

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2566B	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37512.1.1	NHPP-0150(004)	PE	

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

**INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION**

4B PLANS SUBMITTAL DATE: 5/4/2020

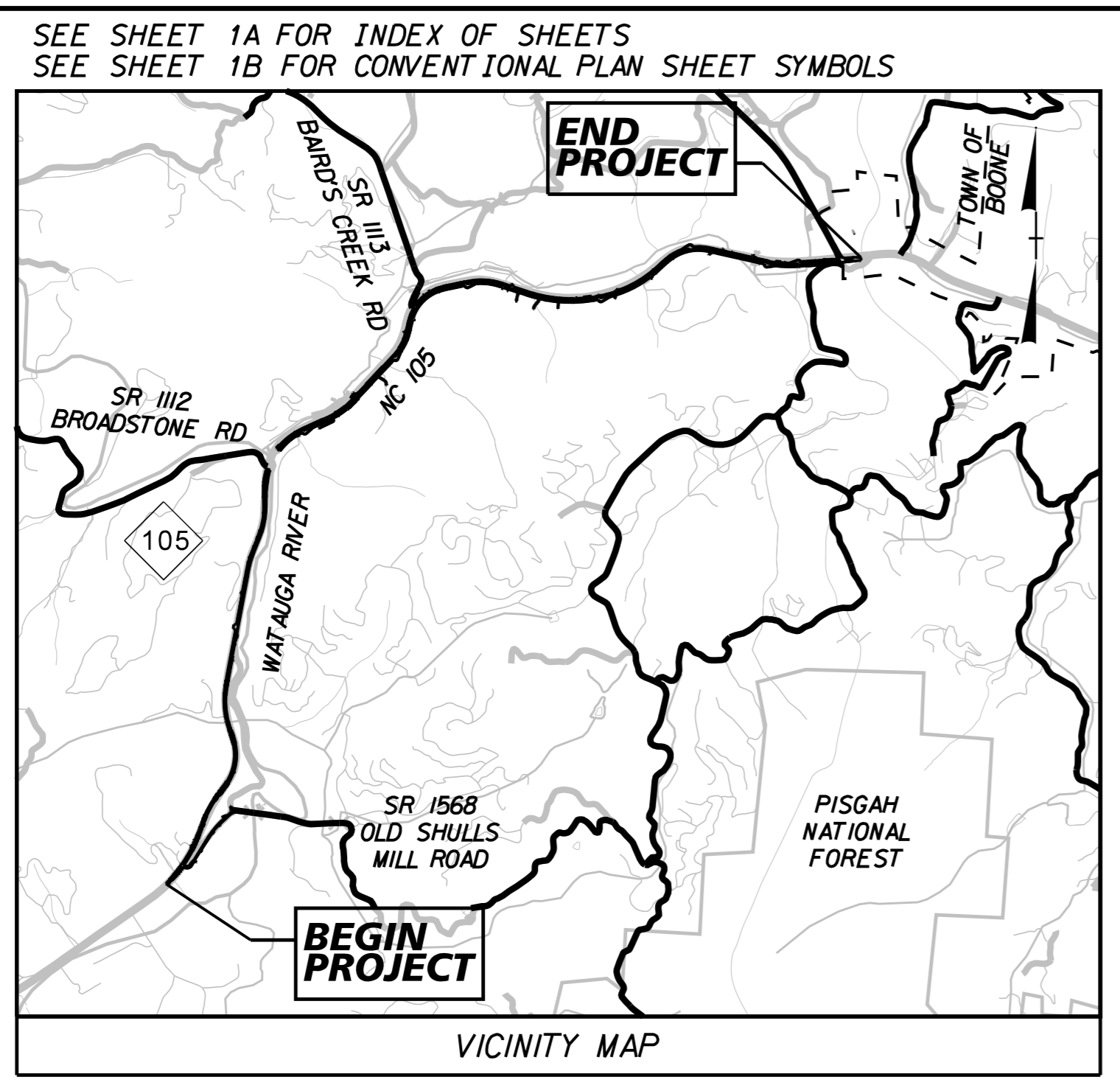
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WATAUGA COUNTY

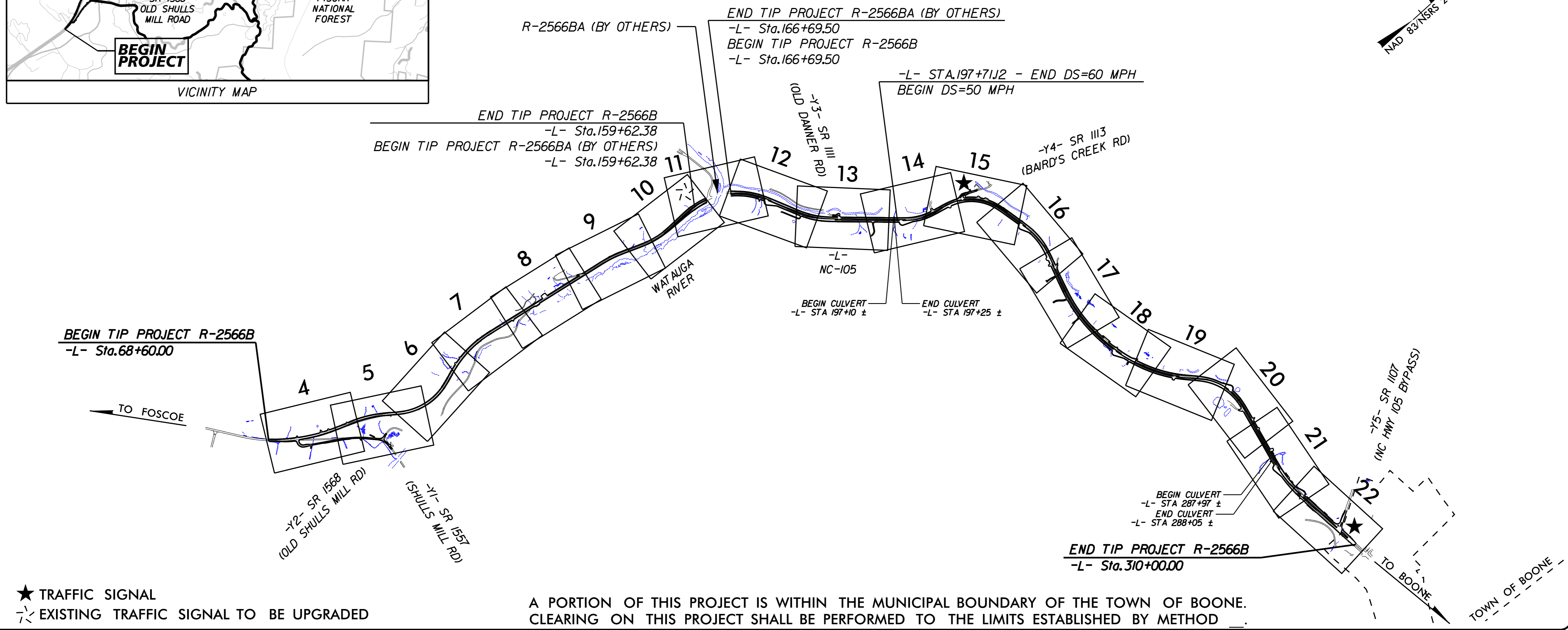
**LOCATION: NC 105 FROM SR 1568 (OLD SHULLS MILL RD)
TO SR 1107 (NC 105 BYPASS)**

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

4B PLANS



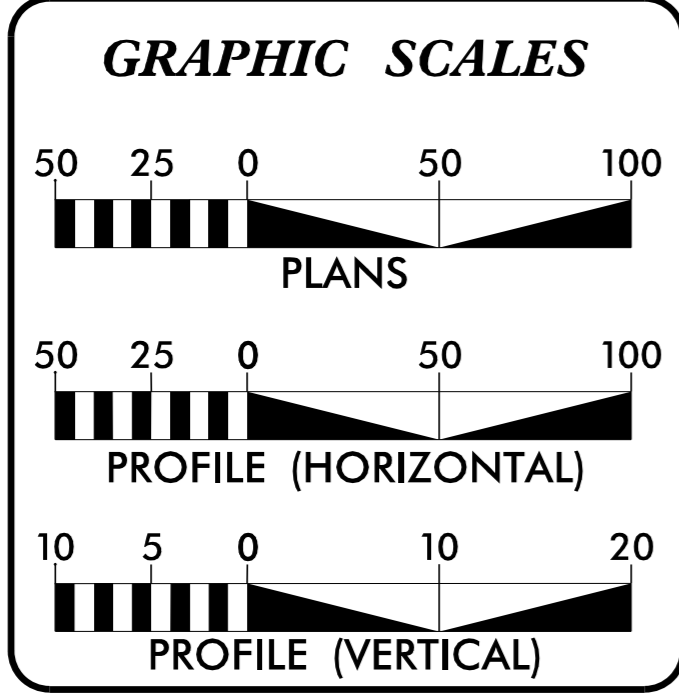
TIP PROJECT: R-2566B



- ★ TRAFFIC SIGNAL
- ⚡ EXISTING TRAFFIC SIGNAL TO BE UPGRADED

A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARY OF THE TOWN OF BOONE.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD 1.

CONTRACT:



DESIGN DATA

ADT 2022 =	15700 VPD
ADT 2042 =	18300 VPD
K =	9%
D =	60%
T =	6%*
V =	50/60 MPH

FUNCTIONAL CLASSIFICATION: RURAL ARTERIAL
* 2% TTST 4% DUAL REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2566B =	4.438 MILES
TOTAL LENGTH TIP PROJECT R-2566B =	4.438 MILES

PLANS PREPARED FOR THE NCDOT BY: **Kimley Horn**

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FEBRUARY 18, 2021

LETTING DATE: OCTOBER 18, 2022

TONY SPACEK, P.E. PROJECT ENGINEER

BRANDON MURR, P.E. PROJECT DESIGN ENGINEER

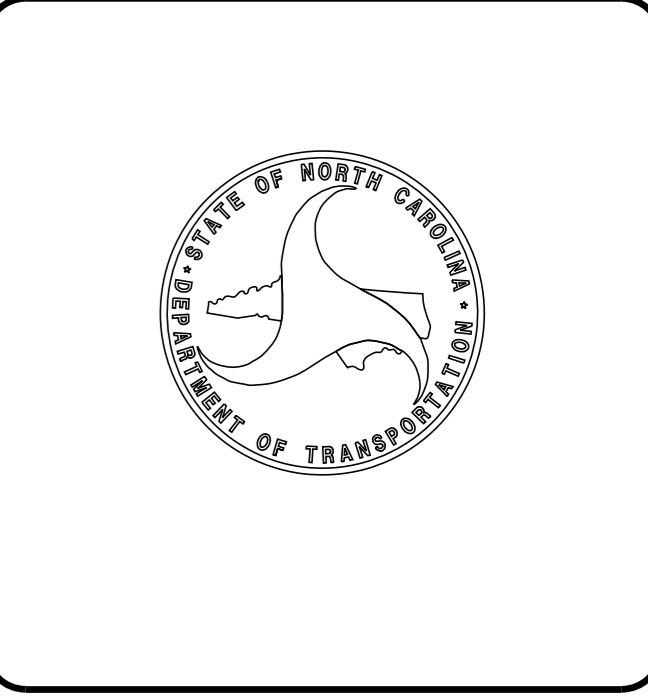
NATHAN ADIMA, P.E. NCDOT CONTACT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



09/08/1991
K:\CHL\PR\01036212 - (R-2566B)\Hydraulics\CADD\PS-A4B_Submittal\N-R-2566B_1st.dgn
5/4/2020

5/14/1999

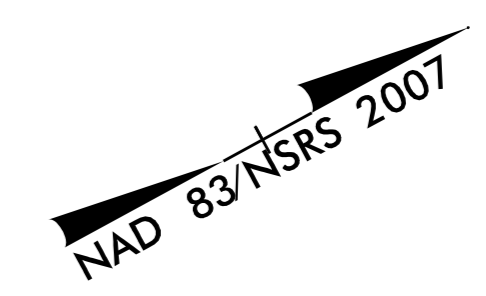
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5/4/2020

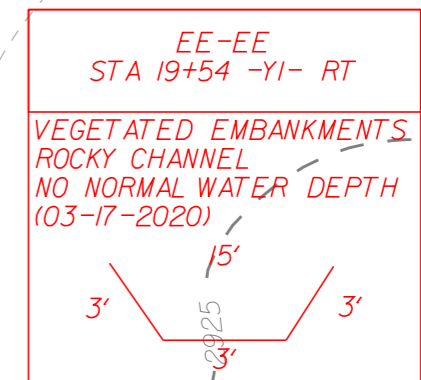
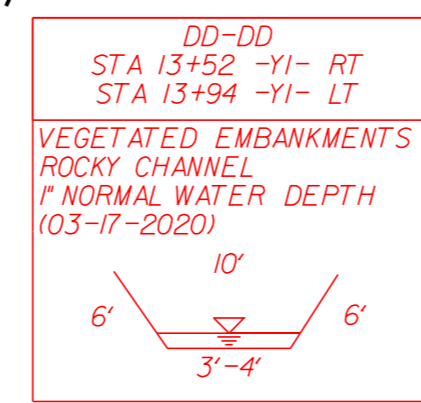
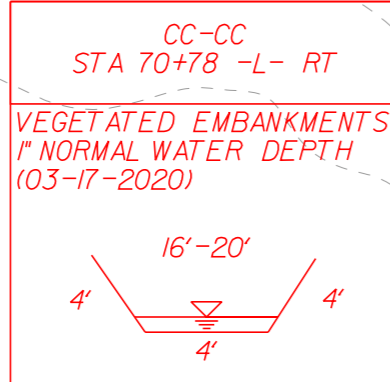
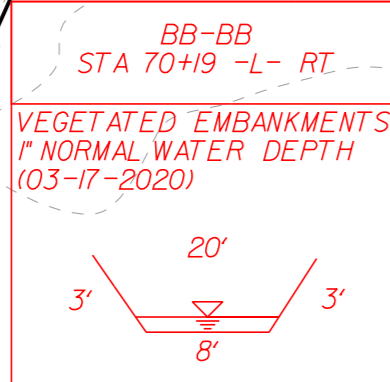
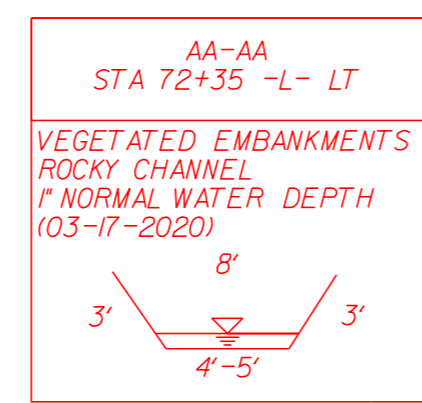
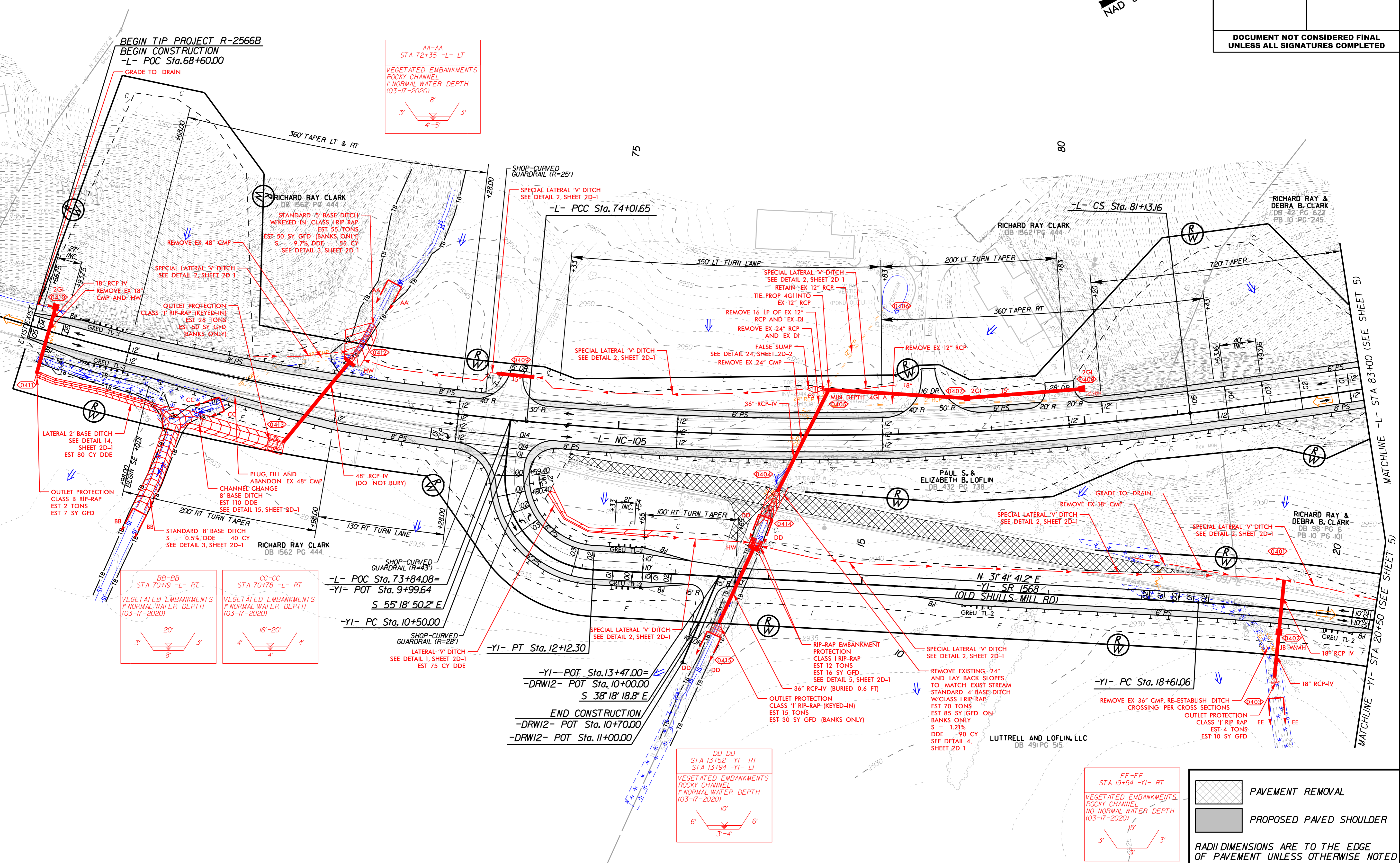
-L-		-YI-	
PI Sta 69+69.69	PI Sta 77+58.75	PI Sta 11+55.36	PI Sta 21+27.42
$\Delta = 17^{\circ} 49' 23.6" (LT)$	$\Delta = 12^{\circ} 10' 09.3" (LT)$	$\Delta = 92^{\circ} 59' 28.6" (LT)$	$\Delta = 15^{\circ} 10' 18.8" (RT)$
$D = 2^{\circ} 02' 46.6"$	$D = 1^{\circ} 42' 37.2"$	$D = 57^{\circ} 17' 44.8"$	$D = 2^{\circ} 51' 53.2"$
$L = 871.01'$	$L = 711.52'$	$L = 162.30'$	$L = 529.60'$
$T = 439.05'$	$T = 357.10'$	$T = 105.36'$	$T = 266.36'$
$R = 2,800.00'$	$R = 3,350.00'$	$R = 100.00'$	$R = 2,000.00'$
$SE = 0.05$	$SE = 0.05$	$SE = 0.03$	$SE = RC$
$RO = 135'$	$RO = 200'$	$RO = 63'$	$RO = 32'$
		$DS = 20 \text{ MPH}$	$DS = 30 \text{ MPH}$

SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 35 FOR -YI- PROFILE

Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202



PROJECT REFERENCE NO. R-2566B	SHEET NO. 4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



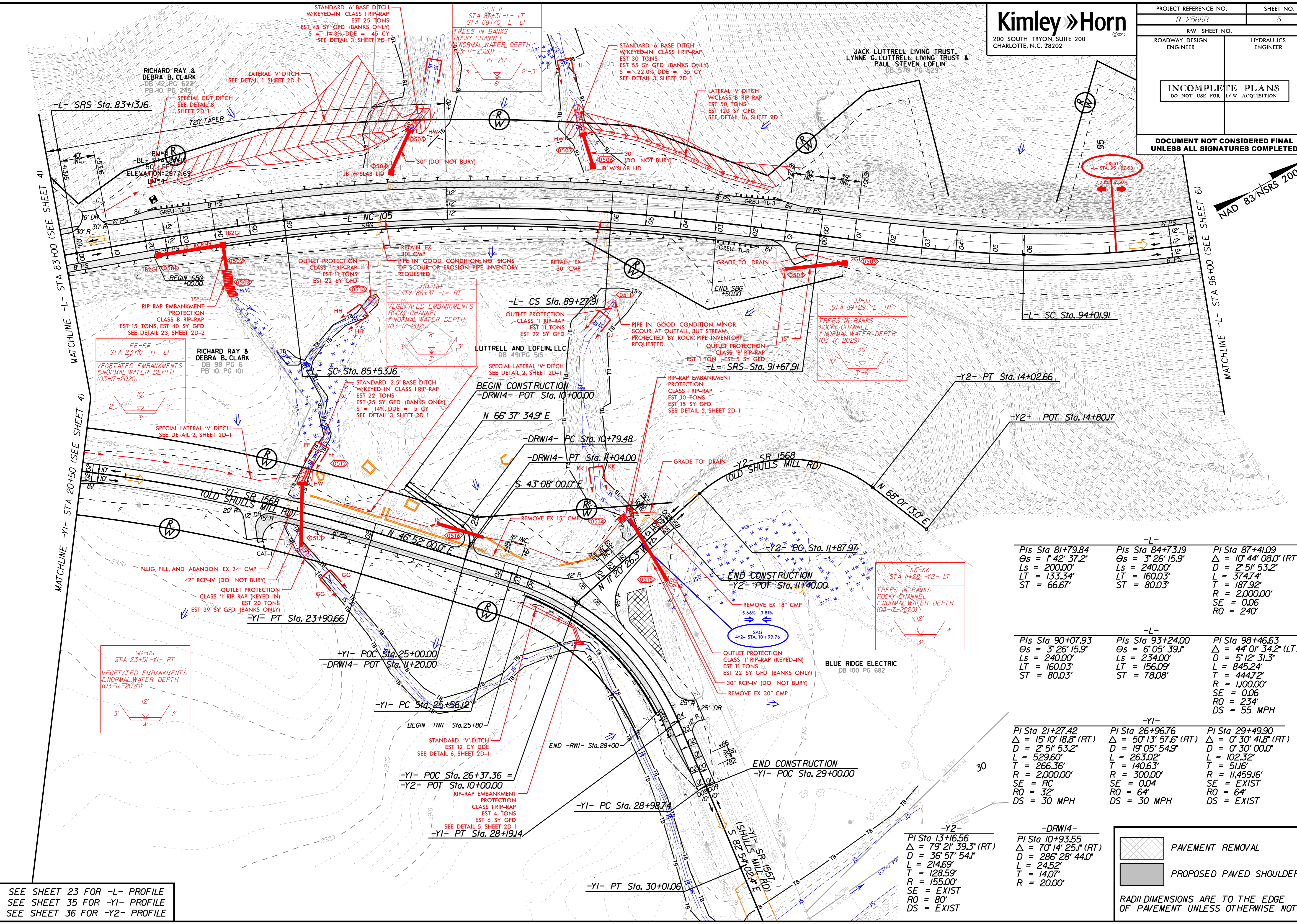
PAVEMENT REMOVAL

PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE
OF PAVEMENT UNLESS OTHERWISE NOTED

PROJECT REFERENCE NO.	R-2566B	SHEET NO.	5
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NAD 83/NRS 2007



REVISIONS

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5/4/2020

SEE SHEET 23 FOR -L- PROFILE
SEE SHEET 35 FOR -Y1- PROFILE
SEE SHEET 36 FOR -Y2- PROFILE

-L- Pls Sta 81+79.84 Os = 1' 42' 37.2" Ls = 200.00' LT = 133.34' ST = 66.67'	-L- Pls Sta 84+73.19 Os = 3' 26' 15.9" Ls = 240.00' LT = 160.03' ST = 80.03'	-L- Pls Sta 87+41.09 Os = 10' 44' 08.0" (RT) D = 2' 51' 53.2" L = 374.74' T = 187.92' R = 2,000.00' SE = 0.06 RO = 240'
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-L- Pls Sta 90+07.93 Os = 3' 26' 15.9" Ls = 240.00' LT = 160.03' ST = 80.03'	-L- Pls Sta 93+24.00 Os = 6' 05' 39.1" Ls = 234.00' LT = 156.09' ST = 78.08'	-L- Pls Sta 98+46.63 Os = 44' 01' 34.2" (LT) D = 5' 12' 31.3" L = 845.24' T = 444.72' R = 1,000.00' SE = 0.06 RO = 234' DS = 55 MPH
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-Y1- Pls Sta 21+27.42 Os = 15' 10' 18.8" (RT) D = 2' 51' 53.2" L = 529.60' T = 266.36' R = 2,000.00' SE = RC RO = 32' DS = 30 MPH	-Y1- Pls Sta 26+96.76 Os = 50' 13' 57.6" (RT) D = 19' 05' 54.9" L = 263.60' T = 140.63' R = 300.00' SE = 0.04 RO = 64' DS = 30 MPH	-Y1- Pls Sta 29+49.90 Os = 0' 30' 41.8" (RT) D = 0' 30' 00.0" L = 102.32' T = 51.6' R = 11,459.16' SE = EXIST RO = 64' DS = EXIST
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-Y2- Pls Sta 13+16.56 Os = 79' 21' 39.3" (RT) D = 36' 57' 54.1" L = 214.69' T = 128.59' R = 155.00' SE = EXIST RO = 80' DS = EXIST	-DRW14- Pls Sta 10+93.55 Os = 70' 14' 25.1" (RT) D = 286' 28' 44.0" L = 24.52' T = 14.07' R = 20.00'
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PAVEMENT REMOVAL
 PROPOSED PAVED SHOULDER
 RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/1999

-L-

SEE SHEET 24 FOR -L- PROFILE
SEE SHEET 38 FOR -DRWI- PROFILE

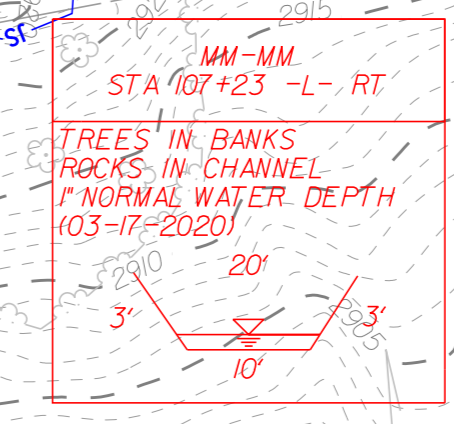
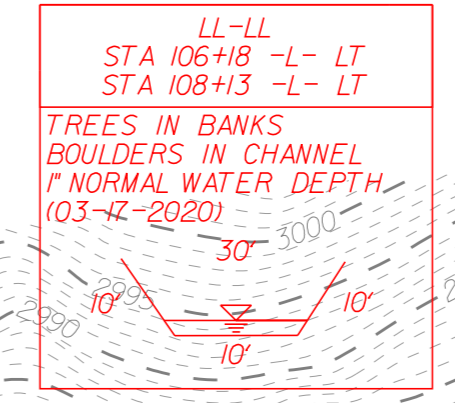
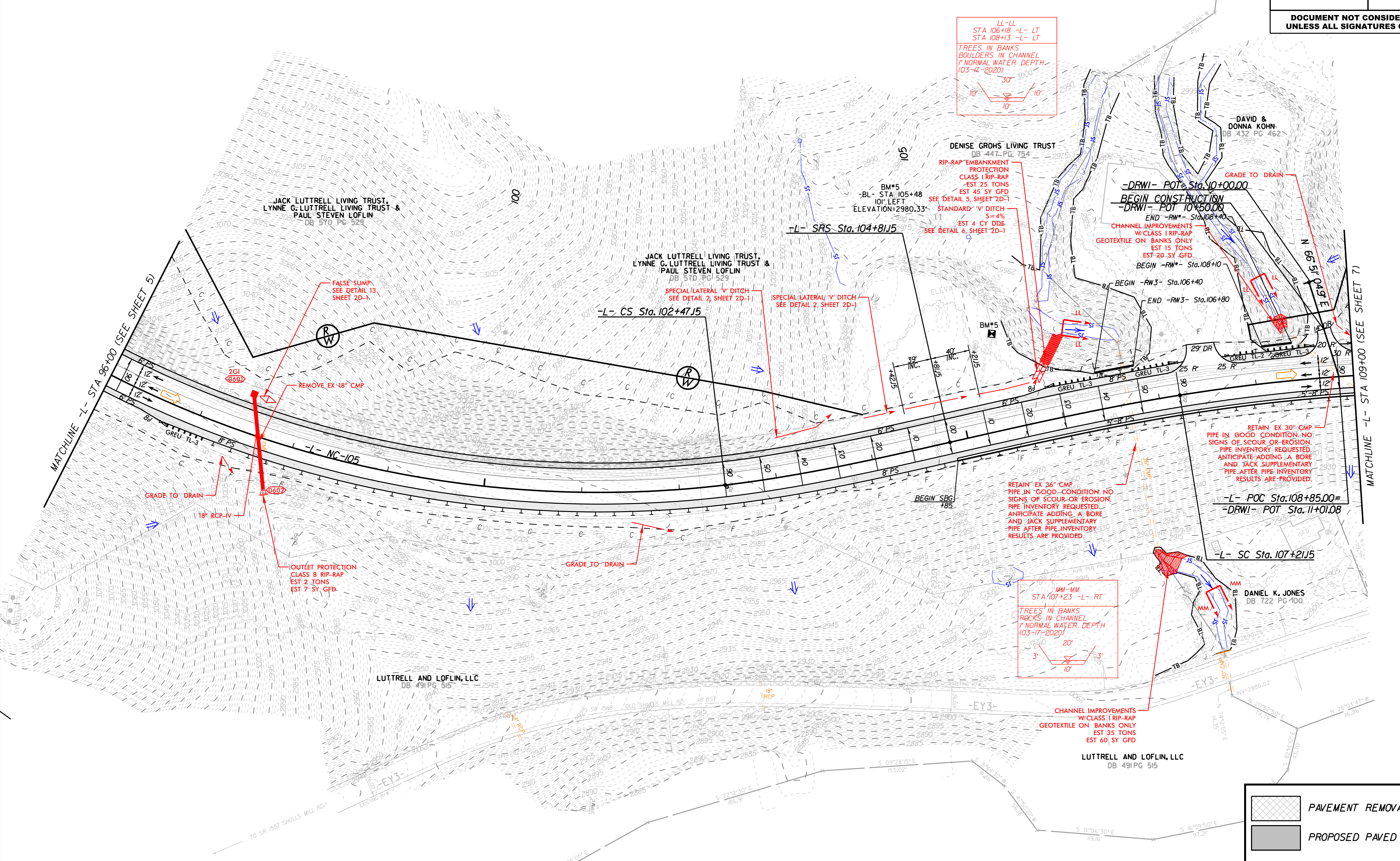
PI Sta 98+46.63 Δ = 44° 01' 34.2" (LT) D = 5' 12' 31.3" L = 845.24' T = 444.72' R = 1,000.00' SE = 0.06 RO = 234' DS = 55 MPH	PIs Sta 103+25.23 Θs = 6° 05' 39.1" Ls = 234.00' LT = 156.09' ST = 78.08'	PIs Sta 106+41.18 Θs = 3° 39' 25.8" Ls = 240.00' LT = 160.03' ST = 80.03'	PI Sta 110+77.08 Δ = 21° 26' 29.0" (RT) D = 3° 02' 51.5" L = 703.54' T = 355.93' R = 1,880.00' SE = 0.06 RO = 240'
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Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS

NAD 83/NSRS 2007



	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

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5/4/2020

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-L-
 PI Sta 110+77.08
 $\Delta = 2^\circ 26' 29.0''$ (RT)
 $D = 3^\circ 02' 51.5''$
 $L = 703.54'$
 $T = 355.93'$
 $R = 1,880.00'$
 $SE = 0.06$
 $RO = 240'$

PIs Sta 115+04.72
 $\Theta_s = 3^\circ 39' 25.8''$
 $L_s = 240.00'$
 $LT = 160.03'$
 $ST = 80.03'$

-DRW2-
 PI Sta 11+72.89
 $\Delta = 85^\circ 59' 21.2''$ (LT)
 $D = 272^\circ 50' 13.4''$
 $L = 31.52'$
 $T = 19.58'$
 $R = 21.00'$

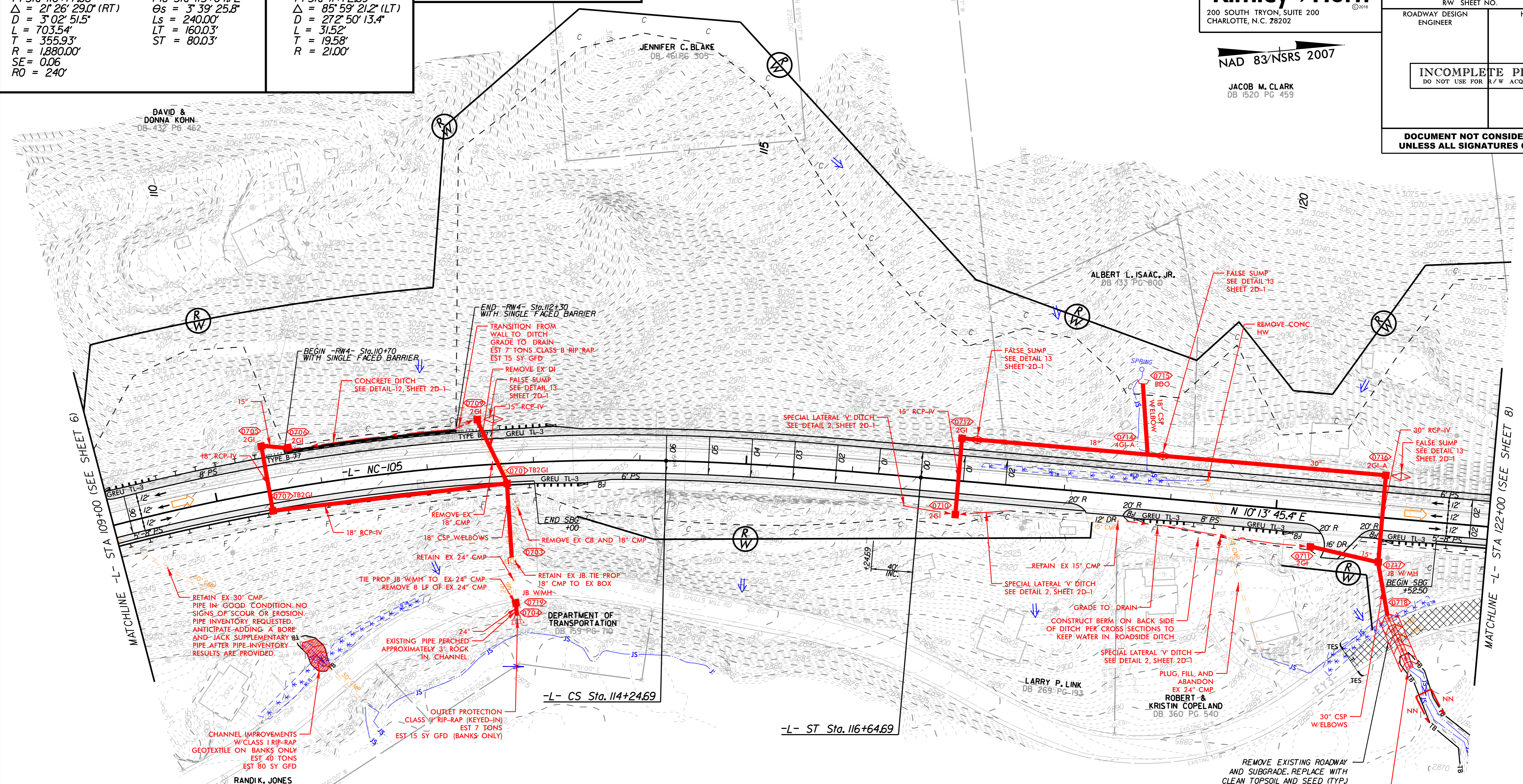
SEE SHEET 24 FOR -L- PROFILE
 SEE SHEET 38 FOR -DRW2- PROFILE

Kimley Horn
 200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

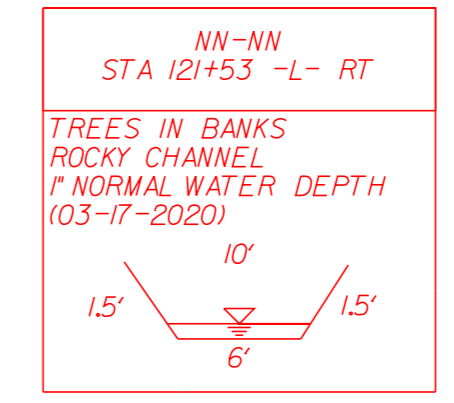
NAD 83/NSRS 2007

JACOB M. CLARK
 DB 1520 PG 459

PROJECT REFERENCE NO. R-2566B	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS



REMOVE EXISTING PIPE AND LAY BACK SLOPES TO MATCH EXIST STREAM STANDARD 6' BASE DITCH W/CLASS I RIP-RAP EST 80 TONS EST 80 SY GFD ON BANKS ONLY S = 2.4% DDE = 128 CY SEE DETAIL 11, SHEET 2D-1

	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER
RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED	

HOUD EARS CLUB, INC.
 DB 689 PG 290

-DRW3-

PI Sta 11+63.77 Δ = 39° 31' 01.2" (LT) D = 143' 14" 22.0" L = 27.59' T = 14.37' R = 40.00'	PI Sta 10+77.96 Δ = 25° 27' 35.9" (RT) D = 47' 44" 47.3" L = 53.32' T = 27.11' R = 120.00'	PI Sta 10+28.52 Δ = 64° 44' 25.1" (RT) D = 127' 19" 26.2" L = 50.85' T = 28.52' R = 45.00'
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SEE SHEET 25 FOR -L- PROFILE
SEE SHEET 38 FOR -DRW3- PROFILE
SEE SHEET 38 FOR -DRW4- PROFILE

HOWELL CONSTRUCTION, INC.
DB 1253 PG 442
PB 18 PG 368

Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

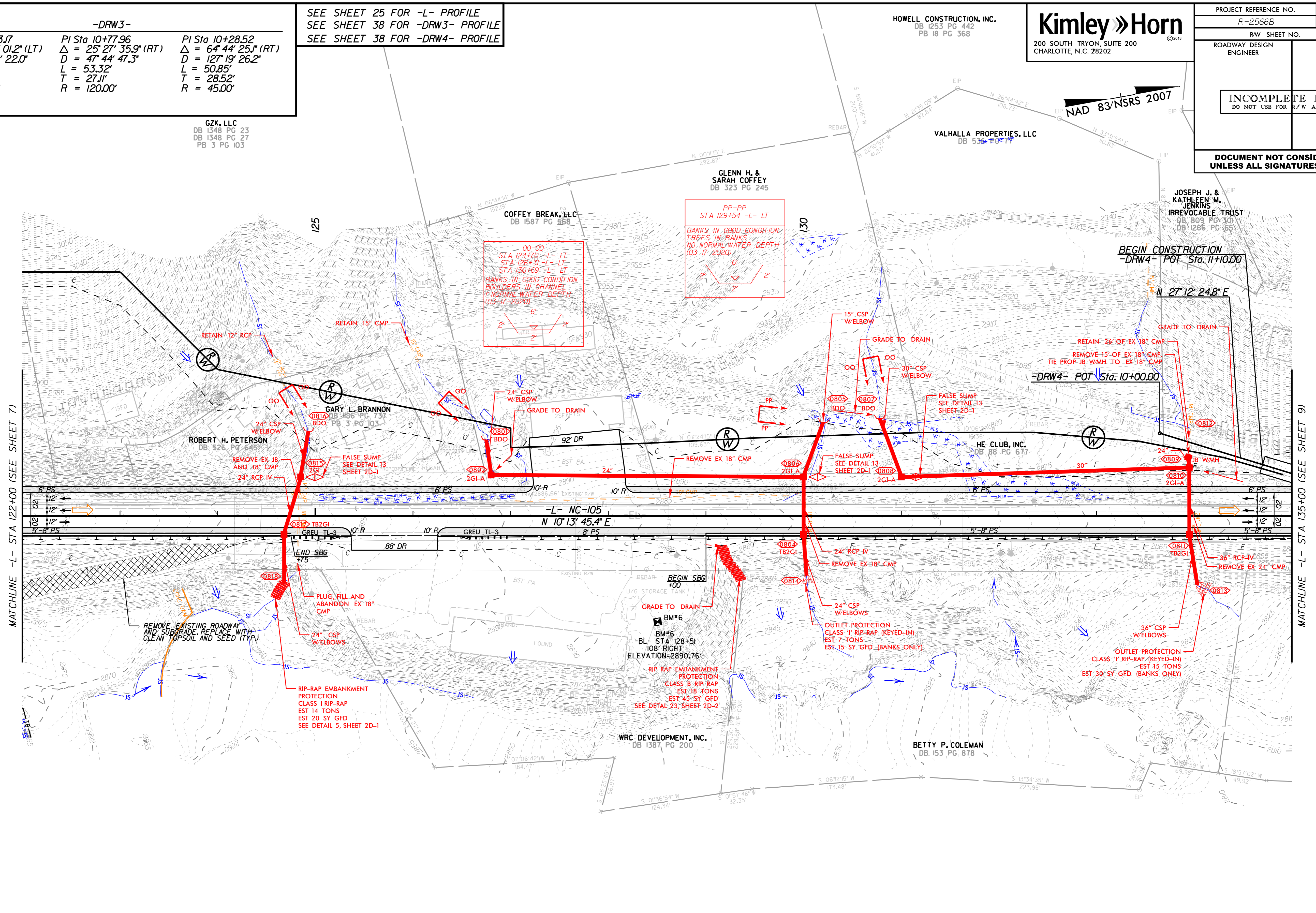
PROJECT REFERENCE NO. R-2566B	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

GZK, LLC
DB 1348 PG 23
DB 1348 PG 27
PB 3 PG 103

GLENN H. & SARAH COFFEY
DB 323 PG 245

VALHALLA PROPERTIES, LLC
DB 538 PG 177

JOSEPH J. & KATHLEEN M. JENKINS
IRREVOCABLE TRUST
DB 809 PG 101
DB 1286 PG 651



MATCHLINE -L- STA 122+00 (SEE SHEET 7)

MATCHLINE -L- STA 135+00 (SEE SHEET 9)

HOUD EARS CLUB, INC.
DB 689 PG 290

	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

REVISIONS

5/14/1999

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5/4/2020

5/14/2020

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5/4/2020

-L-	
Pls Sta 140+52.37 Es = 3' 49' 11.0" Ls = 240.00' LT = 160.04' ST = 80.03'	Pls Sta 141+90.52 Δ = 3' 42' 12.1" (RT) D = 3' 10' 59.2" L = 116.34' T = 58.19' R = 1,800.00' SE = 0.06 RO = 240'
Pls Sta 143+28.71 Es = 3' 49' 11.0" Ls = 240.00' LT = 160.05' ST = 80.03'	Pls Sta 148+10.22 Es = 4' 17' 49.9" Ls = 240.00' LT = 160.05' ST = 80.04'
Pls Sta 150+76.47 Δ = 13' 16' 58.0" (LT) D = 3' 34' 51.6" L = 370.93' T = 186.30' R = 1,600.00' SE = 0.06 RO = 240'	

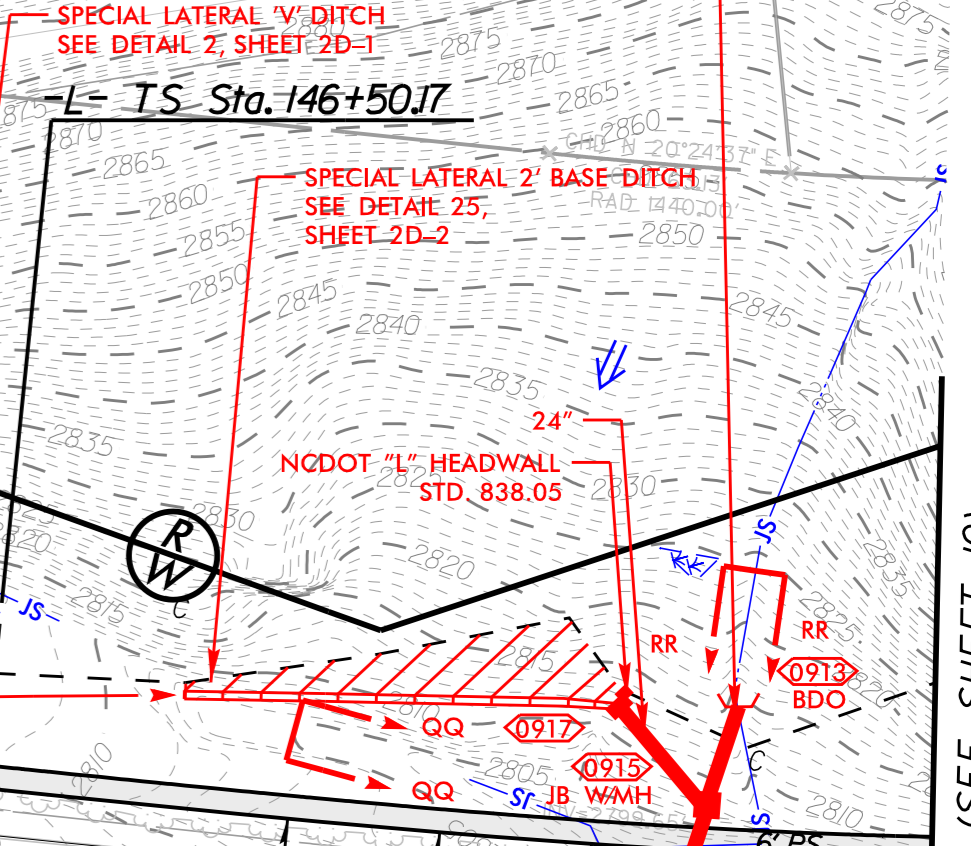
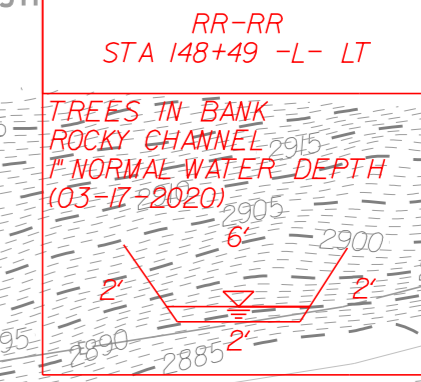
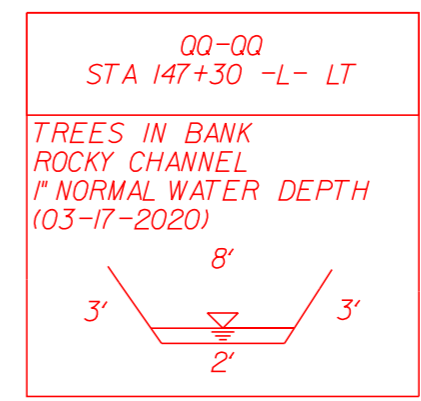
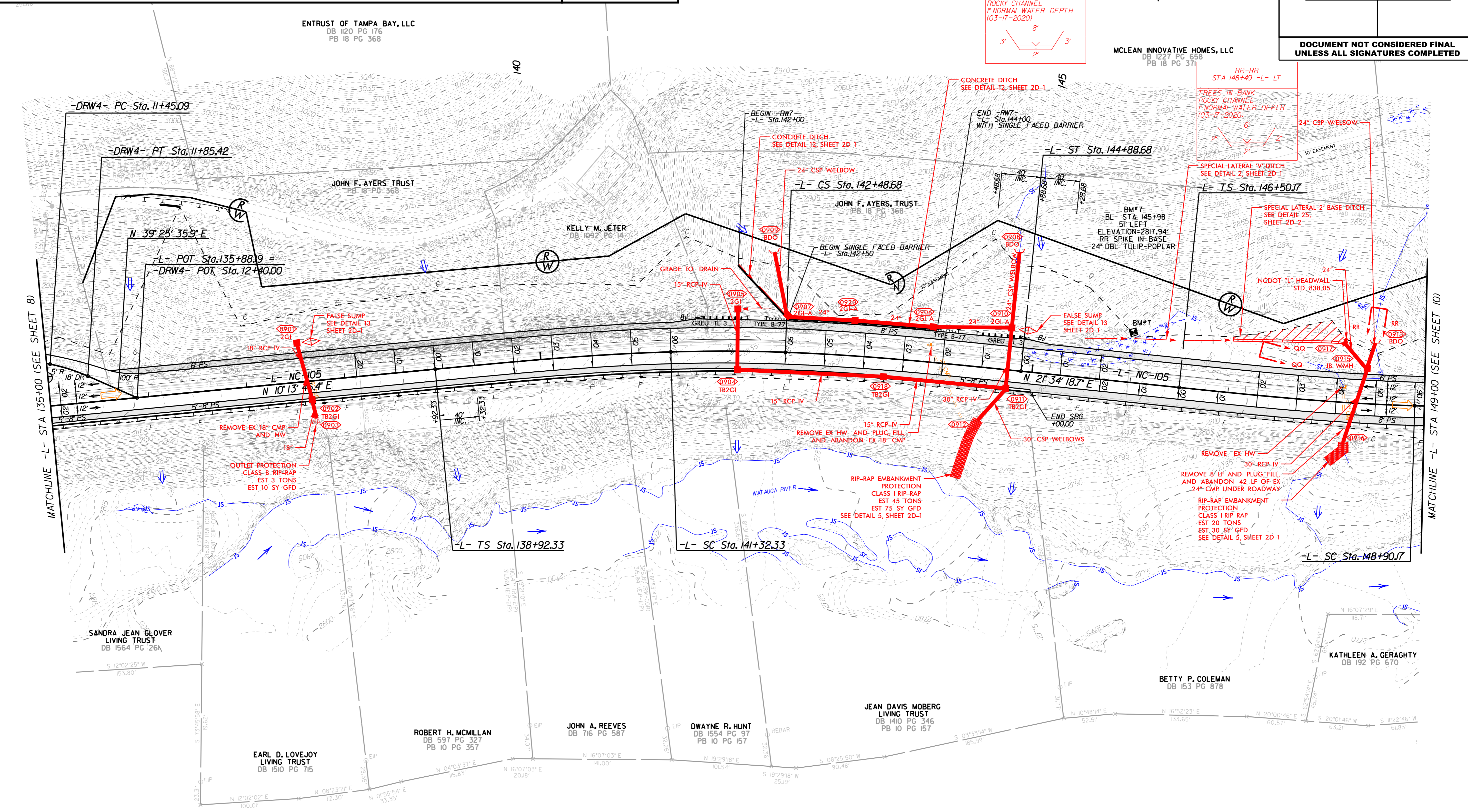
-DRW4-	
Pls Sta 11+65.33 Δ = 12' 13' 11.1" (RT) D = 30' 17' 51.4" L = 40.33' T = 20.24' R = 190.00'	

SEE SHEET 25 FOR -L- PROFILE
SEE SHEET 38 FOR -DRW4- PROFILE

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

NAD 83/NSRS 2007

PROJECT REFERENCE NO. R-2566B	SHEET NO. 9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/1999

-L-			
PI Sta 150+76.47 Δ = 13°16'58.0" (LT) D = 3°34'51.6" L = 370.93' T = 186.30' R = 1600.00' SE = 0.06 RO = 240'	PIs Sta 153+41.4 Θs = 4°17'49.9" Ls = 240.00' LT = 160.05' ST = 80.04'	PIs Sta 158+39.08 Θs = 6°52'31.8" Ls = 324.00' LT = 216.16' ST = 108.15'	PI Sta 165+98.50 Δ = 5°31'45.6" (RT) D = 4°14'38.9" L = 1214.13' T = 651.59' R = 1,350.00' SE = 0.06 RO = 324'

SEE SHEET 26 FOR -L- PROFILE

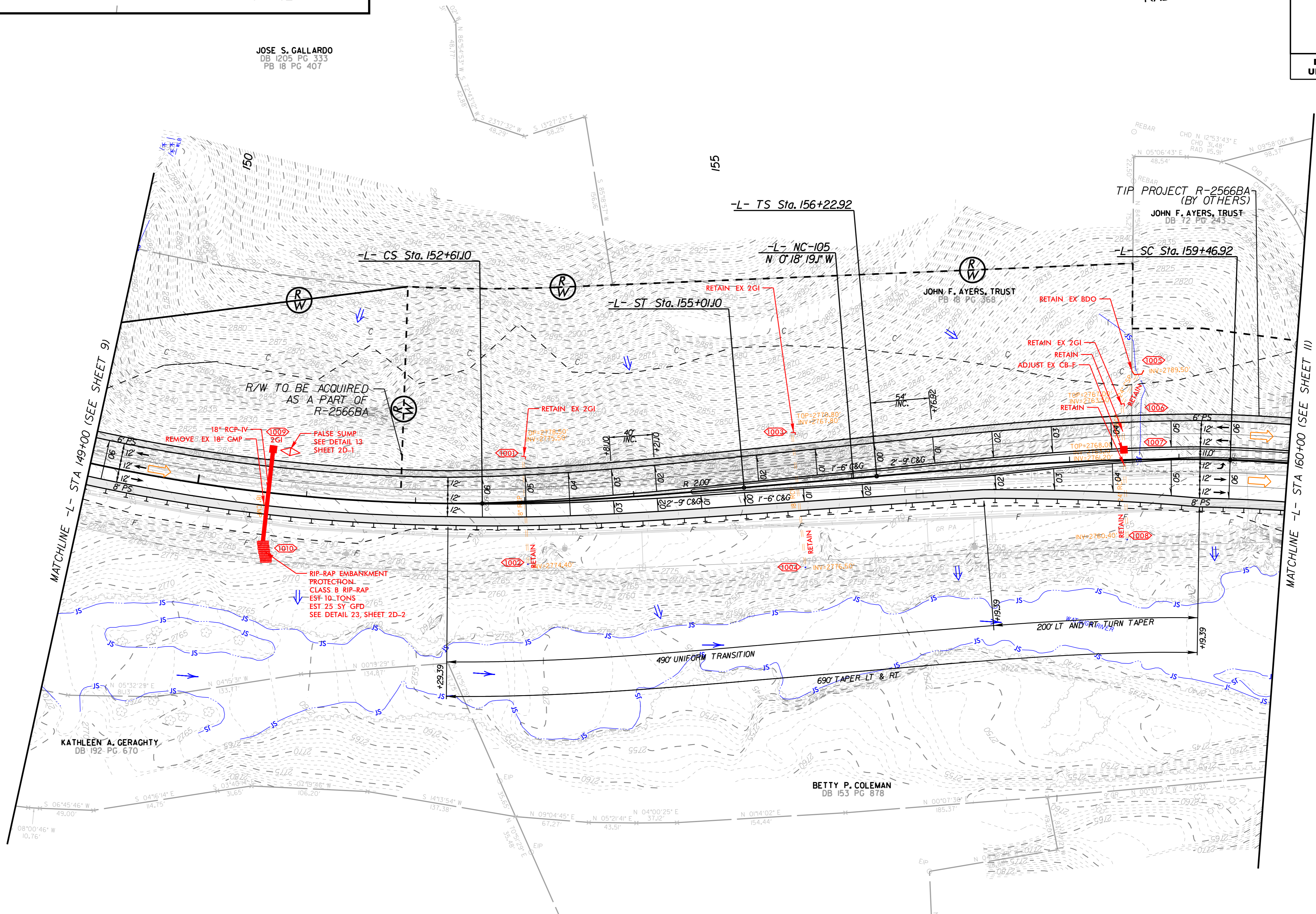
NOTE:
THE PROPOSED RIGHT OF WAY SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT BEFORE THE R-2566B PROJECT.

Kimley » Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83/NSRS 2007

REVISIONS



NOTE:
THE PROPOSED RIGHT OF WAY SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT BEFORE THE R-2566B PROJECT.

THE R-2566BA PROJECT IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION AND THEREFORE THE AS-BUILT IMPROVEMENTS ARE NOT CAPTURED IN THE FINAL SURVEY. A MODIFIED FINAL SURVEY HAS BEEN CREATED AND IS REFERENCED IN THESE PLANS THAT UPDATES THE FINAL SURVEY PER THE PROPOSED DESIGN IMPROVEMENTS FROM THE APPROVED R-2566BA PLANS. THE R-2566B DESIGN WILL NEED TO BE UPDATED ONCE THE R-2566BA PROJECT IS COMPLETE AND AS-BUILT SURVEY HAS BEEN PROVIDED.

	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

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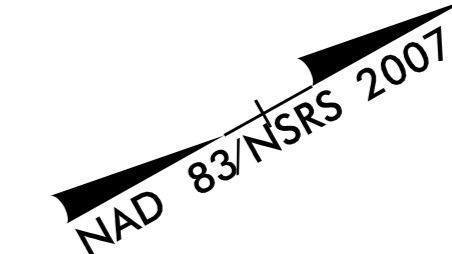
5/4/2020

SEE SHEET 26 FOR -L- PROFILE

Kimley » Horn

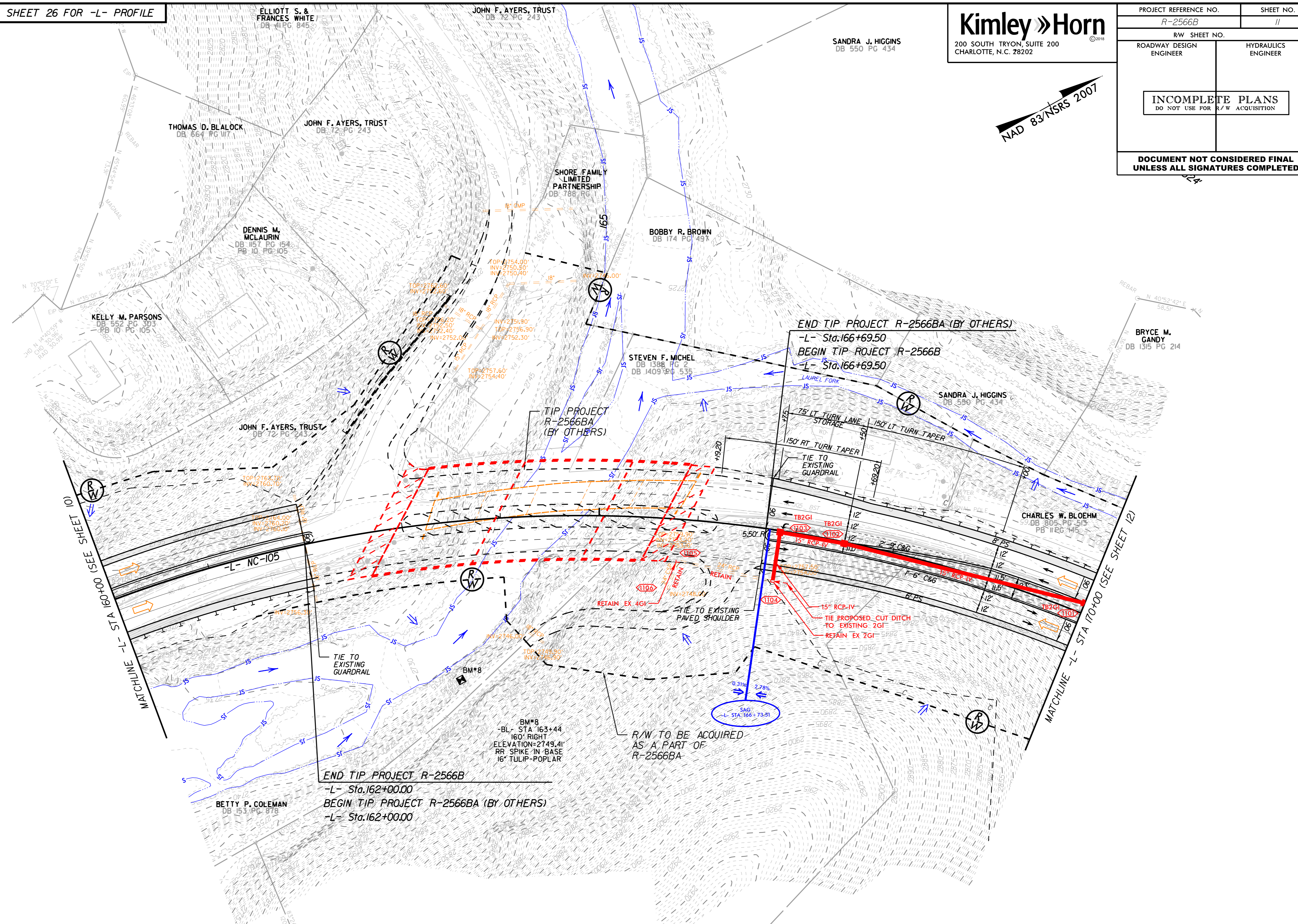
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
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REVISIONS

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NOTE:
THE PROPOSED RIGHT OF WAY SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT BEFORE THE R-2566B PROJECT.

THE R-2566BA PROJECT IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION AND THEREFORE THE AS-BUILT IMPROVEMENTS ARE NOT CAPTURED IN THE FINAL SURVEY. A MODIFIED FINAL SURVEY HAS BEEN CREATED AND IS REFERENCED IN THESE PLANS THAT UPDATES THE FINAL SURVEY PER THE PROPOSED DESIGN IMPROVEMENTS FROM THE APPROVED R-2566BA PLANS. THE R-2566B DESIGN WILL NEED TO BE UPDATED ONCE THE R-2566BA PROJECT IS COMPLETE AND AS-BUILT SURVEY HAS BEEN PROVIDED.

	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADII DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

RICHARD E. BURGIN
DB 250 PG 196

CHARLES W. BLOEHM
DB 805 PG 513
PB 11 PG 145

5/14/2020

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5/4/2020

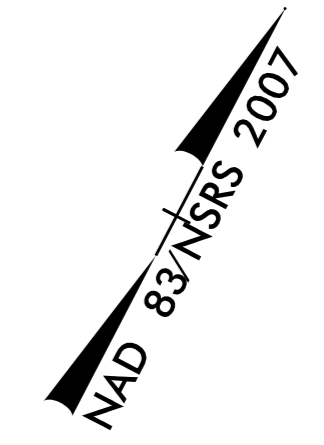
-L-			
PI Sta 165+98.50 Δ = 51° 31' 45.6" (RT) D = 4' 14" 38.9" L = 1214.13' T = 651.59' R = 1,350.00' SE = 0.06 RO = 324'	PIs Sta 172+69.20 Θs = 6' 52' 31.8" Ls = 324.00' LT = 216.16' ST = 108.15'	PIs Sta 180+43.89 Θs = 6' 37' 47.8" Ls = 324.00' LT = 216.15' ST = 108.14'	PI Sta 182+60.47 Δ = 8' 52' 54.5" (LT) D = 4' 05' 33.2" L = 217.02' T = 108.73' R = 1,400.00' SE = 0.06 RO = 324'

-DRW5-	
PI Sta 10+55.71 Δ = 20° 04' 06.0" (LT) D = 8' 51' 04.0" L = 24.52' T = 12.39' R = 70.00'	PI Sta 11+18.74 Δ = 13° 36' 05.5" (RT) D = 3' 49' 51.6" L = 42.73' T = 21.47' R = 180.00'

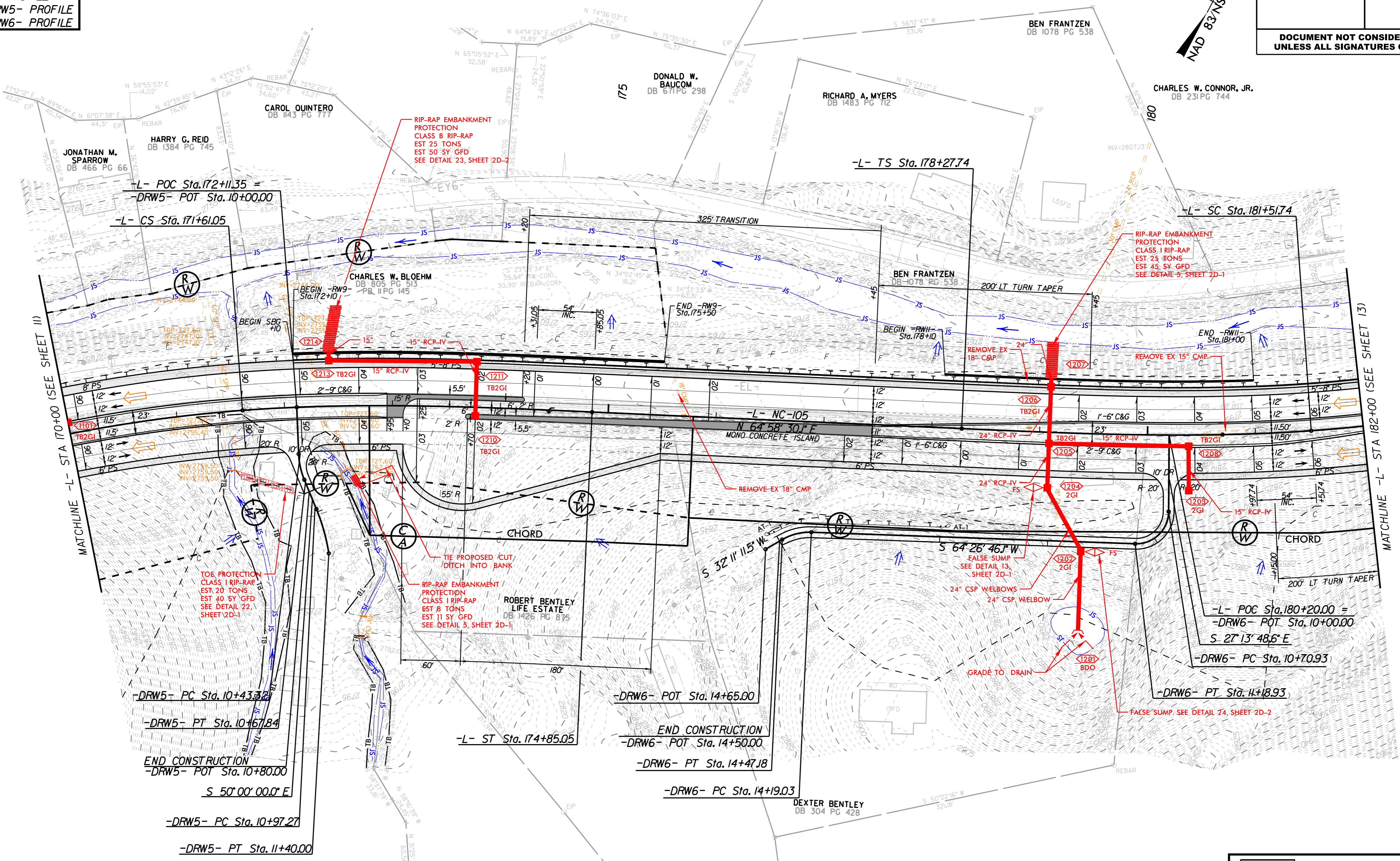
-DRW6-	
PI Sta 11+01.82 Δ = 91° 40' 34.7" (RT) D = 190° 59' 09.4" L = 48.00' T = 30.89' R = 30.00'	PI Sta 14+33.49 Δ = 32° 15' 34.7" (LT) D = 114° 35' 29.6" L = 28.15' T = 14.46' R = 50.00'

Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



SEE SHEET 27 FOR -L- PROFILE
SEE SHEET 38 FOR -DRW5- PROFILE
SEE SHEET 38 FOR -DRW6- PROFILE



NOTE:
THE PROPOSED RIGHT OF WAY SHOWN BETWEEN STA. 158+59.82 TO STA. 171+63.75 IS ANTICIPATED TO BE ACQUIRED AS A PART OF THE R-2566BA PROJECT BEFORE THE R-2566B PROJECT.

THE R-2566BA PROJECT IMPROVEMENTS ARE CURRENTLY UNDER CONSTRUCTION AND THEREFORE THE AS-BUILT IMPROVEMENTS ARE NOT CAPTURED IN THE FINAL SURVEY. A MODIFIED FINAL SURVEY HAS BEEN CREATED AND IS REFERENCED IN THESE PLANS THAT UPDATES THE FINAL SURVEY PER THE PROPOSED DESIGN IMPROVEMENTS FROM THE APPROVED R-2566BA PLANS. THE R-2566B DESIGN WILL NEED TO BE UPDATED ONCE THE R-2566BA PROJECT IS COMPLETE AND AS-BUILT SURVEY HAS BEEN PROVIDED.

	CONCRETE MONOLITHIC ISLAND
	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/2020

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5/4/2020

-L-

PI Sta 182+60.47 Δ = 8° 52' 54.5" (LT) D = 4' 05' 33.2" L = 217.02' T = 108.73' R = 1,400.00' SE = 0.06 RO = 324'	PIs Sta 184+76.90 Θs = 6° 37' 47.8" Ls = 324.00' LT = 216.15' ST = 108.14'
--	--

-Y3-

PI Sta 10+71.40 Δ = 60° 06' 59.4" (LT) D = 133' 14' 45.6" L = 45.12' T = 24.88' R = 43.00' SE = 0.03 RO = 39' DS = 15 MPH	PI Sta 11+47.94 Δ = 9° 19' 55.6" (RT) D = 8' 18' 13.5" L = 112.38' T = 56.32' R = 690.00' SE = EXIST RO = 39' DS = 15 MPH	PI Sta 12+23.00 Δ = 17° 59' 12.5" (RT) D = 47' 44' 47.3" L = 37.67' T = 18.99' R = 120.00' SE = EXIST RO = EXIST DS = EXIST
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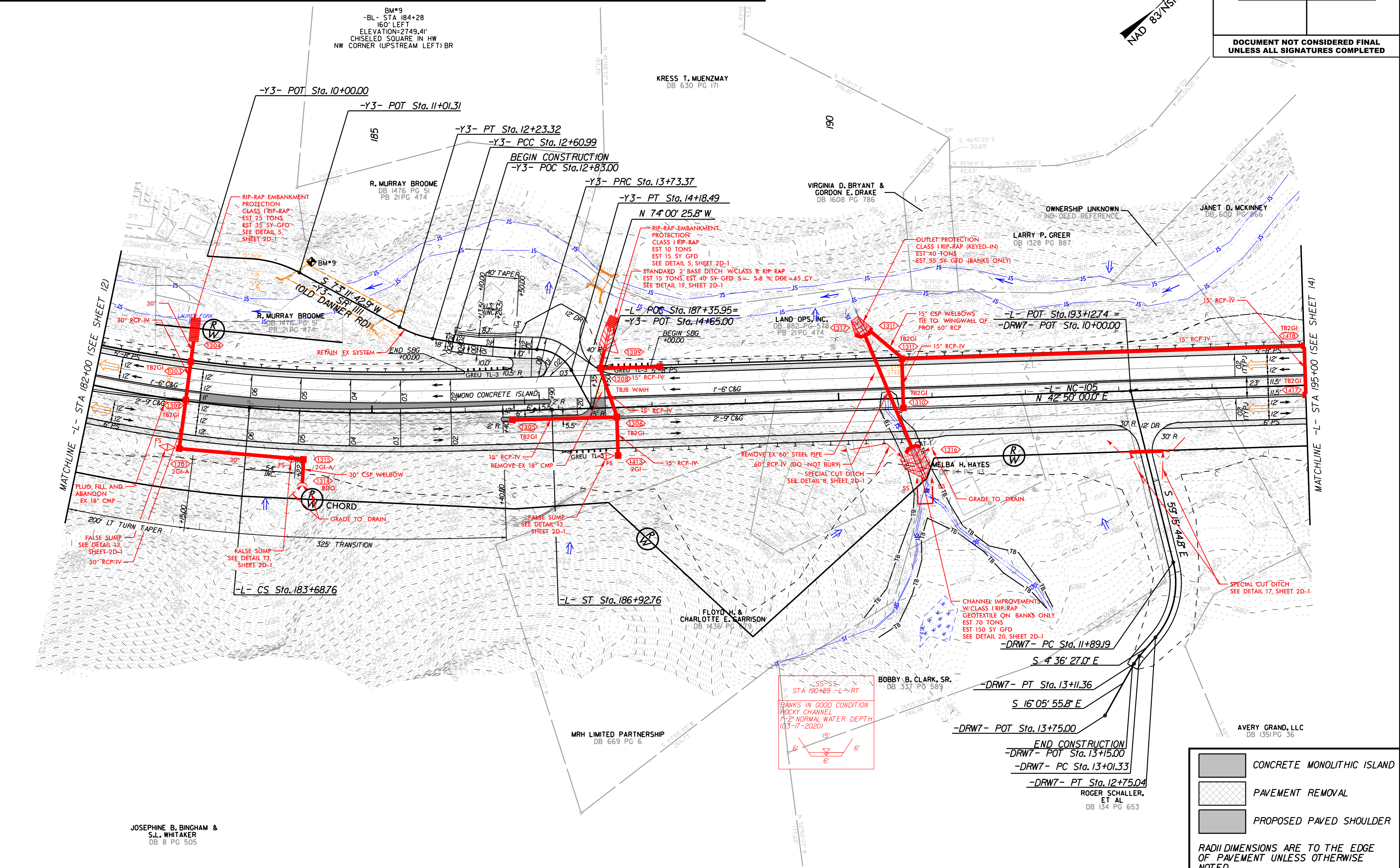
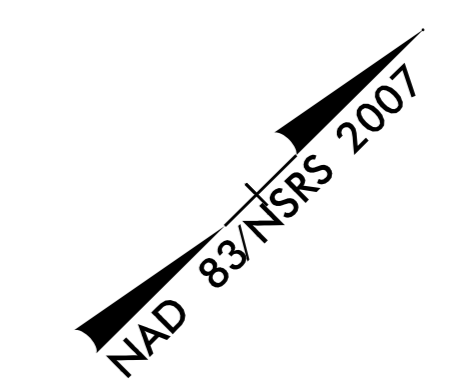
-DRW7-

PI Sta 12+35.70 Δ = 54° 39' 17.8" (RT) D = 63' 39' 43.1" L = 85.85' T = 46.51' R = 90.00'	PI Sta 13+06.36 Δ = 11° 29' 28.8" (LT) D = 114' 35' 29.6" L = 10.03' T = 5.03' R = 50.00'
--	--

SEE SHEET 27 FOR -L- PROFILE
SEE SHEET 36 FOR -Y3- PROFILE
SEE SHEET 39 FOR -DRW7- PROFILE

Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS

MATCHLINE -L- STA 182+00 (SEE SHEET 12)

MATCHLINE -L- STA 195+00 (SEE SHEET 14)

JOSEPHINE B. BINGHAM &
S.L. WHITAKER
DB 8 PG 505

END CONSTRUCTION
-DRW7- POT Sta. 13+15.00
-DRW7- PC Sta. 13+01.33
-DRW7- PT Sta. 12+75.04
ROGER SCHALLER,
ET AL
DB 134 PG 653

- CONCRETE MONOLITHIC ISLAND
 - PAVEMENT REMOVAL
 - PROPOSED PAVED SHOULDER
- RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

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5/14/2020

-L-			
Pis Sta 199+67.34 Os = 8' 25" 20.9" Ls = 294.00' LT = 196.22' ST = 98.20'	PI Sta 201+77.10 Δ = 12' 46" 44.4" (LT) D = 5' 43" 46.5" L = 223.04' T = 111.98' R = 1,000.00' SE = 0.06 RO = 294'	Pis Sta 203+86.36 Os = 8' 25" 20.9" Ls = 294.00' LT = 196.22' ST = 98.20'	Pis Sta 207+78.43 Os = 9' 21" 29.9" Ls = 294.00' LT = 196.27' ST = 98.25'

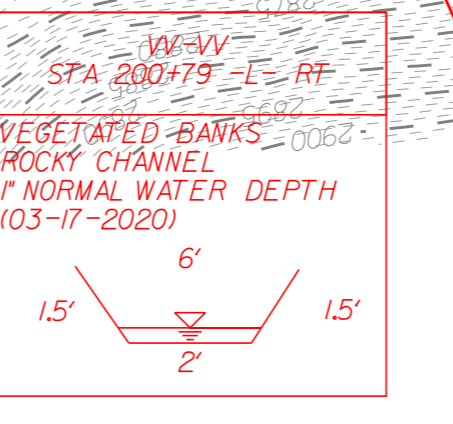
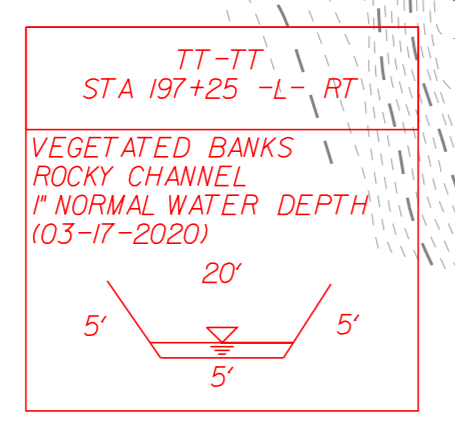
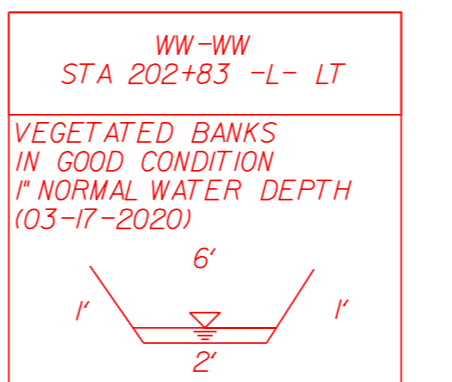
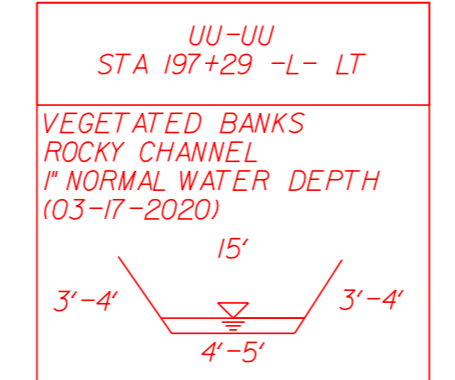
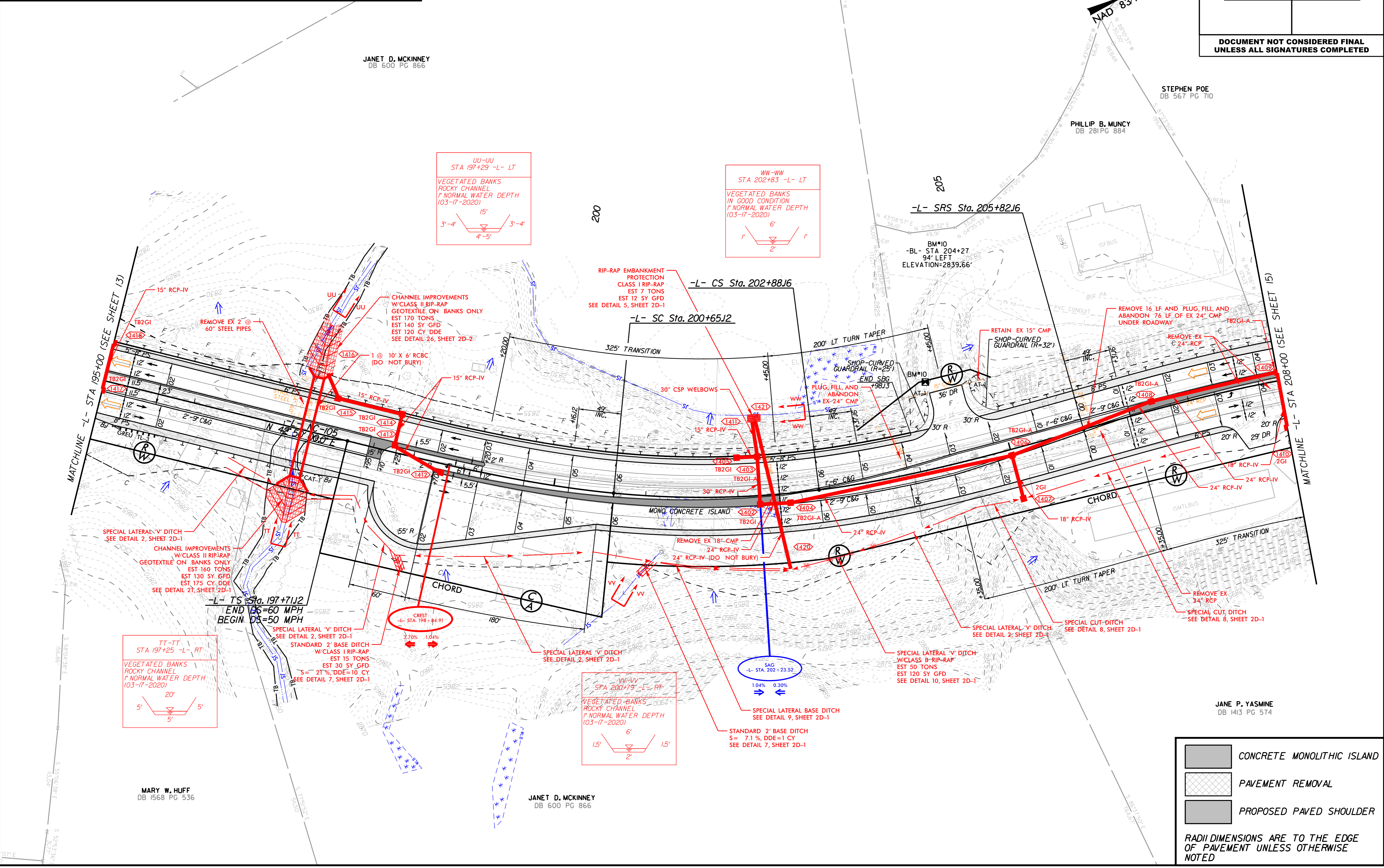
SEE SHEET 28 FOR -L- PROFILE

Kimley » Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/7/14/19/99
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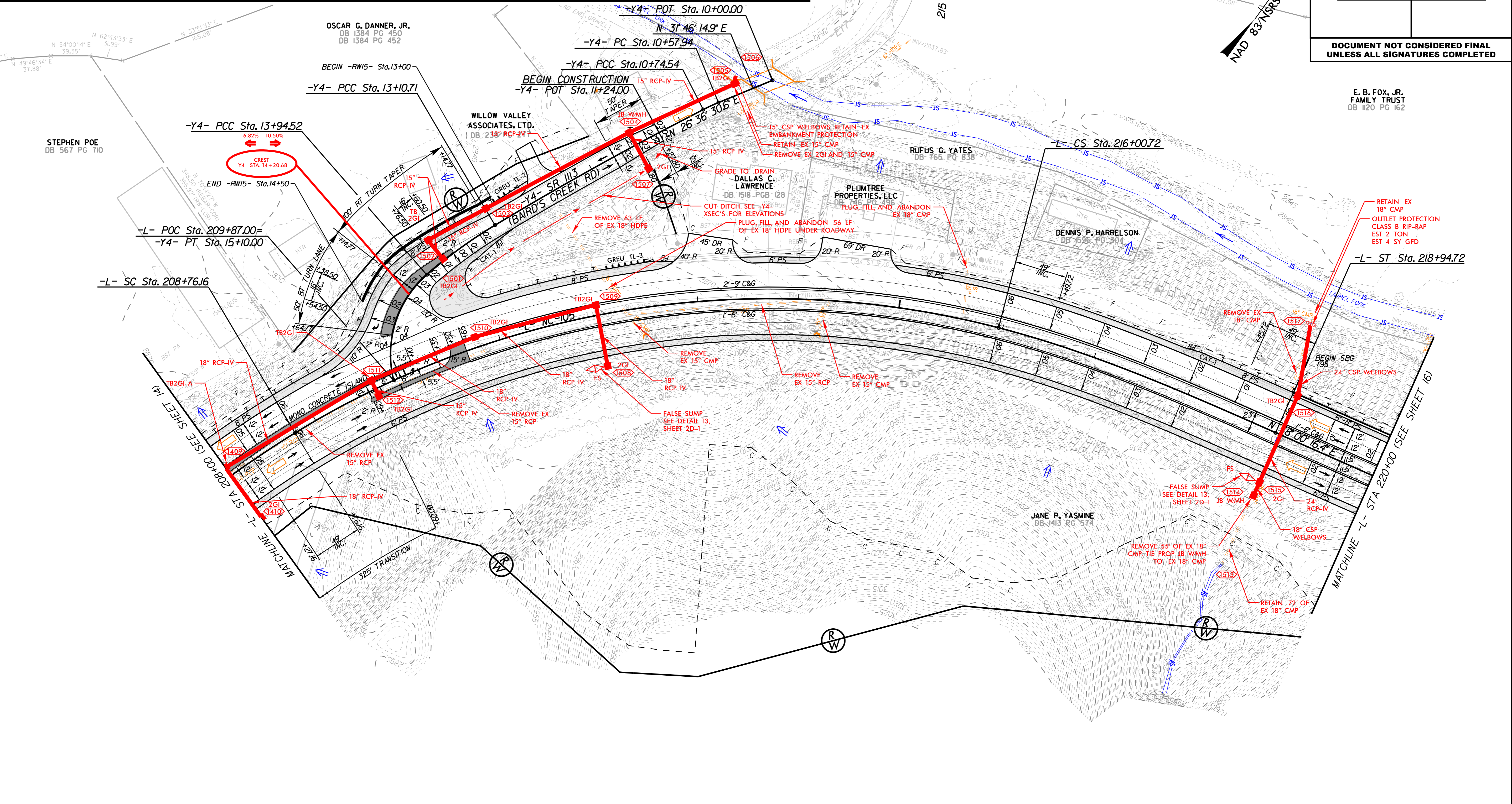
-L-			-Y4-			
PIs Sta 207+78.43	PI Sta 212+59.36	PIs Sta 216+98.97	PI Sta 10+66.24	PI Sta 12+17.50	PI Sta 13+52.59	PI Sta 14+58.88
Os = 9' 21" 29.9"	Δ = 46' 07" 37.8" (RT)	Os = 9' 21" 29.9"	Δ = 4' 45" 11.9" (LT)	Δ = 3' 02" 38.0" (LT)	Δ = 10' 08" 30.7" (LT)	Δ = 6' 3' 00" 45.6" (LT)
Ls = 294.00'	D = 6' 21" 58.3"	Ls = 294.00'	D = 28' 38" 52.4"	D = 1' 38" 13.3"	D = 12' 03" 44.2"	D = 54' 34" 02.7"
LT = 196.27'	L = 724.56'	LT = 196.27'	L = 16.59'	L = 185.94'	L = 84.08'	L = 115.48'
ST = 98.25'	T = 383.21'	ST = 98.25'	T = 8.30'	T = 92.99'	T = 42.15'	T = 64.36'
	R = 900.00'		R = 200.00'	R = 3,500.00'	R = 475.00'	R = 105.00'
	SE = 0.06		SE = SEE PLANS	SE = NC	SE = SEE PLANS	SE = SEE PLANS
	RO = 294'		RO = SEE PLANS	RO = 76'	RO = SEE PLANS	RO = SEE PLANS
			DS = 30 MPH	DS = 15 MPH	DS = 15 MPH	DS = 15 MPH

SEE SHEET 28 FOR -L- PROFILE
 SEE SHEET 37 FOR -Y4- PROFILE

Kimley Horn
 200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

E. B. FOX, JR.
 FAMILY TRUST
 DB 1120 PG 162



REVISIONS

	CONCRETE MONOLITHIC ISLAND
	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

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-L-

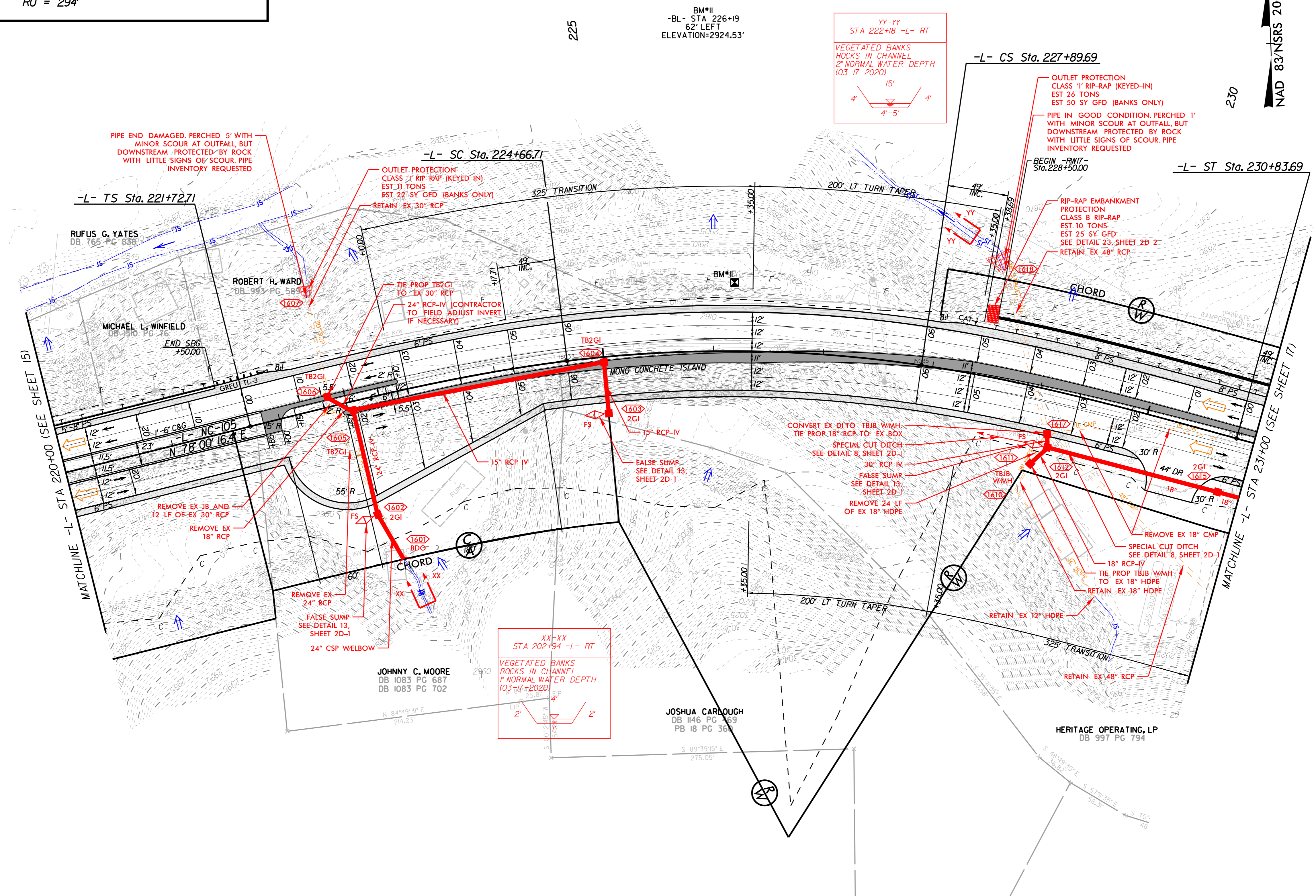
Pls Sta 223+68.86 Θs = 7°01'07.4" Ls = 294.00' LT = 196.15' ST = 98.14'	Pl Sta 226+29.18 Δ = 15°25'16.0" (RT) D = 4°46'28.7" L = 322.98' T = 162.47' R = 1,200.00' SE = 0.06 RO = 294'	Pls Sta 228+87.83 Θs = 7°01'07.4" Ls = 294.00' LT = 196.15' ST = 98.14'
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SEE SHEET 29 FOR -L- PROFILE

Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS



BM#11
-BL- STA 226+19
62' LEFT
ELEVATION=2924.53'

YY-YY
STA 222+18 -L- RT
VEGETATED BANKS
ROCKS IN CHANNEL
2' NORMAL WATER DEPTH
(0.3-17-2020)

XX-XX
STA 202+94 -L- RT
VEGETATED BANKS
ROCKS IN CHANNEL
1' NORMAL WATER DEPTH
(0.3-17-2020)

-L- CS Sta. 227+89.69
OUTLET PROTECTION
CLASS 1' RIP-RAP (KEYED-IN)
EST 26 TONS
EST 50 SY GFD (BANKS ONLY)
PIPE IN GOOD CONDITION, PERCHED 1'
WITH MINOR SCOUR AT OUTFALL, BUT
DOWNSTREAM PROTECTED BY ROCK
WITH LITTLE SIGNS OF SCOUR. PIPE
INVENTORY REQUESTED

RIP-RAP EMBANKMENT
PROTECTION
CLASS B RIP-RAP
EST 10 TONS
EST 25 SY GFD
SEE DETAIL 23, SHEET 2D-2
RETAIN EX 48" RCP

PIPE END DAMAGED, PERCHED 5' WITH
MINOR SCOUR AT OUTFALL, BUT
DOWNSTREAM PROTECTED BY ROCK
WITH LITTLE SIGNS OF SCOUR. PIPE
INVENTORY REQUESTED

OUTLET PROTECTION
CLASS 1' RIP-RAP (KEYED-IN)
EST 21 TONS
EST 22 SY GFD (BANKS ONLY)
RETAIN EX 30" RCP

TIE PROP TB2GI
TO EX 30" RCP
24" RCP-IV (CONTRACTOR
TO FIELD ADJUST INVERT
IF NECESSARY)

CONVERT EX D TO TB2GI WMH.
TIE PROP 18" RCP TO EX BOX
SPECIAL CUT DITCH
SEE DETAIL 8, SHEET 2D-1
30" RCP-IV
FALSE SUMP
SEE DETAIL 13,
SHEET 2D-1
REMOVE 24 LF
OF EX 18" HDPE

REMOVE EX 18" CMP
SPECIAL CUT DITCH
SEE DETAIL 8, SHEET 2D-1
18" RCP-IV
TIE PROP TB2GI WMH
TO EX 18" HDPE
RETAIN EX 18" HDPE

REMOVE EX JB AND
12 LF OF EX 30" RCP
REMOVE EX
18" RCP

REMOVE EX
24" RCP
FALSE SUMP
SEE DETAIL 13,
SHEET 2D-1
24" CSP WELBOW

JOHNNY C. MOORE
DB 1083 PG 687
DB 1083 PG 702

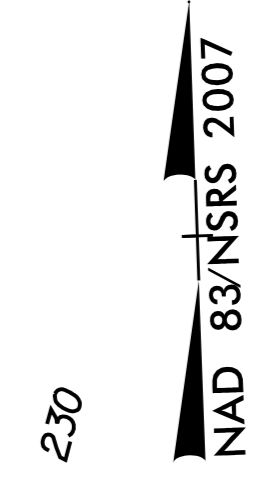
JOSHUA CARROUGH
DB 1146 PG 169
PB 18 PG 361

HERITAGE OPERATING, LP
DB 997 PG 794

JANE P. YASMINE
DB 1413 PG 574

- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE
OF PAVEMENT UNLESS OTHERWISE
NOTED



5/14/2020
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 5/14/2020

-L-	-DRW8-	-DRW9-	-DRW10-
PIs Sta 236+41.21 $\Theta_s = 154^\circ 12.2'$ $L_s = 196.00'$ $LT = 130.67'$ $ST = 65.34'$	PIs Sta 11+51.18 $\Delta = 30^\circ 05' 32.8" (RT)$ $D = 81^\circ 51' 04.0"$ $L = 36.76'$ $T = 18.82'$ $R = 70.00'$	PIs Sta 11+13.00 $\Delta = 2^\circ 56' 15.5" (LT)$ $D = 57^\circ 17' 44.8"$ $L = 5.13'$ $T = 2.56'$ $R = 100.00'$	PIs Sta 11+45.45 $\Delta = 6^\circ 27' 51.6" (LT)$ $D = 57^\circ 17' 44.8"$ $L = 11.28'$ $T = 5.65'$ $R = 100.00'$
PIs Sta 247+33.03 $\Delta = 38^\circ 22' 19.3" (LT)$ $D = 1^\circ 56' 32.0"$ $L = 1975.67'$ $T = 1026.49'$ $SE = 0.04$ $RO = 196'$	PIs Sta 12+43.07 $\Delta = 35^\circ 51' 17.5" (LT)$ $D = 35^\circ 48' 35.5"$ $L = 100.13'$ $T = 51.76'$ $R = 160.00'$	PIs Sta 11+00.18 $\Delta = 19^\circ 31' 54.9" (RT)$ $D = 35^\circ 48' 35.5"$ $L = 54.54'$ $T = 27.54'$ $R = 160.00'$	PIs Sta 12+43.07 $\Delta = 35^\circ 51' 17.5" (LT)$ $D = 35^\circ 48' 35.5"$ $L = 100.13'$ $T = 51.76'$ $R = 160.00'$

SEE SHEET 29 FOR -L- PROFILE
 SEE SHEET 39 FOR -DRW8- PROFILE
 SEE SHEET 39 FOR -DRW9- PROFILE
 SEE SHEET 39 FOR -DRW10- PROFILE

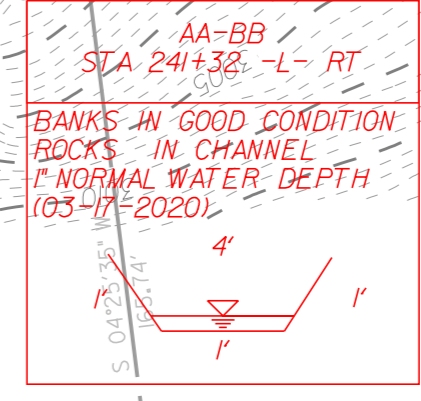
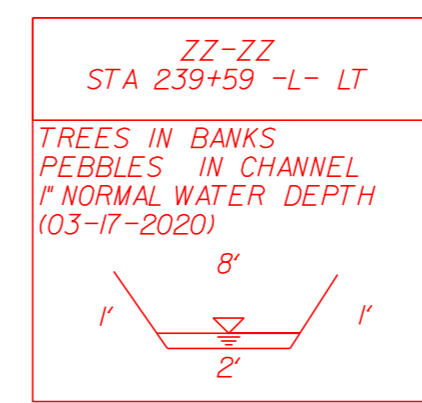
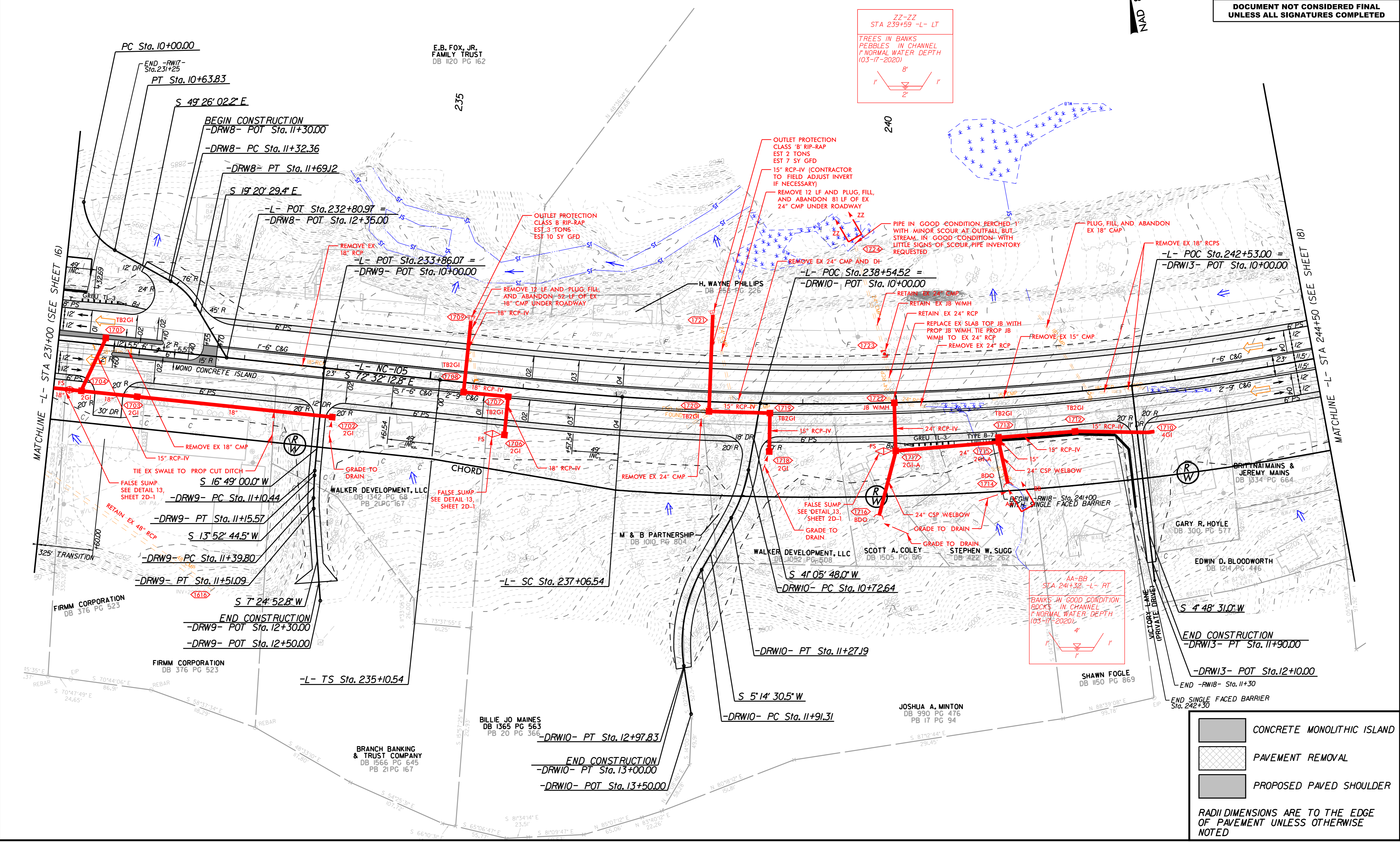
Kimley Horn
 200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO.	SHEET NO.
R-2566B	17
R/W SHEET NO.	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

JANE P. YASMINE
 DB 1413 PG 574

NAD 83/NSRS 2007

REVISIONS



	CONCRETE MONOLITHIC ISLAND
	PAVEMENT REMOVAL
	PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

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-L-		-DRWII-	
PI Sta 247+33.03	PI Sta 260+56.06	PI Sta 11+81.97	
$\Delta = 38^{\circ} 22' 19.3" (LT)$	$\Delta = 17^{\circ} 42' 28.3" (LT)$	$\Delta = 98^{\circ} 55' 04.5" (LT)$	
D = 1'56" 32.0"	D = 2' 23" 14.4"	D = 163' 42" 08.0"	
L = 1,975.67'	L = 741.75'	L = 60.43'	
T = 1,026.49'	T = 373.85'	T = 40.92'	
R = 2,950.00'	R = 2,400.00'	R = 35.00'	
SE = 0.04	SE = 0.04		
DS = 55 MPH	DS = 196'		
RO = 196'	DS = 50 MPH		

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 39 FOR -DRWII- PROFILE

Kimley » Horn

200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

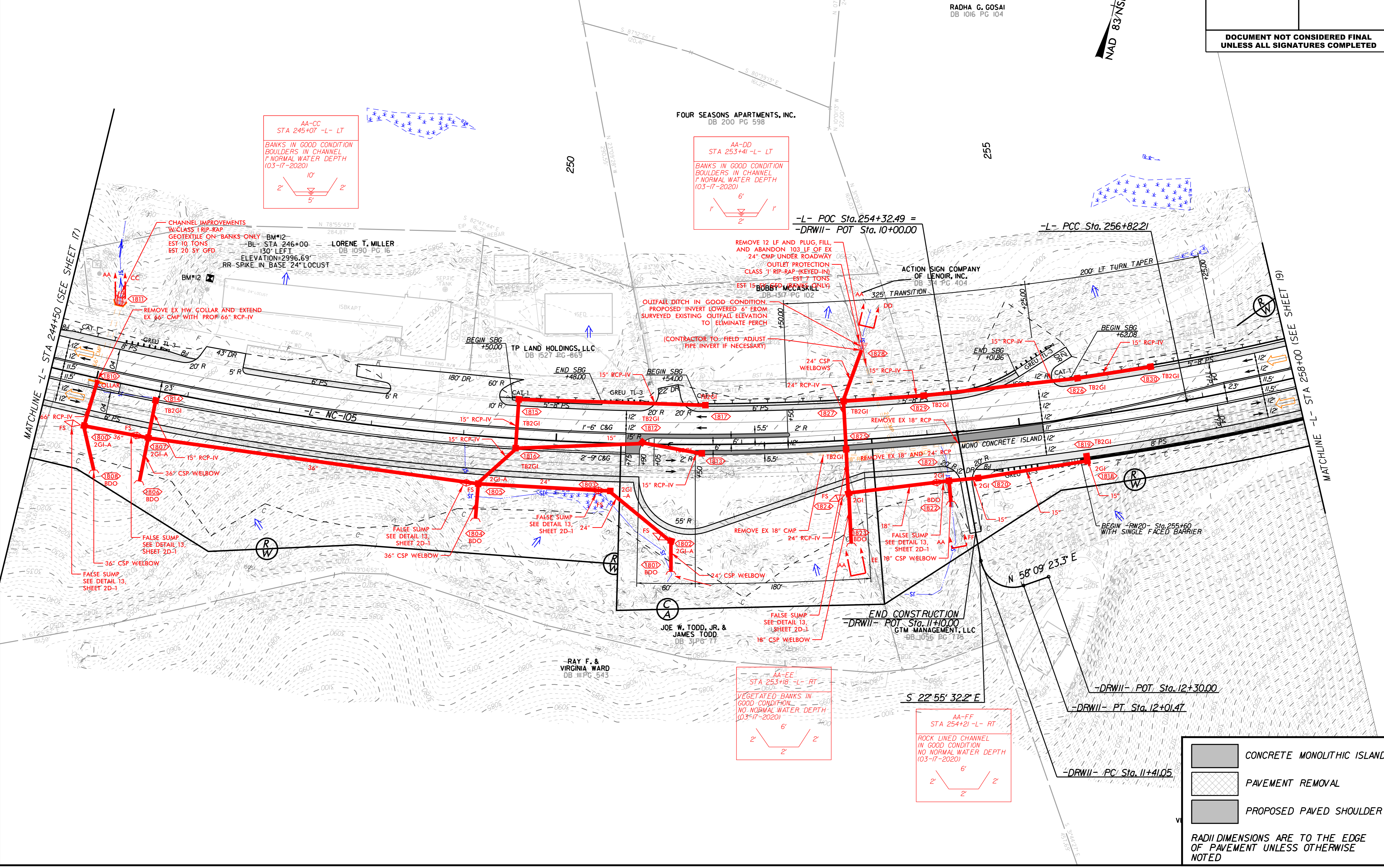
PROJECT REFERENCE NO. R-2566B	SHEET NO. 18
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



REVISIONS



AA-CC
STA 245+07 -L- LT
BANKS IN GOOD CONDITION
BOULDERS IN CHANNEL
NORMAL WATER DEPTH
(03-17-2020)

AA-DD
STA 253+41 -L- LT
BANKS IN GOOD CONDITION
BOULDERS IN CHANNEL
NORMAL WATER DEPTH
(03-17-2020)

AA-EE
STA 253+18 -L- RT
VEGETATED BANKS IN
GOOD CONDITION
NO NORMAL WATER DEPTH
(03-17-2020)

AA-FF
STA 254+21 -L- RT
ROCK LINED CHANNEL
IN GOOD CONDITION
NO NORMAL WATER DEPTH
(03-17-2020)

- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/2020

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5/4/2020

REVISIONS

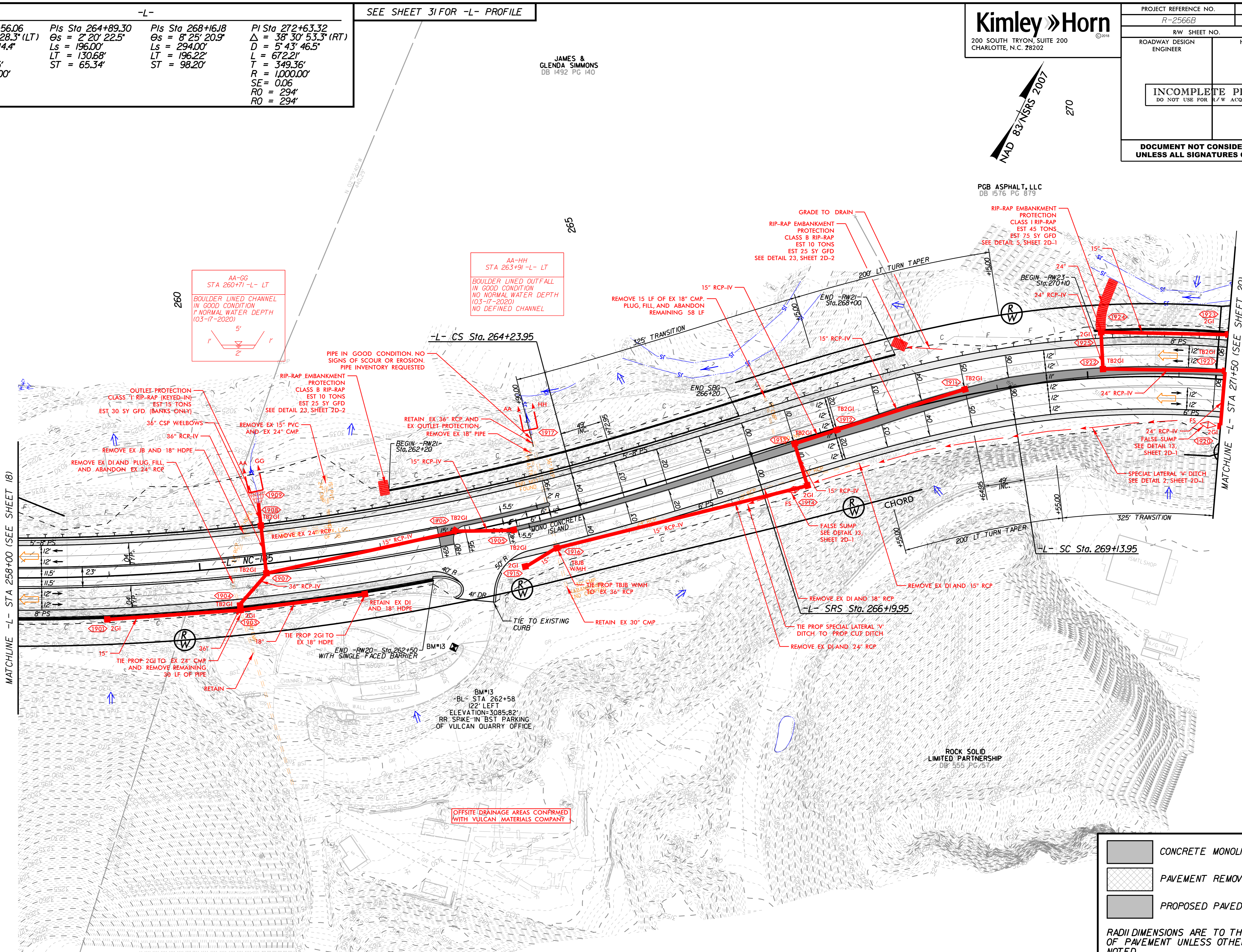
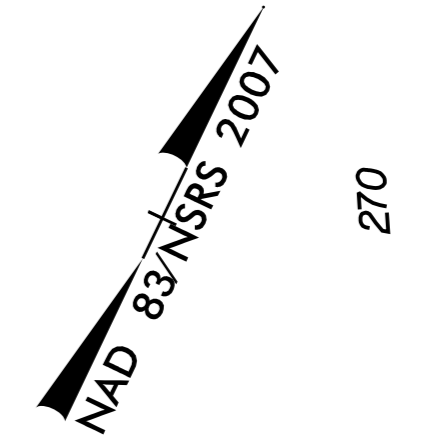
-L-			
PI Sta 260+56.06 Δ = 17° 42' 28.3" (LT) D = 2' 23' 14.4" L = 741.75' T = 373.85' R = 2,400.00' SE = 0.04 RO = 196' RO = 196'	PIs Sta 264+89.30 θs = 2' 20' 22.5" Ls = 196.00' LT = 130.68' ST = 65.34'	PIs Sta 268+16.18 θs = 8' 25' 20.9" Ls = 294.00' LT = 196.22' ST = 98.20'	PI Sta 272+63.32 Δ = 38° 30' 53.3" (RT) D = 5' 43' 46.5" L = 672.21' T = 349.36' R = 1,000.00' SE = 0.06 RO = 294' RO = 294'

SEE SHEET 31 FOR -L- PROFILE

JAMES & GLENDA SIMMONS
DB 1492 PG 140

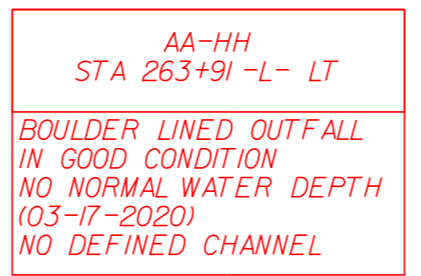
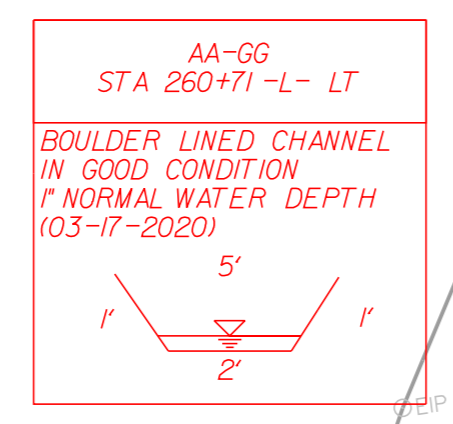
Kimley»Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



MATCHLINE -L- STA 258+00 (SEE SHEET 18)

MATCHLINE -L- STA 271+50 (SEE SHEET 20)



- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADIUS DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/2020
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 5/14/2020

-L-
 PI Sta 272+63.32 Pls Sta 276+84.37
 $\Delta = 38^{\circ}30'53.3"$ (RT) $\Theta_s = 8^{\circ}25'20.9"$
 $D = 5^{\circ}43'46.5"$ $L_s = 294.00'$
 $L = 672.21'$ $LT = 196.22'$
 $T = 349.36'$ $ST = 98.20'$
 $R = 1,000.00'$
 $SE = 0.06$
 $RO = 294'$

SEE SHEET 32 FOR -L- PROFILE

Kimley » Horn
 200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

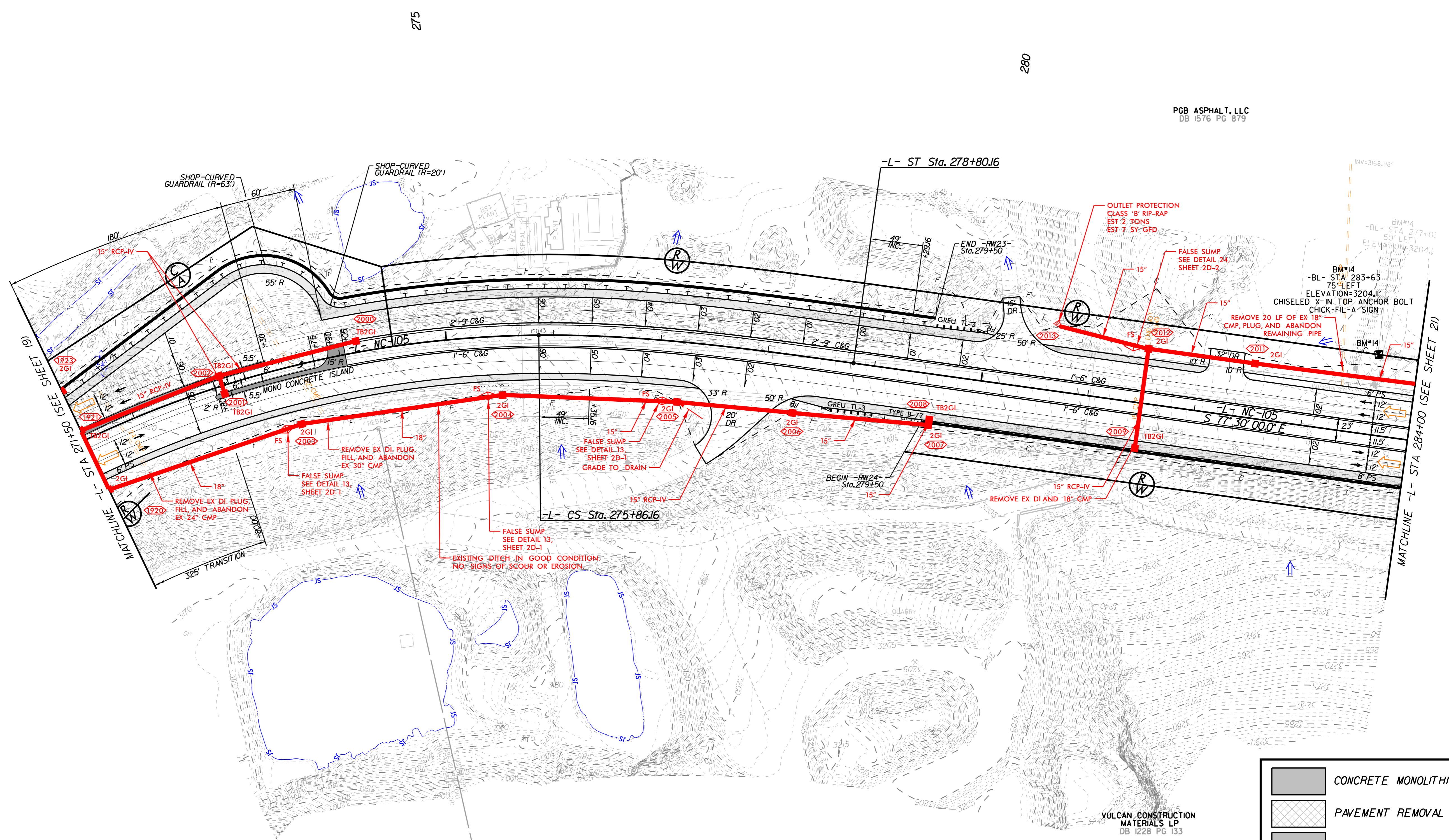
PROJECT REFERENCE NO. R-2566B	SHEET NO. 20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

NAD 83/NSRS 2007

PGB ASPHALT, LLC
 DB 1516 PG 879

VULCAN CONSTRUCTION MATERIALS LP
 DB 1228 PG 133

REVISIONS



- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

5/14/2020
 K:\CHL_PRA\01036212 - (R-25666)\Hydraulics\CADD\PS-A4B_Submittal\A-R-25666B_hyd_pst_21.dgn
 5/14/2020

-L-

PIs Sta 289+91.41 θs = 2° 26' 28.7" Ls = 196.00' LT = 130.68' ST = 65.34'	PI Sta 293+19.07 Δ = 13° 00' 50.5" (LT) D = 2° 29' 28.0" L = 522.42' T = 262.34' R = 2,300.00' SE = 0.04 RO = 196'	PIs Sta 296+44.49 θs = 2° 26' 28.7" Ls = 196.00' LT = 130.68' ST = 65.34'
---	---	---

SEE SHEET 33 FOR -L- PROFILE

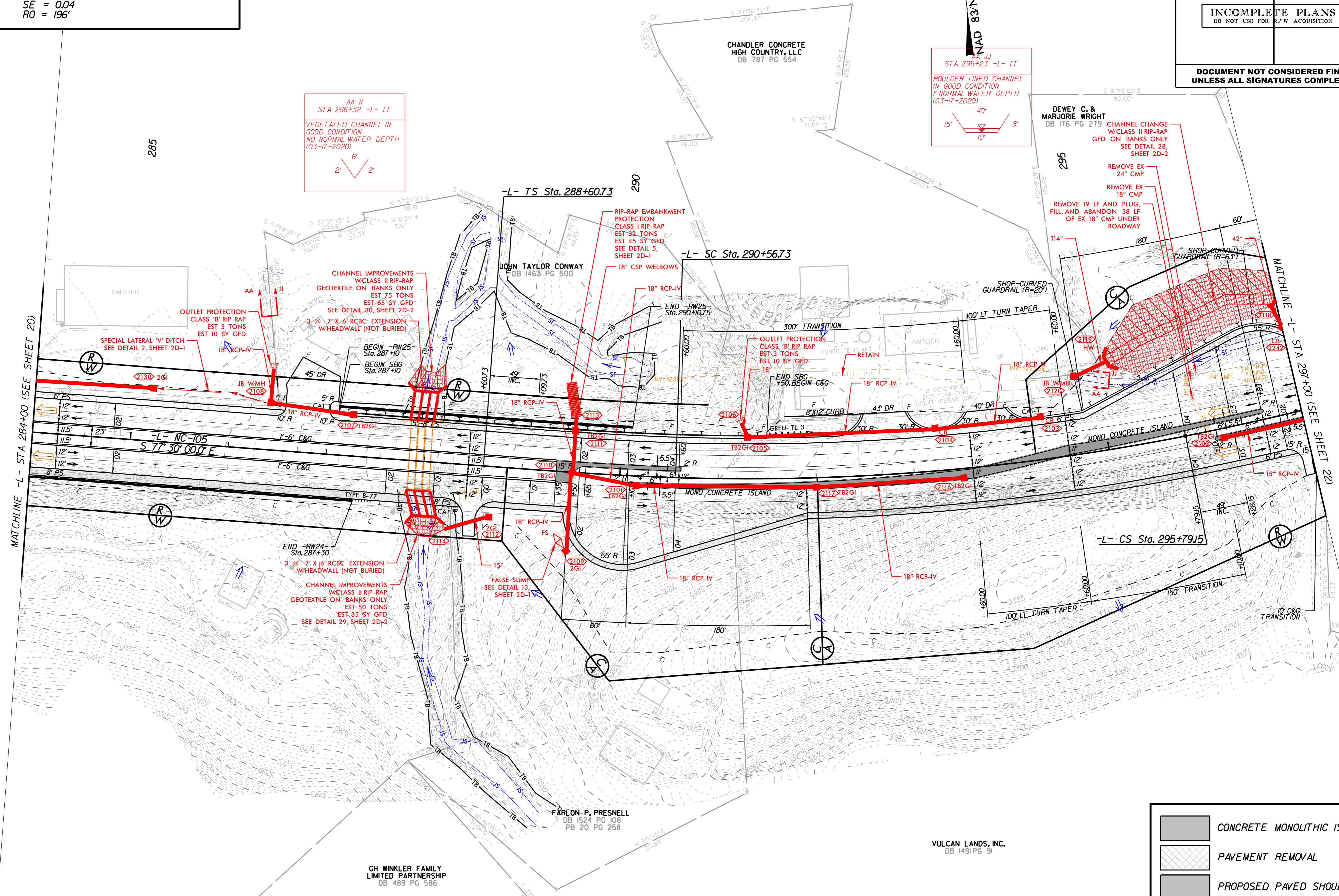
Kimley Horn

200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-25666B	SHEET NO. 21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
 DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED



MATCHLINE -L- STA 284+00 (SEE SHEET 20)

MATCHLINE -L- STA 297+00 (SEE SHEET 22)

- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

-L-
 PIs Sta 296+44.49
 Gs = 2' 26" 28.7"
 Ls = 196.00'
 LT = 130.68'
 ST = 65.34'

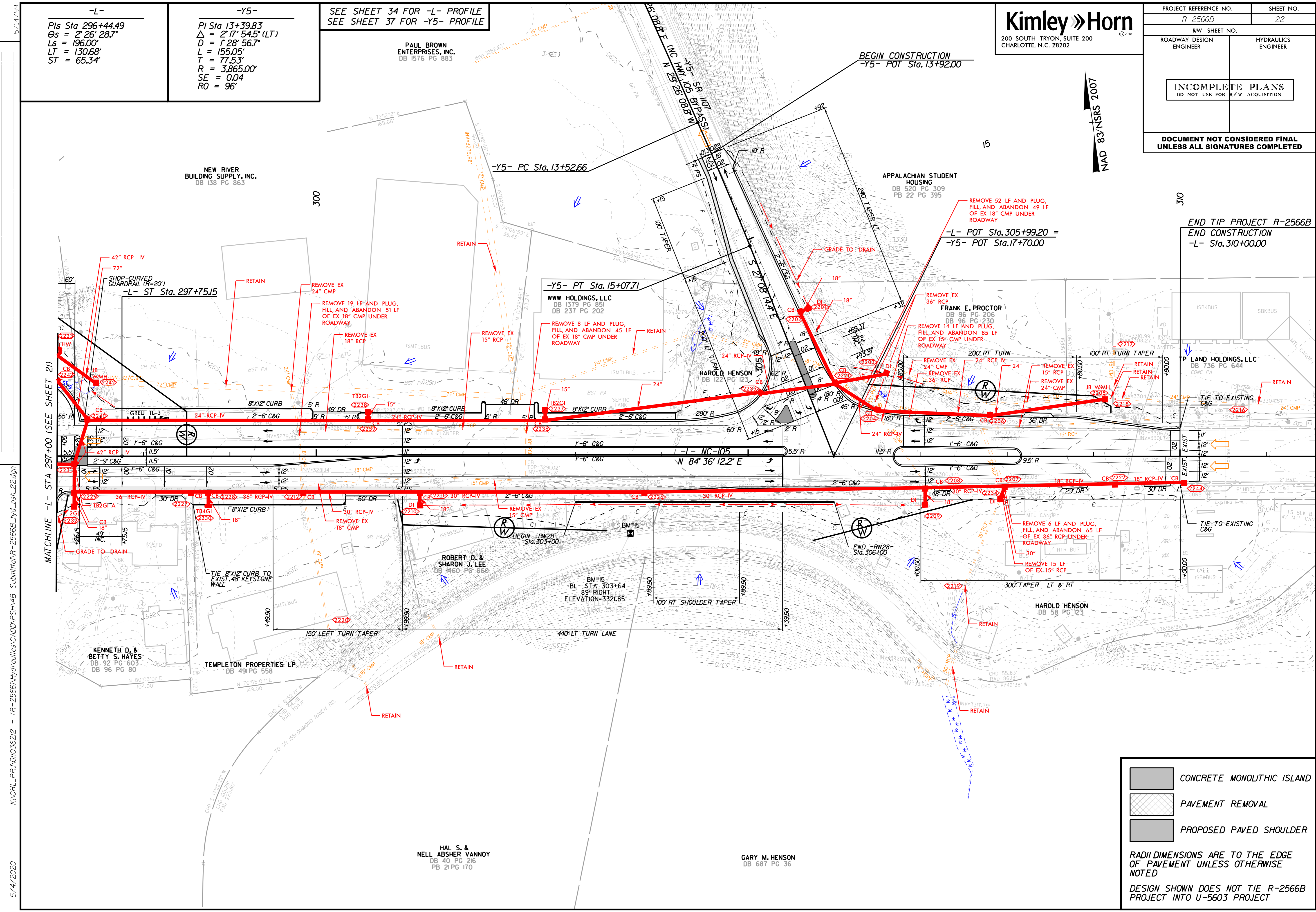
-Y5-
 PI Sta 13+39.83
 Δ = 1' 17" 54.5" (LT)
 D = 1' 28" 56.7"
 L = 155.05'
 T = 77.53'
 R = 3,865.00'
 SE = 0.04
 RO = 96'

SEE SHEET 34 FOR -L- PROFILE
 SEE SHEET 37 FOR -Y5- PROFILE

Kimley Horn
 200 SOUTH TRYON, SUITE 200
 CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 22
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS



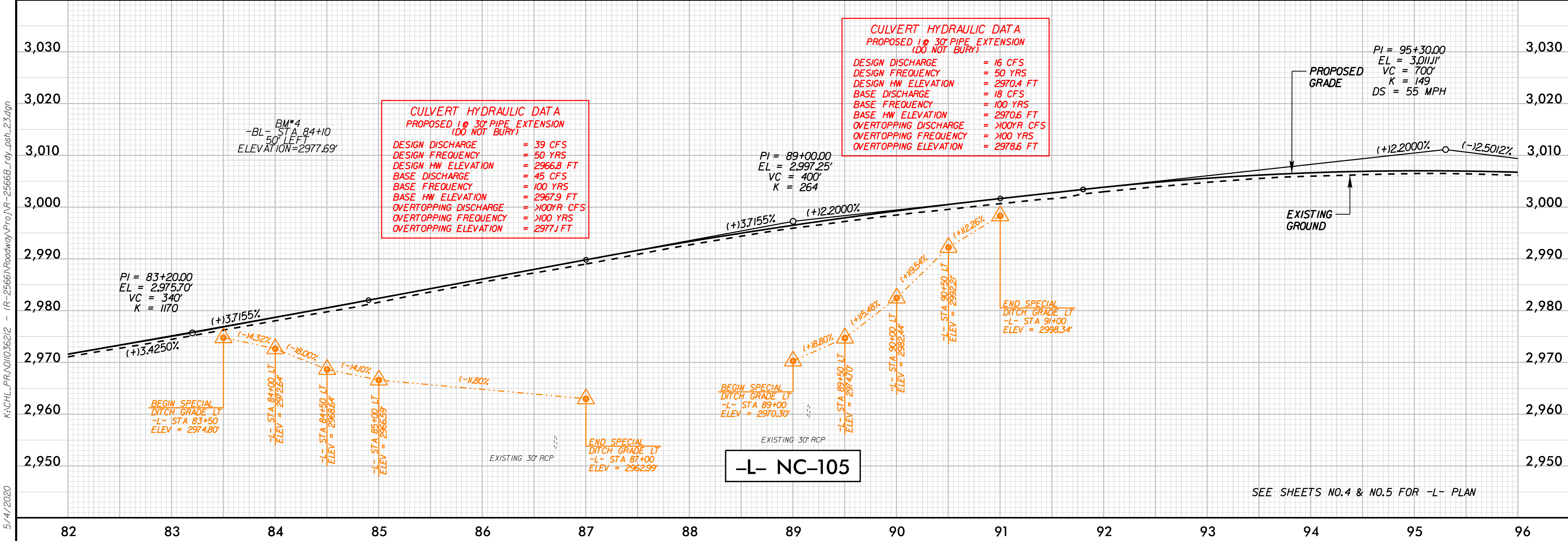
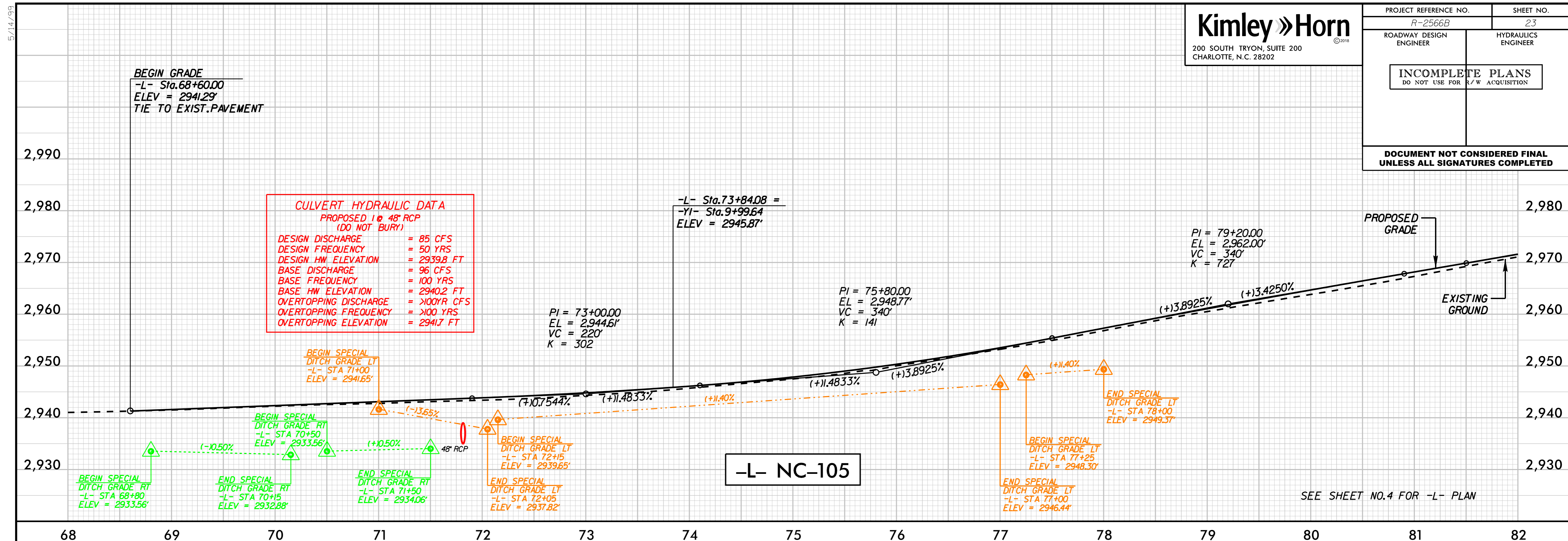
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5/4/2020

- CONCRETE MONOLITHIC ISLAND
- PAVEMENT REMOVAL
- PROPOSED PAVED SHOULDER

RADI DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED
 DESIGN SHOWN DOES NOT TIE R-2566B PROJECT INTO U-5603 PROJECT

PROJECT REFERENCE NO. R-2566B	SHEET NO. 23
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



5/14/1999

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5/4/2020

5/14/1999

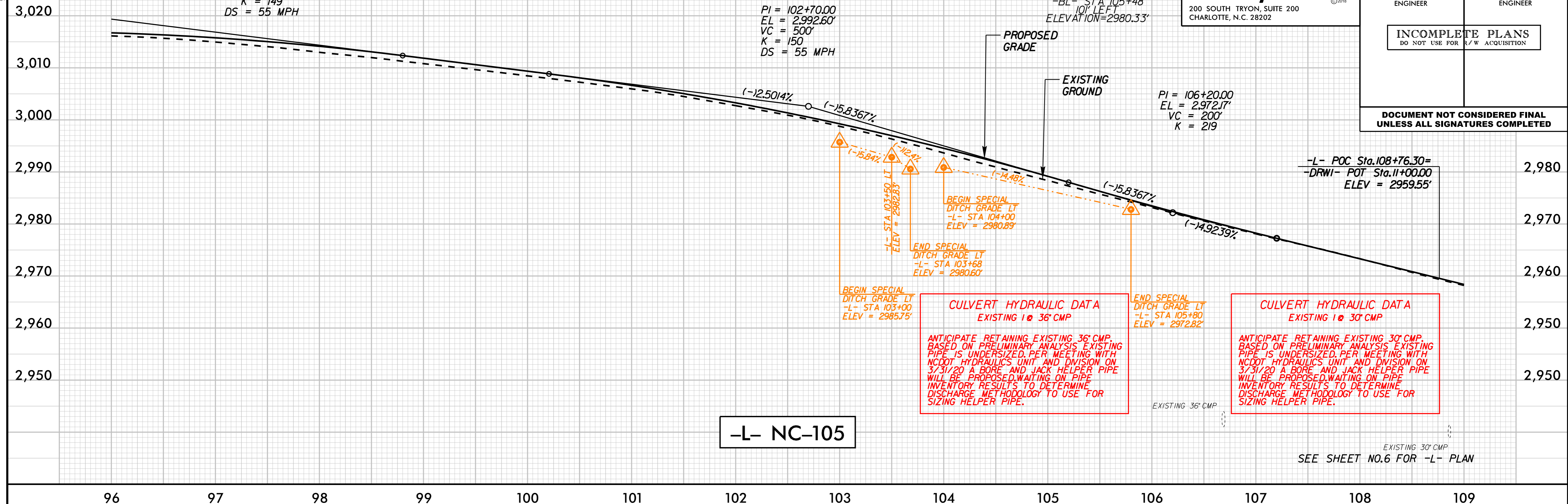
PI = 95+30.00
EL = 3,011.1'
VC = 700'
K = 149
DS = 55 MPH

PI = 102+70.00
EL = 2,992.60'
VC = 500'
K = 150
DS = 55 MPH

BM#5
-BL- STA 105+48
107.1 ELEV
ELEVATION = 2980.33'

Kimley Horn
200 SOUTH TRYON, SUITE 200
CHARLOTTE, N.C. 28202

PROJECT REFERENCE NO. R-2566B	SHEET NO. 24
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-L- NC-105

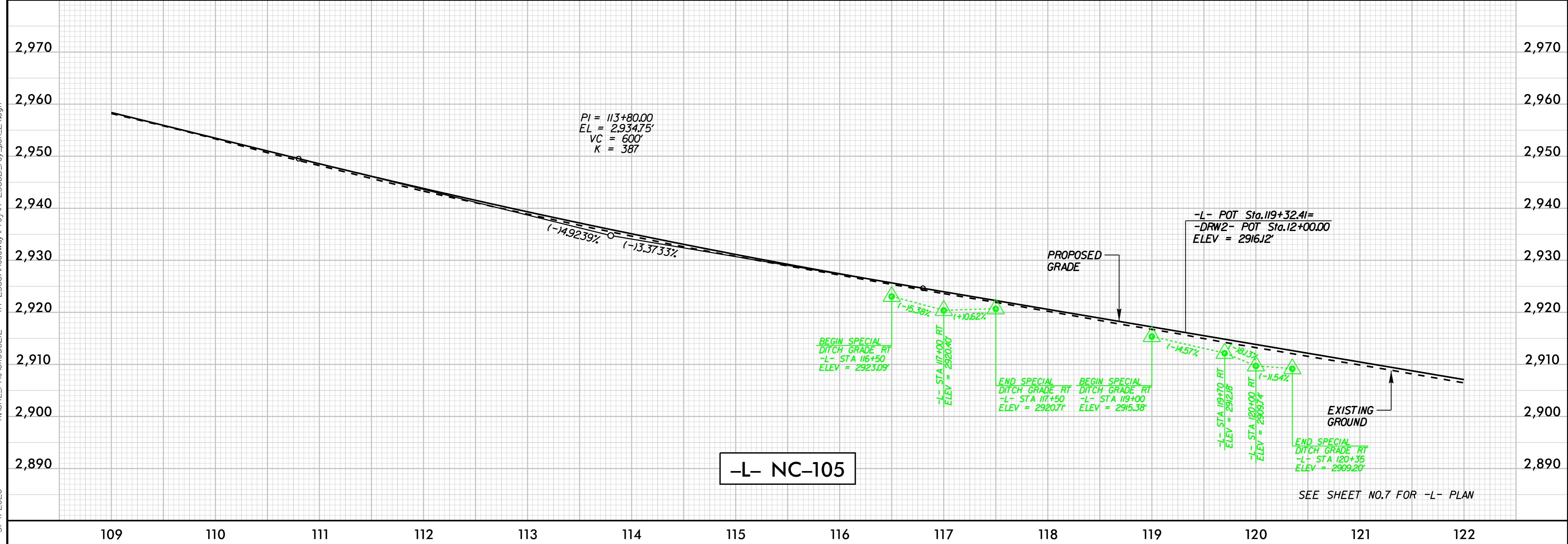
SEE SHEET NO.6 FOR -L- PLAN

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5/4/2020

PI = 113+80.00
EL = 2,934.75'
VC = 600'
K = 387

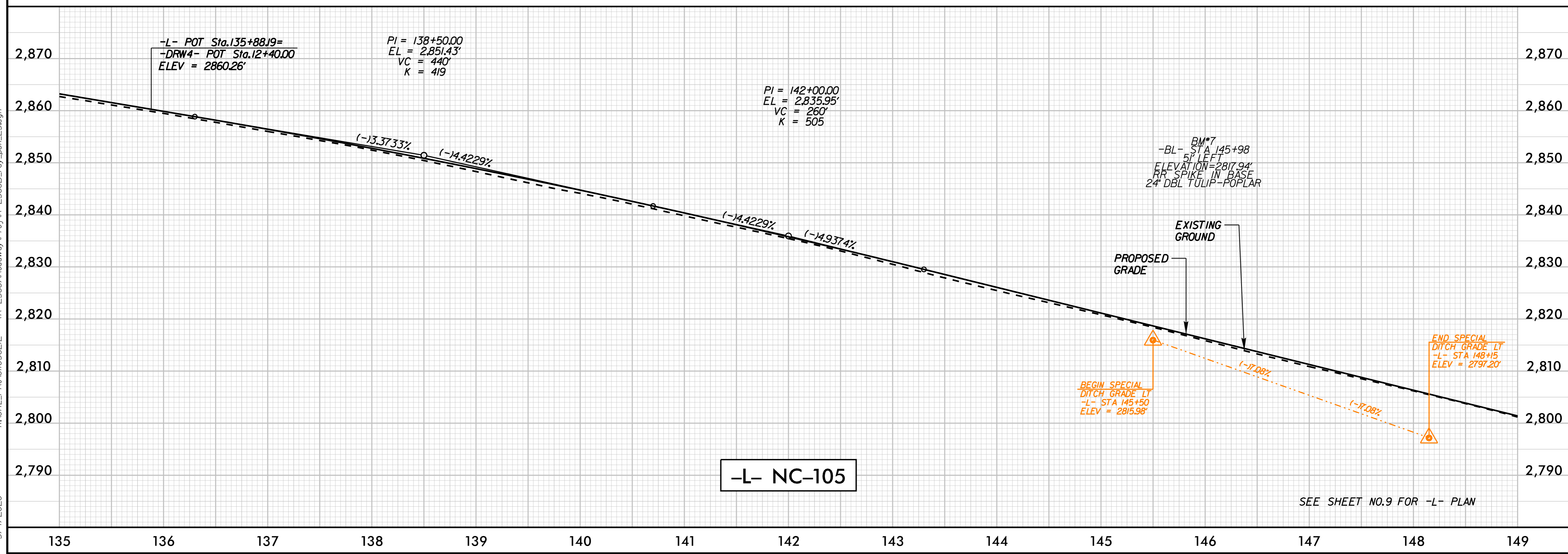
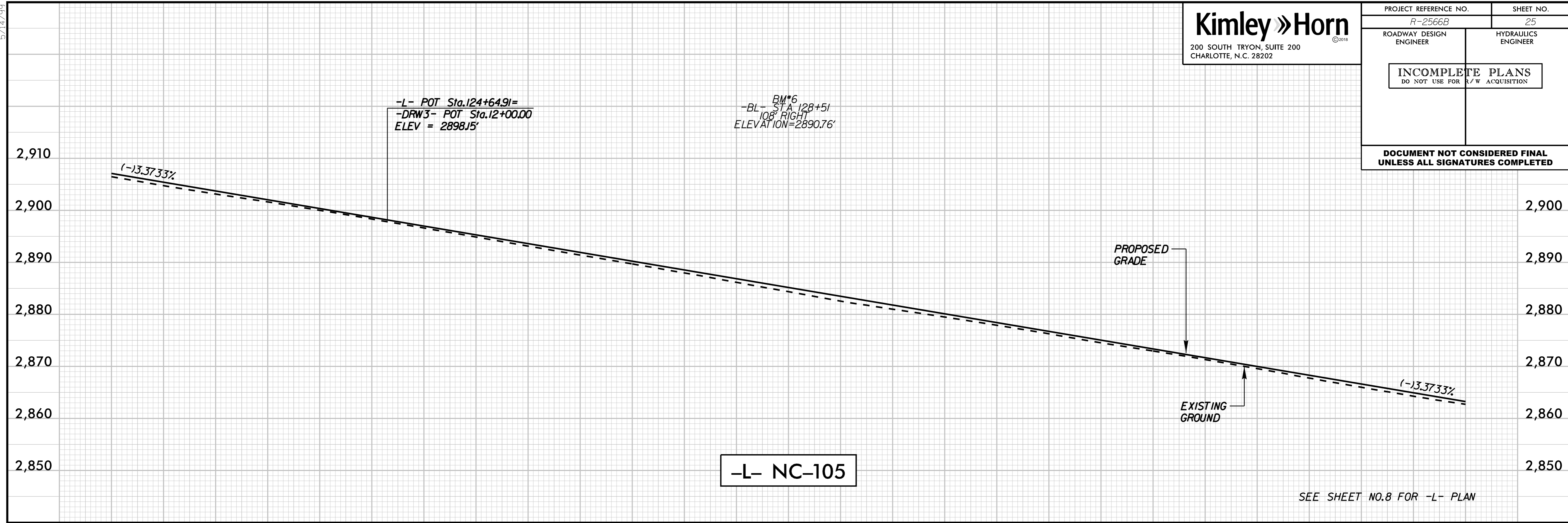
-L- POT Sta.119+32.41=
-DRW2- POT Sta.12+00.00
ELEV = 2916J2'



-L- NC-105

SEE SHEET NO.7 FOR -L- PLAN

PROJECT REFERENCE NO. R-2566B	SHEET NO. 25
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

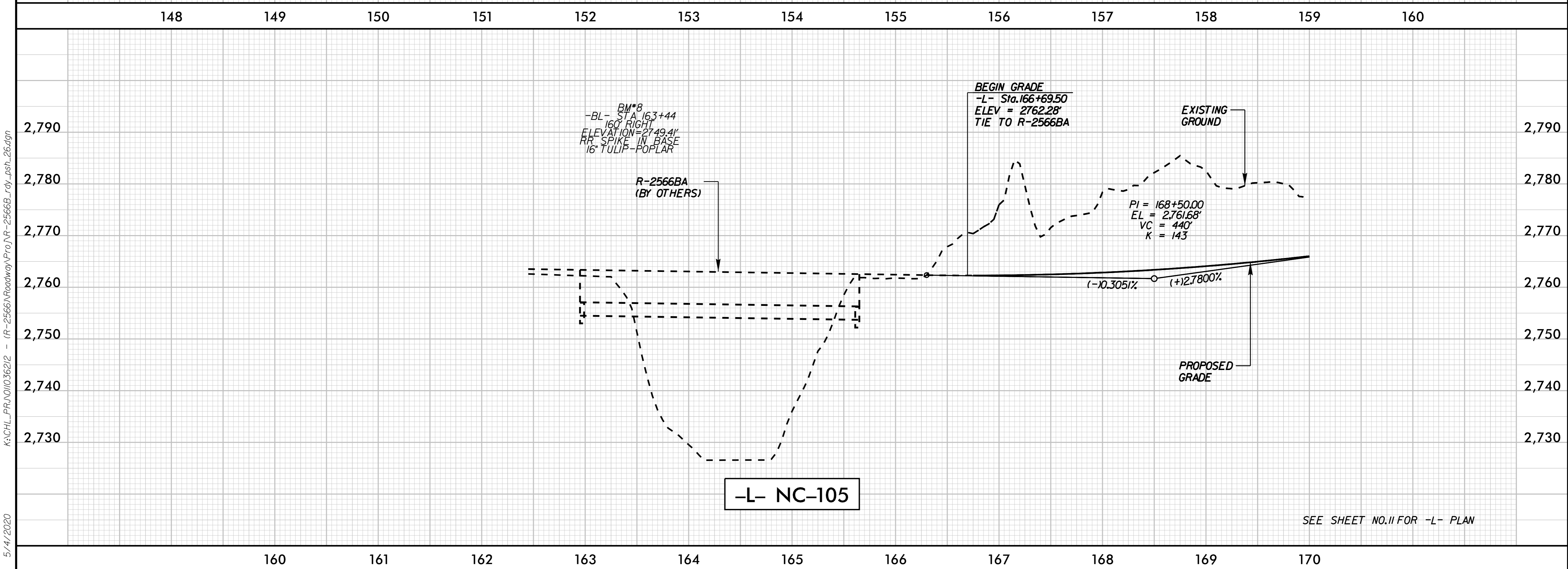
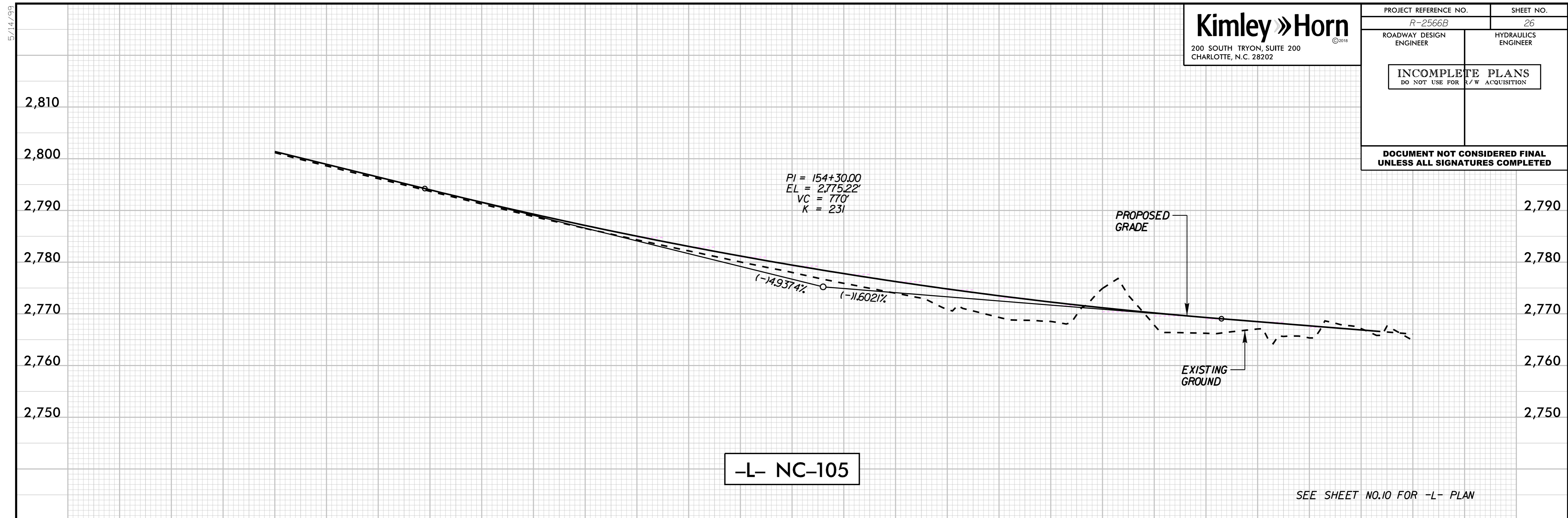


5/14/99

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5/4/2020

PROJECT REFERENCE NO. R-2566B	SHEET NO. 26
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

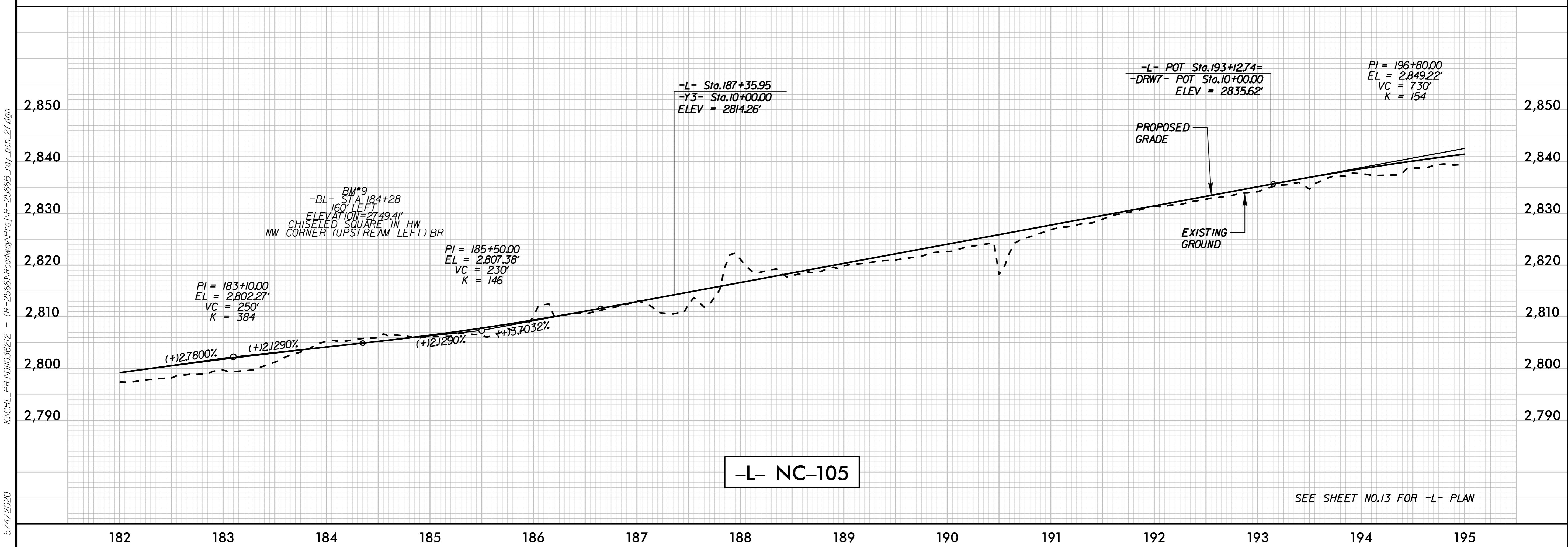
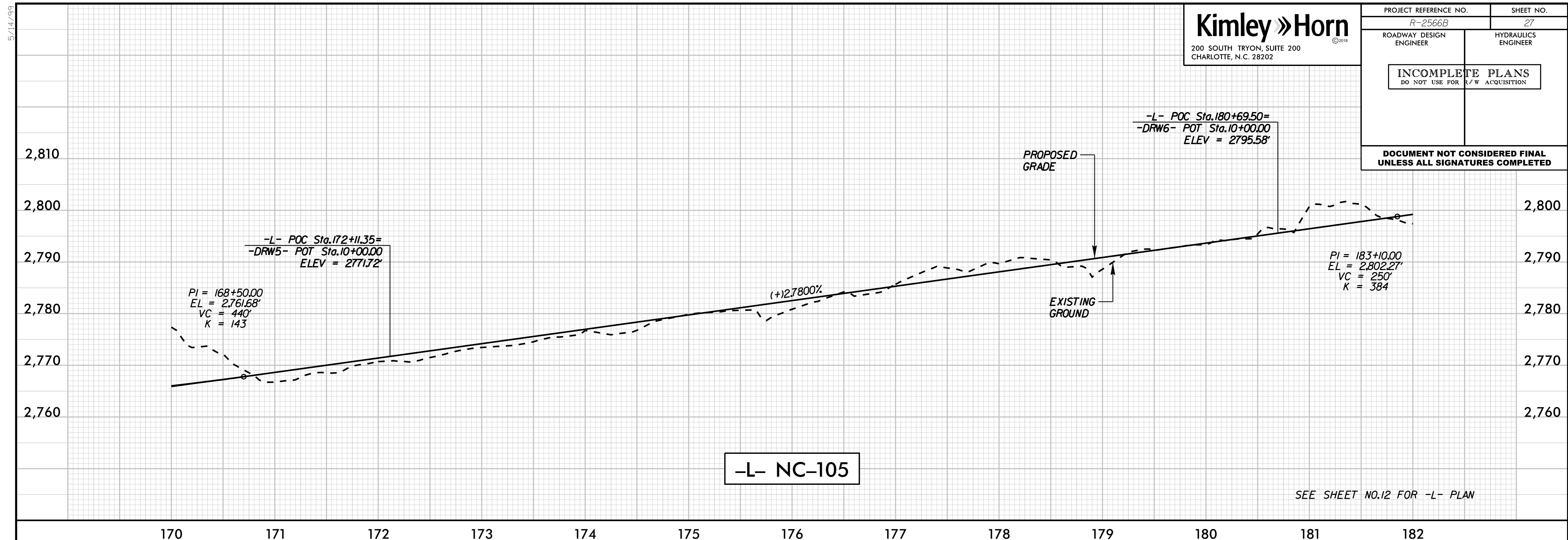


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5/4/2020

PROJECT REFERENCE NO. R-2566B	SHEET NO. 27
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



5/14/99

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5/4/2020

5/14/99

PROJECT REFERENCE NO. R-2566B	SHEET NO. 28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

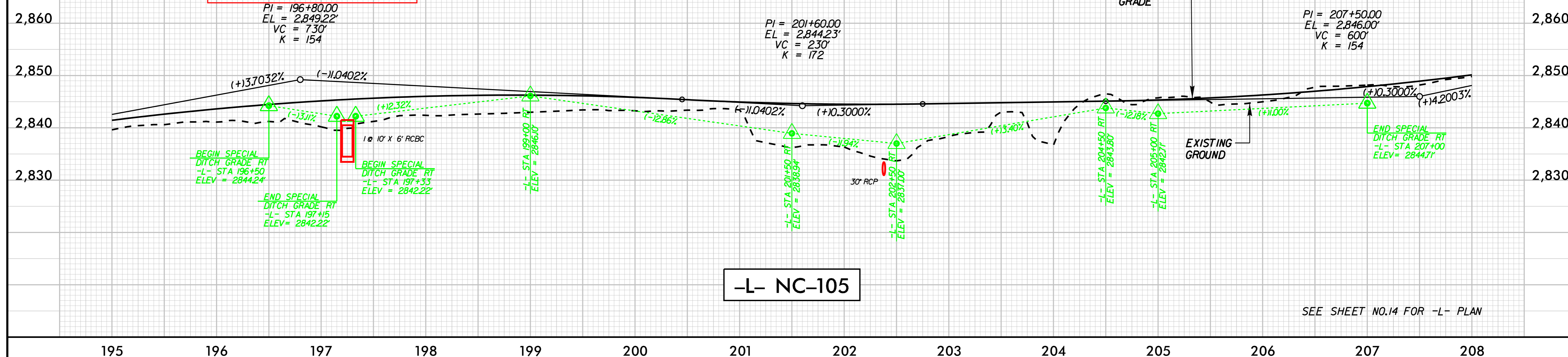
CULVERT HYDRAULIC DATA
 1 @ 10' W x 6' H RCBC
 (DO NOT BURY)

DESIGN DISCHARGE = 300 CFS
 DESIGN FREQUENCY = 50 YRS
 DESIGN HW ELEVATION = 2840.6 FT
 BASE DISCHARGE = 380 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 2841.4 FT
 OVERTOPPING DISCHARGE = >500YR CFS
 OVERTOPPING FREQUENCY = >500 YRS
 OVERTOPPING ELEVATION = 2844.2 FT
 DATE OF SURVEY = 03/17/2020
 W.S. ELEVATION AT DATE OF SURVEY = XXX.X FT

CULVERT HYDRAULIC DATA
 1 @ 30" RCP
 (DO NOT BURY)

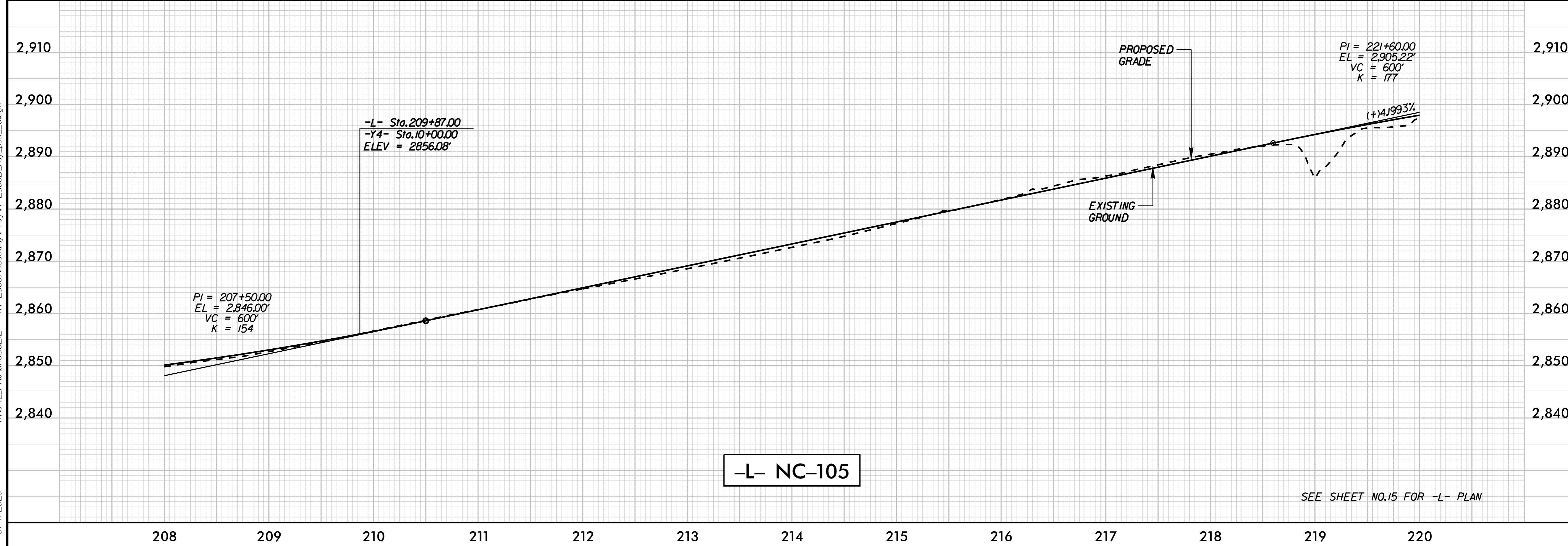
DESIGN DISCHARGE = 23 CFS
 DESIGN FREQUENCY = 50 YRS
 DESIGN HW ELEVATION = 2839.3 FT
 BASE DISCHARGE = 26 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 2839.5 FT
 OVERTOPPING DISCHARGE = >100YR CFS
 OVERTOPPING FREQUENCY = >100 YRS
 OVERTOPPING ELEVATION = 2843.8 FT

BM*10
 -BL- STA 204+27
 94' LEFT
 ELEVATION = 2839.66'

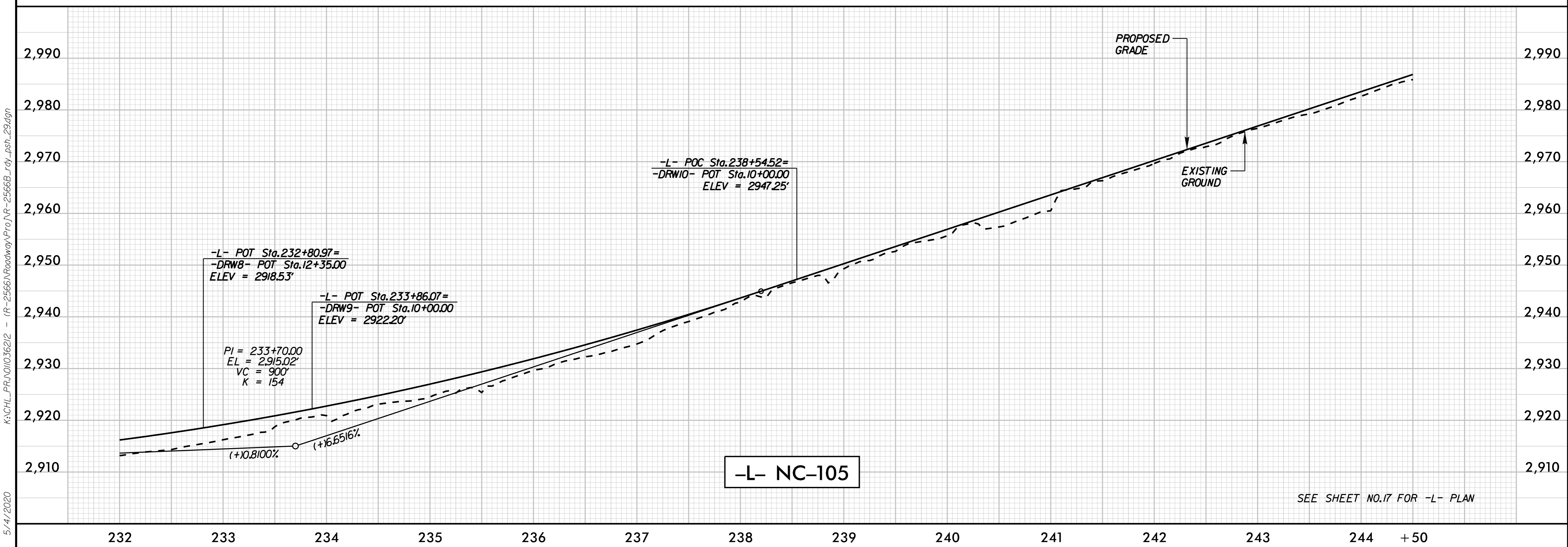
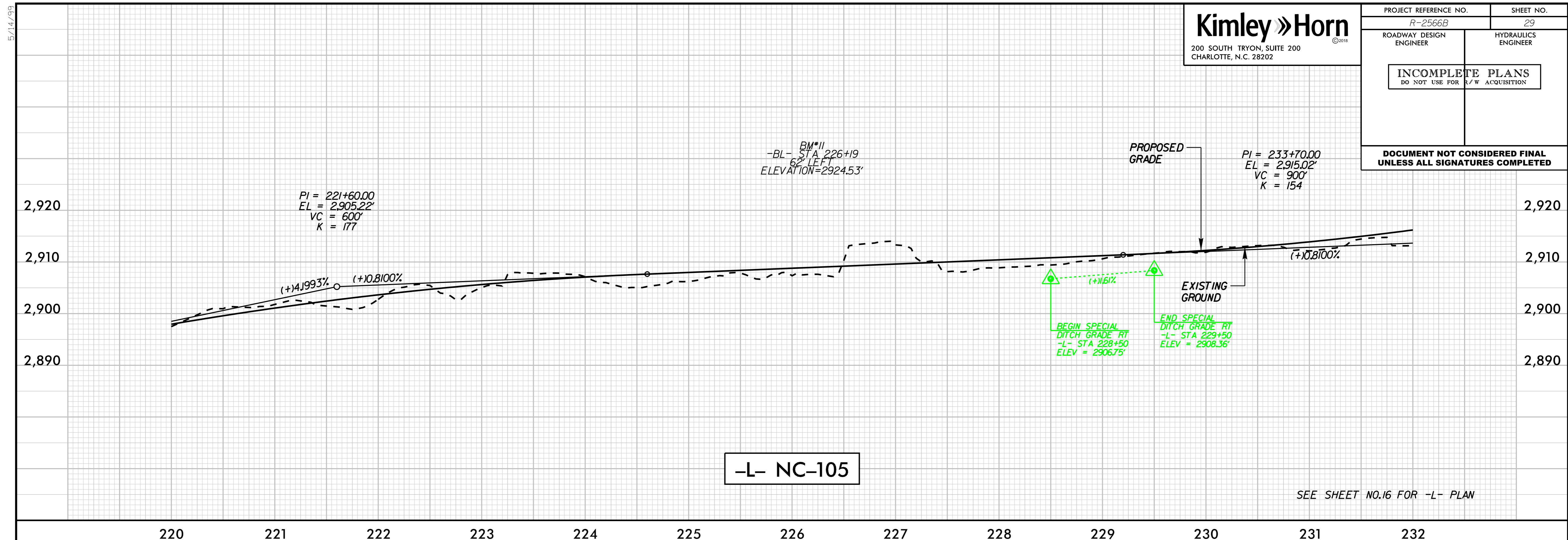


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5/4/2020



PROJECT REFERENCE NO. R-2566B	SHEET NO. 29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



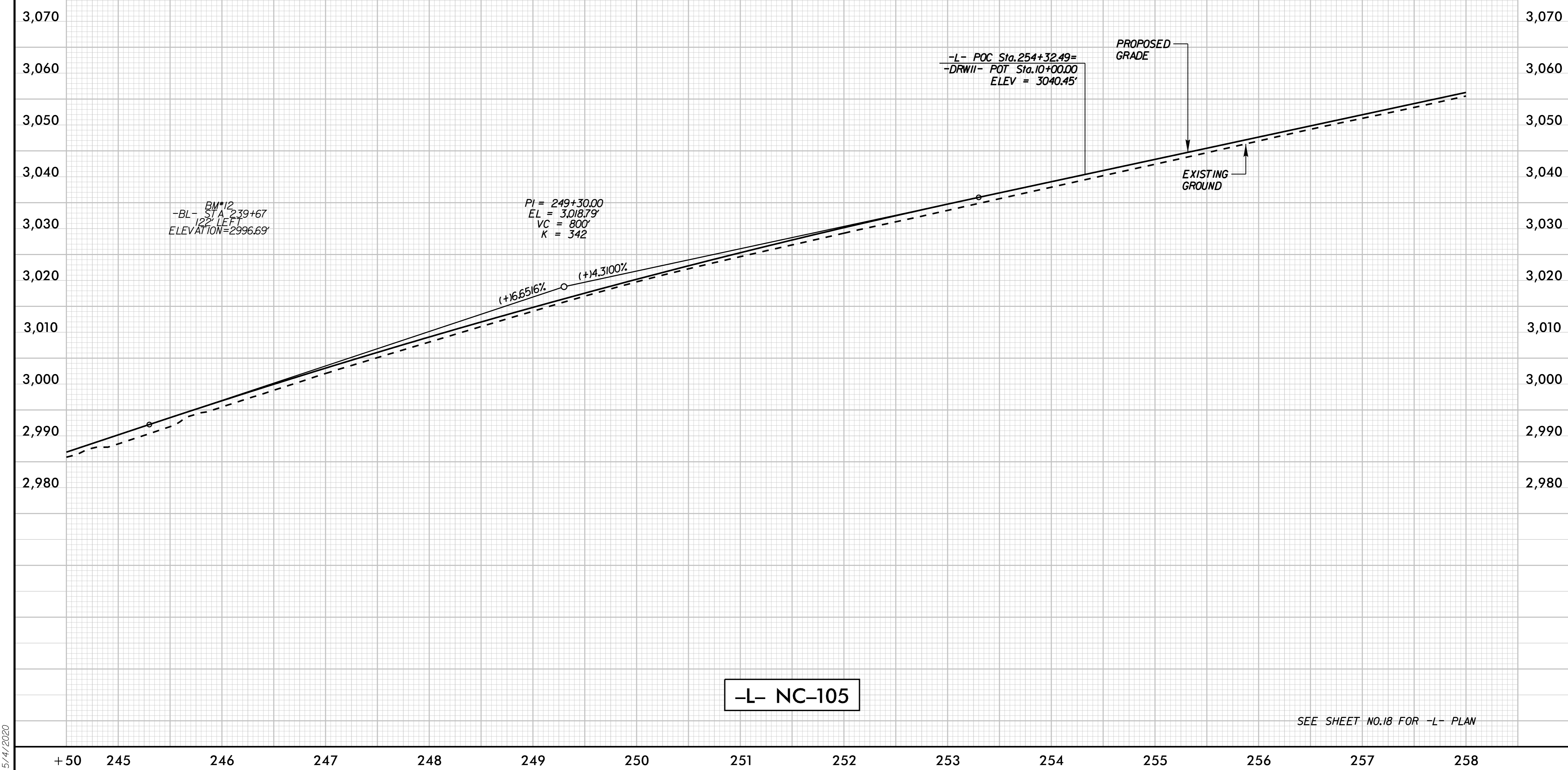
5/14/99

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5/4/2020

5/14/99

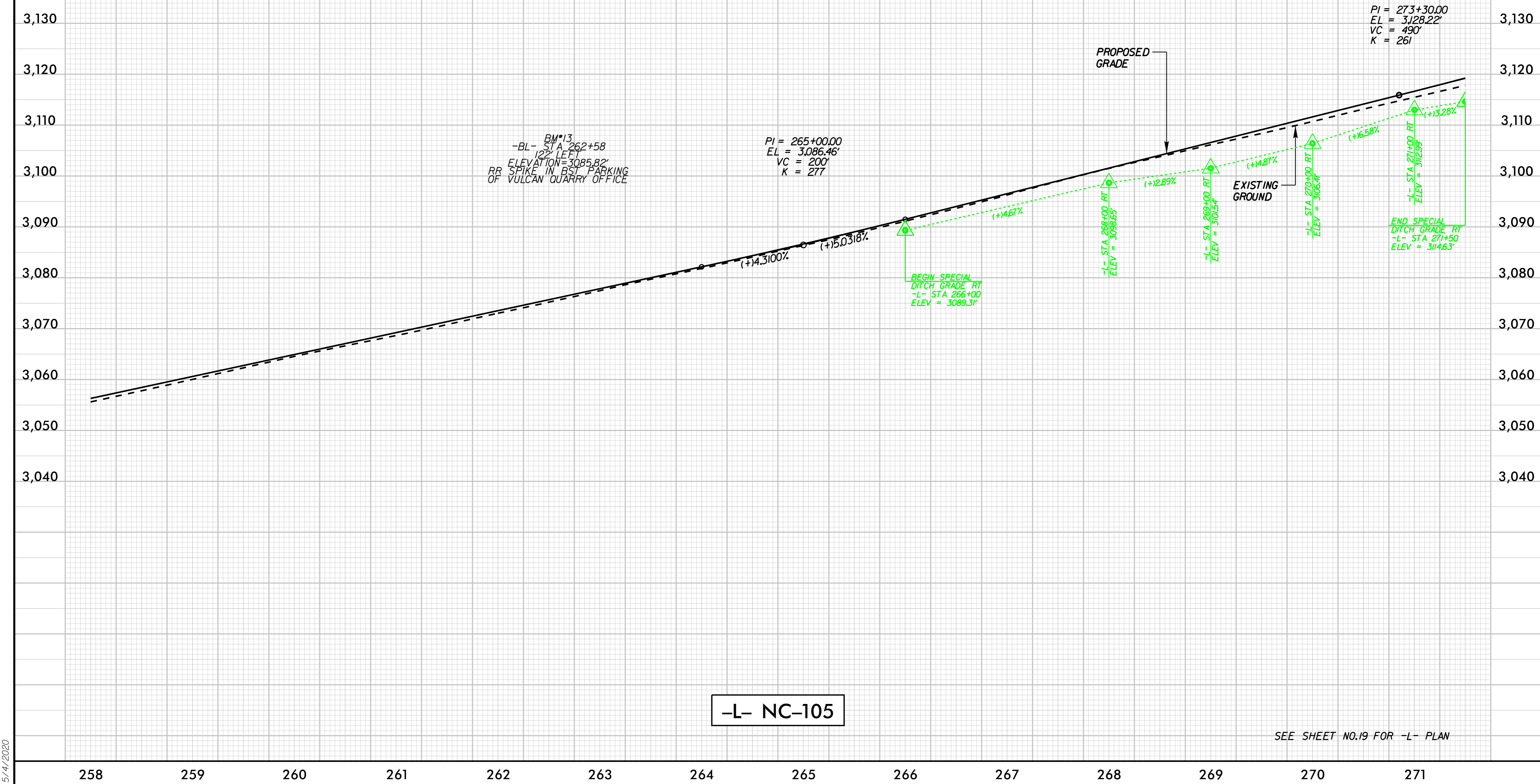
PROJECT REFERENCE NO. R-2566B	SHEET NO. 30
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



5/14/2020

5/14/99

PROJECT REFERENCE NO. R-2566B	SHEET NO. 31
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-L- NC-105

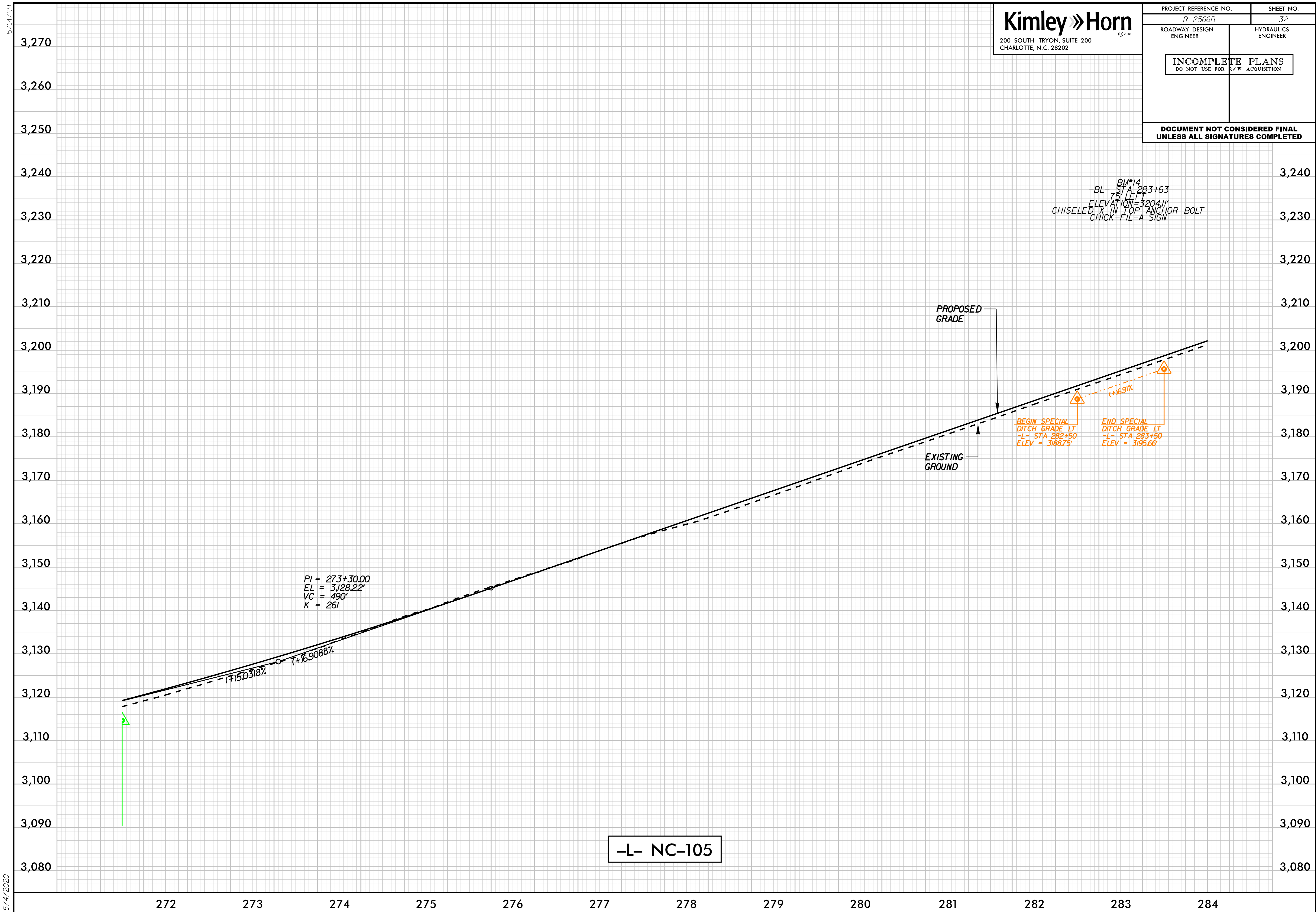
SEE SHEET NO.19 FOR -L- PLAN

5/14/2020

5/14/99

PROJECT REFERENCE NO. R-2566B	SHEET NO. 32
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

5/14/2020



BM#14
 -BL- STA 283+63
 75' LEFT
 ELEVATION=3204.11'
 CHISELED 'X' IN TOP ANCHOR BOLT
 CHICK-FIL-A SIGN

PI = 273+30.00
 EL = 3128.22'
 VC = 490'
 K = 261

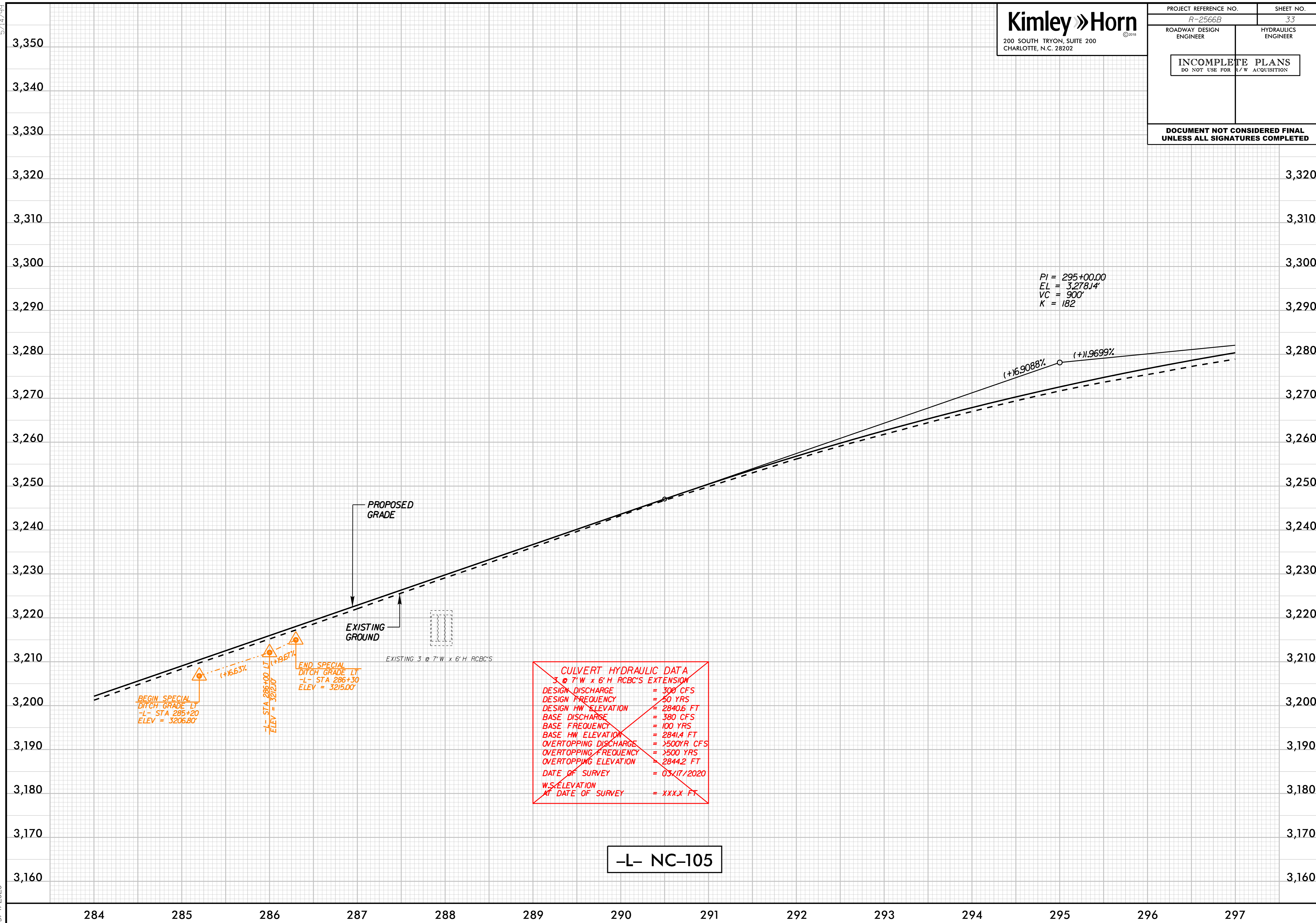
BEGIN SPECIAL DITCH GRADE LT
 -L- STA 282+50
 ELEV = 3186.75'

END SPECIAL DITCH GRADE LT
 -L- STA 283+50
 ELEV = 3195.66'

-L- NC-105

5/14/99

5/14/2020



PI = 295+00.00
 EL = 3,278.14'
 VC = 900'
 K = 182

BEGIN SPECIAL
 DITCH GRADE LT
 -L- STA 285+20
 ELEV = 3206.80'

+16.53%
 -L- STA 286+00 LT
 ELEV = 3212.00'

+19.51%
 END SPECIAL
 DITCH GRADE LT
 -L- STA 286+30
 ELEV = 3215.00'

EXISTING 3 @ 7' W x 6' H RCBC'S

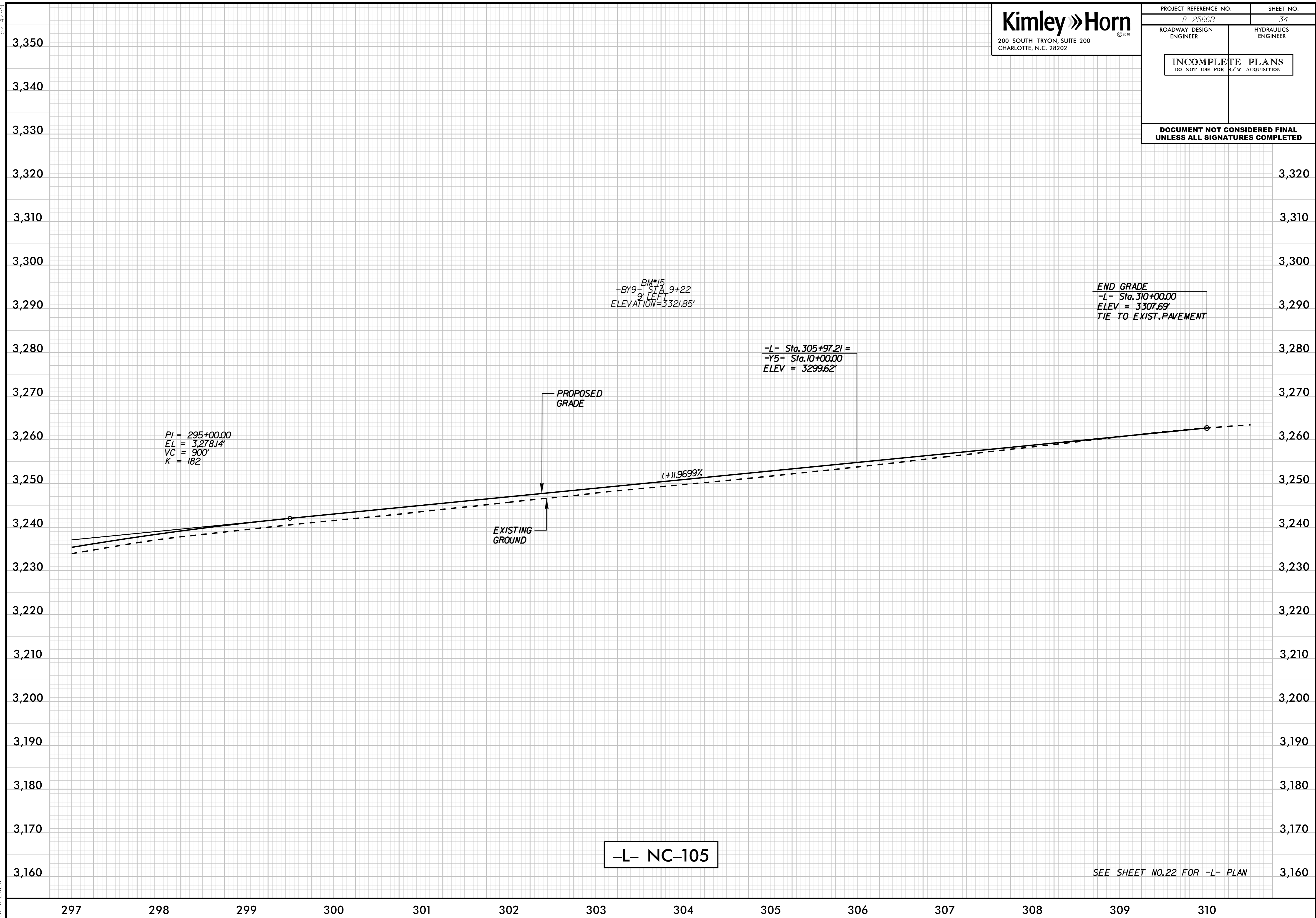
CULVERT HYDRAULIC DATA	
3 @ 7' W x 6' H RCBC'S EXTENSION	
DESIGN DISCHARGE	= 300 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 2840.6 FT
BASE DISCHARGE	= 380 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 2841.4 FT
OVERTOPPING DISCHARGE	= >500YR CFS
OVERTOPPING FREQUENCY	= >500 YRS
OVERTOPPING ELEVATION	= 2844.2 FT
DATE OF SURVEY	= 03/17/2020
W.S. ELEVATION	= XXX.X FT
AT DATE OF SURVEY	= XXX.X FT

-L- NC-105

5/14/99

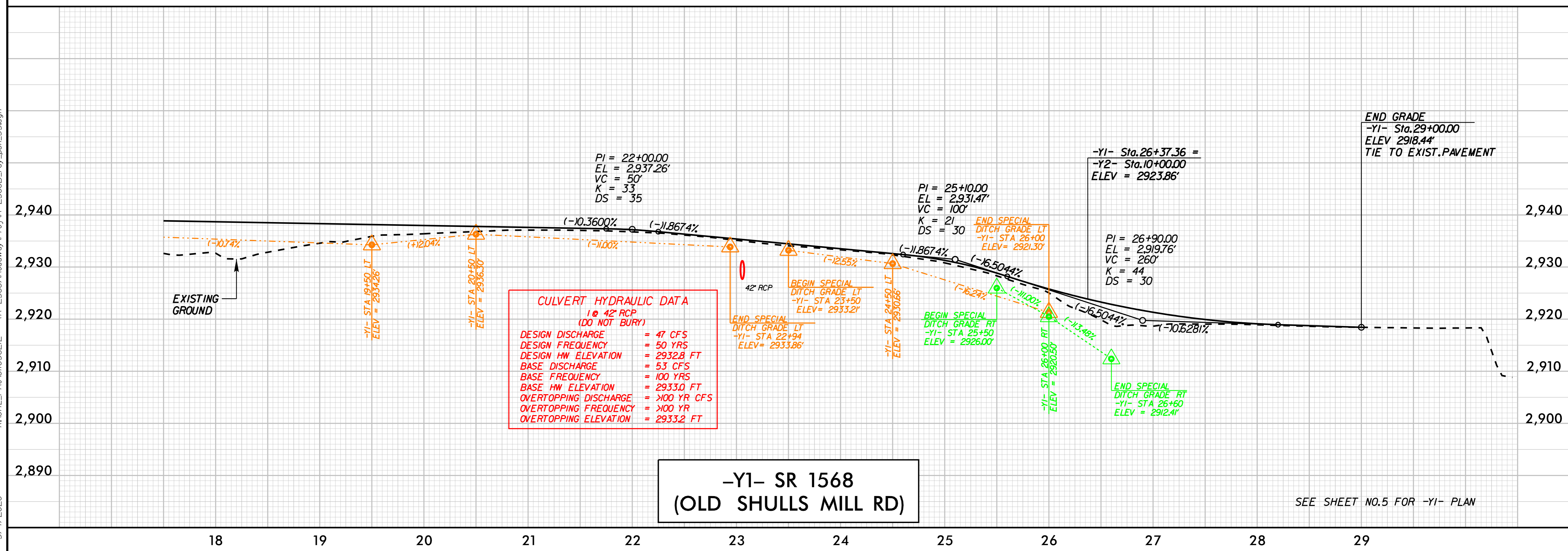
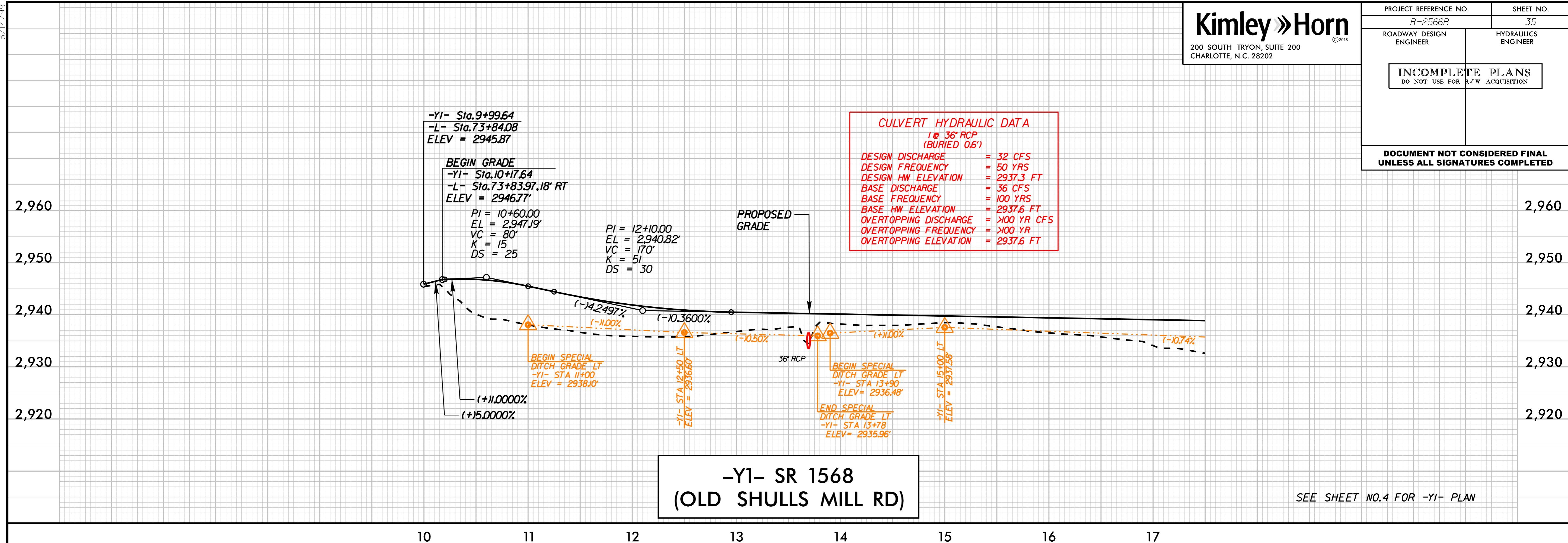
PROJECT REFERENCE NO. R-2566B	SHEET NO. 34
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

5/14/2020



-L- NC-105

SEE SHEET NO.22 FOR -L- PLAN



5/14/1999

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5/4/2020

5/14/99

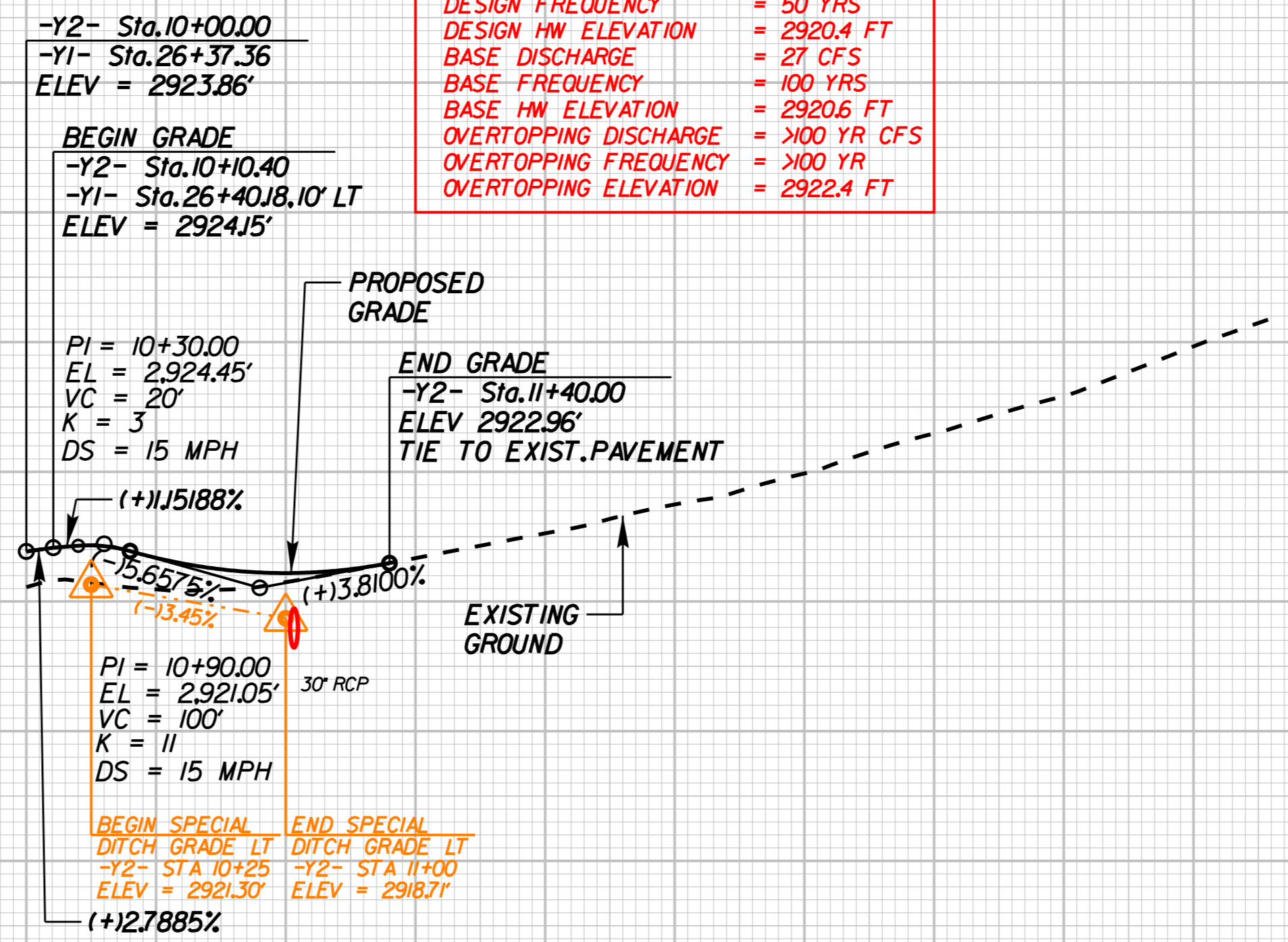
PROJECT REFERENCE NO. R-2566B	SHEET NO. 36
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

CULVERT HYDRAULIC DATA
 1 @ 30" RCP
 (DO NOT BURY)

DESIGN DISCHARGE = 24 CFS
 DESIGN FREQUENCY = 50 YRS
 DESIGN HW ELEVATION = 2920.4 FT
 BASE DISCHARGE = 27 CFS
 BASE FREQUENCY = 100 YRS
 BASE HW ELEVATION = 2920.6 FT
 OVERTOPPING DISCHARGE = >100 YR CFS
 OVERTOPPING FREQUENCY = >100 YR
 OVERTOPPING ELEVATION = 2922.4 FT

2,950
2,940
2,930
2,920
2,910

2,940
2,930
2,920
2,910



-Y2- SR 1568
(OLD SHULLS MILL RD)

SEE SHEET NO.5 FOR -Y2- PLAN

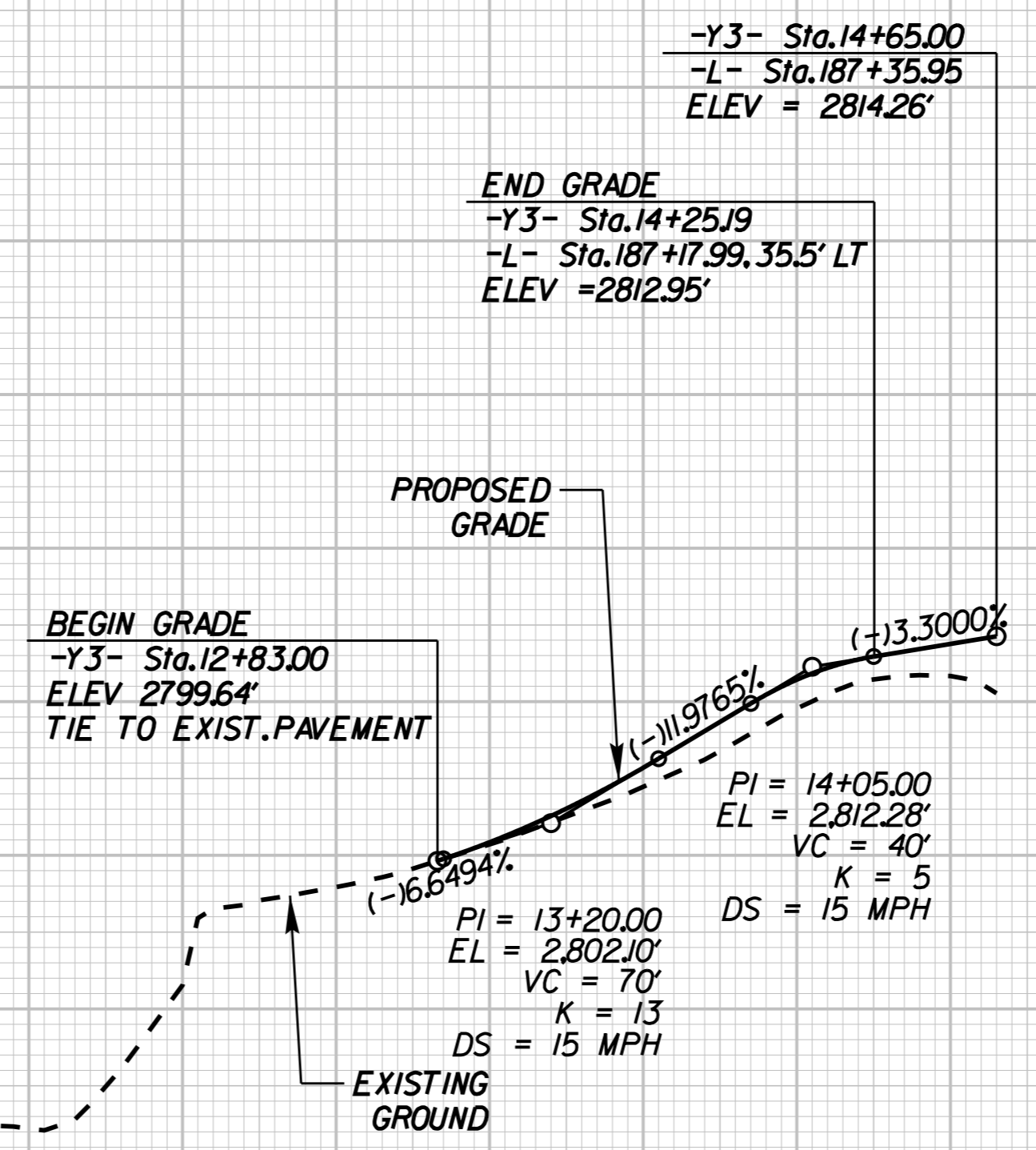
10 11 12 13 14 15

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5/4/2020

2,820
2,810
2,800
2,790
2,780
2,770

2,820
2,810
2,800
2,790
2,780
2,770

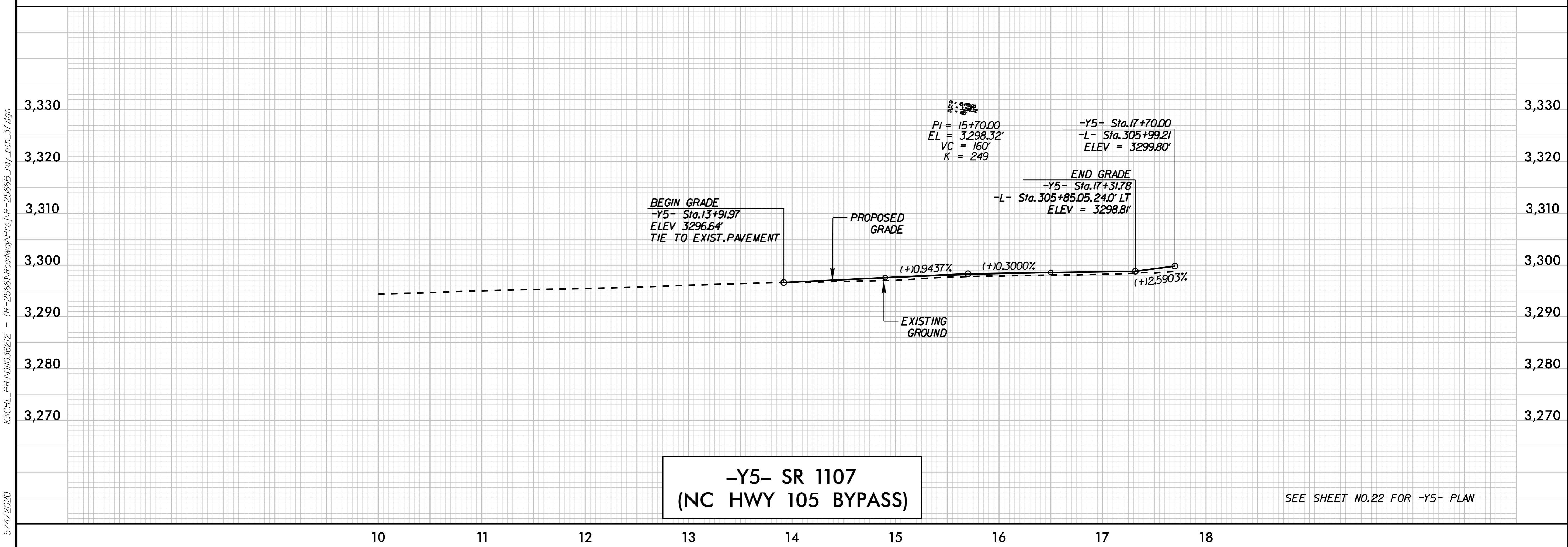
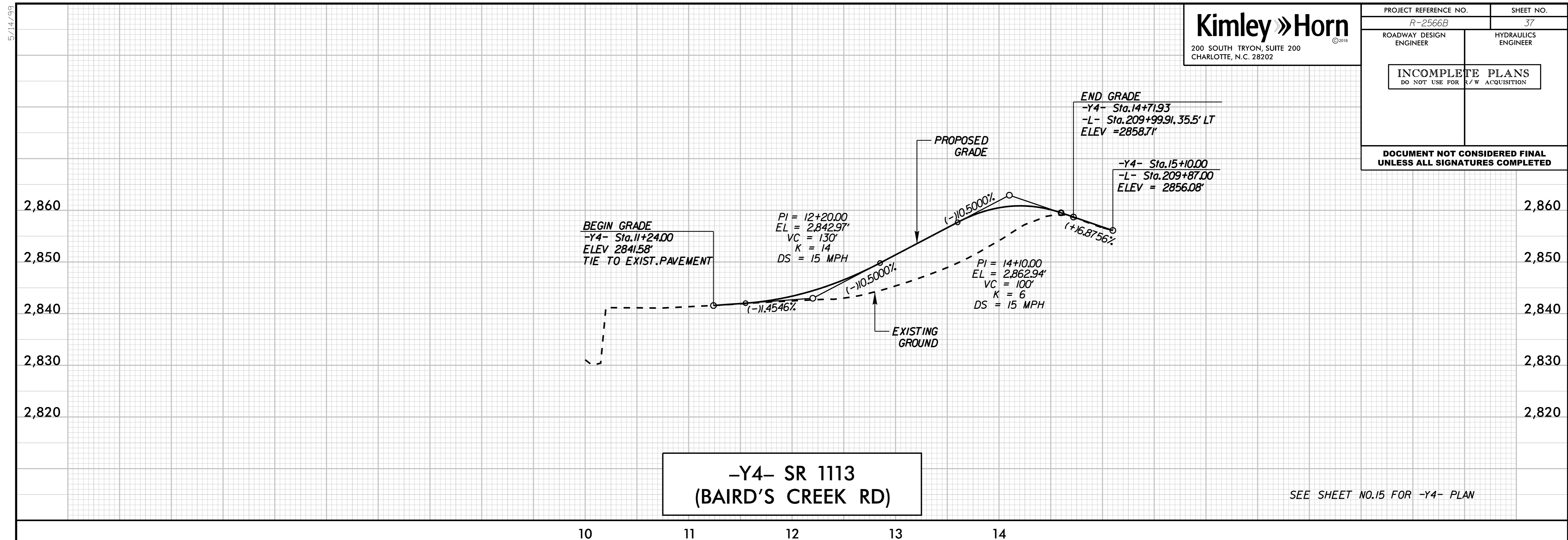


-Y3- SR 1111
(OLD DANNER RD)

SEE SHEET NO.13 FOR -Y3- PLAN

10 11 12 13 14 15

PROJECT REFERENCE NO. R-2566B	SHEET NO. 37
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



5/14/99

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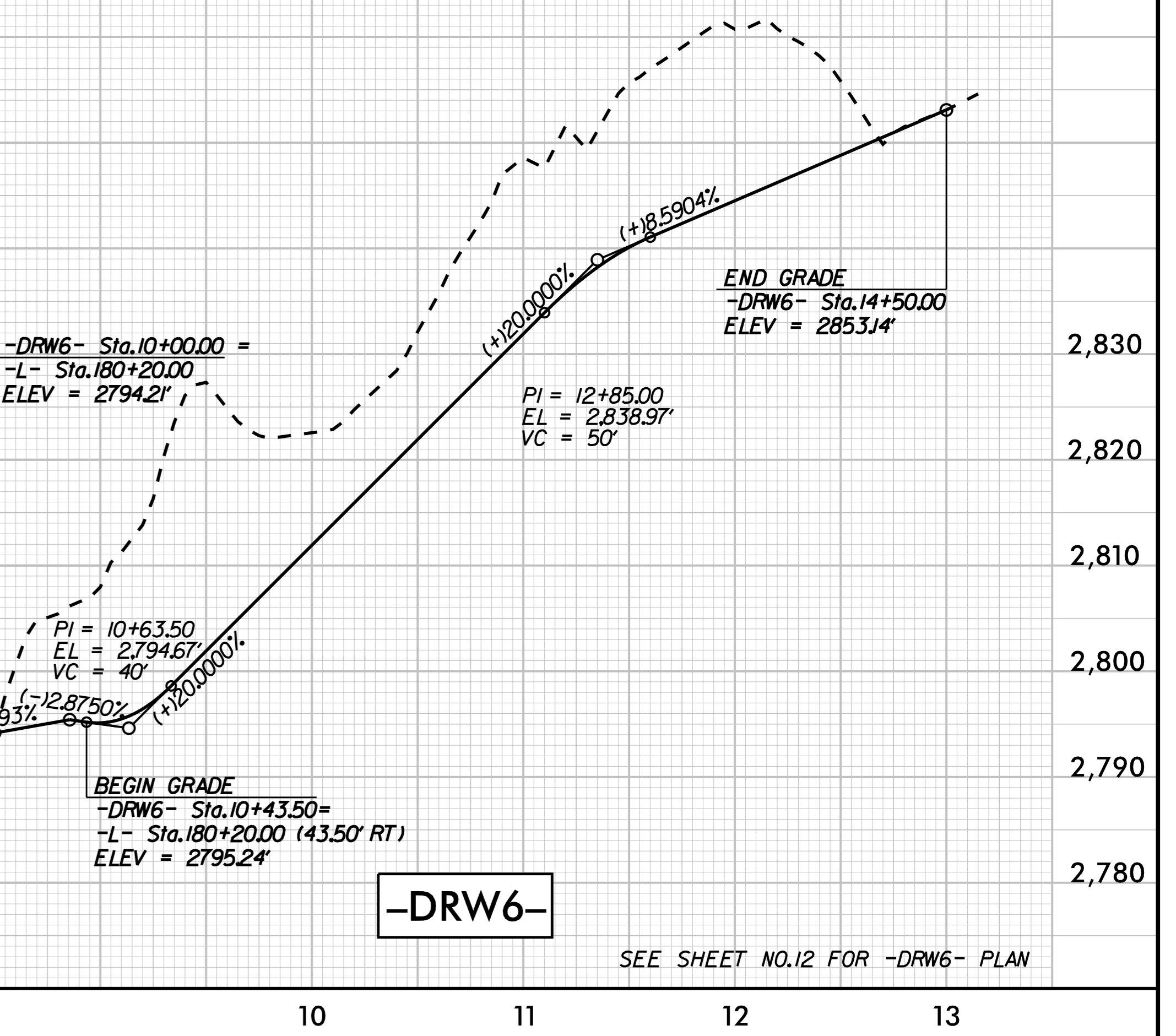
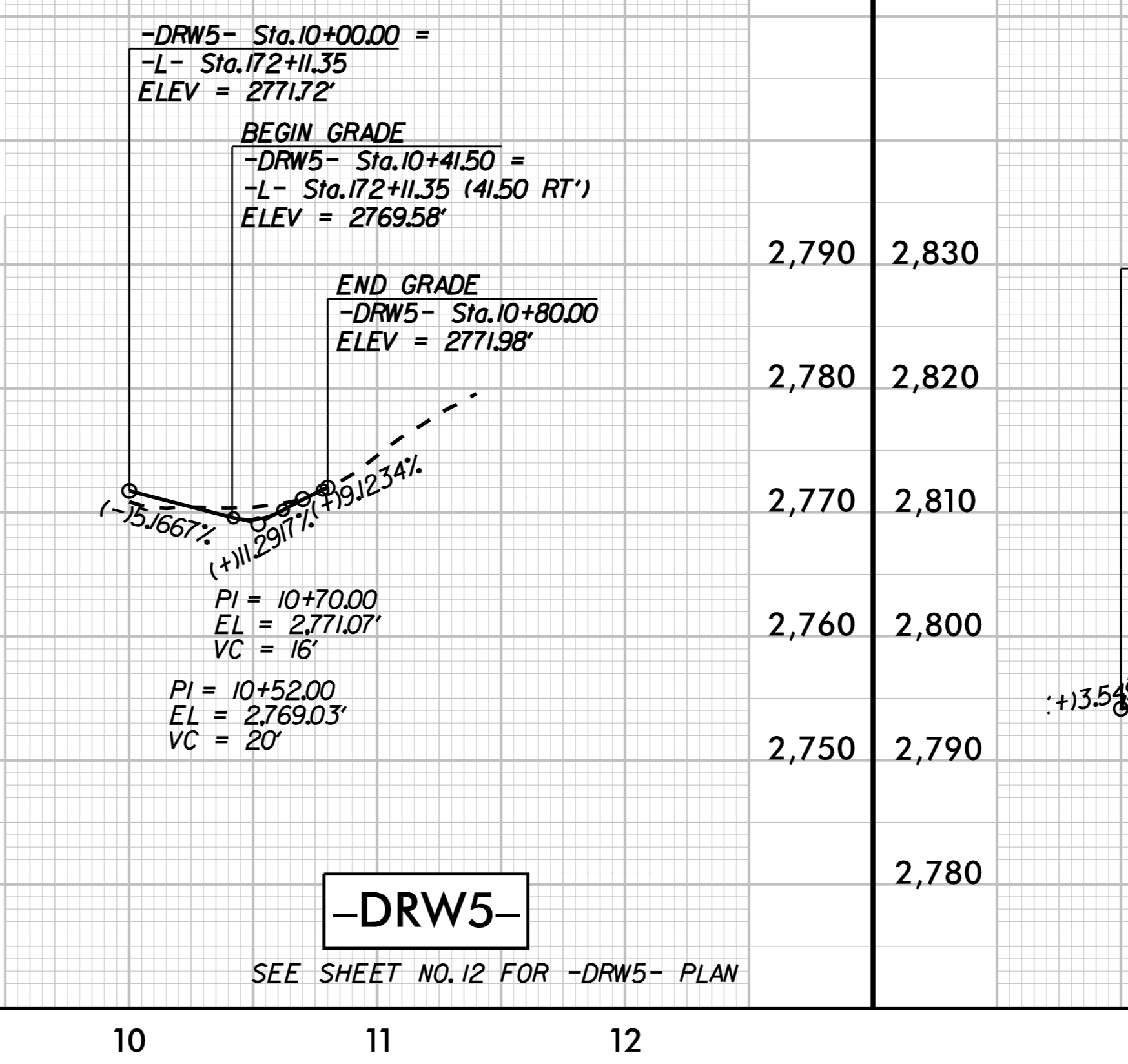
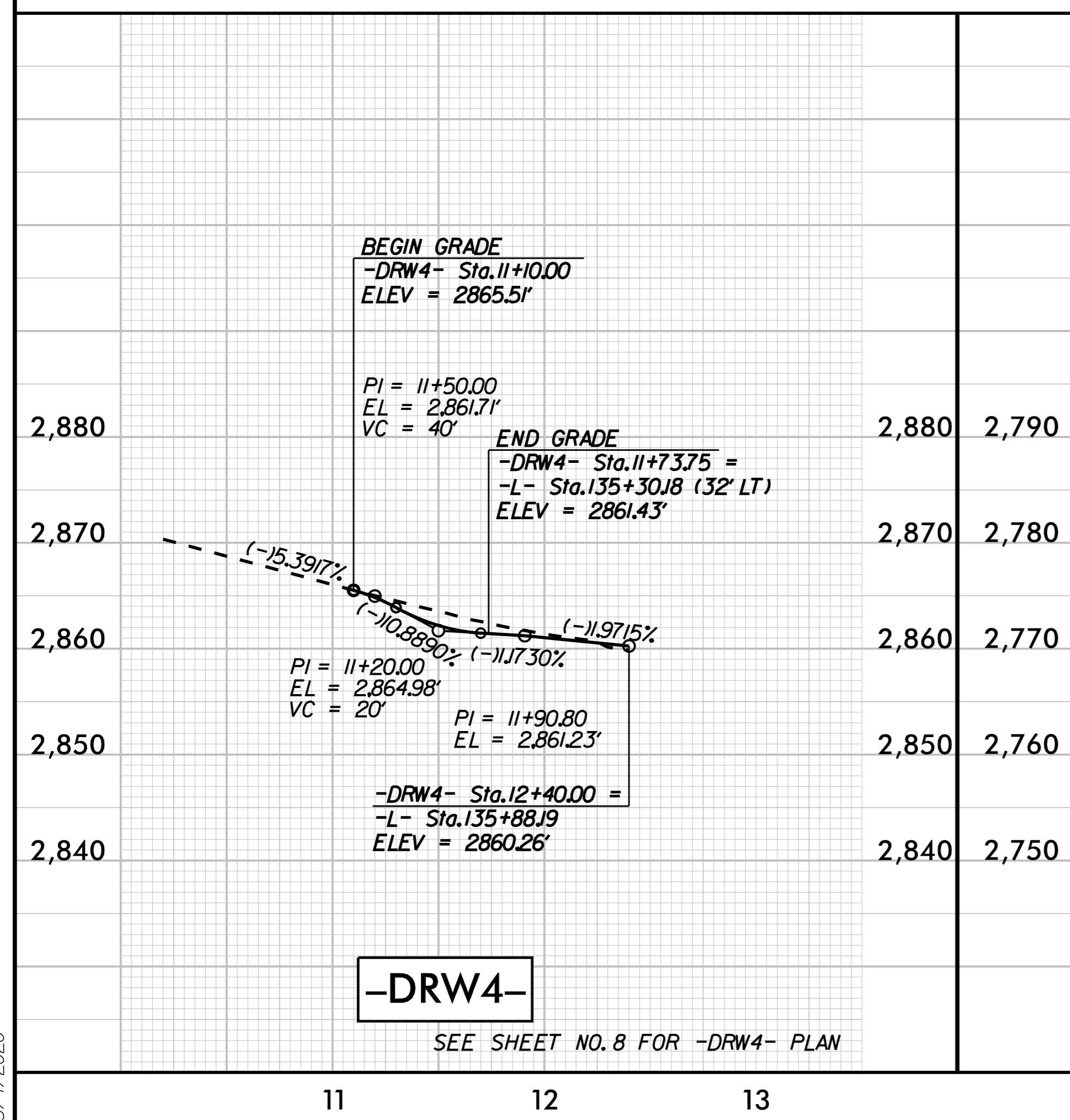
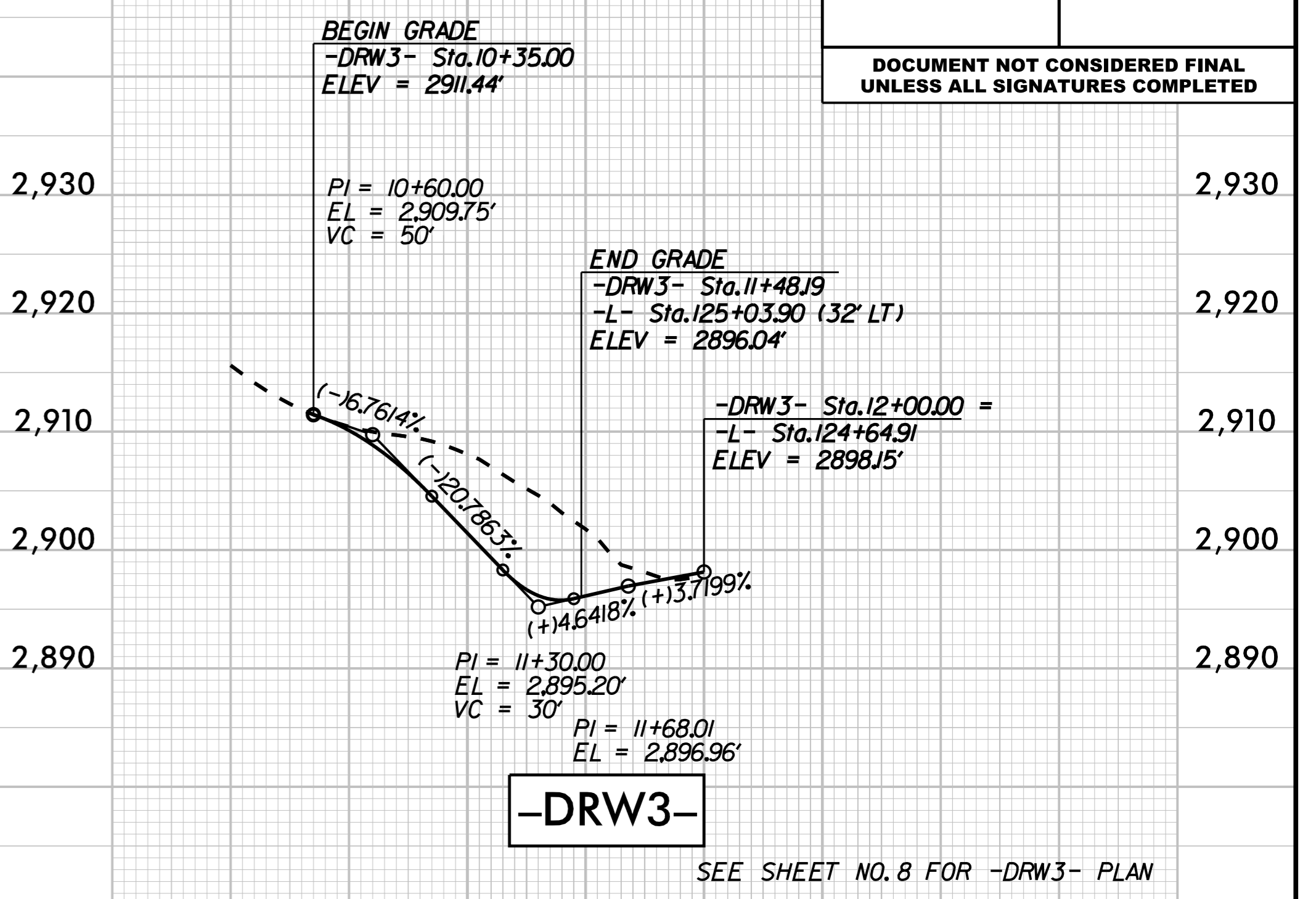
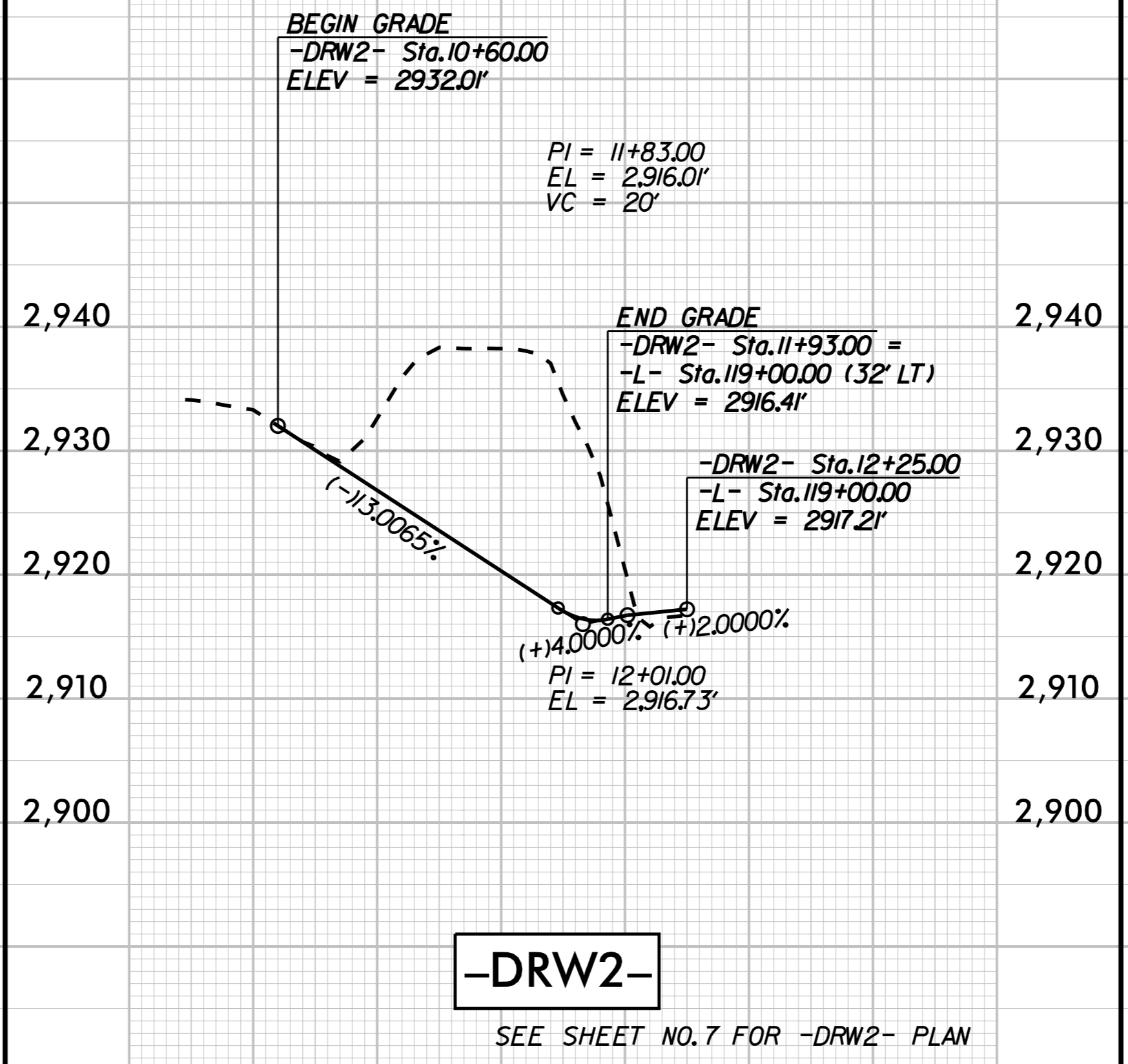
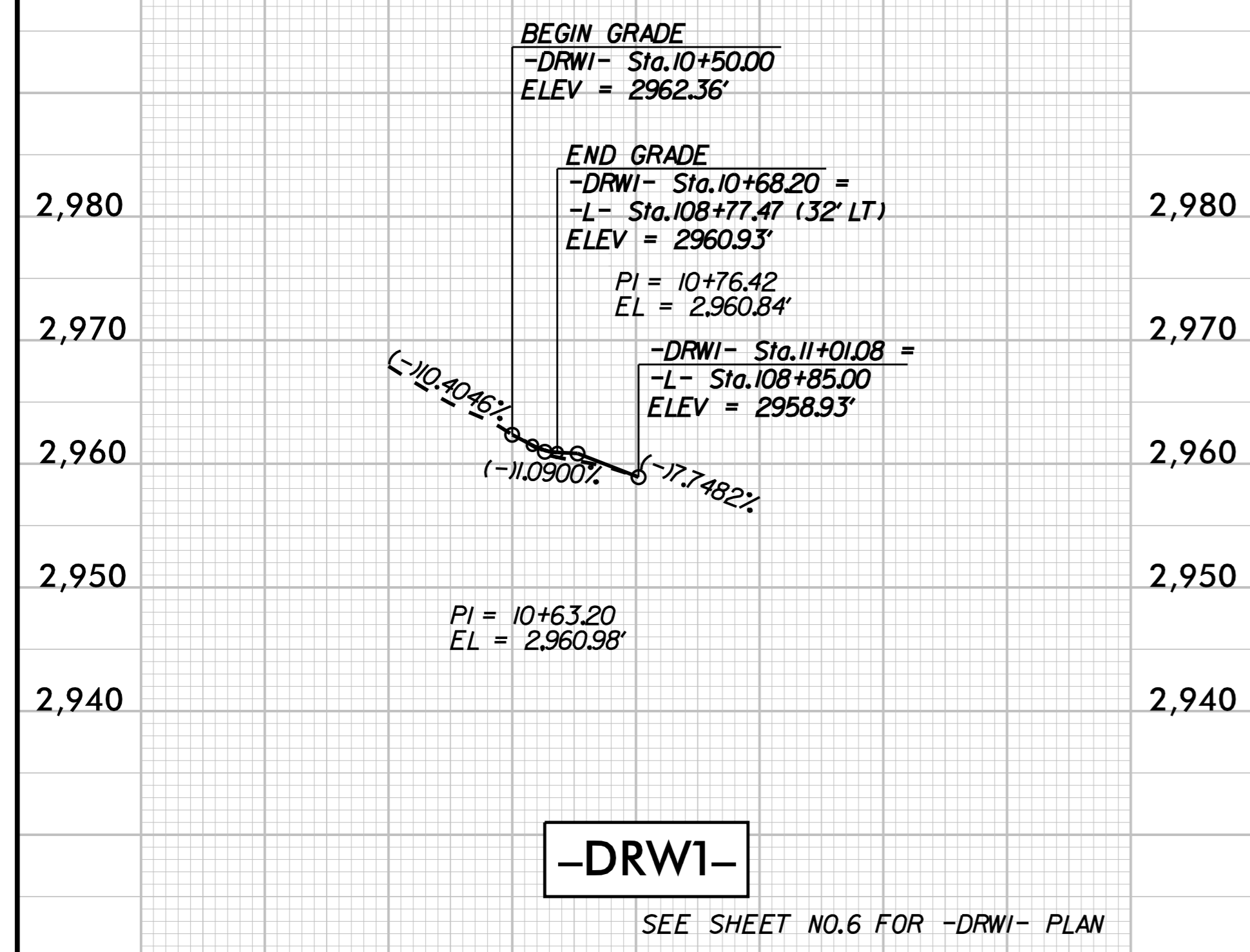
5/4/2020

5/14/99

Kimley » Horn
 200 S. TRYON ST. • CHARLOTTE, NC 28202
 ROADWAY DESIGN ENGINEER
 HYDRAULICS ENGINEER

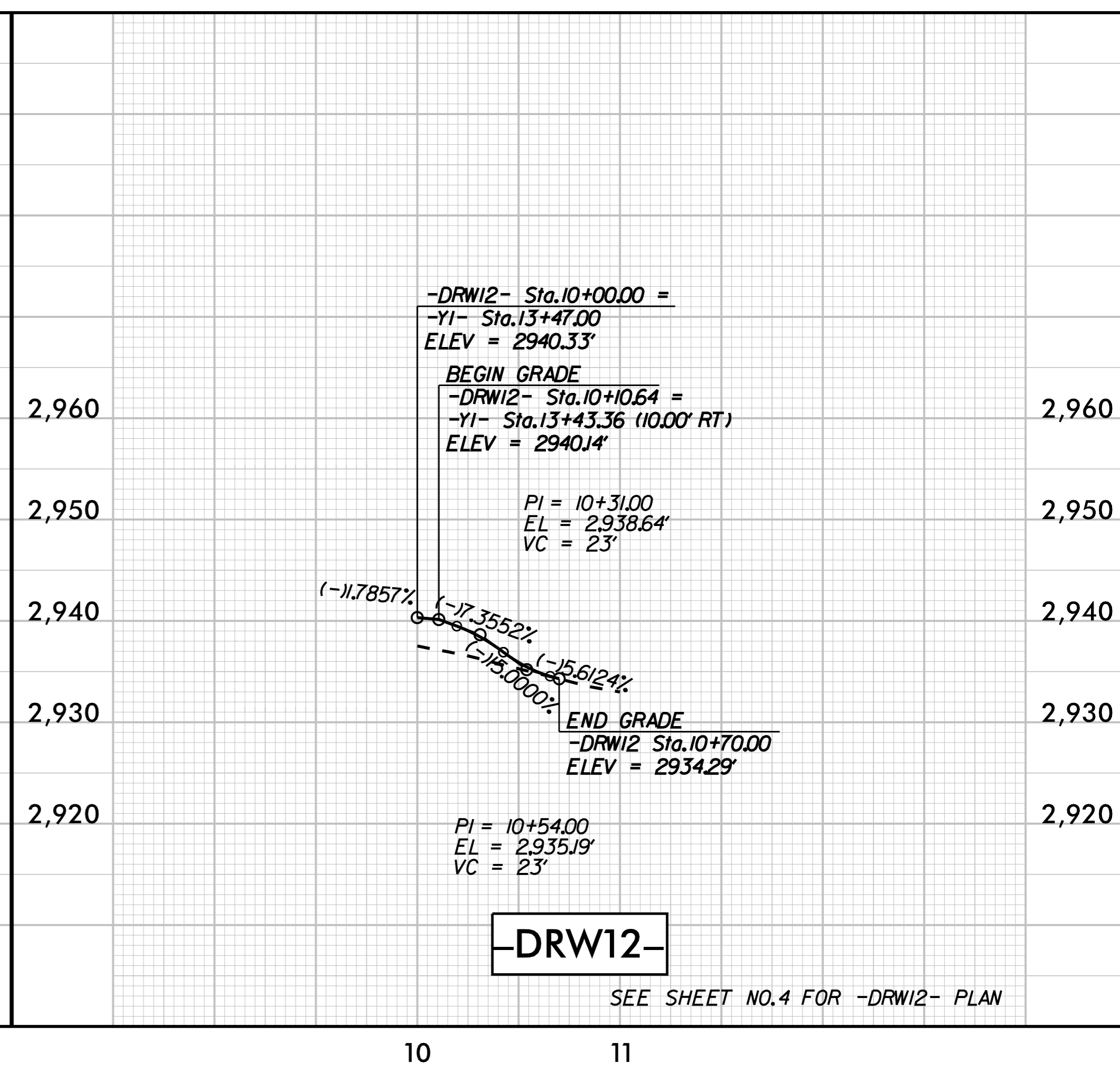
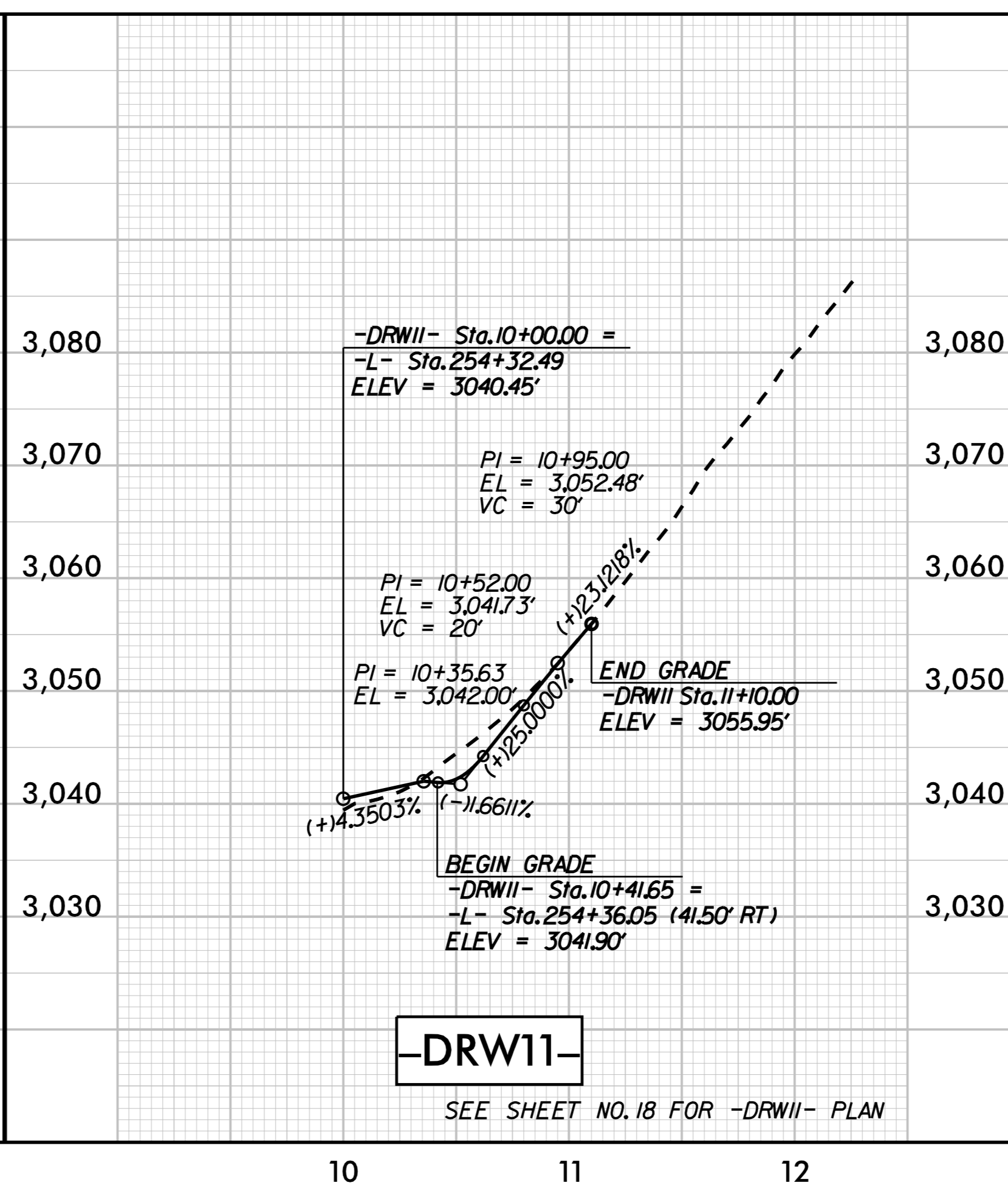
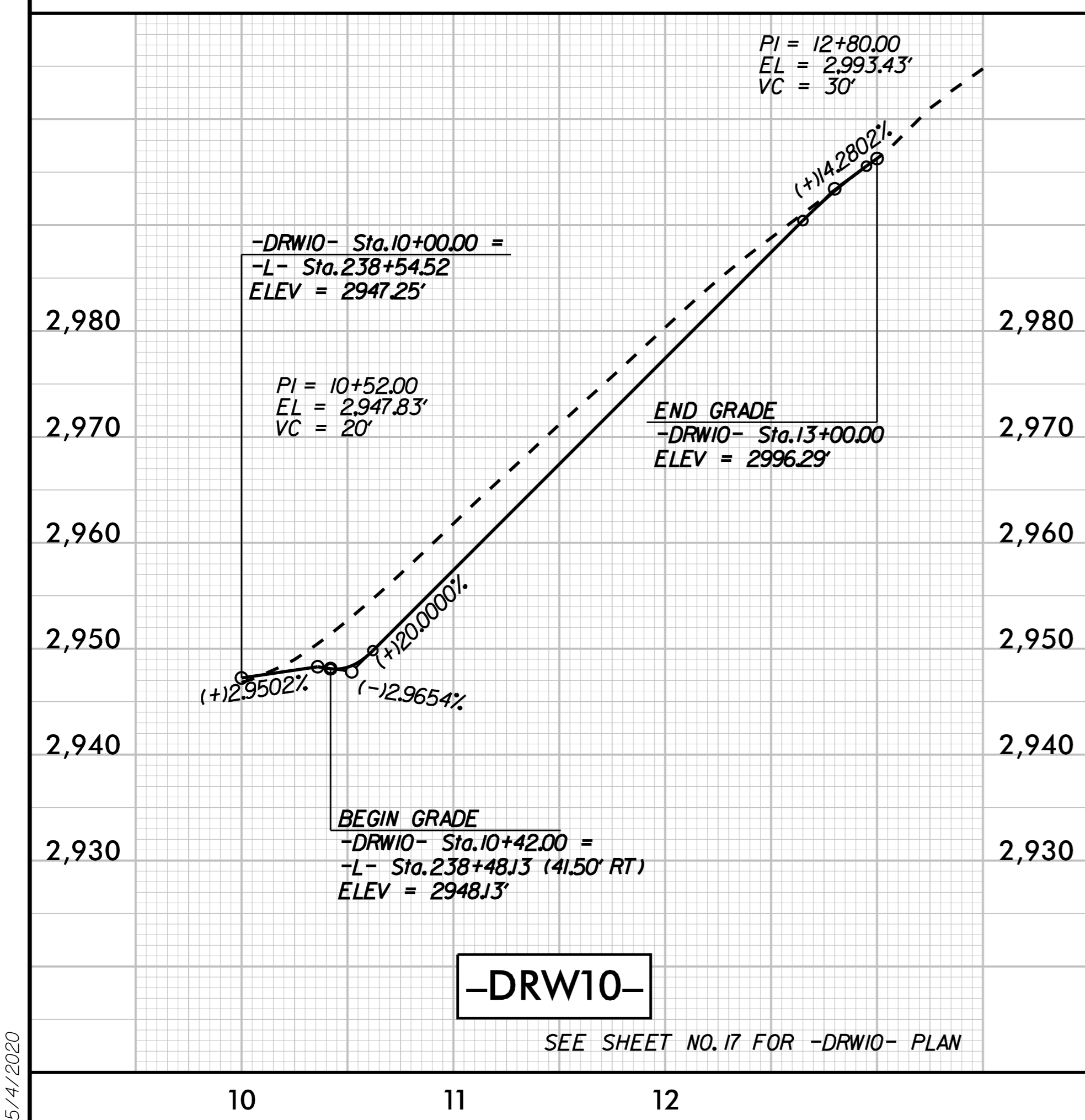
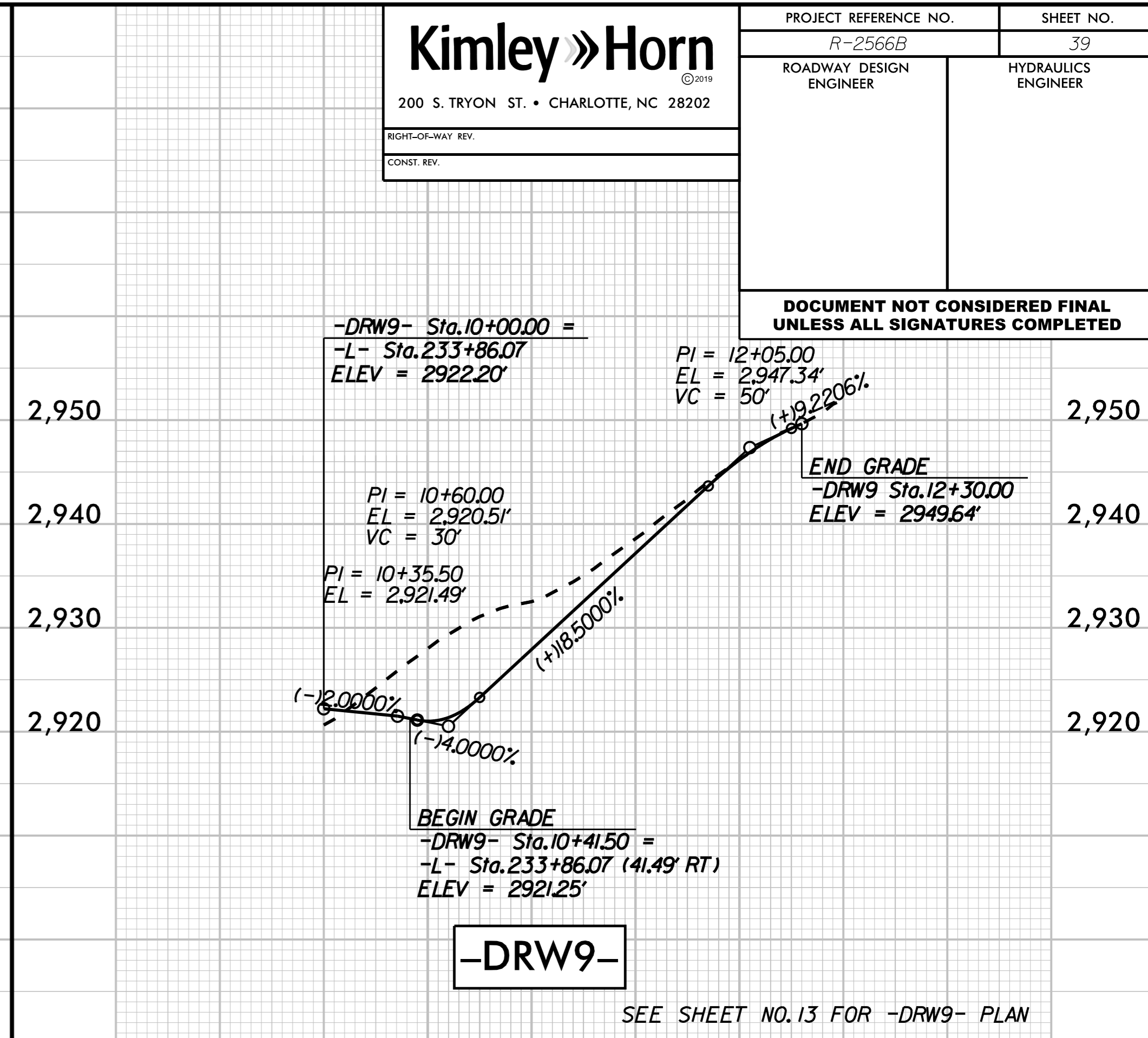
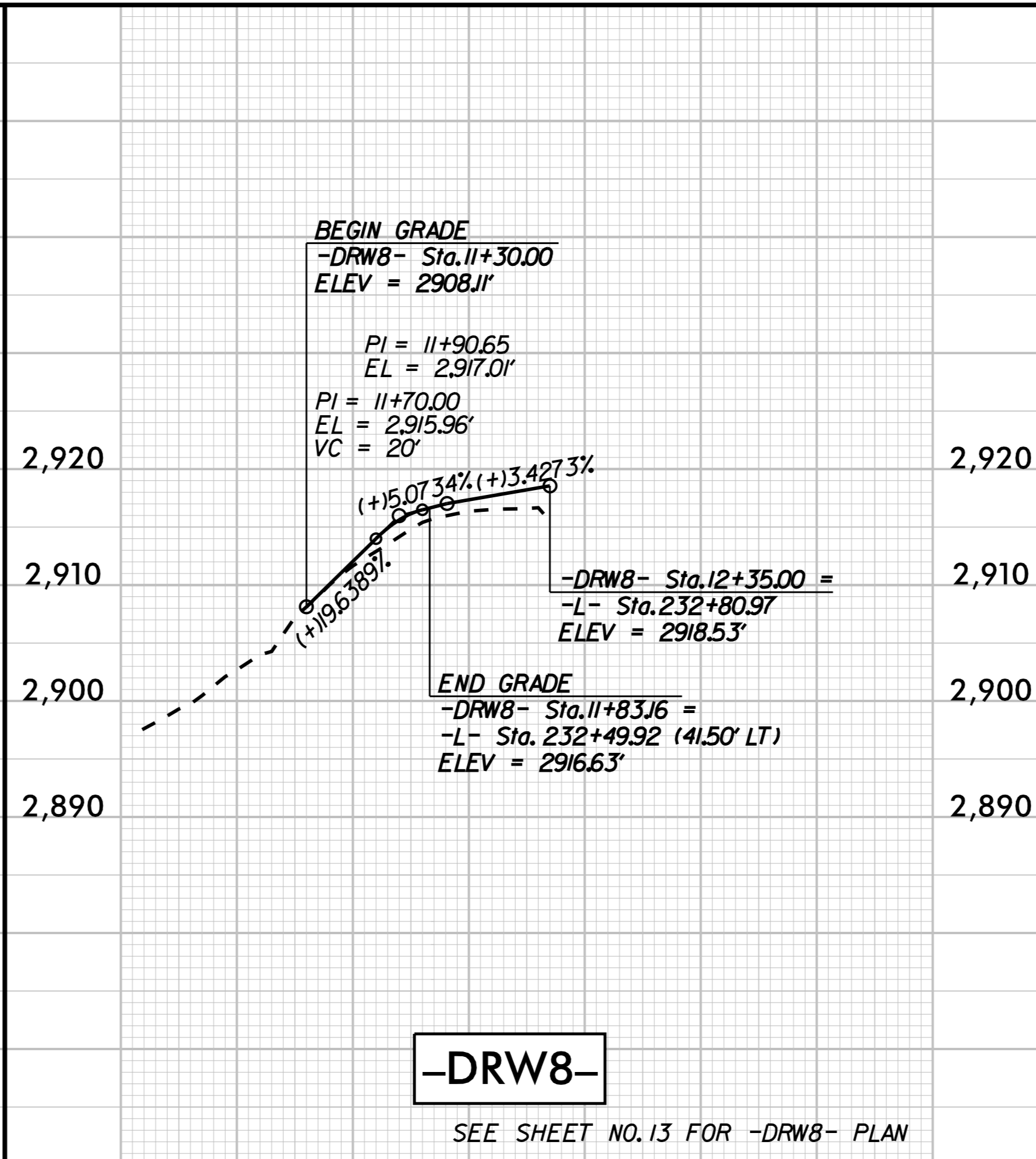
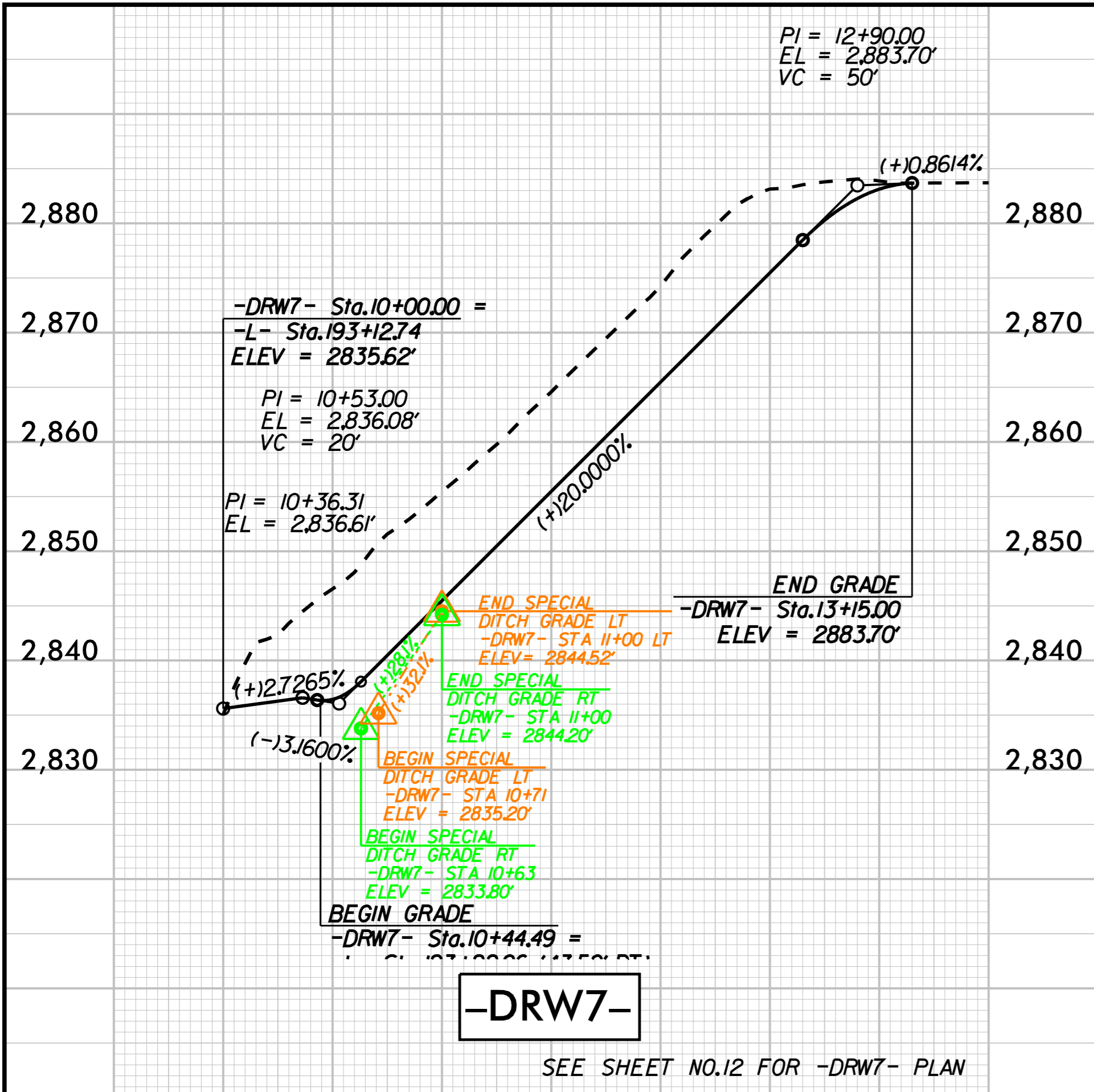
PROJECT REFERENCE NO. R-2566B	SHEET NO. 38
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



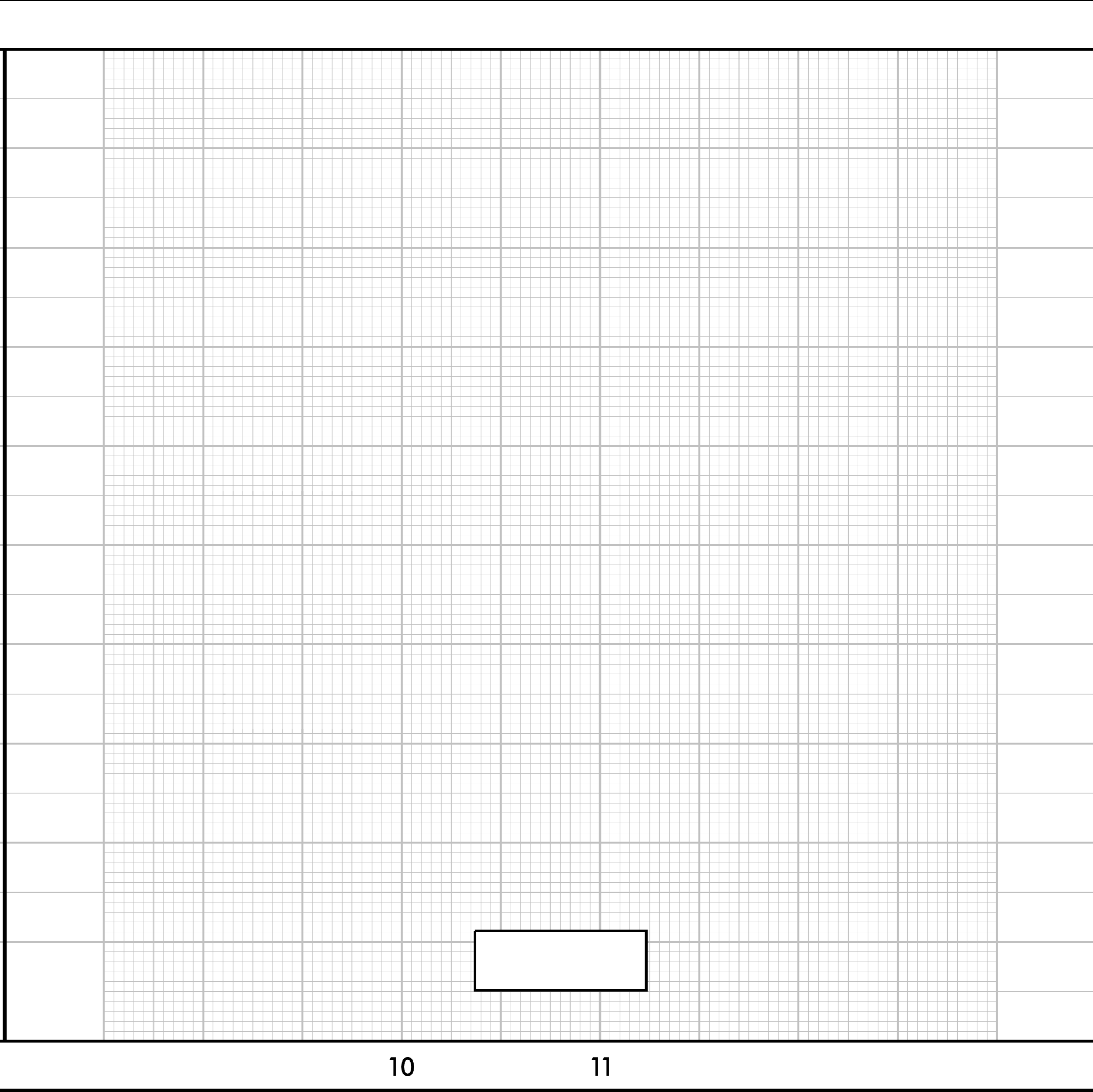
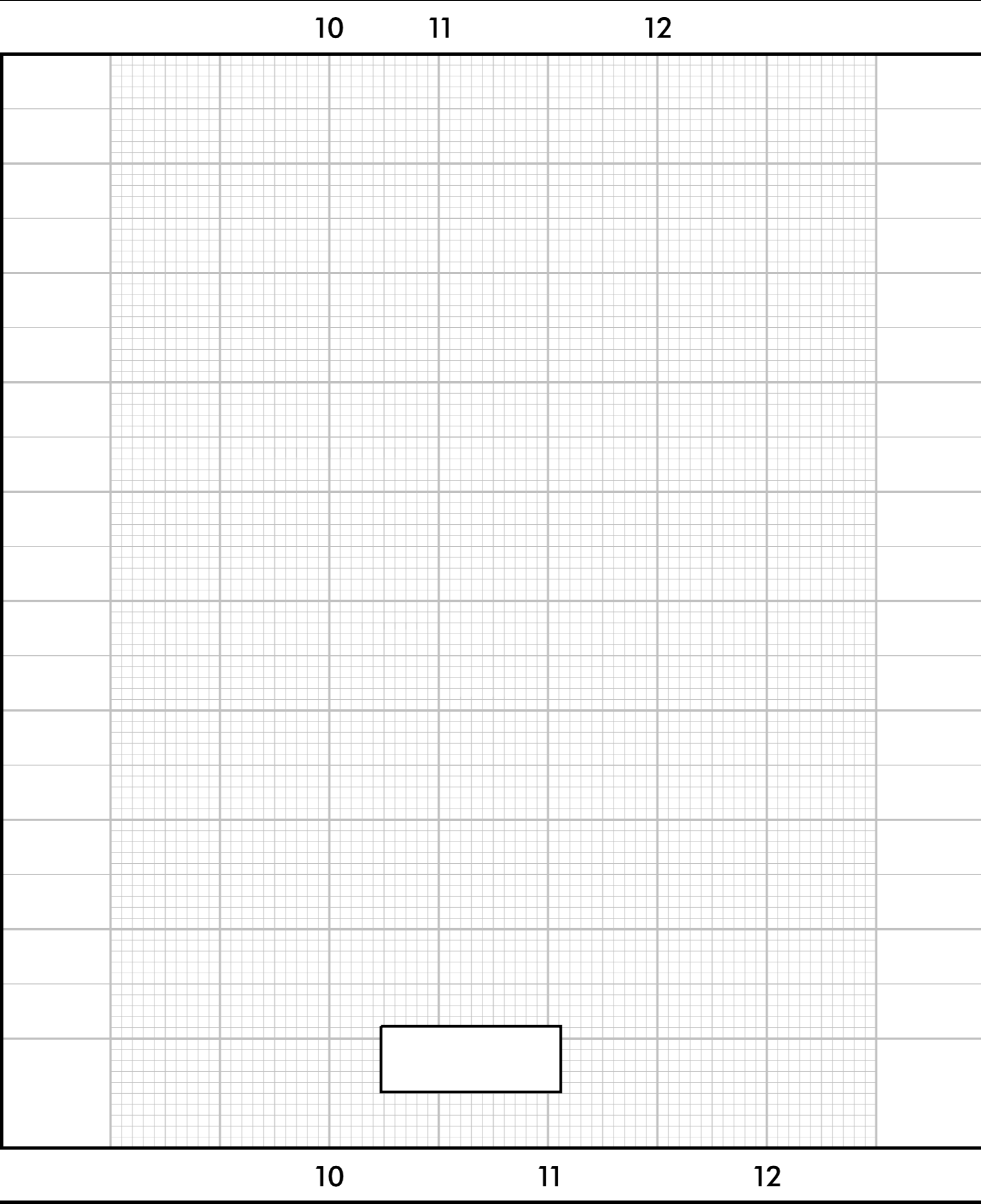
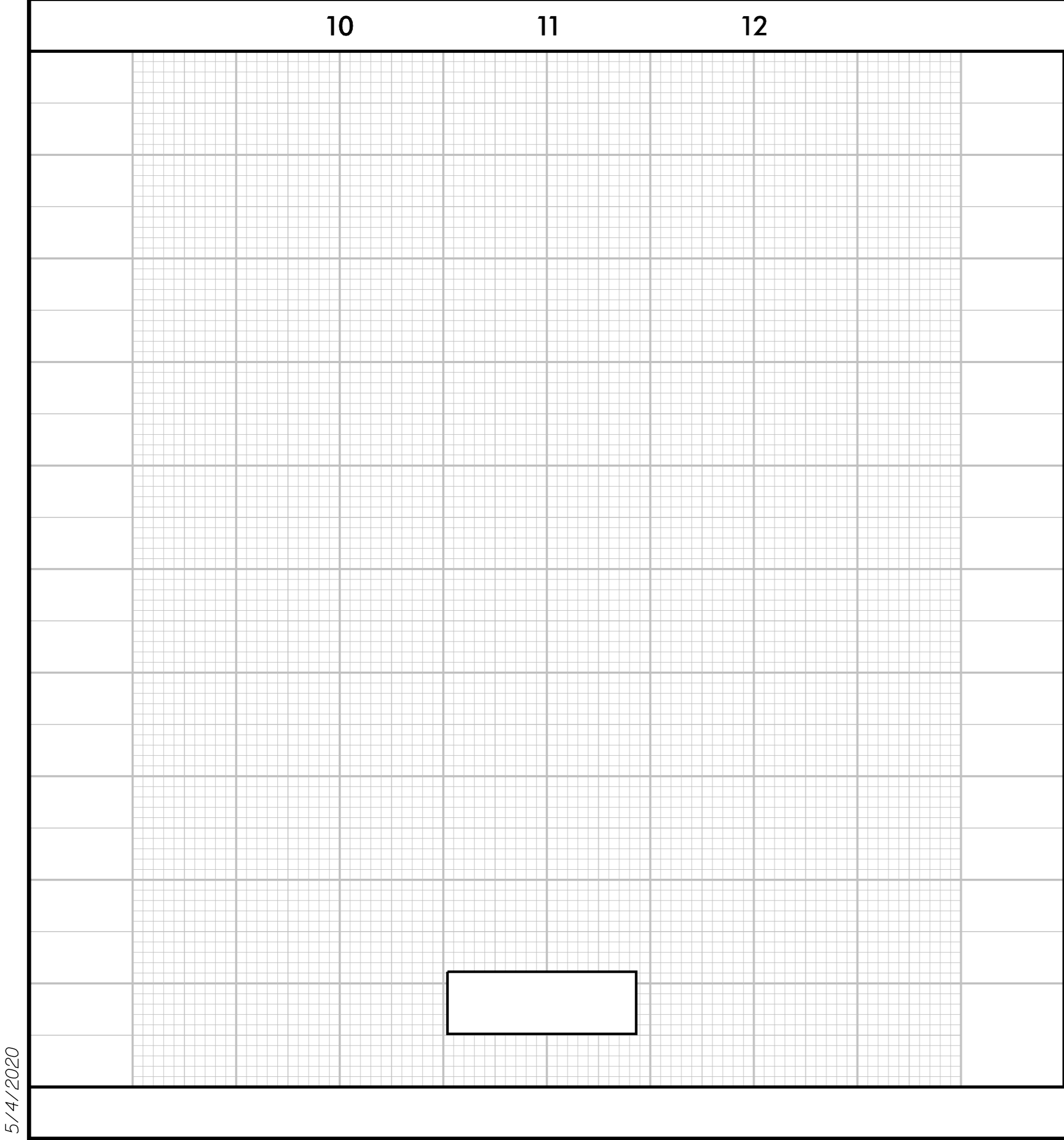
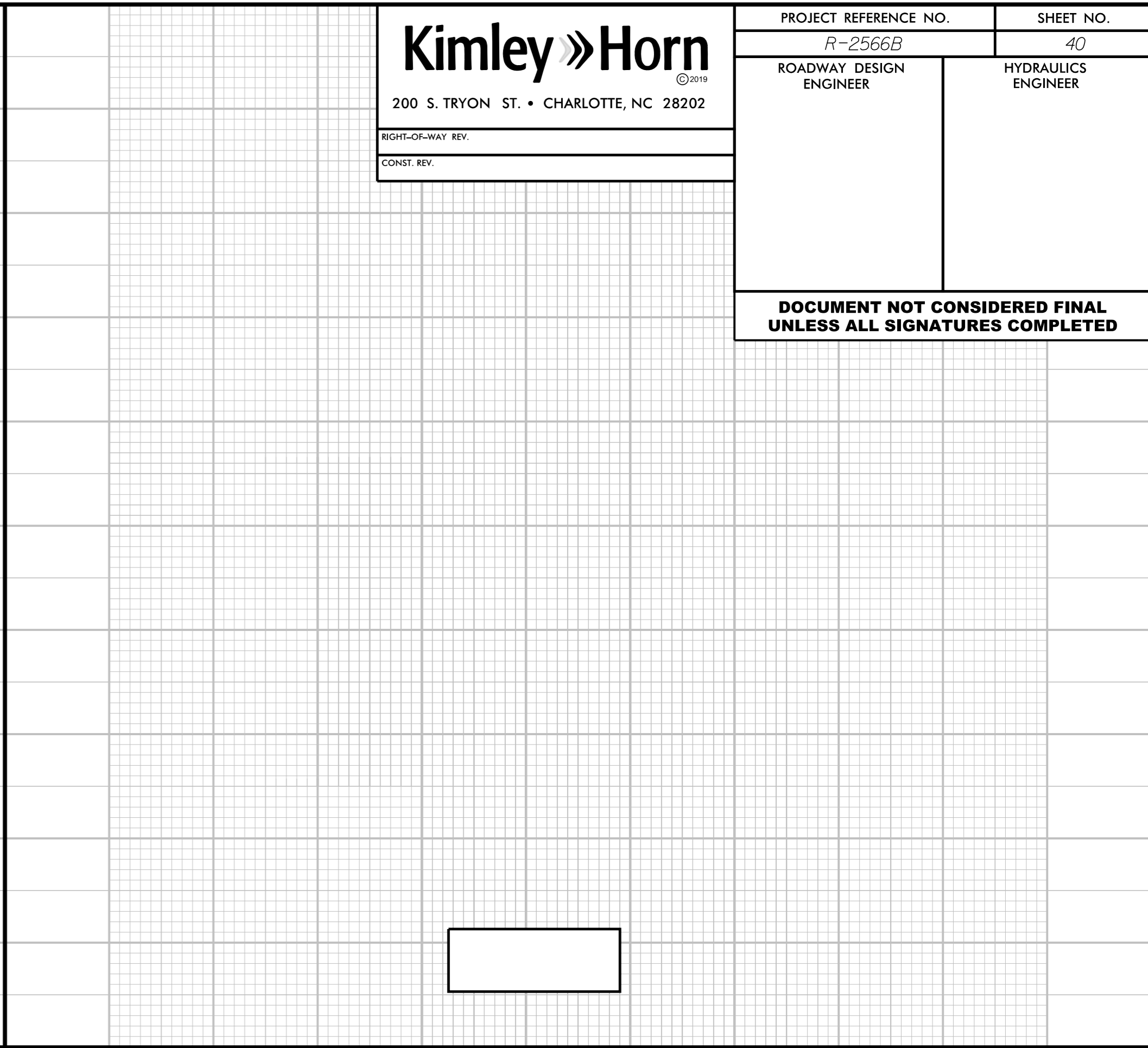
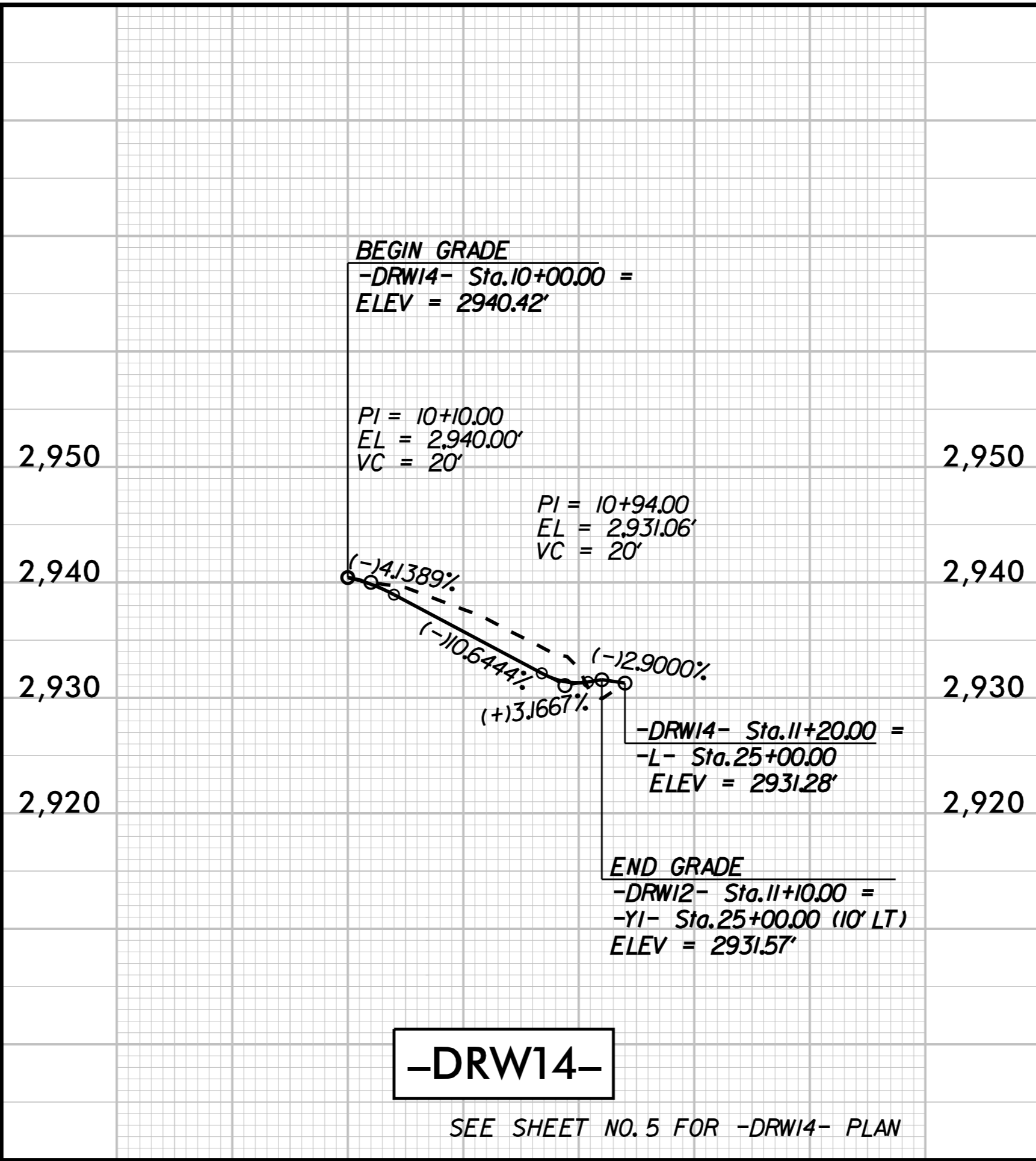
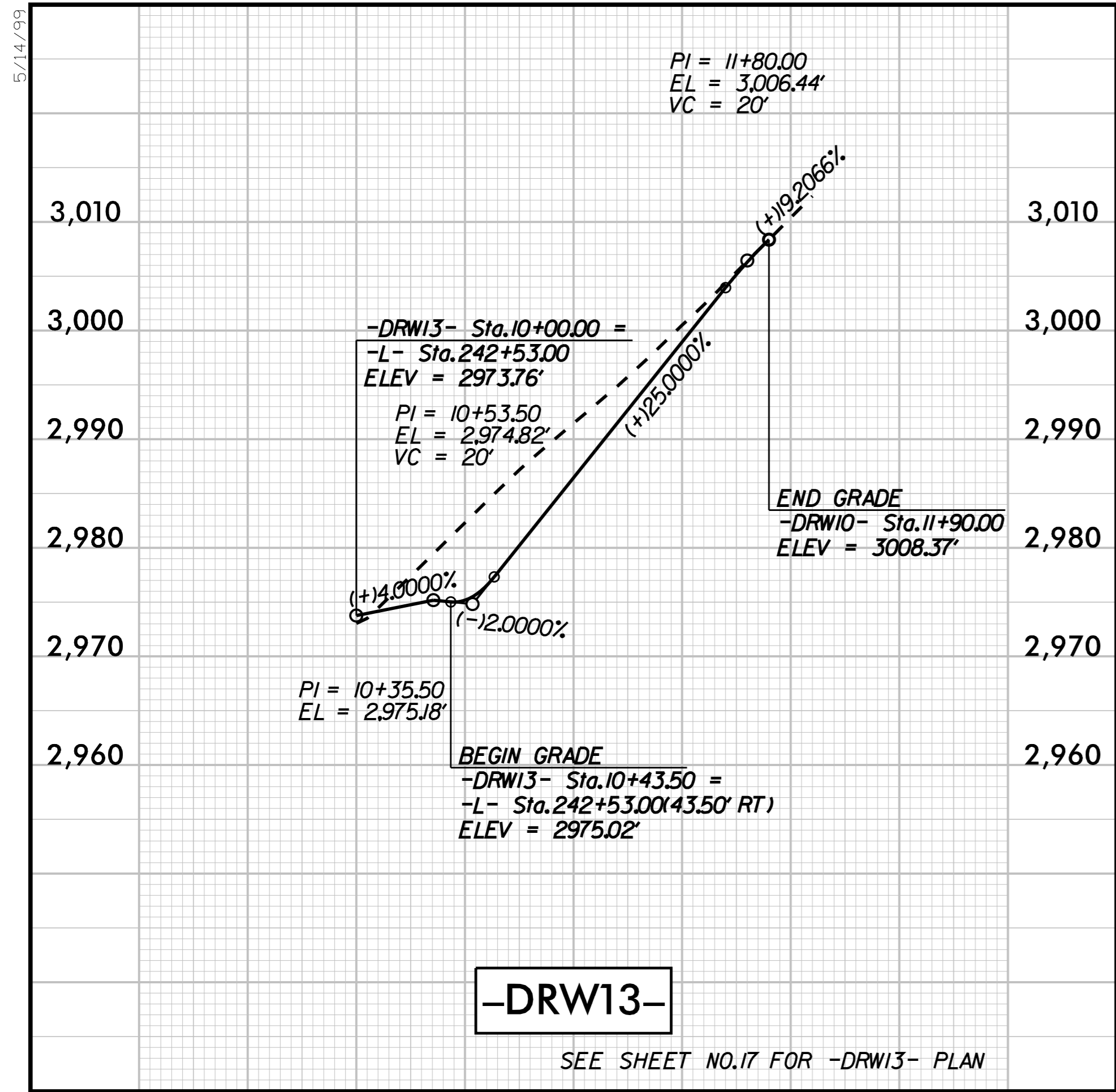
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