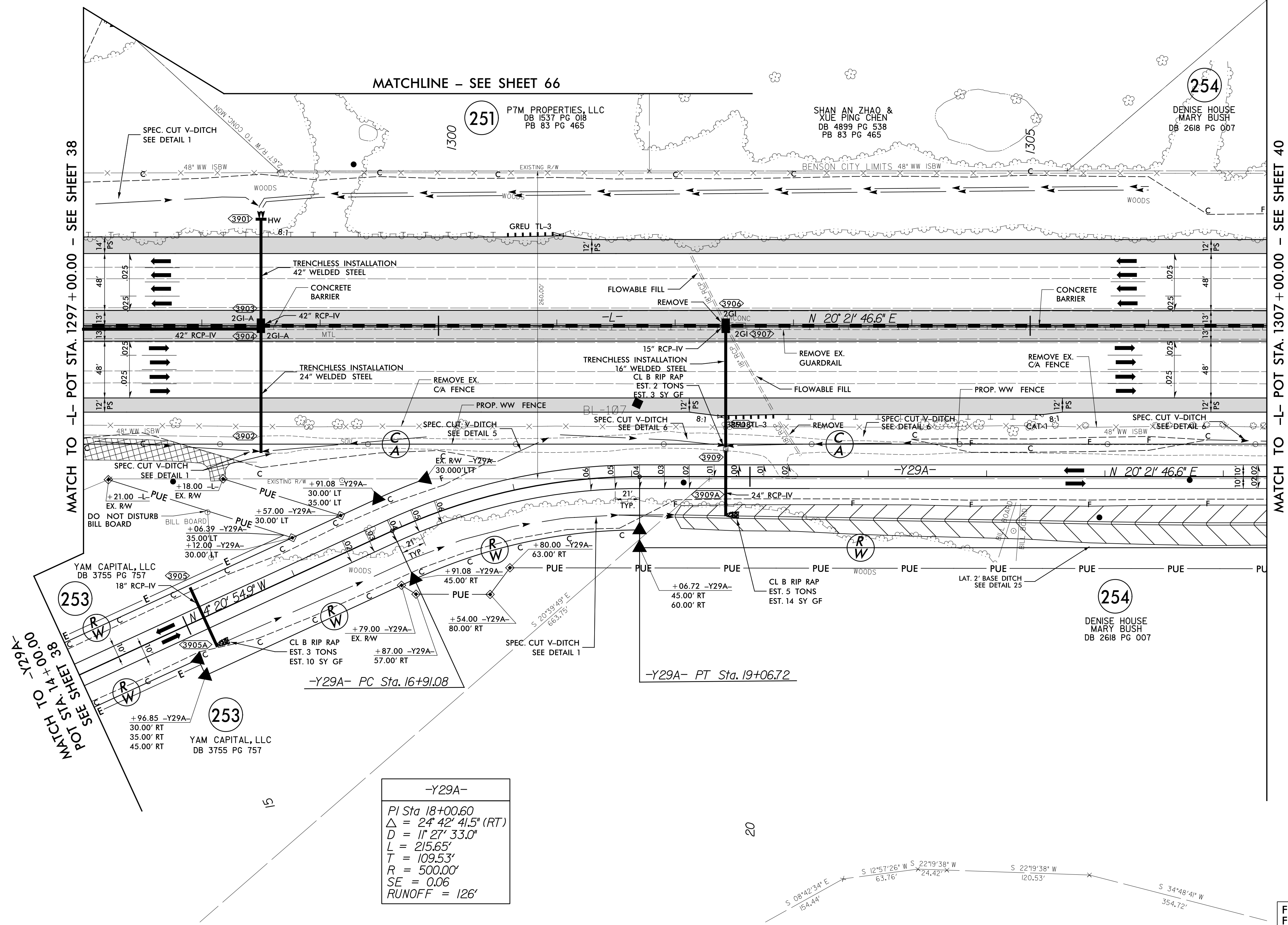
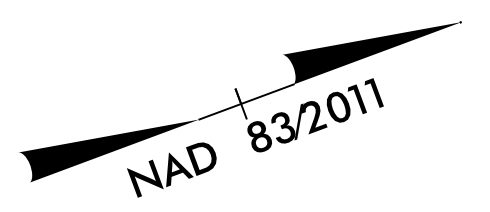


5/14/99

REVISIONS

R:\12-MAR-2021\0814-5986B\_Rdwy\_psh\_39.dgn  
5/14/2021 10:58:33 AM

PROJECT REFERENCE NO. 1-5986B	SHEET NO. 39
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SUSAN C. LANCASTER SEAL 027373 NORTH CAROLINA PROFESSIONAL ENGINEER	HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 NORTH CAROLINA PROFESSIONAL ENGINEER
DocuSign Susan C. Lancaster 5/13/2021	DocuSign Joshua G. Dalton 5/12/2021
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Michael Baker Engineering, Inc. 1800 Regency Park Suite 800 Cary, NC 27518 NC License: F-1084	SUNGATE DESIGN GROUP, P.A. 100 WEST HARRIS ROAD RALEIGH, NORTH CAROLINA 27605 NC COA No. C-6890

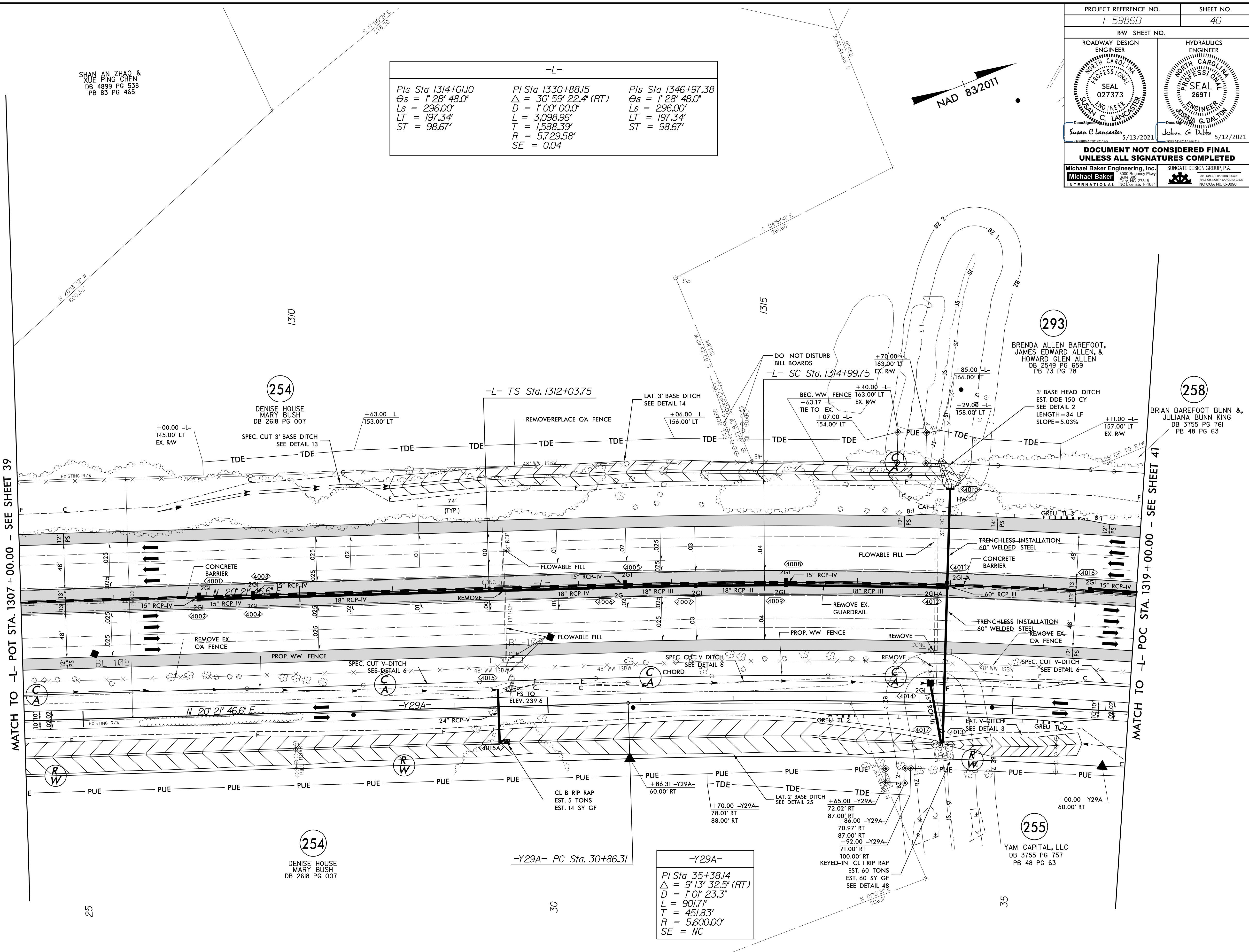


FOR -L- PROFILE SEE SHEET 84  
FOR -Y29A- PROFILE SEE SHEET 138

PROJECT REFERENCE NO. 1-5986B		SHEET NO. 40	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER SUSAN C. LANCASTER SEAL 027373 5/13/2021		HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 5/12/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Michael Baker Engineering, Inc. 1000 Piedmont Parkway Raleigh, NC 27615 Tel: 919.487.2000 Fax: 919.487.2001 www.michaelbaker.com		SUNGATE DESIGN GROUP, P.A. 1000 Piedmont Parkway Raleigh, NC 27615 Tel: 919.487.2000 Fax: 919.487.2001 www.sungatedesign.com	

-L-

Pls Sta 1314+01.00 Os = 1' 28" 48.0" Ls = 296.00' LT = 197.34' ST = 98.67'	Pls Sta 1330+88.15 Δ = 30° 59' 22.4" (RT) D = 1' 00" 00.0" L = 3,098.96' T = 1,588.39' R = 5,729.58' SE = 0.04	Pls Sta 1346+97.38 Os = 1' 28" 48.0" Ls = 296.00' LT = 197.34' ST = 98.67'
----------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------



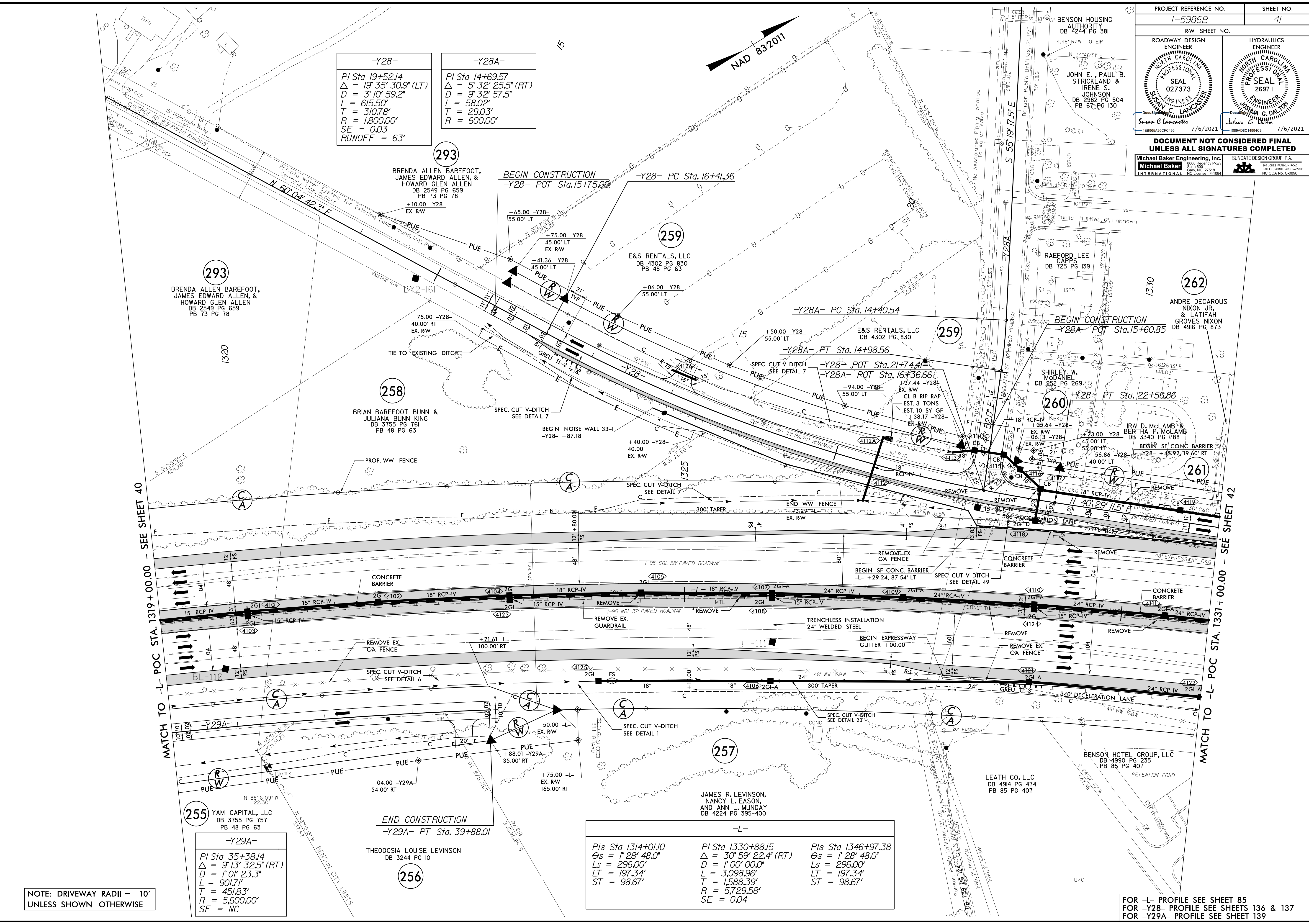
-Y29A-

Pls Sta 35+38.14 Δ = 9° 13' 32.5" (RT) D = 1' 0" 23.3" L = 901.71' T = 451.83' R = 5,600.00' SE = NC
------------------------------------------------------------------------------------------------------------------------

REVISIONS

QC-APR-2021 12:04 - 5986B\_Rdly\_psh\_40.dgn

PROJECT REFERENCE NO. <b>1-5986B</b>		SHEET NO. <b>41</b>	
ROADWAY DESIGN ENGINEER			
HYDRAULICS ENGINEER			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			



<p><b>-Y28-</b></p> <p>PI Sta 19+52.14  <math>\Delta = 19^\circ 35' 30.9''</math> (LT)  <math>D = 3^\circ 10' 59.2''</math>  <math>L = 615.50'</math>  <math>T = 310.78'</math>  <math>R = 1,800.00'</math>  <math>SE = 0.03</math>  <math>RUNOFF = 63'</math></p>	<p><b>-Y28A-</b></p> <p>PI Sta 14+69.57  <math>\Delta = 5^\circ 32' 25.5''</math> (RT)  <math>D = 9^\circ 32' 57.5''</math>  <math>L = 58.02'</math>  <math>T = 29.03'</math>  <math>R = 600.00'</math></p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>-Y29A-</b></p> <p>PI Sta 35+38.14  <math>\Delta = 9^\circ 13' 32.5''</math> (RT)  <math>D = 1^\circ 0' 23.3''</math>  <math>L = 901.71'</math>  <math>T = 451.83'</math>  <math>R = 5,600.00'</math>  <math>SE = NC</math></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p><b>-L-</b></p> <p>PIs Sta 1314+01.0  <math>\Delta s = 1^\circ 28' 48.0''</math>  <math>D = 296.00'</math>  <math>LT = 197.34'</math>  <math>ST = 98.67'</math></p>	<p>PI Sta 1330+88.15  <math>\Delta = 30^\circ 59' 22.4''</math> (RT)  <math>D = 1^\circ 00' 00.0''</math>  <math>L = 3,098.96'</math>  <math>T = 1,588.39'</math>  <math>R = 5,729.58'</math>  <math>SE = 0.04</math></p>	<p>PIs Sta 1346+97.38  <math>\Delta s = 1^\circ 28' 48.0''</math>  <math>D = 296.00'</math>  <math>LT = 197.34'</math>  <math>ST = 98.67'</math></p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

FOR -L- PROFILE SEE SHEET 85  
FOR -Y28- PROFILE SEE SHEETS 136 & 137  
FOR -Y29A- PROFILE SEE SHEET 139

REVISIONS

MATCH TO -L- POC STA. 1319+00.00 - SEE SHEET 40

MATCH TO -L- POC STA. 1331+00.00 - SEE SHEET 42

R:\02-JUL-2021\1103-5986B-Rdy-psh-41.dgn

REVISIONS

Match to -Y18- POC STA. 1331+00.00 - SEE SHEET 41  
Match to -Y18- POC STA. 18+50.00 - SEE SHEET 68  
Match to -Y18- POC STA. 33+00.00 - SEE SHEET 69  
Match to -Y18- POC STA. 1338+00.00 - SEE SHEET 43

**-Y28-**

PI Sta 26+52.65 Δ = 2' 00" 148' (LT) D = 0' 34" 20.4" L = 350.6' T = 75.00' R = 9000' SE = NC	PI Sta 29+24.22 Δ = 2' 00" 017' (LT) D = 53' 30" 13.3" L = 141.66' T = 14.66' R = 9000' SE = NC	PI Sta 29+24.22 Δ = 2' 00" 017' (LT) D = 53' 30" 13.3" L = 141.66' T = 14.66' R = 9000' SE = NC	PI Sta 29+24.22 Δ = 2' 00" 017' (LT) D = 53' 30" 13.3" L = 141.66' T = 14.66' R = 9000' SE = NC
-----------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------

**-Y18RBP-**

PI Sta 10+40.00 Δ = 0' 32" 37.2" D = 80.00' L = 80.00' ST = 40.00'	PI Sta 13+42.26 Δ = 5' 00" 48.2" D = 12' 54" 50.8' (LT) L = 80.00' T = 140.00' ST = 70.00'	PI Sta 15+48.01 Δ = 4' 00" 38.5" D = 4' 40" 29.7" L = 135.21' T = 135.21' ST = 67.61'	PI Sta 17+38.70 Δ = 6' 30" 25.7" (RT) D = 16.00' L = 16.00' ST = 8.00'
--------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------

**-Y18RPC-**

PI Sta 10+54.77 Δ = 2' 00" 55.2" D = 90.00' L = 90.00' ST = 45.00'	PI Sta 12+50.38 Δ = 16' 04" 04.9" (RT) D = 4' 40" 29.7" L = 335.53' T = 165.35' ST = 120.00'	PI Sta 14+82.55 Δ = 4' 00" 38.5" D = 4' 40" 29.7" L = 102.00' T = 102.00' ST = 51.00'	PI Sta 20+49.57 Δ = 6' 30" 25.7" (RT) D = 83' 39" 43.1" L = 108.29' T = 62.31' R = 9000' SE = 0.02
--------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

**-Y18-**

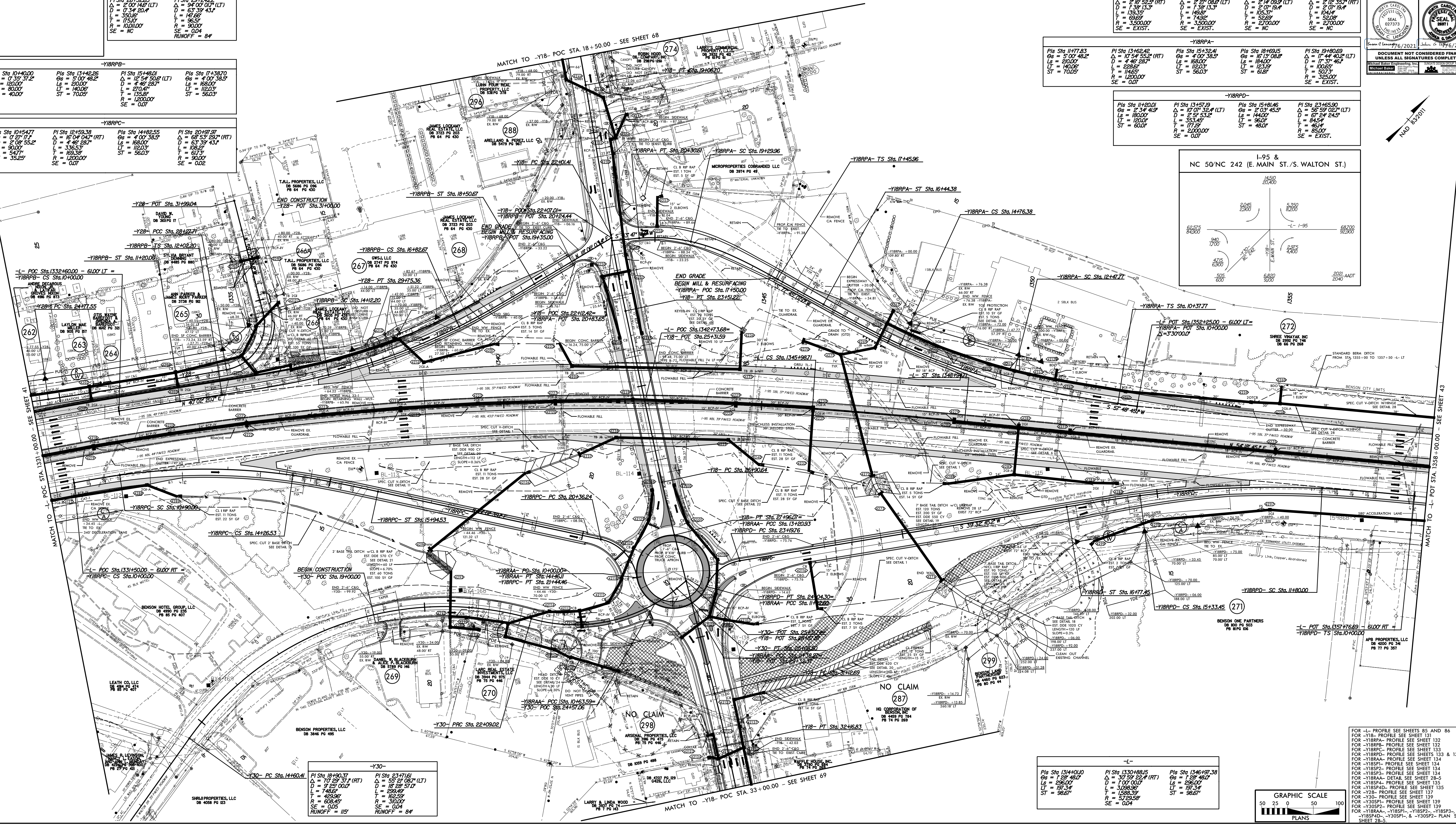
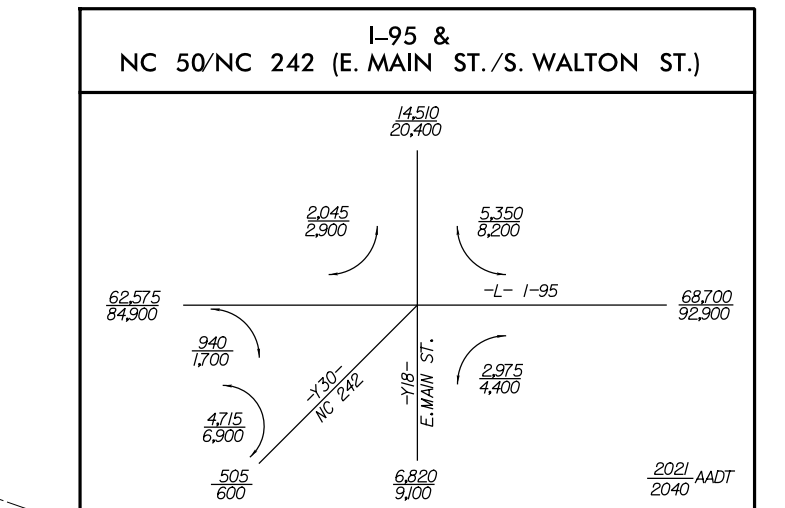
PI Sta 18+37.03 Δ = 2' 00" 40.2" D = 138' 13.3" L = 183.39' T = 69.69' R = 3500.00' SE = EXIST.	PI Sta 22+47.33 Δ = 2' 00" 38.3" (LT) D = 138' 13.3" L = 183.39' T = 69.69' R = 3500.00' SE = EXIST.	PI Sta 27+43.33 Δ = 2' 00" 38.3" (LT) D = 2' 07" 19.4" L = 105.37' T = 14.66' R = 2700.00' SE = NC	PI Sta 31+46.77 Δ = 2' 00" 38.3" (LT) D = 2' 07" 19.4" L = 104.14' T = 32.68' R = 2700.00' SE = NC
-------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

**-Y18RPA-**

PI Sta 11+77.23 Δ = 5' 00" 40.2" D = 200.00' L = 140.00' ST = 70.00'	PI Sta 13+62.42 Δ = 10' 00" 38.3" (RT) D = 4' 40" 29.7" L = 228.69' T = 114.35' R = 1200.00' SE = 0.07	PI Sta 15+32.41 Δ = 10' 00" 38.3" (RT) D = 4' 40" 29.7" L = 112.00' T = 112.00' ST = 56.00'	PI Sta 18+16.95 Δ = 16' 18" 08.8" D = 184.00' L = 121.99' T = 61.67' R = 325.00' SE = EXIST.	PI Sta 19+08.69 Δ = 36' 39" 02.1" (LT) D = 17' 44" 43.2" (LT) D = 17' 37" 19.4" L = 100.29' T = 50.14' R = 85.00' SE = EXIST.
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------

**-Y18RPD-**

PI Sta 11+20.01 Δ = 2' 00" 41.9" D = 180.00' L = 180.00' ST = 90.00'	PI Sta 13+57.19 Δ = 10' 00" 38.3" (LT) D = 2' 57" 53.2" L = 353.45' T = 177.89' R = 2000.00' SE = 0.07	PI Sta 15+18.46 Δ = 2' 00" 45.3" D = 87' 24" 24.5" L = 84.54' T = 46.44' R = 85.00' SE = EXIST.	PI Sta 21+65.90 Δ = 36' 39" 02.1" (LT) D = 17' 37" 19.4" L = 84.54' T = 46.44' R = 85.00' SE = EXIST.
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------



PROJECT REFERENCE NO. 17-5988R  
SHEET NO. 42

ROADWAY DESIGN ENGINEER  
CAMPBELL ENGINEERING, INC.  
027373

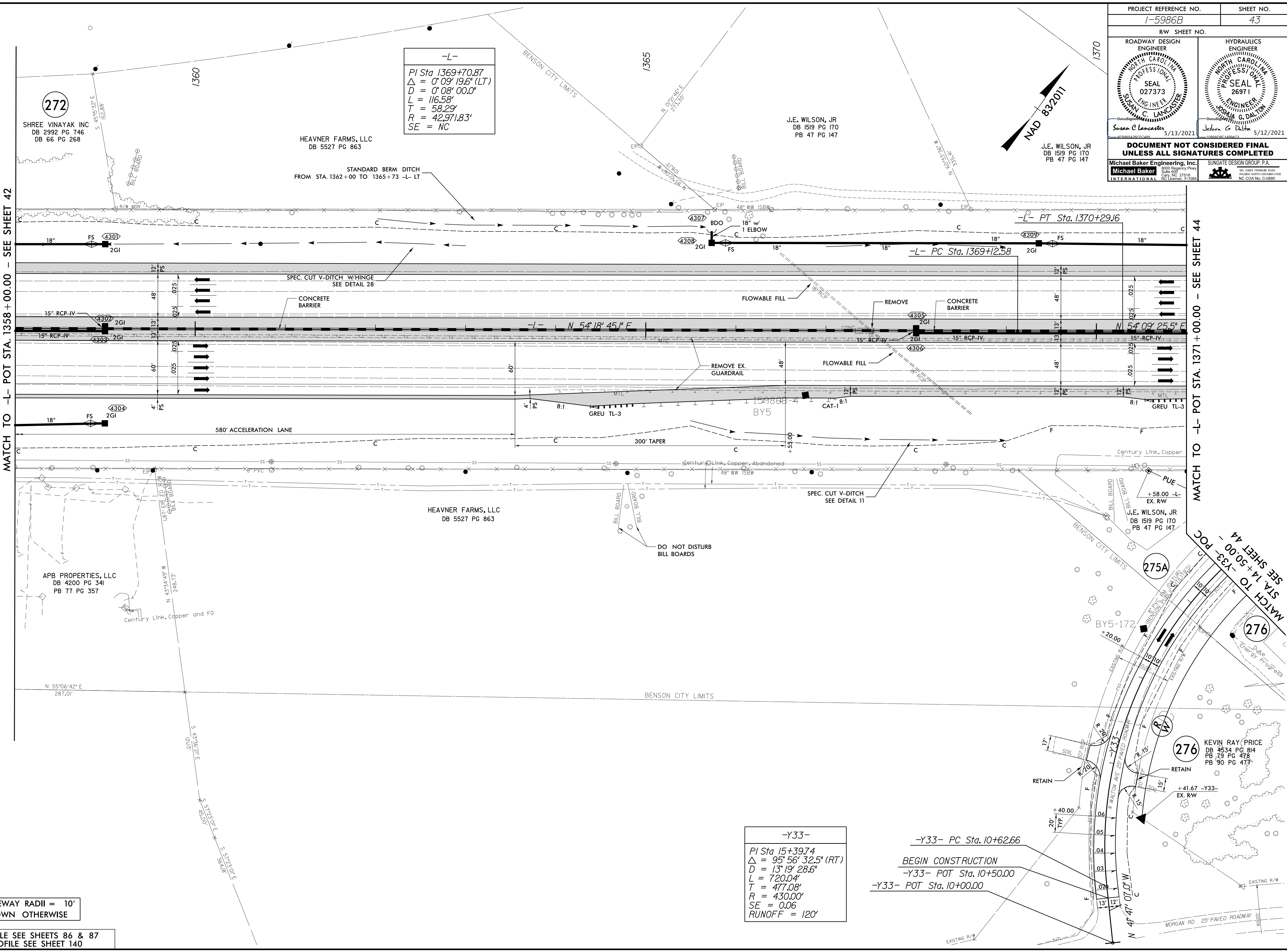
HYDRAULICS ENGINEER  
CAMPBELL ENGINEERING, INC.  
027373

DATE: 08/19/2021  
DRAWN BY: J. J. JONES

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

FOR -L- PROFILE SEE SHEETS 85 AND 86  
FOR -Y18- PROFILE SEE SHEET 131  
FOR -Y18RPA- PROFILE SEE SHEET 132  
FOR -Y18RBP- PROFILE SEE SHEET 132  
FOR -Y18RPC- PROFILE SEE SHEETS 133 & 134  
FOR -Y18RPA- PROFILE SEE SHEET 133  
FOR -Y18RBP- PROFILE SEE SHEET 134  
FOR -Y18RPC- PROFILE SEE SHEET 134  
FOR -Y18RPA- DETAIL SEE SHEET 28-5  
FOR -Y18RBP- DETAIL SEE SHEET 135  
FOR -Y18RPC- DETAIL SEE SHEET 135  
FOR -Y18RPA- PROFILE SEE SHEET 137  
FOR -Y18RBP- PROFILE SEE SHEET 137  
FOR -Y18RPC- PROFILE SEE SHEET 139  
FOR -Y18RPA- PROFILE SEE SHEET 139  
FOR -Y18RBP- PROFILE SEE SHEET 139  
FOR -Y18RPC- PROFILE SEE SHEET 139

PROJECT REFERENCE NO. 1-5986B		SHEET NO. 43	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER SUSAN C LANCASTER PROFESSIONAL SEAL 027373 5/13/2021		HYDRAULICS ENGINEER JOSHUA G DALTON PROFESSIONAL SEAL 26971 5/12/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Michael Baker Engineering, Inc. INTERNATIONAL		SUNGATE DESIGN GROUP, P.A.	



**-L-**  
 PI Sta 1369+70.87  
 $\Delta = 0^\circ 09' 19.6''$  (LT)  
 $D = 0' 08' 00.0''$   
 $L = 116.58'$   
 $T = 58.29'$   
 $R = 42,971.83'$   
 $SE = NC$

**-Y33-**  
 PI Sta 15+39.74  
 $\Delta = 95^\circ 56' 32.5''$  (RT)  
 $D = 13' 19' 28.6''$   
 $L = 720.04'$   
 $T = 477.08'$   
 $R = 430.00'$   
 $SE = 0.06$   
 $RUNOFF = 120'$

**-Y33- PC Sta. 10+62.66**  
**BEGIN CONSTRUCTION**  
**-Y33- POT Sta. 10+50.00**  
**-Y33- POT Sta. 10+00.00**

NOTE: DRIVEWAY RADII = 10'  
 UNLESS SHOWN OTHERWISE

FOR -L- PROFILE SEE SHEETS 86 & 87  
 FOR -Y33- PROFILE SEE SHEET 140

REVISIONS

5/14/99

R:\2-MAR-2021\08155-5986B\_Rdly\_psh\_43.dgn  
 11:59:59 AM 3/15/21

MATCH TO -L- POT STA. 1358 + 00.00 - SEE SHEET 42

MATCH TO -L- POT STA. 1371 + 00.00 - SEE SHEET 44

MATCH TO -Y33- POT STA. 14 + 50.00 - SEE SHEET 44

272  
 SHREE VINAYAK INC  
 DB 2992 PG 746  
 DB 66 PG 268

HEAVNER FARMS, LLC  
 DB 5527 PG 863

J.E. WILSON, JR  
 DB 1519 PG 170  
 PB 47 PG 147

J.E. WILSON, JR  
 DB 1519 PG 170  
 PB 47 PG 147

APB PROPERTIES, LLC  
 DB 4200 PG 341  
 PB 77 PG 357

HEAVNER FARMS, LLC  
 DB 5527 PG 863

275A  
 J.E. WILSON, JR  
 DB 1519 PG 170  
 PB 47 PG 147

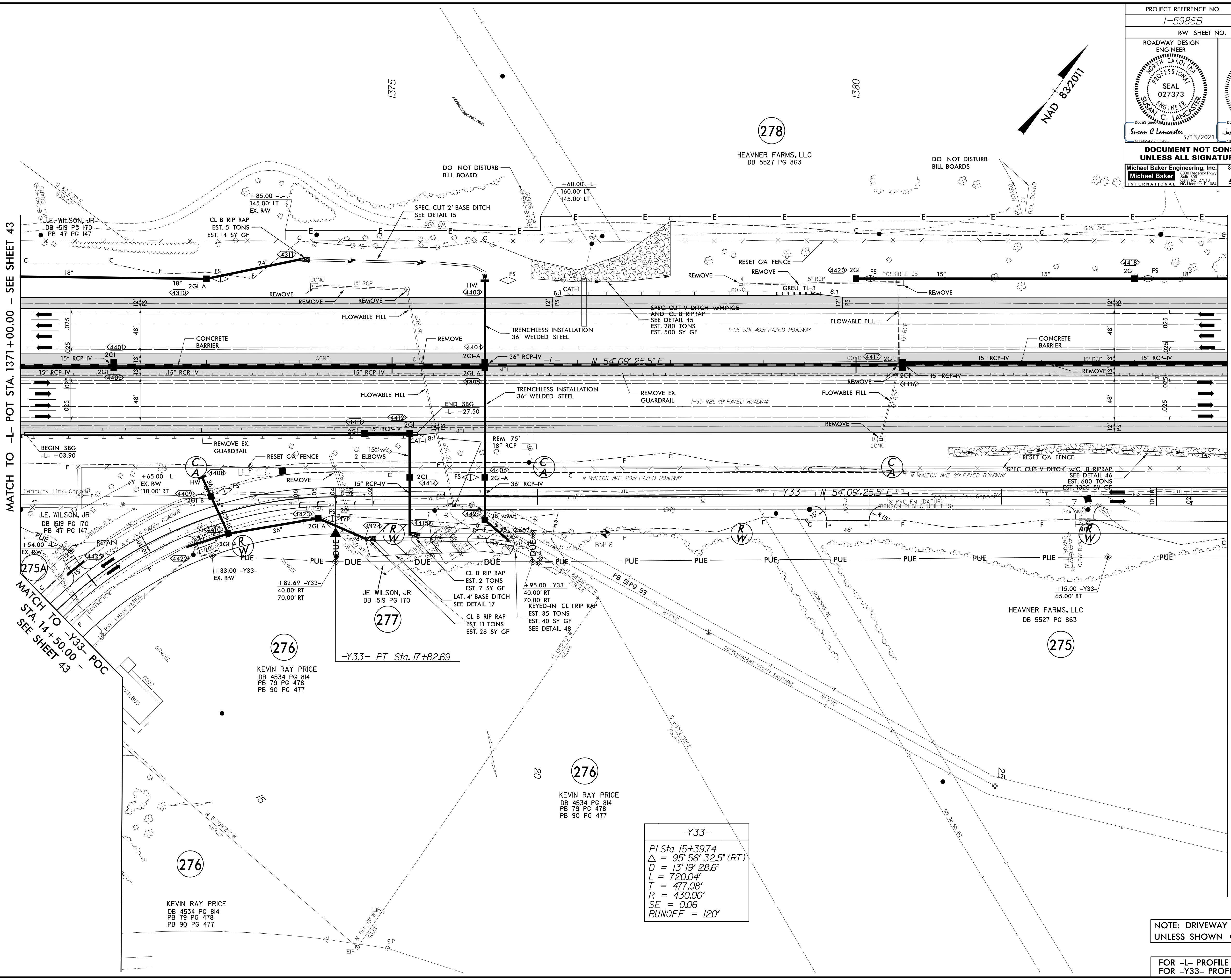
276  
 KEVIN RAY PRICE  
 DB 4534 PG 814  
 PB 79 PG 478  
 PB 90 PG 477

RETAIN

RETAIN

MORGAN RD 25' PAVED ROADWAY

PROJECT REFERENCE NO. <b>1-5986B</b>		SHEET NO. <b>44</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER <b>Susan C Lancaster</b> Professional Seal: 027373 5/13/2021		HYDRAULICS ENGINEER <b>Joshua G Dalton</b> Professional Seal: 26971 5/12/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Michael Baker Engineering, Inc. 1800 Regency Park Raleigh, NC 27618 NC License: T-1084		SUNGATE DESIGN GROUP, P.A. 10000 SunGate Blvd Raleigh, NC 27615 NC License: C-6899	



REVISIONS

MATCH TO -L- POT STA. 1371 + 00.00 - SEE SHEET 43

MATCH TO -L- POT STA. 1384 + 00.00 - SEE SHEET 45

MATCH TO -Y33- POC STA. 14 + 50.00 - SEE SHEET 43

-Y33-

PI Sta 15+39.74  
 $\Delta = 95^\circ 56' 32.5''$  (RT)  
 $D = 13' 19'' 28.6''$   
 $L = 720.04'$   
 $T = 477.08'$   
 $R = 430.00'$   
 $SE = 0.06$   
 $RUNOFF = 120'$

NOTE: DRIVEWAY RADII = 10' UNLESS SHOWN OTHERWISE

FOR -L- PROFILE SEE SHEETS 87 FOR -Y33- PROFILE SEE SHEET 140

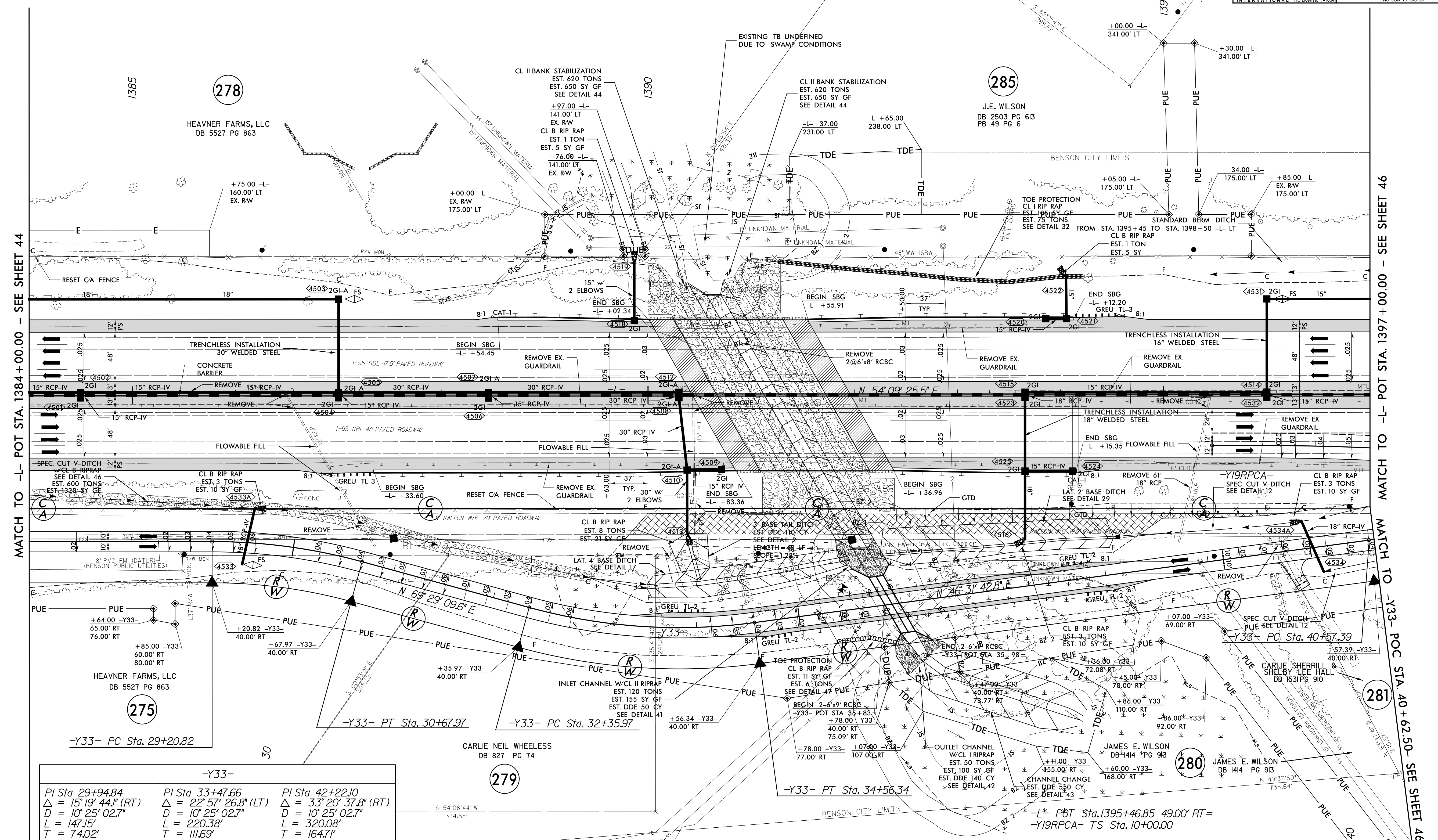
R:\05-APR-2021\1370-5986B\_Rdly\_psh\_44.dgn

5/14/99

PROJECT REFERENCE NO. 1-5986B	SHEET NO. 45
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 027373 SUSAN C. LANCASTER	HYDRAULICS ENGINEER SEAL 26971 JOSHUA G. DALTON
Susan C. Lancaster 5/13/2021	Joshua G. Dalton 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. 1800 Prosperity Place Raleigh, NC 27615 Tel: 919.876.1000 Fax: 919.876.1001 NC License: P-1094	SUNGATE DESIGN GROUP, P.A. 10000 SunGate Blvd Raleigh, NC 27615 Tel: 919.876.1000 Fax: 919.876.1001 NC License: C-8890

-Y19RPCA-

Pls Sta 11+08.02 Os = 3° 05' 38.3" Ls = 162.00' LT = 108.02' ST = 54.02'	Pls Sta 14+9.77 Δ = 19° 30' 05.2" (RT) D = 3° 49' 11.0" L = 510.55' T = 257.77' R = 1,500.00' SE = 0.06 RUNOFF = 162'	Pls Sta 17+26.56 Os = 3° 05' 38.3" Ls = 162.00' LT = 108.02' ST = 54.02'
--------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------



-Y33-

PI Sta 29+94.84 Δ = 15° 19' 44.1" (RT) D = 10° 25' 02.7" L = 147.15' T = 74.02' R = 550.00' SE = 0.06 RUNOFF = 126'	PI Sta 33+47.66 Δ = 22° 57' 26.8" (LT) D = 10° 25' 02.7" L = 220.38' T = 111.69' R = 550.00' SE = 0.06 RUNOFF = 126'	PI Sta 42+22.10 Δ = 33° 20' 37.8" (RT) D = 10° 25' 02.7" L = 320.08' T = 164.71' R = 550.00' SE = 0.06 RUNOFF = 126'
------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

FOR -L- PROFILE SEE SHEETS 87 & 88  
FOR -Y33- PROFILE SEE SHEET 140 & 141  
FOR -Y19RPCA- PROFILE SEE SHEET 136

REVISIONS

MATCH TO -L- POT STA. 1384+00.00 - SEE SHEET 44

MATCH TO -L- POT STA. 1397+00.00 - SEE SHEET 46

MATCH TO -Y33- POC STA. 40+62.50 - SEE SHEET 46

5/14/99

PA: 03-APR-2021 13:20:5986B\_RdJ\_psh\_45.dgn  
3:33:30 PM

PROJECT REFERENCE NO. <b>1-5986B</b>	SHEET NO. <b>46</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER <b>Susan C Lancaster</b> Professional Seal 027373 5/13/2021	HYDRAULICS ENGINEER <b>Joshua G Dalton</b> Professional Seal 26971 5/12/2021
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p> <p>Michael Baker Engineering, Inc. 5000 Prosperity Place, Suite 800, Cary, NC 27518 SUNGATE DESIGN GROUP, P.A. 10000 W. WOODHOLLOW ROAD, RALEIGH, NORTH CAROLINA 27605</p>	

**-Y19RCA-**

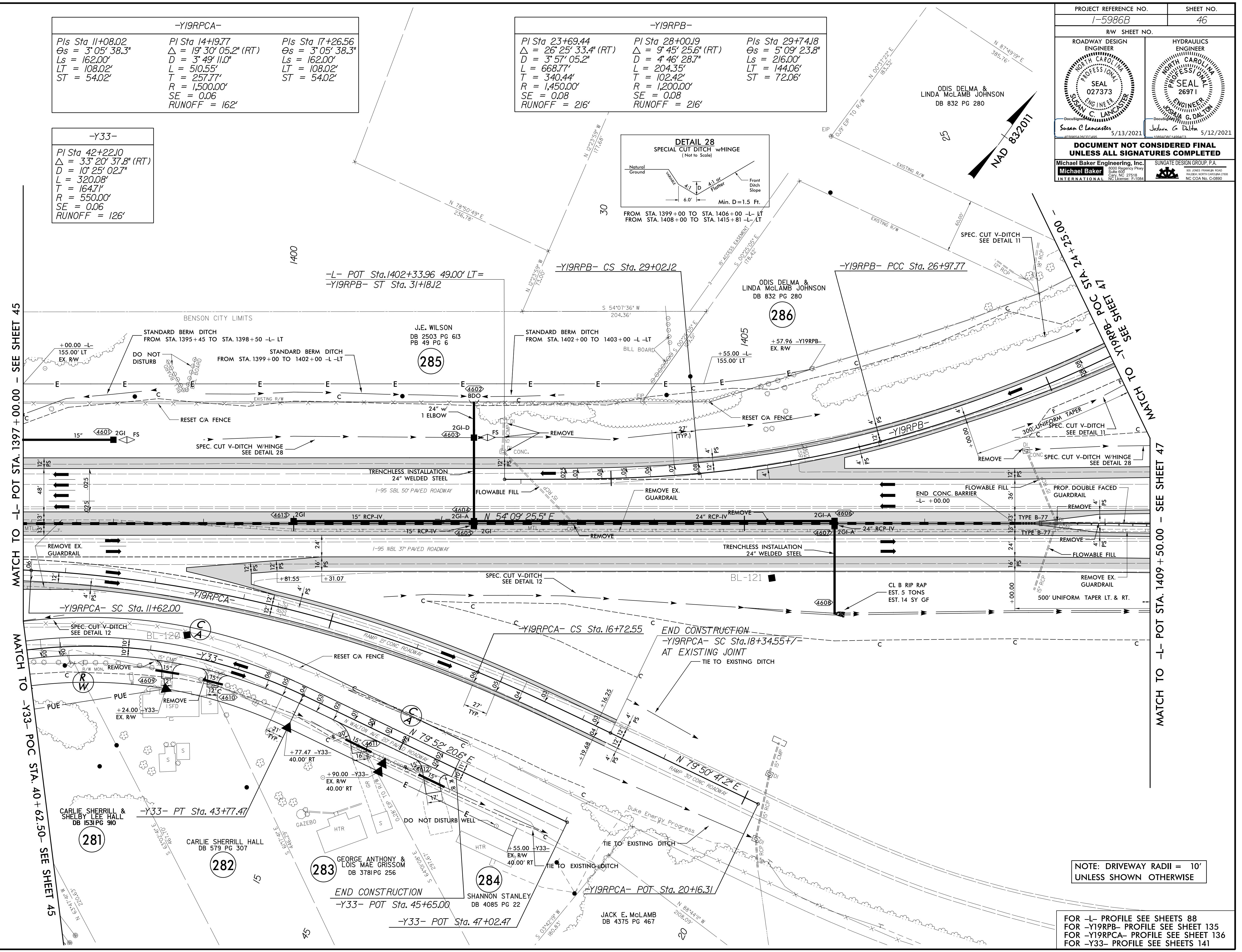
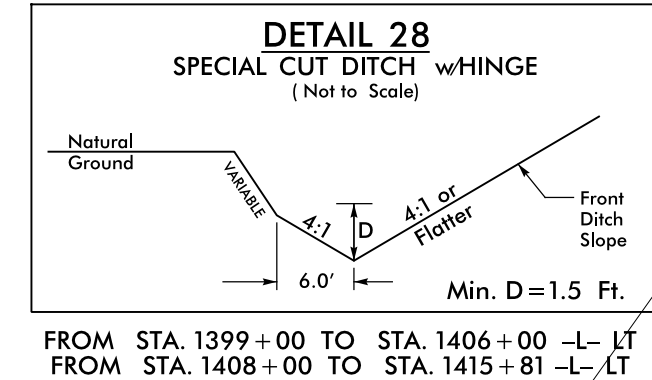
PIs Sta 11+08.02 Δs = 3° 05' 38.3" Ls = 162.00' LT = 108.02' ST = 54.02'	PI Sta 14+19.77 Δ = 19° 30' 05.2" (RT) D = 3° 49' 11.0" L = 510.55' T = 257.77' R = 1,500.00' SE = 0.06 RUNOFF = 162'	PIs Sta 17+26.56 Δs = 3° 05' 38.3" Ls = 162.00' LT = 108.02' ST = 54.02'
--------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

**-Y19RPB-**

PI Sta 23+69.44 Δ = 26° 25' 33.4" (RT) D = 3° 57' 05.2" L = 668.77' T = 340.44' R = 1,450.00' SE = 0.08 RUNOFF = 216'	PI Sta 28+00.19 Δ = 9° 45' 25.6" (RT) D = 4° 46' 28.7" L = 204.35' T = 102.42' R = 1,200.00' SE = 0.08 RUNOFF = 216'	PIs Sta 29+74.18 Δs = 5° 09' 23.8" Ls = 216.00' LT = 144.06' ST = 72.06'
--------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------

**-Y33-**

PI Sta 42+22.10 Δ = 33° 20' 37.8" (RT) D = 10° 25' 02.7" L = 320.08' T = 164.71' R = 550.00' SE = 0.06 RUNOFF = 126'
-------------------------------------------------------------------------------------------------------------------------------------------



MATCH TO -L- POT STA. 1397+00.00 - SEE SHEET 45

MATCH TO -Y33- POC STA. 40+62.50 - SEE SHEET 45

MATCH TO -Y19RPB- POC STA. 24+25.00 - SEE SHEET 47

MATCH TO -L- POT STA. 1409+50.00 - SEE SHEET 47

NOTE: DRIVEWAY RADII = 10' UNLESS SHOWN OTHERWISE

FOR -L- PROFILE SEE SHEETS 88  
FOR -Y19RPB- PROFILE SEE SHEET 135  
FOR -Y19RCA- PROFILE SEE SHEET 136  
FOR -Y33- PROFILE SEE SHEETS 141

REVISIONS

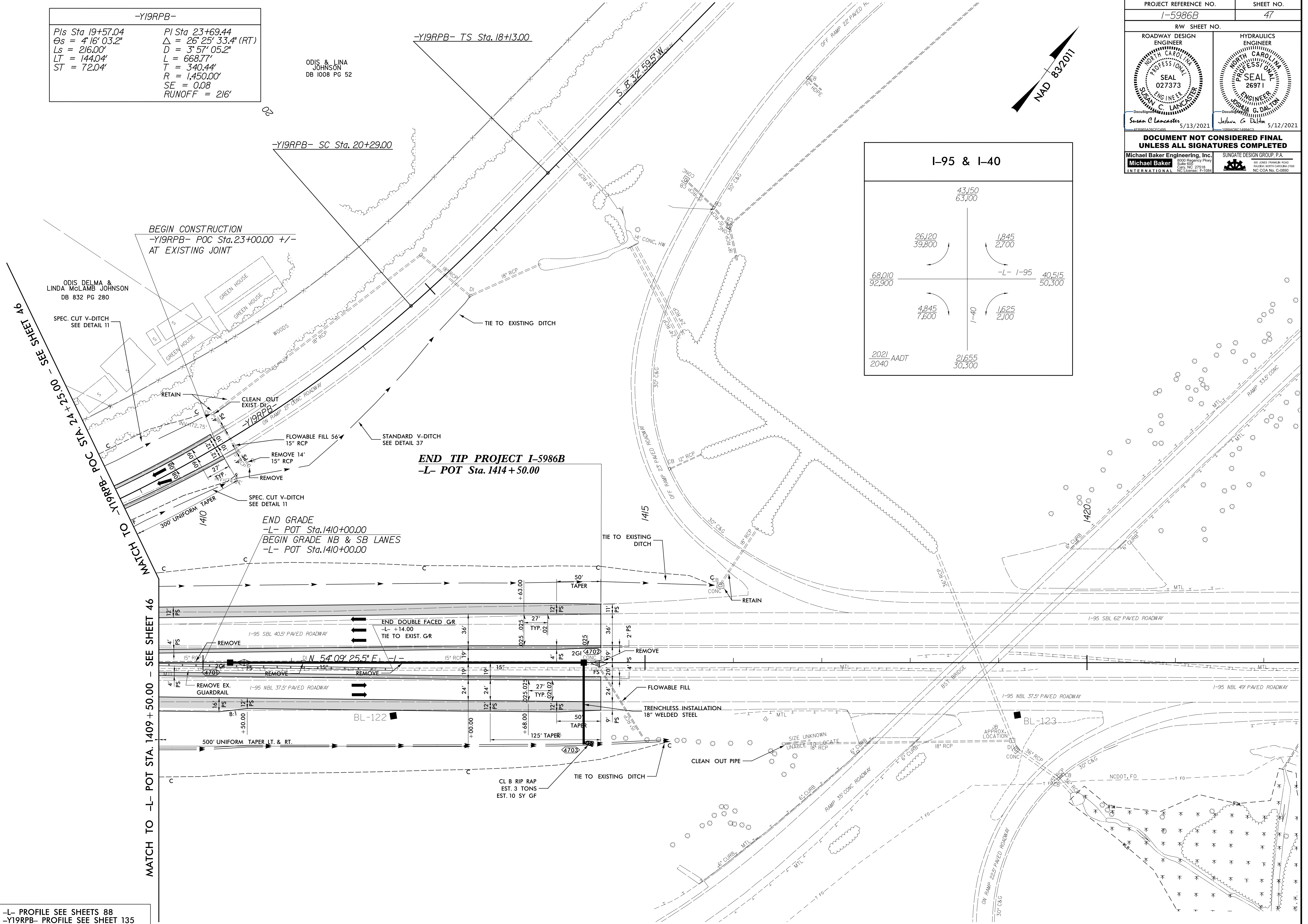
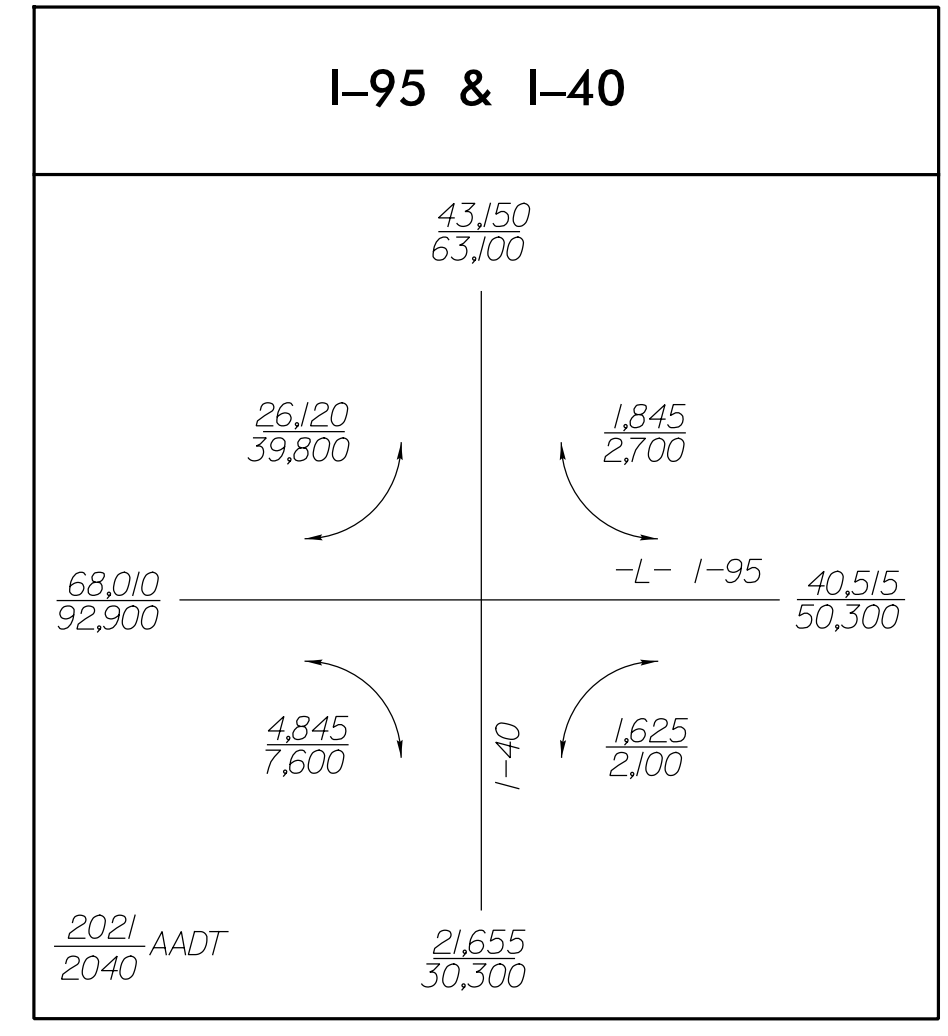
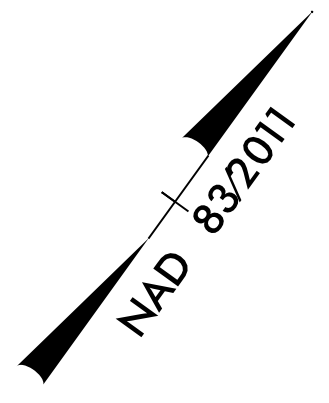
12-MAR-2021 08:55 - 5986B\_Rdly\_psh\_46.dgn  
S:\Projects\15986B\15986B.dwg



PROJECT REFERENCE NO. <b>I-5986B</b>	SHEET NO. <b>47</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER <b>SUSAN C LANCASTER</b> SEAL 027373 NORTH CAROLINA PROFESSIONAL ENGINEER	HYDRAULICS ENGINEER <b>JOSHUA G DALTON</b> SEAL 26971 NORTH CAROLINA PROFESSIONAL ENGINEER
DocuSign Susan C Lancaster 5/13/2021	DocuSign Joshua G Dalton 5/12/2021
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Michael Baker Engineering, Inc. 1000 Regency Park Suite 600 Cary, NC 27518 N.C. License: F-1094	SUNGATE DESIGN GROUP, P.A. 500 JONES FARMER ROAD MILLSBORO, NORTH CAROLINA 27959 N.C. COA No. C-0899

-Y19RPB-	
PIs Sta 19+57.04	PI Sta 23+69.44
$\theta_s = 4' 16'' 03.2''$	$\Delta = 26' 25'' 33.4'' (RT)$
$L_s = 216.00'$	$D = 3' 57'' 05.2''$
$LT = 144.04'$	$L = 668.77'$
$ST = 72.04'$	$T = 340.44'$
	$R = 1,450.00'$
	$SE = 0.08$
	$RUNOFF = 216'$

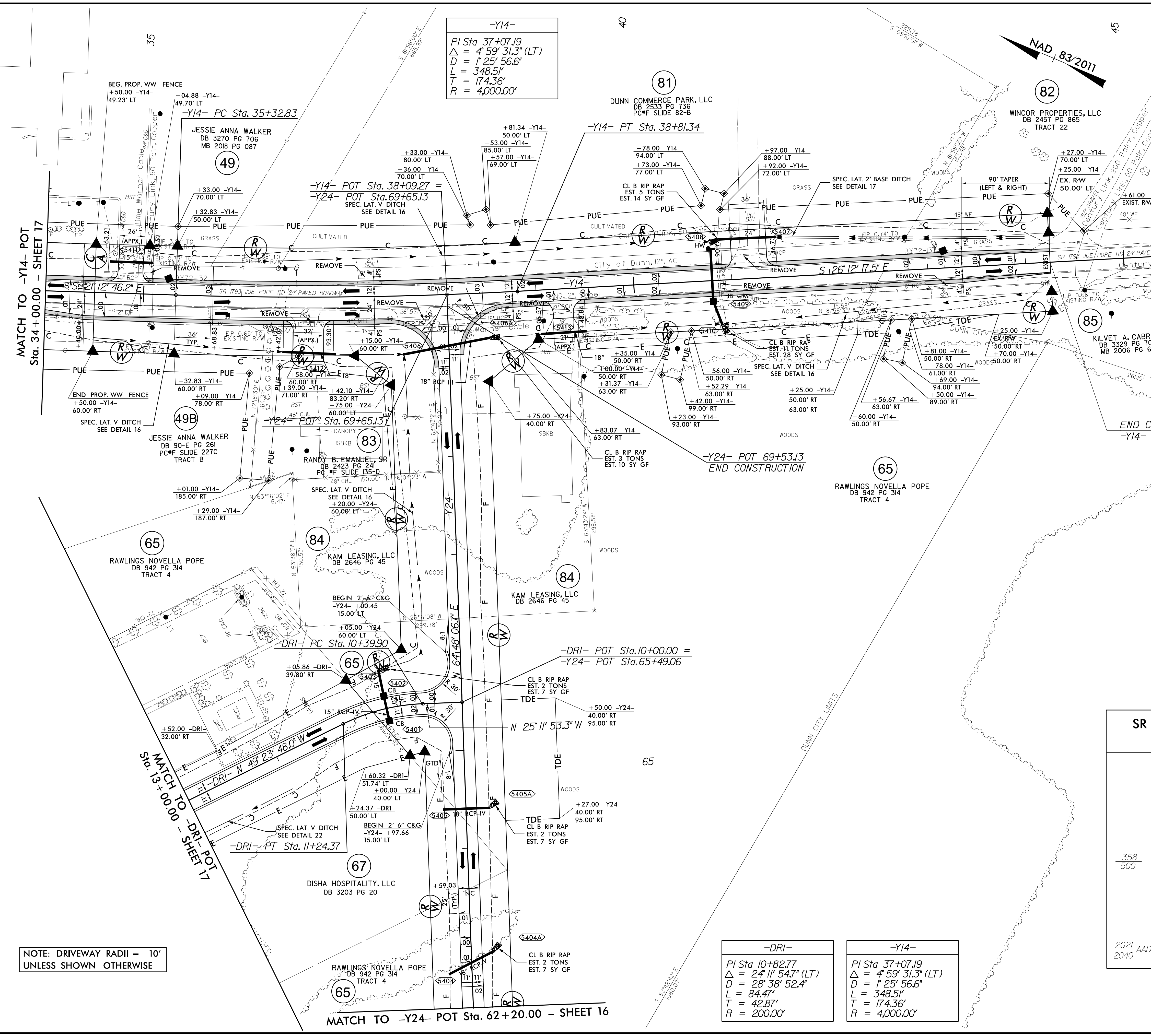
ODIS & LINA JOHNSON DB 1008 PG 52



FOR -L- PROFILE SEE SHEETS 88  
FOR -Y19RPB- PROFILE SEE SHEET 135

R:\12-MAR-2021\08155-5986B\_Rdly\_psh\_47.dgn  
3:33:50 PM 3/21/2021

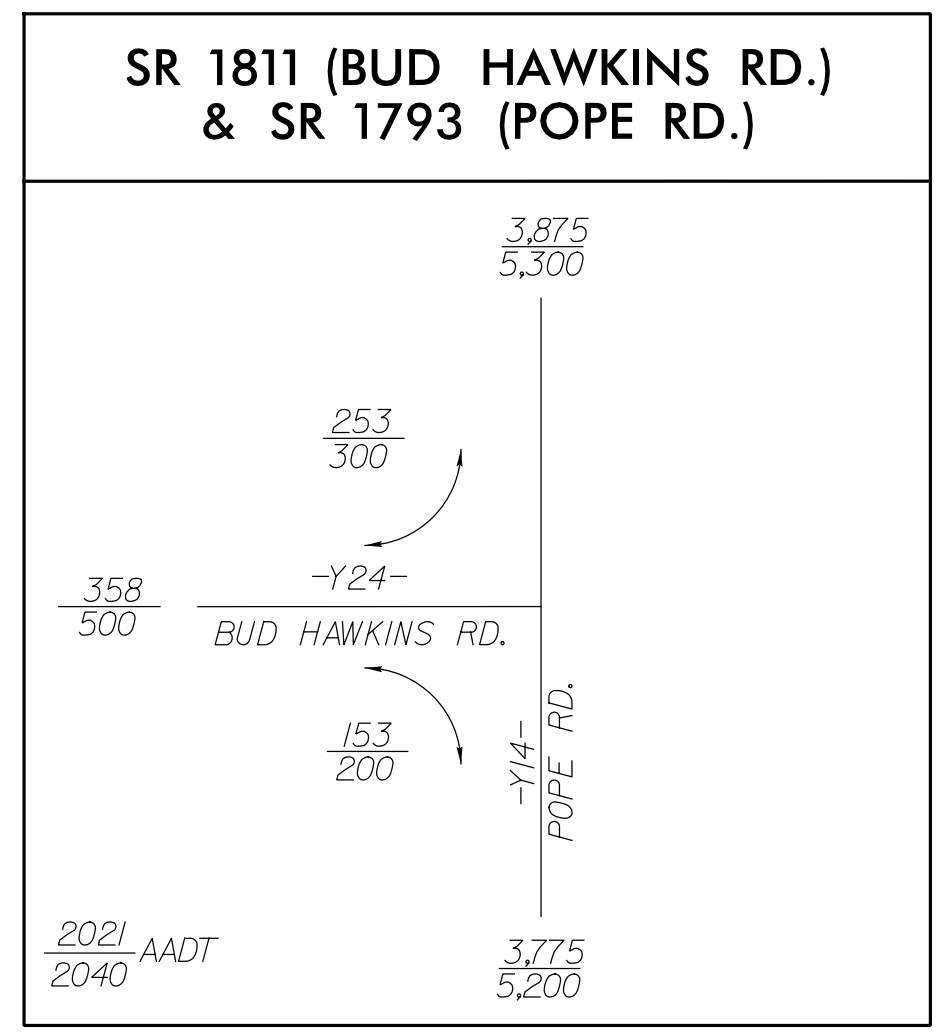
PROJECT REFERENCE NO. 1-5878	SHEET NO. 54
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 027373 SUSAN C. LANCASTER	HYDRAULICS ENGINEER SEAL 26971 JOSHUA G. DALTON
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. SUNGATE DESIGN GROUP, P.A.	



**-Y14-**  
 $PI\ Sta\ 37+07.19$   
 $\Delta = 4' 59'' 31.3'' (LT)$   
 $D = 1' 25'' 56.6''$   
 $L = 348.51'$   
 $T = 174.36'$   
 $R = 4,000.00'$

**-DRI-**  
 $PI\ Sta\ 10+82.77$   
 $\Delta = 24' 11'' 54.7'' (LT)$   
 $D = 28' 38'' 52.4''$   
 $L = 84.47'$   
 $T = 42.87'$   
 $R = 200.00'$

**-Y14-**  
 $PI\ Sta\ 37+07.19$   
 $\Delta = 4' 59'' 31.3'' (LT)$   
 $D = 1' 25'' 56.6''$   
 $L = 348.51'$   
 $T = 174.36'$   
 $R = 4,000.00'$



NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

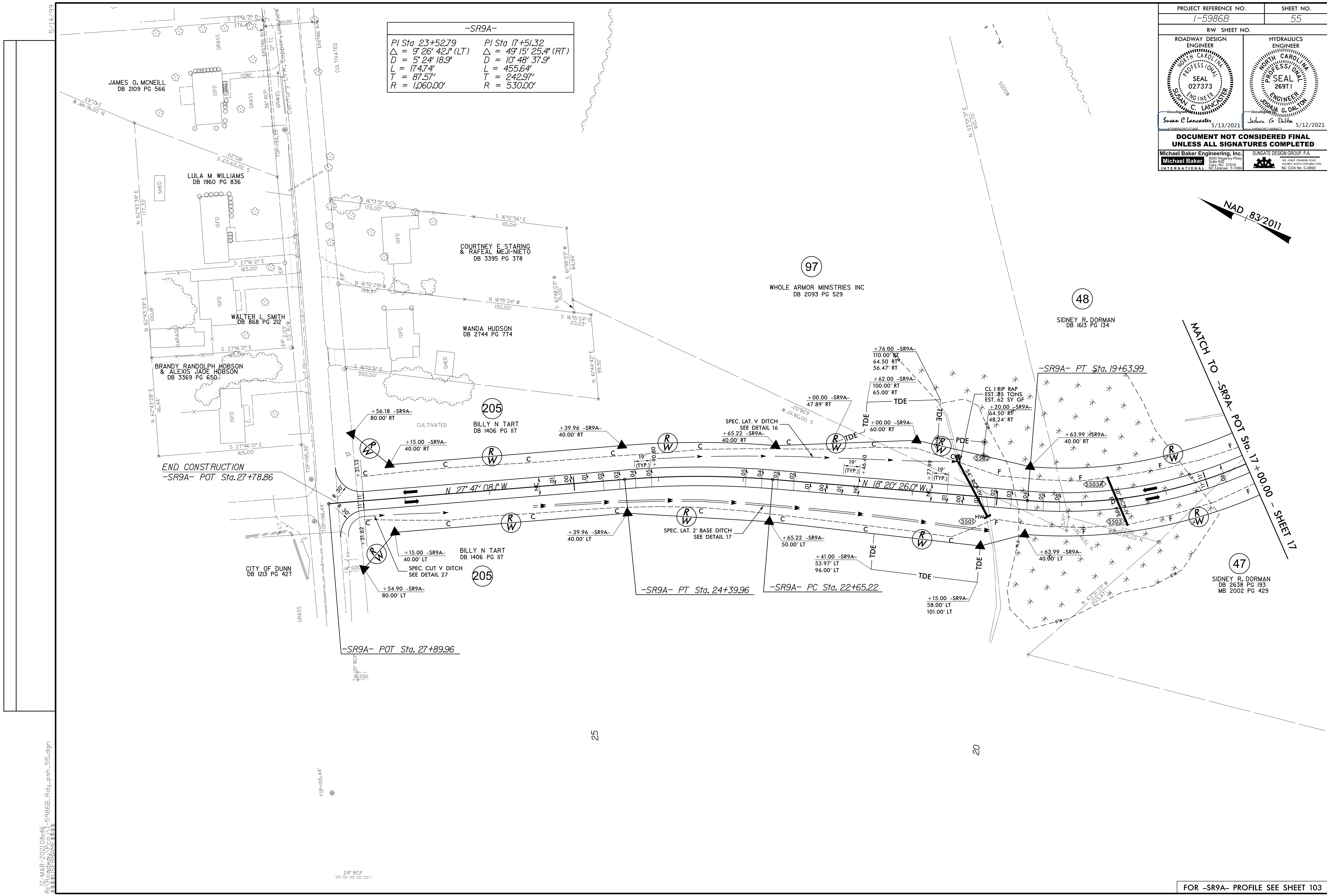
FOR -Y14- PROFILE SEE SHEETS 90 & 91  
FOR -Y24- PROFILE SEE SHEET 100  
FOR -DRI- PROFILE SEE SHEET 106

REVISIONS

R:\12-MAR-2022\08146-5986B\_Rdly\_psh\_54.dgn  
 5/14/2022 10:00:00 AM

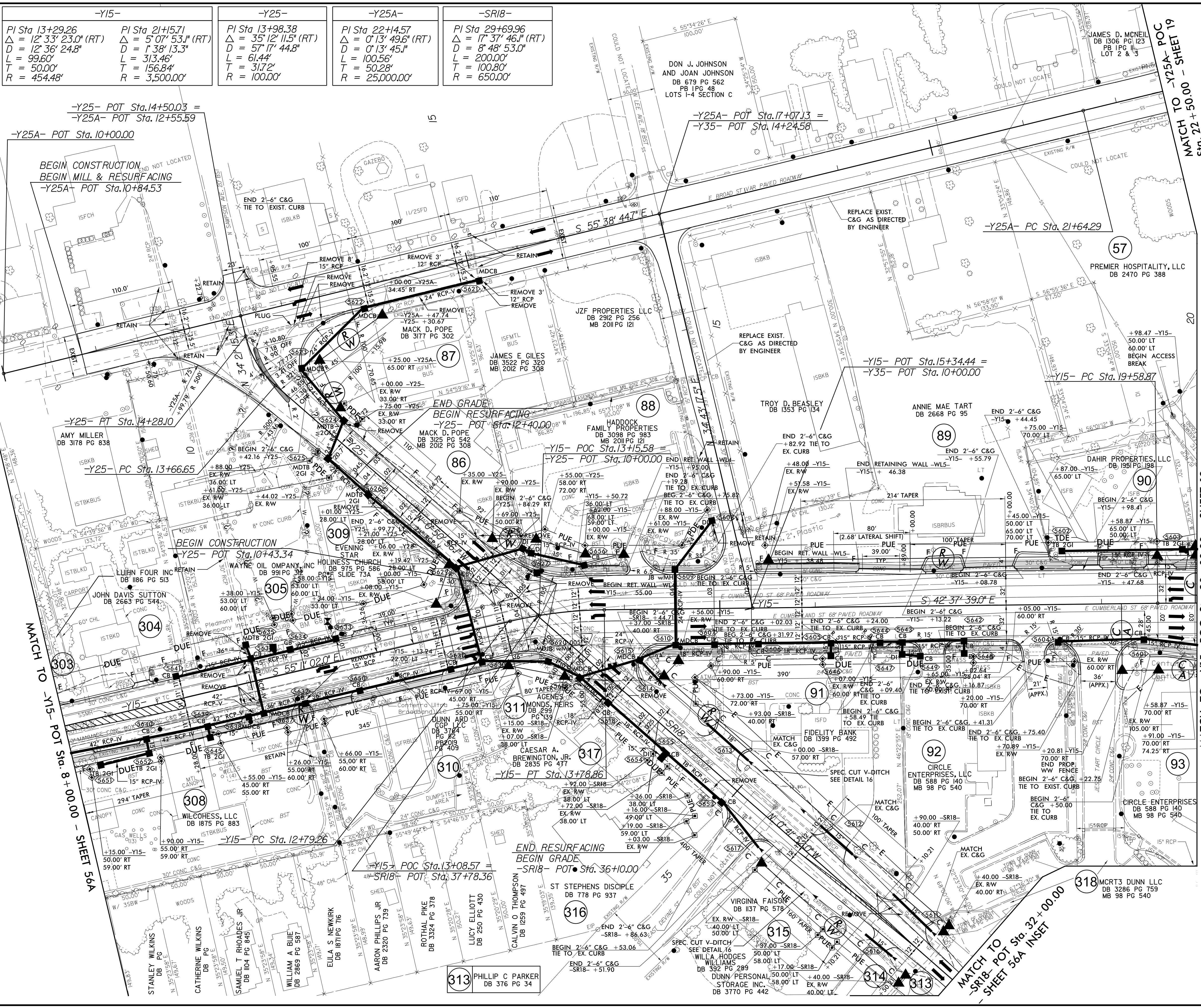
PROJECT REFERENCE NO. <b>1-5986B</b>	SHEET NO. <b>55</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER <b>Susan C. Lancaster</b> Professional Seal: 027373 5/13/2021	HYDRAULICS ENGINEER <b>Joshua G. Dalton</b> Professional Seal: 26971 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. 1800 Piedmont Parkway Suite 800 Cary, NC 27518 NC License: T-1094	SUNGATE DESIGN GROUP, P.A. 10000 SunGate Parkway Suite 100 Raleigh, NC 27615 NC License: T-1094

-SR9A-	
PI Sta 23+52.79	PI Sta 17+51.32
$\Delta = 9' 26' 42.1''$ (LT)	$\Delta = 49' 15' 25.4''$ (RT)
D = 5' 24' 18.9"	D = 10' 48' 37.9"
L = 174.74'	L = 455.64'
T = 87.57'	T = 242.97'
R = 1,060.00'	R = 530.00'



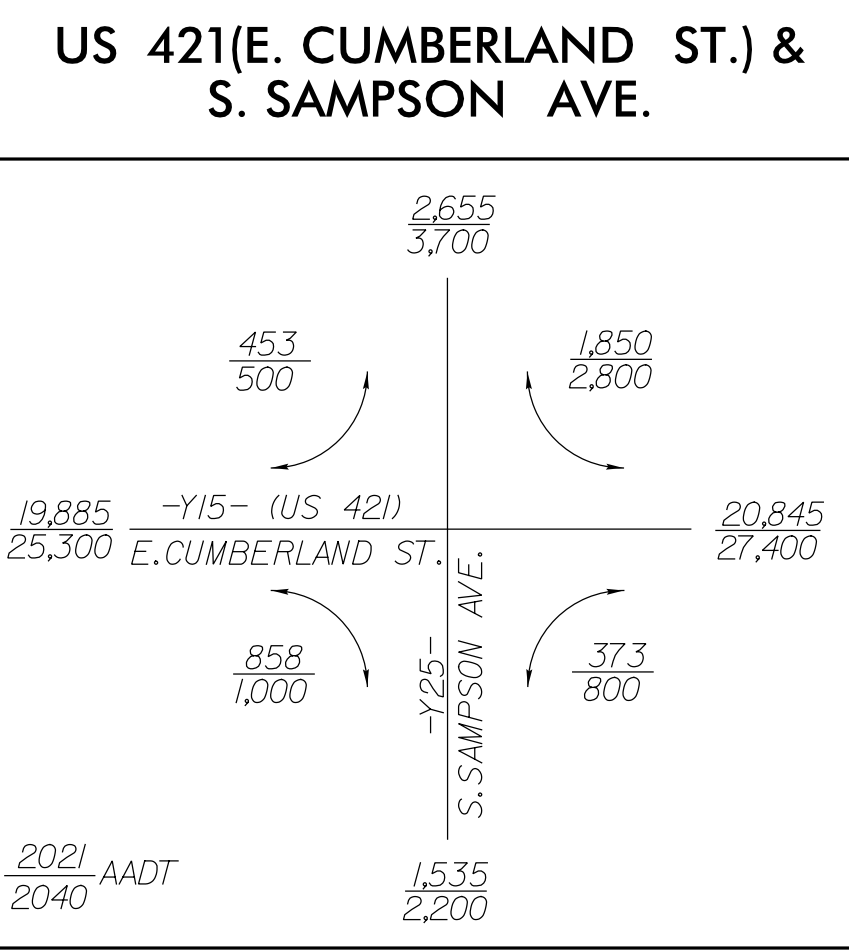
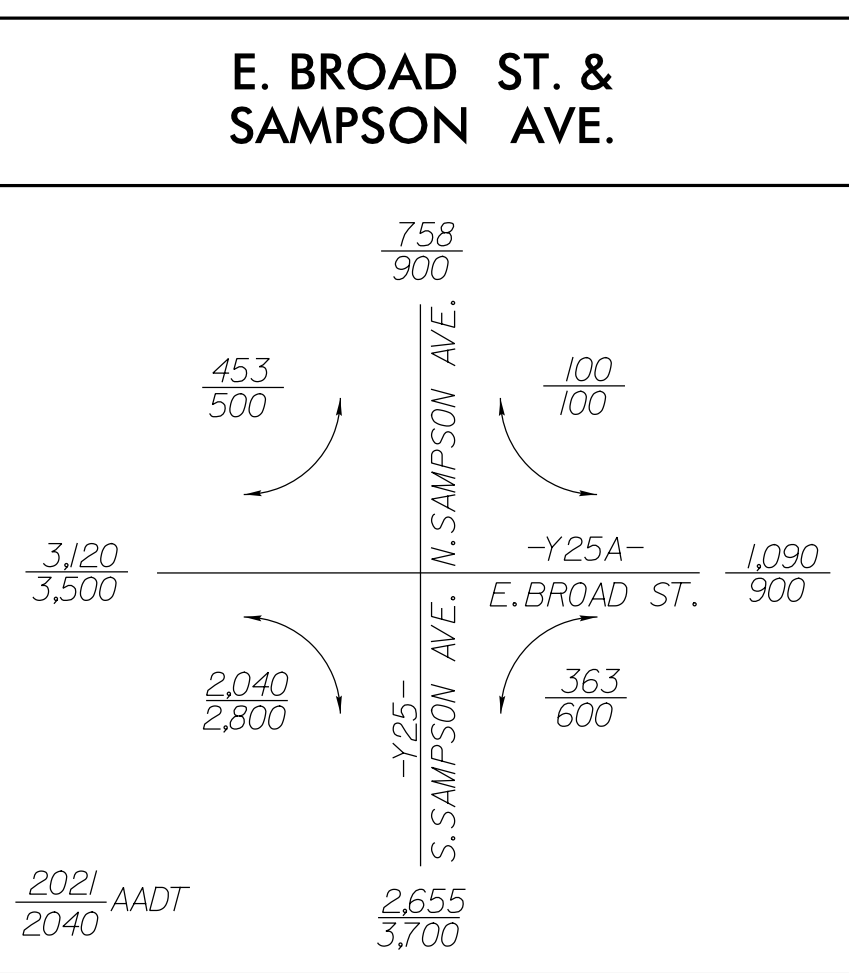
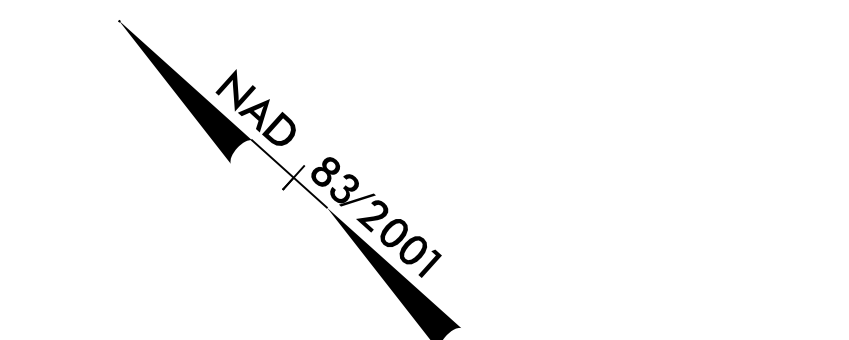
12-MAR-2021 08:46 - 5986B\_Rdly\_psh\_55.dgn

5/14/1999  
01-APR-2021 08:44 - 59866.Rdy.psh.56.dgn  
3:53:50 PM



<p>-Y15-</p> <p>PI Sta 13+29.26 Δ = 12° 33' 23.0" (RT) D = 12' 36" 24.8" L = 99.60' T = 50.00' R = 454.48'</p>	<p>PI Sta 21+15.71 Δ = 5° 07' 53.1" (RT) D = 1' 38" 13.3" L = 313.46' T = 156.84' R = 3,500.00'</p>	<p>-Y25-</p> <p>PI Sta 13+98.38 Δ = 35° 12' 11.5" (RT) D = 57' 17" 44.8" L = 100.56' T = 31.72' R = 100.00'</p>	<p>-Y25A-</p> <p>PI Sta 22+14.57 Δ = 0° 13' 49.6" (RT) D = 0' 13" 45.1" L = 100.56' T = 50.28' R = 25,000.00'</p>	<p>-SR18-</p> <p>PI Sta 29+69.96 Δ = 17° 37' 46.1" (RT) D = 8' 48" 53.0" L = 200.00' T = 100.80' R = 650.00'</p>
------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------

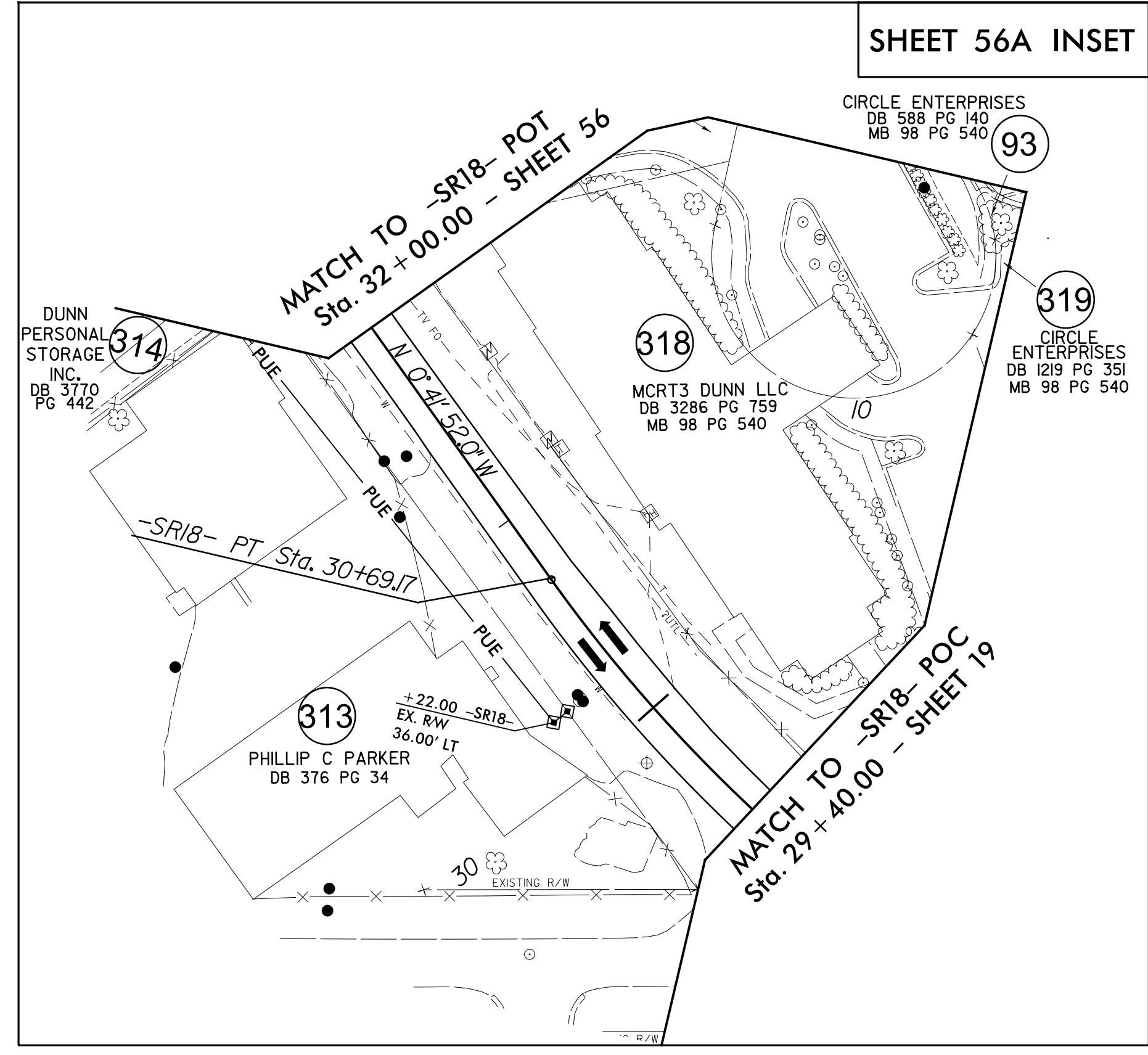
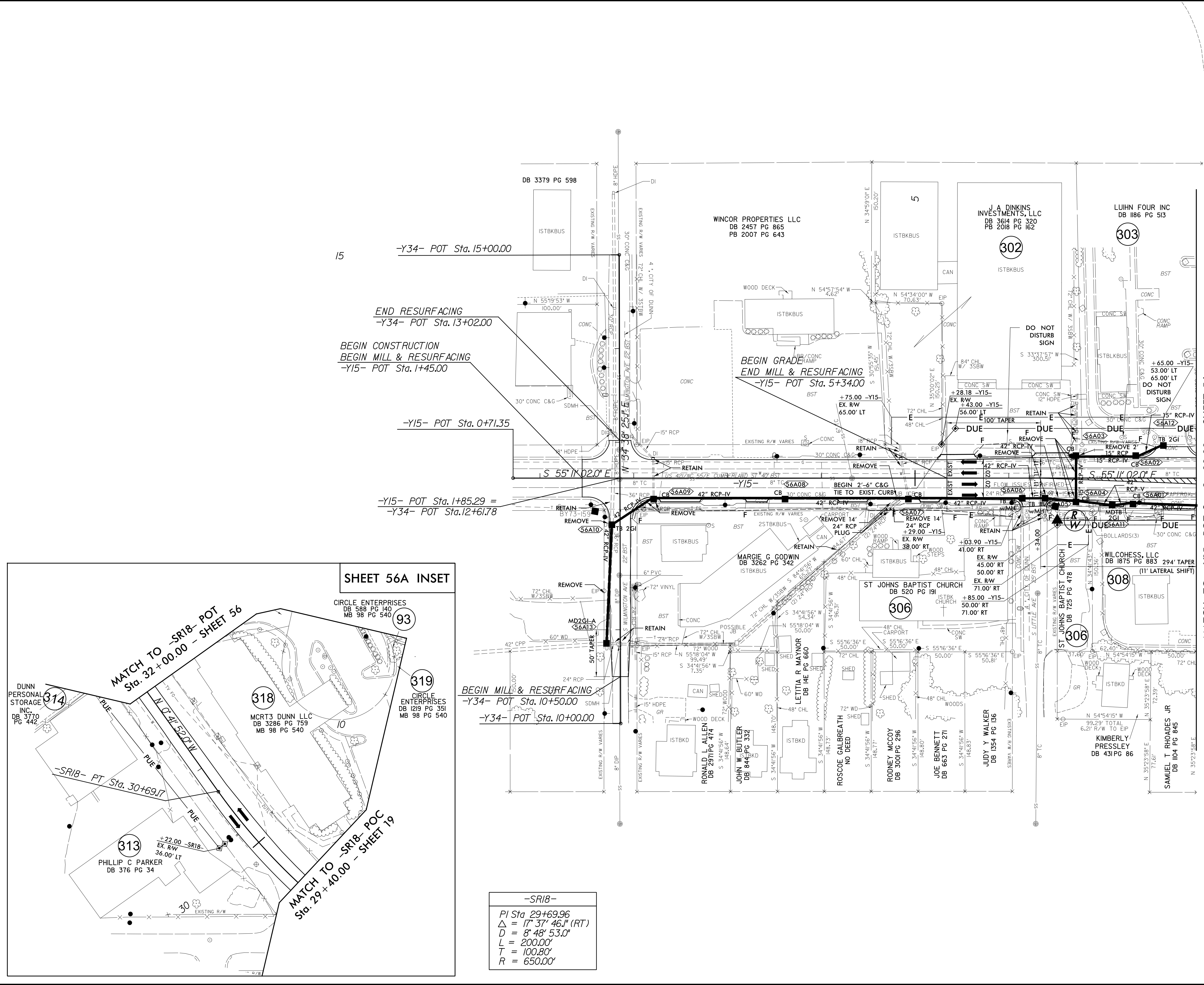
PROJECT REFERENCE NO. 1-5878	SHEET NO. 56
ROADWAY DESIGN ENGINEER SEAL 027373 SUSAN G. LANCASTER	HYDRAULICS ENGINEER SEAL 26971 JOSHUA G. DALTON
DocuSign Susan C Lancaster 5/13/2021	DocuSign Joshua G Dalton 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. 1800 Regency Park Suite 800 Cary, NC 27518 INTERNATIONAL	SUNGATE DESIGN GROUP, P.A. 100 WEST HERRING ROAD RALEIGH, NORTH CAROLINA 27606 NC REG. NO. C-6899



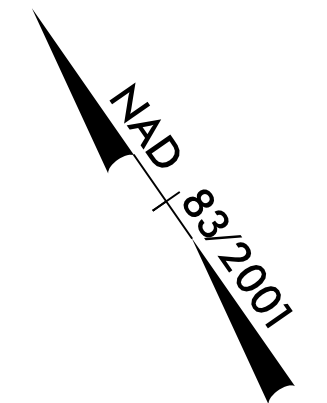
NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

FOR -Y15- PROFILE SEE SHEET 91  
FOR -Y25- PROFILE SEE SHEET 101  
FOR -Y25A- PROFILE SEE SHEET 101  
FOR -SR18- PROFILE SEE SHEET 106

PROJECT REFERENCE NO. 1-5878		SHEET NO. 56A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER SUSAN C. LANCASTER SEAL 027373 SUNGATE DESIGN GROUP, P.A.		HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 SUNGATE DESIGN GROUP, P.A.	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Michael Baker Engineering, Inc. 1000 Regency Park Suite 600 Raleigh, NC 27618 Tel: 919.876.1000 Fax: 919.876.1001 www.mbakergroup.com		SUNGATE DESIGN GROUP, P.A. 62 JONES FRANKER ROAD RALEIGH, NORTH CAROLINA 27618 NC CDA No. C-48890	



-SR18-
PI Sta 29+69.96
Δ = 17' 37" 46.1" (RT)
D = 8' 48" 53.0"
L = 200.00'
T = 100.80'
R = 650.00'



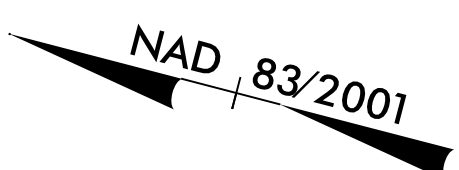
MATCH TO -Y15- POT Sta. 8+00.00 - SHEET 56

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

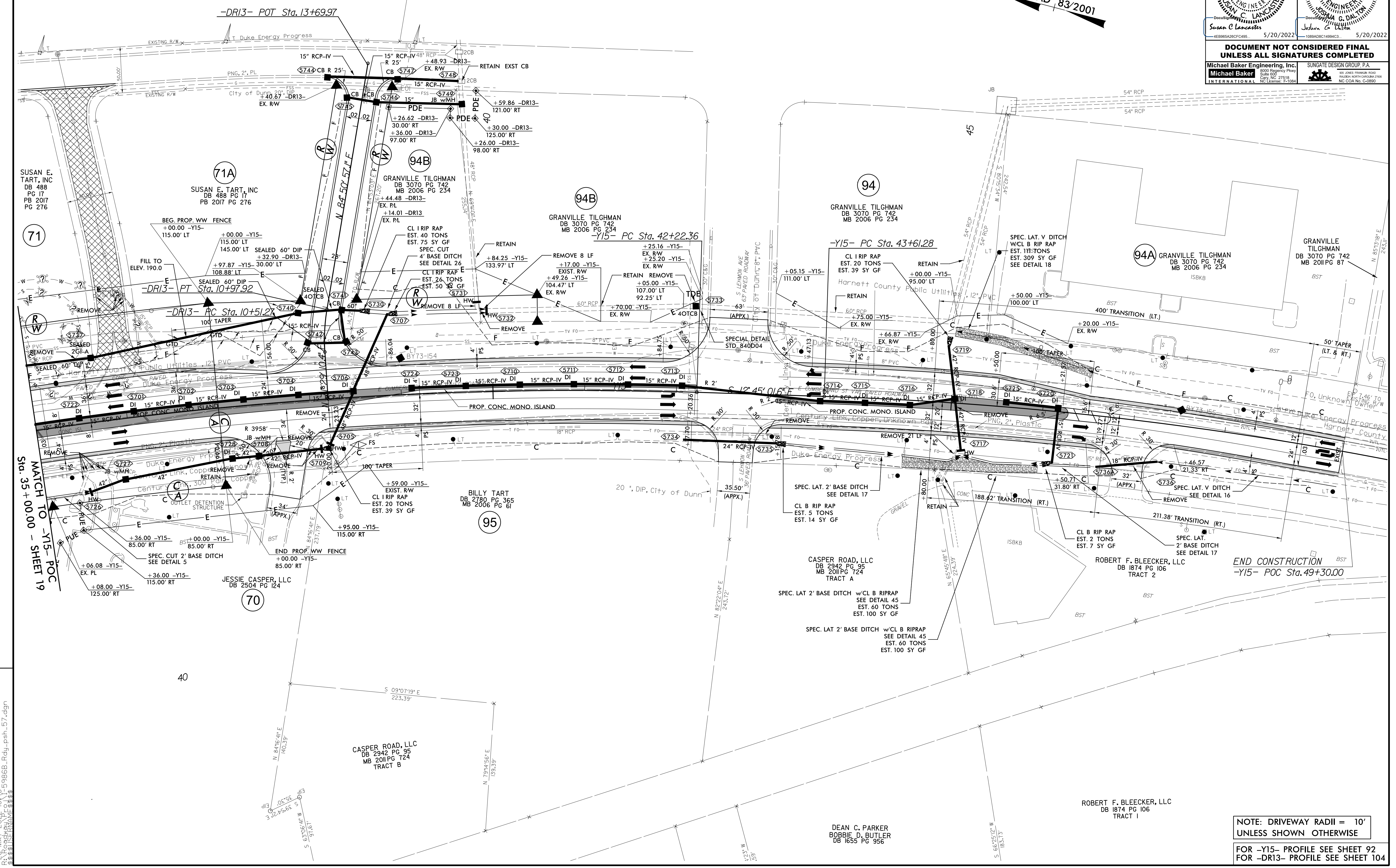
FOR -Y15- PROFILE SEE SHEET 91  
FOR -SR18- PROFILE SEE SHEET 106

PROJECT REFERENCE NO. 1-5878	SHEET NO. 57
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 027373 SUNGAN C. LANCASTER	HYDRAULICS ENGINEER SEAL 26971 JOSHUA G. DARTON
5/20/2022	5/20/2022
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. INTERNATIONAL	SUNGATE DESIGN GROUP, P.A.

-Y15-			-DRI3-		
PI Sta 38+05.01	PI Sta 46+74.39	PI Sta 51+44.51	PI Sta 10+74.70		
$\Delta = 12'00''00.1'' (RT)$	$\Delta = 9'12''39.1'' (RT)$	$\Delta = 2'42''26.3'' (RT)$	$\Delta = 13'21''46.6'' (RT)$		
$D = 1'25''56.6''$	$D = 1'28''26.4''$	$D = 0'51''18.0''$	$D = 28'38''52.4''$		
$L = 837.76'$	$L = 624.89'$	$L = 316.64'$	$L = 46.65'$		
$T = 420.42'$	$T = 313.12'$	$T = 158.35'$	$T = 23.43'$		
$R = 4,000.00'$	$R = 3,887.07'$	$R = 6,701.26'$	$R = 200.00'$		



REVISIONS  
 05/16/22 - RW REVISION: REVISED PROPERTY LINE (NOW RW LINE) BETWEEN PARCEL 71A AND 94B. REVISED RW, TCE, AND ADDED PDE ON PARCEL 94B. SCL  
 05/16/22 - CONST. REVISIONS: ADDED -DRI3- ON PARCEL 71A AND REVISED DRAINAGE ALONG -Y15- AND -DRI3-. SCL

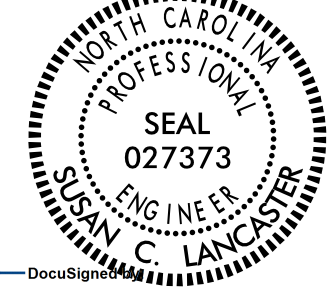
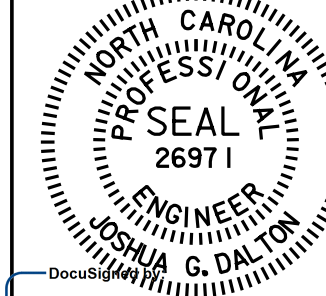


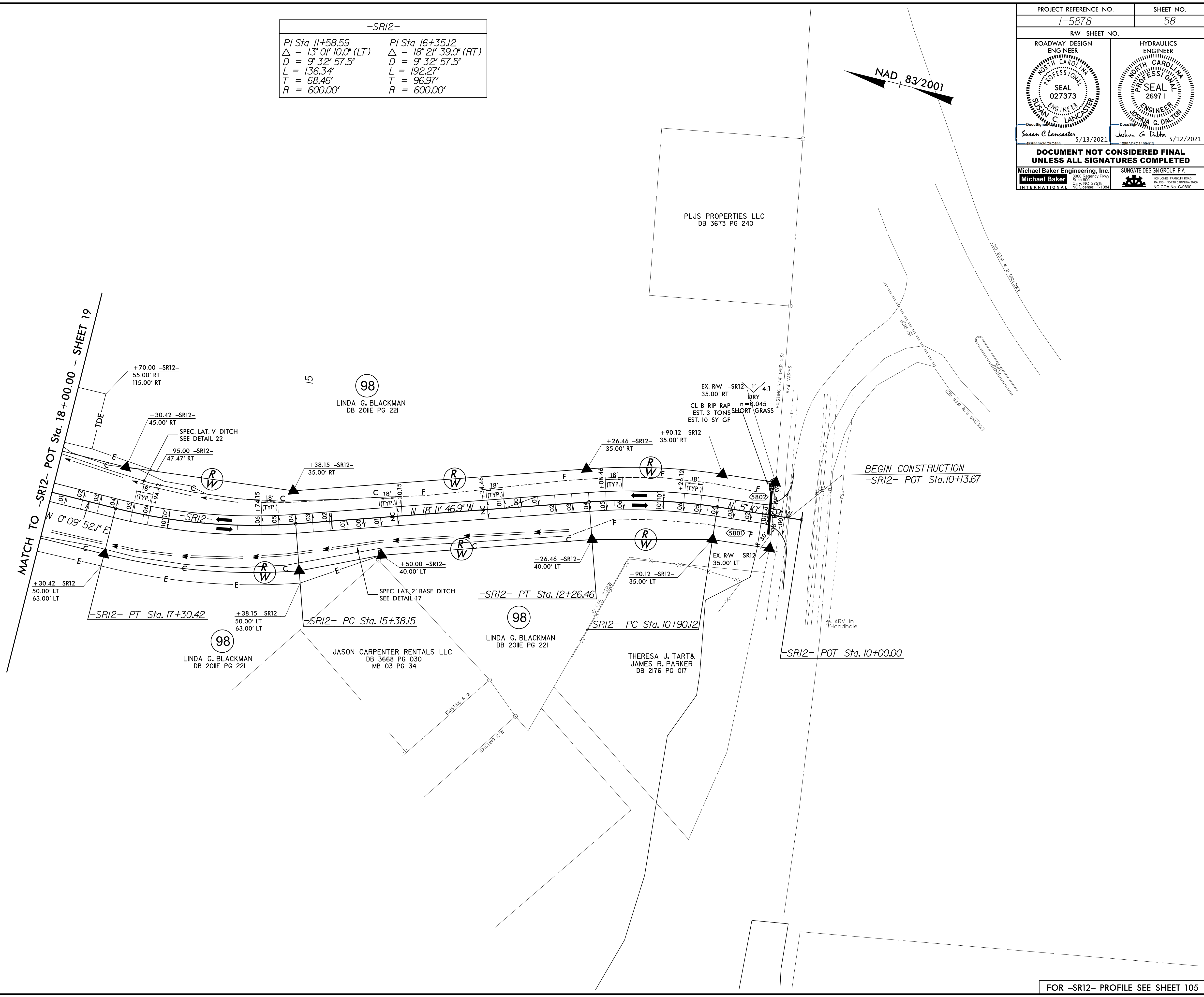
5/14/99  
 20-MAY-2022 10:45:59 99868.Rdy.psh.57.dgn  
 3:33:50 PM

NOTE: DRIVEWAY RADII = 10'  
 UNLESS SHOWN OTHERWISE  
 FOR -Y15- PROFILE SEE SHEET 92  
 FOR -DRI3- PROFILE SEE SHEET 104

5/14/2021

-SR12-	
PI Sta 11+58.59	PI Sta 16+35.12
$\Delta = 13^{\circ} 01' 10.0''$ (LT)	$\Delta = 18^{\circ} 21' 39.0''$ (RT)
D = 9' 32' 57.5"	D = 9' 32' 57.5"
L = 136.34'	L = 192.27'
T = 68.46'	T = 96.97'
R = 600.00'	R = 600.00'

PROJECT REFERENCE NO. 1-5878	SHEET NO. 58
RW SHEET NO.	
ROADWAY DESIGN ENGINEER  Susan C. Lancaster 5/13/2021	HYDRAULICS ENGINEER  Joshua G. Dalton 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. 1800 Piedmont Parkway Raleigh, NC 27616 NC License: F-1034	SUNGATE DESIGN GROUP, P.A. 10000 SunGate Parkway Raleigh, NC 27617 NC License: C-0890



R:\02-APP-2021\010106-59868.Rdly.psh\_58.dgn





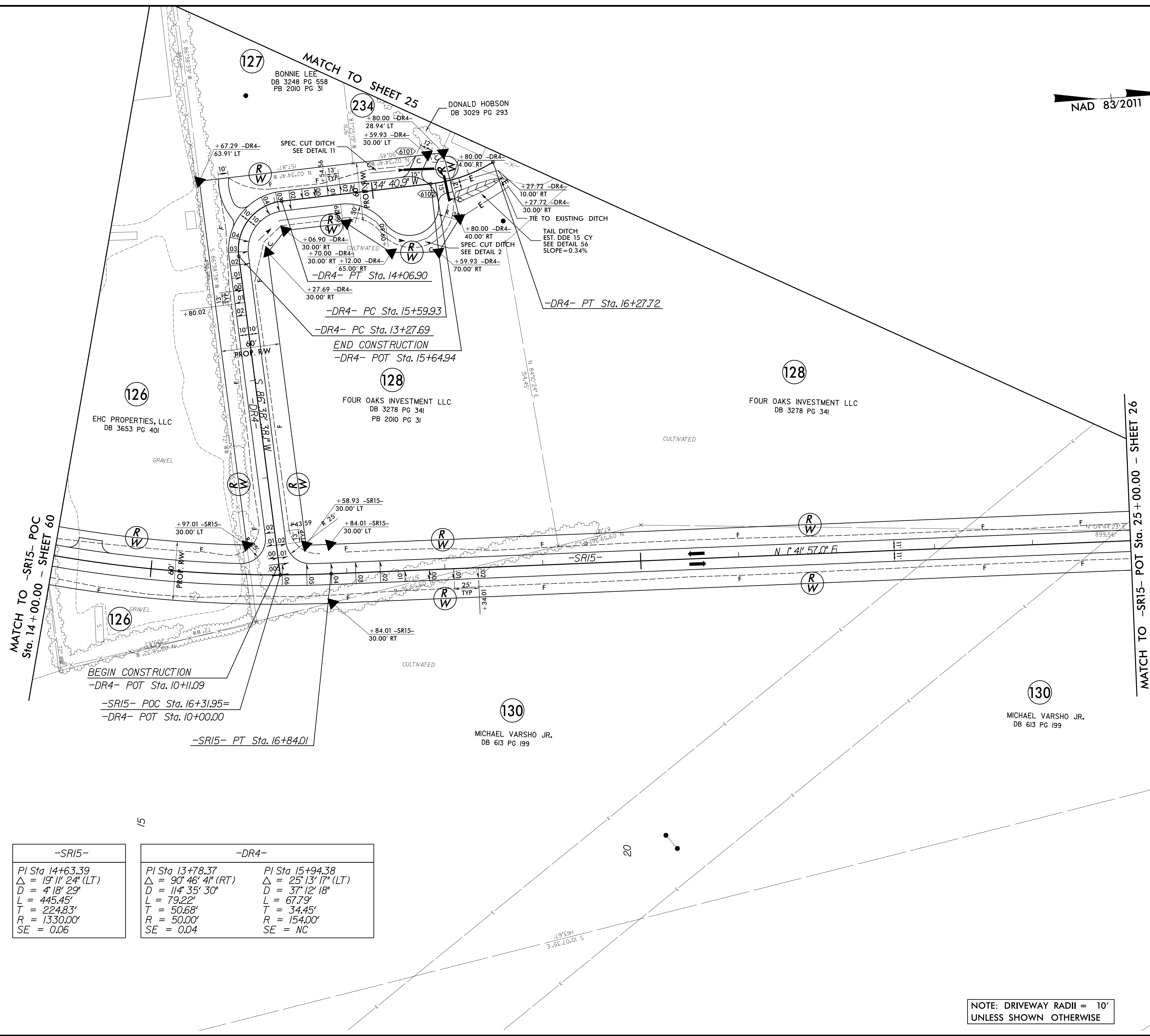
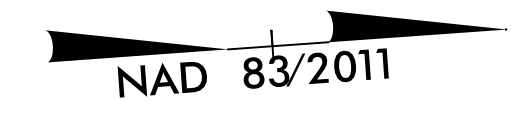


8/17/99

R:\MAR-2021\08-42  
R:\V\11-59866B\_Rdy\_psh\_61.dgn

REVISIONS

PROJECT REFERENCE NO. 1-5883		SHEET NO. 61	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Susan C. Lancaster 5/13/2021		Joshua G. Dalton 5/12/2021	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			



-SRI5-		-DR4-	
PI Sta 14+63.39	PI Sta 13+78.37	PI Sta 15+94.38	
$\Delta = 19^\circ 11' 24''$ (LT)	$\Delta = 90^\circ 46' 4''$ (RT)	$\Delta = 25^\circ 13' 17''$ (LT)	
D = 4' 18" 29"	D = 11' 35" 30"	D = 37' 12" 18"	
L = 445.45'	L = 79.22'	L = 67.79'	
T = 224.83'	T = 50.68'	T = 34.45'	
R = 1330.00'	R = 50.00'	R = 154.00'	
SE = 0.06	SE = 0.04	SE = NC	

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

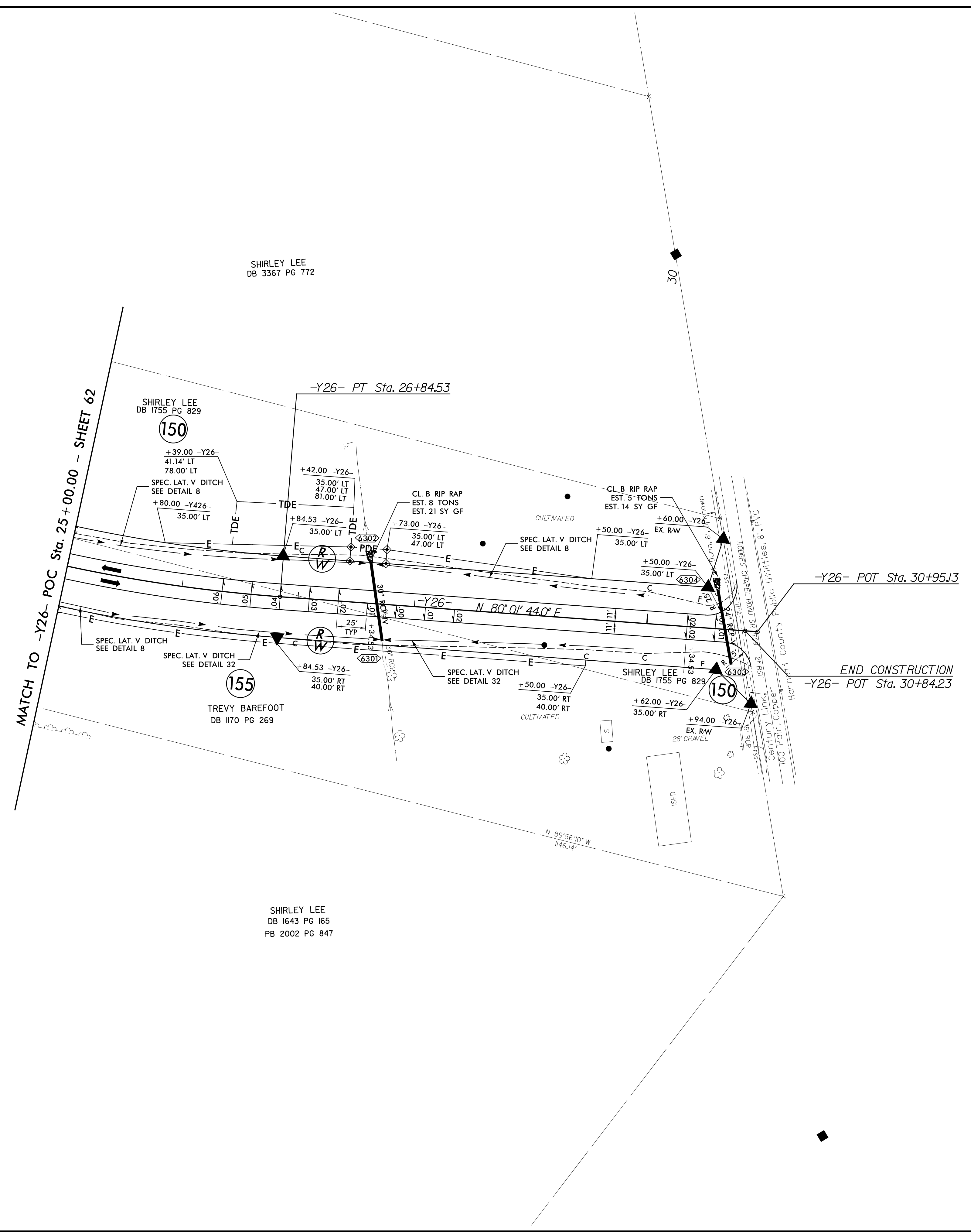
FOR -SRI5- PROFILE SEE SHEET 120  
FOR -DR4- PROFILE SEE SHEET 130



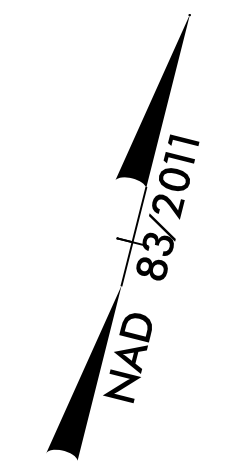
8/17/99

03-APR-2021 08:44  
P:\Projects\2021\1-5986B\_Rdy\_psh\_63.dgn

REVISIONS



-Y26-  
 PI Sta 23+33.90  
 $\Delta = 30^{\circ} 59' 19''$  (LT)  
 $D = 4' 18' 29''$   
 $L = 719.33'$   
 $T = 368.70'$   
 $R = 1330.00'$   
 $SE = 0.06$

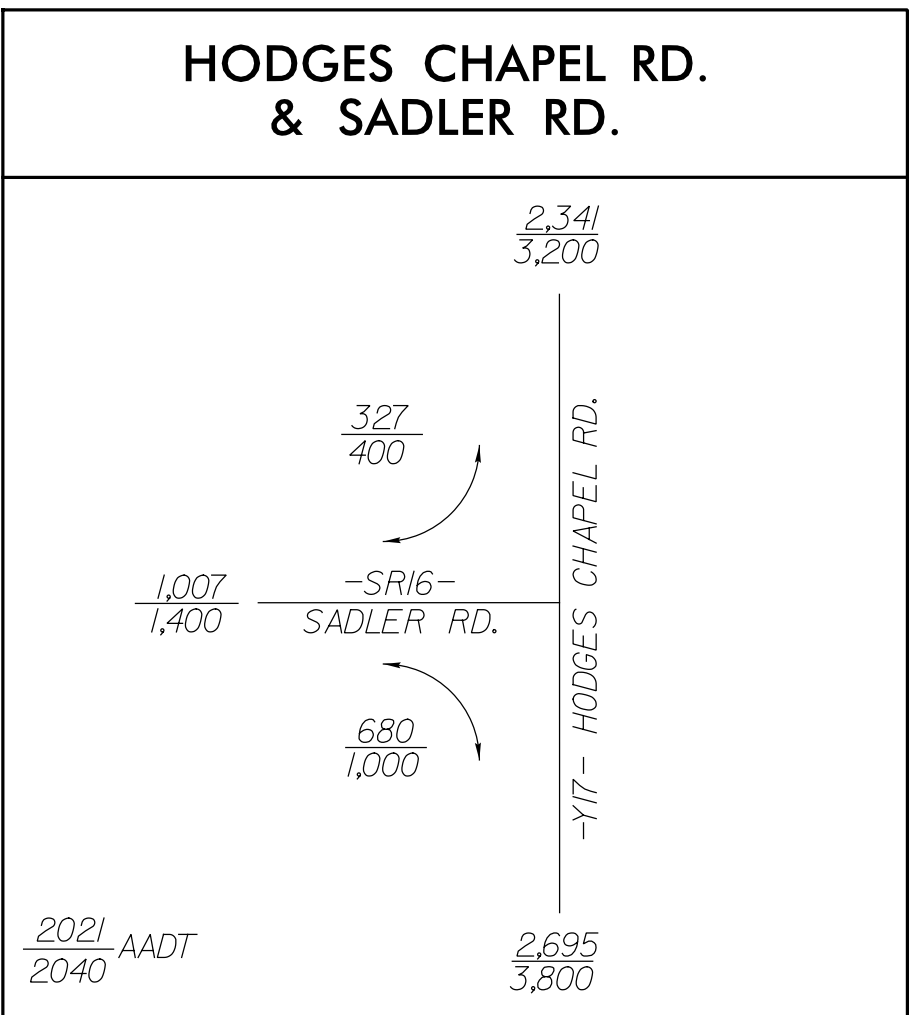


PROJECT REFERENCE NO. 1-5883	SHEET NO. 63
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SUSAN C. LANCASTER SEAL 027373 5/13/2021	HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. INTERNATIONAL	SUNGATE DESIGN GROUP, P.A.

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

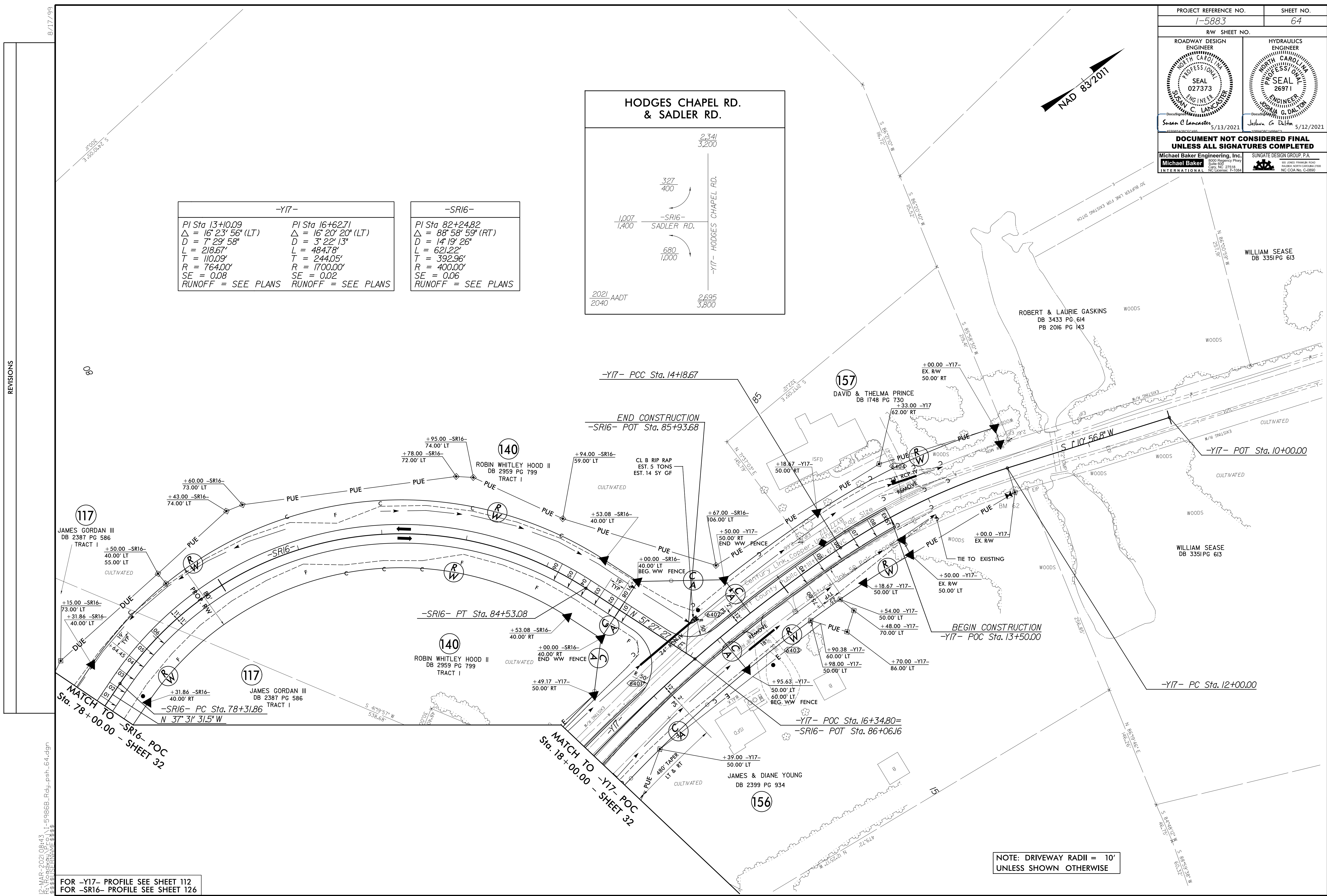
FOR -Y26- PROFILE SEE SHEET 117

PROJECT REFERENCE NO. 1-5883		SHEET NO. 64	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Susan C. Lankaster 5/13/2021		Joshua G. Dalton 5/12/2021	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			
Michael Baker Engineering, Inc. 1000 Research Parkway Suite 600 Cary, NC 27518 NC License: P-1084		SUNGATE DESIGN GROUP, P.A. 602 ZONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27604 NC COA No. C-48890	



-Y17-		-SR16-	
PI Sta 13+0.09	PI Sta 16+62.71	PI Sta 82+24.82	PI Sta 82+24.82
$\Delta = 16' 23' 56''$ (LT)	$\Delta = 16' 20' 20''$ (LT)	$\Delta = 88' 58' 59''$ (RT)	$\Delta = 88' 58' 59''$ (RT)
D = 7' 29' 58"	D = 3' 22' 13"	D = 14' 19' 26"	D = 14' 19' 26"
L = 218.67'	L = 484.78'	L = 621.22'	L = 621.22'
T = 110.09'	T = 244.05'	T = 392.96'	T = 392.96'
R = 764.00'	R = 1700.00'	R = 400.00'	R = 400.00'
SE = 0.08	SE = 0.02	SE = 0.06	SE = 0.06
RUNOFF = SEE PLANS	RUNOFF = SEE PLANS	RUNOFF = SEE PLANS	RUNOFF = SEE PLANS

REVISIONS



P:\MAR-2021\08-43\1-59866B\_Rdy\_psh\_64.dgn

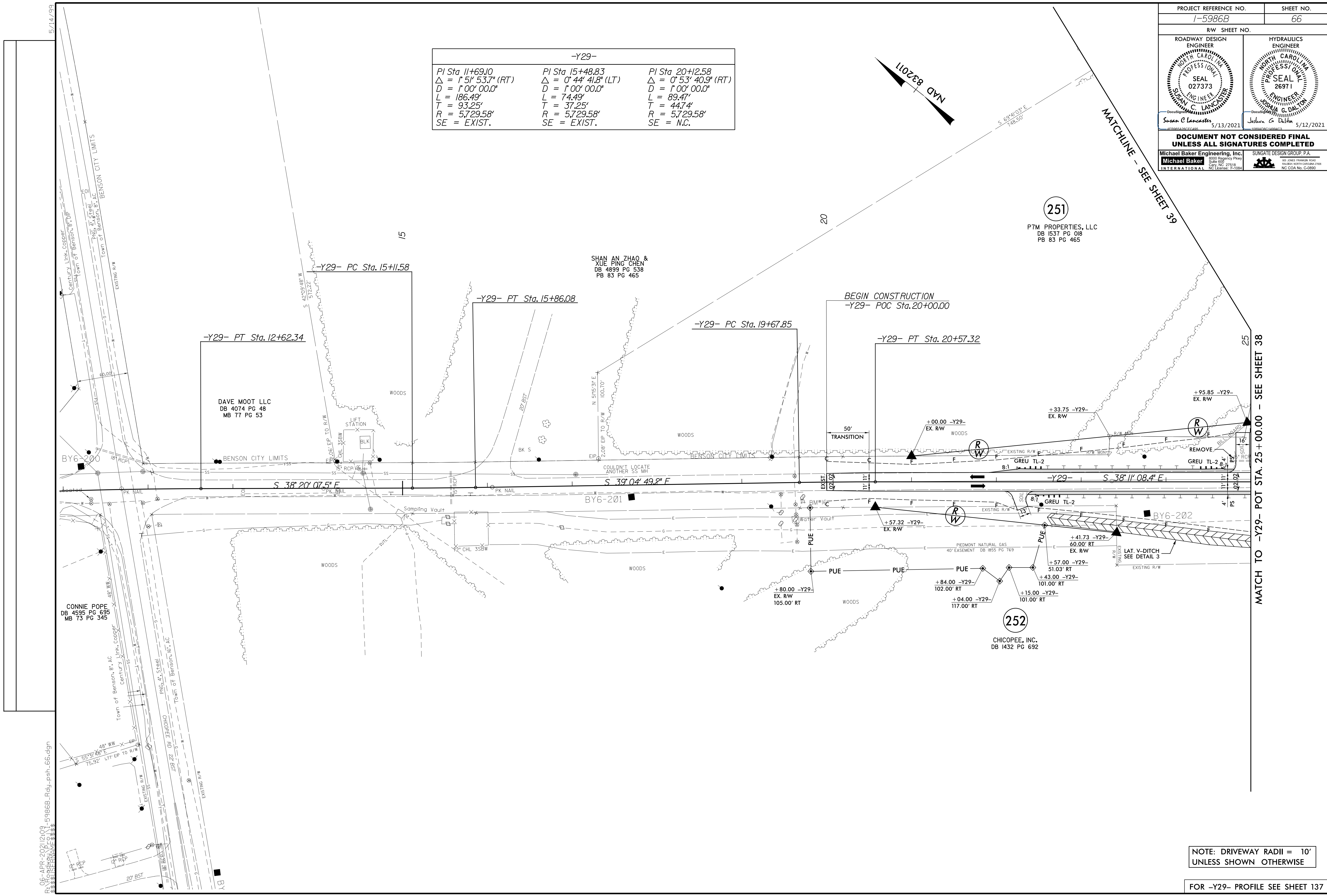
FOR -Y17- PROFILE SEE SHEET 112  
FOR -SR16- PROFILE SEE SHEET 126

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE



PROJECT REFERENCE NO. 1-5986B		SHEET NO. 66	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER SUSAN C. LANCASTER SEAL 027373 5/13/2021		HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 5/12/2021	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
Michael Baker Engineering, Inc. INTERNATIONAL		SUNGATE DESIGN GROUP, P.A.	

-Y29-		
PI Sta 11+69.10 Δ = 1° 51' 53.7" (RT) D = 1° 00' 00.0" L = 186.49' T = 93.25' R = 5,729.58' SE = EXIST.	PI Sta 15+48.83 Δ = 0° 44' 41.8" (LT) D = 1° 00' 00.0" L = 74.49' T = 37.25' R = 5,729.58' SE = EXIST.	PI Sta 20+25.58 Δ = 0° 53' 40.9" (RT) D = 1° 00' 00.0" L = 89.47' T = 44.74' R = 5,729.58' SE = N.C.



5/14/99  
 R:\06-APR-2021\2109-5986B\_Rdwy\_psh\_66.dgn  
 11:58:30 AM 5/13/21

MATCH TO -Y29- POT STA. 25+00.00 - SEE SHEET 38

NOTE: DRIVEWAY RADII = 10'  
UNLESS SHOWN OTHERWISE

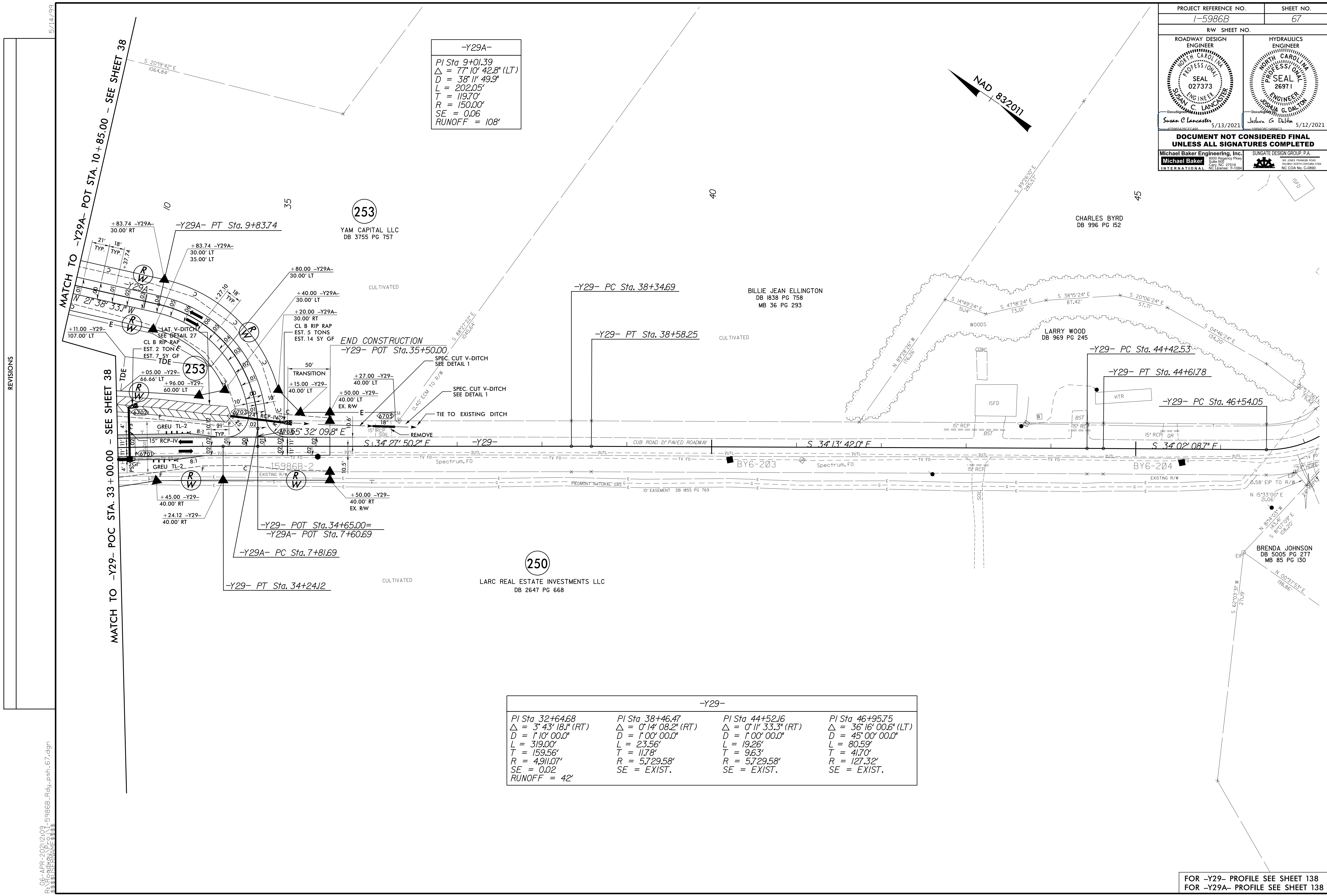
FOR -Y29- PROFILE SEE SHEET 137

PROJECT REFERENCE NO. 1-5986B	SHEET NO. 67
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SUNGAN C. LANCASTER SEAL 027373 5/13/2021	HYDRAULICS ENGINEER JOSHUA G. DALTON SEAL 26971 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. INTERNATIONAL	SUNGATE DESIGN GROUP, P.A.

**-Y29A-**  
 PI Sta 9+01.39  
 $\Delta = 77^{\circ}10'42.8''$  (LT)  
 $D = 38^{\circ}11'49.9''$   
 $L = 202.05'$   
 $T = 119.70'$   
 $R = 150.00'$   
 $SE = 0.06$   
 $RUNOFF = 108'$

**-Y29-**

PI Sta 32+64.68 $\Delta = 3^{\circ}43'18.1''$ (RT) $D = 1^{\circ}10'00.0''$ $L = 319.00'$ $T = 159.56'$ $R = 4,911.07'$ $SE = 0.02$ $RUNOFF = 42'$	PI Sta 38+46.47 $\Delta = 0^{\circ}14'08.2''$ (RT) $D = 1^{\circ}00'00.0''$ $L = 23.56'$ $T = 11.78'$ $R = 5,729.58'$ $SE = EXIST.$	PI Sta 44+52.16 $\Delta = 0^{\circ}11'33.3''$ (RT) $D = 1^{\circ}00'00.0''$ $L = 19.26'$ $T = 9.63'$ $R = 5,729.58'$ $SE = EXIST.$	PI Sta 46+95.75 $\Delta = 36^{\circ}16'00.6''$ (LT) $D = 45^{\circ}00'00.0''$ $L = 80.59'$ $T = 41.70'$ $R = 127.32'$ $SE = EXIST.$
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------



REVISIONS

R:\06-APR-2021\2104-5986B\_Rdly\_psh\_67.dgn

FOR -Y29- PROFILE SEE SHEET 138  
FOR -Y29A- PROFILE SEE SHEET 138

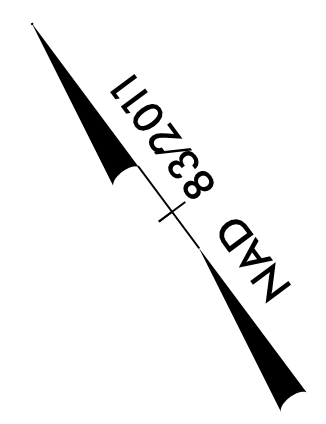


5/14/99

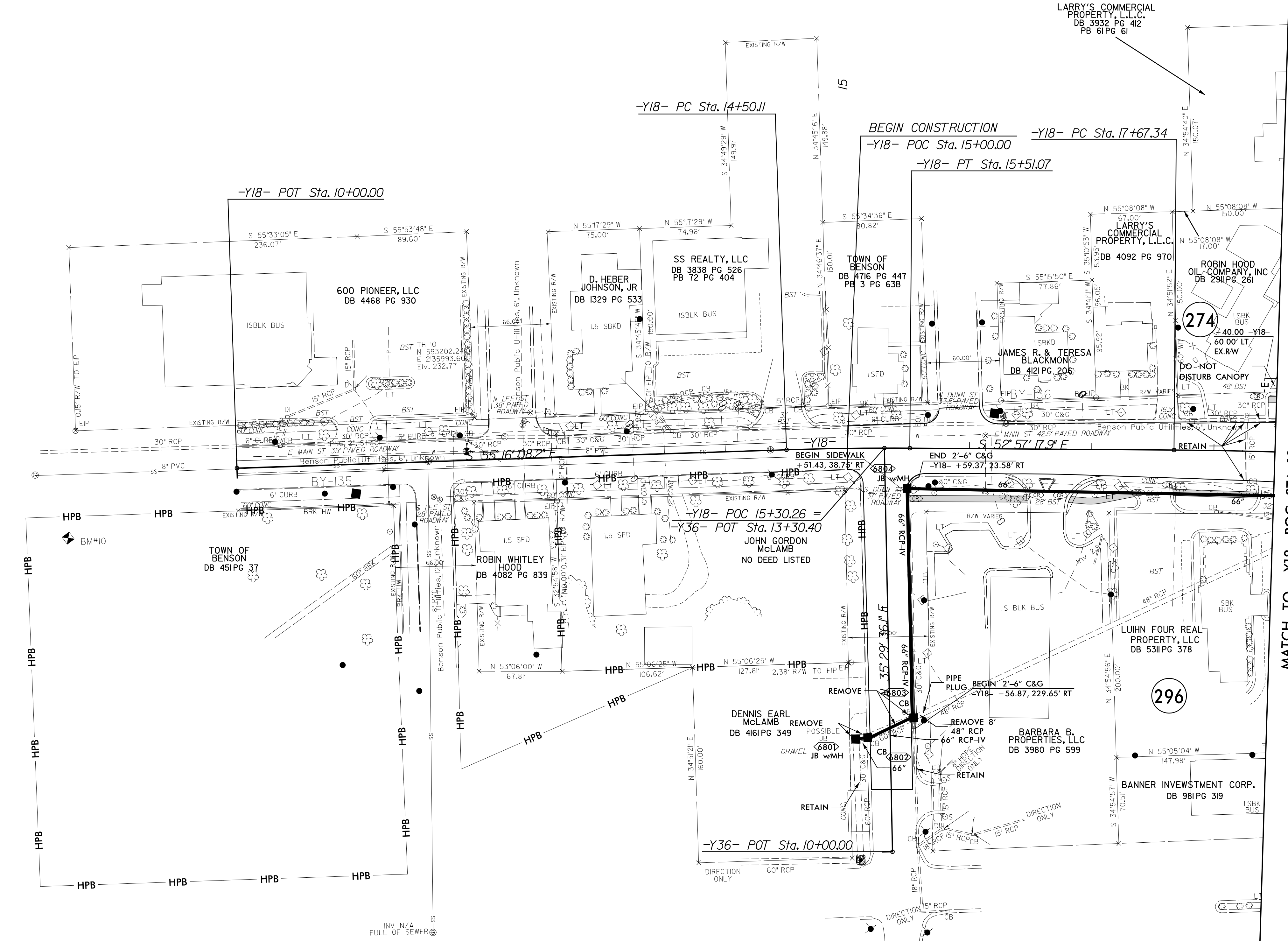
REVISIONS

R:\05-APP-2021\6107-5986B\_Rdly\_psh\_68.dgn  
3:33:50 PM 5/14/2021

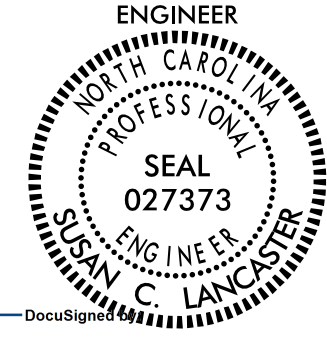
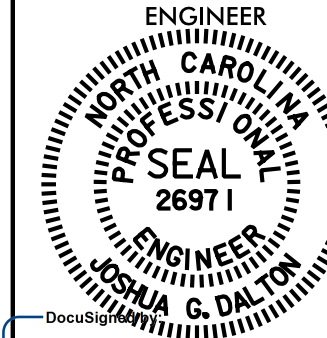
-Y18-	
PI Sta 15+00.59	PI Sta 18+37.03
$\Delta = 2' 18' 50.3" (RT)$	$\Delta = 2' 16' 52.5" (RT)$
$D = 2' 17' 30.6"$	$D = 1' 38' 13.3"$
$L = 100.97'$	$L = 139.35'$
$T = 50.49'$	$T = 69.69'$
$R = 2,500.00'$	$R = 3,500.00'$
SE = EXIST.	SE = EXIST.

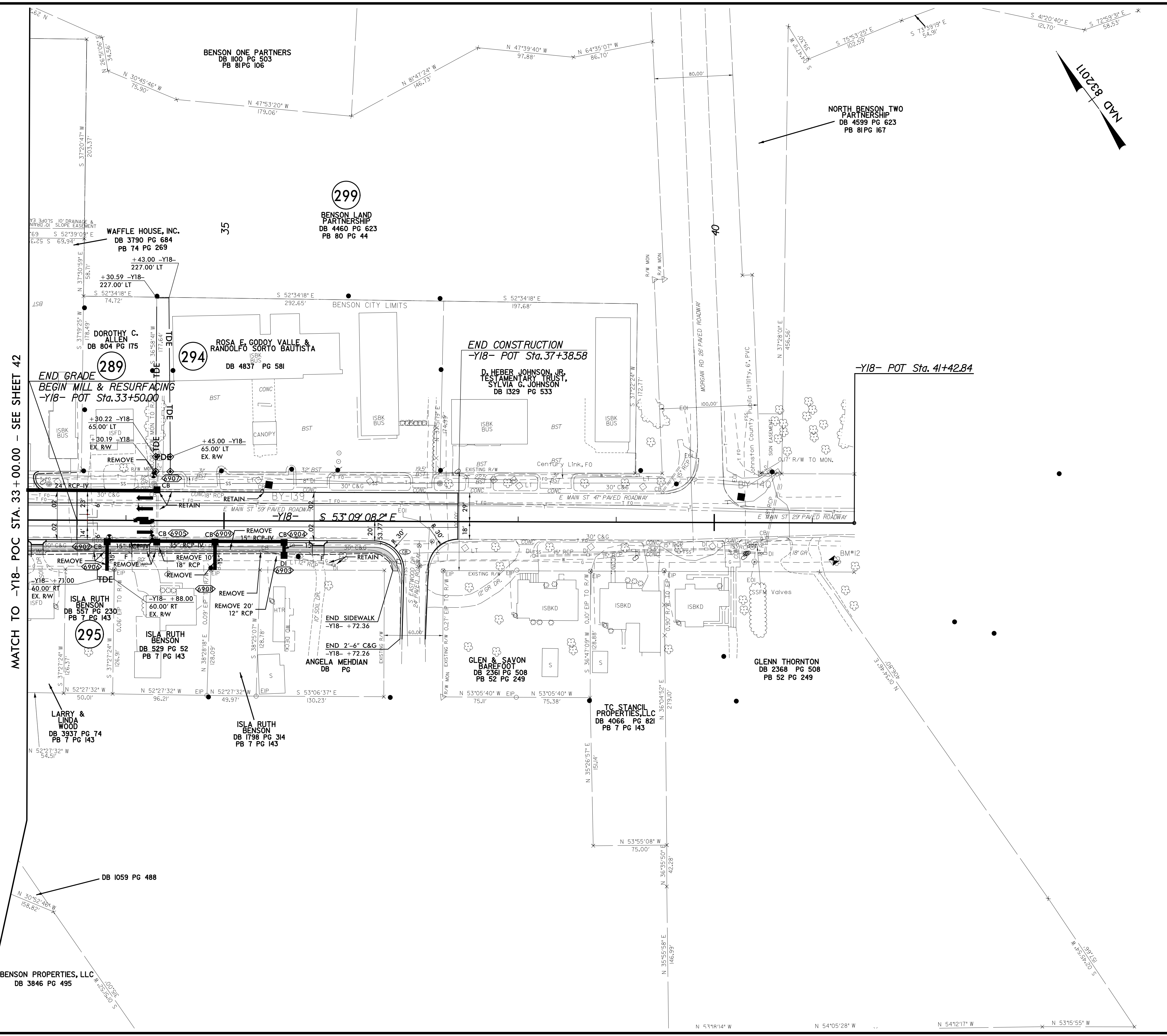


PROJECT REFERENCE NO. 1-5986B	SHEET NO. 68
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SUSAN C LANCASTER NORTH CAROLINA PROFESSIONAL SEAL 027373 5/13/2021	HYDRAULICS ENGINEER JOSHUA G DALTON NORTH CAROLINA PROFESSIONAL SEAL 26971 5/12/2021
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
Michael Baker Engineering, Inc. 1800 Piedmont Place Suite 800 Cary, NC 27518 NC License: F-1084	SUNGATE DESIGN GROUP, P.A. 10000 SunGate Parkway Suite 200 Raleigh, NC 27617 NC License: F-1084



MATCH TO -Y18- POC STA. 18+50.00 - SEE SHEET 42

PROJECT REFERENCE NO. <b>1-5986B</b>	SHEET NO. <b>69</b>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
Susan C. Lancaster 5/14/2021	Joshua G. Dalton 5/14/2021
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Michael Baker Engineering, Inc. 1800 Piedmont Parkway Suite 600 Cary, NC 27518 Tel: 919.241.1000 Fax: 919.241.1001 www.mbakeng.com	SUNGATE DESIGN GROUP, P.A. 10000 SunGate Parkway Raleigh, NC 27617 Tel: 919.276.1000 Fax: 919.276.1001 www.sungatepa.com



REVISIONS

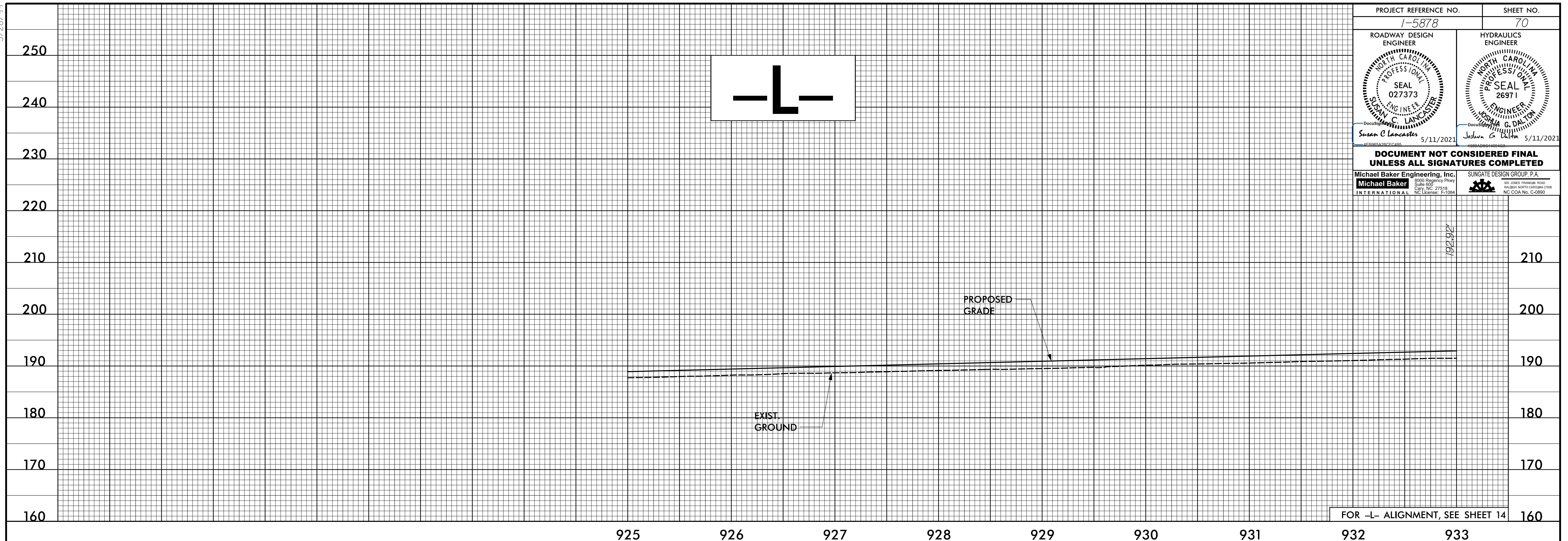
MATCH TO -Y18- POC STA. 33+00.00 - SEE SHEET 42

15-MAY-2021 15:02 - 5986B\_Rdwy\_psh\_69.dgn  
C:\Users\jgallagher\OneDrive\Documents\5986B\15-MAY-2021 15:02 - 5986B\_Rdwy\_psh\_69.dgn

FOR -Y18- PROFILE SEE SHEET 131

PROJECT REFERENCE NO. 1-5878	SHEET NO. 70
ROADWAY DESIGN ENGINEER SEAL 027373 SUSAN C. LANCASTER	HYDRAULICS ENGINEER PROFESSIONAL SEAL 26971 JOSHUA G. DIXON
5/11/2021	5/11/2021
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	
Michael Baker Engineering, Inc. 8000 Regency Park Suite 600 Cary, NC 27518 NC License: T-10884	SUNGATE DESIGN GROUP, P.A. 100 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27609 NC CDA No. C-2850

5/28/19



I:\MAR-2021\08-159\1-F5986B-Redy.pfl\_Sheets.L.dgn

