

**TIP PROJECT: R-2707E**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CLEVELAND COUNTY

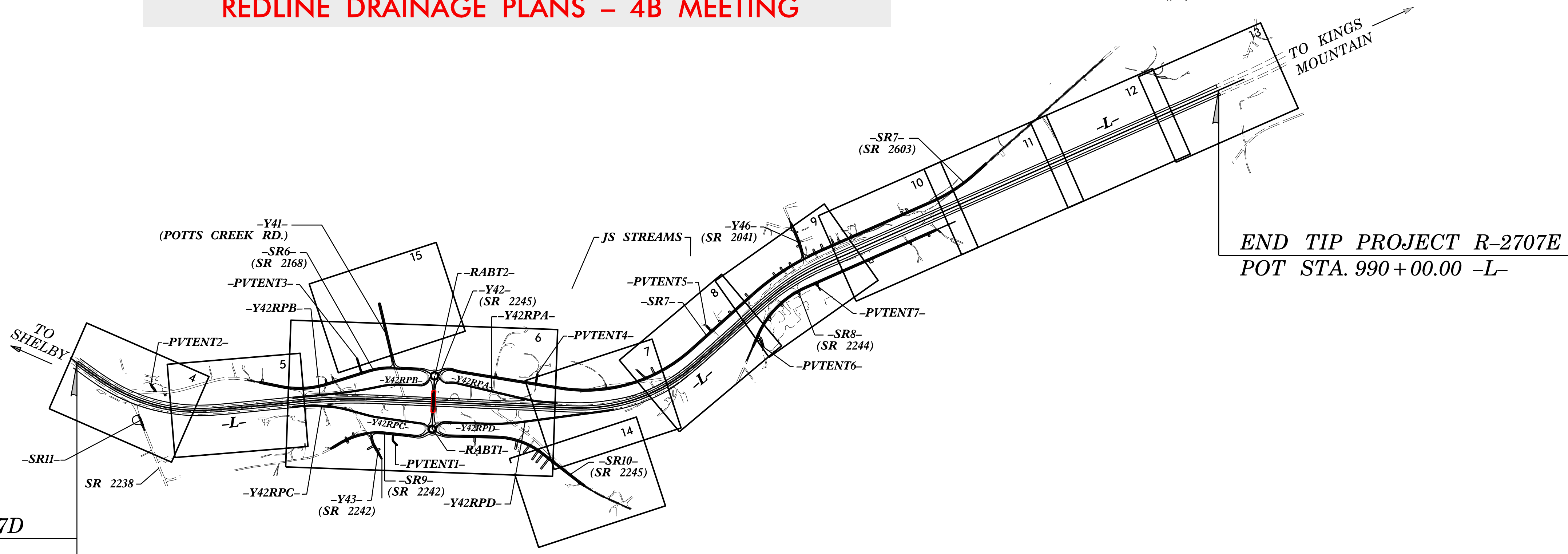
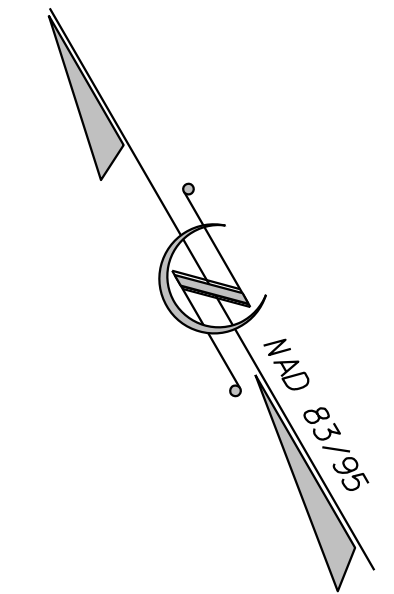
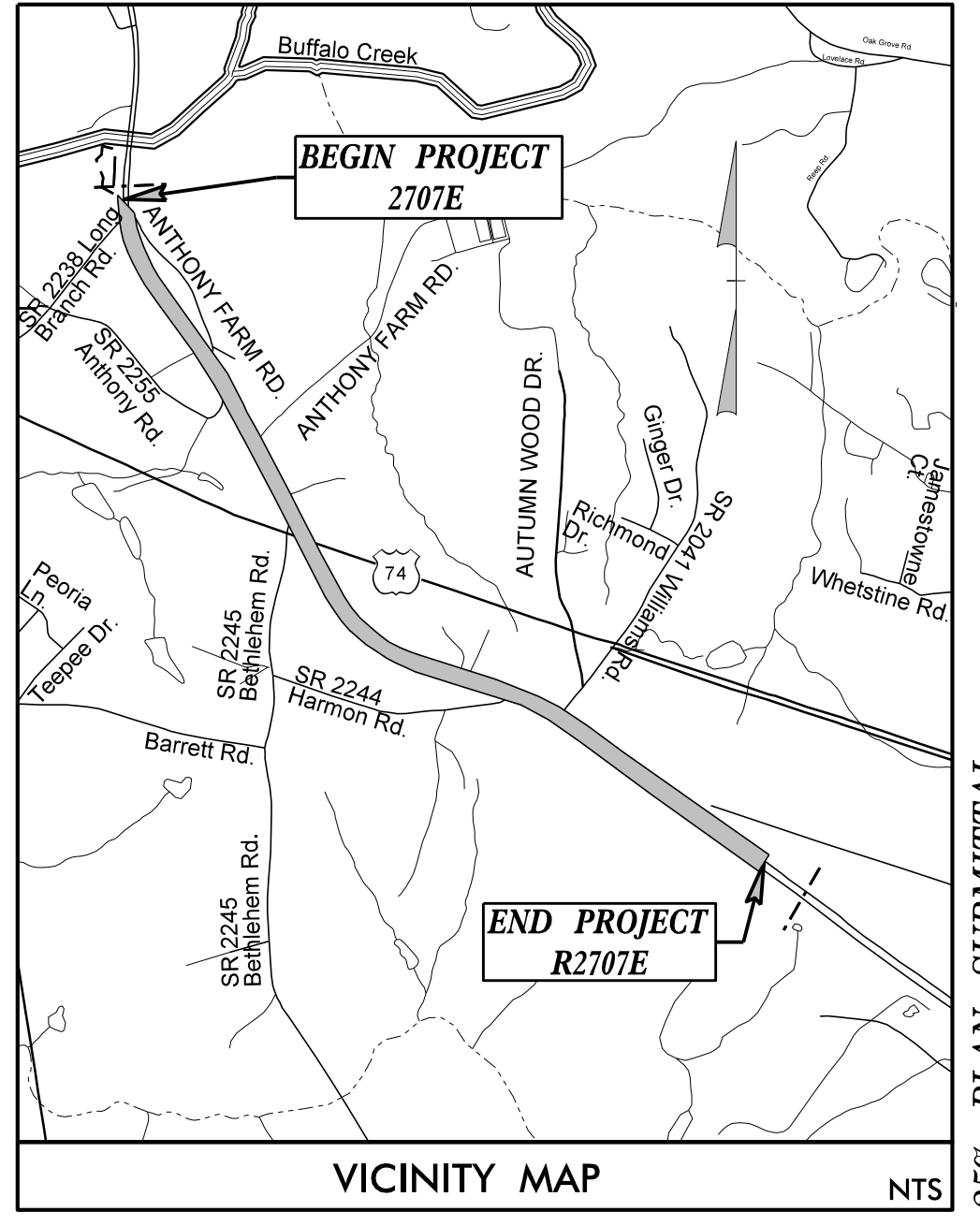
LOCATION: US 74 FROM EXISTING US 74 WEST OF SR 2238  
(LONG BRANCH ROAD) TO WEST OF SR 1001

TYPE OF WORK: GRADING, DRAINAGE, PAVING, & STRUCTURE

**REDLINE DRAINAGE PLANS - 4B MEETING**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2707E	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34497.1.F56	N/A	P.E.	

See Sheet 1A For Index of Sheets  
See Sheet 1B For Conventional Symbols



END TIP PROJECT R-2707D  
POT STA. 851+00.00 -L-

BEGIN TIP PROJECT R-2707E  
POT STA. 851+00.00 -L-

END TIP PROJECT R-2707E  
POT STA. 990+00.00 -L-

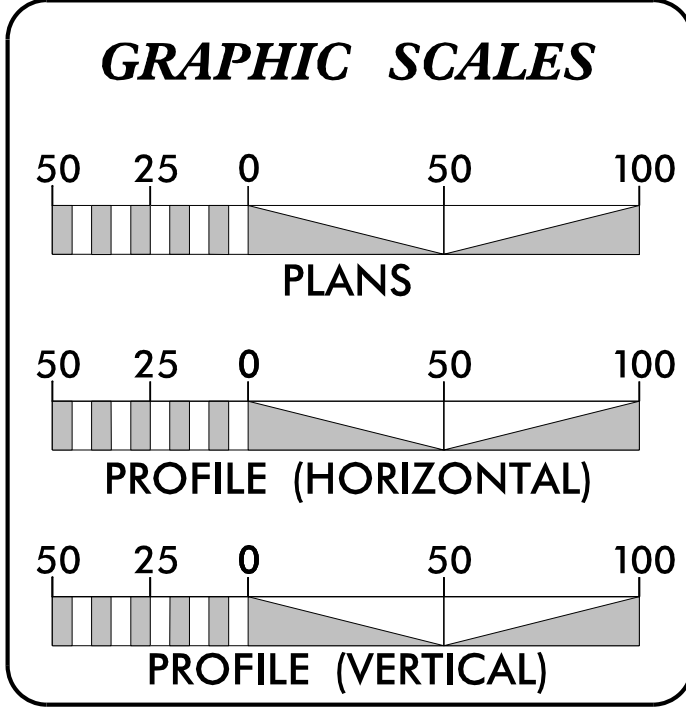
THIS PROJECT IS NOT WITHIN ANY CITY LIMITS

THIS IS A CONTROLLED ACCESS PROJECT  
WITH ACCESS BEING LIMITED TO INTERCHANGES

CLEARING FOR THIS PROJECT SHALL BE PERFORMED  
TO THE LIMITS ESTABLISHED BY METHOD III.

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION  
**DOCUMENT NOT CONSIDERED FINAL**  
UNLESS ALL SIGNATURES COMPLETED

**CONTRACT:**



**DESIGN DATA**

ADT 2019	=	41,600
ADT 2040	=	59,200
K	=	11 %
D	=	55 %
T	=	15 % *
V	=	70 MPH
* TTST = 10% DUAL 5%		
FUNC CLASS	=	FREWAY

**PROJECT LENGTH**

LENGTH OF ROADWAY TIP PROJECT R-2707E	=	2.63 MI.
TOTAL LENGTH OF TIP PROJECT R-2707E	=	2.63 MI.

**Stantec**  
PREPARED IN THE OFFICE OF:  
STANTEC CONSULTING  
801 Jones Franklin Road | Suite 300 | Raleigh, NC 27606  
Tel. (919) 851-6866 | Fax. (919) 851-7024 | www.stantec.com  
License No. F-0672

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
FEBRUARY 2018

**LETTING DATE:**  
FEBRUARY 19, 2019

**JOSEPH T. KELVINGTON, P.E.**  
PROJECT ENGINEER

**MICHAEL D. LINDGREN, P.E.**  
PROJECT DESIGN ENGINEER

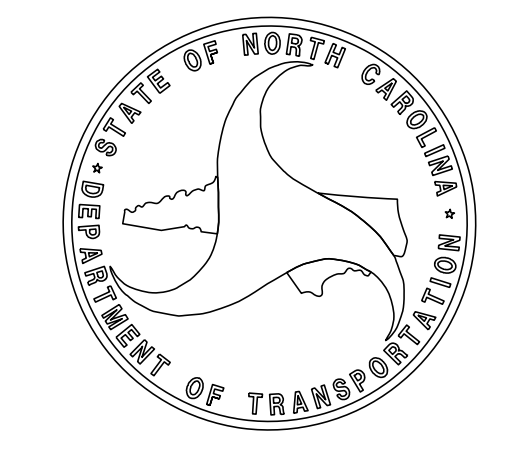
**J. B. MCSWAIN**  
NCDOT DIVISION 12

**HYDRAULICS ENGINEER**

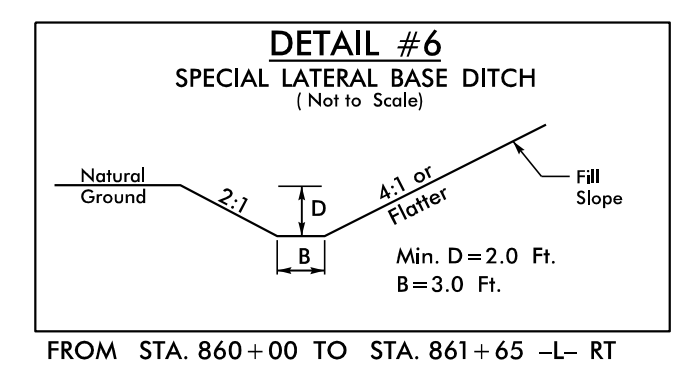
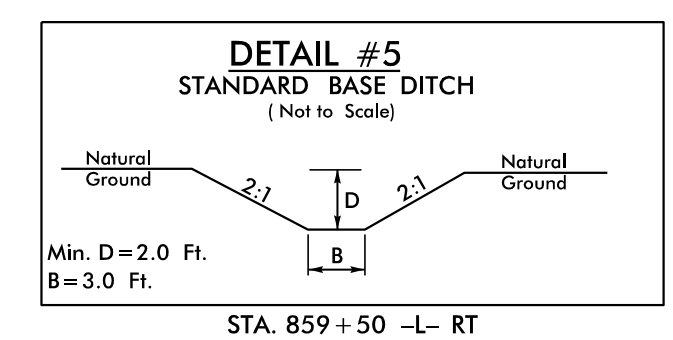
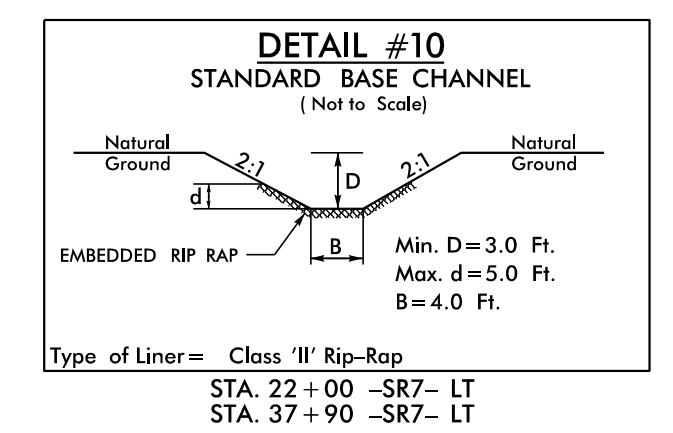
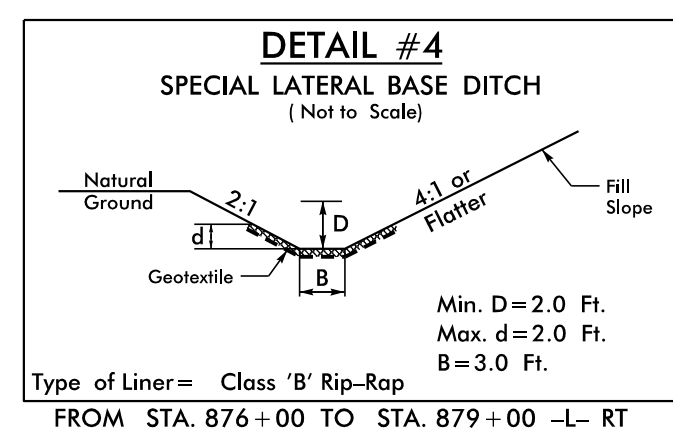
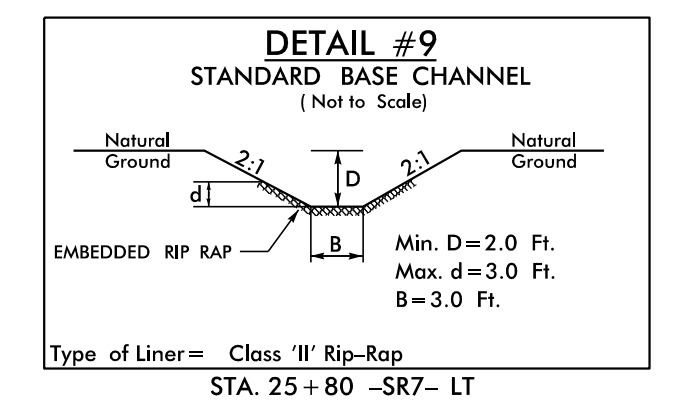
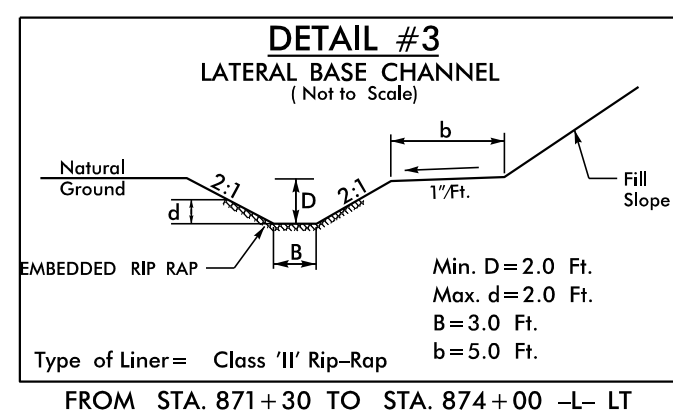
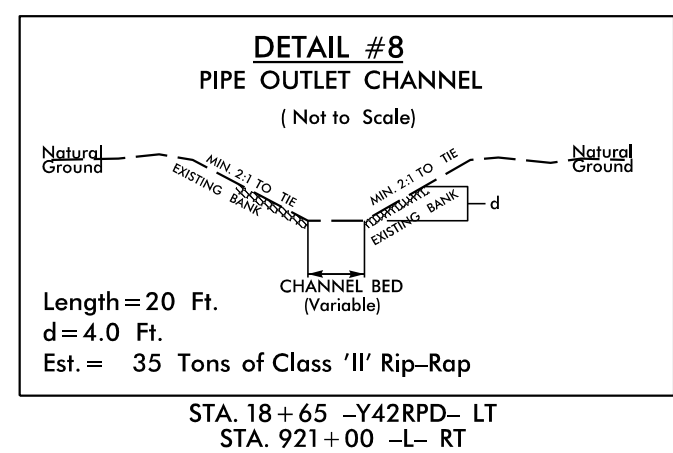
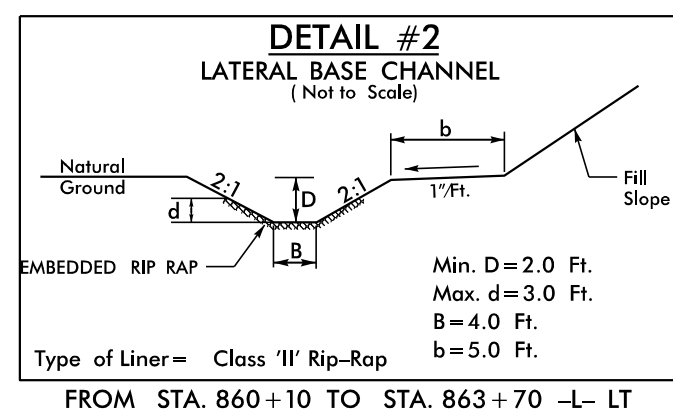
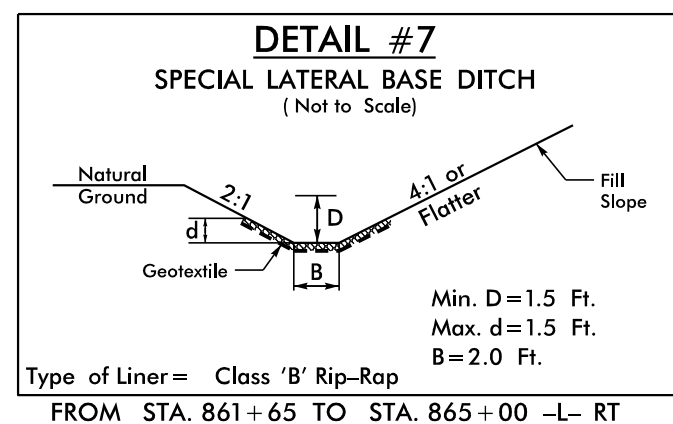
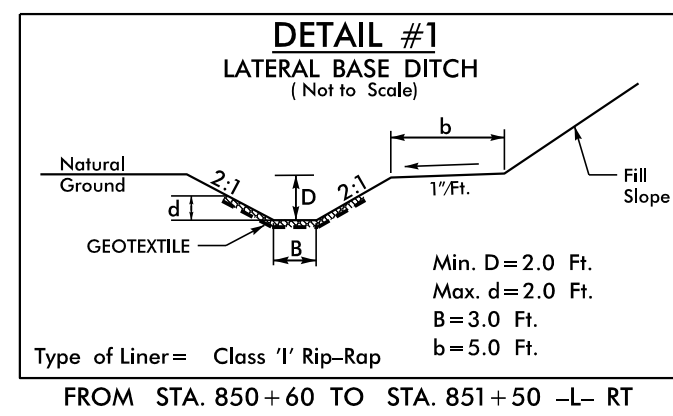
SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

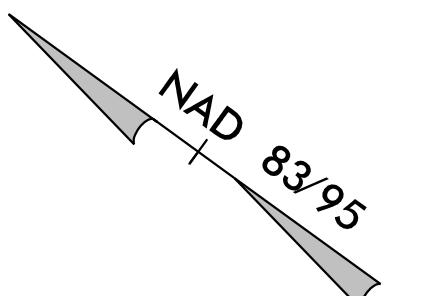
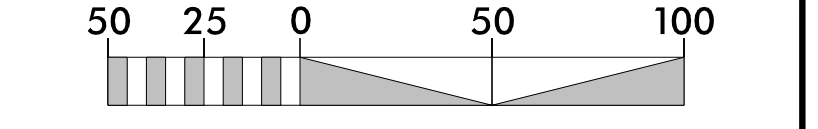
SIGNATURE: \_\_\_\_\_ P.E.



PROJECT REFERENCE NO. <i>R-2707E</i>	SHEET NO. <i>2D-1</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



PROJECT REFERENCE NO. R-2707E	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



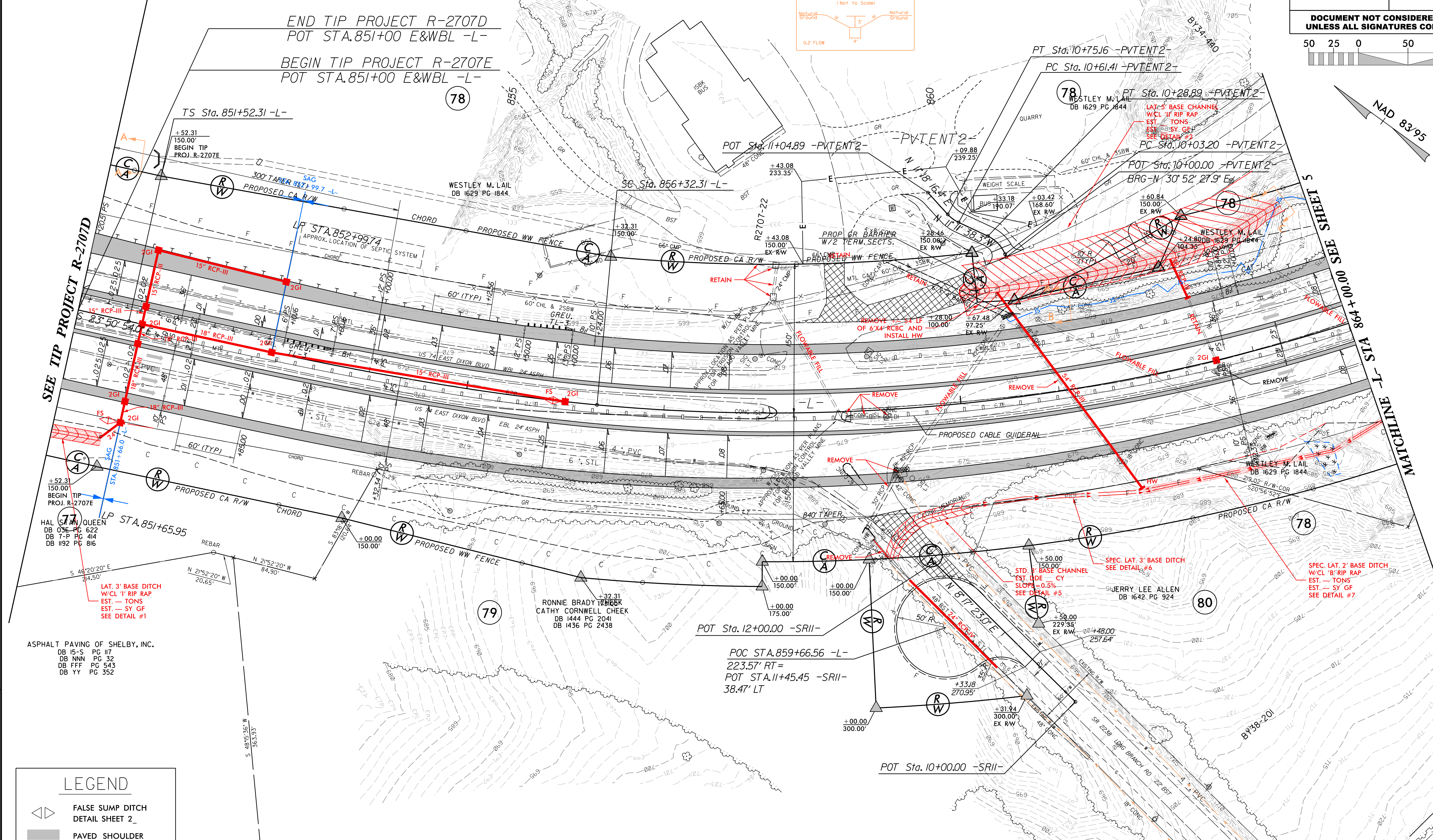
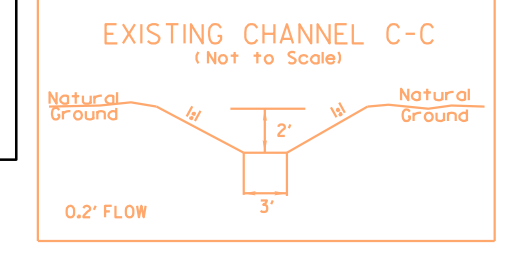
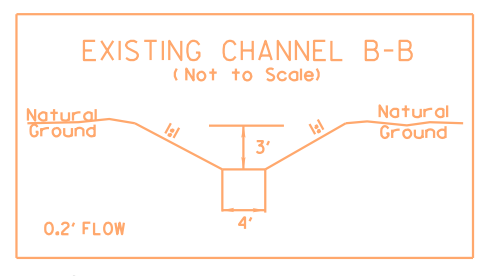
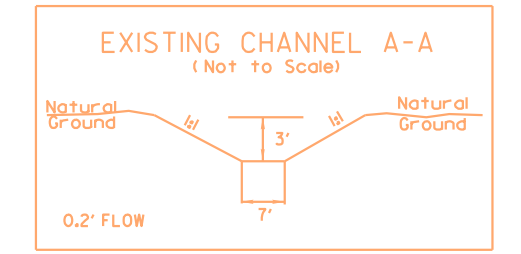
**Stantec**  
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**-PVTENT2-**

PI Sta 10+68.37 Δ = 22° 29' 54.7" (RT) D = 163' 42" 08.0" L = 13.74' T = 6.96' R = 35.00'	PI Sta 10+16.65 Δ = 42° 04' 06.2" (LT) D = 163' 42" 08.0" L = 25.70' T = 13.46' R = 35.00'
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**-L-**

PIs Sta 854+72.58 Θs = 7° 11' 58.1" Ls = 480.00' LT = 320.27' ST = 160.24'	PI Sta 860+97.91 Δ = 27° 23' 57.3" (LT) D = 2' 59' 59.2" L = 913.38' T = 465.59' R = 1,910.00' SE = .08 DS = 70 MPH
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**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

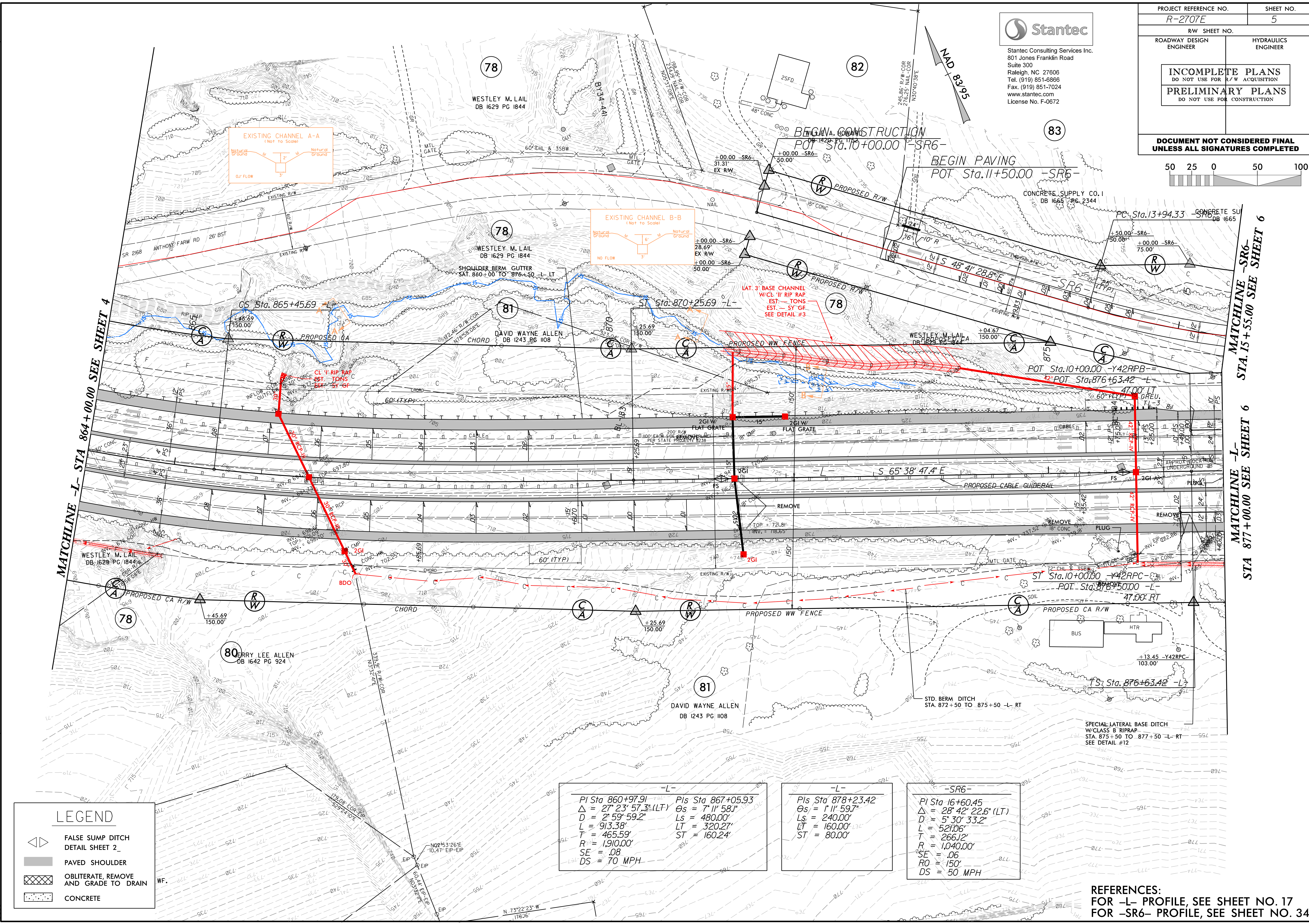
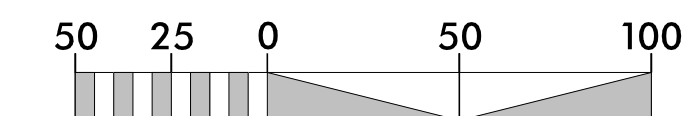
**REFERENCES:**  
FOR -L- PROFILE, SEE SHEET NO. 16  
FOR -SR11- PROFILE, SEE SHEET NO. 41  
FOR -PVTENT2- PROFILE, SEE SHEET NO. 42

8/17/99  
 REVISIONS  
 L/24/2018  
 R2707E\_Hyd\_PSH\_04.dgn



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PROJECT REFERENCE NO. R-2707E	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION <b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> <b>UNLESS ALL SIGNATURES COMPLETED</b>	



**LEGEND**

- FALSE SUMP DITCH  
DETAIL SHEET 2
- PAVED SHOULDER
- OBLITERATE, REMOVE  
AND GRADE TO DRAIN
- CONCRETE

-L- PI Sta 860+97.91 $\Delta = 27^\circ 23' 57.3''$ (LT) $D = 2' 59'' 59.2''$ $L = 913.38'$ $T = 465.59'$ $R = 1,910.00'$ $SE = .08$ $DS = 70$ MPH	-L- PIs Sta 867+05.93 $\Delta = 7^\circ 11' 58.1''$ $D = 480.00'$ $LT = 320.27'$ $ST = 160.24'$
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-L- PIs Sta 878+23.42 $\Delta = 1^\circ 11' 59.7''$ $D = 240.00'$ $LT = 160.00'$ $ST = 80.00'$
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-SR6- PI Sta 16+60.45 $\Delta = 28^\circ 42' 22.6''$ (LT) $D = 5' 30'' 33.2''$ $L = 521.06'$ $T = 266.12'$ $R = 1,040.00'$ $SE = .06$ $RO = 150'$ $DS = 50$ MPH
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REFERENCES:  
FOR -L- PROFILE, SEE SHEET NO. 17  
FOR -SR6- PROFILE, SEE SHEET NO. 34

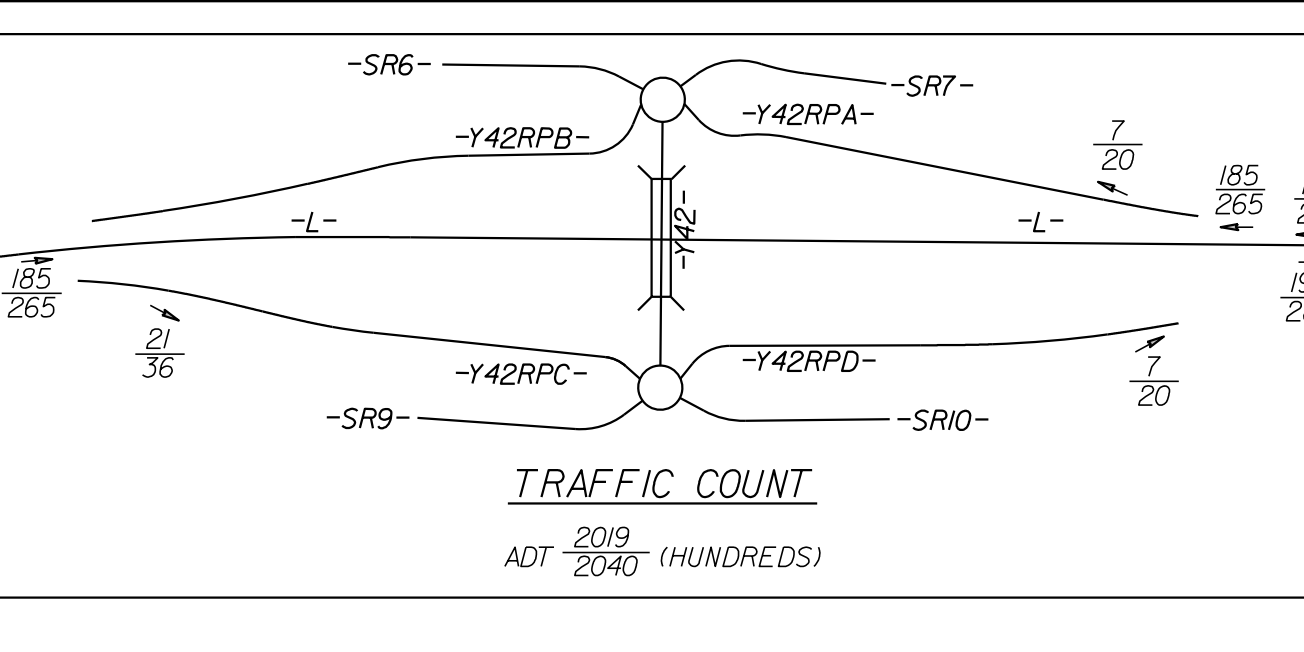
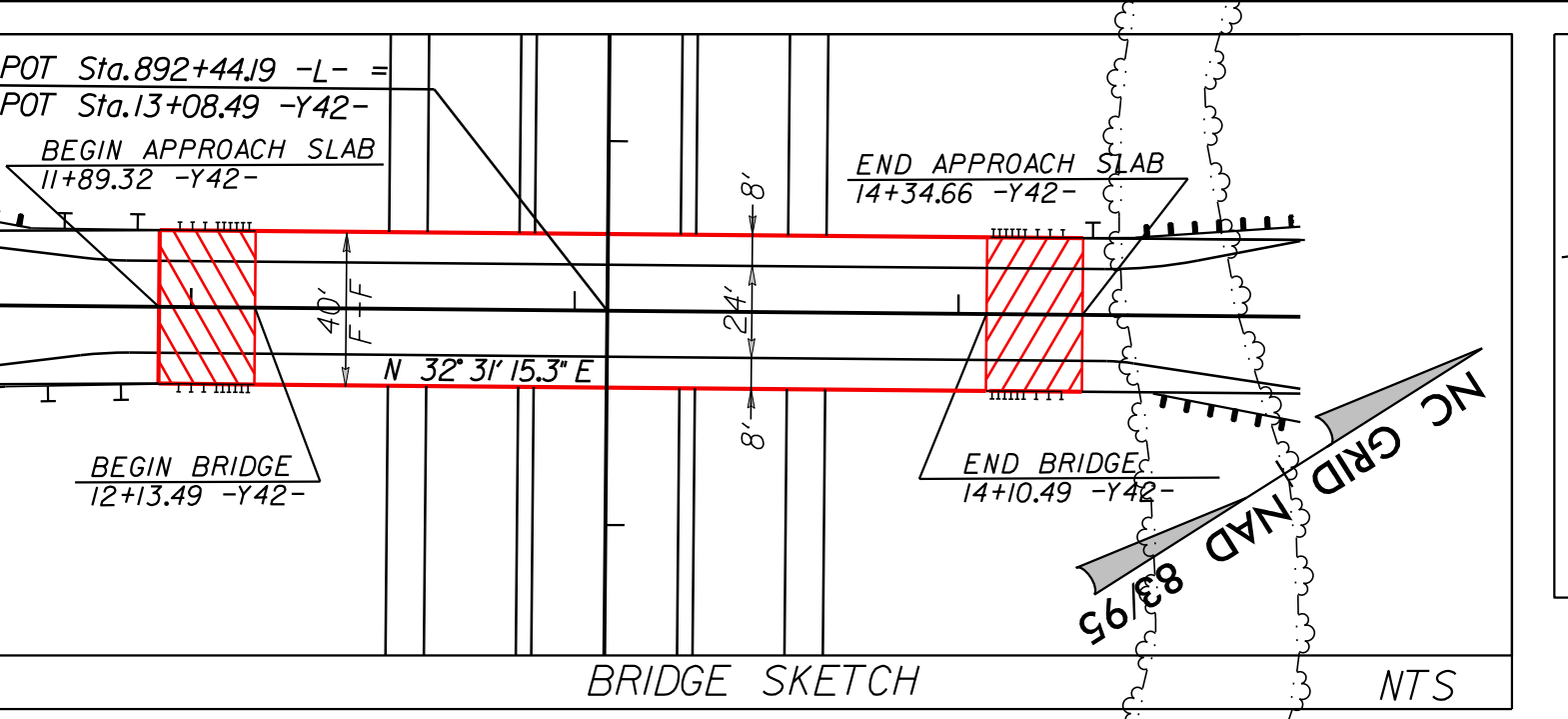
REVISIONS

R23/208  
R2707E\_Hyd\_PSH\_05.dgn  
05/10/08



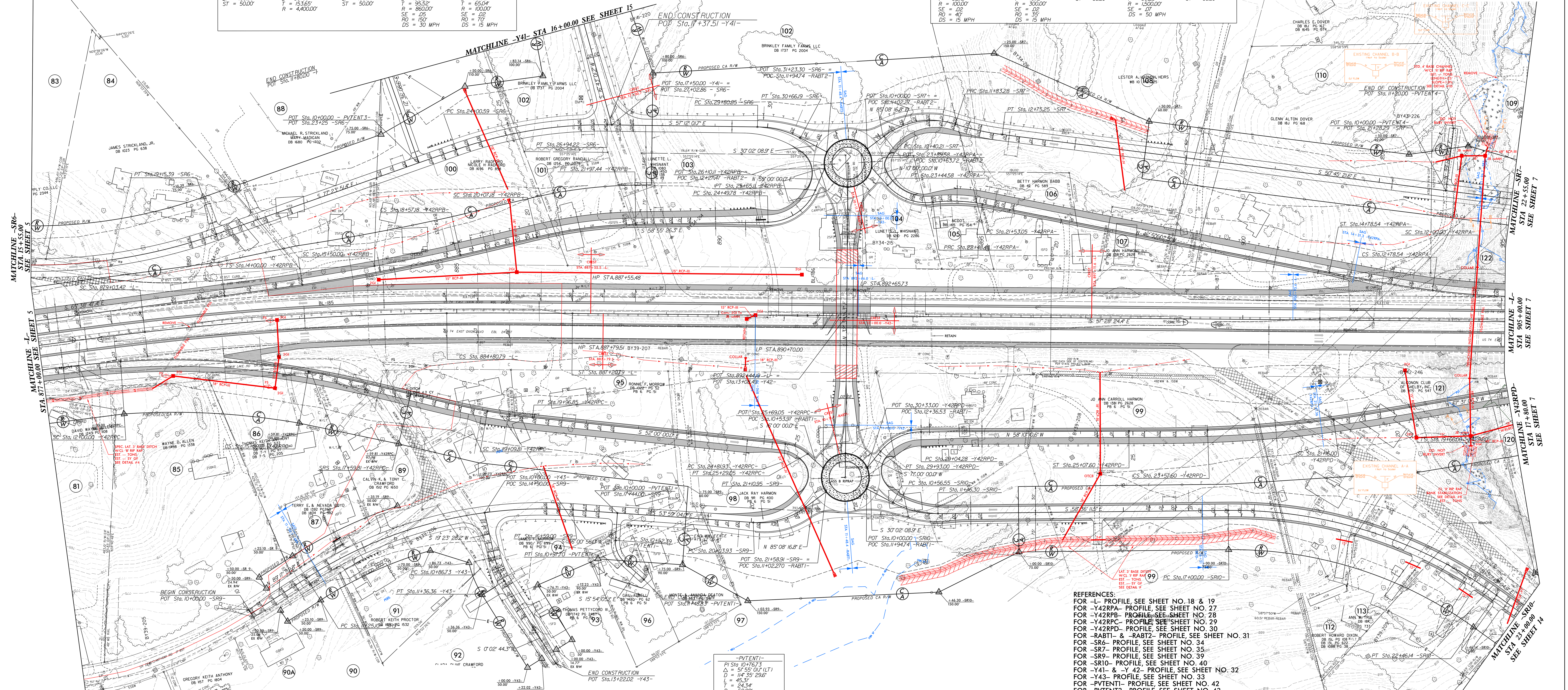
PI Sta 878+23.42 G <sub>s</sub> = 11' 59.7" L <sub>s</sub> = 240.00' LT = 160.00' T = 288.93' R = 5730.00' SE = .24 DS = 70 MPH	PI Sta 881+92.35 Δ = 5° 46' 23.6" (RT) D = 0' 59' 59.7" L = 577.37' LT = 160.00' T = 288.93' R = 5730.00' SE = .24 DS = 70 MPH	PI Sta 885+60.79 G <sub>s</sub> = 11' 59.7" L <sub>s</sub> = 240.00' LT = 160.00' T = 288.93' R = 5730.00' SE = .24 DS = 70 MPH	PI Sta 16+60.45 Δ = 28° 42' 22.6" (LT) D = 5° 30' 33.2" L = 520.06' LT = 100.00' T = 266.12' R = 1040.00' SE = .26 DS = 50 MPH	PI Sta 24+48.94 Δ = 20° 11' 49.7" (RT) D = 6° 52' 41.7" L = 293.54' LT = 148.36' T = 148.36' R = 833.00' SE = .26 DS = 50 MPH	PI Sta 30+24.33 Δ = 27° 09' 51.6" (RT) D = 6° 52' 41.7" L = 293.54' LT = 148.36' T = 148.36' R = 833.00' SE = .26 DS = 50 MPH
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PI Sta 15+00.00 G <sub>s</sub> = 0' 58' 35.9" L <sub>s</sub> = 150.00' LT = 100.00' T = 50.00' R = 4400.00'	PI Sta 17+03.65 Δ = 4° 00' 00.0" (LT) D = 7° 19' 07.8" L = 307.8' LT = 153.65' T = 153.65' R = 4400.00'	PI Sta 19+07.18 G <sub>s</sub> = 0' 58' 35.9" L <sub>s</sub> = 150.00' LT = 100.00' T = 50.00' R = 4400.00'	PI Sta 21+02.70 Δ = 12° 40' 32.9" (RT) D = 6° 52' 41.7" L = 293.54' LT = 148.36' T = 148.36' R = 833.00' SE = .26 DS = 50 MPH	PI Sta 25+14.82 Δ = 66° 04' 33.7" (LT) D = 57° 17' 44.8" L = 15.32' LT = 15.32' T = 65.04' R = 100.00' SE = .02 DS = 30 MPH
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PI Sta 11+47.71 Δ = 54° 38' 43.3" (RT) D = 38° 11' 49.9" L = 143.06' LT = 77.50' T = 17.50' R = 150.00' SE = .02 DS = 15 MPH	PI Sta 12+29.39 Δ = 10° 32' 21.7" (LT) D = 17° 27' 53.0" L = 91.97' LT = 46.50' T = 0.00' R = 150.00' SE = .02 DS = 15 MPH	PI Sta 13+45.23 Δ = 3° 49' 11.0" (RT) D = 200.00' L = 133.36' ST = 66.69'	PI Sta 12+39.28 Δ = 3° 49' 11.0" (RT) D = 200.00' L = 133.36' ST = 66.69'	PI Sta 11+33.36 G <sub>s</sub> = 3' 49' 11.0" L <sub>s</sub> = 200.00' LT = 133.36' T = 66.69'
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PI Sta 23+00.60 Δ = 55° 03' 34.6" (RT) D = 57° 17' 44.8" L = 15.32' LT = 15.32' T = 65.04' R = 100.00' SE = .02 DS = 15 MPH	PI Sta 22+01.71 Δ = 18° 13' 32.1" (LT) D = 19° 05' 54.9" L = 78.94' LT = 39.26' T = 48.12' R = 300.00' SE = .02 DS = 15 MPH	PI Sta 13+45.23 Δ = 3° 49' 11.0" (RT) D = 200.00' L = 133.36' ST = 66.69'	PI Sta 12+39.28 Δ = 3° 49' 11.0" (RT) D = 200.00' L = 133.36' ST = 66.69'	PI Sta 11+33.36 G <sub>s</sub> = 3' 49' 11.0" L <sub>s</sub> = 200.00' LT = 133.36' T = 66.69'
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**LEGEND**

- FALSE SLUMP DITCH
- PAVED SHOULDER
- ORIGINATE REMOVE AND GRADE TO DRAIN
- CONCRETE

PI Sta 14+01.58 Δ = 36° 43' 23.2" (RT) D = 6° 52' 41.7" L = 533.90' LT = 83.300' T = 276.48' R = 833.000' SE = .02 DS = 150 MPH	PI Sta 20+59.83 Δ = 40° 52' 39.2" (LT) D = 38° 11' 49.9" L = 107.02' T = 55.90' R = 150.000' SE = .02 DS = 15 MPH	PI Sta 11+33.36 G <sub>s</sub> = 3' 49' 11.0" L <sub>s</sub> = 200.00' LT = 133.36' T = 66.69'	PI Sta 13+45.23 Δ = 13° 44' 37.7" (RT) D = 3° 49' 11.0" L = 359.91' LT = 180.77' T = 180.77' R = 150.000' SE = .02 DS = 50 MPH	PI Sta 16+26.51 G <sub>s</sub> = 3' 49' 11.0" L <sub>s</sub> = 200.00' LT = 133.36' T = 66.69'	PI Sta 18+59.83 Δ = 13° 44' 37.7" (RT) D = 3° 49' 11.0" L = 359.91' LT = 180.77' T = 180.77' R = 150.000' SE = .02 DS = 50 MPH
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PI Sta 19+53.35 Δ = 4° 09' 20.7" (LT) D = 7° 45' 28.7" L = 81.04' LT = 43.54' T = 43.54' R = 120.000' SE = .02 DS = 40 MPH	PI Sta 25+06.30 Δ = 36° 00' 00.0" (RT) D = 78° 23' 39.7" L = 47.16' LT = 24.37' T = 24.37' R = 147.000' SE = .02 DS = 39 MPH	PI Sta 11+41.78 Δ = 19° 20' 43.9" (LT) D = 19° 20' 43.9" L = 89.33' LT = 44.67' T = 25.06' R = 147.000' SE = .02 DS = 20 MPH	PI Sta 10+00.00 Δ = 35° 59' 42.1" (RT) D = 12° 41' 31.21" L = 289.02' T = 0.00' R = 46.000' SE = .02 DS = 50 MPH	PI Sta 11+02.38 Δ = 28° 34' 02.6" (LT) D = 3° 49' 51.6" L = 54.61' LT = 27.31' T = 45.83' R = 180.000' SE = .02 DS = 15 MPH	PI Sta 19+82.63 Δ = 36° 23' 06.6" (RT) D = 3° 49' 51.6" L = 54.61' LT = 27.31' T = 28.263' R = 80.000' SE = .02 DS = 50 MPH
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PI Sta 10+76.73 Δ = 57° 55' 01.7" (LT) D = 11° 35' 29.6" L = 46.31' LT = 24.34' T = 24.34' R = 50.000'	PI Sta 11+02.38 Δ = 28° 34' 02.6" (LT) D = 3° 49' 51.6" L = 54.61' LT = 27.31' T = 45.83' R = 180.000' SE = .02 DS = 15 MPH	PI Sta 19+82.63 Δ = 36° 23' 06.6" (RT) D = 3° 49' 51.6" L = 54.61' LT = 27.31' T = 28.263' R = 80.000' SE = .02 DS = 50 MPH	PI Sta 20+66.01 G <sub>s</sub> = 1' 47' 25.8" L <sub>s</sub> = 150.00' LT = 100.00' T = 50.00'
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PI Sta 29+18.04 Δ = 50° 49' 48.4" (LT) D = 57° 17' 44.8" L = 88.72' LT = 47.52' T = 47.52' R = 100.000'	PI Sta 24+07.61 G <sub>s</sub> = 1' 47' 25.8" L <sub>s</sub> = 150.00' LT = 100.00' T = 50.00'	PI Sta 22+36.90 Δ = 5° 46' 04.1" (RT) D = 2° 23' 14.4" L = 24.60' LT = 12.300' T = 12.300' R = 240.000'	PI Sta 20+66.01 G <sub>s</sub> = 1' 47' 25.8" L <sub>s</sub> = 150.00' LT = 100.00' T = 50.00'
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**REFERENCES**

- FOR -L- PROFILE, SEE SHEET NO. 18 & 19
- FOR -Y42RPA- PROFILE, SEE SHEET NO. 27
- FOR -Y42RPB- PROFILE, SEE SHEET NO. 28
- FOR -Y42RPC- PROFILE, SEE SHEET NO. 29
- FOR -Y42RPD- PROFILE, SEE SHEET NO. 30
- FOR -RABT1- & -RABT2- PROFILE, SEE SHEET NO. 31
- FOR -SR6- PROFILE, SEE SHEET NO. 34
- FOR -SR7- PROFILE, SEE SHEET NO. 35
- FOR -SR9- PROFILE, SEE SHEET NO. 39
- FOR -SR10- PROFILE, SEE SHEET NO. 40
- FOR -Y41- & -Y42- PROFILE, SEE SHEET NO. 32
- FOR -Y43- PROFILE, SEE SHEET NO. 33
- FOR -PVTENT1- PROFILE, SEE SHEET NO. 42
- FOR -PVTENT3- PROFILE, SEE SHEET NO. 43
- FOR -PVTENT4- PROFILE, SEE SHEET NO. 43

**GRAPHIC SCALE**  
0 50 100  
PLANS

DESIGNED BY: RES  
CHECKED BY: DLW  
DATE:

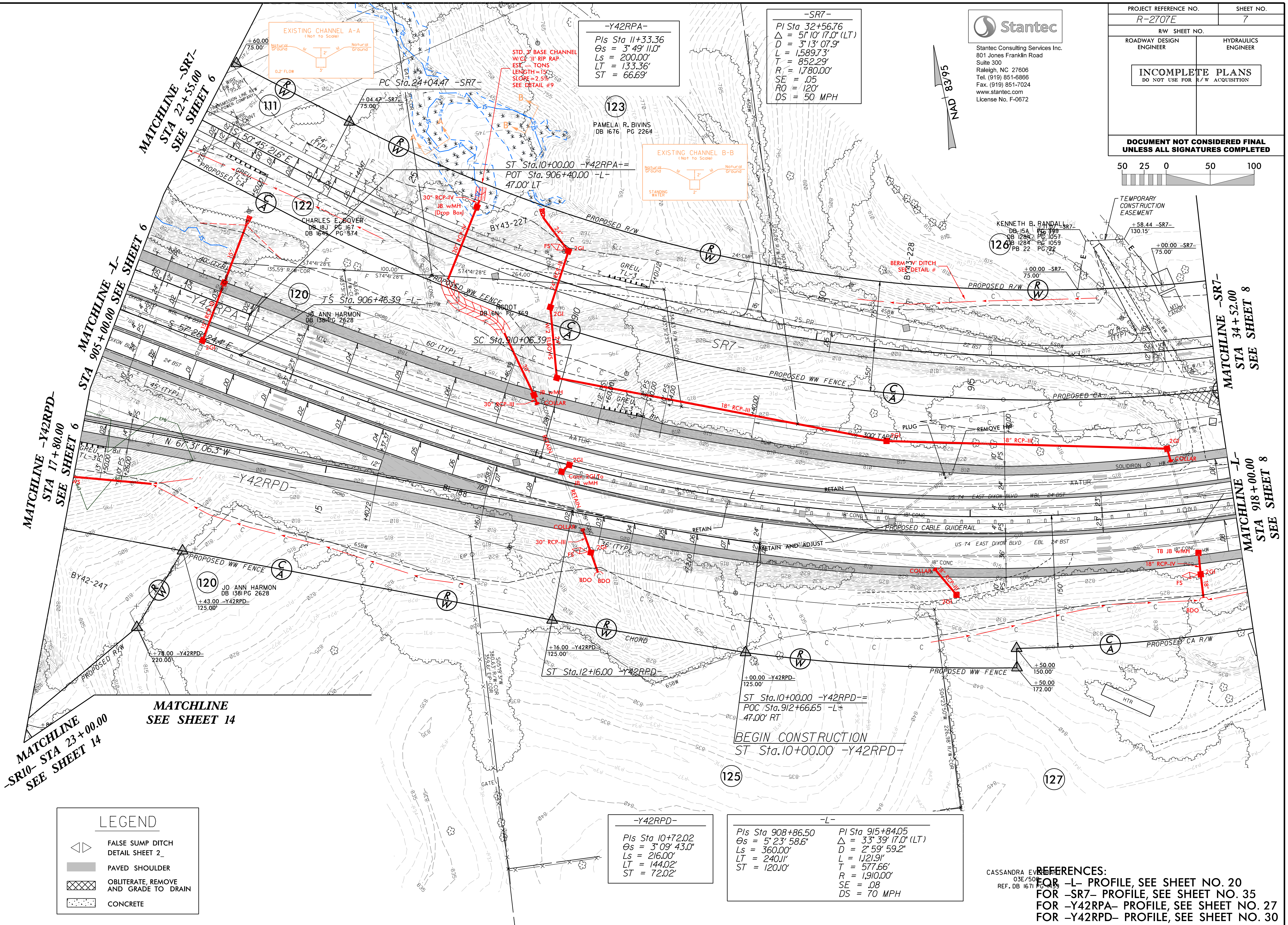
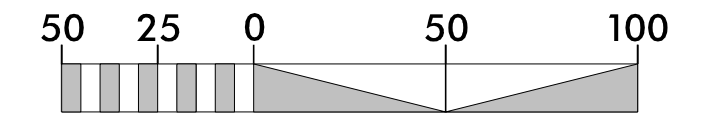
8/17/99

REVISIONS

1/23/2018 R2707E-Hyd-PSH-07.dgn

**Stantec**  
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PROJECT REFERENCE NO. R-2707E	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**-Y42RPA-**  
 PIs Sta 11+33.36  
 $\Delta = 3^{\circ} 49' 11.0''$   
 $D = 3^{\circ} 13' 07.9''$   
 $L = 1,589.73'$   
 $T = 852.29'$   
 $R = 1,780.00'$   
 $SE = .05$   
 $RO = 120'$   
 $DS = 50$  MPH

**-SR7-**  
 PI Sta 32+56.76  
 $\Delta = 5^{\circ} 10' 17.0''$  (LT)  
 $D = 3^{\circ} 13' 07.9''$   
 $L = 1,589.73'$   
 $T = 852.29'$   
 $R = 1,780.00'$   
 $SE = .05$   
 $RO = 120'$   
 $DS = 50$  MPH

**-Y42RPD-**  
 PIs Sta 10+72.02  
 $\Delta = 3^{\circ} 09' 43.0''$   
 $Ls = 216.00'$   
 $LT = 144.02'$   
 $ST = 72.02'$

**-L-**  
 PIs Sta 908+86.50  
 $\Delta = 5^{\circ} 23' 58.6''$   
 $Ls = 360.00'$   
 $LT = 240.11'$   
 $ST = 120.10'$

PI Sta 915+84.05  
 $\Delta = 3^{\circ} 39' 17.0''$  (LT)  
 $D = 2^{\circ} 59' 59.2''$   
 $L = 1,121.91'$   
 $T = 577.66'$   
 $R = 1,910.00'$   
 $SE = .08$   
 $DS = 70$  MPH

**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

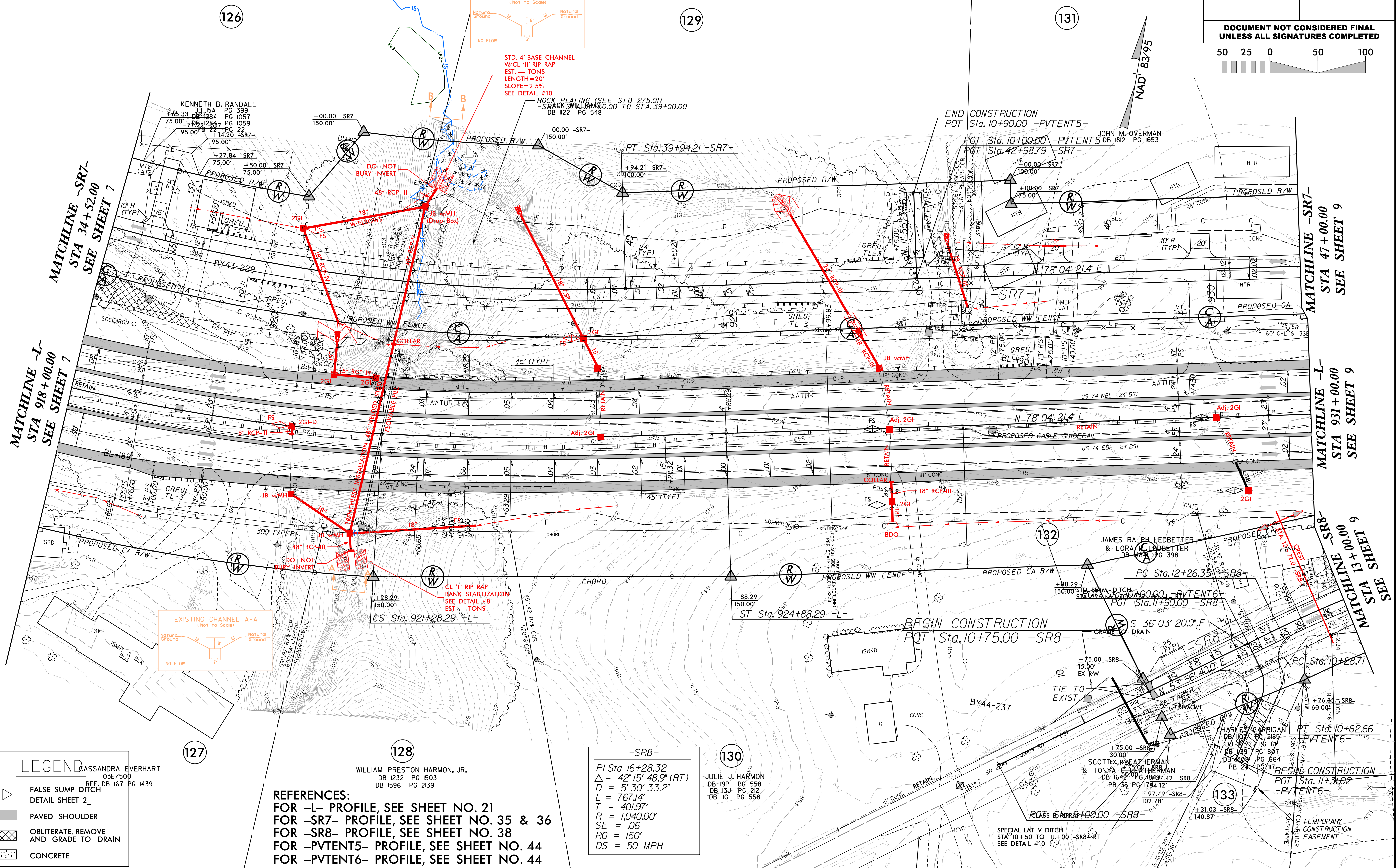
**REFERENCES:**  
 FOR -L- PROFILE, SEE SHEET NO. 20  
 FOR -SR7- PROFILE, SEE SHEET NO. 35  
 FOR -Y42RPA- PROFILE, SEE SHEET NO. 27  
 FOR -Y42RPD- PROFILE, SEE SHEET NO. 30

8/17/99

PROJECT REFERENCE NO. R-2707E	SHEET NO. 8
RW DESIGN NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

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 www.stantec.com  
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<b>-SR7-</b> PI Sta 32+56.76 $\Delta = 51' 10" 17.0" (LT)$ $D = 3' 13" 07.9"$ $L = 1,589.73'$ $T = 852.29'$ $R = 1,780.00'$ $SE = .05$ $RO = 1250'$ $DS = 50 MPH$	<b>-L-</b> PI Sta 915+84.05 $\Delta = 33' 39" 17.0" (LT)$ $D = 2' 59" 59.2"$ $L = 1,121.91'$ $T = 577.66'$ $R = 1,910.00'$ $SE = .08$ $DS = 70 MPH$	<b>PIs Sta 922+48.40</b> $\Delta_s = 5' 23" 58.6"$ $L_s = 360.00'$ $LT = 240.01'$ $ST = 120.01'$
--	---	--



**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

**REFERENCES:**  
 FOR -L- PROFILE, SEE SHEET NO. 21  
 FOR -SR7- PROFILE, SEE SHEET NO. 35 & 36  
 FOR -SR8- PROFILE, SEE SHEET NO. 38  
 FOR -PTENT5- PROFILE, SEE SHEET NO. 44  
 FOR -PTENT6- PROFILE, SEE SHEET NO. 44

<b>-SR8-</b> PI Sta 16+28.32 $\Delta = 42' 15" 48.9" (RT)$ $D = 5' 30" 33.2"$ $L = 767.14'$ $T = 401.97'$ $R = 1,040.00'$ $SE = .06$ $RO = 150'$ $DS = 50 MPH$
---

**EXISTING CHANNEL A-A**  
 (Not to Scale)  
 Natural Ground  
 NO FLOW

**EXISTING CHANNEL B-B**  
 (Not to Scale)  
 Natural Ground  
 NO FLOW

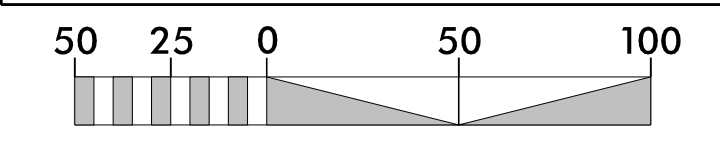
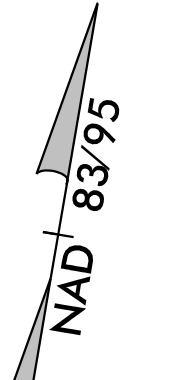
**STD. 4' BASE CHANNEL**  
 W/CL '1' RIP RAP  
 EST. TONS  
 LENGTH=20'  
 SLOPE=2.5%  
 SEE DETAIL #10

**ROCK PLATING (SEE STD 275.01)**  
 SPARK W/CL 1/2" RIP RAP  
 DB 1122 PG 548

**CL '1' RIP RAP**  
 BANK STABILIZATION  
 SEE DETAIL #8  
 EST. TONS

**BEGIN CONSTRUCTION**  
 POT Sta. 10+75.00 -SR8-

**END CONSTRUCTION**  
 POT Sta. 10+90.00 -PTENT5-



REVISIONS

1/23/2018 R2707E\_Hyd\_PSH\_08.dgn

**MATCHLINE -SR7-**  
 STA 34+52.00  
 SEE SHEET 7

**MATCHLINE -L-**  
 STA 918+00.00  
 SEE SHEET 7

**MATCHLINE -SR7-**  
 STA 47+00.00  
 SEE SHEET 9

**MATCHLINE -L-**  
 STA 931+00.00  
 SEE SHEET 9

**MATCHLINE -SR8-**  
 STA 13+00.00  
 SEE SHEET 9

126

129

131

127

128

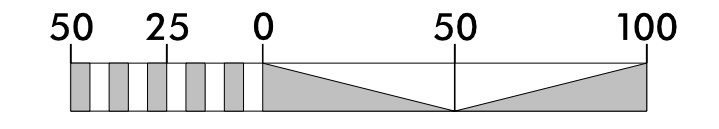
130

132

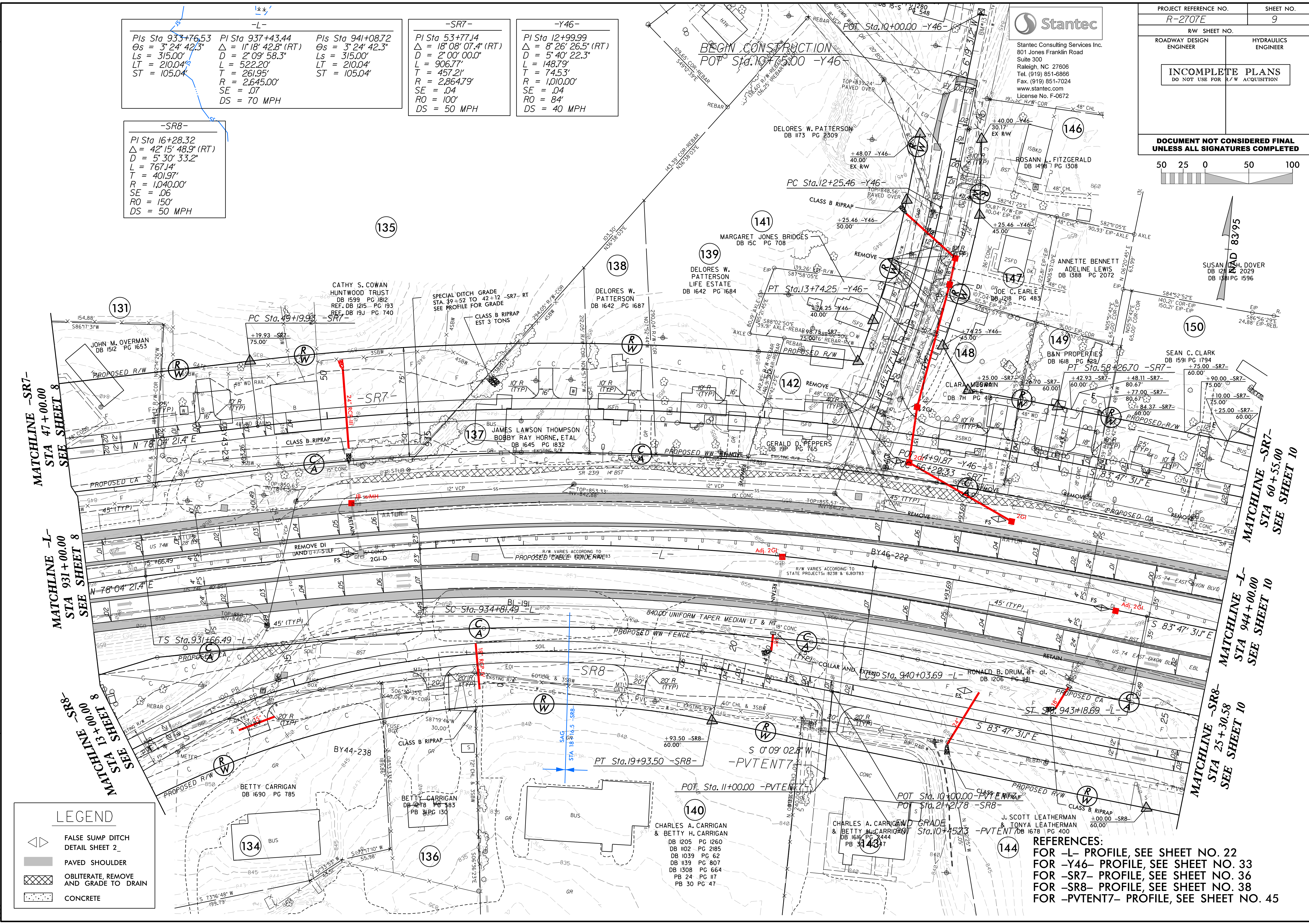
133

127

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<p><b>-L-</b></p> <p>PI Sta 933+76.53  <math>\Delta = 3' 24" 42.3"</math>  <math>D = 315.00'</math>  <math>L = 210.04'</math>  <math>ST = 105.04'</math></p>	<p><b>-SR7-</b></p> <p>PI Sta 937+43.44  <math>\Delta = 1' 18" 42.8" (RT)</math>  <math>D = 2' 09" 58.3"</math>  <math>L = 522.20'</math>  <math>T = 261.95'</math>  <math>R = 2,645.00'</math>  <math>SE = .07</math>  <math>DS = 70 MPH</math></p>	<p><b>-SR8-</b></p> <p>PI Sta 16+28.32  <math>\Delta = 42' 15" 48.9" (RT)</math>  <math>D = 5' 30" 33.2"</math>  <math>L = 767.14'</math>  <math>T = 401.97'</math>  <math>R = 1,040.00'</math>  <math>SE = .06</math>  <math>RO = 150'</math>  <math>DS = 50 MPH</math></p>	<p><b>-SR7-</b></p> <p>PI Sta 53+77.14  <math>\Delta = 18' 08" 07.4" (RT)</math>  <math>D = 2' 00" 00.0"</math>  <math>L = 906.77'</math>  <math>T = 457.21'</math>  <math>R = 2,864.79'</math>  <math>SE = .04</math>  <math>RO = 100'</math>  <math>DS = 50 MPH</math></p>	<p><b>-Y46-</b></p> <p>PI Sta 12+99.99  <math>\Delta = 8' 26" 26.5" (RT)</math>  <math>D = 5' 40" 22.3"</math>  <math>L = 148.79'</math>  <math>T = 74.53'</math>  <math>R = 1,010.00'</math>  <math>SE = .04</math>  <math>RO = 84'</math>  <math>DS = 40 MPH</math></p>
--	--	--	--	---



**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLETE, REMOVE AND GRADE TO DRAIN
	CONCRETE

**REFERENCES:**  
 FOR -L- PROFILE, SEE SHEET NO. 22  
 FOR -Y46- PROFILE, SEE SHEET NO. 33  
 FOR -SR7- PROFILE, SEE SHEET NO. 36  
 FOR -SR8- PROFILE, SEE SHEET NO. 38  
 FOR -PVENT7- PROFILE, SEE SHEET NO. 45

REVISIONS

8/17/99

1/23/2018  
R2707E\_Hyd\_PSH\_09.dgn



8/17/99

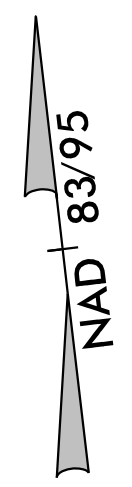
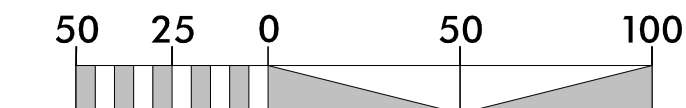
-SR7-

PI Sta 74+83.67  
 $\Delta = 17^{\circ}55'53.6''$  (LT)  
 $D = 3^{\circ}13'07.9''$   
 $L = 557.08'$   
 $T = 280.83'$   
 $R = 1,780.00'$   
 $SE = .05$   
 $RO = 120'$   
 $DS = 50$  MPH

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PROJECT REFERENCE NO. R-2707E	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



REVISIONS

MATCHLINE -SR7-  
STA 60+55.00  
SEE SHEET 9

MATCHLINE -L-  
STA 944+00.00  
SEE SHEET 9

MATCHLINE -SR8-  
STA 25+30.58  
SEE SHEET 9

MATCHLINE -SR7-  
STA 73+50.00  
SEE SHEET 11

MATCHLINE -L-  
STA 957+00.00  
SEE SHEET 11

**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

**REFERENCES:**  
 FOR -L- PROFILE, SEE SHEET NO. 23  
 FOR -SR7- PROFILE, SEE SHEET NO. 36 & 37  
 FOR -SR8- PROFILE, SEE SHEET NO. 38

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8/17/99

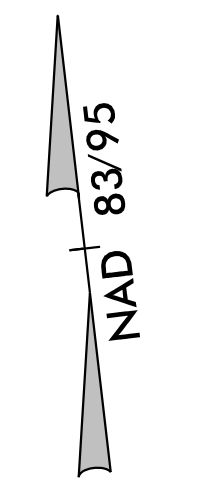
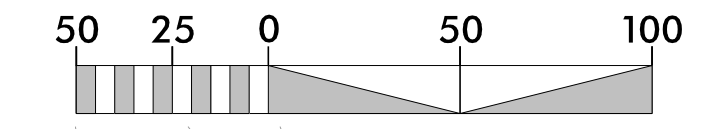
-SR7-  
 PI Sta 74+83.67  
 $\Delta = 17^{\circ} 55' 53.6" (LT)$   
 $D = 3' 13' 07.9"$   
 $L = 557.08'$   
 $T = 280.83'$   
 $R = 1,780.00'$   
 $SE = .05$   
 $RO = 120'$   
 $DS = 50 MPH$

JOHN HARRIS WALTERS &  
 ANGELETTERS  
 DB 1550 PG 979, TRACT

END CONSTRUCTION  
 POT Sta.79+52.00 -SR7-

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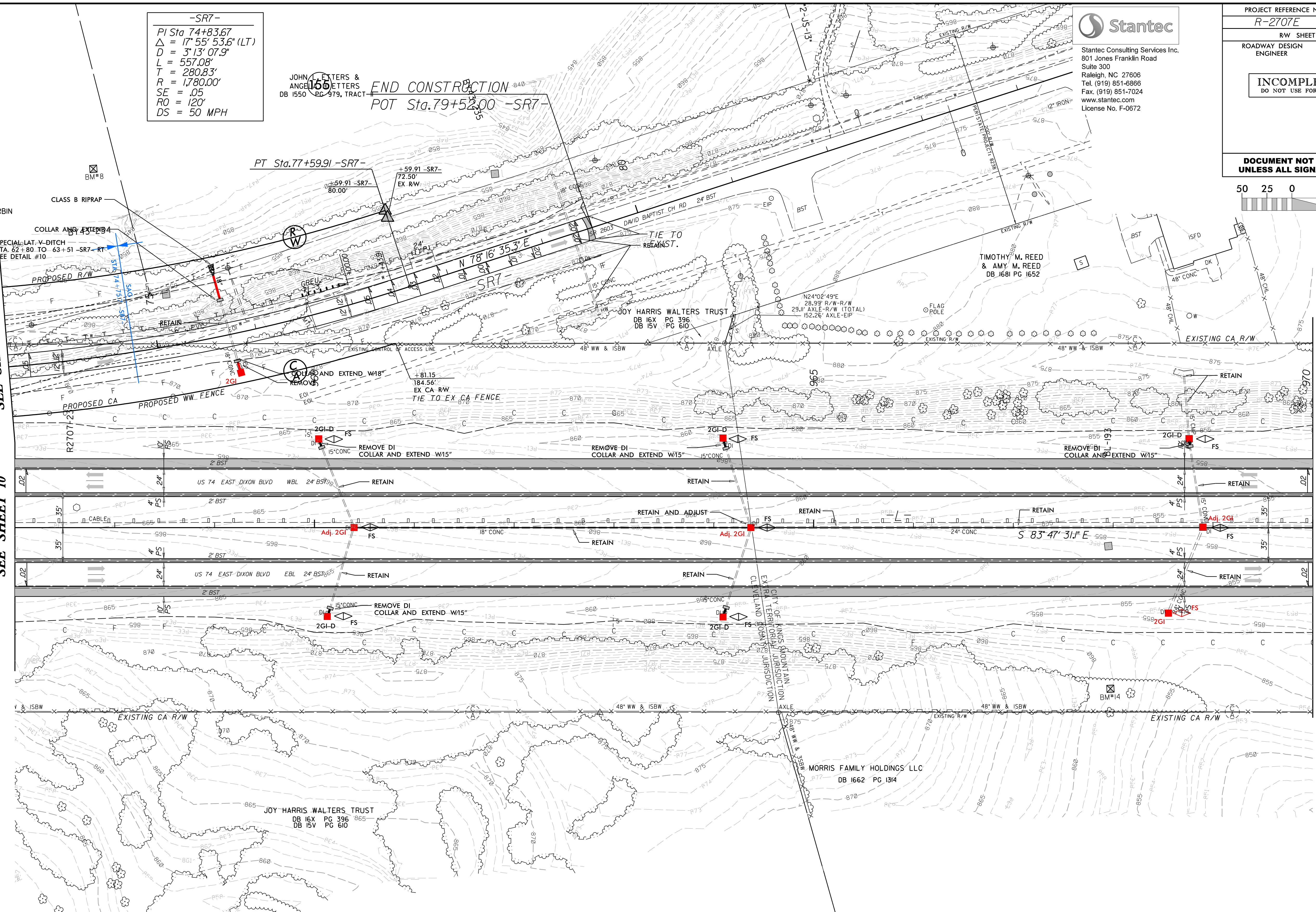
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



MATCHLINE -SR7-  
 STA 73+50.00  
 SEE SHEET 10

MATCHLINE -L-  
 STA 957+00.00  
 SEE SHEET 10

MATCHLINE -L-  
 STA 970+00.00 SEE SHEET 12



**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

154

REFERENCES:  
 FOR -L- PROFILE, SEE SHEET NO. 24  
 FOR -SR7- PROFILE, SEE SHEET NO. 37

1/23/2018  
 R2707E\_Hyd\_PSH11.dgn

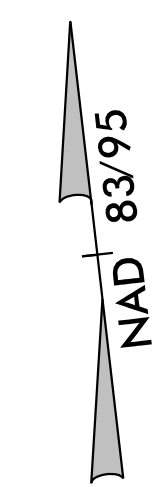
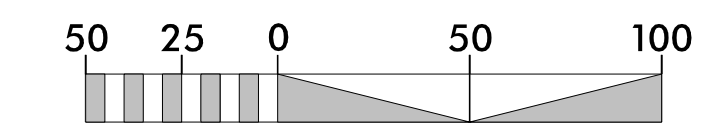
8/17/99



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PROJECT REFERENCE NO. R-2707E	SHEET NO. 12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	

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



REVISIONS

MATCHLINE -L-  
STA 970+00.00 SEE SHEET 11

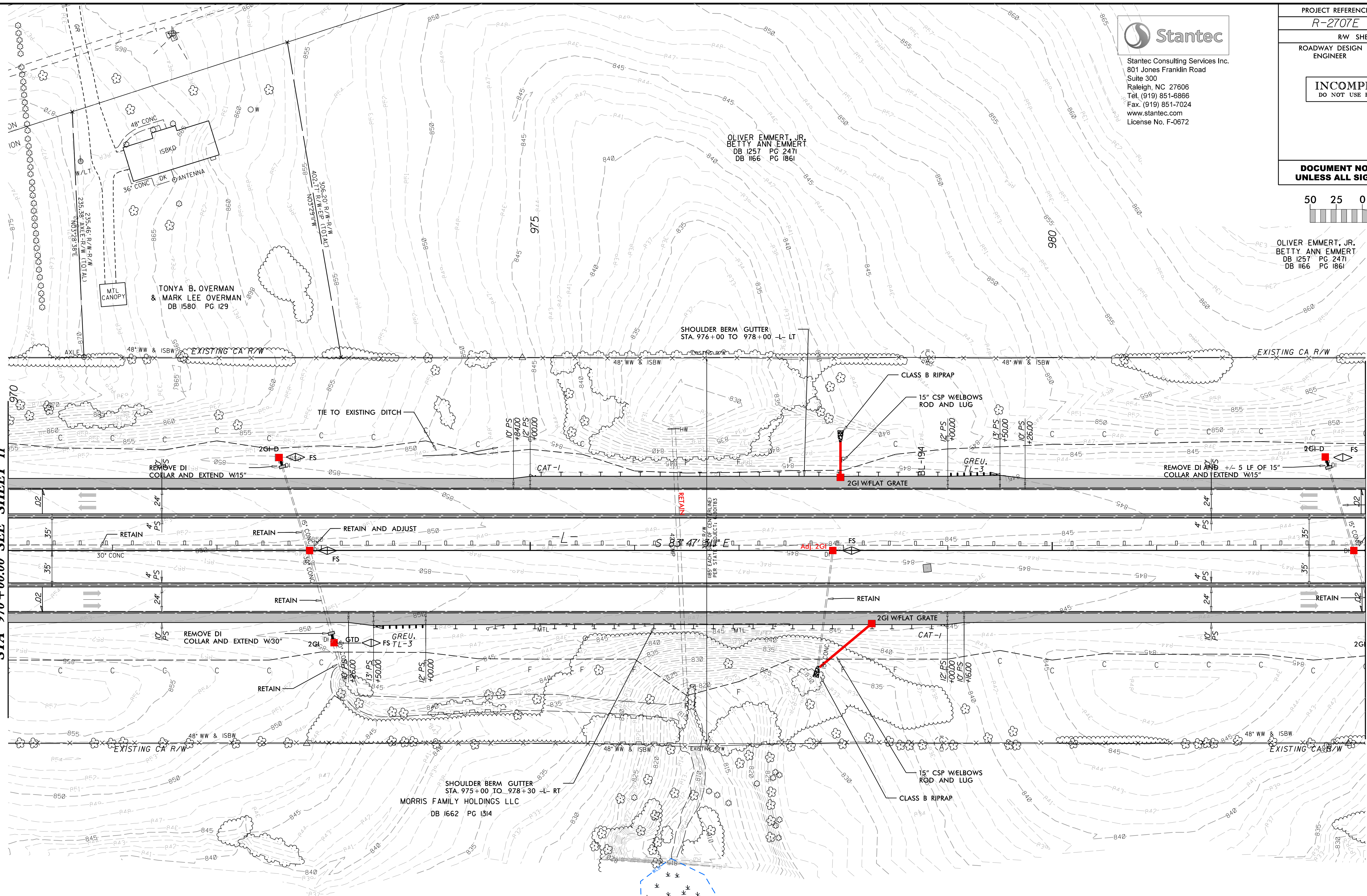
MATCHLINE -L-  
STA 983+00.00 SEE SHEET 13

**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

REFERENCES:  
FOR -L- PROFILE, SEE SHEET NO. 25

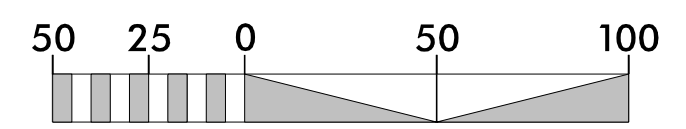
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R2707E\_Hyd\_PSH12.dgn  
08/17/2018



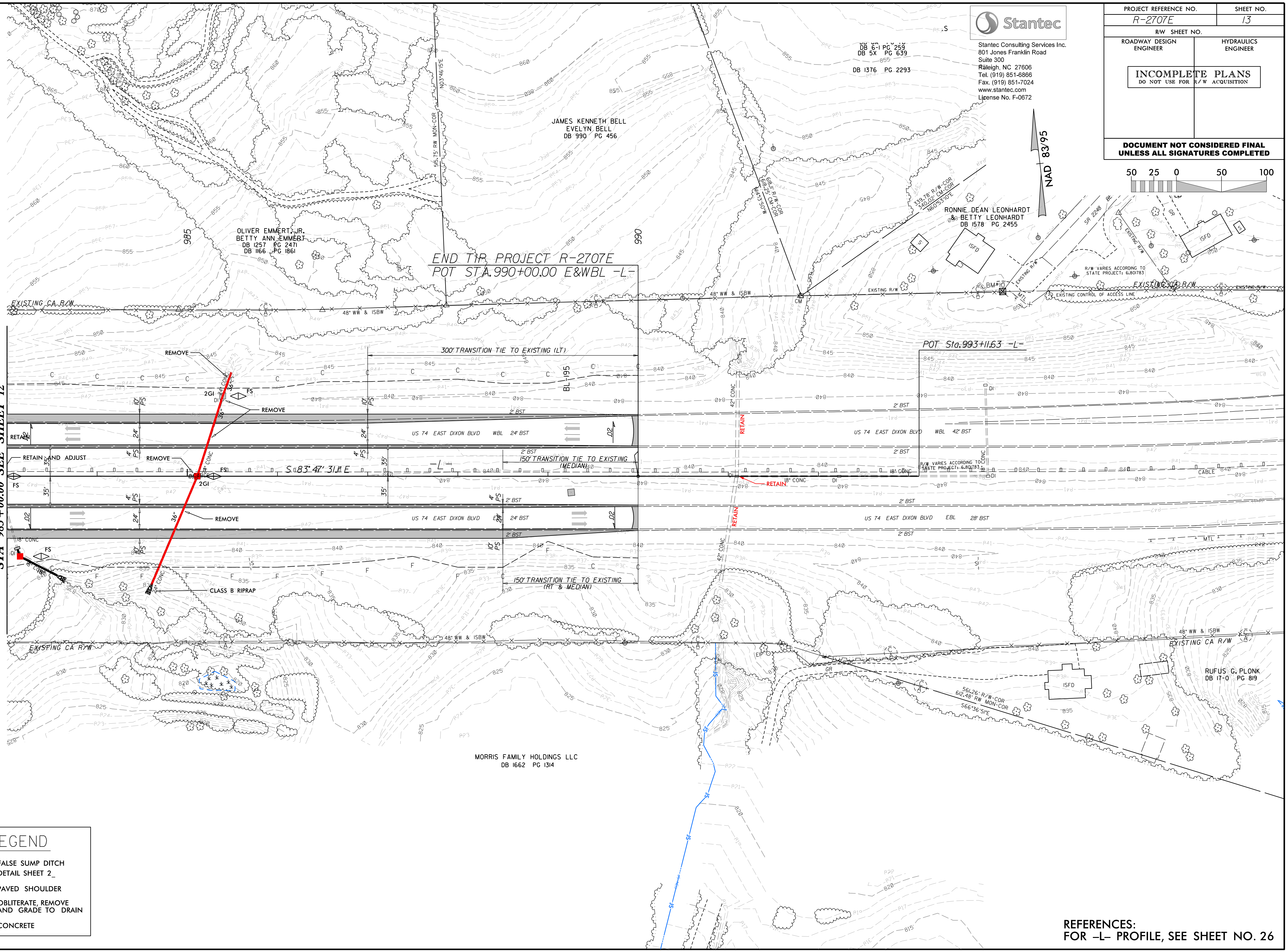


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PROJECT REFERENCE NO. <b>R-2707E</b>	SHEET NO. <b>13</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



NAD 83/95



REVISIONS

MATCHLINE -L-  
STA 983+00.00 SEE SHEET 12

END TIP PROJECT R-2707E  
POT STA. 990+00.00 E&WBL -L-

POT Sta. 993+11.63 -L-

LEGEND	
	FALSE SUMP DITCH DETAIL SHEET 2_
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

REFERENCES:  
FOR -L- PROFILE, SEE SHEET NO. 26

8/17/99

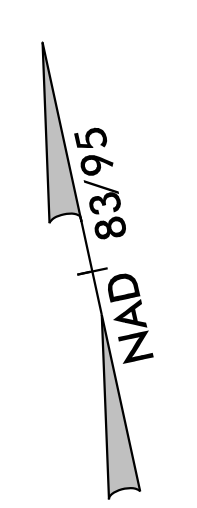
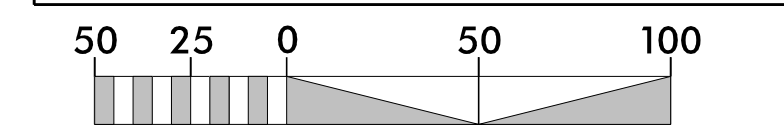
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8/17/99

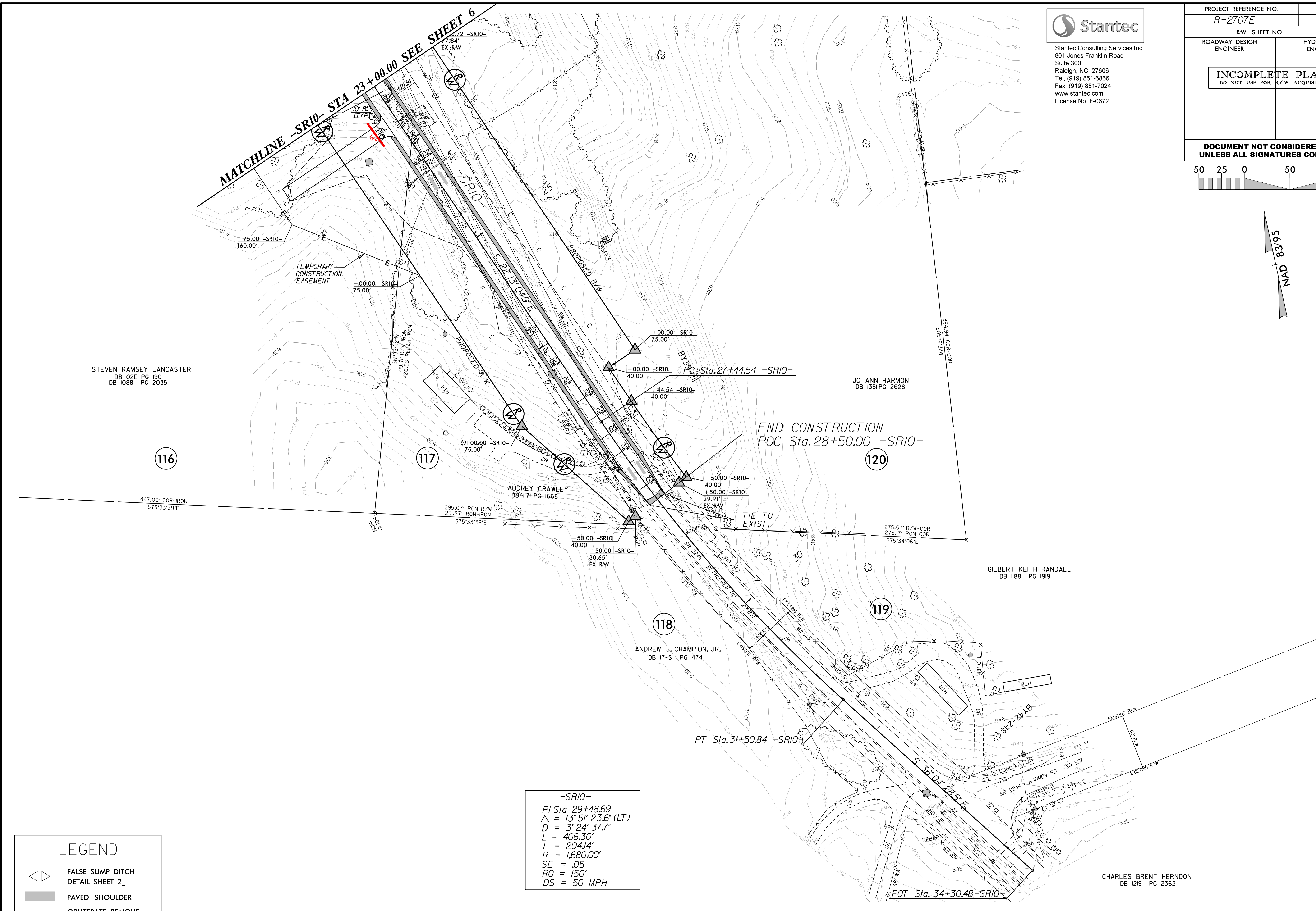


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PROJECT REFERENCE NO. <i>R-2707E</i>	SHEET NO. 14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



REVISIONS



STEVEN RAMSEY LANCASTER  
DB 02E PG 190  
DB 1088 PG 2035

JO ANN HARMON  
DB 1381 PG 2628

AUDREY CRAWLEY  
DB 117H PG 1668

ANDREW J. CHAMPION, JR.  
DB 17-5 PG 474

GILBERT KEITH RANDALL  
DB 1188 PG 1919

CHARLES BRENT HERNDON  
DB 1219 PG 2362

LEGEND	
	FALSE SUMP DITCH DETAIL SHEET 2_
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

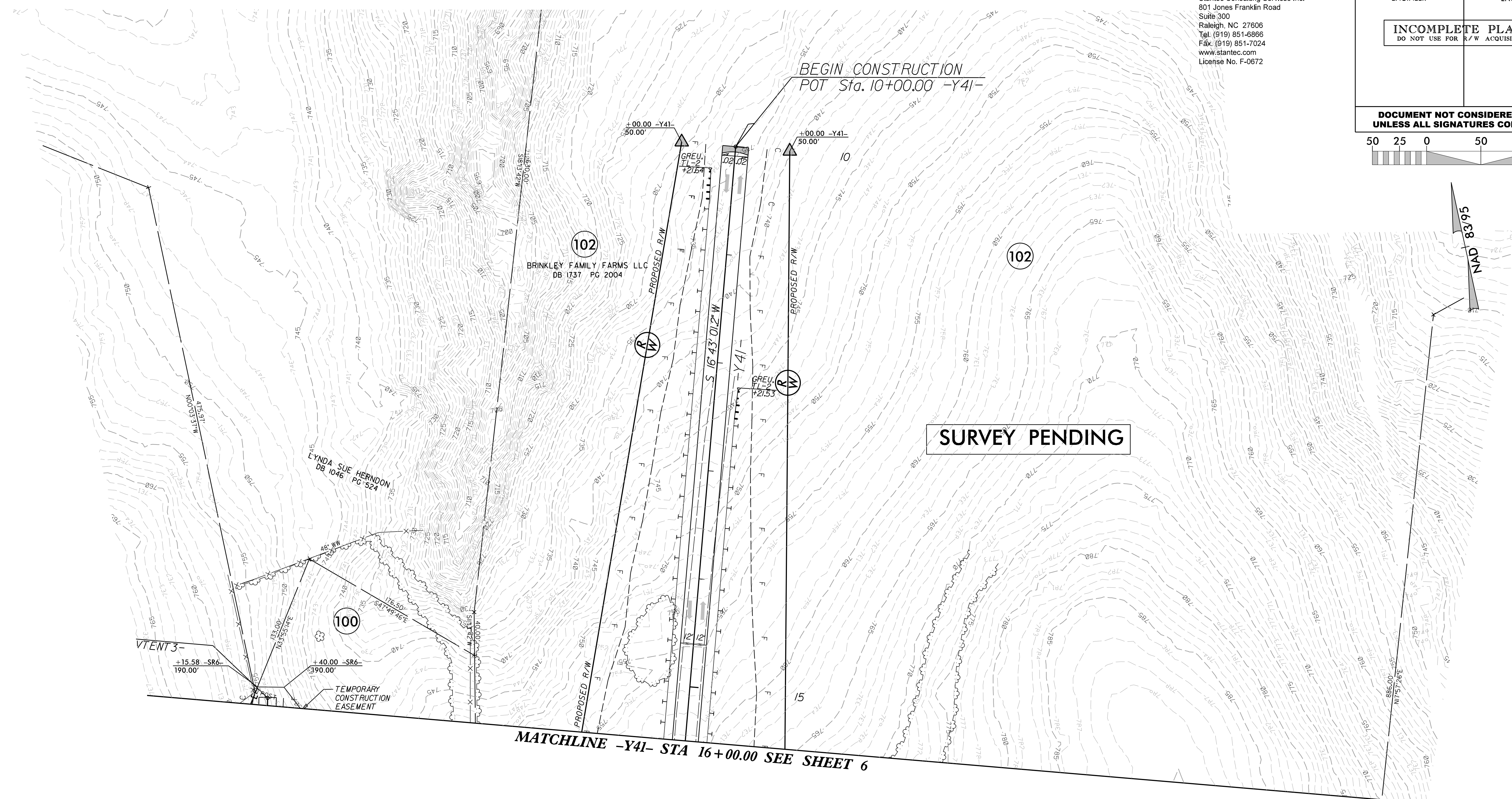
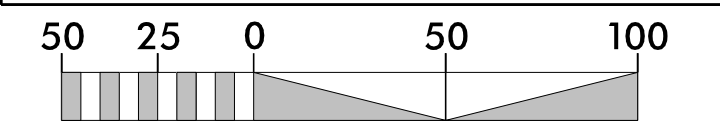
-SR10-	
PI	Sta 29+48.69
Δ	= 13° 51' 23.6" (LT)
D	= 3° 24' 37.7"
L	= 406.30'
T	= 204.14'
R	= 1,680.00'
SE	= .05
RO	= 150'
DS	= 50 MPH

I:\23\2018\_R2707E\_Hyd\_PSH14.dgn

REFERENCES:  
FOR -SR10- PROFILE, SEE SHEET NO. 40

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PROJECT REFERENCE NO. <i>R-2707E</i>	SHEET NO. 15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**LEGEND**

	FALSE SUMP DITCH DETAIL SHEET 2_
	PAVED SHOULDER
	OBLITERATE, REMOVE AND GRADE TO DRAIN
	CONCRETE

REFERENCES:  
 FOR -Y41- PROFILE, SEE SHEET NO. 32