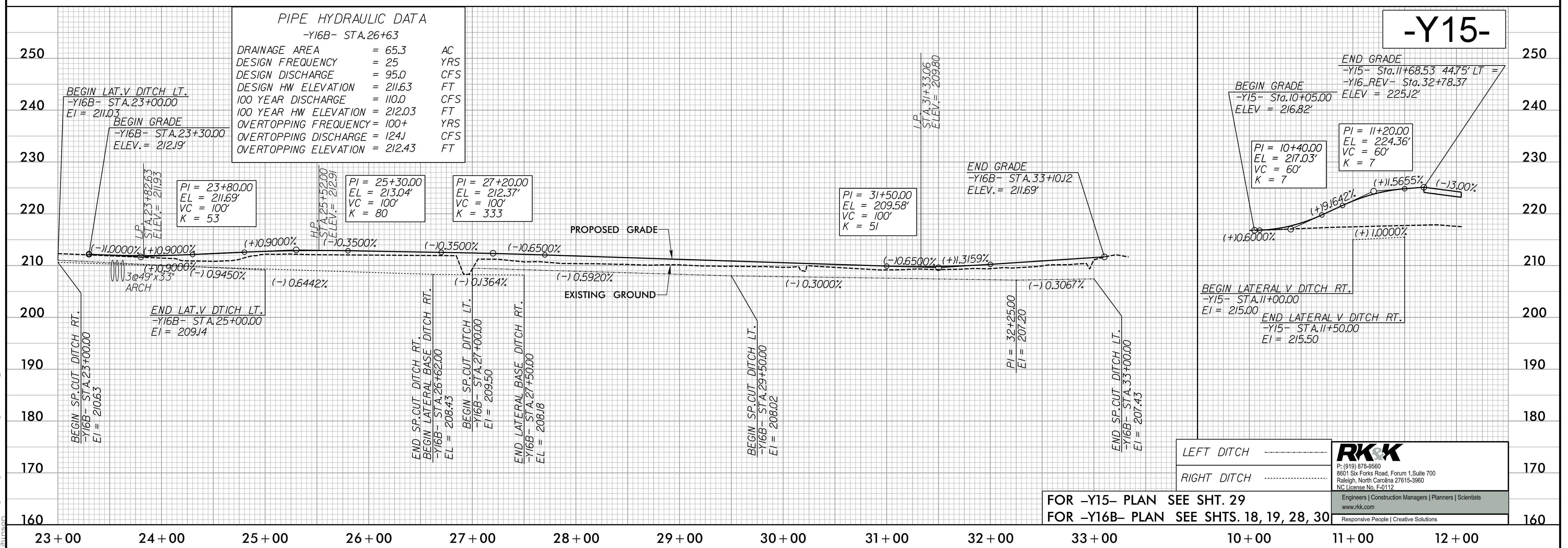
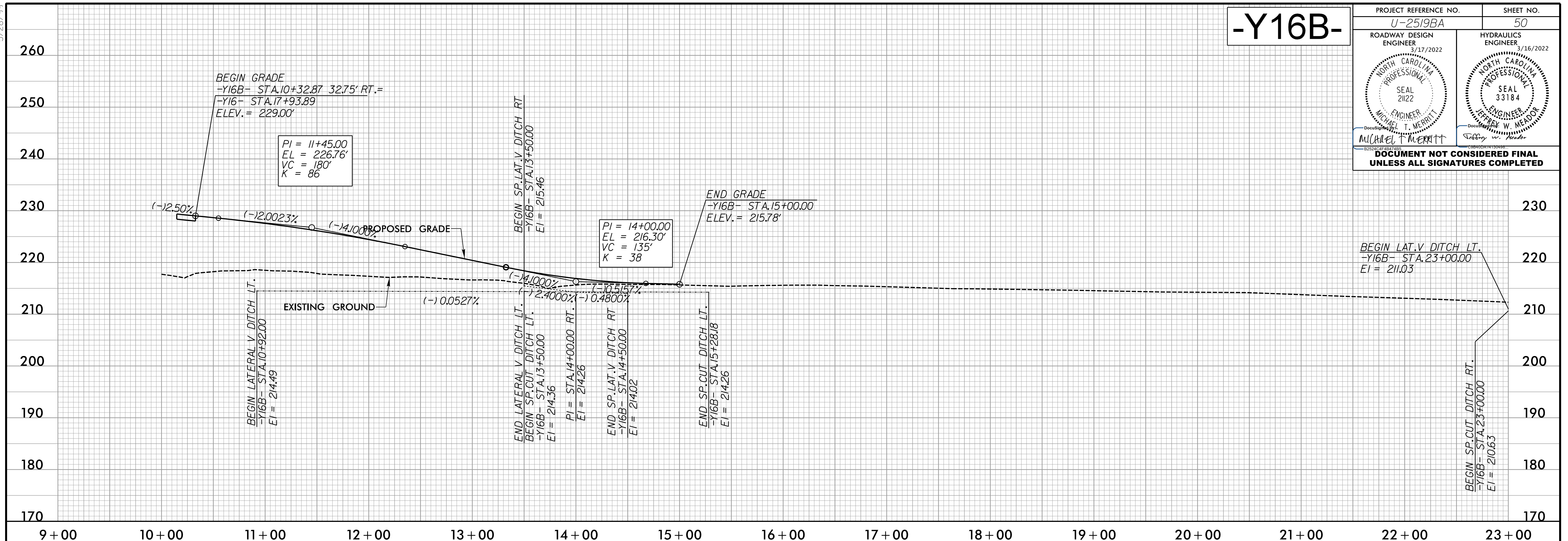
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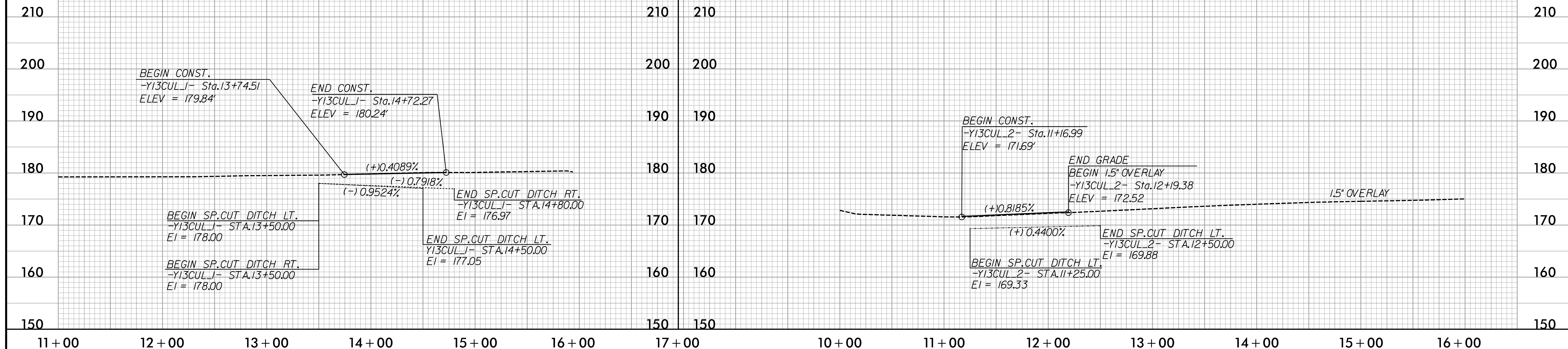
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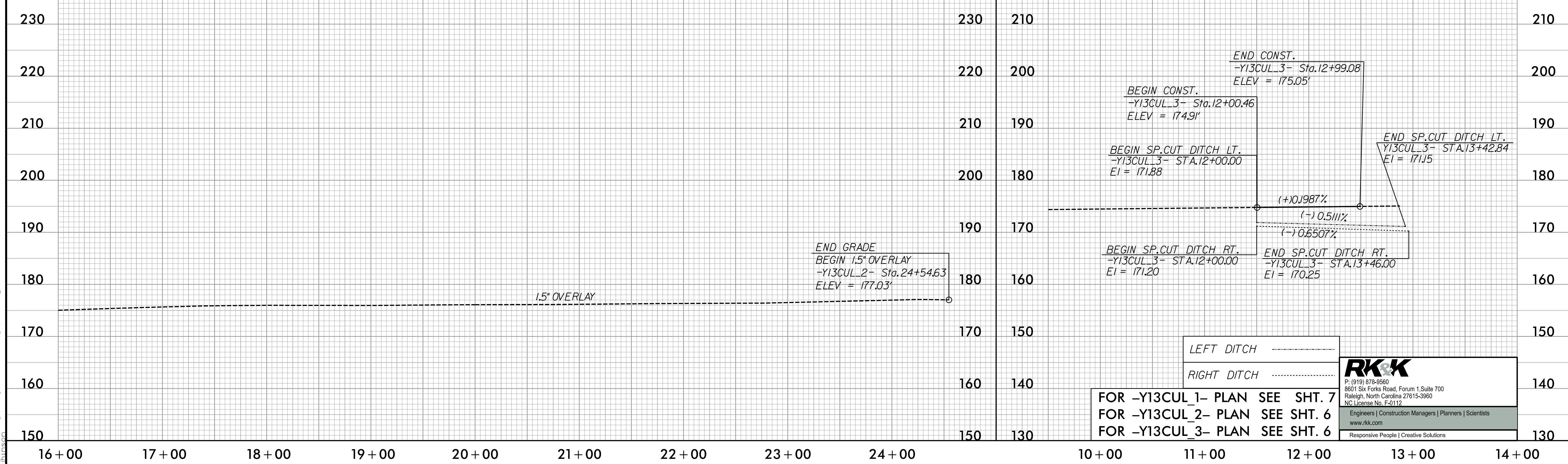
-Y13CUL_1-

-Y13CUL_2-



-Y13CUL_2-

-Y13CUL_3-



LEFT DITCH
RIGHT DITCH

FOR -Y13CUL_1- PLAN SEE SHT. 7
 FOR -Y13CUL_2- PLAN SEE SHT. 6
 FOR -Y13CUL_3- PLAN SEE SHT. 6

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