

WBS: 37645 & 37857

CONTRACT: C201781

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# McDOWELL COUNTY

## EROSION CONTROL PLANS

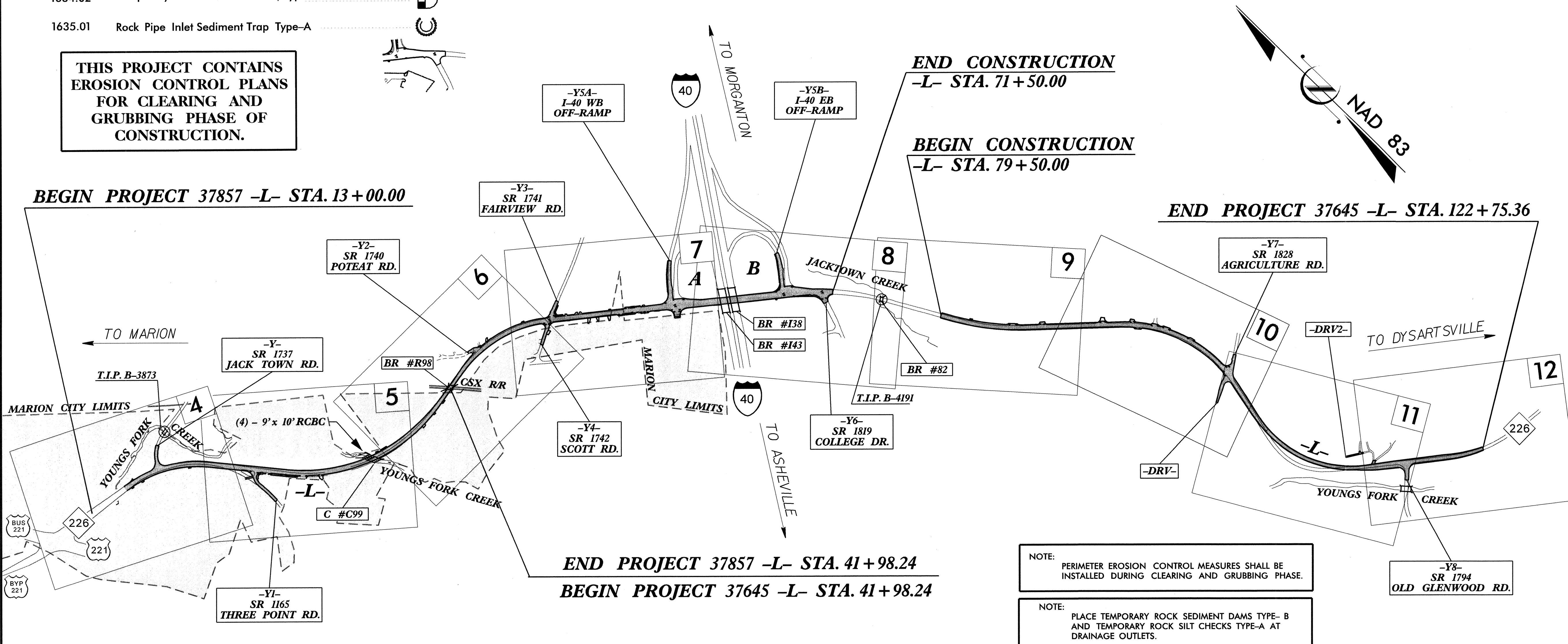
LOCATION: 37857 - NC 226 FROM EAST OF US 221 TO CSX RAILROAD  
37645 - NC 226 FROM CSX RAILROAD TO EAST OF SR 1794

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	37645 & 37857	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
37857		PE, R/W, UTIL	
37645		PE, R/W, UTIL	

### EROSION AND SEDIMENT CONTROL MEASURES

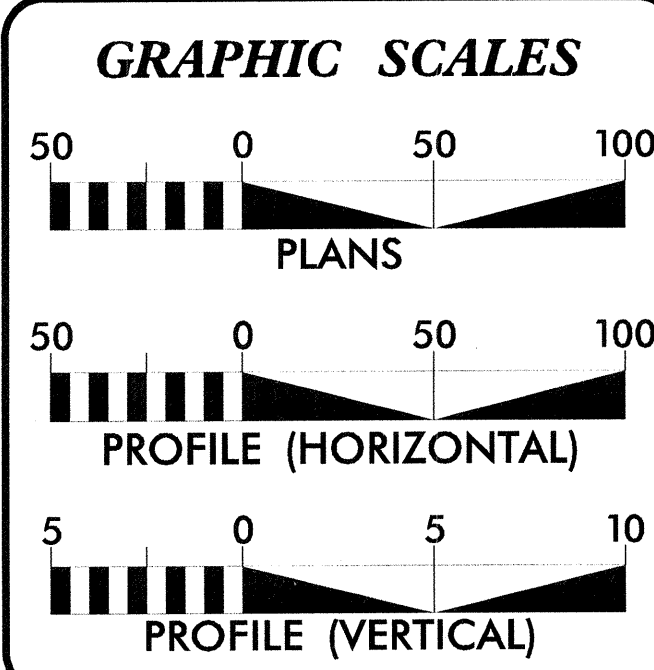
Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1630.02	Silt Basin, Type-B	
1632.01	Rock Inlet Sediment Trap, Type-A	
1632.03	Rock Inlet Sediment Trap, Type-C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
1634.02	Temporary Rock Sediment Dam, Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	

THIS PROJECT CONTAINS  
EROSION CONTROL PLANS  
FOR CLEARING AND  
GRUBBING PHASE OF  
CONSTRUCTION.



NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE-B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.



**DESIGN DATA**

ADT 2005 = 8,500 - 14,000  
V = 50 MPH  
TTST 9% DUAL 5%

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT 37857	0.538 MILES
LENGTH STRUCTURE PROJECT 37857	0.011 MILES
<b>TOTAL LENGTH PROJECT 37857</b>	<b>0.549 MILES</b>
LENGTH ROADWAY PROJECT 37645	1.378 MILES
LENGTH STRUCTURE PROJECT 37645	0.000 MILES
<b>TOTAL LENGTH PROJECT 37645</b>	<b>1.378 MILES</b>
<b>TOTAL LENGTHS PROJECTS 37645 &amp; 37857</b>	<b>1.927 MILES</b>

**PLANS PREPARED BY :**  
RUMMEL, KLEPPER & KAHL, LLP  
consulting engineers  
900 RIDGEFIELD DRIVE SUITE 350  
RALEIGH, NORTH CAROLINA 27609  
FOR

**DIVISION OF HIGHWAYS**

2002 STANDARD SPECIFICATIONS  
**RIGHT OF WAY DATE:**  
JULY 25, 2005

**LETTING DATE:**  
APRIL 17, 2007

**B. Keith Skinner, P.E.**  
PROJECT ENGINEER

**Stephen E. Roberts, P.E.**  
PROJECT DESIGN ENGINEER

**Greg Shuler**  
Division Project Manager - Division 13

Roadway Standard Drawings

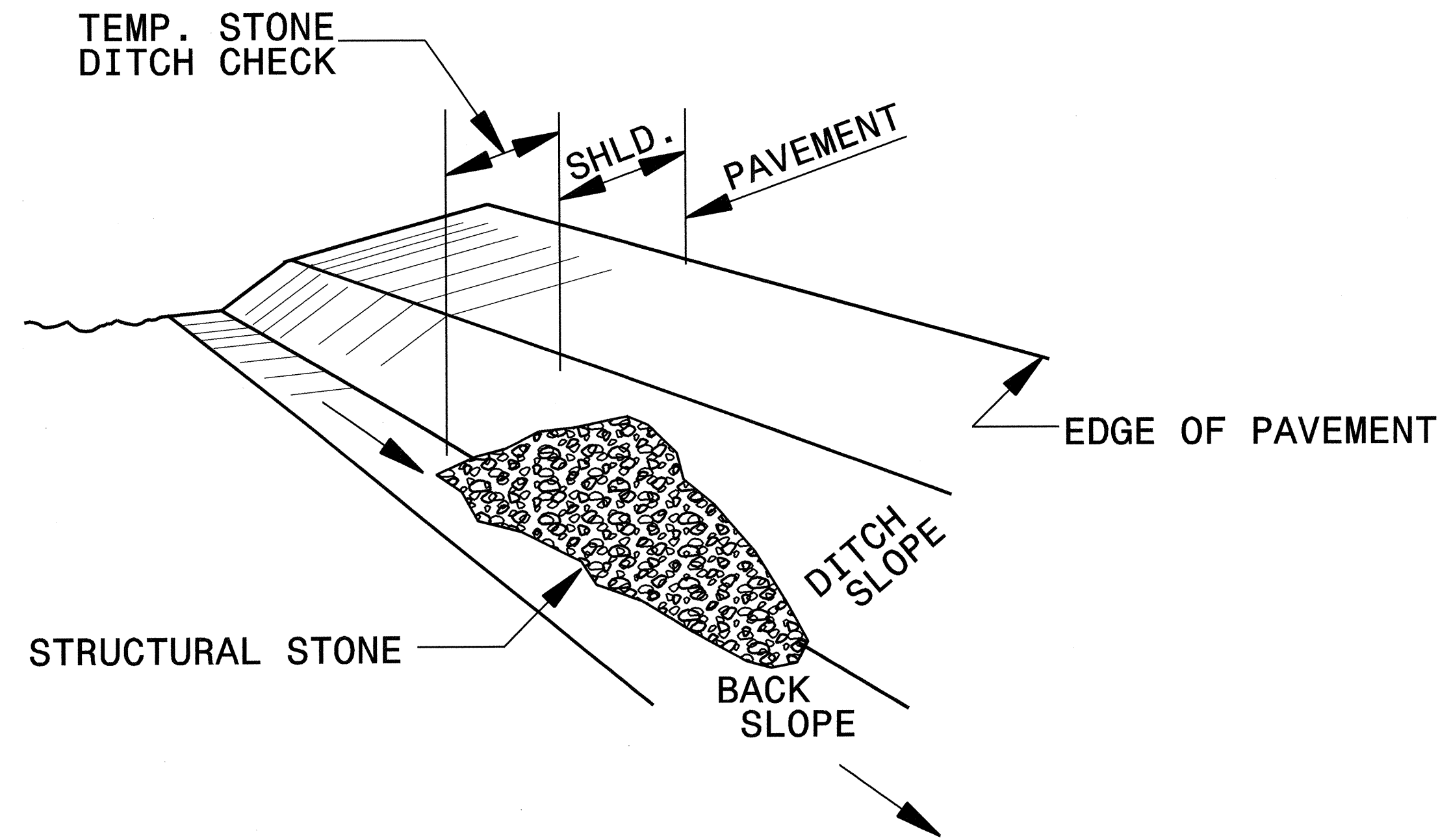
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1630.02	Silt Basin, Type B
1630.06	Special Stilling Basins
1632.01	Rock Inlet Sediment Trap, Type A
1632.03	Rock Inlet Sediment Trap, Type C
1633.01	Temporary Rock Silt Check Type A
1634.02	Temporary Rock Sediment Dam, Type B
1635.01	Rock Pipe Inlet Sediment Trap Type A & B

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PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-1A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

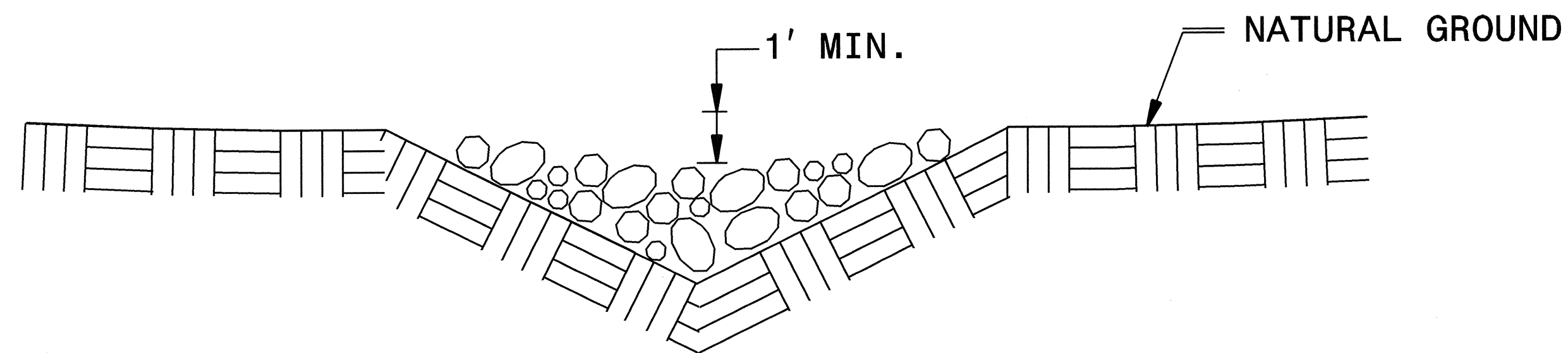


**ISOMETRIC VIEW**

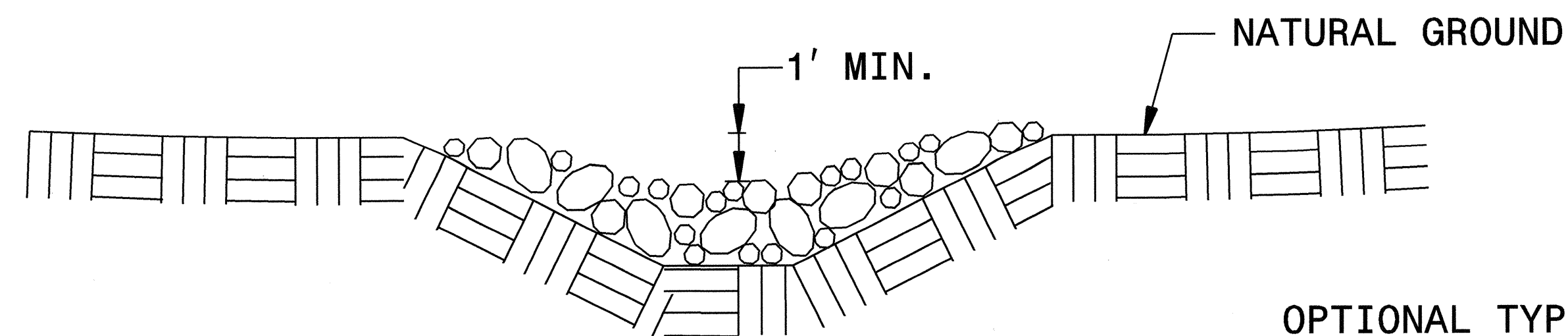
**NOTES:**

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

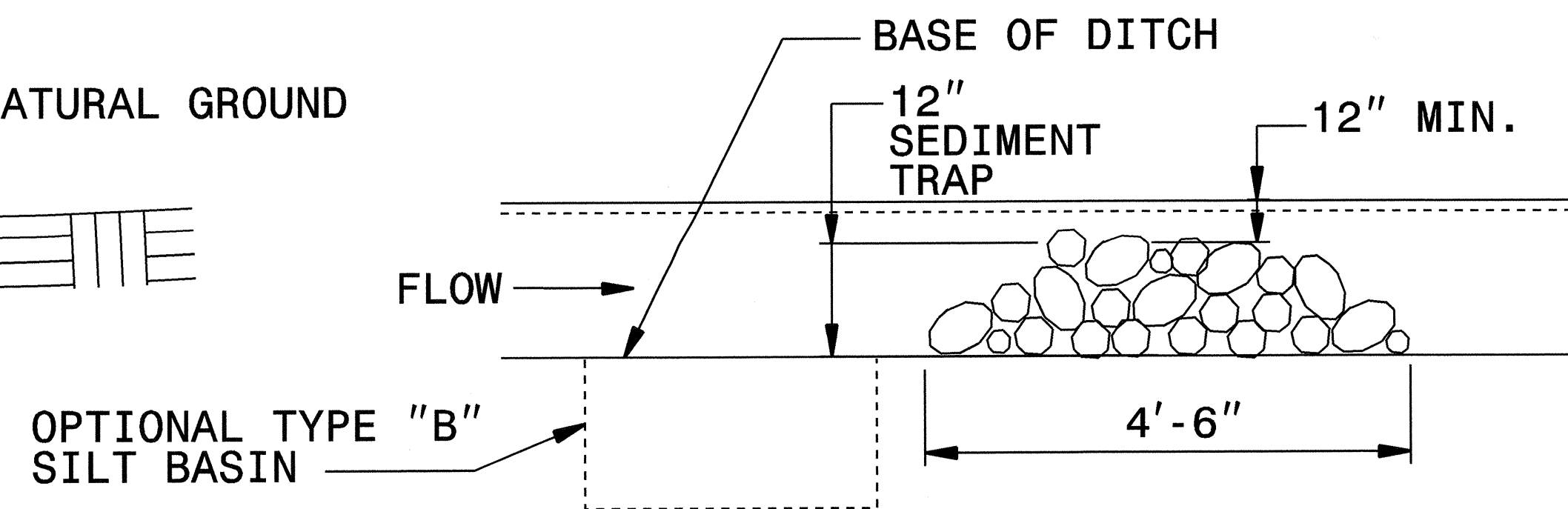
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**



**ELEVATION VIEW**

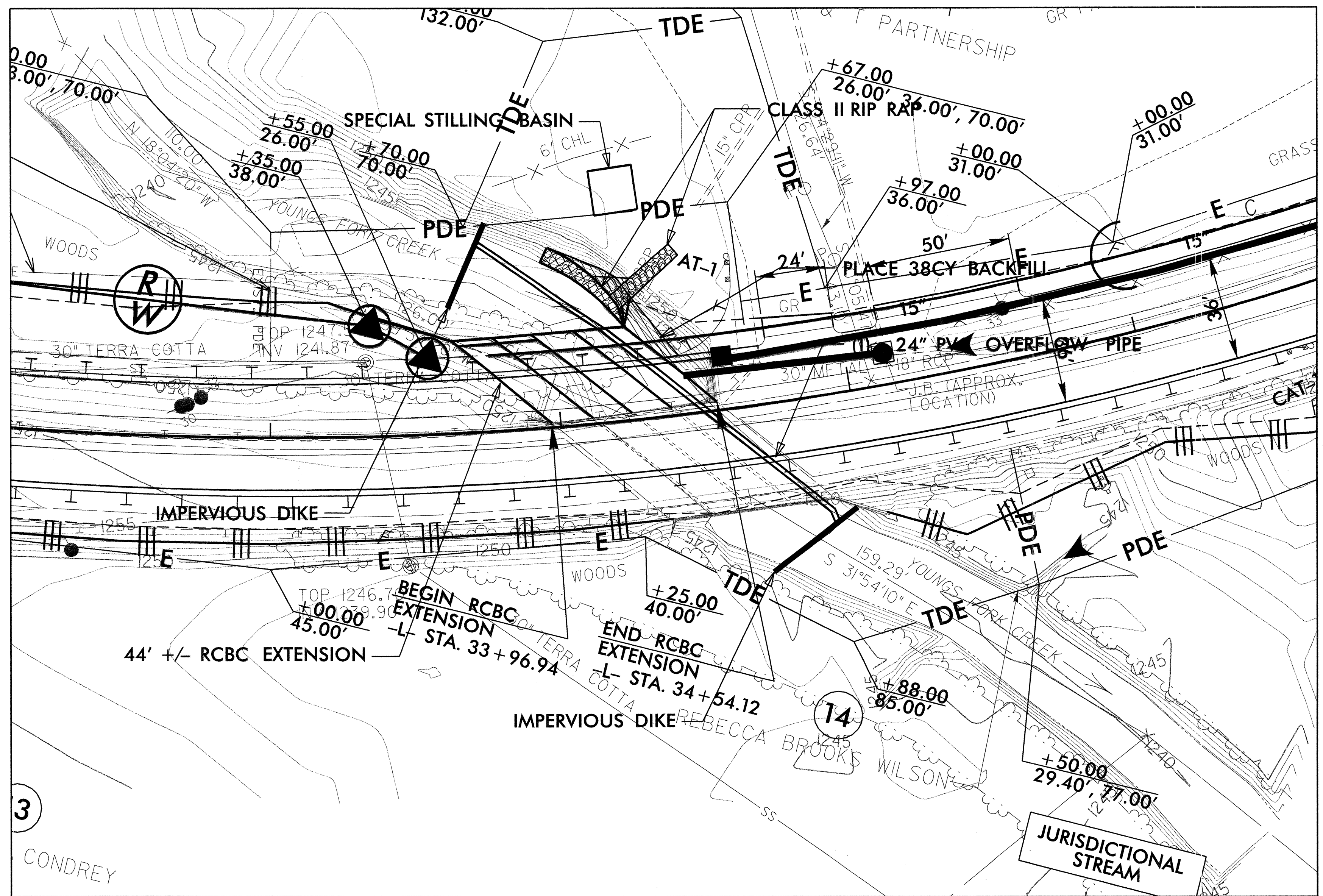




PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# CULVERT CONSTRUCTION SEQUENCE - STA. 34+00 -L-

1. INSTALL SPECIAL STILLING BASIN, 10FT. x 15FT. PERMEABLE FABRIC BAG. PLACE ON STONE OR FABRIC ON LEVEL GROUND.
2. CONSTRUCT IMPERVIOUS DIKES (I.E. SAND BAGS) WITH 1-24" PVC OVERFLOW PIPE UPSTREAM AND DOWNSTREAM FROM THE PROPOSED CULVERT WORK AREA. UTILIZE DIRT BAG FOR CULVERT DEWATERING.
3. CONSTRUCT PROPOSED (4) 44 FT. LONG - 9 FT. x 10 FT. RCBC.
4. CONSTRUCT PROPOSED INLET CHANNEL. RETAIN ALL EROSION CONTROL MEASURES UNTIL ALL CONSTRUCTION IS COMPLETE.
5. REMOVE THE IMPERVIOUS DIKES AND OVERFLOW PIPES.
6. CONSTRUCT EMBANKMENTS AND PERMANENT PAVEMENT.



REVISIONS

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PLANS PREPARED BY :

**RK & K** RUMMEL • KLEPPER & KAHL, LLP  
*consulting engineers*  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 (919) 878-9560

FOR  
 DIVISION OF HIGHWAYS



PROJECT REFERENCE NO.	SHEET NO.
37645 & 37857	EC-2/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y-  
 PI Sta 11+59.68    PI Sta 14+47.92  
 $\Delta = 56' 02" 59.4" (RT)$      $\Delta = 4' 48" 26.8" (LT)$   
 $D = 24' 00" 00.0"$      $D = 2' 30" 00.0"$   
 $L = 233.54'$      $L = 192.30'$   
 $T = 127.07'$      $T = 96.21'$   
 $R = 238.73'$      $R = 2,291.83'$   
 SE = SEE PLANS



**BEGIN PROJECT 37857 -L- STA. 13+00.00**  
**(SEE PAVEMENT MARKING PLANS)**

WNC PALLET & FOREST PRODUCTS COMPANY, INC.  
 DB 562 PG 277

-Y- PC Sta. 10+32.61  
 -Y- POT Sta. 9+94.76  
 -L- POC Sta. 18+78.33

-Y- Sta. 11+75.00  
 END CONSTRUCTION

PROP. RETAINING WALLS  
 BEGIN STA. 22+00.00  
 ±35.00, ±48.00

BEGIN 2'-6" C&G

SB - B  
 100'L x 15'W x 3'D

SB - B  
 90'L x 15'W x 3'D

-L-  
 PI Sta 19+41.78  
 $\Delta = 42' 23" 09.0" (RT)$   
 $D = 6' 45" 00.0"$   
 $L = 627.94'$   
 $T = 329.12'$   
 $R = 848.83'$   
 $SE = 0.06 \text{ ft/ft}$   
 $RO = 180 \text{ ft}$

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4.

**PLANS PREPARED BY :**  
**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
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 (919) 878-9560

**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

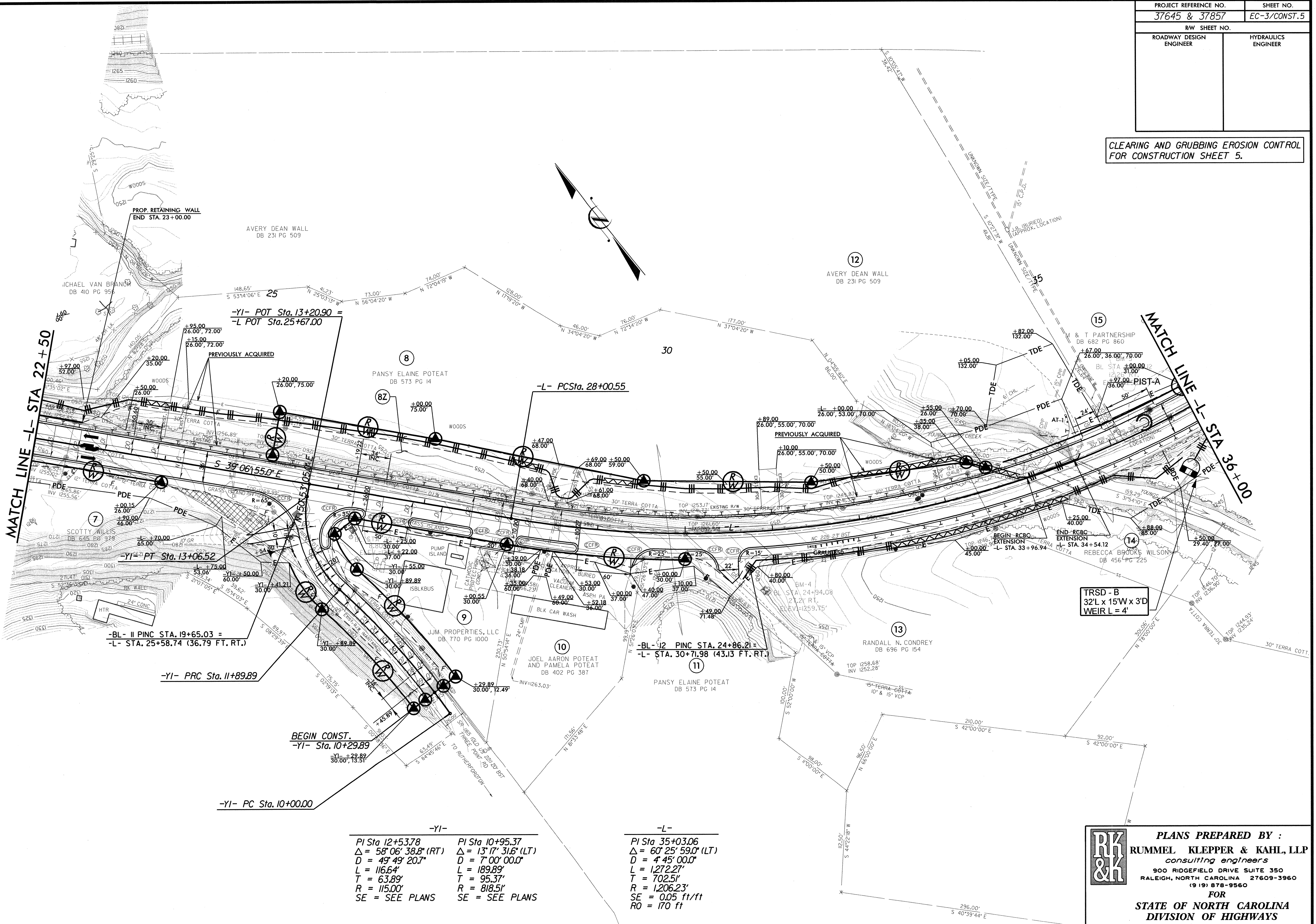
REVISIONS

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PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-3/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5.



REVISIONS

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-YI-		-L-	
PI Sta 12+53.78	PI Sta 10+95.37	PI Sta 35+03.06	
Δ = 58° 06' 38.8" (RT)	Δ = 13° 17' 31.6" (LT)	Δ = 60° 25' 59.0" (LT)	
D = 49' 49" 20.7"	D = 7' 00" 00.0"	D = 4' 45" 00.0"	
L = 116.64'	L = 189.89'	L = 1,272.27'	
T = 63.89'	T = 95.37'	T = 702.51'	
R = 115.00'	R = 818.51'	R = 1,206.23'	
SE = SEE PLANS	SE = SEE PLANS	SE = 0.05 ft/ft	
		RO = 170 ft	

**PLANS PREPARED BY :**  
**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
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**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**







PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-5/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y5A-  
 PI Sta 12+90.68  
 $\Delta = 13^{\circ}42'51.0"$  (RT)  
 $D = 6'00'00.0"$   
 $L = 228.57'$   
 $T = 114.83'$   
 $R = 954.93'$   
 SE = EXIST.

END CONSTRUCTION  
 -Y5A- POT STA. 13+25.00

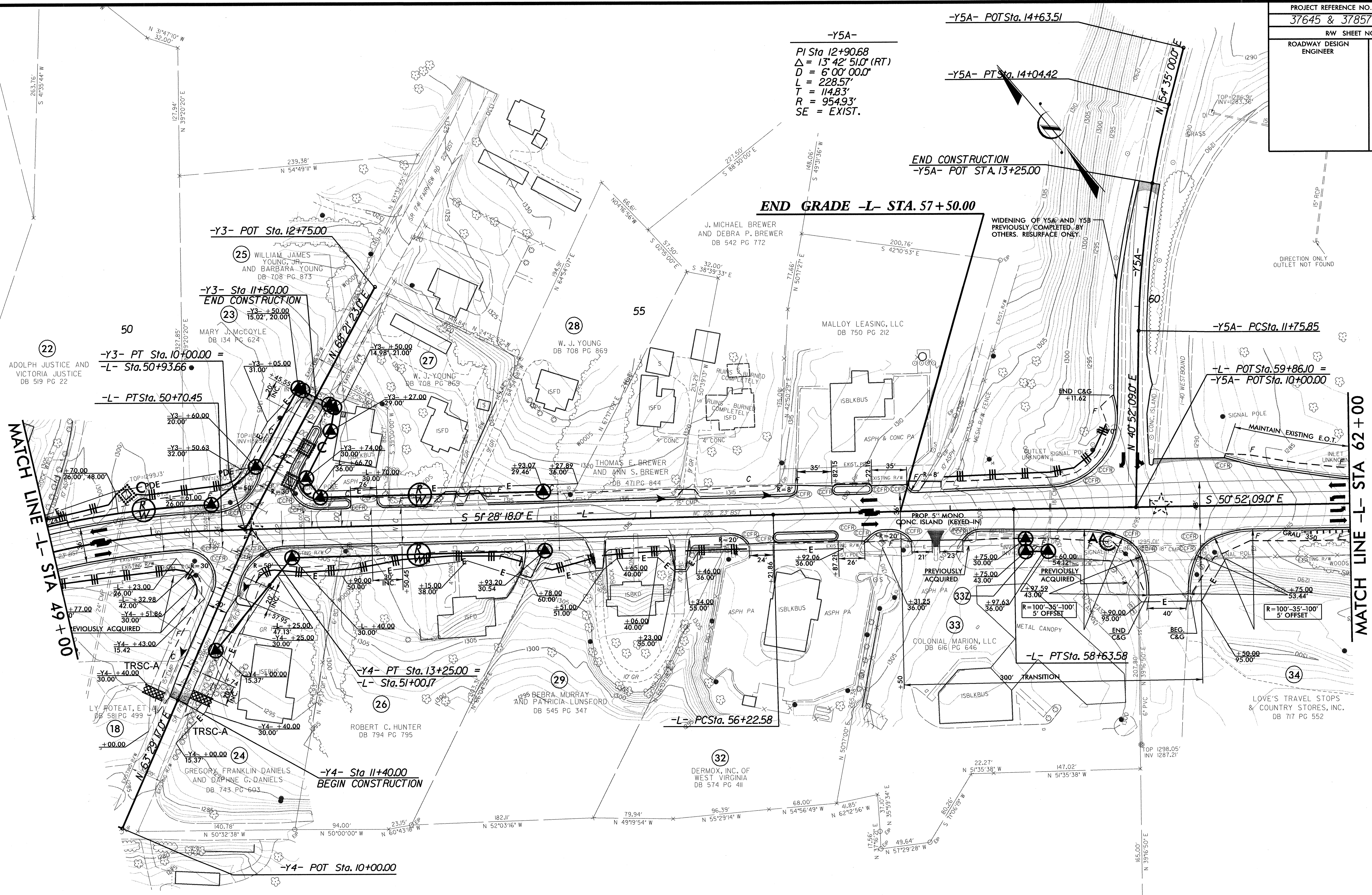
END GRADE -L- STA. 57+50.00

-Y5A- PCSta. 11+75.85

-L- POT Sta. 59+86.10 =  
 -Y5A- POT Sta. 10+00.00

MATCH LINE -L- STA. 62+00

MATCH LINE -L- STA. 49+00



-Y3- POT Sta. 12+75.00

-Y3- Sta 11+50.00  
 END CONSTRUCTION

-Y3- PT Sta. 10+00.00 =  
 -L- Sta. 50+93.66

-L- PT Sta. 50+70.45

-Y4- PT Sta. 13+25.00 =  
 -L- Sta. 51+00.17

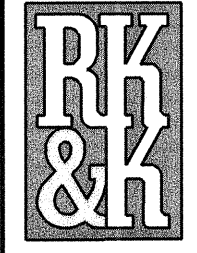
-L- PCSta. 56+22.58

-L- PT Sta. 58+63.58

-L-  
 PI Sta 47+36.81  
 $\Delta = 4^{\circ}$   
 $D = 6'$   
 $L = 7'$   
 $T = .$   
 $R = .$   
 $SE =$   
 $RO =$

-L-  
 PI Sta 57+43.08  
 $\Delta = 0^{\circ}36'09.0"$  (RT)  
 $D = 0'15'00.0"$   
 $L = 241.00'$   
 $T = 120.50'$   
 $R = 22,918.31'$   
 $SE = NC$

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7.



PLANS PREPARED BY:  
**RUMMEL KLEPPER & KAHL, LLP**  
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 FOR  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

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 37645 & 37857 EC-5/CONST.7



PROJECT REFERENCE NO.	SHEET NO.
37645 & 37857	EC-6/CONST.8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**-Y5B-**  
 PIs Sta 12+46.01    PI Sta 14+04.65  
 $\Delta s = 21' 37" 15.8"$      $\Delta = 38' 40" 03.3" (LT)$   
 $Ls = 200.00'$      $D = 21' 37" 15.8"$   
 $LT = 134.34'$      $L = 178.84'$   
 $ST = 67.58'$      $T = 92.98'$   
                      $R = 265.00'$   
                      $SE = EXIST.$

**END CONSTRUCTION**  
**-Y5B- POT STA.13+00.00**

**END CONSTRUCTION -L- STA. 71+50.00**

**-Y6- POT Sta.13+44.97 =**  
**-L- Sta.70+62.00**

**-Y5B- PTSta.14+90.51**

**-Y5B- SCSta.13+11.67**

WIDENING OF Y5A AND Y5B  
 PREVIOUSLY COMPLETED BY  
 OTHERS. RESURFACE ONLY.

**-Y5B- TSSta.11+11.67**

**-Y5B- POTSta.10+00.00 =**  
**-L- POTSta.67+98.00**

BEG. C&G -L- STA 64+57 +/-  
 TIE TO EXIST S.F. CONC. BARRIER

END C&G -L- STA 63+34 +/-  
 TIE TO EXIST S.F. CONC. BARRIER

REMOVE AND RESET  
 GUARDRAIL

REMOVE AND RESET  
 GUARDRAIL

BEG. C&G -L- STA 64+62 +/-  
 TIE TO EXIST S.F. CONC. BARRIER

REMOVE AND RESET  
 GUARDRAIL

END C&G -L- STA 63+39 +/-  
 TIE TO EXIST S.F. CONC. BARRIER

**-Y6- PT Sta.11+11.70**

**-Y6- PC Sta.10+00.00**

**-L- PTSta.75+36.27**

**-L-**  
 PI Sta 72+12.71  
 $\Delta = 21' 16" 45.0" (RT)$   
 $D = 3' 15" 00.0"$   
 $L = 654.74'$   
 $T = 331.19'$   
 $R = 1,762.95'$   
 $SE = 0.05 \text{ ft/ft}$   
 $RO = 140 \text{ ft}$

**-Y6-**  
 PI Sta 10+55.88  
 $\Delta = 4' 59" 59.2" (LT)$   
 $D = 4' 28" 34.4"$   
 $L = 111.70'$   
 $T = 55.88'$   
 $R = 1,280.00'$

(34)  
 LOVE'S TRAVEL STOPS  
 & COUNTRY STORES, INC.  
 DB 717 PG 552

(35)  
 TRUSTEES OF McDOWELL  
 TECHNICAL INSTITUTE  
 DB 589 PG 442

(36)  
 TRUSTEES OF McDOWELL  
 TECHNICAL COLLEGE  
 DB 350 PG 819

CLEARING AND GRUBBING EROSION CONTROL  
 FOR CONSTRUCTION SHEET 8.

**PLANS PREPARED BY :**  
**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 (919) 878-9560  
 FOR  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

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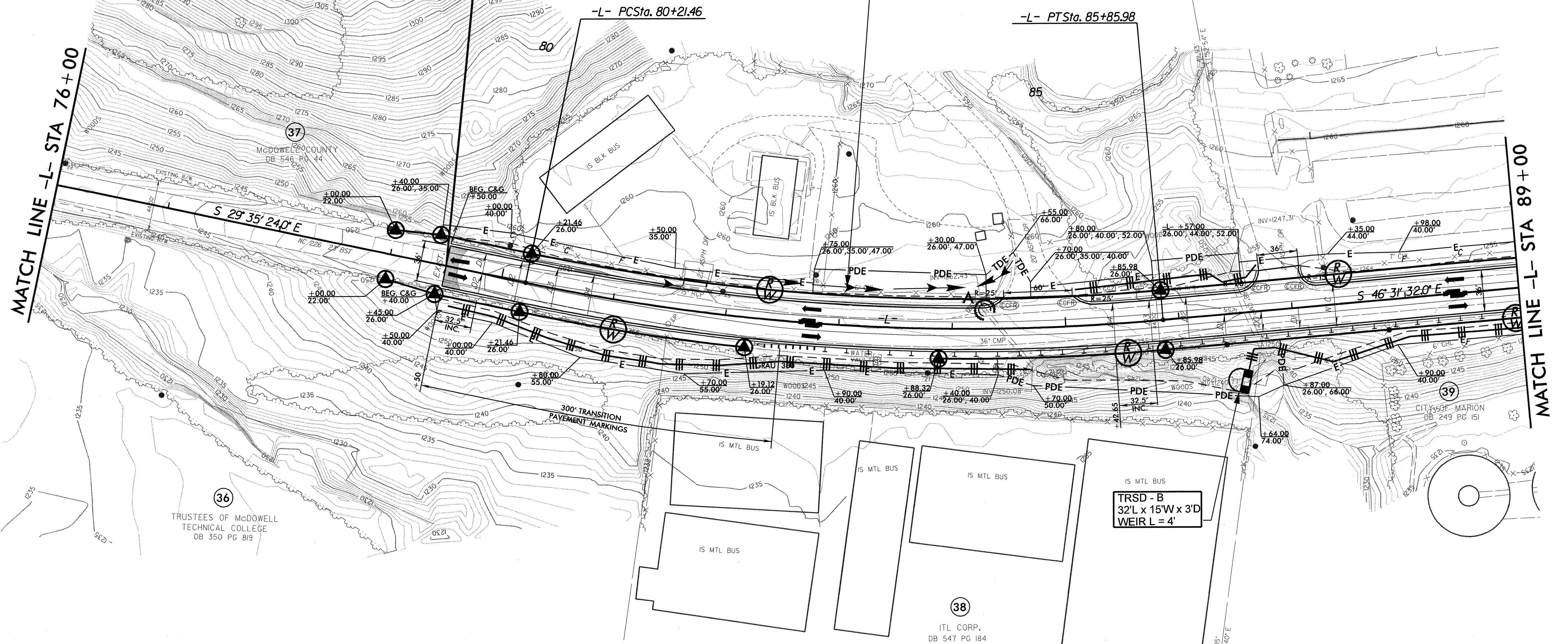


PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-7/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

BEGIN CONSTRUCTION -L- STA. 79+50.00

LATERAL DITCH TO BE USED AS TEMPORARY DIVERSION DITCH DURING CONSTRUCTION

40  
NORTH CAROLINA DEPT. OF TRANSPORTATION AND PUBLIC WORKS  
NO DEED



REVISIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9.



PLANS PREPARED BY :  
RUMMEL KLEPPER & KAHL, LLP  
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(919) 878-9560  
FOR  
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

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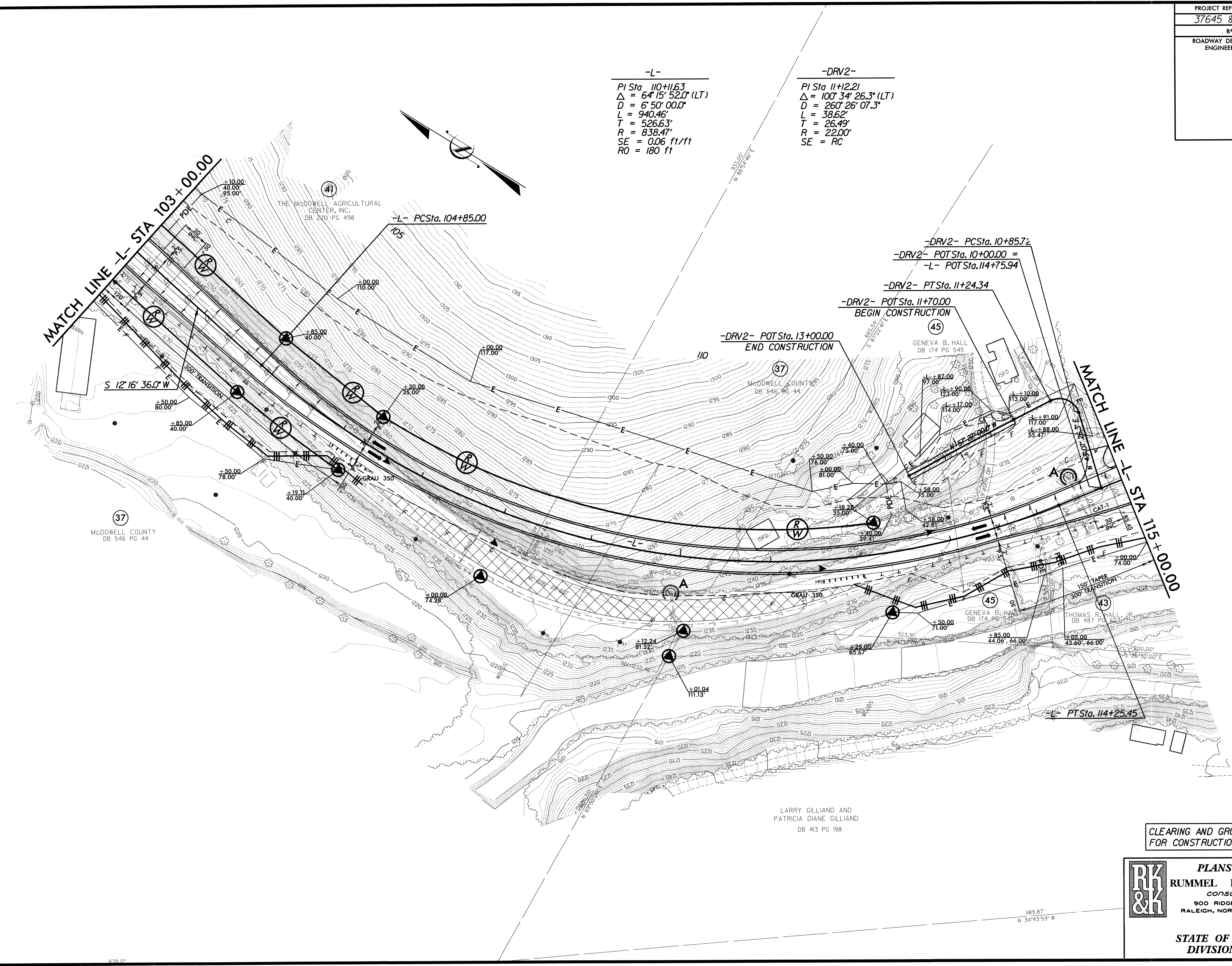




PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-9/CONST. II
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-  
 PI Sta 110+11.63  
 $\Delta = 64^\circ 15' 52.0" (LT)$   
 $D = 6' 50' 00.0"$   
 $L = 940.46'$   
 $T = 526.63'$   
 $R = 838.47'$   
 $SE = 0.06 \text{ ft/ft}$   
 $RO = 180 \text{ ft}$

-DRV2-  
 PI Sta 11+12.21  
 $\Delta = 100^\circ 34' 26.3" (LT)$   
 $D = 260' 26' 07.3"$   
 $L = 38.62'$   
 $T = 26.49'$   
 $R = 22.00'$   
 $SE = RC$

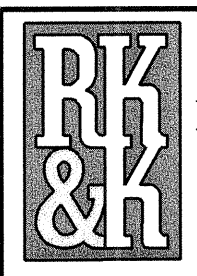


REVISIONS

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 lphillip

LARRY GILLIAND AND  
 PATRICIA DIANE GILLIAND  
 DB 413 PG 198

CLEARING AND GRUBBING EROSION CONTROL  
 FOR CONSTRUCTION SHEET II.



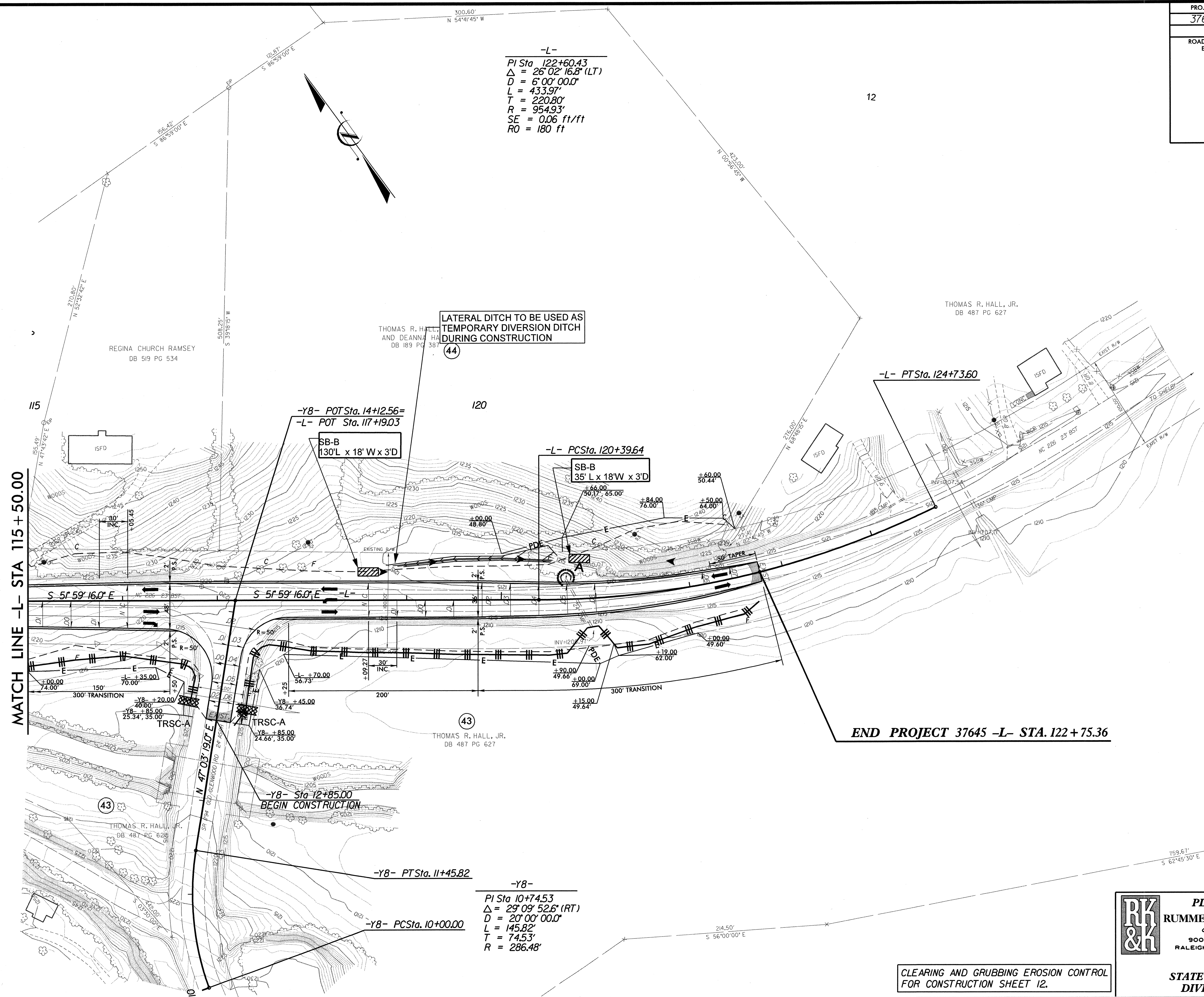
PLANS PREPARED BY :  
**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
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 FOR  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**



PROJECT REFERENCE NO.	SHEET NO.
37645 & 37857	EC-10/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-  
 PI Sta 122+60.43  
 $\Delta = 26^{\circ}02'16.8"$  (LT)  
 $D = 6^{\circ}00'00.0"$   
 $L = 433.97'$   
 $T = 220.80'$   
 $R = 954.93'$   
 $SE = 0.06$  ft/ft  
 $RO = 180$  ft

12



MATCH LINE -L- STA 115 + 50.00

END PROJECT 37645 -L- STA. 122 + 75.36

-Y8- POT Sta. 14+12.56=  
 -L- POT Sta. 117+19.03

-L- PCSta. 120+39.64

-Y8- PTSta. 11+45.82

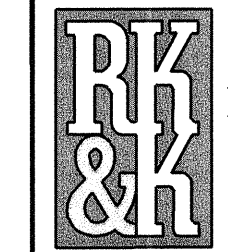
-Y8-  
 PI Sta 10+74.53  
 $\Delta = 29^{\circ}09'52.6"$  (RT)  
 $D = 20^{\circ}00'00.0"$   
 $L = 145.82'$   
 $T = 74.53'$   
 $R = 286.48'$

-Y8- PCSta. 10+00.00

-Y8- Sta 12+85.00  
 BEGIN CONSTRUCTION

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**PLANS PREPARED BY :**  
**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
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 FOR  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

CLEARING AND GRUBBING EROSION CONTROL  
 FOR CONSTRUCTION SHEET 12.

PROJECT REFERENCE NO.	SHEET NO.
37645 & 37857	EC-11/ CONST. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y-

PI Sta 11+59.68	PI Sta 14+47.92
$\Delta = 56^{\circ}02'59.4"$ (RT)	$\Delta = 4^{\circ}48'26.8"$ (LT)
D = 24'00.00'	D = 2'30.00'
L = 233.54'	L = 192.30'
T = 127.07'	T = 96.21'
R = 238.73'	R = 2,291.83'

SE = SEE PLANS

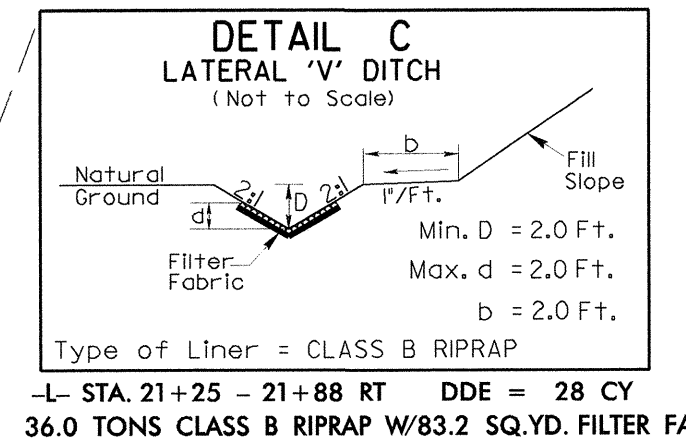
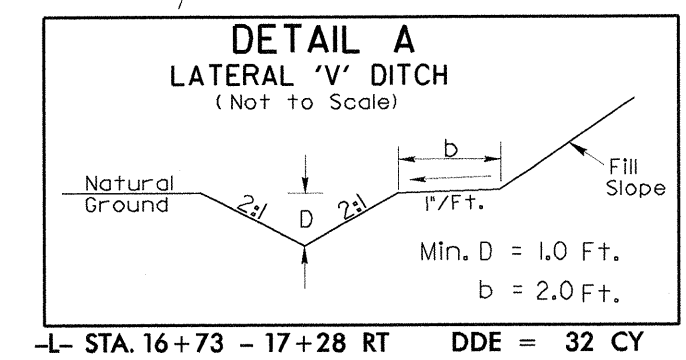
**BEGIN PROJECT 37857 -L- STA. 13+00.00**  
**(SEE PAVEMENT MARKING PLANS)**

-Y- Sta. 11+75.00  
**END CONSTRUCTION**

**MATCH LINE -L- STA 22+50**

-L-

PI Sta 19+41.78
$\Delta = 42^{\circ}23'09.0"$ (RT)
D = 6'45.00'
L = 627.94'
T = 329.12'
R = 848.83'
SE = 0.06 ft/ft
RO = 180 ft



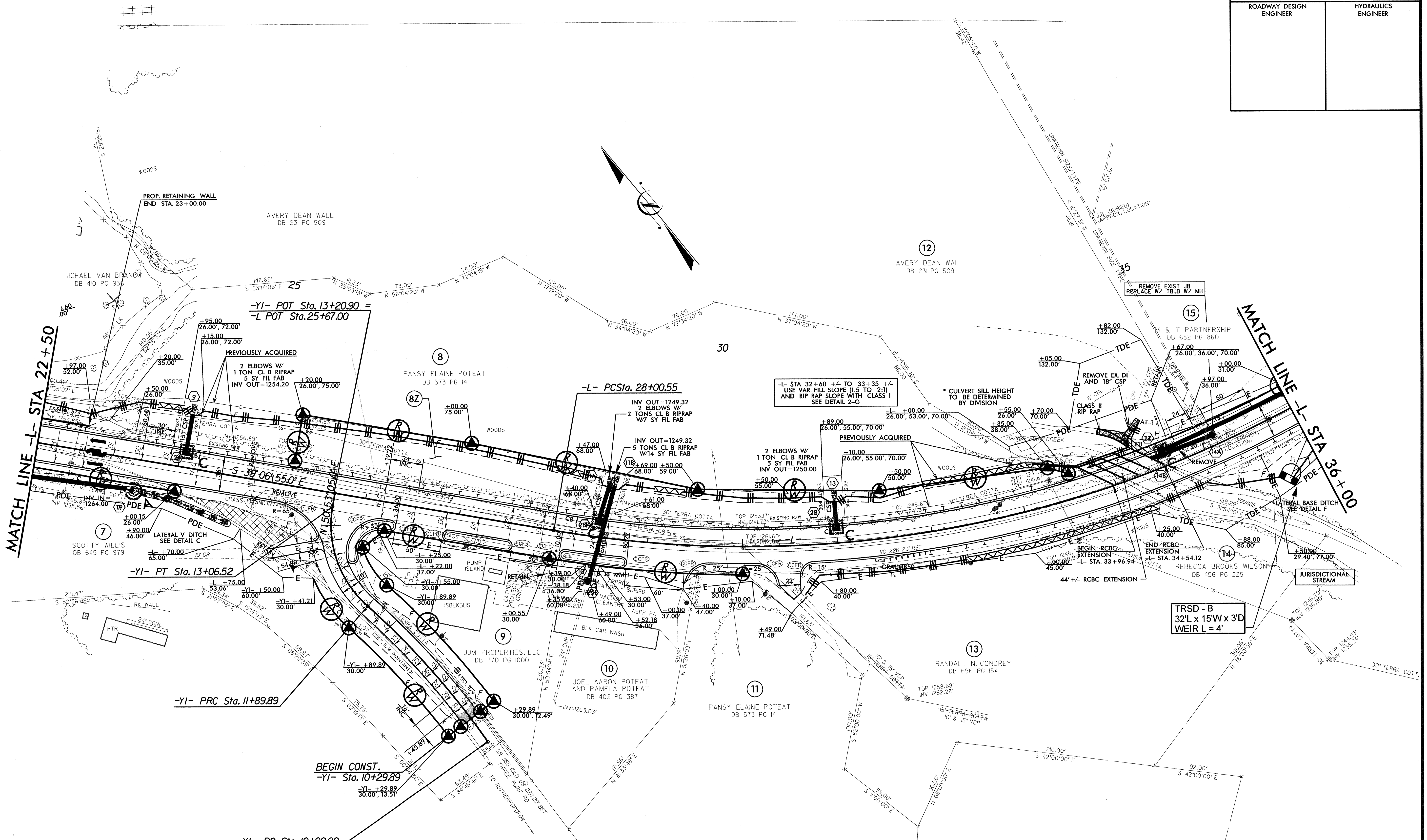
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*consulting engineers*  
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 (919) 878-9560

**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

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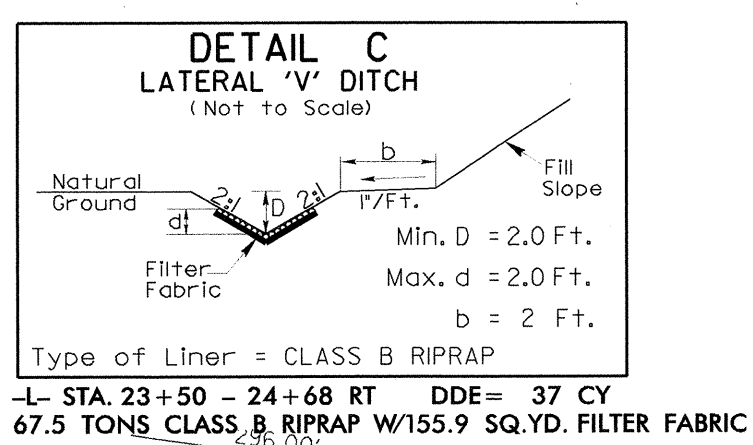
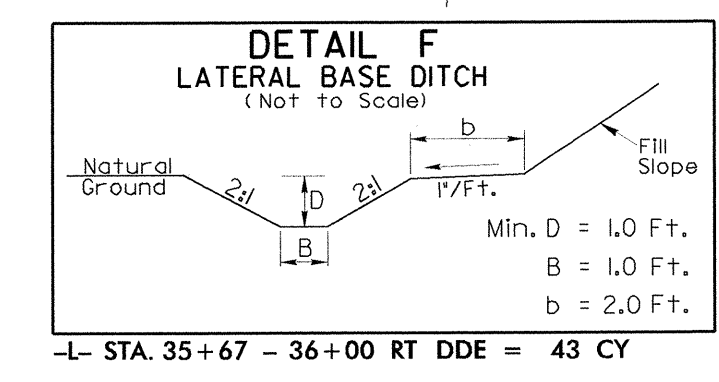
REVISIONS

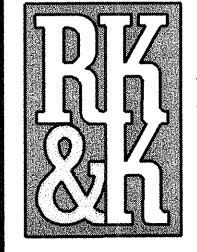
MATCH LINE -L- STA 22+50

MATCH LINE -L- STA 36+00

-YI-	
PI Sta 12+53.78	PI Sta 10+95.37
$\Delta = 58^{\circ}06'38.8"$ (RT)	$\Delta = 13^{\circ}17'31.6"$ (LT)
D = 49'49"20.7"	D = 7'00"00.0"
L = 116.64'	L = 189.89'
T = 63.89'	T = 95.37'
R = 115.00'	R = 818.51'
SE = SEE PLANS	SE = SEE PLANS

-L-	
PI Sta 35+03.06	
$\Delta = 60^{\circ}25'59.0"$ (LT)	
D = 4'45"00.0"	
L = 1,272.27'	
T = 702.51'	
R = 1206.23'	
SE = 0.05 ft/ft	
RO = 170 ft	



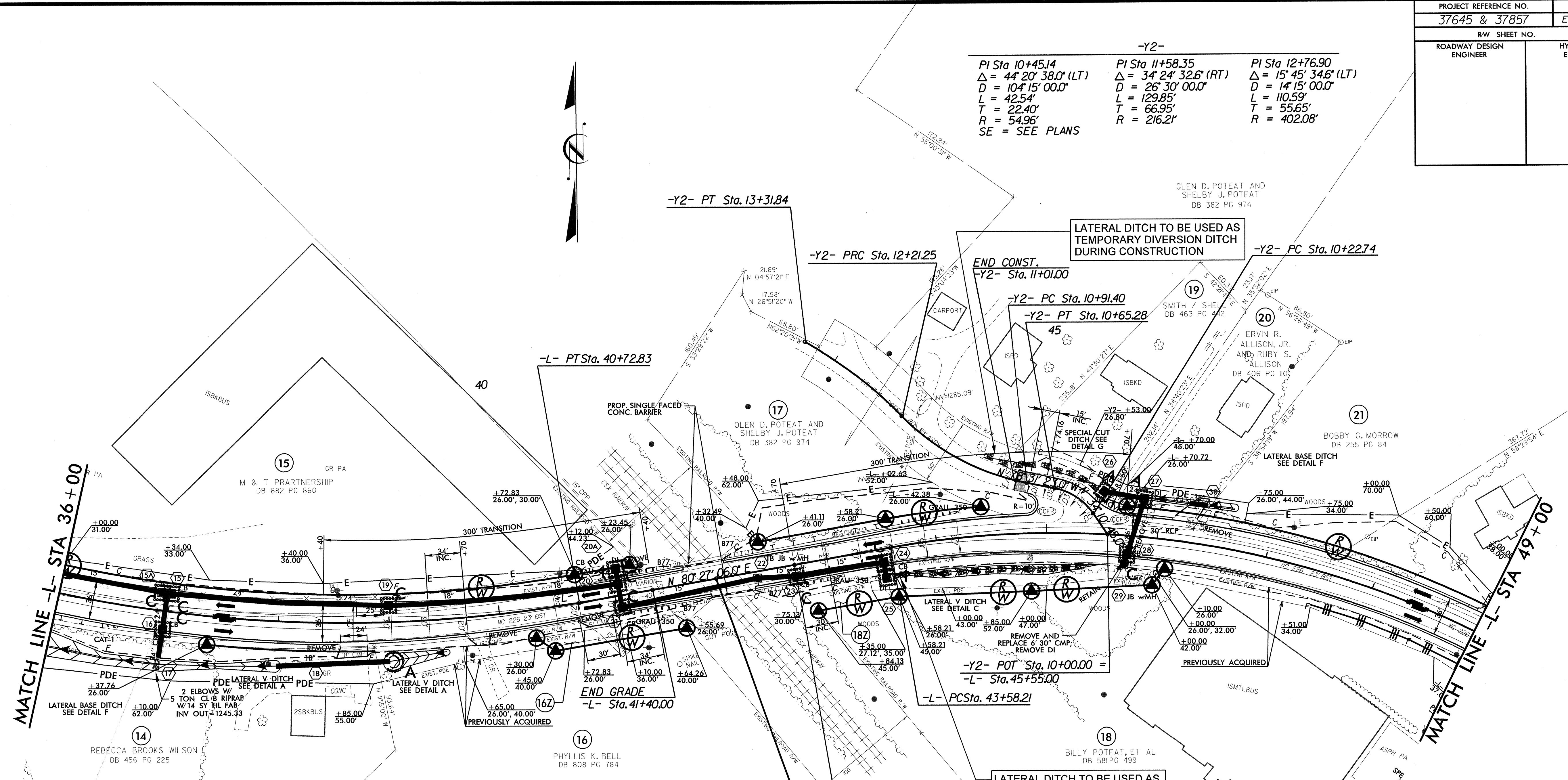
**PLANS PREPARED BY :**  

**RUMMEL KLEPPER & KAHL, LLP**  
*consulting engineers*  
 900 RIDGEFIELD DRIVE SUITE 350  
 RALEIGH, NORTH CAROLINA 27609-3960  
 (919) 878-9560  
**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

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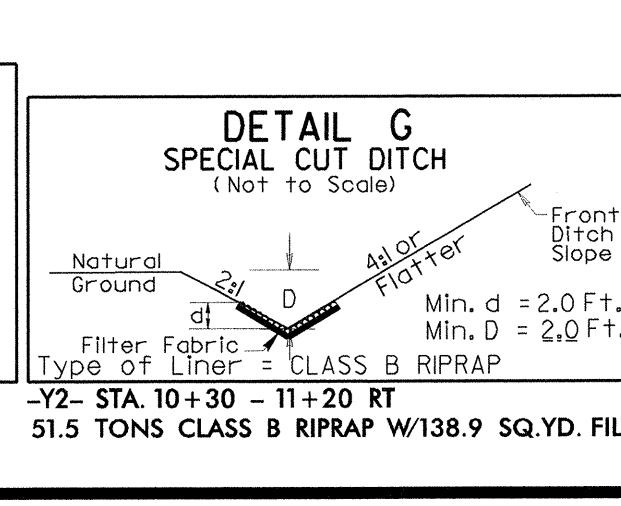
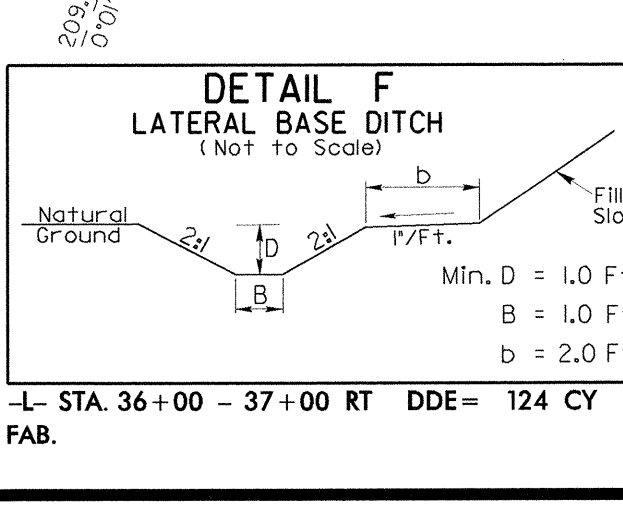
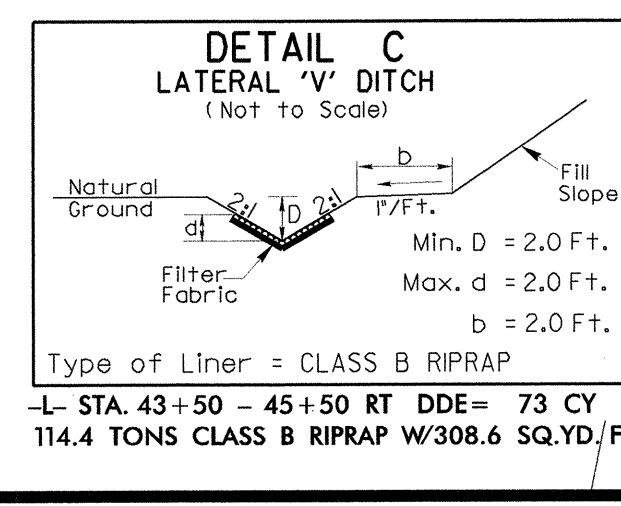
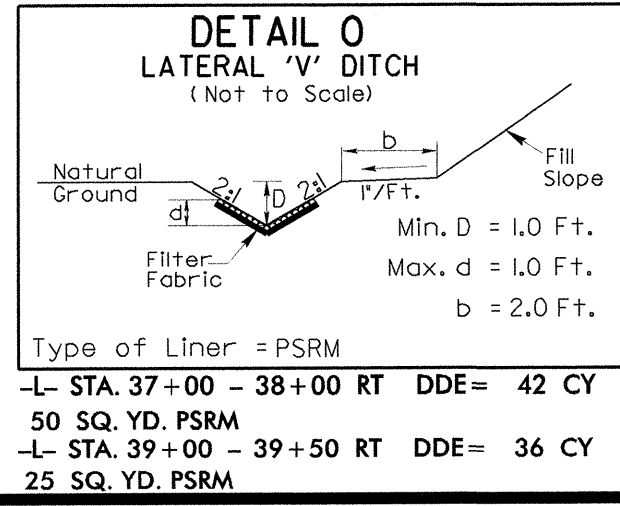
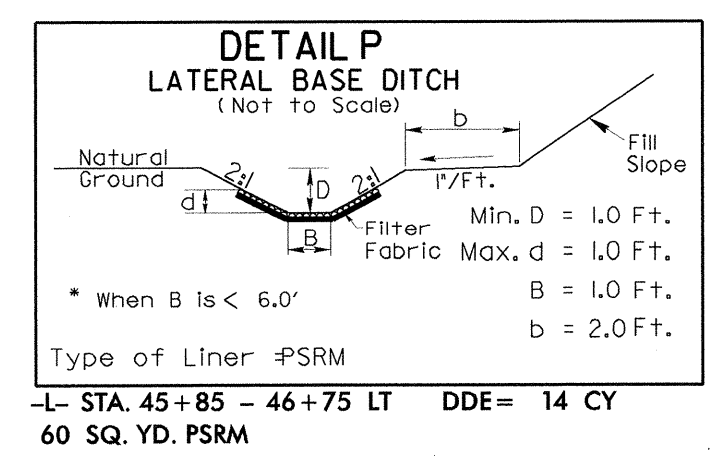
PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-13/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y2-		
PI Sta 10+45.14 Δ = 44° 20' 38.0" (LT) D = 104' 15' 00.0" L = 42.54' T = 22.40' R = 54.96' SE = SEE PLANS	PI Sta 11+58.35 Δ = 34° 24' 32.6" (RT) D = 26' 30' 00.0" L = 129.85' T = 66.95' R = 216.21'	PI Sta 12+76.90 Δ = 15° 45' 34.6" (LT) D = 14' 15' 00.0" L = 110.59' T = 55.65' R = 402.08'



REVISIONS

**END PROJECT 37857 -L- STA. 41+98.24**  
**BEGIN PROJECT 37645 -L- STA. 41+98.24**



**-L-**  
 PI Sta 35+03.06  
 Δ = 60° 25' 59.0" (LT)  
 D = 4' 45' 00.0"  
 L = 1272.27'  
 T = 702.51'  
 R = 1,206.23'  
 SE = 0.05 ft/ft  
 RO = 170 ft

**-L-**  
 PI Sta 47+36.81  
 Δ = 48° 04' 36.0" (RT)  
 D = 6' 45' 00.0"  
 L = 712.25'  
 T = 378.60'  
 R = 848.83'  
 SE = 0.06 ft/ft  
 RO = 180 ft

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**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

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PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-14/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y5A-  
 PI Sta 12+90.68  
 $\Delta = 13^{\circ} 42' 51.0''$  (RT)  
 $D = 6^{\circ} 00' 00.0''$   
 $L = 228.57'$   
 $T = 114.83'$   
 $R = 954.93'$   
 SE = EXIST.

END CONSTRUCTION  
 -Y5A- POT STA. 13+25.00

END GRADE -L- STA. 57+50.00

WIDENING OF Y5A AND Y5B  
 PREVIOUSLY COMPLETED BY OTHERS. RESURFACE ONLY.

-Y5A- PCSta. 11+75.85

-L- POTSta. 59+86.10 =  
 -Y5A- POTSta. 10+00.00

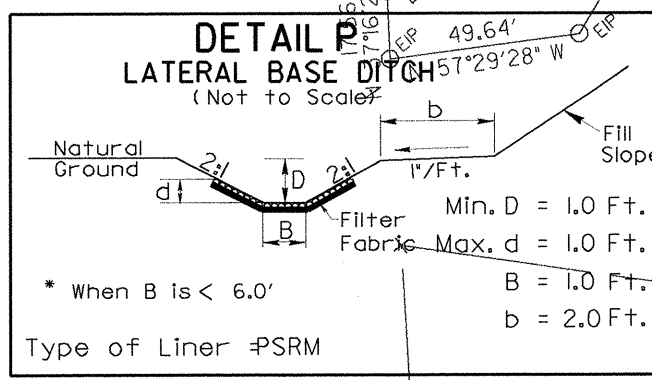
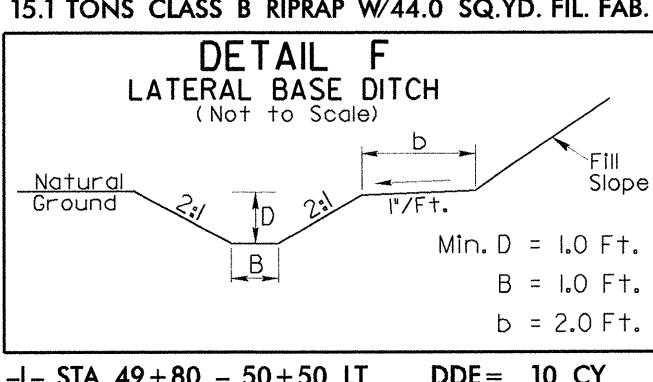
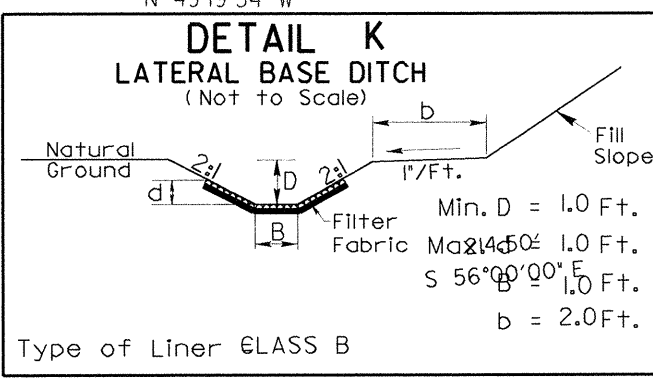
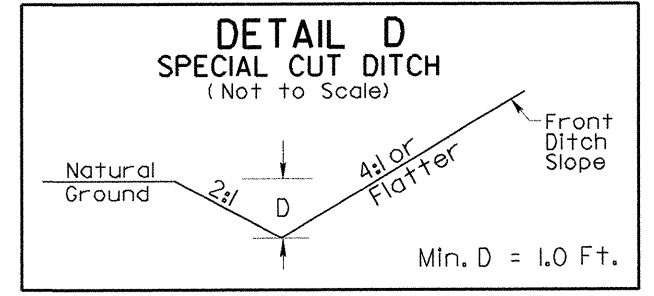
-Y3- POT Sta. 12+75.00  
 (25) WILLIAM JAMES YOUNG, JR. AND BARBARA YOUNG DB 708 PG 873  
 -Y3- Sta 11+50.00 END CONSTRUCTION  
 (23) MARY J. MCCOYLE DB 134 PG 624  
 -Y3- PT Sta. 10+00.00 =  
 -L- Sta. 50+93.66

-L- PTSta. 50+70.45  
 (22) ADOLPH JUSTICE AND VICTORIA JUSTICE DB 519 PG 22  
 REMOVE FLOW FILL  
 CUT DITCH TO LATERAL V DITCH  
 LATERAL V DITCH SEE DETAIL F  
 REMOVE EX. DI  
 3 TONS CL B RIPRAP W/10 SY FIL FAB

-Y4- PT Sta. 13+25.00 =  
 -L- Sta. 51+00.17  
 (26) ROBERT C. HUNTER DB 794 PG 795  
 -Y4- Sta 11+40.00 BEGIN CONSTRUCTION  
 (24) GREGORY FRANKLIN DANIELS AND DAPHNE G. DANIELS DB 743 PG 603  
 SPECIAL CUT DITCH SEE DETAIL D

-Y4- POT Sta. 10+00.00  
 (18) TRSC-A  
 (19) TRSC-A  
 (20) TRSC-A  
 (21) TRSC-A  
 (22) TRSC-A  
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 (41) TRSC-A  
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 (43) TRSC-A  
 (44) TRSC-A  
 (45) TRSC-A

-L-  
 PI Sta 47+36.81  
 $\Delta = 48^{\circ} 04' 36.0''$  (RT)  
 $D = 6^{\circ} 45' 00.0''$   
 $L = 712.25'$   
 $T = 378.60'$   
 $R = 848.83'$   
 $SE = 0.06$  ft/ft  
 $RO = 180$  ft



-L-  
 PI Sta 57+43.08  
 $\Delta = 0^{\circ} 36' 09.0''$  (RT)  
 $D = 0^{\circ} 15' 00.0''$   
 $L = 241.00'$   
 $T = 120.50'$   
 $R = 22,918.31'$   
 SE = NC

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**DIVISION OF HIGHWAYS**

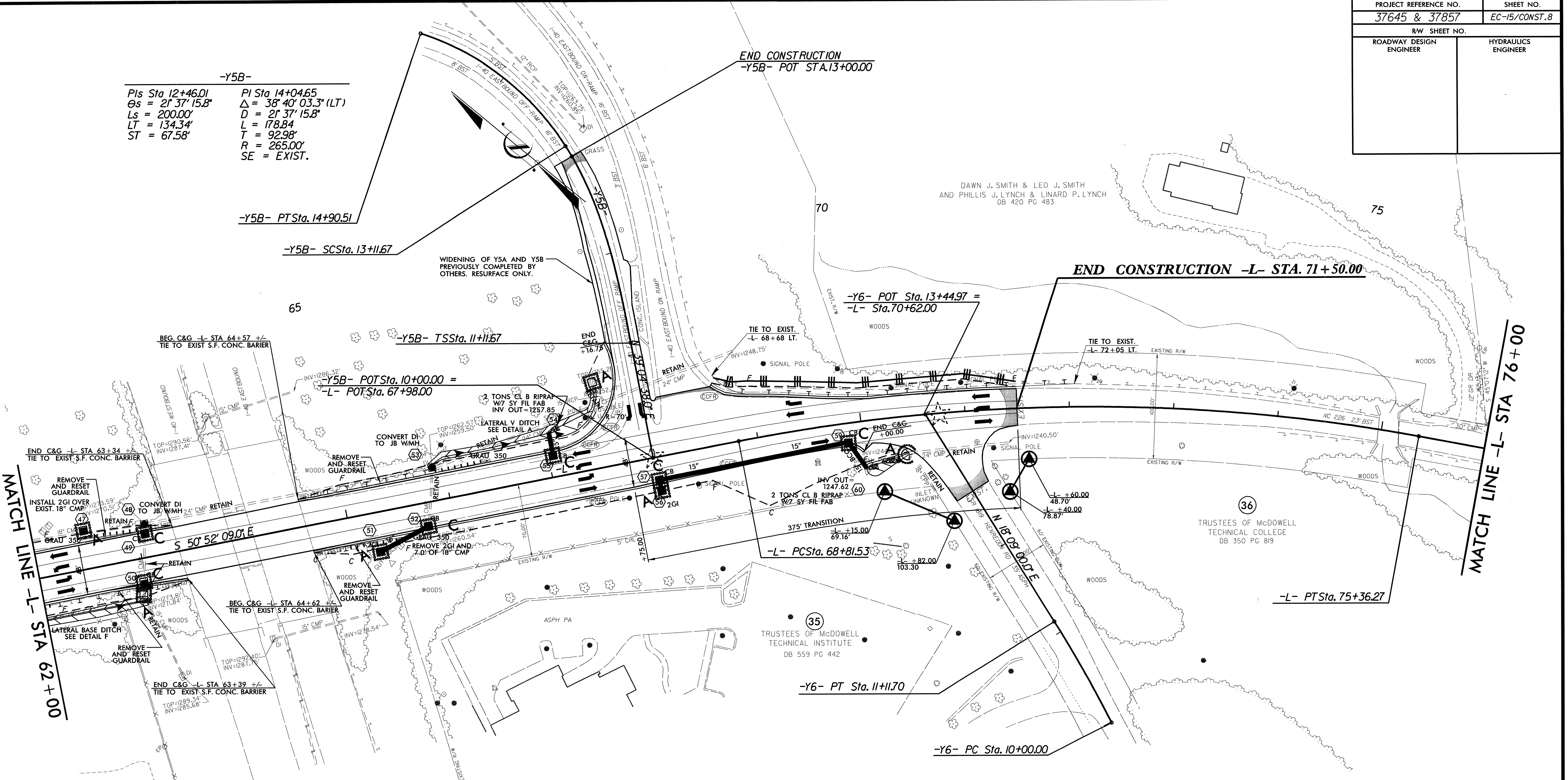
REVISIONS

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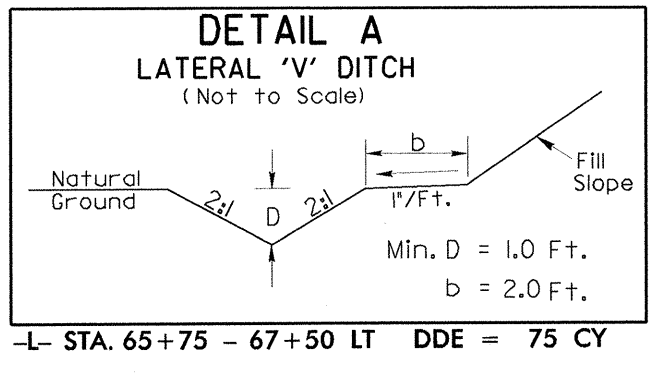
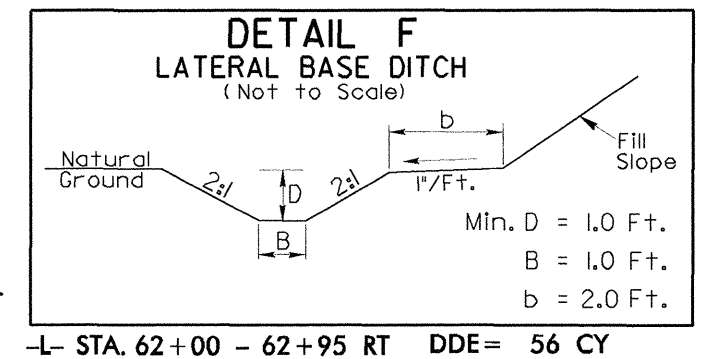
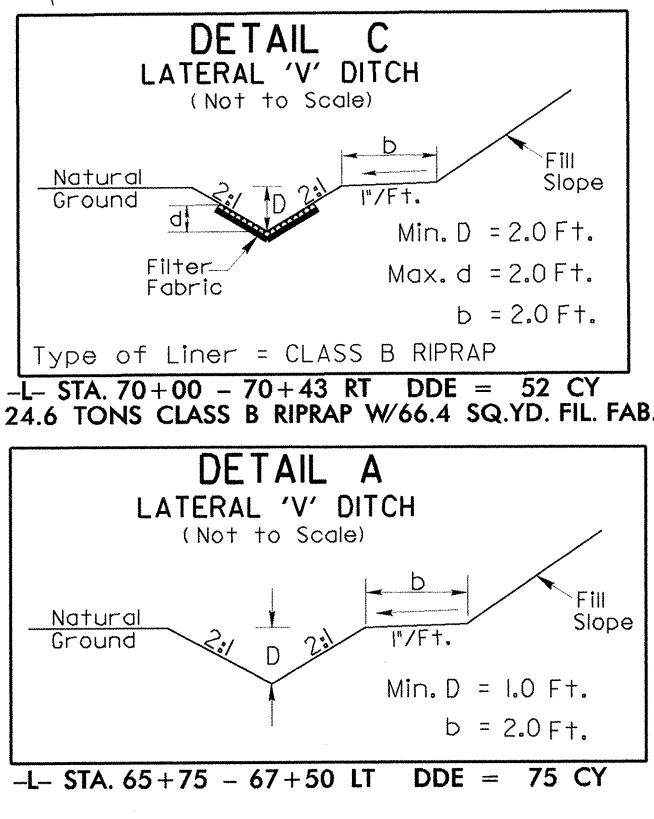
PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-15/CONST. B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-Y5B-  
 PIs Sta 12+46.01    PI Sta 14+04.65  
 $\Delta s = 21' 37" 15.8"$      $\Delta = 38' 40" 03.3" (LT)$   
 $Ls = 200.00'$      $D = 21' 37" 15.8"$   
 $LT = 134.34'$      $T = 178.84'$   
 $ST = 67.58'$      $T = 92.98'$   
 $R = 265.00'$   
 $SE = EXIST.$



MATCH LINE -L- STA 62+00

MATCH LINE -L- STA 76+00



-L-  
 PI Sta 72+12.71  
 $\Delta = 21' 16' 45.0" (RT)$   
 $D = 3' 15' 00.0"$   
 $L = 654.74'$   
 $T = 331.19'$   
 $R = 1,762.95'$   
 $SE = 0.05 \text{ ft/ft}$   
 $RO = 140 \text{ ft}$

-Y6-  
 PI Sta 10+55.88  
 $\Delta = 4' 59' 59.2" (LT)$   
 $D = 4' 28' 34.4"$   
 $L = 111.70'$   
 $T = 55.88'$   
 $R = 1,280.00'$

(34)  
 LOVE'S TRAVEL STOPS  
 & COUNTRY STORES, INC.  
 DB 717 PG 552

(35)  
 TRUSTEES OF McDOWELL  
 TECHNICAL INSTITUTE  
 DB 559 PG 442

(36)  
 TRUSTEES OF McDOWELL  
 TECHNICAL COLLEGE  
 DB 350 PG 819

**PLANS PREPARED BY :**  
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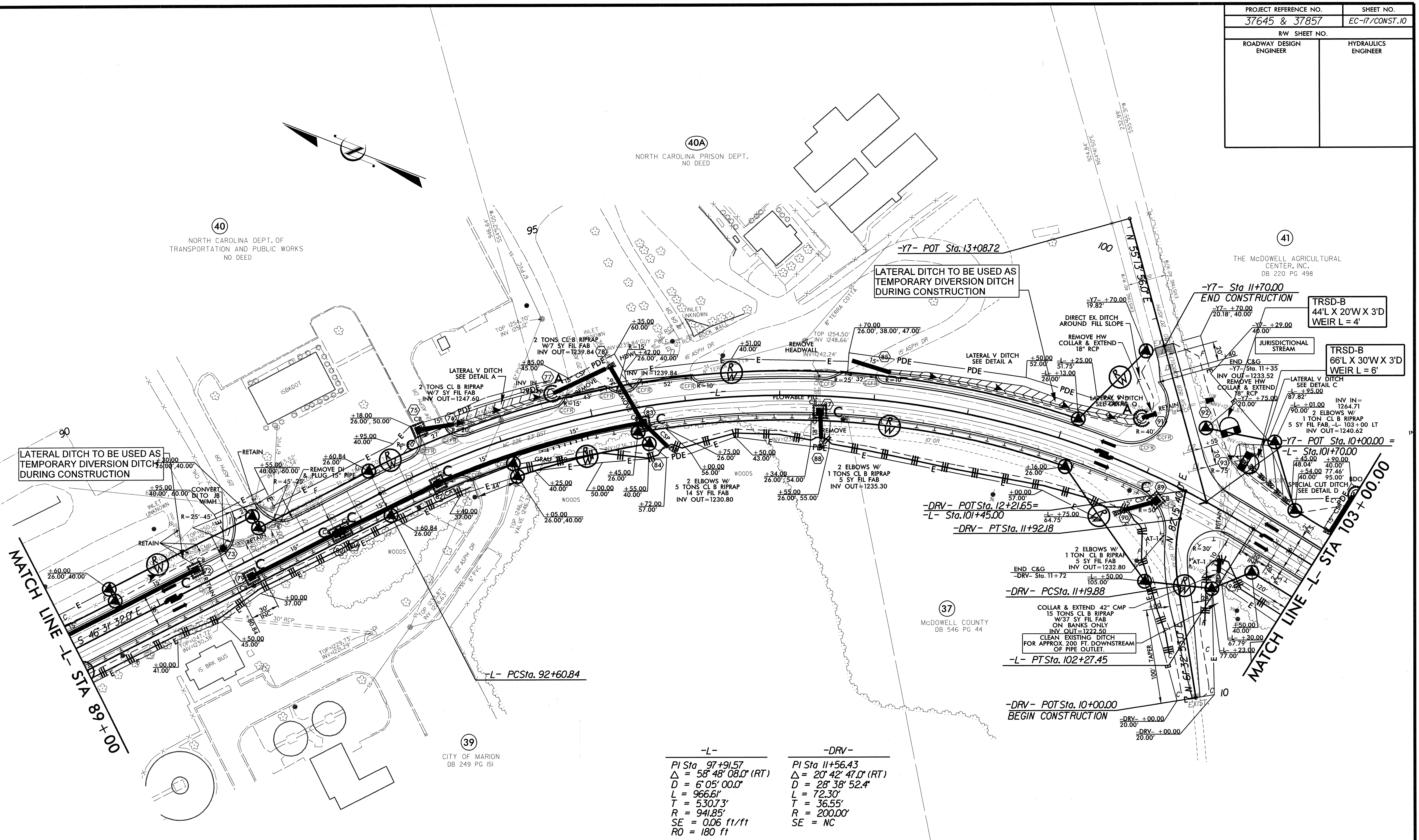
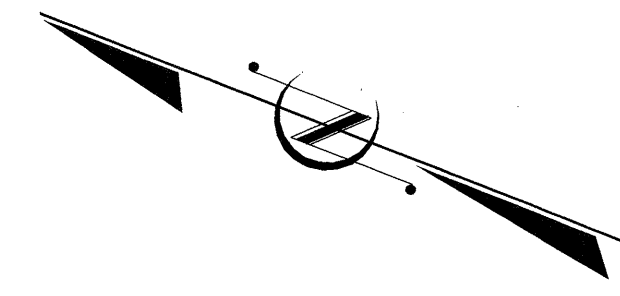
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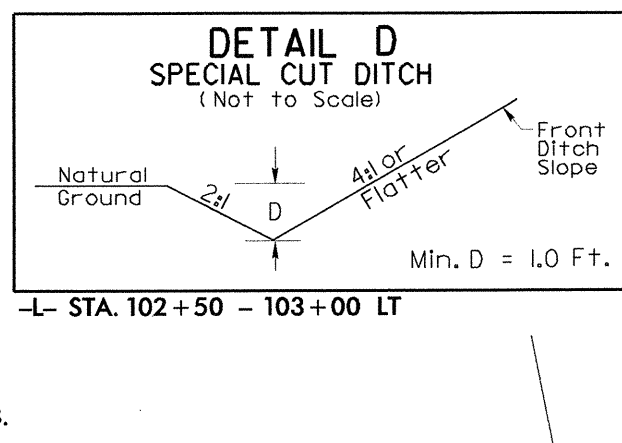
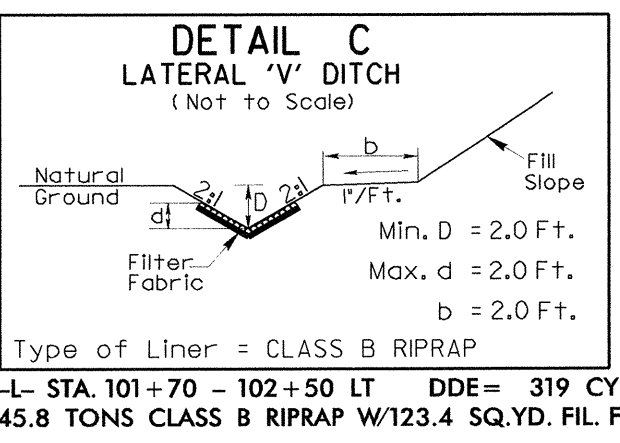
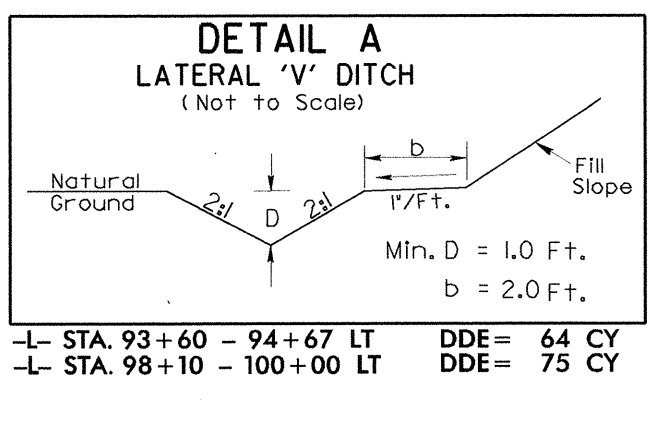
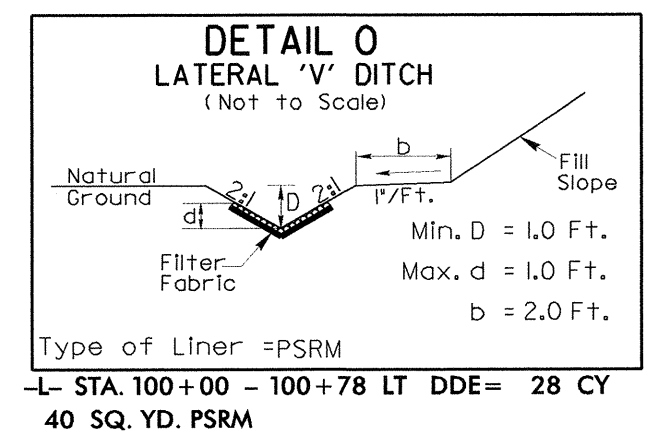


PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-17/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

-L-	-DRV-
PI Sta 97+91.57 Δ = 58° 48' 08.0" (RT) D = 6' 05" 00.0" L = 966.61' T = 530.73' R = 941.85' SE = 0.06 ft/ft RO = 180 ft	PI Sta 11+56.43 Δ = 20° 42' 47.0" (RT) D = 28' 38" 52.4" L = 72.30' T = 36.55' R = 200.00' SE = NC



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**FOR**  
**STATE OF NORTH CAROLINA**  
**DIVISION OF HIGHWAYS**

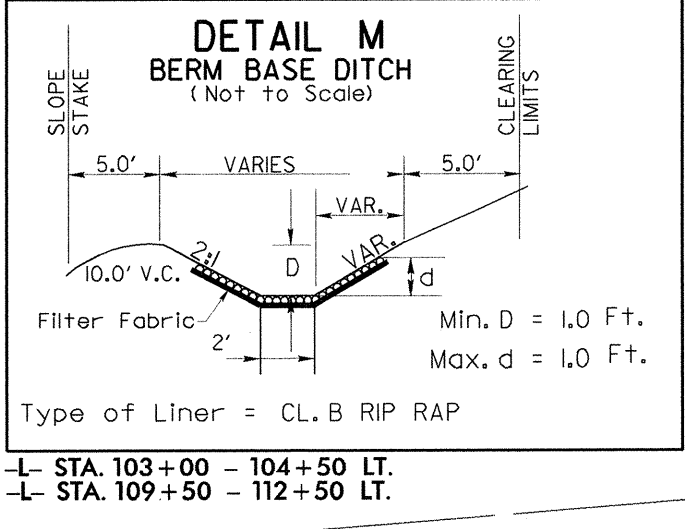
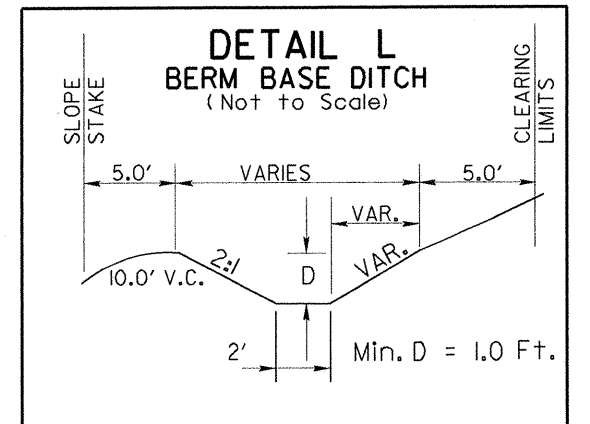
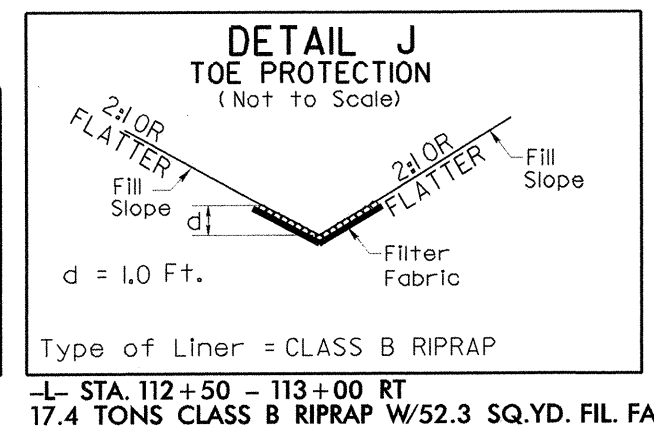
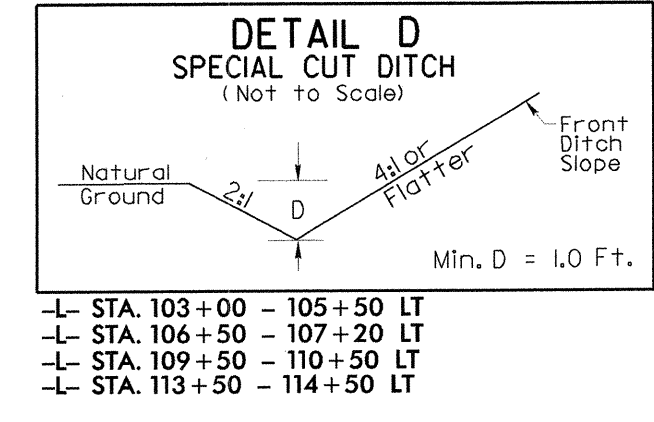
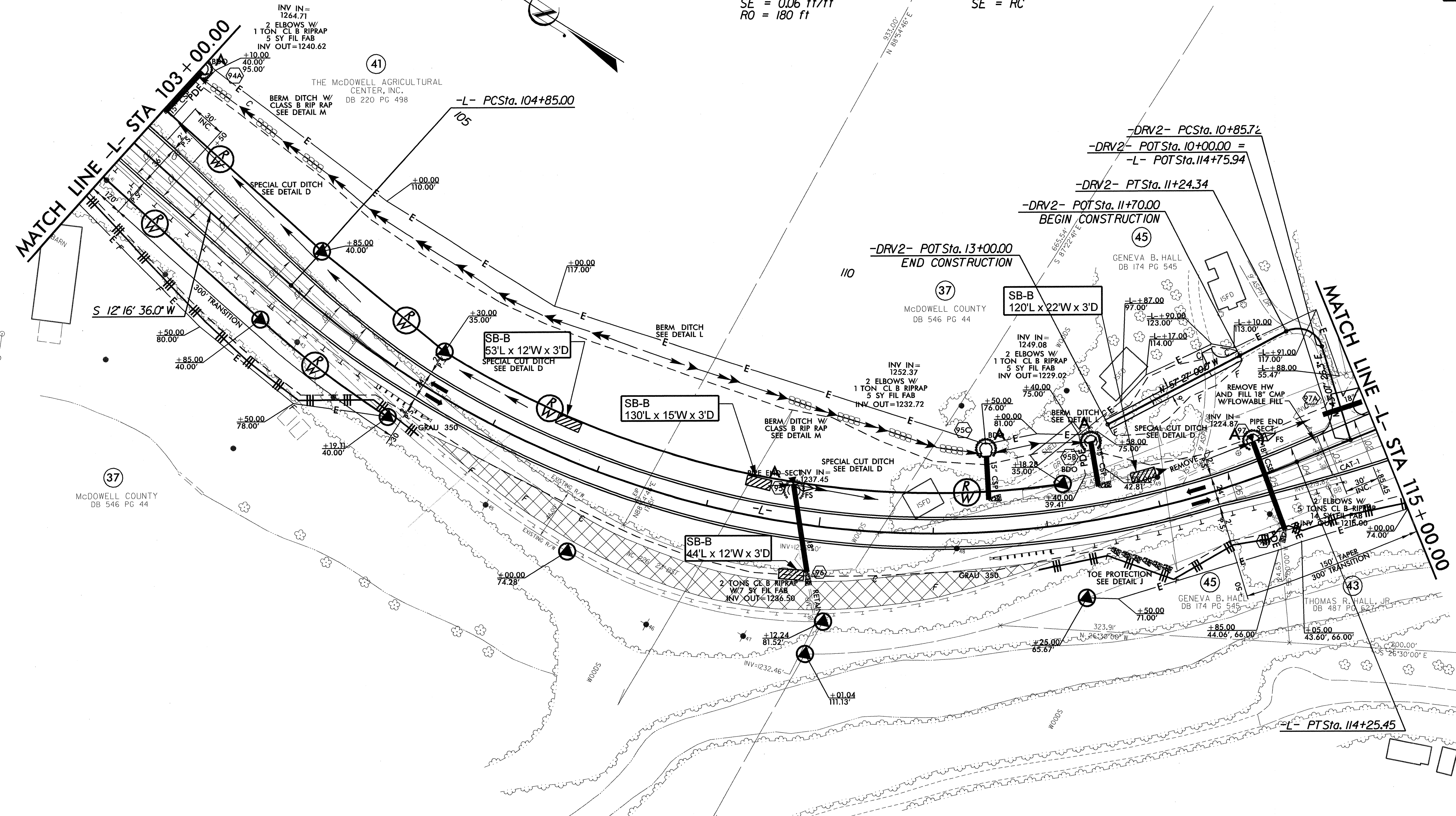
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PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-18/CONST.11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-  
 PI Sta 110+11.63  
 $\Delta = 64^\circ 15' 52.0" (LT)$   
 $D = 6' 50' 00.0"$   
 $L = 940.46'$   
 $T = 526.63'$   
 $R = 838.47'$   
 $SE = 0.06 \text{ ft/ft}$   
 $RO = 180 \text{ ft}$

-DRV2-  
 PI Sta 11+12.21  
 $\Delta = 100^\circ 34' 26.3" (LT)$   
 $D = 260' 26' 07.3"$   
 $L = 38.62'$   
 $T = 26.49'$   
 $R = 22.00'$   
 $SE = RC$



LARRY GILLIAND AND  
 PATRICIA DIANE GILLIAND  
 DB 413 PG 198

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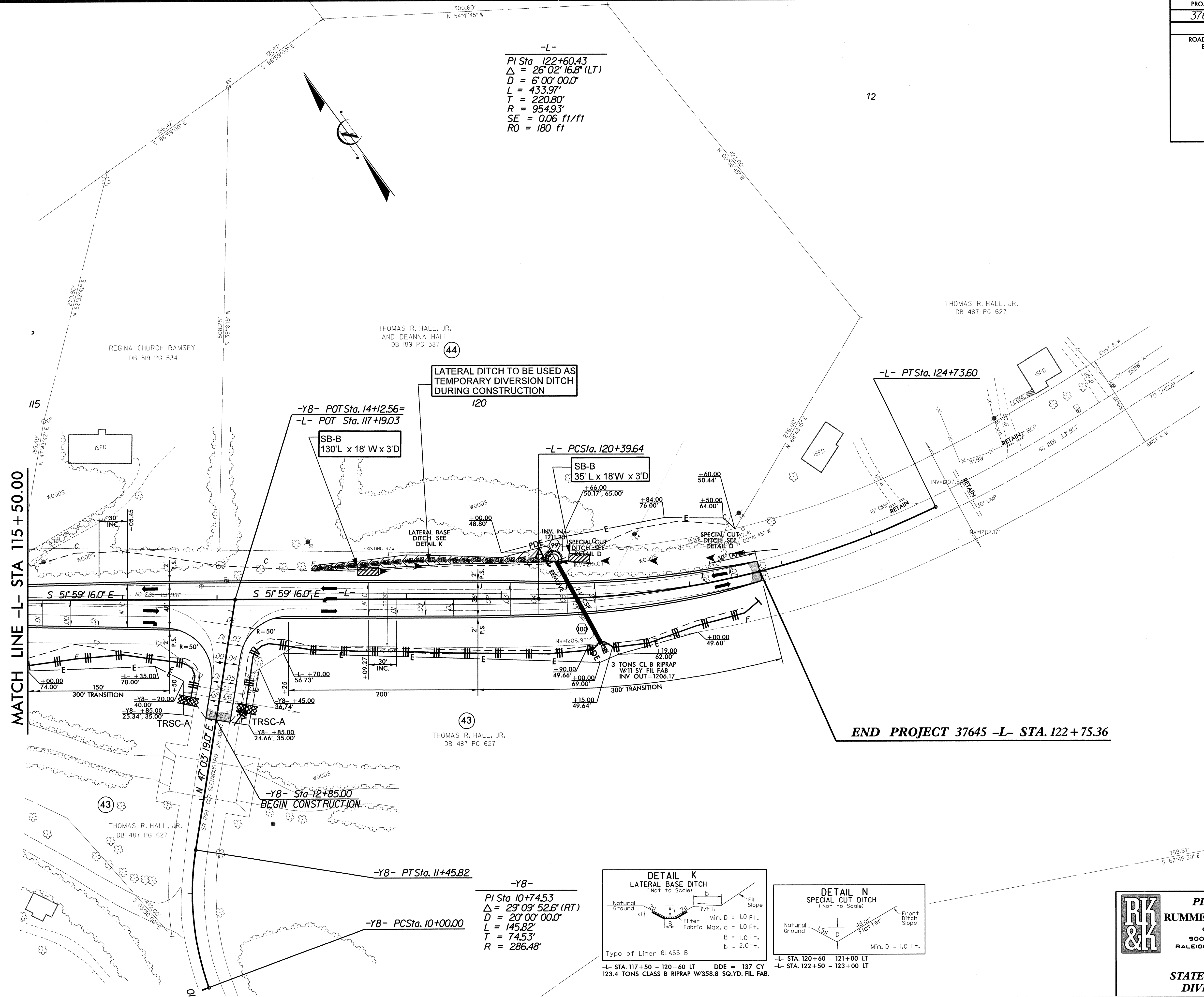
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PROJECT REFERENCE NO. 37645 & 37857	SHEET NO. EC-19/CONST.12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-L-  
 PI Sta. 122+60.43  
 $\Delta = 26^{\circ}02'16.8"$  (LT)  
 $D = 6^{\circ}00'00.0"$   
 $L = 433.97'$   
 $T = 220.80'$   
 $R = 954.93'$   
 $SE = 0.06$  ft/ft  
 $RO = 180$  ft

12



LATERAL DITCH TO BE USED AS  
 TEMPORARY DIVERSION DITCH  
 DURING CONSTRUCTION

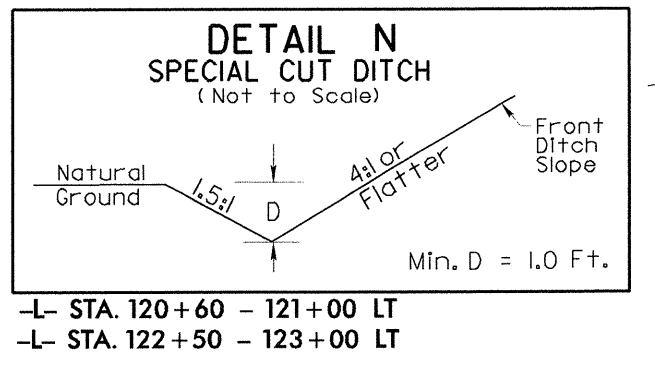
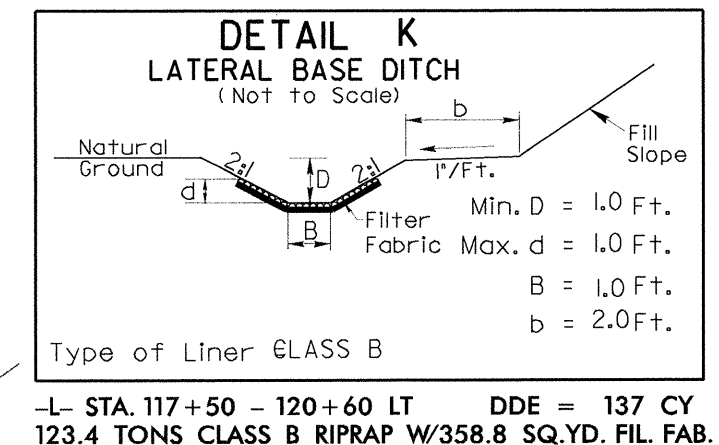
-Y8- POT Sta. 14+12.56=  
 -L- POT Sta. 117+19.03  
 SB-B  
 130'L x 18'W x 3'D

-L- PCSta. 120+39.64  
 SB-B  
 35' L x 18'W x 3'D

END PROJECT 37645 -L- STA. 122 + 75.36

MATCH LINE -L- STA 115 + 50.00

-Y8-  
 PI Sta 10+74.53  
 $\Delta = 29^{\circ}09'52.6"$  (RT)  
 $D = 20^{\circ}00'00.0"$   
 $L = 145.82'$   
 $T = 74.53'$   
 $R = 286.48'$



-L- STA. 117+50 - 120+60 LT DDE = 137 CY  
 123.4 TONS CLASS B RIPRAP W/35.8 SQ.YD. FIL. FAB.

-L- STA. 120+60 - 121+00 LT  
 -L- STA. 122+50 - 123+00 LT

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2/16/2021  
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