

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL

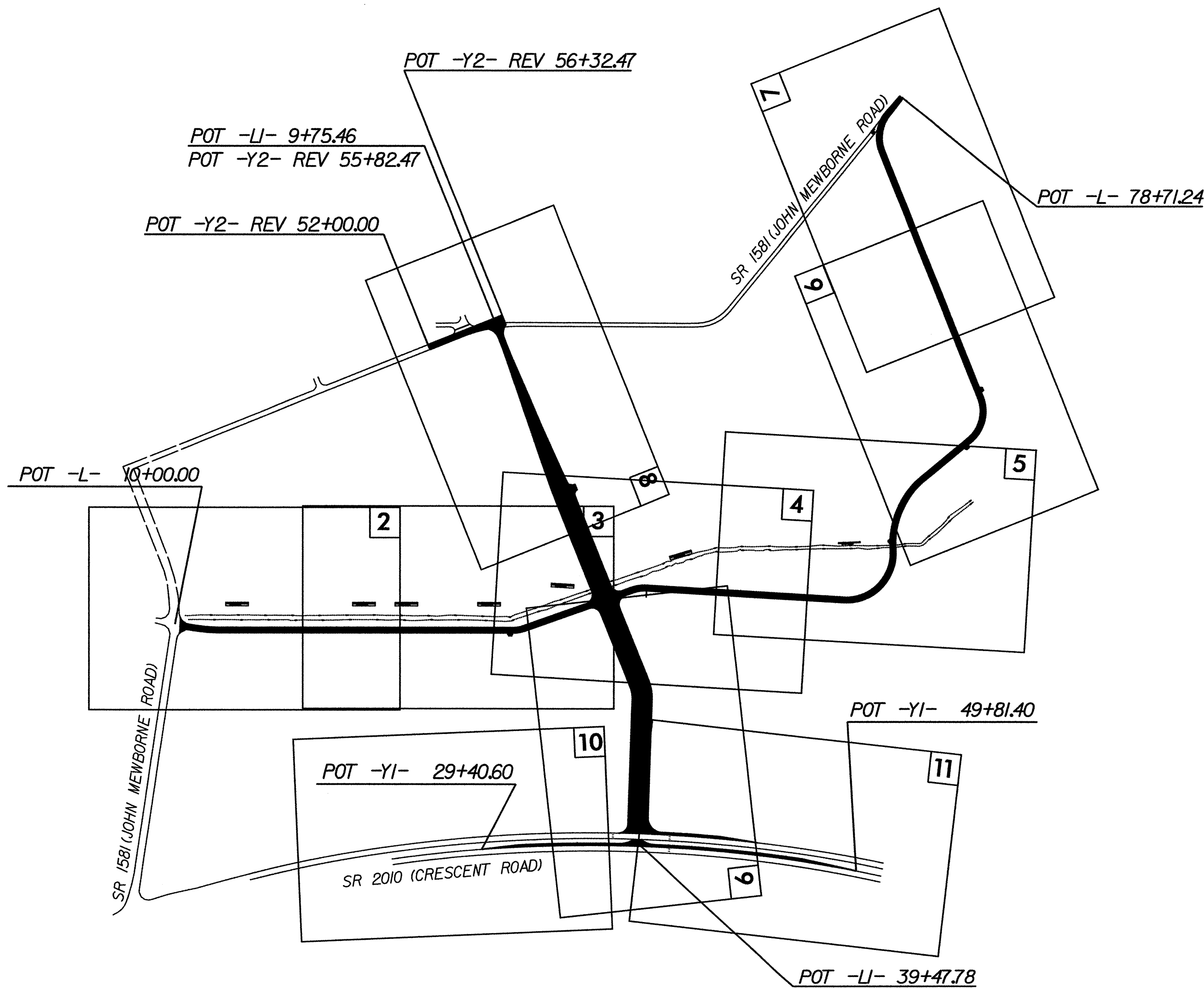
TIP PROJECT: U-2928

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2928	EC-1	11
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38989.1		PE	
38989.2		RW AND UT	
38989.3		CONST	

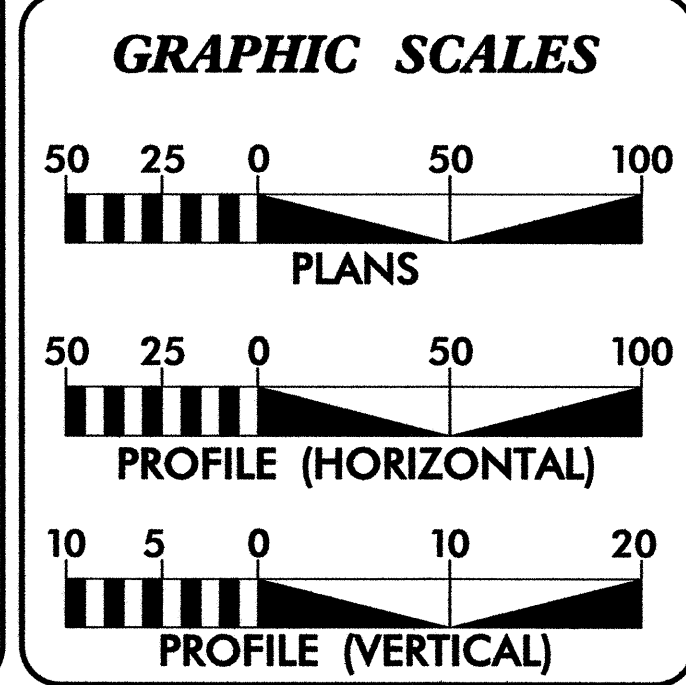
EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
	Wattle	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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



CONTRACT:



**DESIGN DATA**

ADT 2007 =	960
ADT 2023 =	3000
DHV =	30 %
D =	60 %
T =	4 % *
V =	40 MPH
* TTST 2	DUAL 2

**PROJECT LENGTH**

LENGTH - L - =	1.301 MILES
LENGTH -LI- =	0.563 MILES
LENGTH -YI- =	0.386 MILES
LENGTH -Y2- REV =	0.072 MILES
<b>TOTAL LENGTH ROADWAY TIP PROJECT U-2928 =</b>	<b>2.322 MILES</b>

Prepared In the Office of:  
**DIVISION OF HIGHWAYS**  
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b> 10/31/08	<b>DWAYNE ALLIGOOD</b> PROJECT ENGINEER
<b>LETTING DATE:</b> 01/20/09	<b>DWAYNE ALLIGOOD</b> PROJECT DESIGN ENGINEER

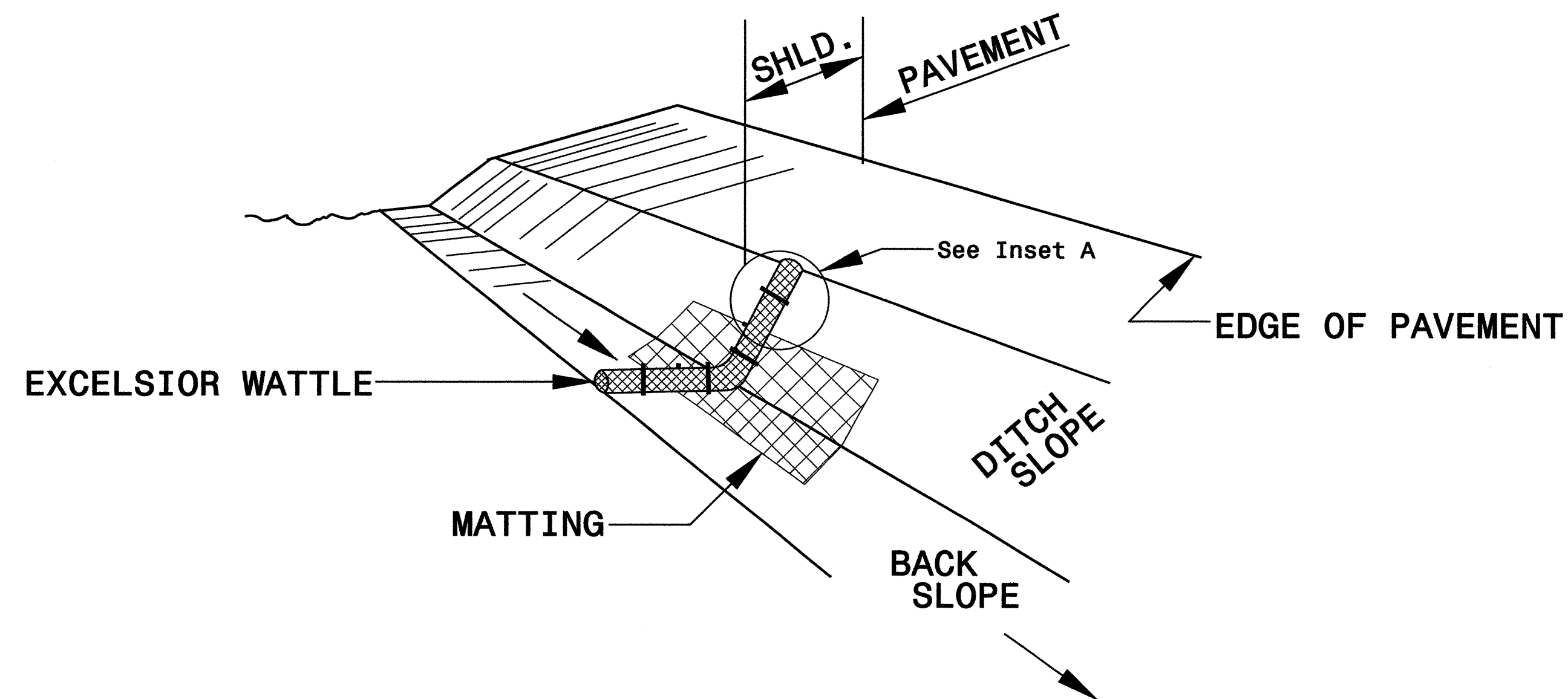
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

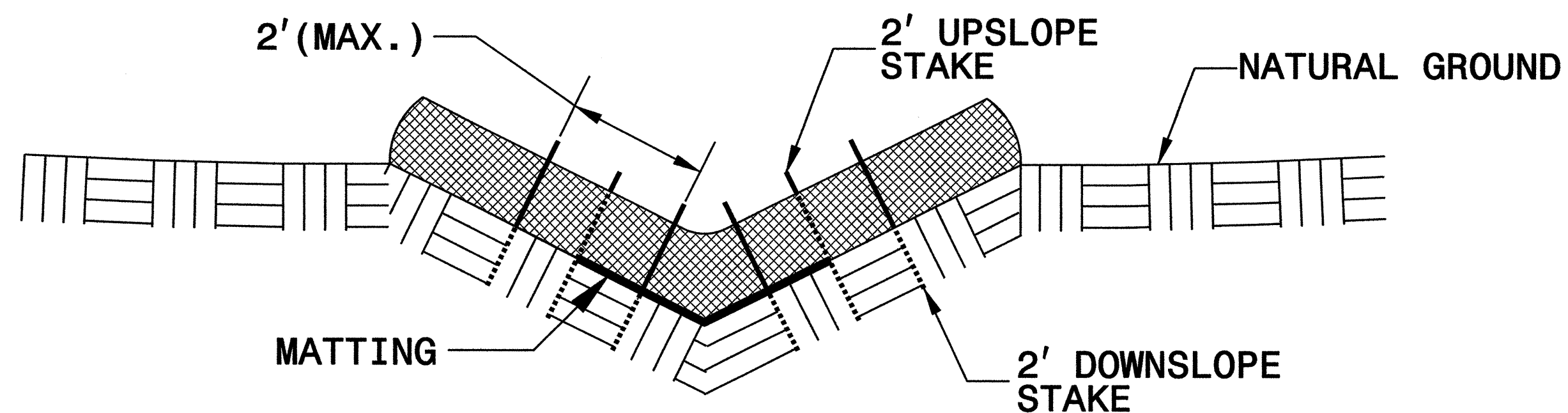
1604.01 Railroad Erosion Control Detail	1630.06 Special Stilling Basin
1605.01 Temporary Silt Fence	1632.01 Rock Inlet Sediment Trap Type A
1606.01 Special Sediment Control Fence	1632.02 Rock Inlet Sediment Trap Type B
1607.01 Gravel Construction Entrance	1632.03 Rock Inlet Sediment Trap Type C
1622.01 Temporary Berms and Slope Drains	1633.01 Temporary Rock Silt Check Type A
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.03 Temporary Silt Ditch	1634.02 Temporary Rock Sediment Dam Type B
1630.04 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B

PROJECT REFERENCE NO. U-2928	SHEET NO. EC 1A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

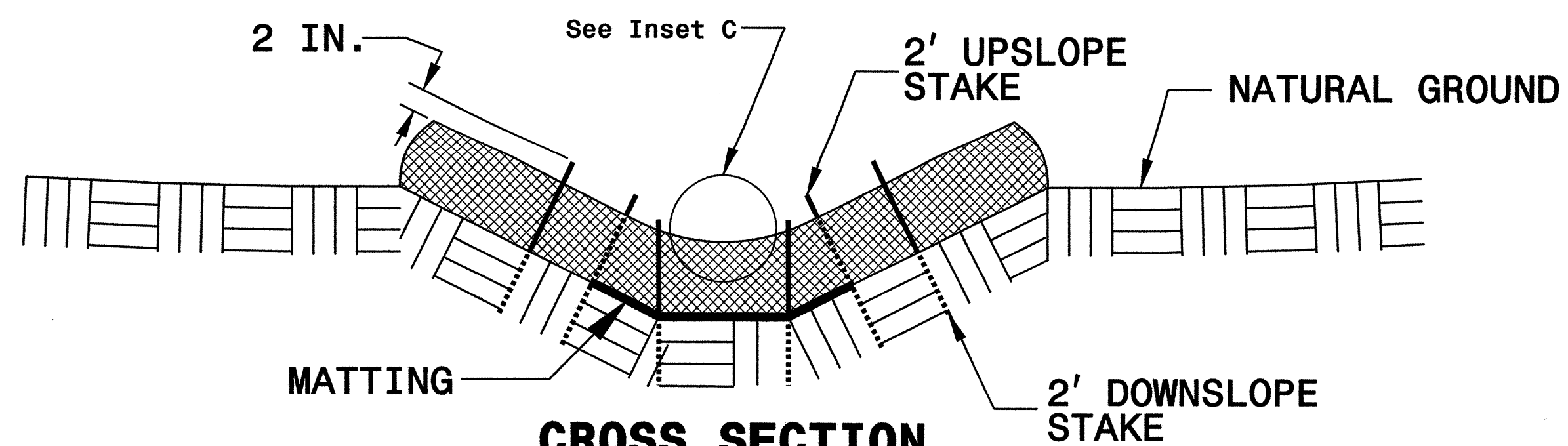
# WATTLE WITH POLYACRYLAMIDE DETAIL



**ISOMETRIC VIEW**



**CROSS SECTION VEE DITCH**



**CROSS SECTION TRAPEZOIDAL DITCH**

**NOTES:**

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. CROSS SECTION.

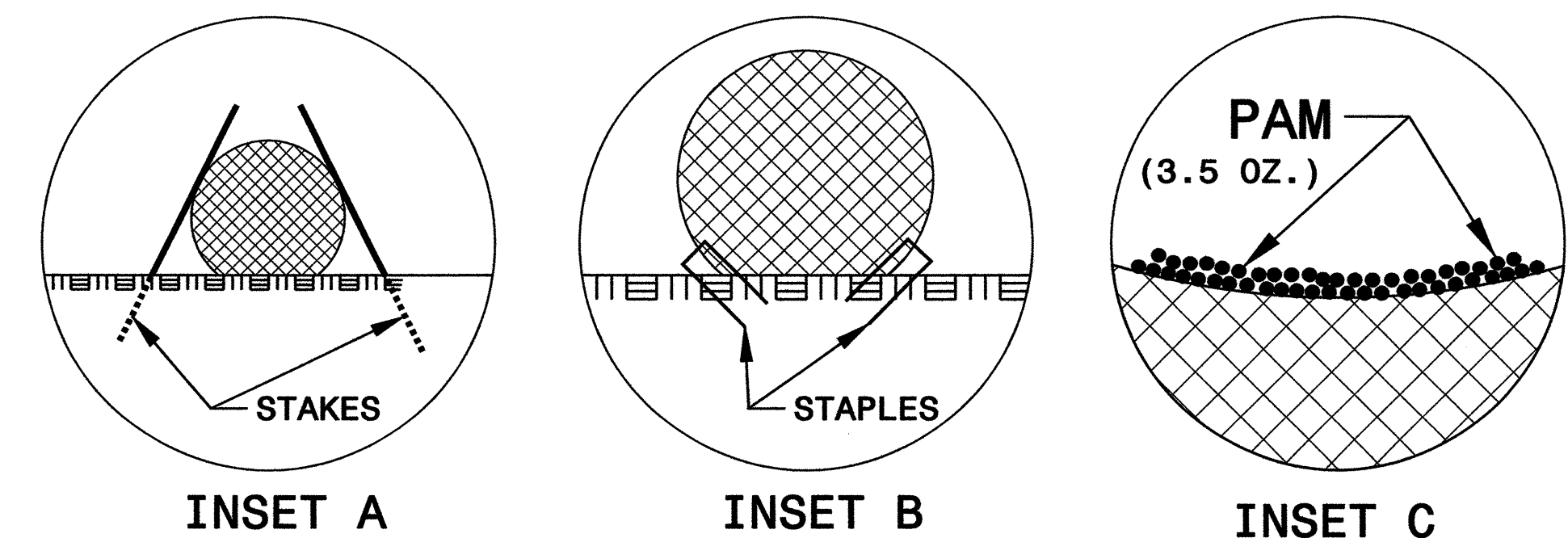
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

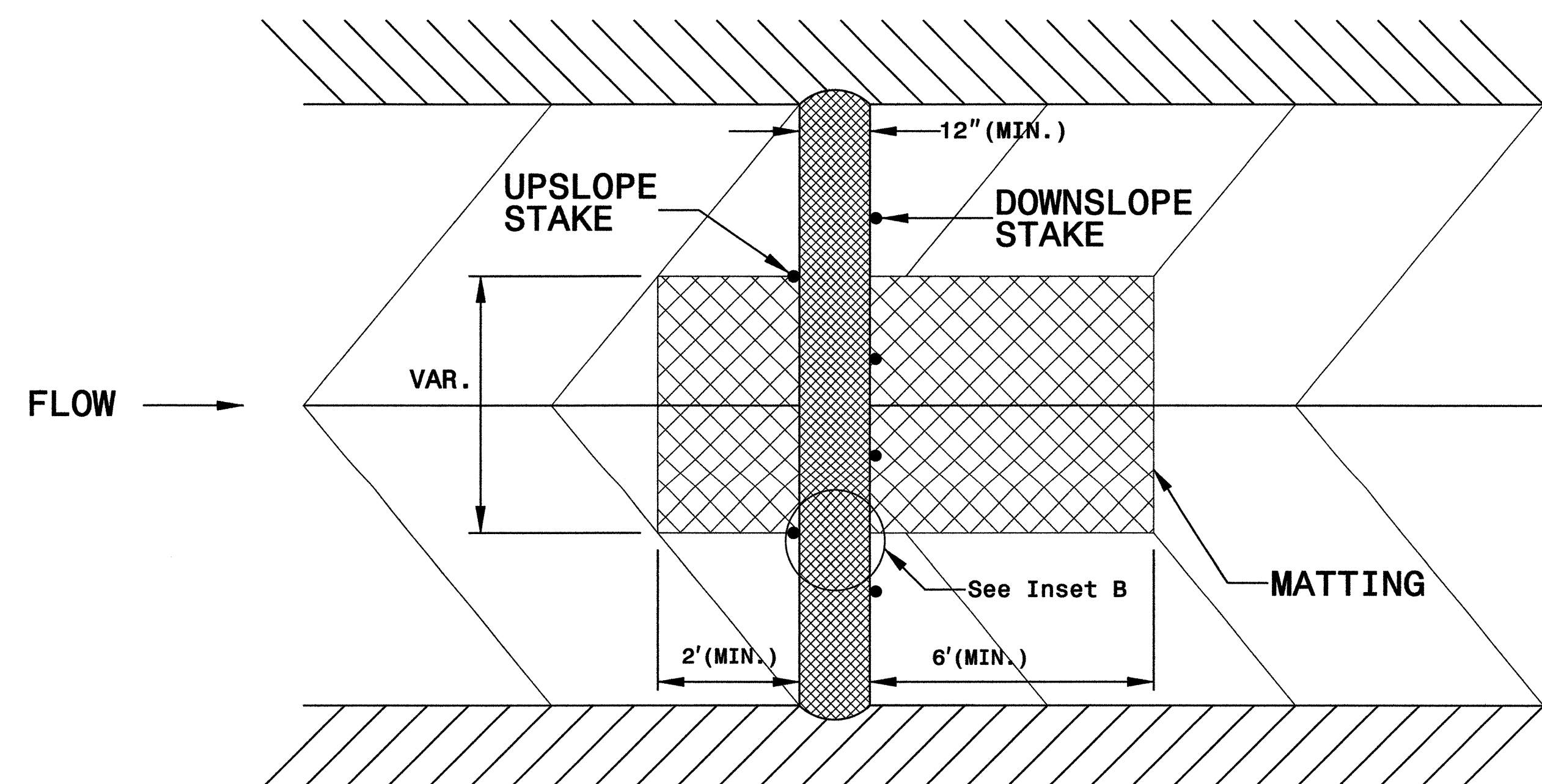
INITIALLY APPLY 3.5 OUNCES OF ANIONIC OR NEUTRALLY CHARGED POLYACRYLAMIDE (PAM) OVER WATTLE WHERE WATER WILL FLOW AND AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.25 IN.



INSET A

INSET B

INSET C



**TOP VIEW**





PROJECT REFERENCE NO. <i>U-2928</i>	SHEET NO. <i>ECIC</i>
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

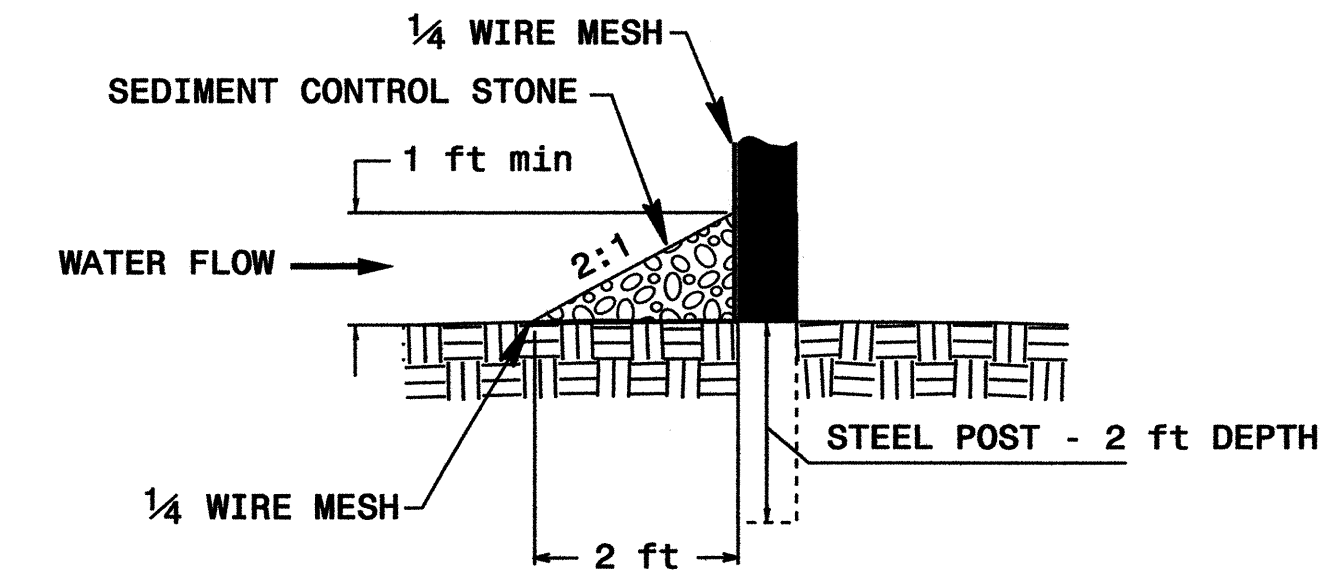
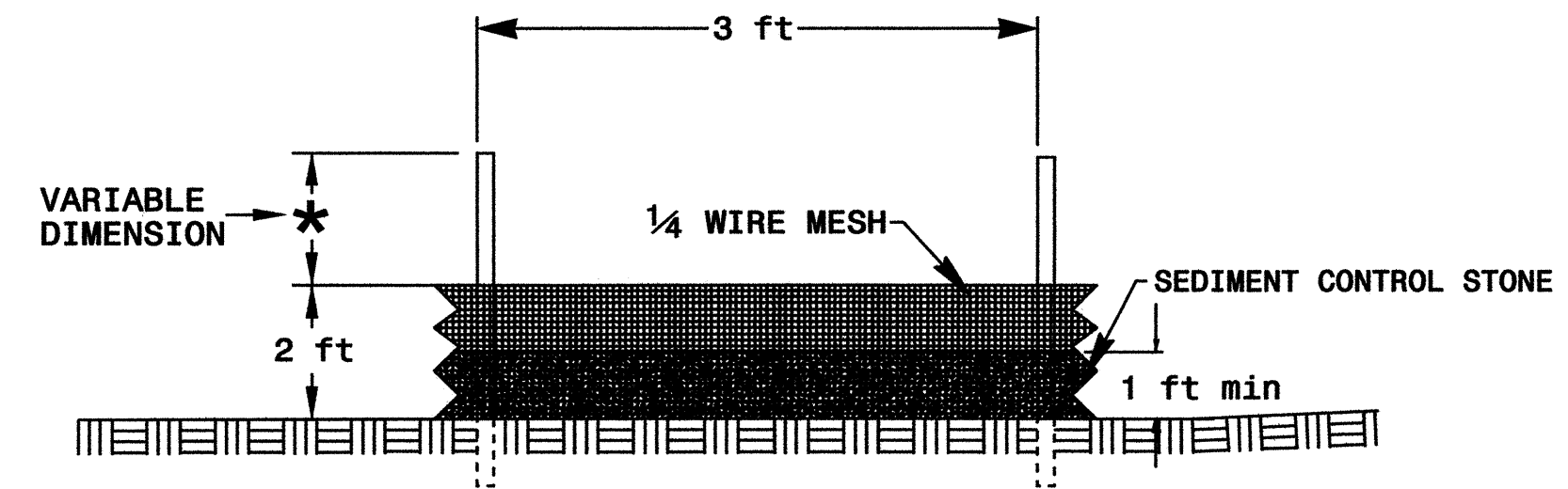
REVISIONS

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STATE OF  
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 DIVISION OF HIGHWAYS  
 RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**SPECIAL SEDIMENT CONTROL FENCE**  
 SHEET 1 OF 1  
**1606.01**

GENERAL NOTES:  
 USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.  
 USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.  
 INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.  
 SPACE POST A MAXIMUM OF 3 FT.



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ENGLISH STANDARD DRAWING FOR  
**SPECIAL SEDIMENT CONTROL FENCE**  
 SHEET 1 OF 1  
**1606.01**

PROJECT REFERENCE NO. <i>U-2928</i>	SHEET NO. <i>ECID</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

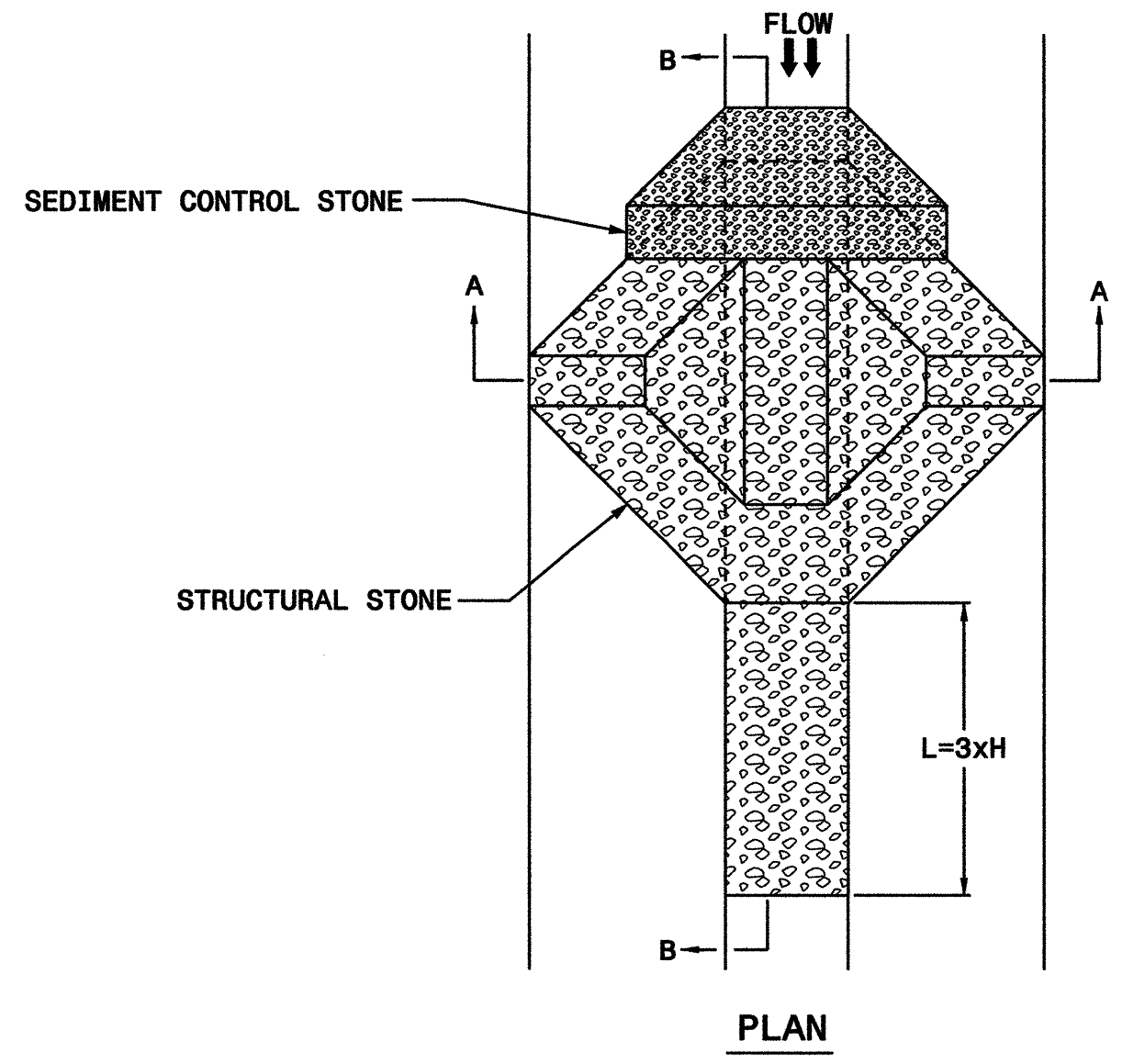
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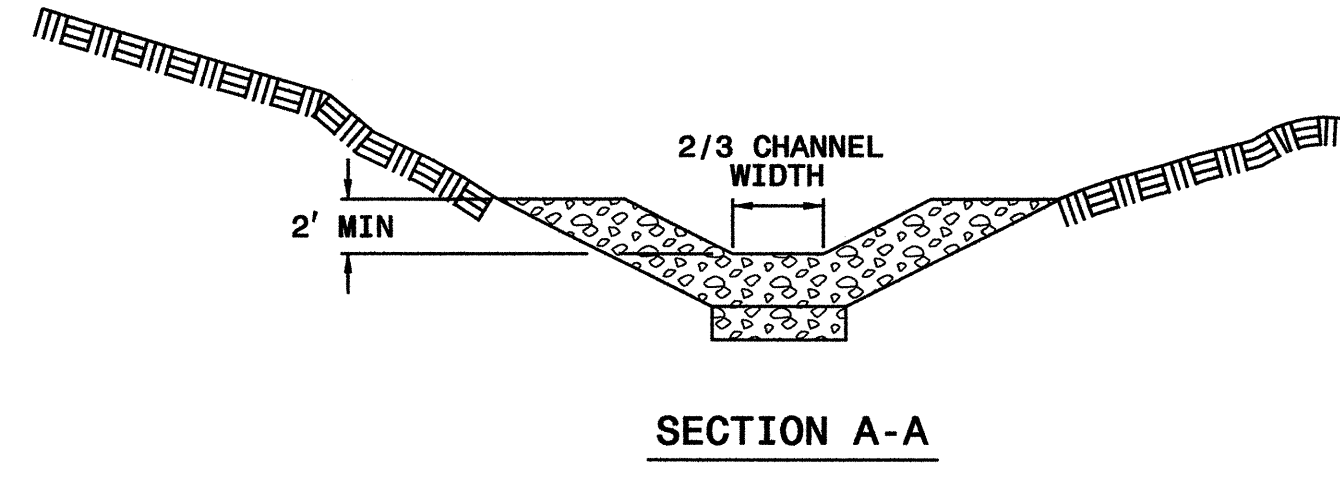
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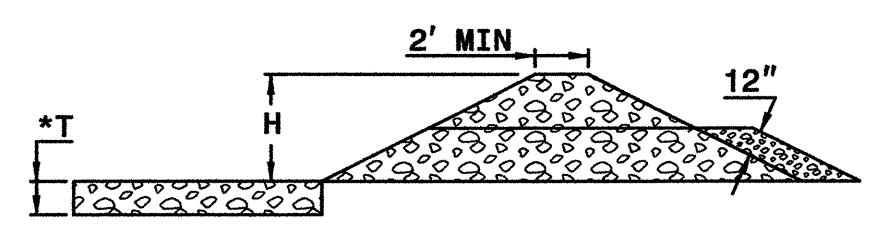
ENGLISH STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE 'A'**  
 SHEET 1 OF 1  
**1633.01**



NOTE  
 USE CLASS 'B' EROSION CONTROL STONE  
 FOR STRUCTURAL STONE.  
 USE NO. 5 OR NO. 57 STONE FOR SEDIMENT  
 CONTROL STONE.



SECTION A-A



SECTION B-B

\*T = 12" MIN., 18" MAX.

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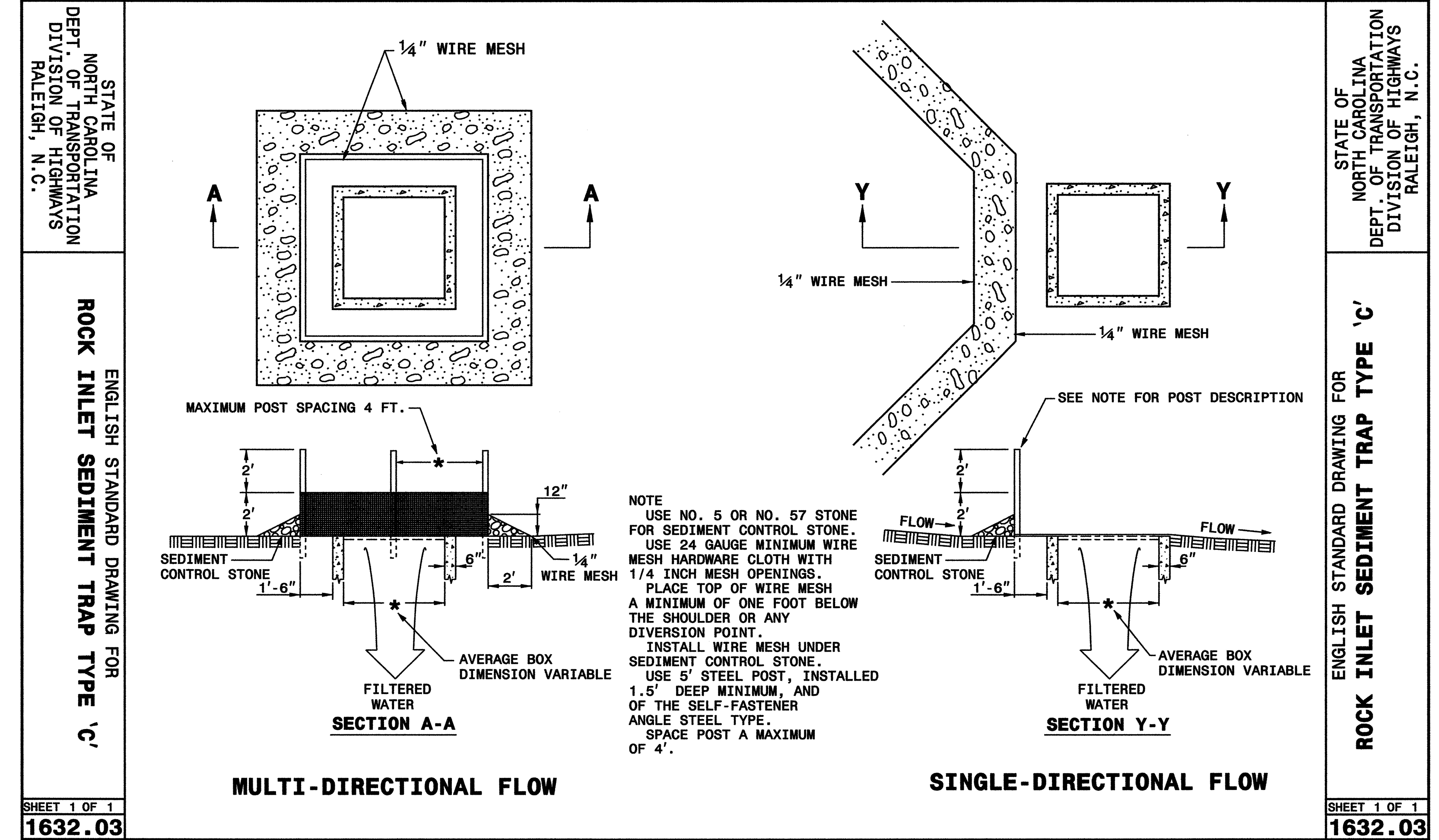
ENGLISH STANDARD DRAWING FOR  
**TEMPORARY ROCK SILT CHECK TYPE 'A'**  
 SHEET 1 OF 1  
**1633.01**

PROJECT REFERENCE NO. <i>U-2928</i>	SHEET NO. <i>ECIE</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

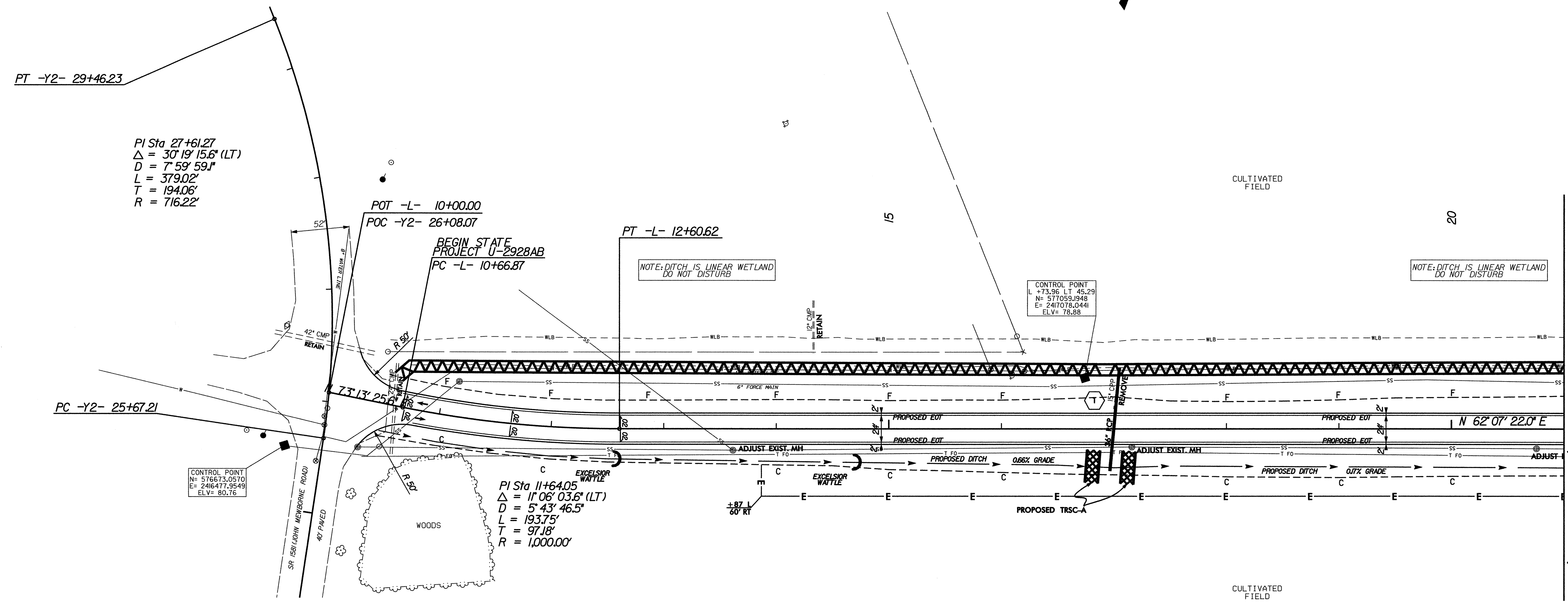
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PROJECT REFERENCE NO. U-2928	SHEET NO. EC2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



REVISIONS

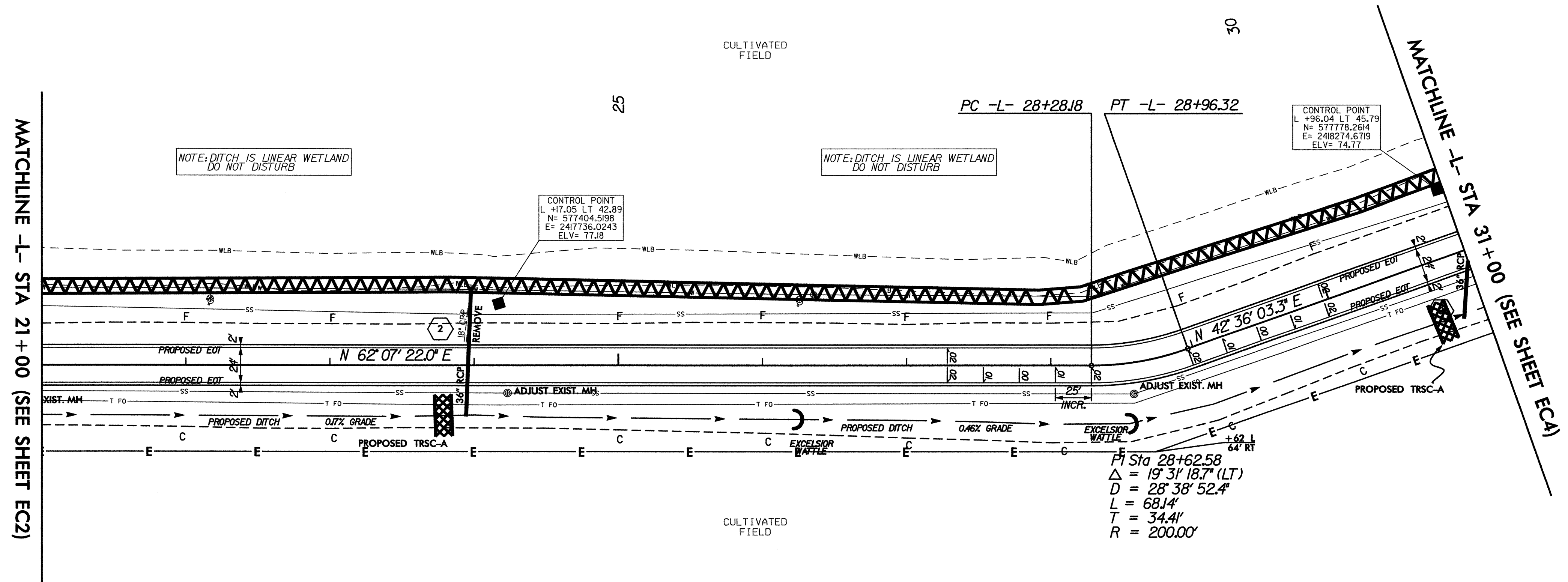
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MATCHLINE -L- STA 21+00 (SEE SHEET EC3)

SEE SHEET 14 FOR PROFILE -L-

PROJECT REFERENCE NO. U-2928	SHEET NO. EC3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA 21+00 (SEE SHEET EC2)

MATCHLINE -L- STA 31+00 (SEE SHEET EC4)

NOTE: DITCH IS LINEAR WETLAND DO NOT DISTURB

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CONTROL POINT  
L = +7.05 LT 42.89  
N = 577404.5199  
E = 2417736.0243  
ELV = 77.18

CONTROL POINT  
L = +96.04 LT 45.79  
N = 577778.2614  
E = 2418274.6719  
ELV = 74.77

PI Sta 28+62.58  
Δ = 19° 31' 18.7" (LT)  
D = 28° 38' 52.4"  
L = 68.14'  
T = 34.44'  
R = 200.00'

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SEE SHEET 15 FOR PROFILE -L-



PROJECT REFERENCE NO. U-2928	SHEET NO. EC4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

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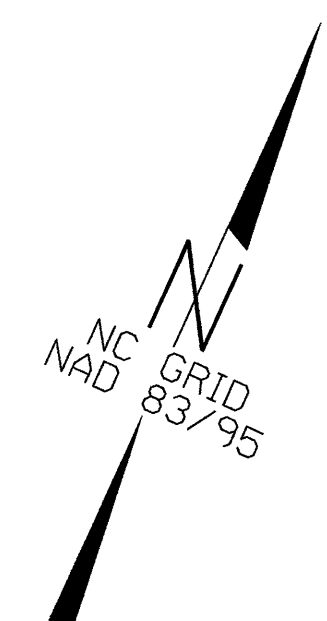
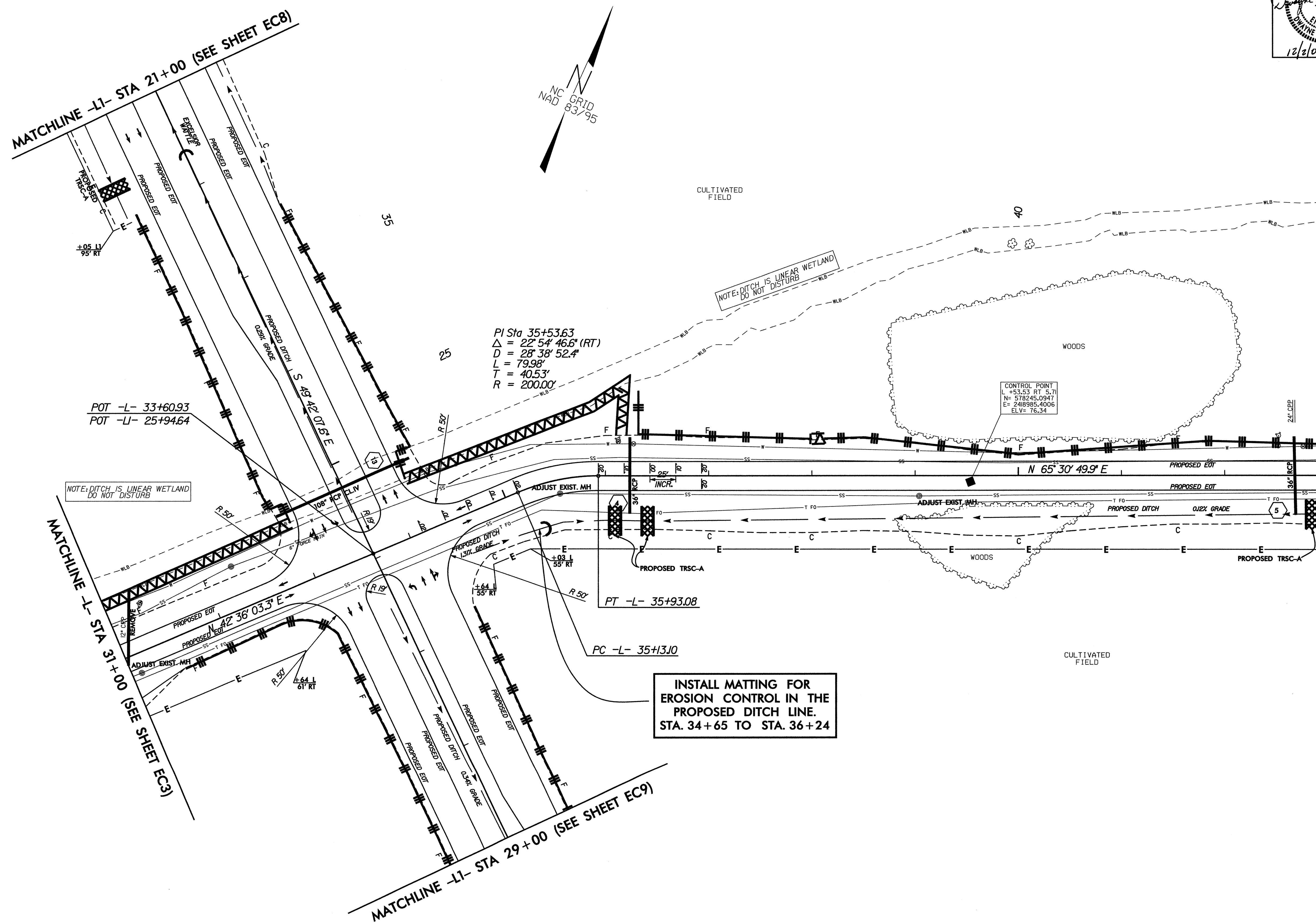
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 Land Issues

MATCHLINE -L1- STA 21+00 (SEE SHEET EC8)

MATCHLINE -L- STA 31+00 (SEE SHEET EC3)

MATCHLINE -L1- STA 29+00 (SEE SHEET EC9)

MATCHLINE -L- STA 43+00 (SEE SHEET EC5)



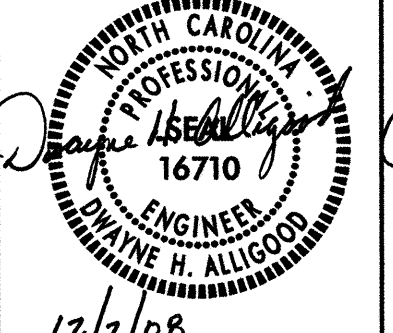
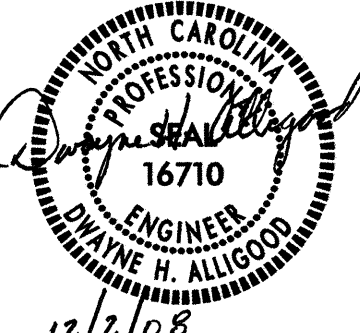
PI Sta 35+53.63  
 $\Delta = 22^\circ 54' 46.6''$  (RT)  
 $D = 28^\circ 38' 52.4''$   
 $L = 79.98'$   
 $T = 40.53'$   
 $R = 200.00'$

NOTE: DITCH IS LINEAR WETLAND  
 DO NOT DISTURB

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 DO NOT DISTURB

INSTALL MATTING FOR  
 EROSION CONTROL IN THE  
 PROPOSED DITCH LINE.  
 STA. 34+65 TO STA. 36+24

SEE SHEET 16 FOR PROFILE -L-  
 SEE SHEET 21 FOR PROFILE -L1-

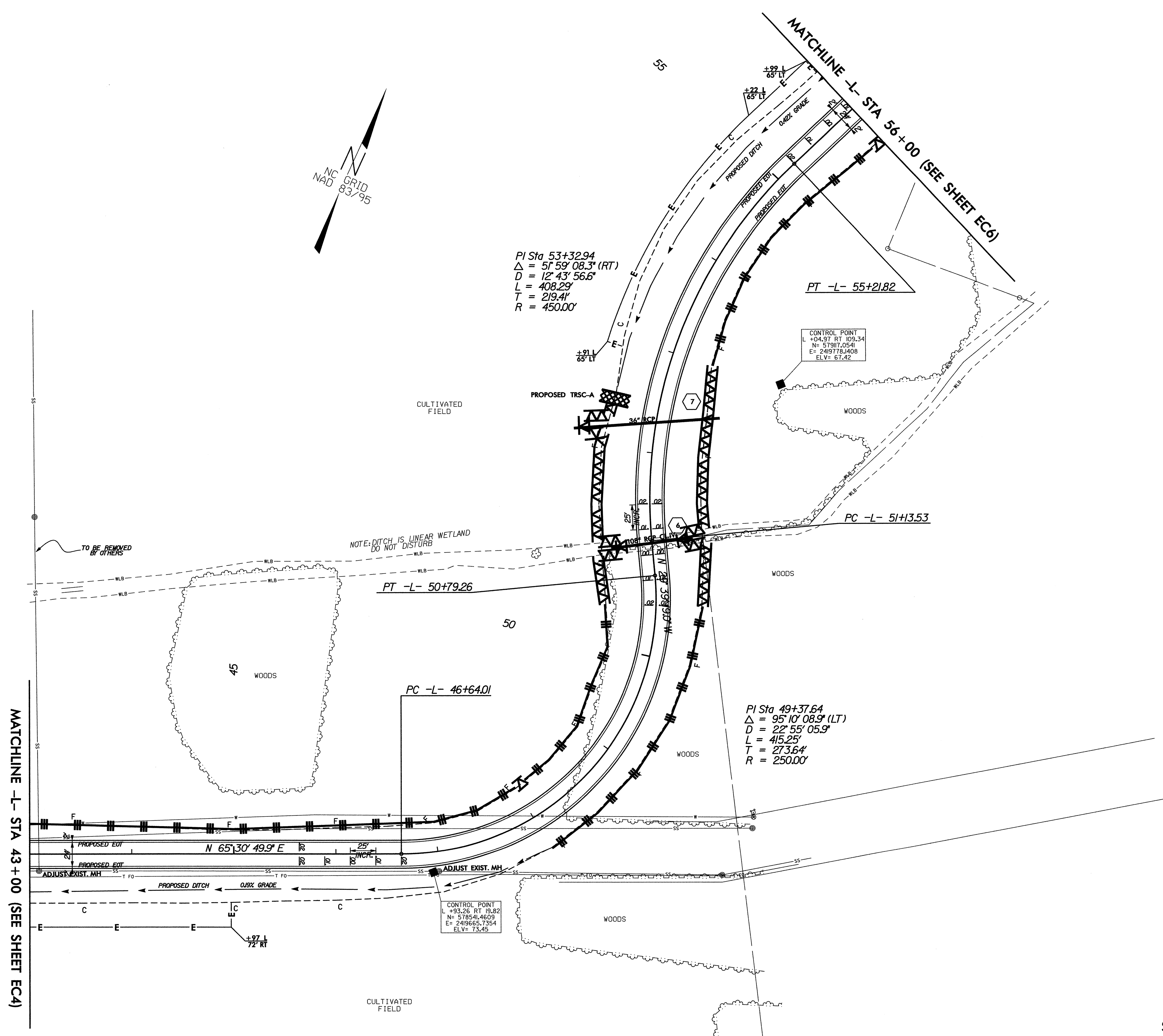
PROJECT REFERENCE NO. U-2928	SHEET NO. EC5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER  12/2/08	HYDRAULICS ENGINEER  12/2/08

8/17/99

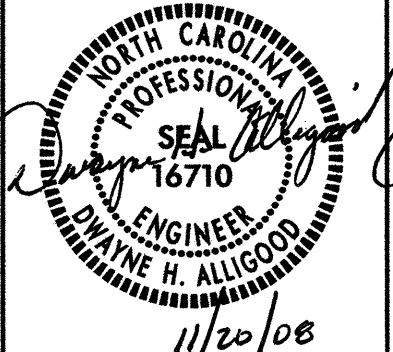
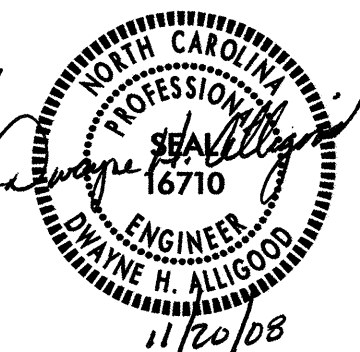
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MATCHLINE -L- STA 43+00 (SEE SHEET EC4)



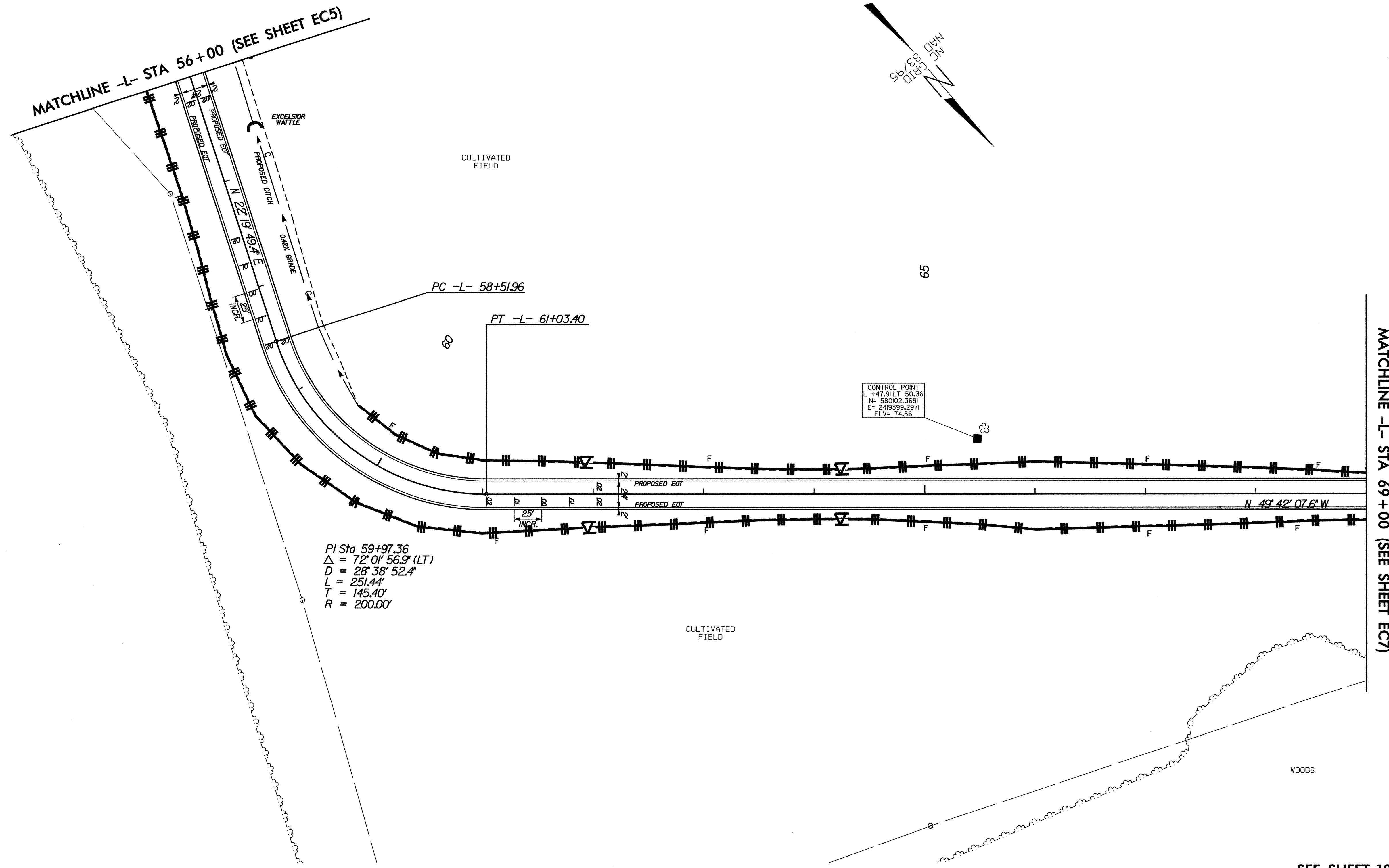
SEE SHEET 17 FOR PROFILE -L-

PROJECT REFERENCE NO. U-2928	SHEET NO. EC6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
11/20/08	11/20/08

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PI Sta 59+97.36  
 $\Delta = 72^{\circ} 01' 56.9''$  (LT)  
 $D = 28^{\circ} 38' 52.4''$   
 $L = 251.44'$   
 $T = 145.40'$   
 $R = 200.00'$

CONTROL POINT  
 L = +47.91 LT 50.36  
 N = 580102.3691  
 E = 2419399.2971  
 ELV = 74.56

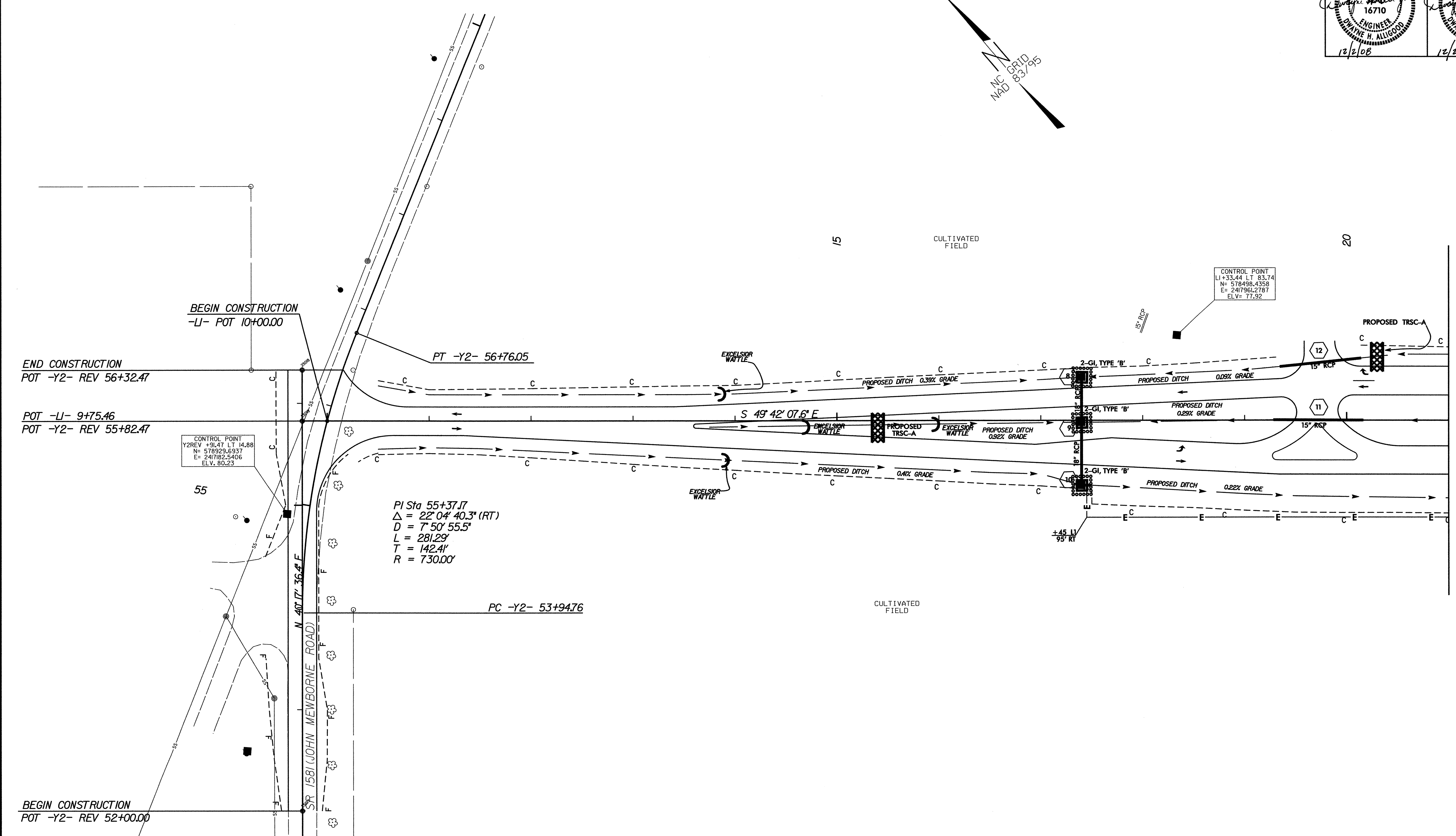
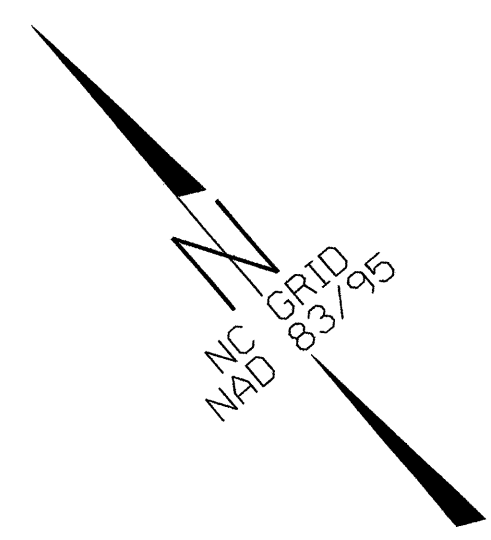
MATCHLINE -L- STA 69 + 00 (SEE SHEET EC7)

SEE SHEET 18 FOR PROFILE -L-





PROJECT REFERENCE NO. U-2928		SHEET NO. EC8
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	



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SEE SHEET 20 FOR PROFILE -LI-  
 SEE SHEET 23 FOR PROFILE -Y2-REV



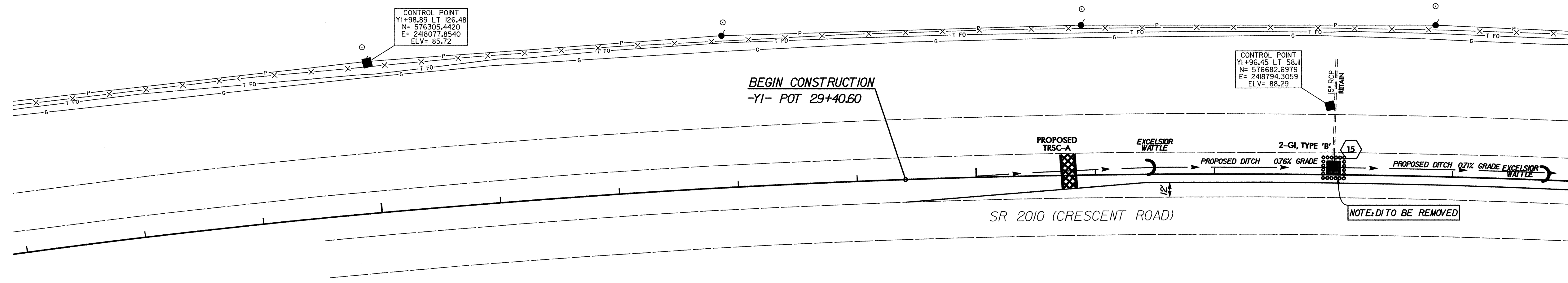
PROJECT REFERENCE NO. U-2928	SHEET NO. EC10
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



CULTIVATED FIELD

30

25



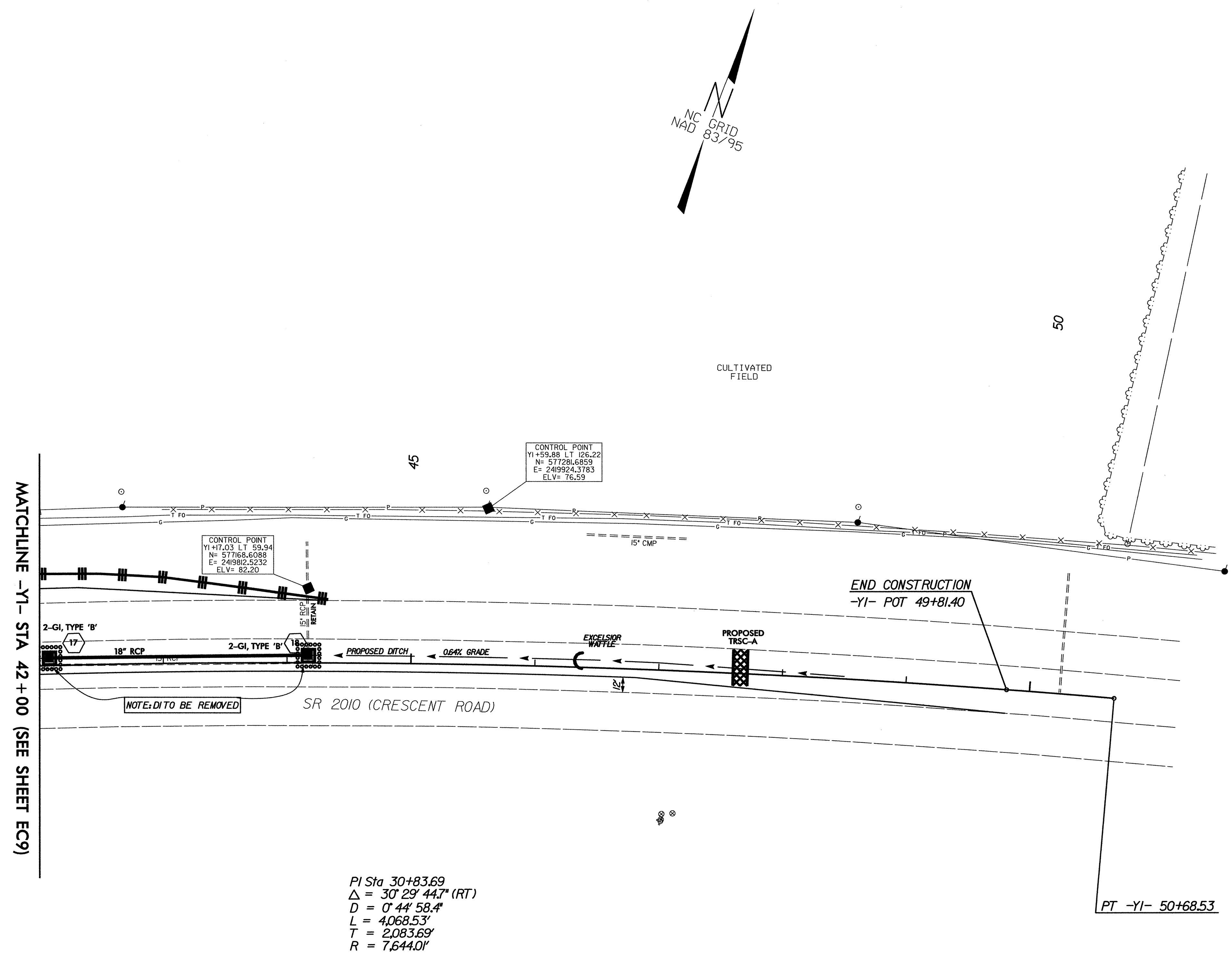
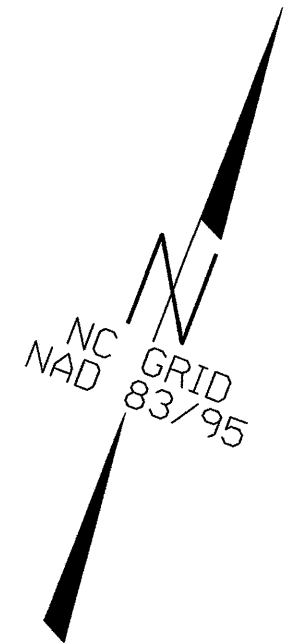
MATCHLINE -Y1- STA 35+00 (SEE SHEET EC9)

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 T = 2,083.69'  
 R = 7,644.01'

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8/17/99  
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PROJECT REFERENCE NO. U-2928	SHEET NO. EC11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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