

 **AtkinsRéalis** 1616 EAST WILLBROOK ROAD, SUITE 16
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.

 905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-980



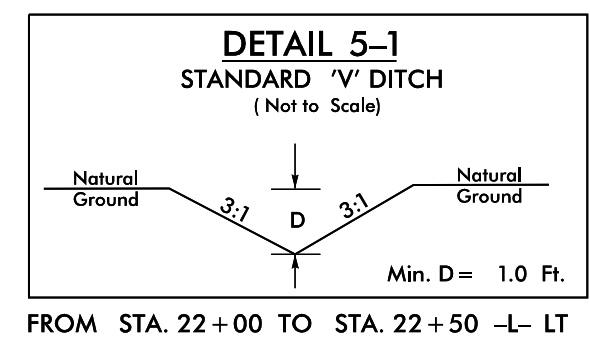
NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 4 FOR COMPLETE DESIGN DETAILS.

8/17/99

-Y33-
PI Sta 10+85.22
 $\Delta = 9^{\circ} 44' 29.7''$ (RT)
D = 5' 43' 46.5"
L = 170.02'
T = 85.22'
R = 1,000.00'
SE = NC
LR = N/A

-Y34-
PI Sta 12+15.97
 $\Delta = 4^{\circ} 19' 52.3''$ (LT)
D = 7' 09' 43.1"
L = 60.48'
T = 30.25'
R = 800.00'
SE = NC
LR = N/A

-L-
PI Sta 24+77.08
 $\Delta = 64^{\circ} 54' 30.9''$ (RT)
D = 6' 09' 39.0"
L = 1053.57'
T = 591.43'
R = 930.00'
SE = 0.04
LR = 192'



PROJECT REFERENCE NO. U-4758		SHEET NO. 5	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6666 NCEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 858-2243
ENG FIRM LICENSE NO. C-880

UNKNOWN HEIRS
OF
MARIA C. HIATT
DB 2045 PG 558
PB 127 PG 113

UNKNOWN HEIRS
OF
MARIE C. HIATT
DB 4810 PG 1235

UNKNOWN HEIRS
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DB 4810 PG 1235

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MARIE C. HIATT
DB 4810 PG 1235

UNKNOWN HEIRS
OF
MARIE C. HIATT
DB 4810 PG 1235

MATCHLINE SEE SHEET 6
-L- STA 35+00

REVISIONS

27 MAY 2025 17:06 R:\Road\U4758_rdu_psh_05.dgn

NOTE: SEE SHEET 29 FOR -L- PROFILE
SEE SHEET 46 FOR -Y33- AND -Y34- PROFILES



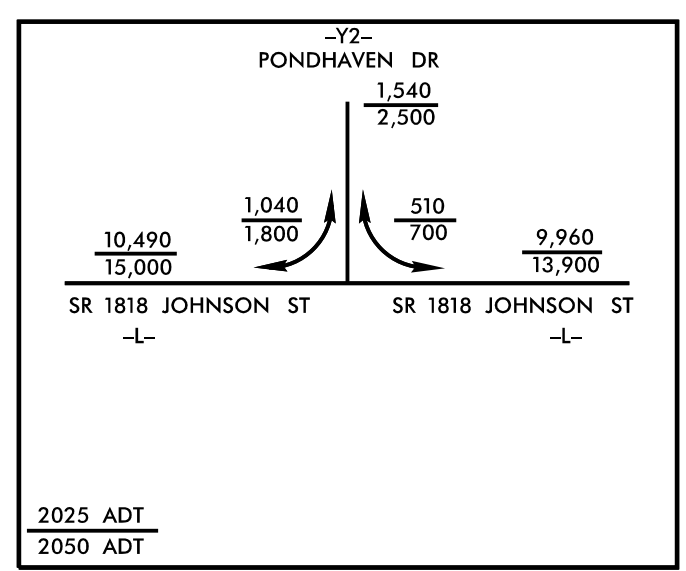
8/17/99

REVISIONS

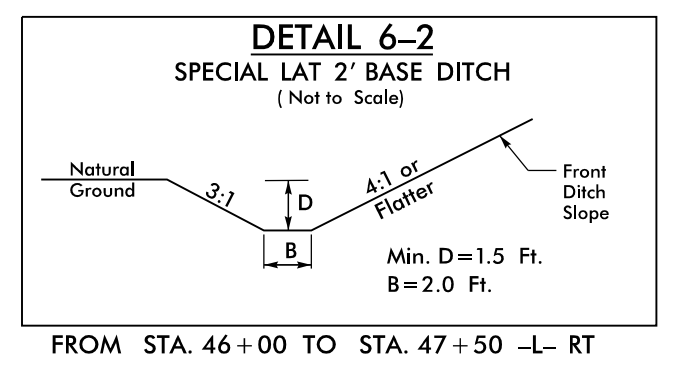
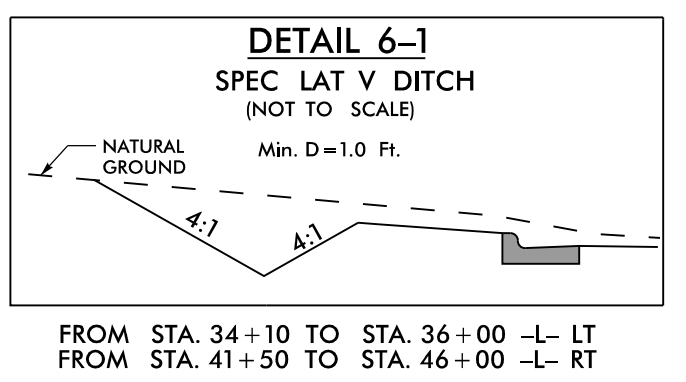
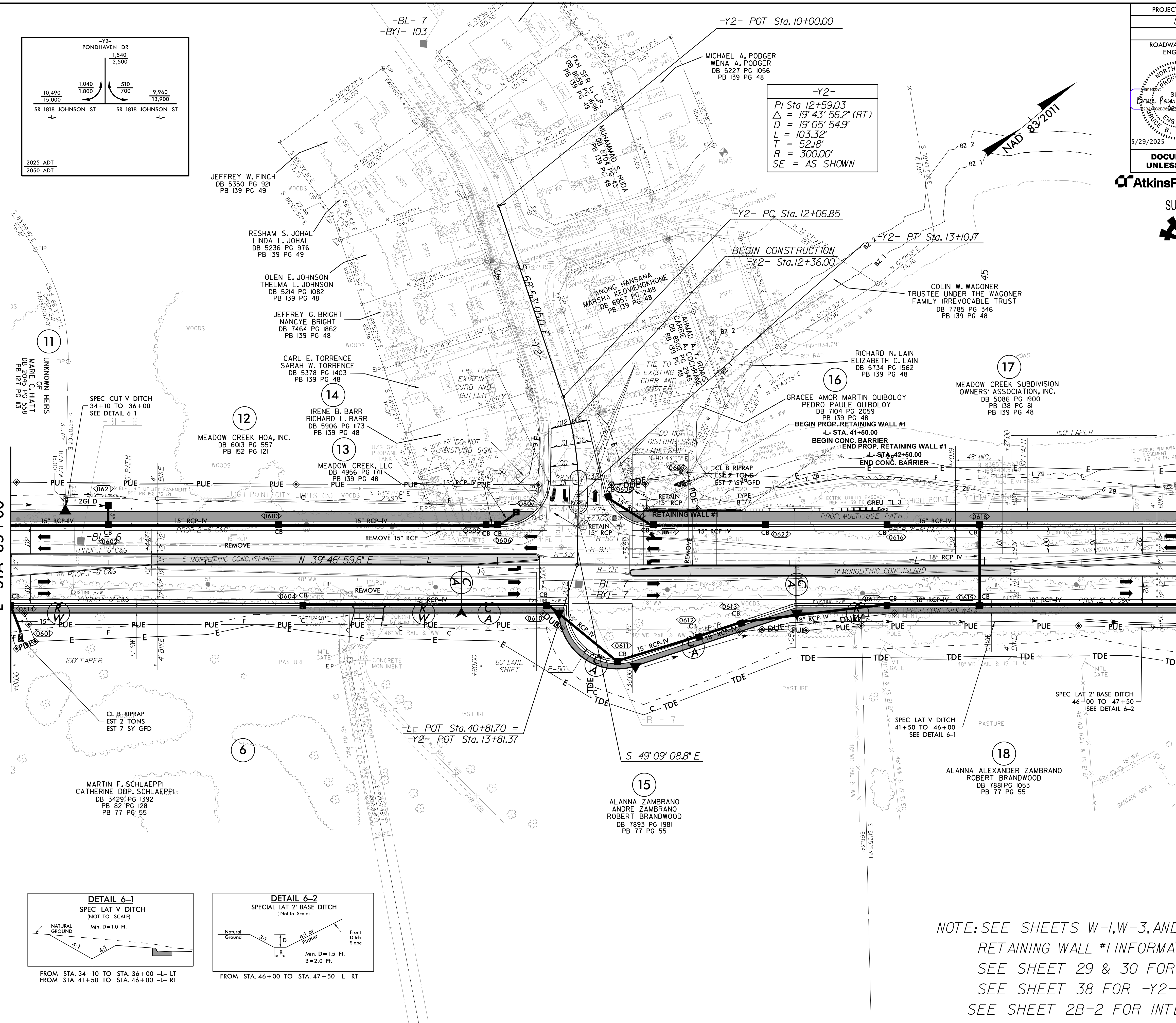
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\$\$\$\$\$ISTRAME\$\$\$\$\$

MATCHLINE SEE SHEET 5
-L- STA 35+00

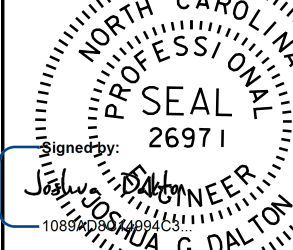
MATCHLINE SEE SHEET 7
-L- STA 47+00



-Y2-
PI Sta. 12+59.03
 $\Delta = 19^\circ 43' 56.2''$ (RT)
 $D = 19^\circ 05' 54.9''$
 $L = 103.32'$
 $T = 52.18'$
 $R = 300.00'$
SE = AS SHOWN



NOTE: SEE SHEETS W-1, W-3, AND W-5 FOR
RETAINING WALL #1 INFORMATION
SEE SHEET 29 & 30 FOR -L- PROFILE
SEE SHEET 38 FOR -Y2- PROFILE
SEE SHEET 2B-2 FOR INTERSECTION DETAIL

PROJECT REFERENCE NO.		SHEET NO.
U-4758		6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 ENG FIRM LICENSE NO. C-880

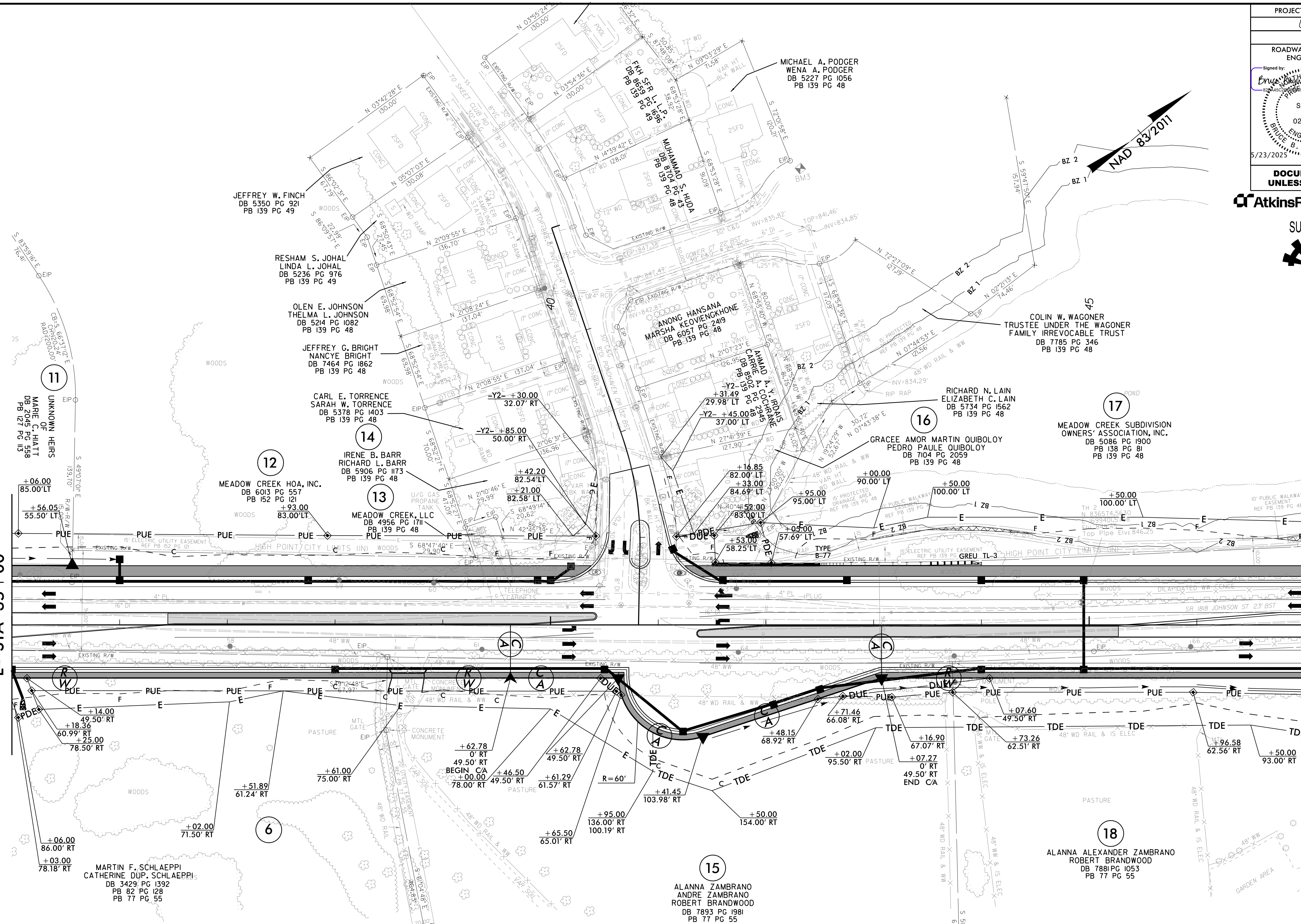
8/17/99

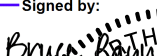
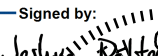
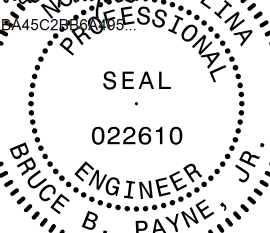
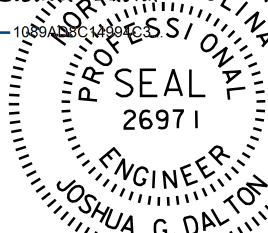
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\$\$\$\$\$ISTRANAME\$\$\$\$\$

REVISIONS

MATCHLINE SEE SHEET 5
-L- STA 35+00

MATCHLINE SEE RW-7
-L- STA 47+00



PROJECT REFERENCE NO.		SHEET NO.
U-4758		RW-6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
Signed by: 		Signed by: 
		
5/23/2025	5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

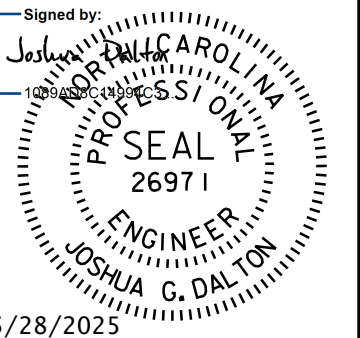
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 6 FOR COMPLETE DESIGN DETAILS.

PROJECT REFERENCE NO.
U-4758

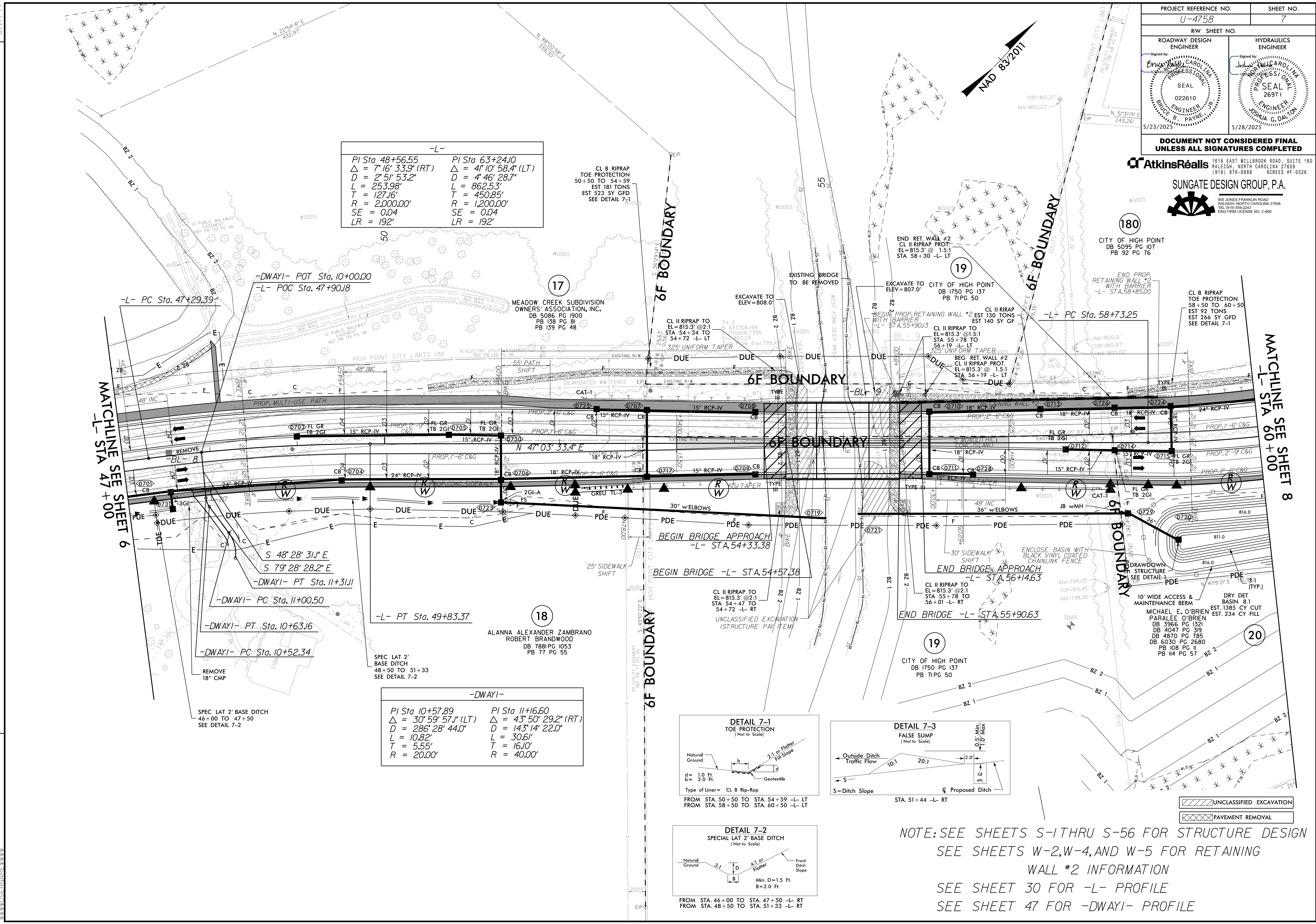
SHEET NO.
7

RW SHEET NO.
ENGINEER


HYDRAULICS ENGINEER


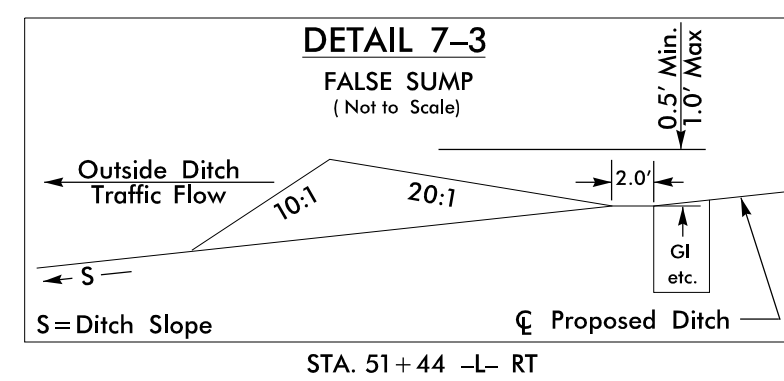
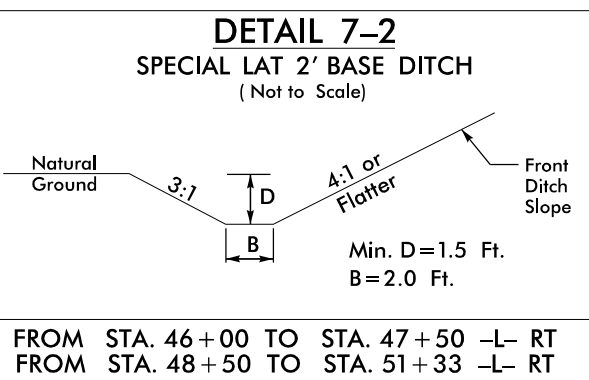
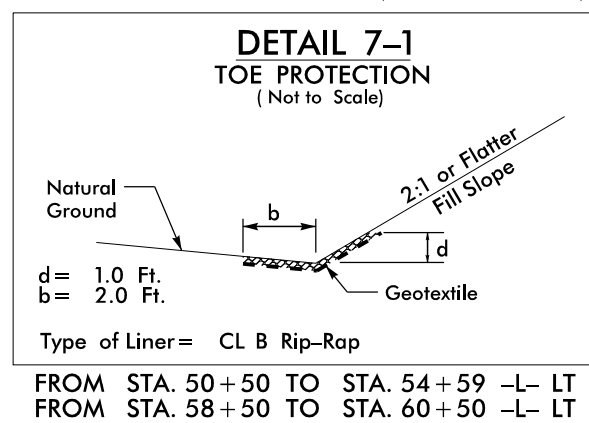
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED





-L-	
PI Sta 48+56.55	PI Sta 63+24.10
$\Delta = 7^{\circ}16'33.9''$ (RT)	$\Delta = 4^{\circ}10'58.4''$ (LT)
$D = 2^{\circ}51'53.2''$	$D = 4^{\circ}46'28.7''$
$L = 253.98'$	$L = 862.53'$
$T = 127.16'$	$T = 450.85'$
$R = 2,000.00'$	$R = 1,200.00'$
$SE = 0.04$	$SE = 0.04$
$LR = 192'$	$LR = 192'$

-DWAYI-	
PI Sta 10+57.89	PI Sta 11+16.60
$\Delta = 30^{\circ}59'57.1''$ (LT)	$\Delta = 43^{\circ}50'29.2''$ (RT)
$D = 286^{\circ}28'44.0''$	$D = 143^{\circ}14'22.0''$
$L = 10.82'$	$L = 30.61'$
$T = 5.55'$	$T = 16.10'$
$R = 20.00'$	$R = 40.00'$

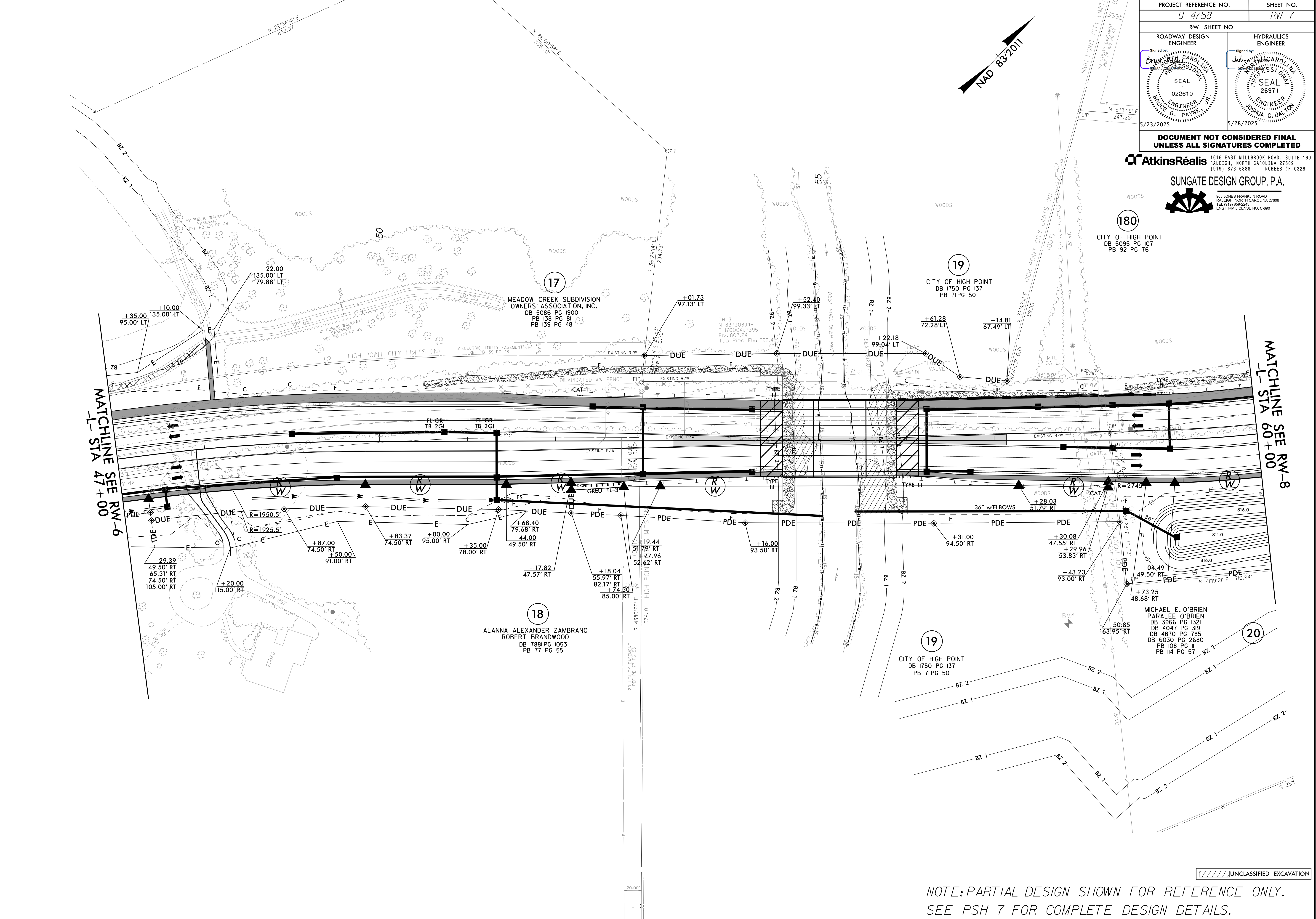


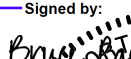
NOTE: SEE SHEETS S-1 THRU S-56 FOR STRUCTURE DESIGN
SEE SHEETS W-2, W-4, AND W-5 FOR RETAINING WALL #2 INFORMATION
SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 47 FOR -DWAYI- PROFILE

8/17/99

20-MAY-2025 12:23
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\$\$\$\$\$ISTRAME\$\$\$\$\$

REVISIONS



PROJECT REFERENCE NO.		SHEET NO.	
U-4758		RW-7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Signed by:  BRUCE B. PAYNE ENGINEER SEAL 022610 5/23/2025		Signed by:  JOSHUA C. DALTON ENGINEER SEAL 26971 5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

180

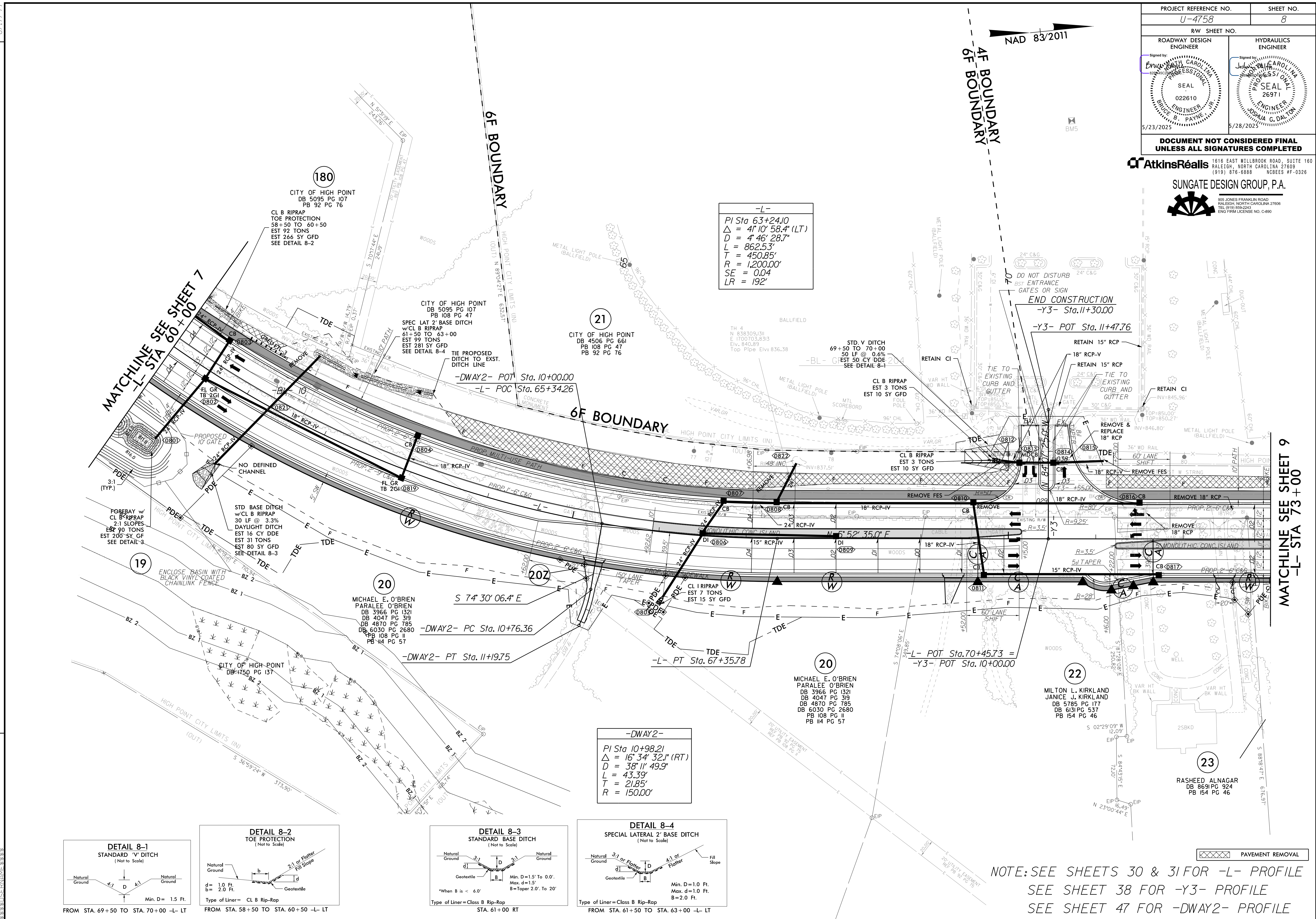
CITY OF HIGH POINT
DB 5095 PG 107
PB 92 PG 76

MATCHLINE SEE RW-8
-L- STA 60+00

8/17/99

REVISIONS

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PROJECT REFERENCE NO.		SHEET NO.
U-4758		8
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
Signed by:  BRUCE B. PAYNE, J.E. SEAL 022610 5/23/2025		Signed by:  JOSHUA C. DALTON, J.E. SEAL 26971 5/28/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2443
ENG FIRM LICENSE NO. C-880

-L-
PI Sta 63+24.10
 $\Delta = 41' 10" 58.4" (LT)$
 $D = 4' 46" 28.7"$
 $L = 862.53'$
 $T = 450.85'$
 $R = 1200.00'$
 $SE = 0.04$
 $LR = 192'$

-DWAY2-
PI Sta 10+98.21
 $\Delta = 16' 34" 32.1" (RT)$
 $D = 38' 11" 49.9"$
 $L = 43.39'$
 $T = 21.85'$
 $R = 150.00'$

DETAIL 8-1
STANDARD V DITCH
(Not to Scale)

Natural Ground
4:1
D
4:1
Natural Ground
Min. D = 1.5 Ft.

FROM STA. 69+50 TO STA. 70+00 -L- LT

DETAIL 8-2
TOE PROTECTION
(Not to Scale)

Natural Ground
2:1 or Flatter
Fill Slope
Geotextile
d = 1.0 Ft.
b = 2.0 Ft.

Type of Liner = CL B Rip-Rap
FROM STA. 58+50 TO STA. 60+50 -L- LT

DETAIL 8-3
STANDARD BASE DITCH
(Not to Scale)

Natural Ground
3:1
D
3:1
Natural Ground
Geotextile
Min. D = 1.5' To 0.0'.
Max. d = 1.5'
B = Taper 2.0'. To 20'

*When B is < 6.0'
Type of Liner = Class B Rip-Rap
STA. 61+00 RT

DETAIL 8-4
SPECIAL LATERAL 2' BASE DITCH
(Not to Scale)

Natural Ground
3:1 or Flatter
D
4:1 or Flatter
Fill Slope
Geotextile
Min. D = 1.0 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.

Type of Liner = Class B Rip-Rap
FROM STA. 61+50 TO STA. 63+00 -L- LT

NOTE: SEE SHEETS 30 & 31 FOR -L- PROFILE
SEE SHEET 38 FOR -Y3- PROFILE
SEE SHEET 47 FOR -DWAY2- PROFILE

 **AtkinsReals** 1616 EAST MILLBROOK ROAD, SUITE 100
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.

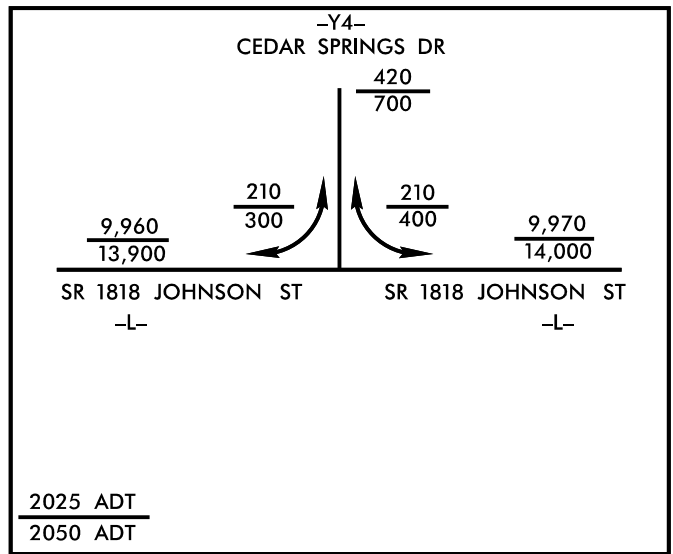
 905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL 919/688-2943
ENG FIRM LICENSE NO. C-890



8/17/99

REVISIONS

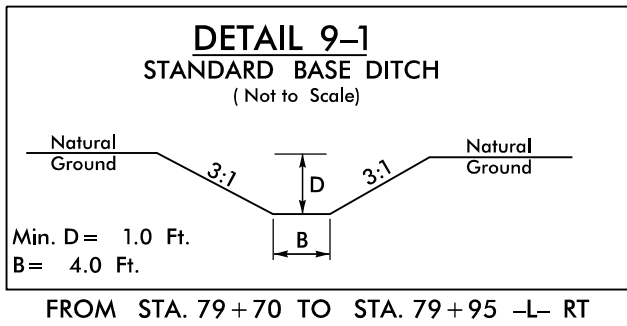
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-L-
PI Sta 82+55.54
 $\Delta = 17' 49' 37.3''$ (LT)
 $D = 3' 10' 59.2''$
 $L = 560.05'$
 $T = 282.31'$
 $R = 1,800.00'$
 $SE = 0.04$
 $LR = 192'$

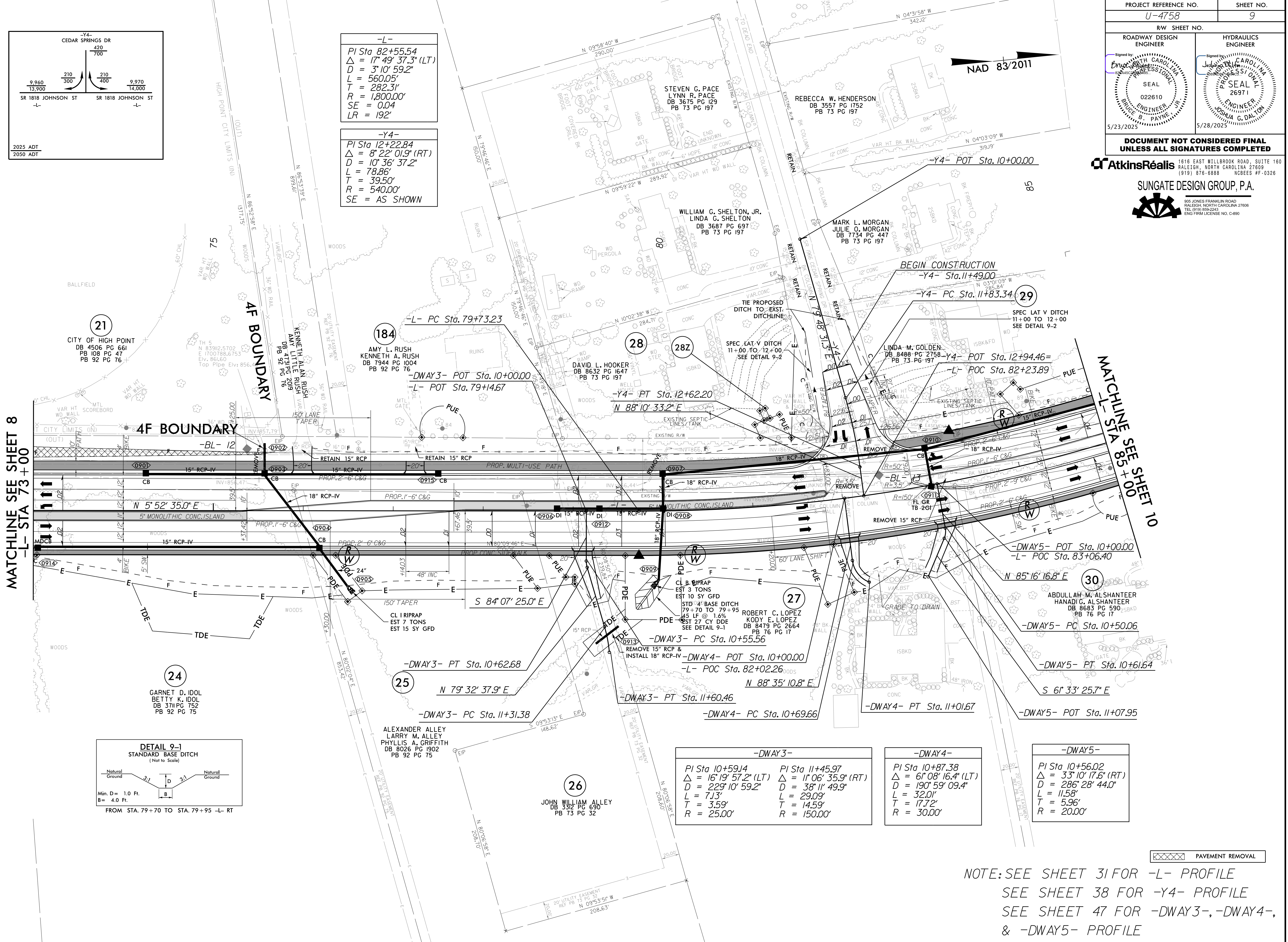
-Y4-
PI Sta 12+22.84
 $\Delta = 8' 22' 01.9''$ (RT)
 $D = 10' 36' 37.2''$
 $L = 78.86'$
 $T = 39.50'$
 $R = 540.00'$
 $SE = AS SHOWN$

MATCHLINE SEE SHEET 8
-L- STA 73+00



PROJECT REFERENCE NO.		SHEET NO.
U-4758		9
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		SEAL
Signed by: [Signature]		SEAL
022610		26971
BRUCE B. PAYNE, J.E.		JOSHUA C. DALTON
5/23/2025		5/28/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880



-DWAY3-
PI Sta 10+59.14
 $\Delta = 16' 19' 57.2''$ (LT)
 $D = 229' 10' 59.2''$
 $L = 7.13'$
 $T = 3.59'$
 $R = 25.00'$

-DWAY4-
PI Sta 11+45.97
 $\Delta = 11' 06' 35.9''$ (RT)
 $D = 38' 11' 49.9''$
 $L = 29.09'$
 $T = 14.59'$
 $R = 150.00'$

-DWAY5-
PI Sta 10+56.02
 $\Delta = 33' 10' 17.6''$ (RT)
 $D = 286' 28' 44.0''$
 $L = 11.58'$
 $T = 5.96'$
 $R = 20.00'$

NOTE: SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 38 FOR -Y4- PROFILE
SEE SHEET 47 FOR -DWAY3-, -DWAY4-,
& -DWAY5- PROFILE

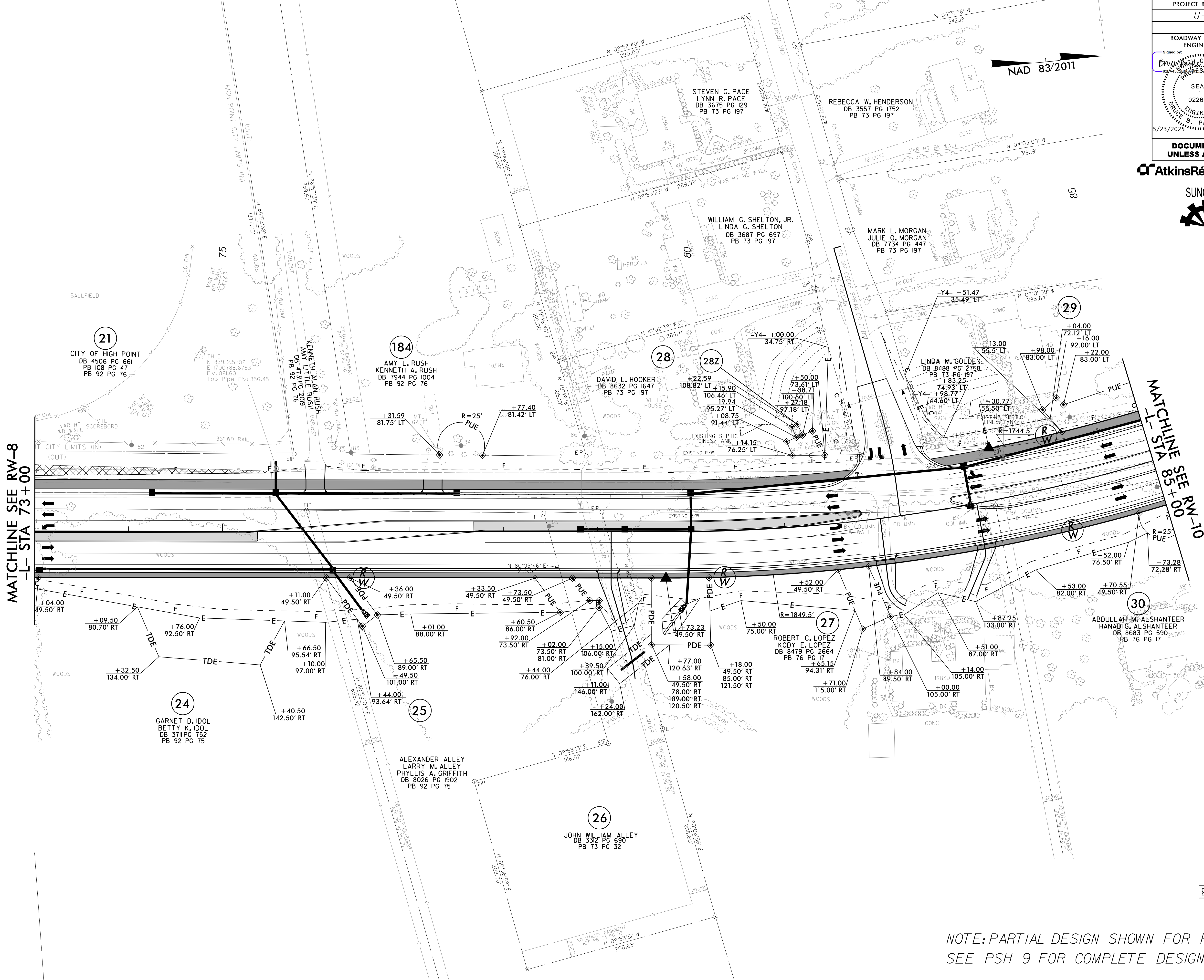
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REVISIONS

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MATCHLINE SEE RW-8
-L- STA 73+00

MATCHLINE SEE RW-10
-L- STA 85+00



PROJECT REFERENCE NO. U-4758		SHEET NO. RW-9	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER Signed by: <i>[Signature]</i> SEAL 022610 BRUCE B. PAYNE, J.E. 5/23/2025		HYDRAULICS ENGINEER Signed by: <i>[Signature]</i> SEAL 26971 JOSHUA G. DARTON 5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

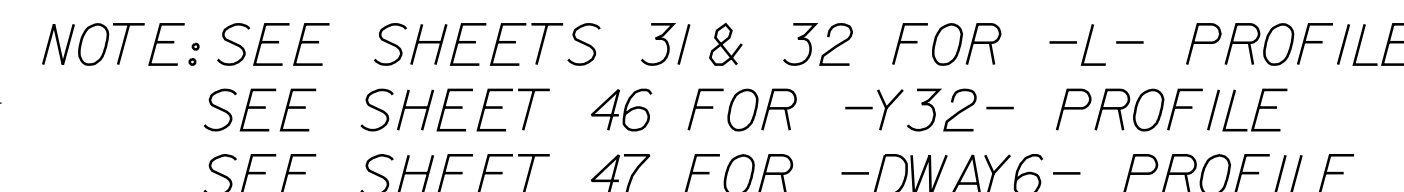
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NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 9 FOR COMPLETE DESIGN DETAILS.

 **AtkinsReals** 1616 EAST WILLBROOK ROAD, SUITE 100
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.

 905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL 919/686-2943
ENG FIRM LICENSE NO. C-890





905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27601
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890



REVISIONS

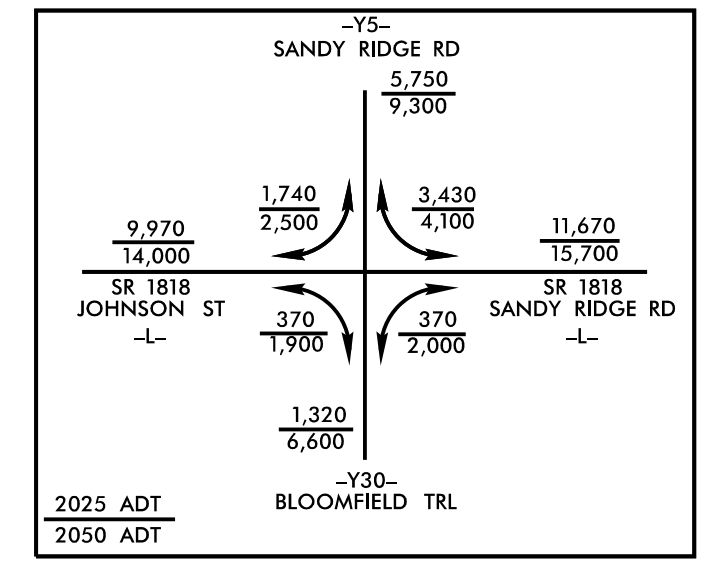
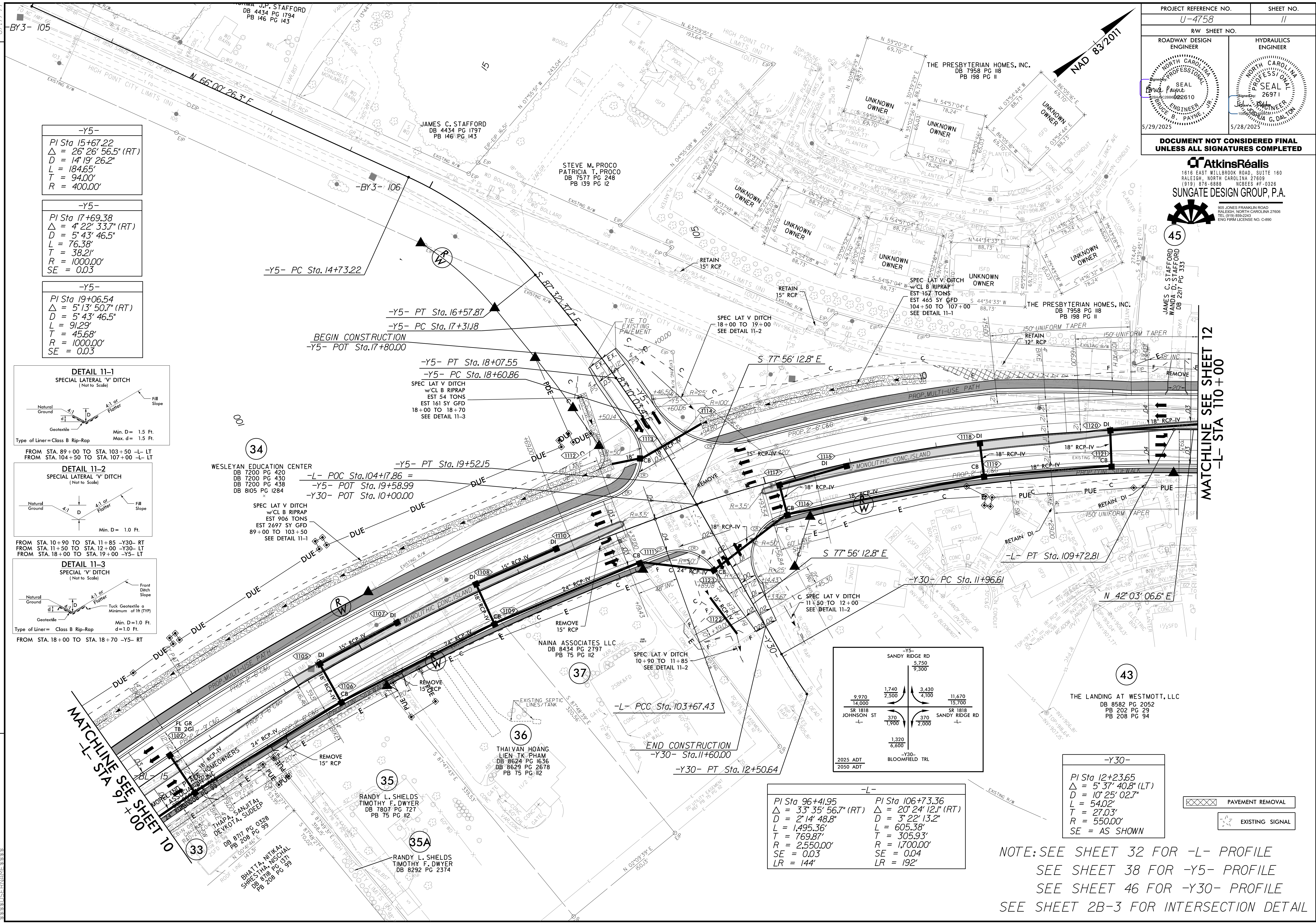
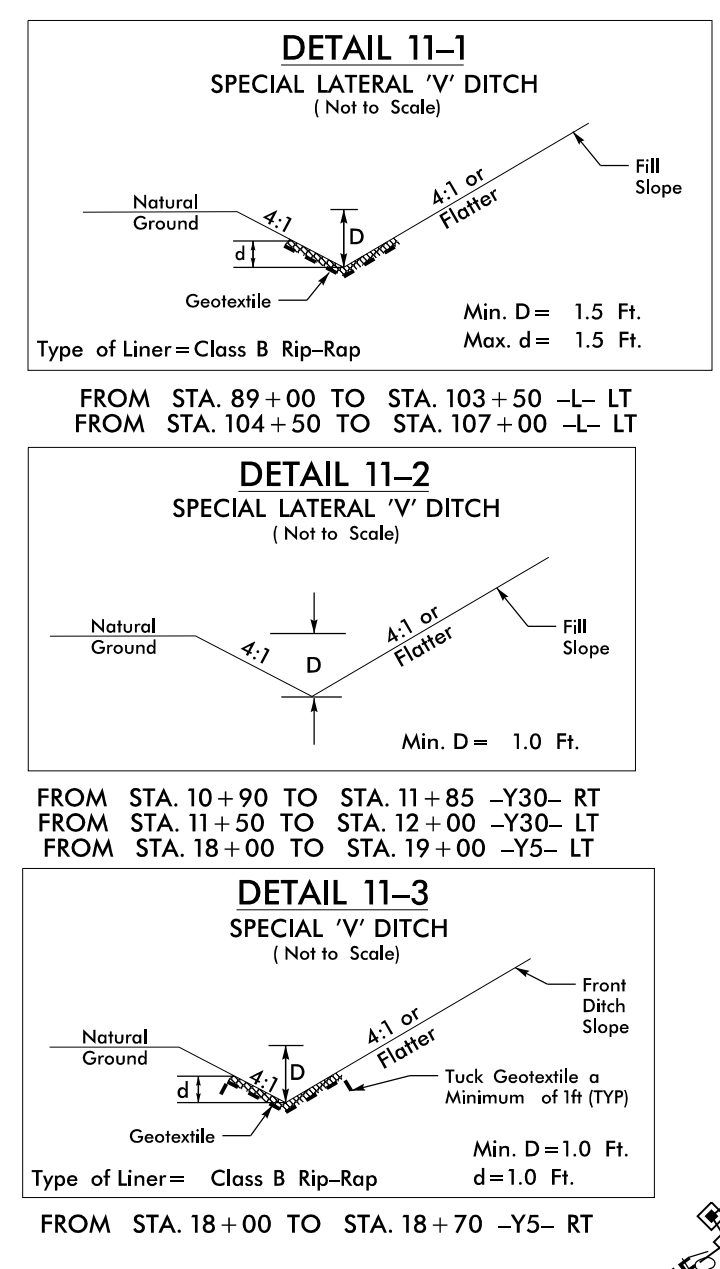
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RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		NORTH CAROLINA PROFESSIONAL SEAL 2610 ENGINEER JAMES C. STAFFORD 5/29/2025	
NORTH CAROLINA PROFESSIONAL SEAL 2610 ENGINEER JAMES C. STAFFORD 5/29/2025		NORTH CAROLINA PROFESSIONAL SEAL 2610 ENGINEER JAMES C. STAFFORD 5/29/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis
1616 EAST WILLOW ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL: (919) 888-2245
ENG FIRM LICENSE NO. C-890

-Y5-
PI Sta 15+67.22
 $\Delta = 26' 26" 56.5" (RT)$
 $D = 14' 19" 26.2"$
 $L = 184.65'$
 $T = 94.00'$
 $R = 400.00'$

-Y5-
PI Sta 17+69.38
 $\Delta = 4' 22' 33.7" (RT)$
 $D = 5' 43' 46.5"$
 $L = 76.38'$
 $T = 38.21'$
 $R = 1000.00'$
 $SE = 0.03$

-Y5-
PI Sta 19+06.54
 $\Delta = 5' 13' 50.7" (RT)$
 $D = 5' 43' 46.5"$
 $L = 91.29'$
 $T = 45.68'$
 $R = 1000.00'$
 $SE = 0.03$



-L-

PI Sta 96+41.95
 $\Delta = 33' 35' 56.7" (RT)$
 $D = 2' 14' 48.8"$
 $L = 1,495.36'$
 $T = 769.87'$
 $R = 2,550.00'$
 $SE = 0.03$
 $LR = 144'$

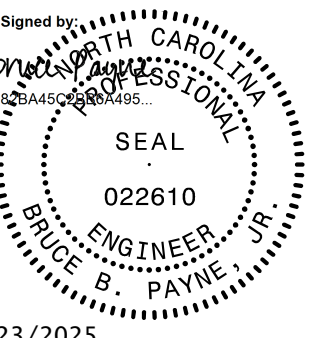
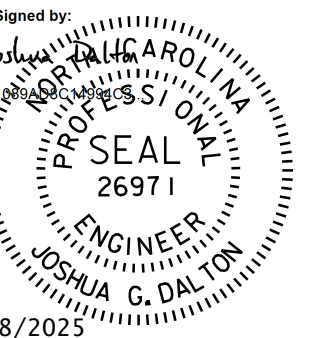
PI Sta 106+73.36
 $\Delta = 20' 24' 12.1" (RT)$
 $D = 3' 22' 13.2"$
 $L = 605.38'$
 $T = 305.93'$
 $R = 1,700.00'$
 $SE = 0.04$
 $LR = 192'$

-Y30-

PI Sta 12+23.65
 $\Delta = 5' 37' 40.8" (LT)$
 $D = 10' 25' 02.7"$
 $L = 54.02'$
 $T = 27.03'$
 $R = 550.00'$
 $SE = AS SHOWN$

NOTE: SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 38 FOR -Y5- PROFILE
SEE SHEET 46 FOR -Y30- PROFILE
SEE SHEET 2B-3 FOR INTERSECTION DETAIL

REVISIONS

PROJECT REFERENCE NO.		SHEET NO.	
U-4758		RW-11	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL	
Signed by: 		Signed by: 	
5/23/2025		5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis
1616 EAST HILLSBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NCBEES #F-0326
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL: (919) 858-2243
ENG FIRM LICENSE NO. C-890

45

MATCHLINE SEE RW-12
-L- STA 110+00

43

THE LANDING AT WESTMOTT, LLC
DB 8582 PG 2052
PB 202 PG 29
PB 208 PG 94

37

NAINA ASSOCIATES LLC
DB 8434 PG 2797
PB 75 PG 112

36

THAI VAN HOANG
LIEN TK PHAM
DB 8624 PG 1636
DB 8629 PG 2678
PB 75 PG 112

35

RANDY L. SHIELDS
TIMOTHY F. DWYER
DB 7807 PG 727
PB 75 PG 112

35A

RANDY L. SHIELDS
TIMOTHY F. DWYER
DB 8292 PG 2374

34

WESLEYAN EDUCATION CENTER
DB 7200 PG 420
DB 7200 PG 430
DB 7200 PG 438
DB 8105 PG 1284

MATCHLINE SEE RW-10
-L- STA 97+00

33

THAPA, SAMY A.
DB 8777 PG 1328
PB 206 PG 99

SHRESHTH NISGAL
DB 818 PG 1571
PB 208 PG 99

BHATT, NIKHIL
DB 818 PG 1571
PB 208 PG 99

NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE.
SEE PSH II FOR COMPLETE DESIGN DETAILS.

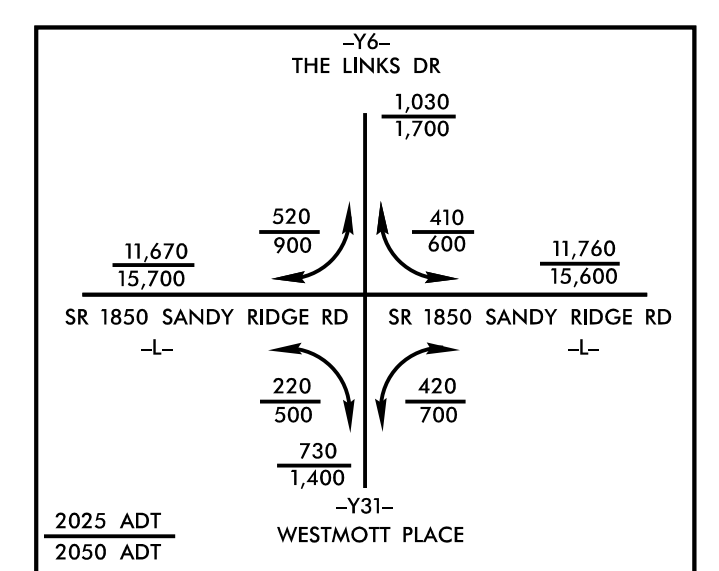
EXISTING SIGNAL

PAVEMENT REMOVAL

8/17/99

REVISIONS

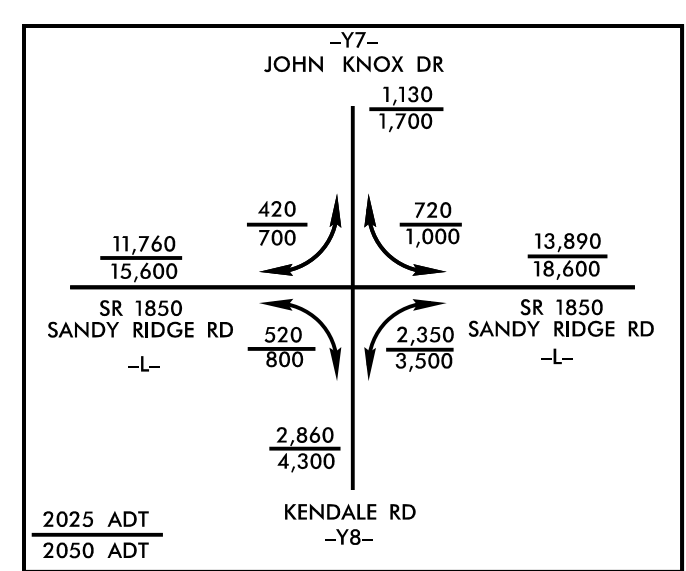
27 MAY 2025 11:03
R:\Road\pdp\14758.rdw.psh.12.dgn
\$\$\$\$\$SYTIME\$\$\$\$\$



-Y6-
PI Sta 13+74.31
 $\Delta = 5^\circ 43' 10.8''$ (RT)
 $D = 9^\circ 32' 57.5''$
 $L = 59.90'$
 $T = 29.97'$
 $R = 600.00'$
SE = AS SHOWN

-Y7-
PI Sta 12+45.67
 $\Delta = 11^\circ 14' 36.9''$ (LT)
 $D = 19^\circ 05' 54.9''$
 $L = 58.87'$
 $T = 29.53'$
 $R = 300.00'$
SE = AS SHOWN

-L-
PI Sta 115+69.73
 $\Delta = 19^\circ 27' 15.2''$ (LT)
 $D = 4^\circ 46' 28.7''$
 $L = 407.45'$
 $T = 205.70'$
 $R = 1,200.00'$
 $SE = 0.04$
 $LR = 192'$



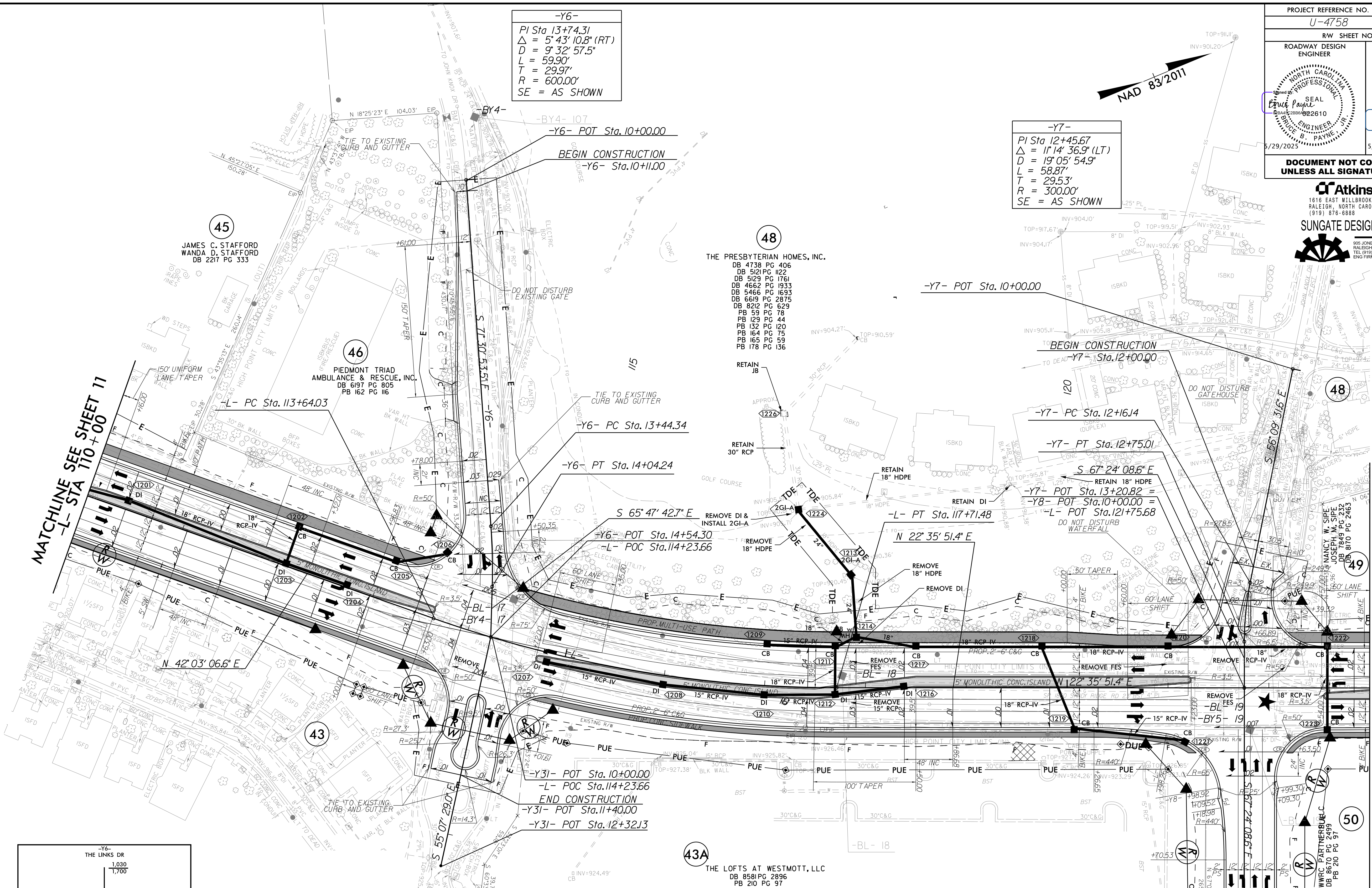
MATCHLINE SEE SHEET 24
-Y8- STA 12+00

NOTE: SEE SHEETS 32 & 33 FOR -L- PROFILE
SEE SHEET 39 FOR -Y6- PROFILE
SEE SHEET 39 FOR -Y7 & -Y8- PROFILES
SEE SHEET 46 FOR -Y31- PROFILE
SEE SHEETS 2B-4 AND 2B-5 FOR INTERSECTION DETAILS

PROJECT REFERENCE NO. U-4758		SHEET NO. 12	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis
1816 EAST WILLBROOK ROAD, SUITE 180
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCES # 0326

SUNGATE DESIGN GROUP, P.A.
866 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 886-2433
ENG FIRM LICENSE NO. C-890



MATCHLINE SEE SHEET 13
-L- STA 123+00

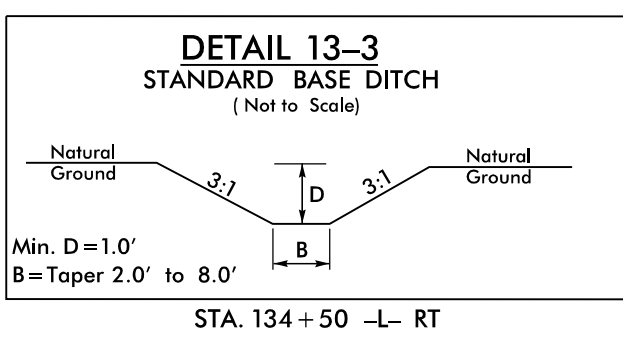
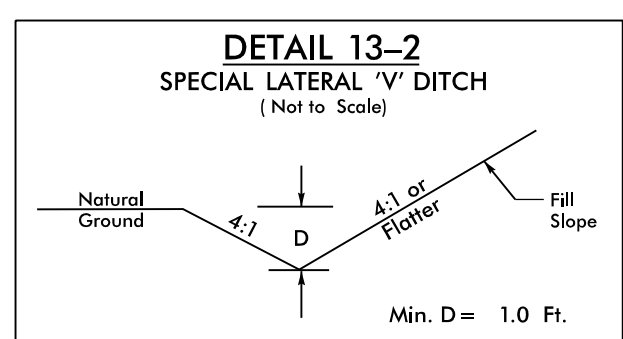
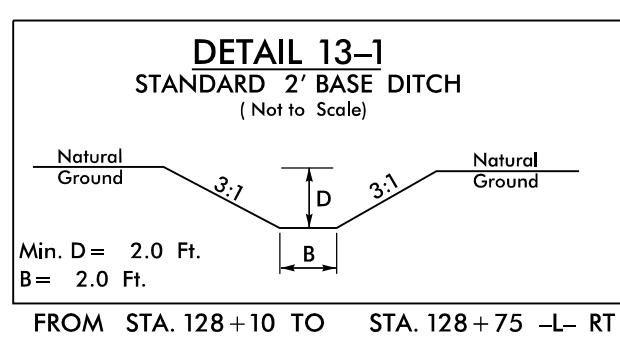
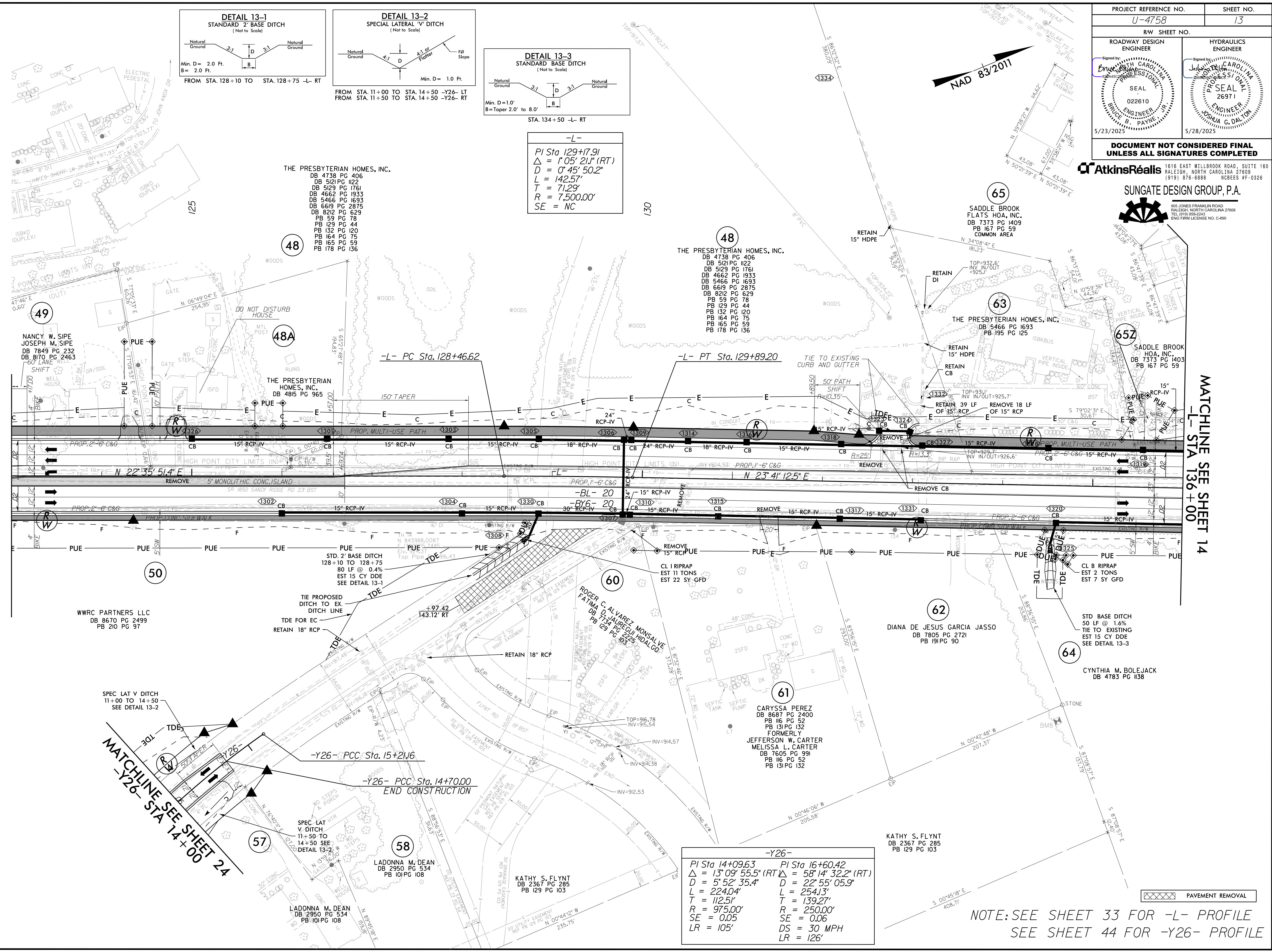
8/17/99

REVISIONS

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R:\Roadway\Projects\14758_rdu_psh_13.dgn
\$\$\$\$SYTIME\$\$\$\$

MATCHLINE SEE SHEET 12
-L- STA 123+00

MATCHLINE SEE SHEET 14
-L- STA 136+00



-L-
PI Sta 129+17.91
 $\Delta = 1^{\circ}05'21''$ (RT)
 $D = 0^{\circ}45'50.2''$
 $L = 142.57'$
 $T = 71.29'$
 $R = 7,500.00'$
 $SE = NC$

THE PRESBYTERIAN HOMES, INC.
DB 4738 PG 406
DB 5121 PG 1122
DB 5129 PG 1761
DB 4662 PG 1933
DB 5466 PG 1693
DB 6619 PG 2875
DB 8212 PG 629
PB 59 PG 78
PB 129 PG 44
PB 132 PG 120
PB 164 PG 75
PB 165 PG 59
PB 178 PG 136

THE PRESBYTERIAN HOMES, INC.
DB 4738 PG 406
DB 5121 PG 1122
DB 5129 PG 1761
DB 4662 PG 1933
DB 5466 PG 1693
DB 6619 PG 2875
DB 8212 PG 629
PB 59 PG 78
PB 129 PG 44
PB 132 PG 120
PB 164 PG 75
PB 165 PG 59
PB 178 PG 136

SADDLE BROOK
FLATS HOA, INC.
DB 7373 PG 1409
PB 167 PG 59
COMMON AREA

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27605
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-690

PROJECT REFERENCE NO. U-4758		SHEET NO. 13	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL	
Signed by: <i>[Signature]</i> BRUCE B. PAYNE, JUN. ENGINEER, JUN. 022610 5/23/2025		Signed by: <i>[Signature]</i> JOSHUA G. DALTON ENGINEER 26971 5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

-Y26-
PI Sta 14+09.63
 $\Delta = 13^{\circ}09'55.5''$ (RT)
 $D = 5^{\circ}52'35.4''$
 $L = 224.04'$
 $T = 112.51'$
 $R = 975.00'$
 $SE = 0.05$
 $LR = 105'$

PI Sta 16+60.42
 $\Delta = 58^{\circ}14'32.2''$ (RT)
 $D = 22^{\circ}55'05.9''$
 $L = 254.13'$
 $T = 139.27'$
 $R = 250.00'$
 $SE = 0.06$
 $DS = 30$ MPH
 $LR = 126'$

NOTE: SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 44 FOR -Y26- PROFILE

PAVEMENT REMOVAL

8/17/99

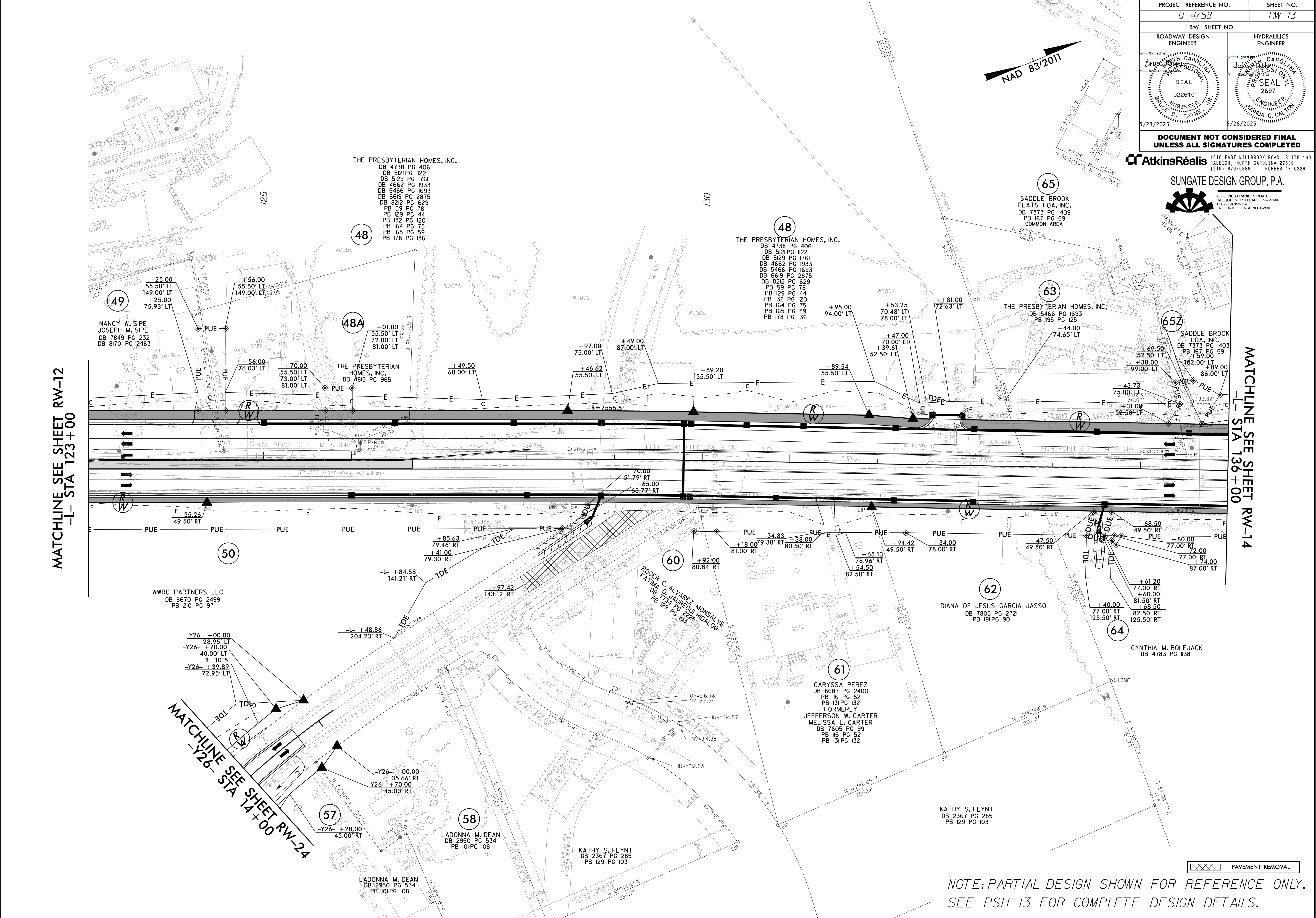
REVISIONS

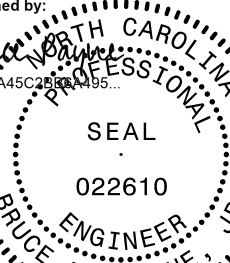
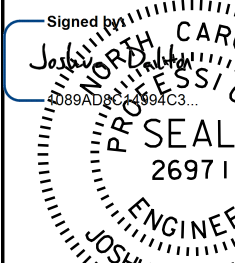
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\$\$\$\$SYTIME\$\$\$\$

MATCHLINE SEE SHEET RW-12
-L- STA 123+00

MATCHLINE SEE SHEET RW-24
-Y26- STA 14+00

MATCHLINE SEE SHEET RW-14
-L- STA 136+00



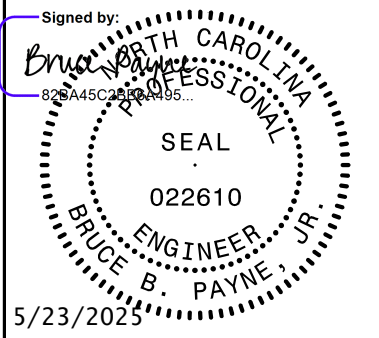
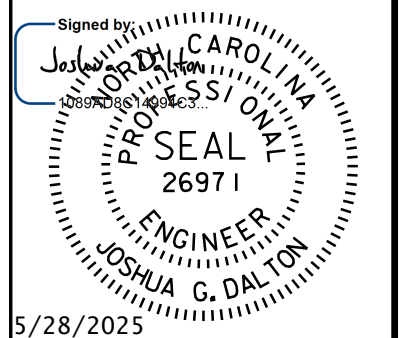
PROJECT REFERENCE NO.		SHEET NO.
U-4758		RW-13
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
Signed by: <i>Bruce B. Payne, Jr.</i>  5/23/2025		Signed by: <i>Joshua C. Dalton</i>  5/28/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

PAVEMENT REMOVAL

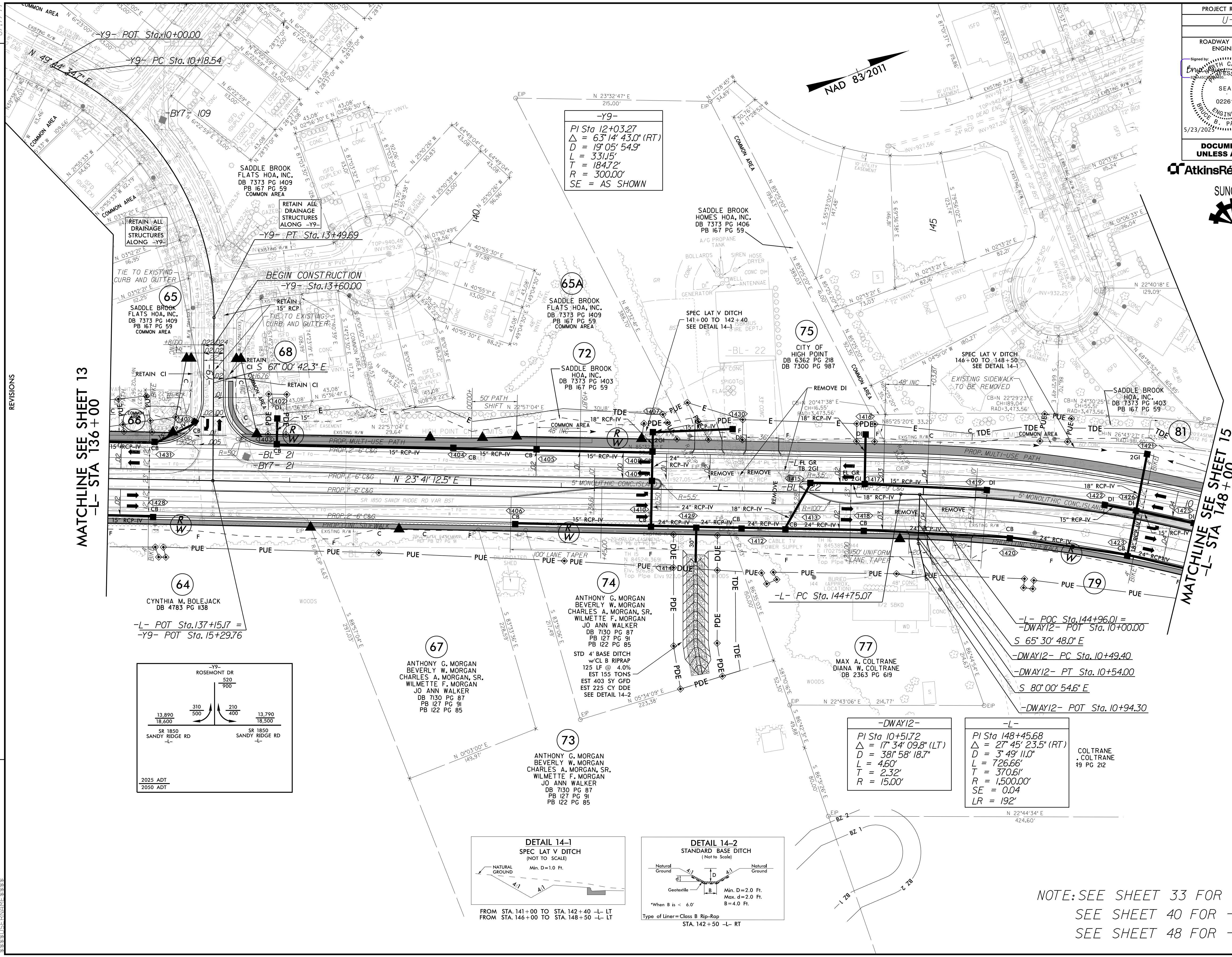
NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 13 FOR COMPLETE DESIGN DETAILS.

PROJECT REFERENCE NO.		SHEET NO.
U-4758		14
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
Signed by: 		Signed by: 
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #P-0326

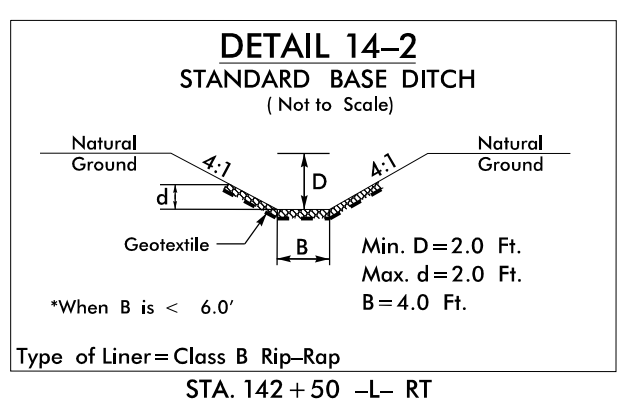
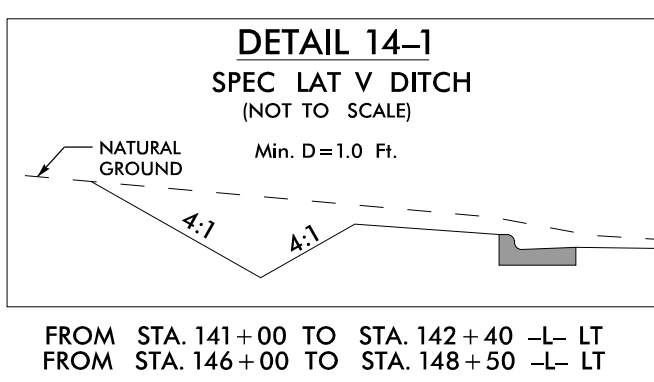
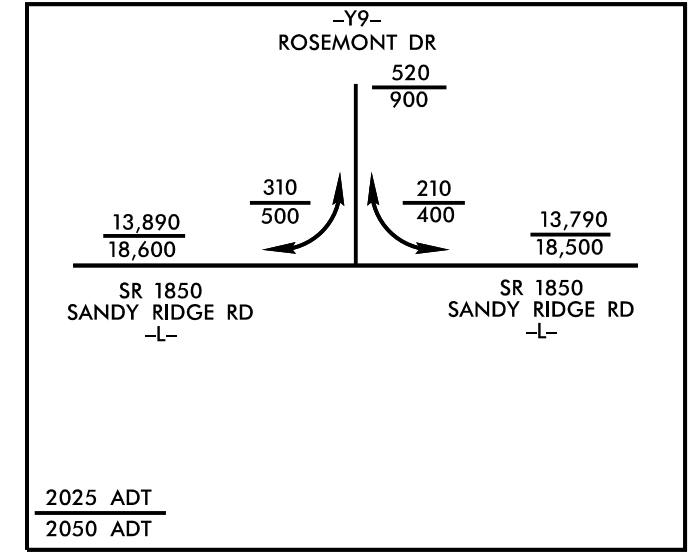
SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27609
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

NAD 83/2011



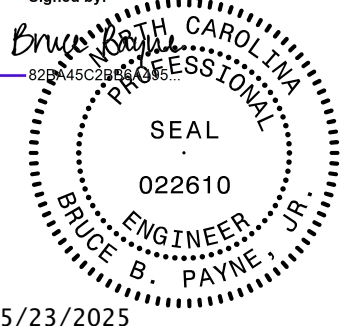
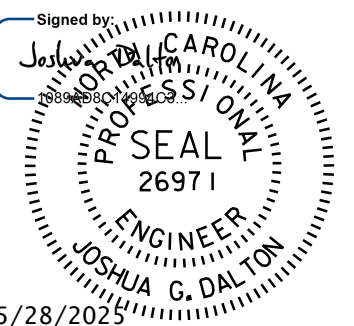
MATCHLINE SEE SHEET 13
-L- STA 136+00

MATCHLINE SEE SHEET 15
-L- STA 148+00



NOTE: SEE SHEET 33 FOR -L- PROFILE
SEE SHEET 40 FOR -Y9- PROFILE
SEE SHEET 48 FOR -DWAY12- PROFILE

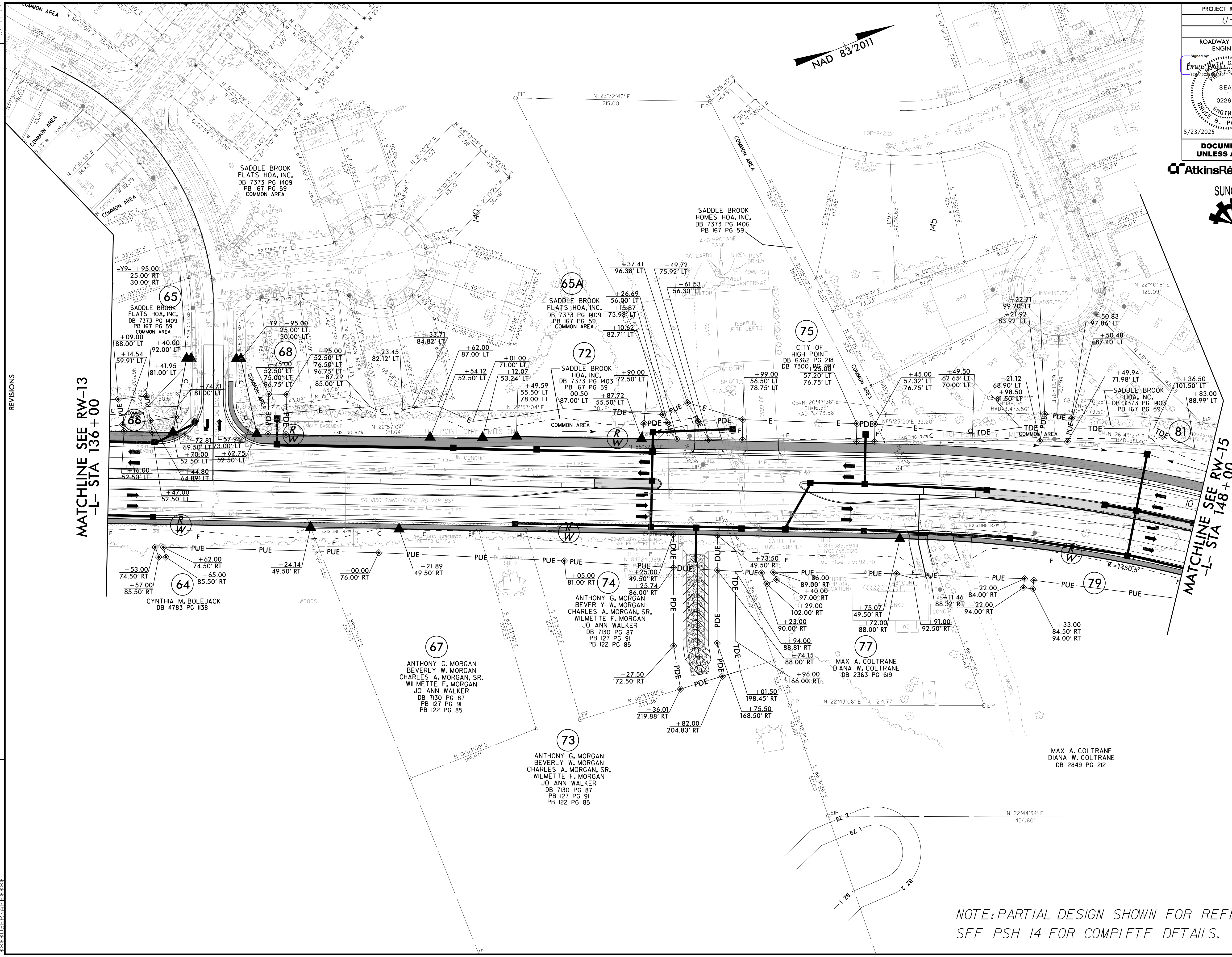
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\$\$\$\$SYTIME\$\$\$\$

PROJECT REFERENCE NO.		SHEET NO.	
U-4758		RW-14	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Signed by:  J. B. PAYNE, JR. Professional Engineer No. 022610 5/23/2025		Signed by:  JOSHUA G. DALTON Professional Engineer No. 26971 5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

AtkinsRéalis 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 878-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 888-2243
ENG FIRM LICENSE NO. C-880

NAD 83/2011



MATCHLINE SEE RW-13
-L- STA 136 + 00

MATCHLINE SEE RW-15
-L- STA 148 + 00

NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 14 FOR COMPLETE DETAILS.

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JOSHUA DALTON

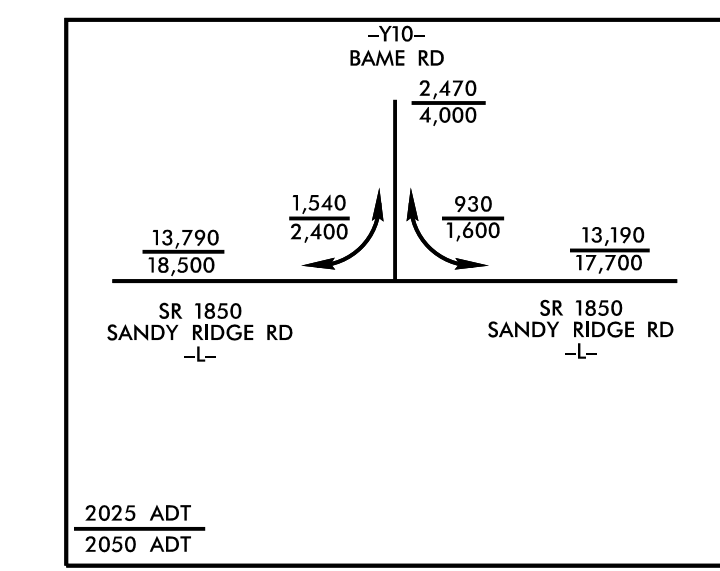
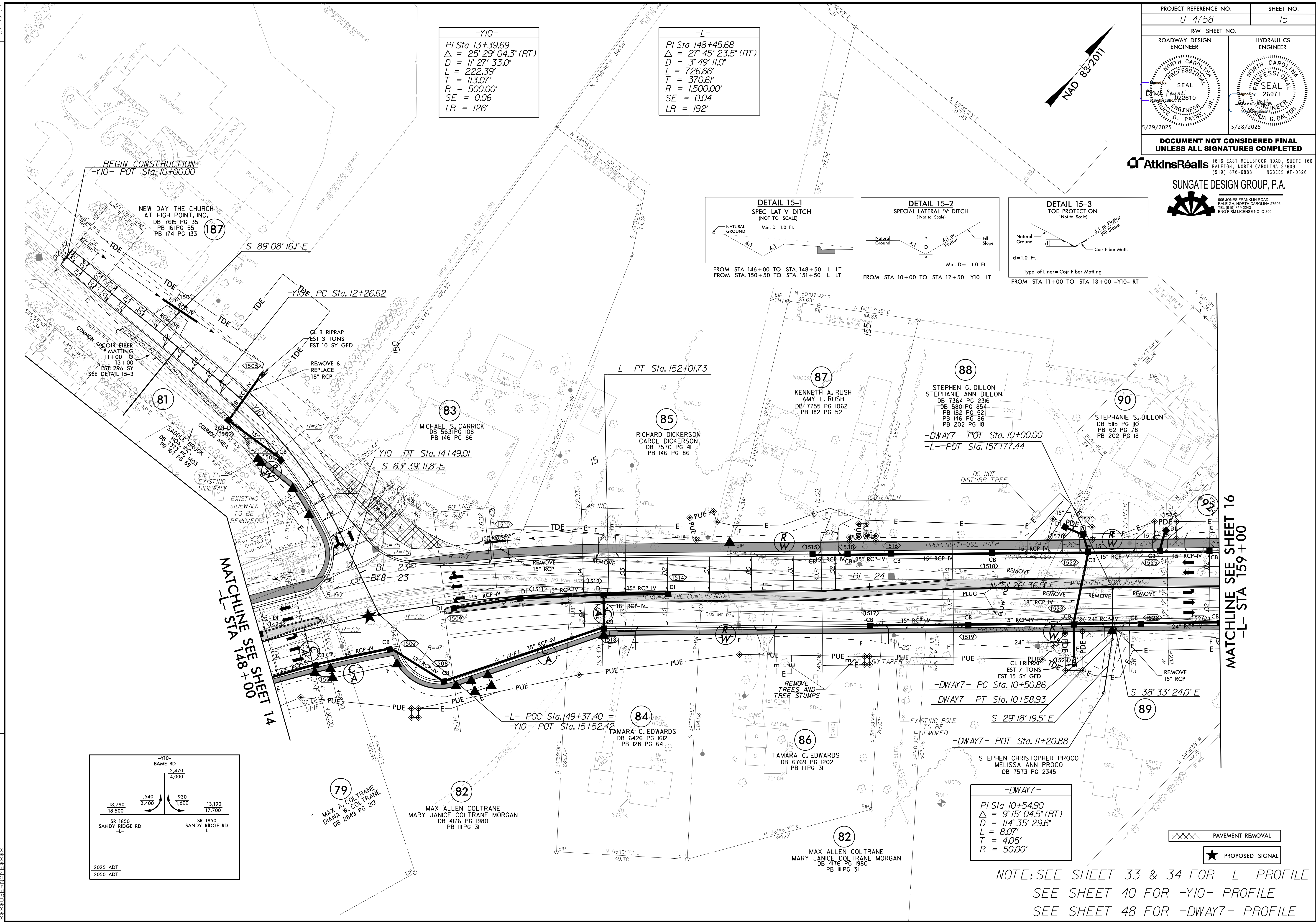
REVISIONS

PROJECT REFERENCE NO. U-4758		SHEET NO. 15
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis

SUNGATE DESIGN GROUP, P.A.

1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326
905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
(919) 858-2243
ENG FIRM LICENSE NO. C-880



-DWAY7-
PI Sta 10+54.90
Δ = 9°15'04.5" (RT)
D = 114'35'29.6"
L = 8.07'
T = 4.05'
R = 50.00'

NOTE: SEE SHEET 33 & 34 FOR -L- PROFILE
SEE SHEET 40 FOR -Y10- PROFILE
SEE SHEET 48 FOR -DWAY7- PROFILE

 **AtkinsRéalis** 1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

SUNGATE DESIGN GROUP, P.A.

 605 JONES FRANKLIN ROAD
RALEIGH NORTH CAROLINA 27606
TEL (919) 555-2243
ENG FIRM LICENSE NO. C-690

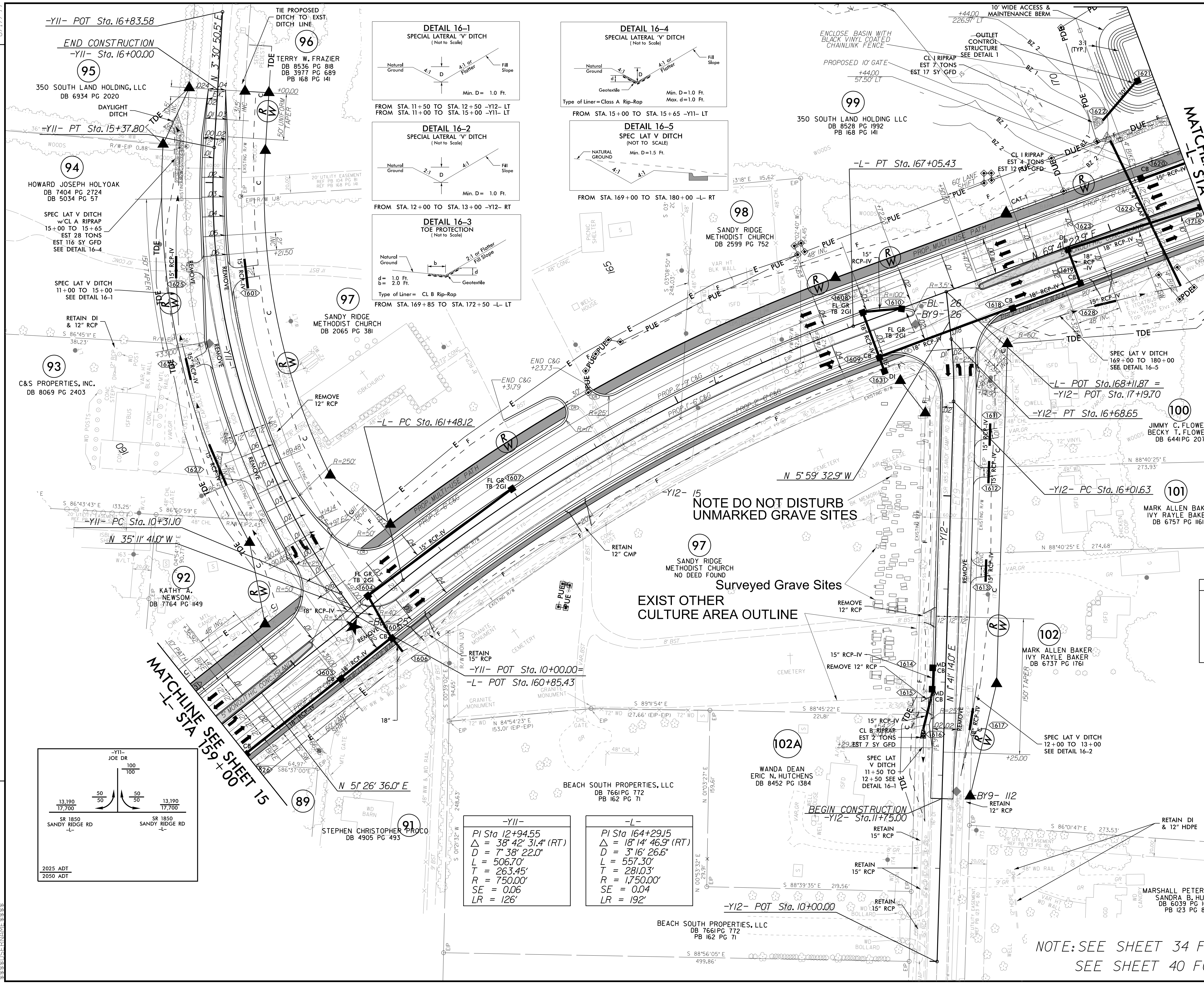


PROJECT REFERENCE NO. U-4758		SHEET NO. 16	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
Signed by: BRUCE B. PAYNE, JR. SEAL 022610 ENGINEER, JR. 5/23/2025		Signed by: JOSHUA C. DALTON SEAL 26971 ENGINEER 5/28/2025	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

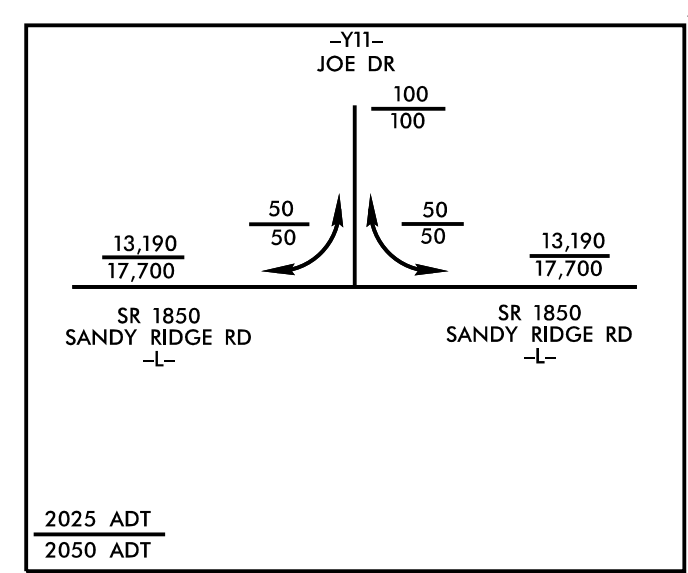
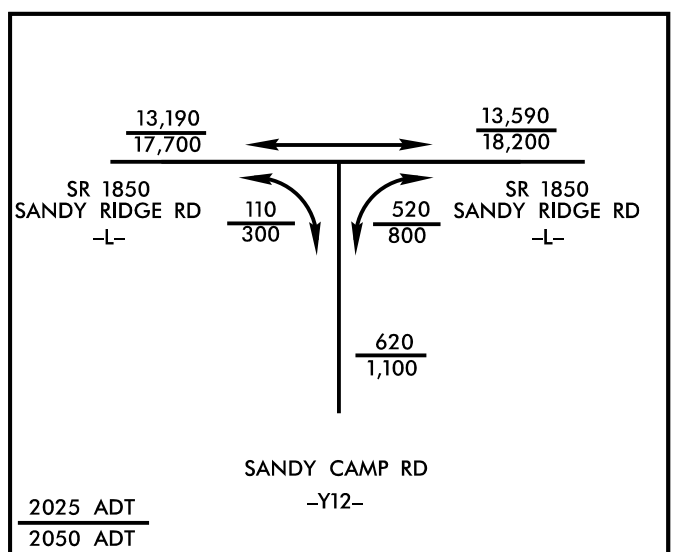
AtkinsRéalis
1616 EAST WILLOW ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NOBES #F-0326

SUNGATE DESIGN GROUP, P.A.
805 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 855-2243
ENG FIRM LICENSE NO. C-980

NAD 83/2011



-YII-
PI Sta. 16+35.19
Δ = 7° 40' 46.9" (LT)
D = 11' 27' 33.0"
L = 67.02'
T = 33.56'
R = 500.00'
SE = AS SHOWN



-YII-
PI Sta. 12+94.55
Δ = 38° 42' 31.4" (RT)
D = 7° 38' 22.0"
L = 506.70'
T = 263.45'
R = 750.00'
SE = 0.06
LR = 126'

-L-
PI Sta. 164+29.15
Δ = 18° 14' 46.9" (RT)
D = 3° 16' 26.6"
L = 557.30'
T = 281.03'
R = 1,750.00'
SE = 0.04
LR = 192'

NOTE: SEE SHEET 34 FOR -L- PROFILE
SEE SHEET 40 FOR -YII- & -YI2- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4758	RW-16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Signed by: <i>Erin Smith</i> Erin Smith, P.E. SEAL 022610 ENGINEER B. PAYNE 5/23/2025	Signed by: <i>Joshua G. Dalton</i> Joshua G. Dalton, P.E. SEAL 26971 ENGINEER JOShUA G. DALTON 5/28/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



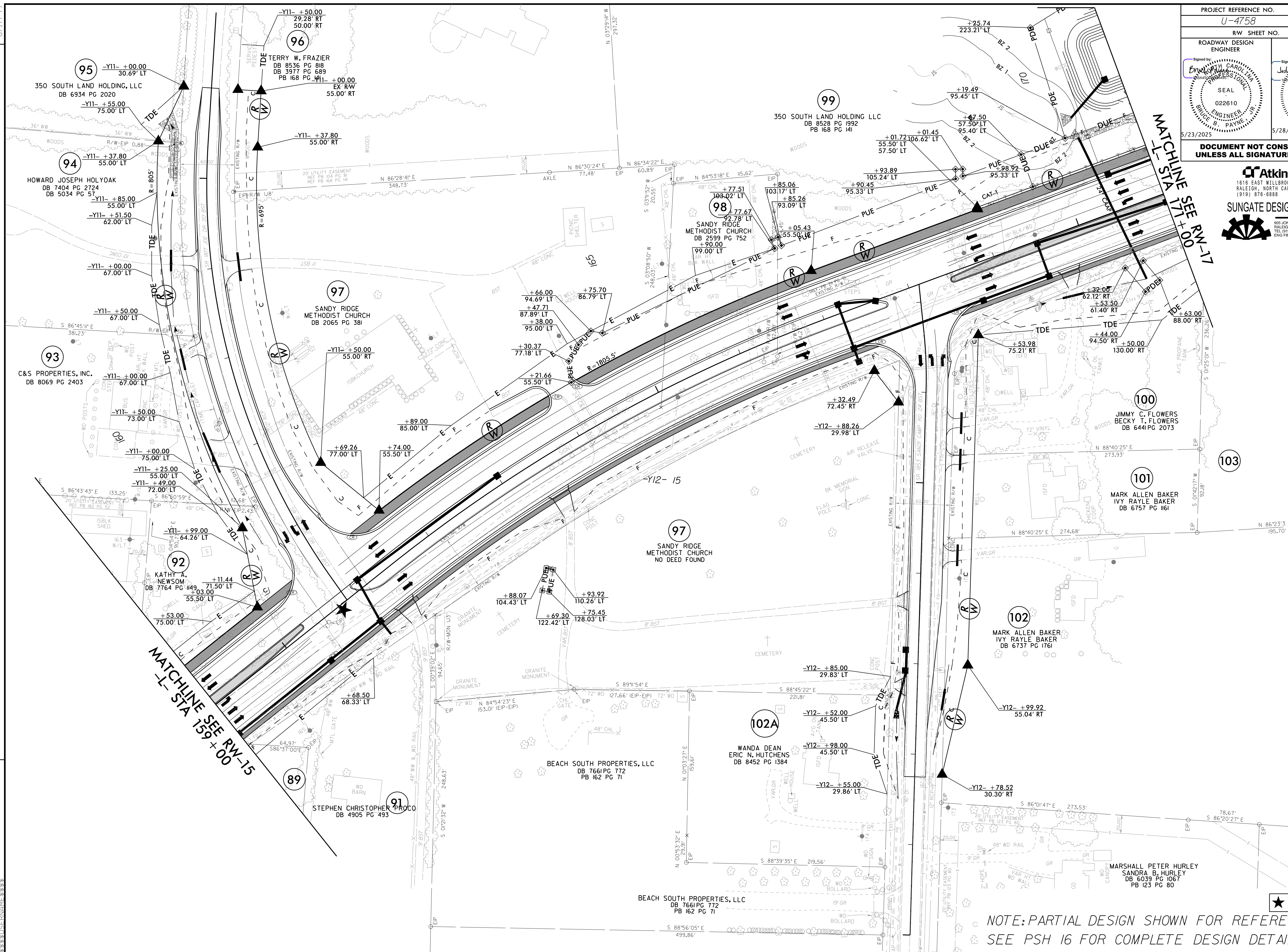
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBES #F-0326

SUNGATE DESIGN GROUP, P.A.



905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-880

NAD 83/2011

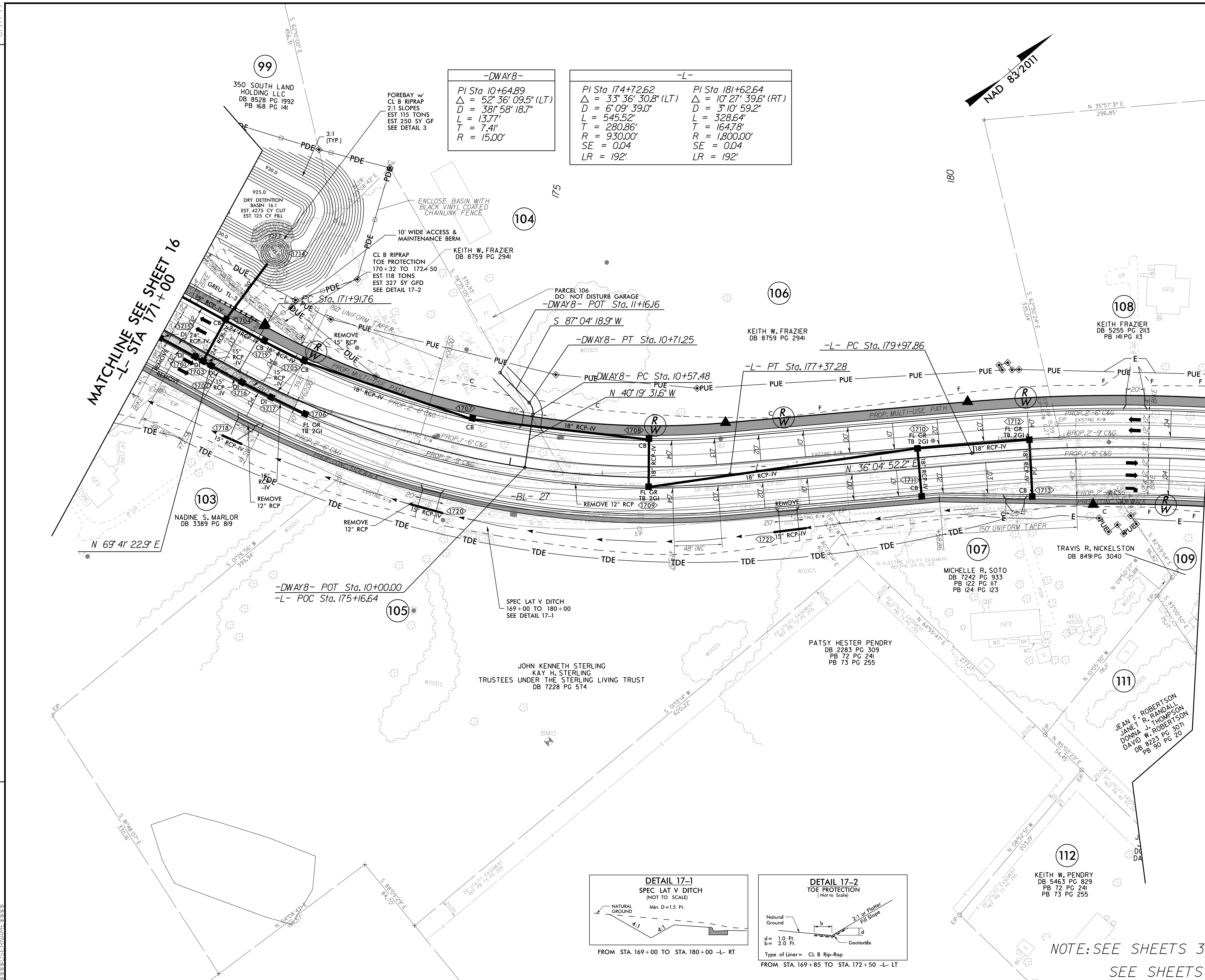


NOTE: PARTIAL DESIGN SHOWN FOR REFERENCE ONLY.
SEE PSH 16 FOR COMPLETE DESIGN DETAILS.

8/17/99

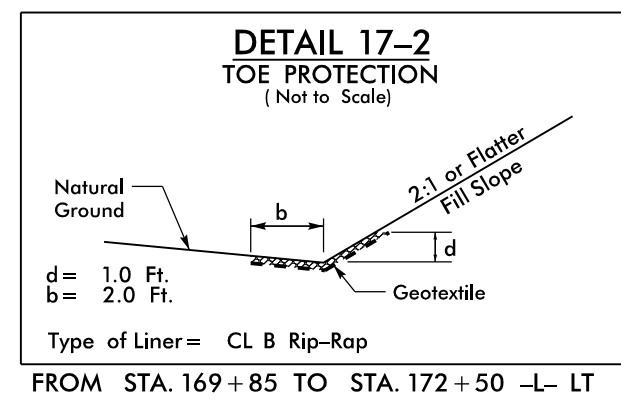
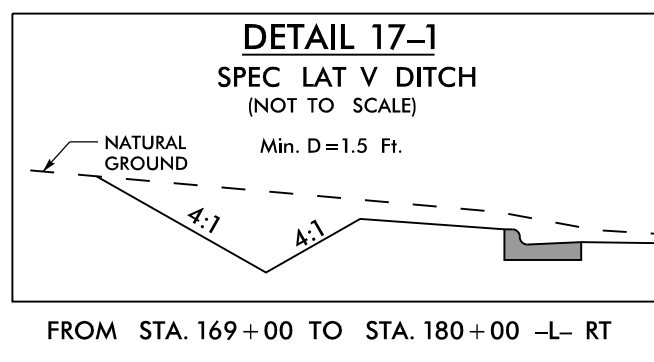
27-MAY-2025 11:20
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\$\$\$\$\$SYTIME\$\$\$\$\$

REVISIONS



-DWAY8-
PI Sta 10+64.89
 $\Delta = 52^\circ 36' 09.5''$ (LT)
 $D = 381' 58'' 18.7''$
 $L = 13.77'$
 $T = 7.41'$
 $R = 15.00'$

-L-	
PI Sta 174+72.62 $\Delta = 33^\circ 36' 30.8''$ (LT) $D = 6' 09' 39.0''$ $L = 545.52'$ $T = 280.86'$ $R = 930.00'$ $SE = 0.04$ $LR = 192'$	PI Sta 181+62.64 $\Delta = 10^\circ 27' 39.6''$ (RT) $D = 3' 10' 59.2''$ $L = 328.64'$ $T = 164.78'$ $R = 1,800.00'$ $SE = 0.04$ $LR = 192'$



NOTE: SEE SHEETS 34 & 35 FOR -L- PROFILE
SEE SHEETS 48 FOR -DWAY8- PROFILE

PROJECT REFERENCE NO. U-4758		SHEET NO. 17
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

AtkinsRéalis
1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-8888 NOBES #F-0326

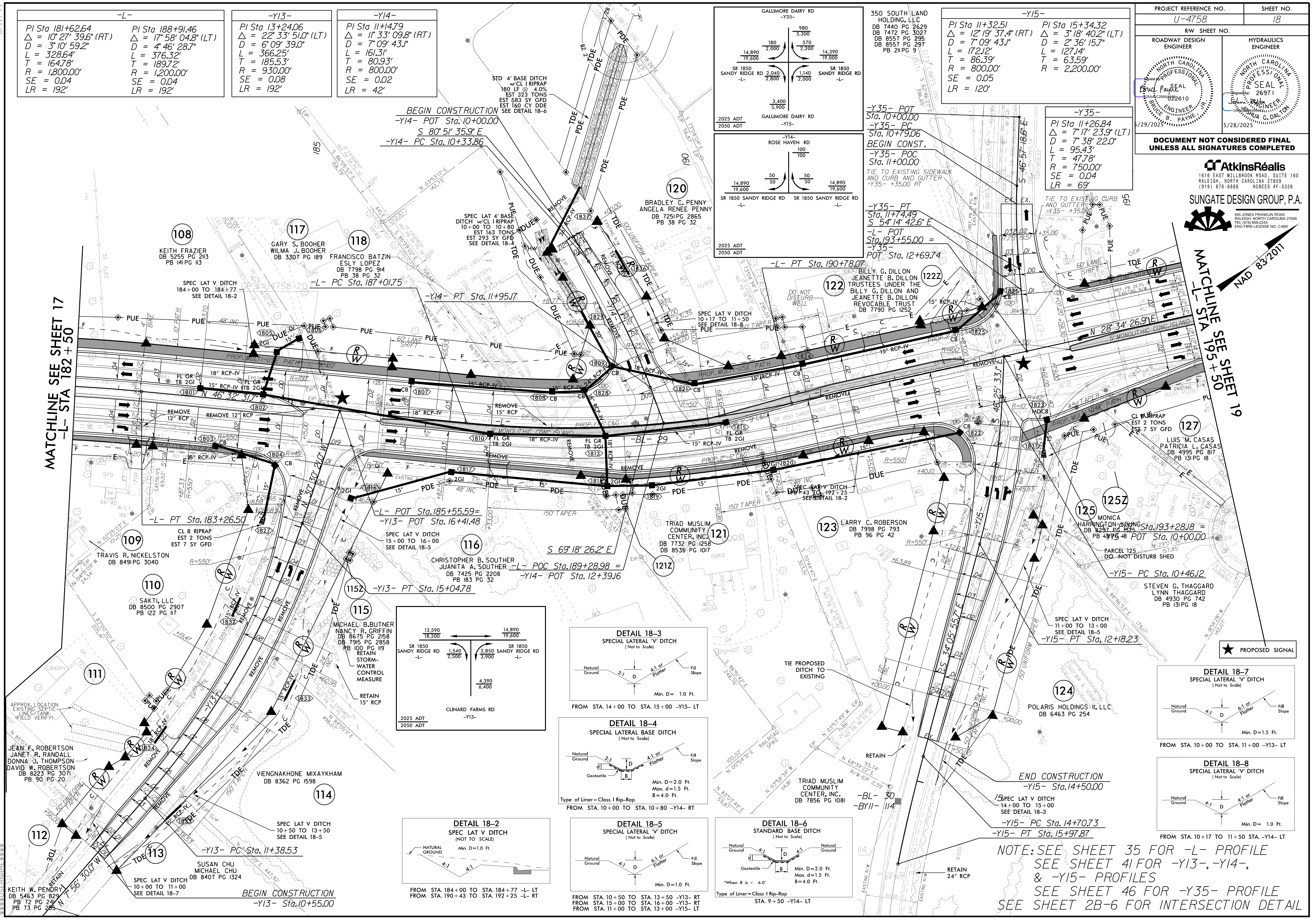
SUNGATE DESIGN GROUP, P.A.
806 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 880-2243
ENG FIRM LICENSE NO. C-890



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1616 EAST MILLBROOK ROAD, SUITE 160
RALEIGH, NORTH CAROLINA 27609
(919) 876-6888 NCBEES #F-0326

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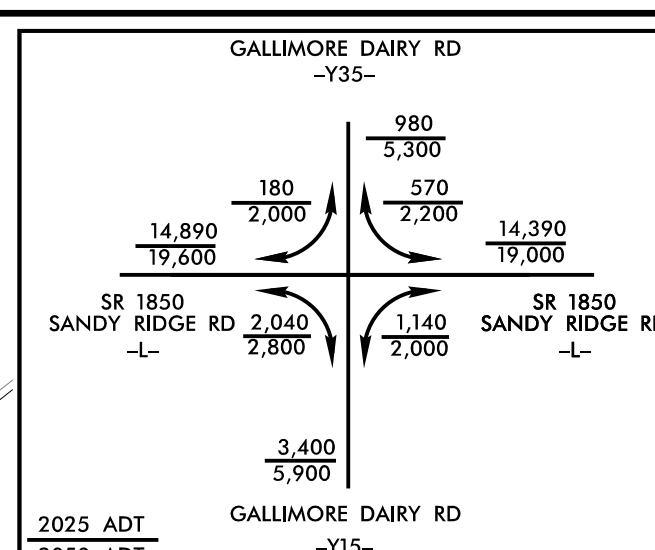
 905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-690



-L-	
PI Sta 181+62.64	PI Sta 188+91.46
$\Delta = 10^{\circ} 27' 39.6''$ (RT)	$\Delta = 17^{\circ} 58' 04.8''$ (LT)
$D = 3^{\circ} 10' 59.2''$	$D = 4^{\circ} 46' 28.7''$
$L = 328.64'$	$L = 376.32'$
$T = 164.78'$	$T = 189.72'$
$R = 1,800.00'$	$R = 1,200.00'$
$SE = 0.04$	$SE = 0.04$
$LR = 192'$	$LR = 192'$

-Y13-	
PI Sta 13+24.06	PI Sta 13+24.06
$\Delta = 22^{\circ} 33' 51.0''$ (LT)	
$D = 6^{\circ} 09' 39.0''$	
$L = 366.25'$	
$T = 185.53'$	
$R = 930.00'$	
$SE = 0.08$	
$LR = 192'$	

-Y14-	
PI Sta 11+47.9	PI Sta 11+47.9
$\Delta = 11^{\circ} 33' 09.8''$ (RT)	
$D = 7^{\circ} 09' 43.1''$	
$L = 161.31'$	
$T = 80.93'$	
$R = 800.00'$	
$SE = 0.02$	
$LR = 42'$	



-Y15-	
PI Sta 11+32.51	PI Sta 15+34.32
$\Delta = 12^{\circ} 19' 37.4''$ (RT)	$\Delta = 3^{\circ} 18' 40.2''$ (LT)
$D = 7^{\circ} 09' 43.1''$	$D = 2^{\circ} 36' 15.7''$
$L = 172.12'$	$L = 127.14'$
$T = 86.39'$	$T = 63.59'$
$R = 800.00'$	$R = 2,200.00'$
$SE = 0.05$	
$LR = 120'$	

PROJECT REFERENCE NO.
U-4758

RW SHEET NO.
18

ROADWAY DESIGN ENGINEER
Carol Payne
Professional Seal
5/29/2025

HYDRAULICS ENGINEER
Salma R. Payne
Professional Seal
5/28/2025

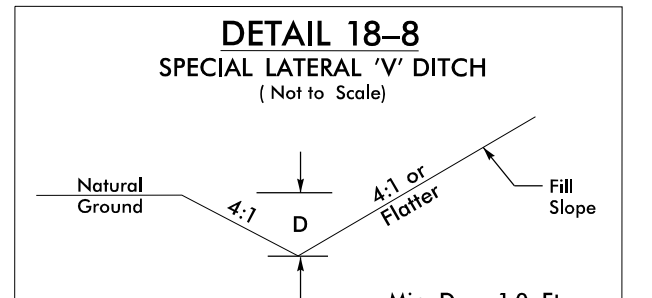
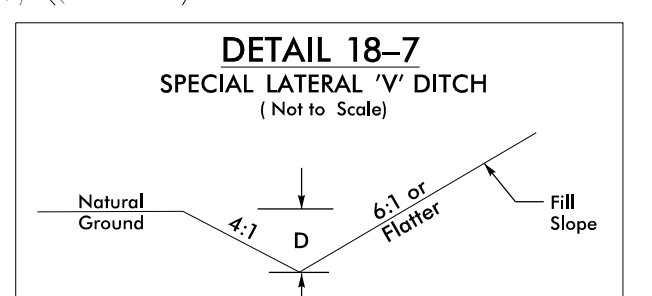
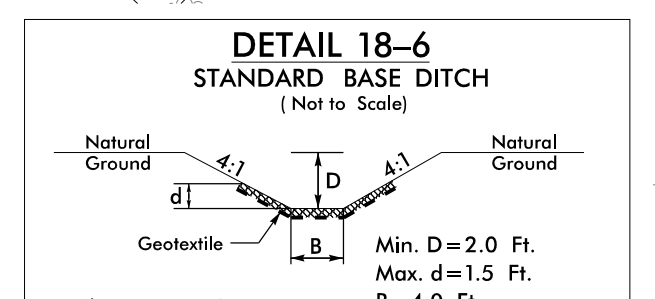
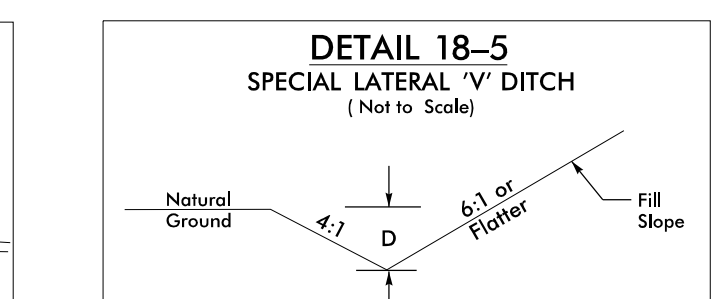
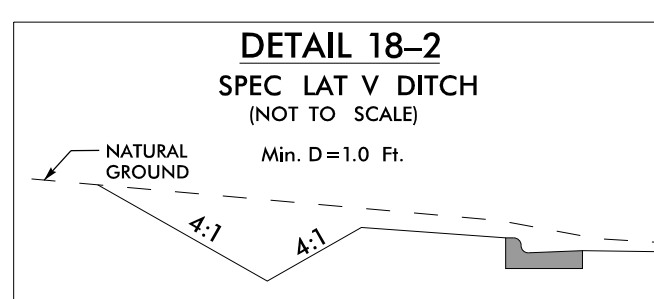
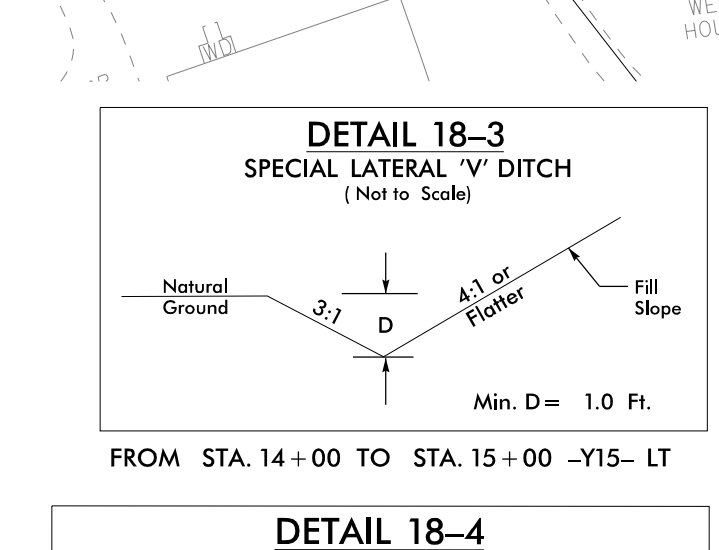
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TEL (919) 868-2245
ENG FIRM LICENSE NO. C-380

MATCHLINE SEE SHEET 17
-L- STA 182+50

MATCHLINE SEE SHEET 19
-L- STA 195+50



NOTE: SEE SHEET 35 FOR -L- PROFILE
SEE SHEET 41 FOR -Y13-, -Y14-,
& -Y15- PROFILES
SEE SHEET 46 FOR -Y35- PROFILE
SEE SHEET 2B-6 FOR INTERSECTION DETAIL