

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4987	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**TIP PROJECT: B-4987**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

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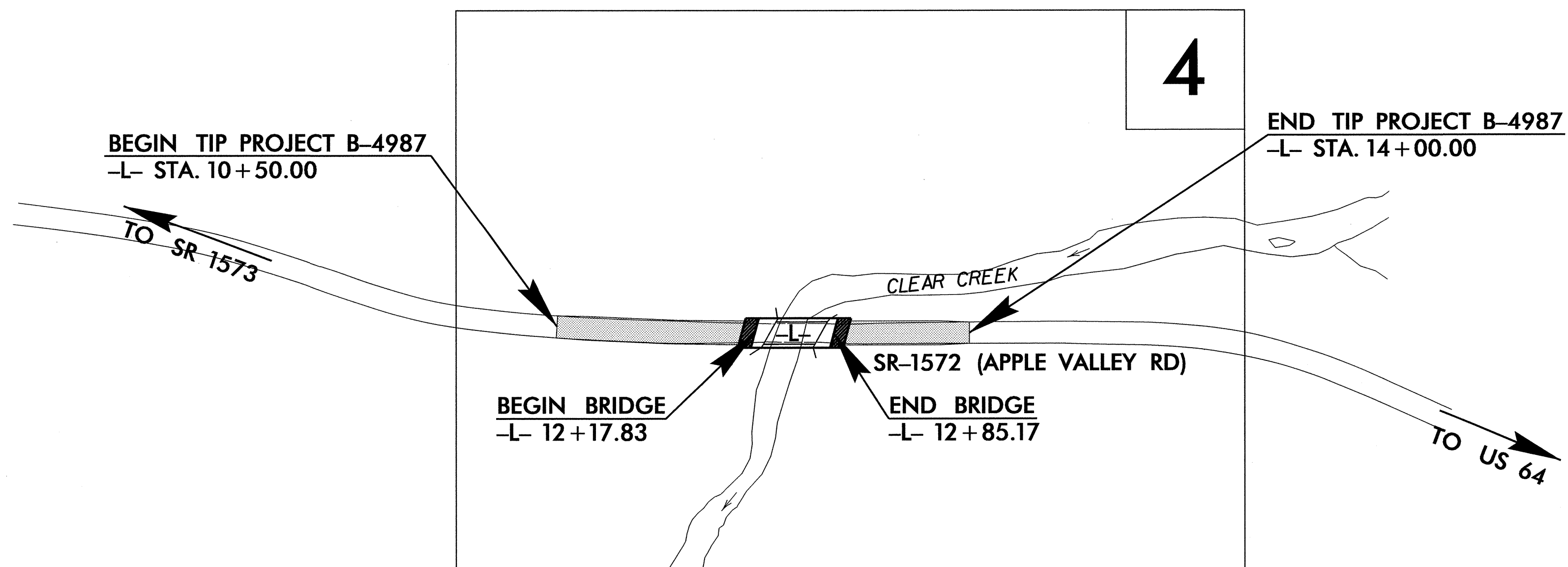
PLAN FOR PROPOSED  
HIGHWAY EROSION CONTROL

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**HENDERSON COUNTY**

**LOCATION: BRIDGE NO. 35 OVER CLEAR CREEK  
ON SR 1572 (APPLE VALLEY RD)**

**TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE**



**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	△△△△△
1622.01	Temporary Berms and Slope Drains	— T —
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	⊗
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	⊗
1633.02	Temporary Rock Silt Check Type-B	▶
	Wattle / Coir Fiber Wattle	⌒
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	⌒
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	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭

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

**THIS PROJECT HAS  
BEEN DESIGNED TO  
SENSITIVE WATERSHED  
STANDARDS.**

**ENVIRONMENTALLY  
SENSITIVE AREA(S) EXIST  
ON THIS PROJECT**

*Refer To E. C. Special Provisions  
for Special Considerations.*

**GRAPHIC SCALE**

0  
PLANS  
0  
PROFILE (HORIZONTAL)  
0  
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

**THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY  
WITH THE REGULATIONS SET FORTH BY THE  
NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011  
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND  
NATURAL RESOURCES DIVISION OF WATER QUALITY.**

Prepared In the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
1 South Wilmington St.  
Raleigh, NC 27611

**2012 STANDARD SPECIFICATIONS**

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 January 2012 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	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

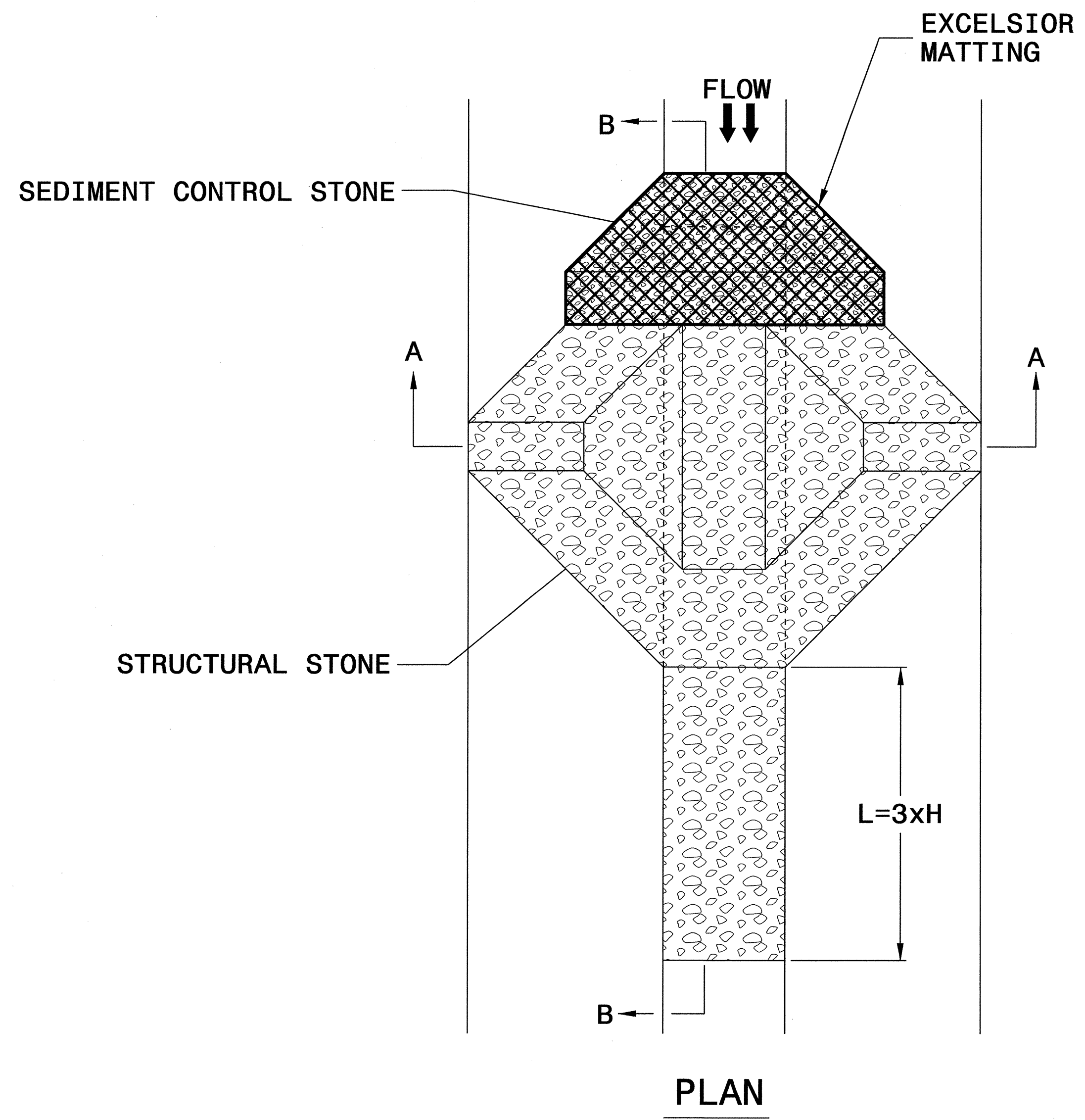
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Jenny.Pan





PROJECT REFERENCE NO. B-4987	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

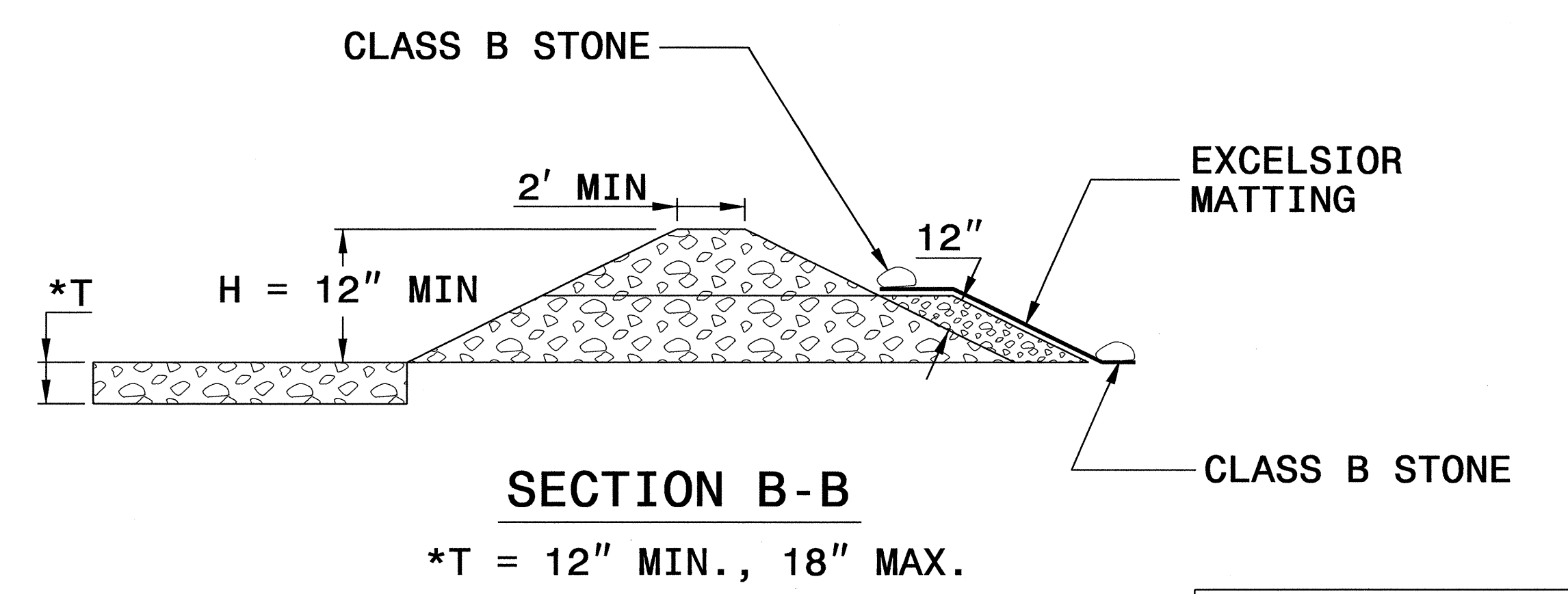
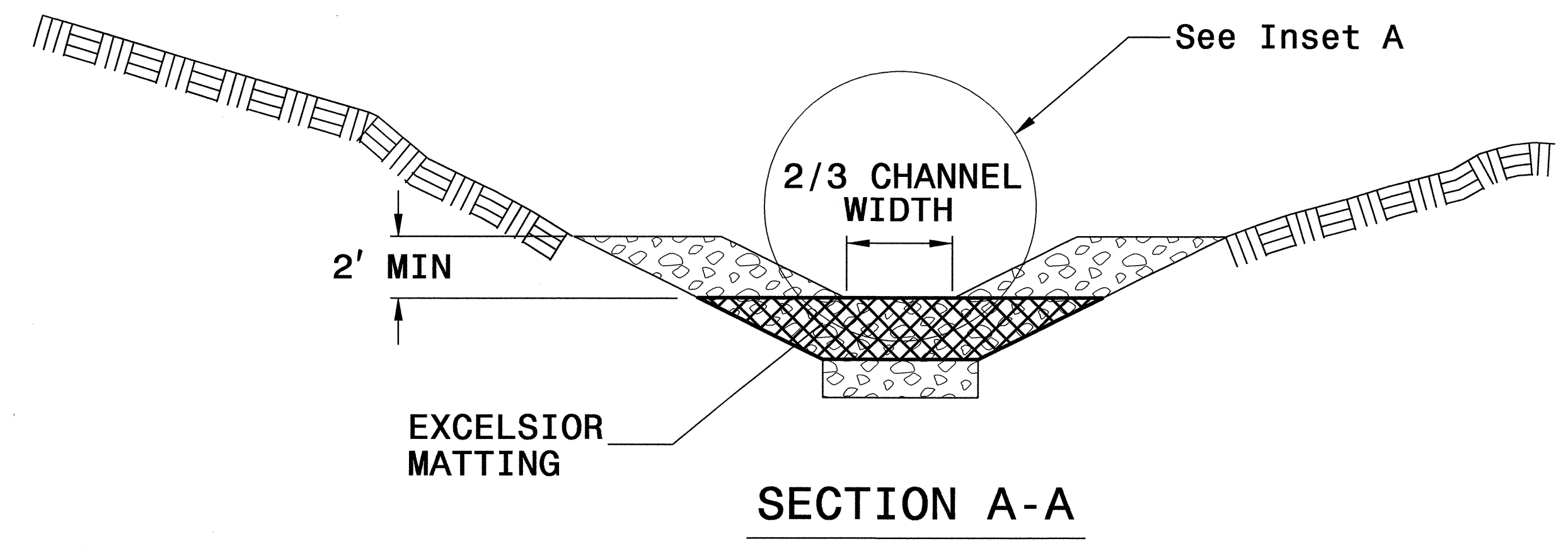
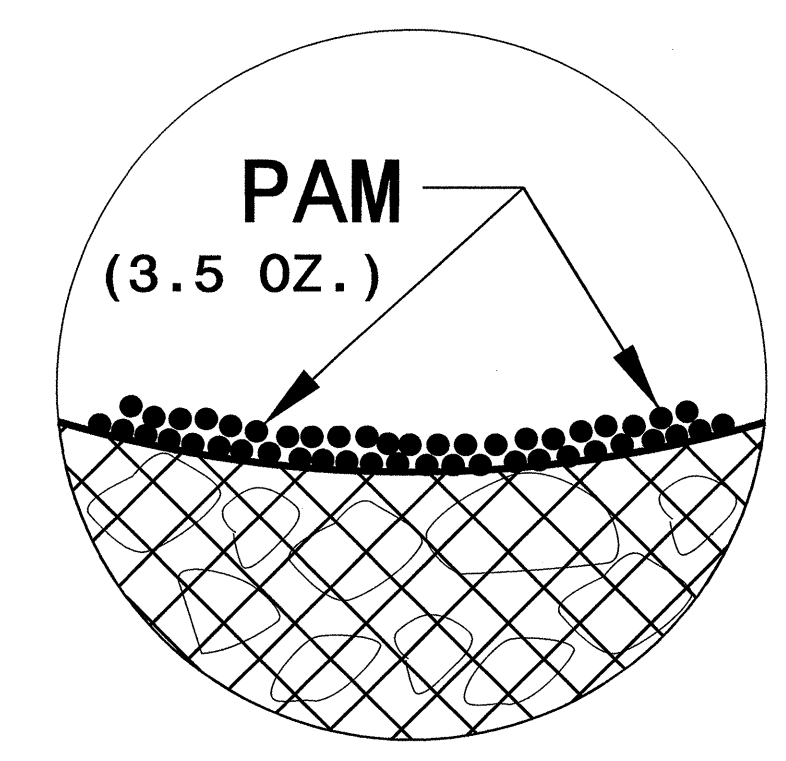


## NOTES

USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



NOT TO SCALE

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

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PROJECT REFERENCE NO. <i>B-4987</i>	SHEET NO. <i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

## ***SOIL STABILIZATION TIMEFRAMES***

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.



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ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

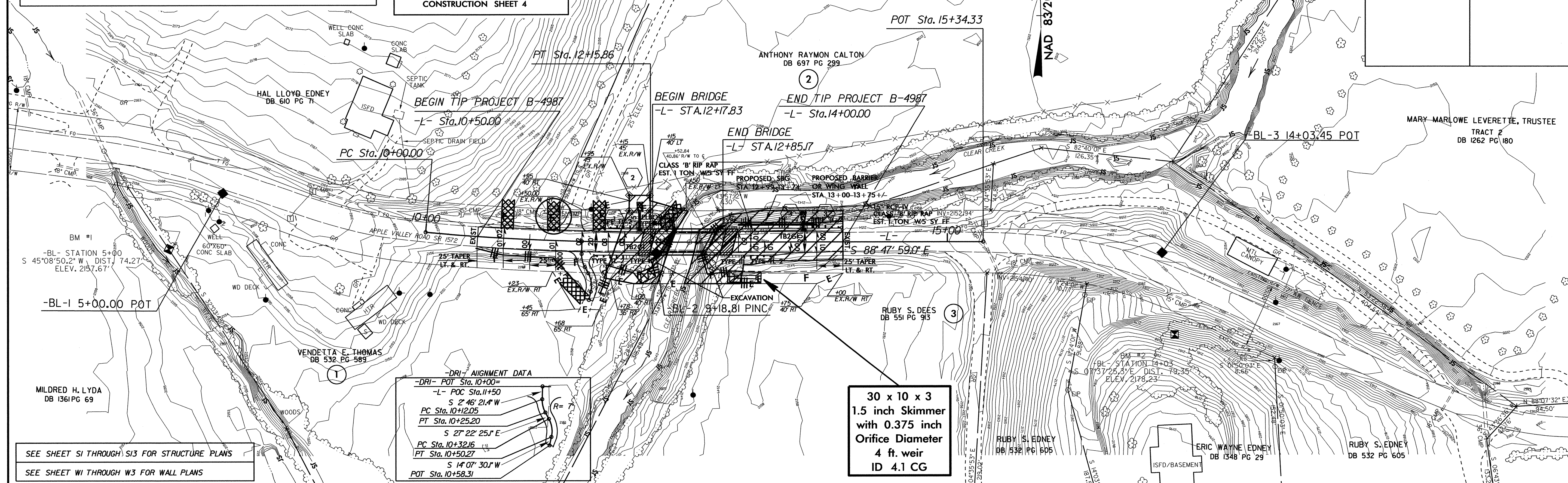
NOTE:  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B  
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT  
DRAINAGE OUTLETS.

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 4

BRIDGE DESCRIPTION  
WOODEN DECK WITH BST  
WOODEN GUARDRAILS  
WOODEN HEADWALLS  
WOODEN WINGWALLS  
7" STEEL "I" BEAMS  
HIGH WATER MARK=2156.57'

NOTE:  
UTILIZE SKIMMER BASIN  
AS STILLING BASIN WHERE APPLICABLE.

PROJECT REFERENCE NO. B-4987	SHEET NO. EC-4/CONST.4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	



SEE SHEET S1 THROUGH S13 FOR STRUCTURE PLANS  
SEE SHEET W1 THROUGH W3 FOR WALL PLANS

-DRI- ALIGNMENT DATA

-DRI- POT Sta. 10+00=
-L- POC Sta. 11+50
S 2° 46' 21.4" W
PC Sta. 10+12.05
PT Sta. 10+25.20
S 27° 22' 25.1" E
PC Sta. 10+32.16
PT Sta. 10+50.27
S 14° 07' 30.1" W
POT Sta. 10+58.31

30 x 10 x 3  
1.5 inch Skimmer  
with 0.375 inch  
Orifice Diameter  
4 ft. weir  
ID 4.1 CG

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 2700	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2152.9	FT
BASE DISCHARGE	= 3880	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2154.9	FT
OVERTOPPING DISCHARGE	= 8500	CFS
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING ELEVATION	= 2154.7	FT

DATE OF SURVEY = 11-15-2010  
W.S. ELEVATION AT DATE OF SURVEY = 2144.4 FT

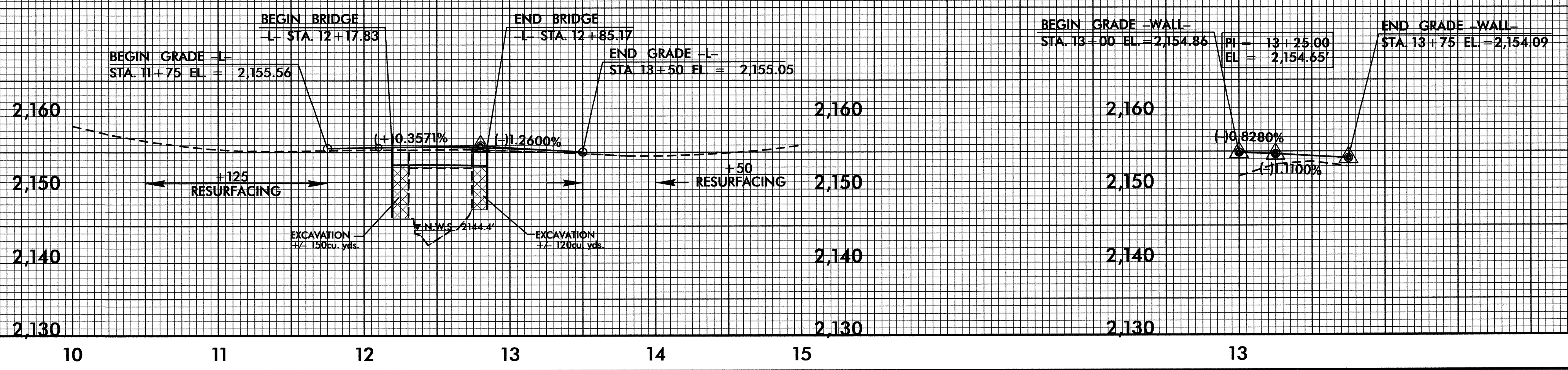
PI = 10+20.00	PI = 10+46.74
EL = 2154.76	EL = 2150.48
VC = 20'	VC = 20'

BEG. GRADE -DRI-  
STA. 10+10 EL = 2155.56

END GRADE -DRI-  
STA. 10+58.31 EL = 2150.26

-L-

PI = 12+80.00
EL = 2155.93'
VC = 140'
K = 87



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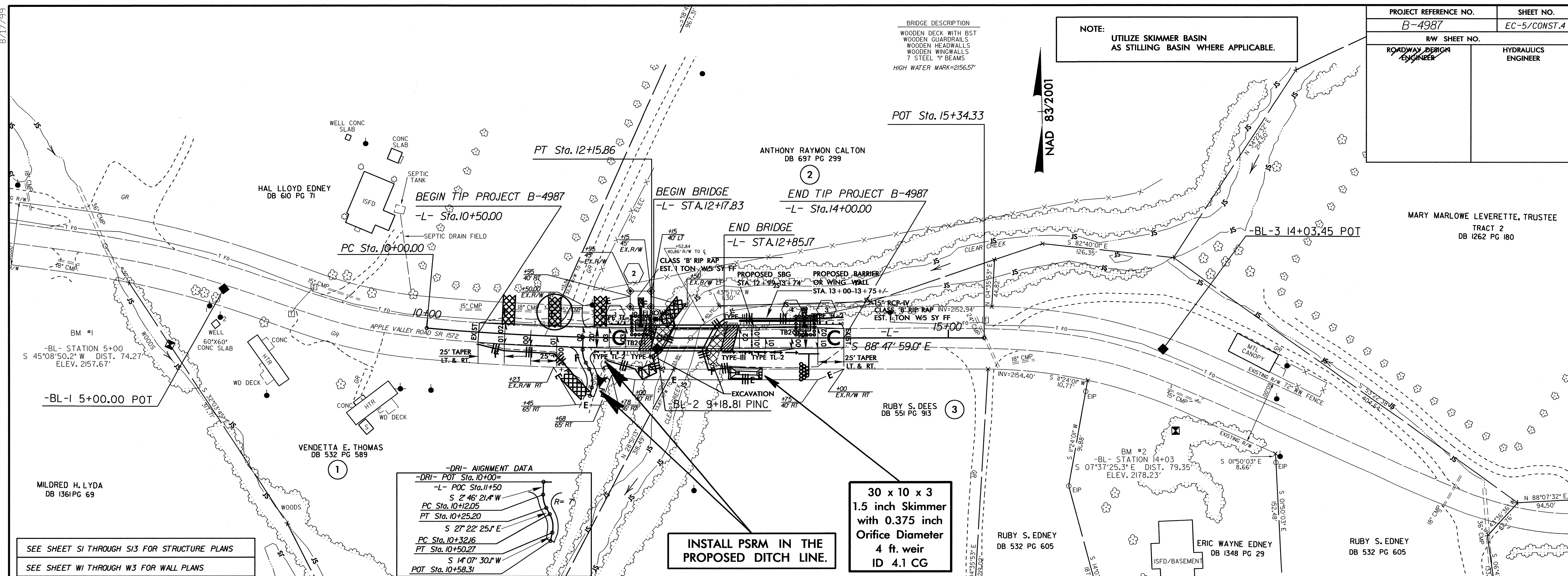


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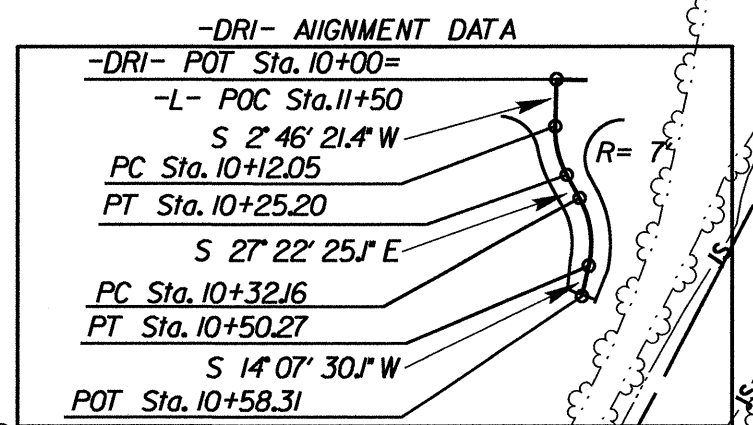
PROJECT REFERENCE NO.	SHEET NO.
B-4987	EC-5/CONST.4
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

BRIDGE DESCRIPTION  
 WOODEN DECK WITH BST  
 WOODEN GUARDRAILS  
 WOODEN HEADWALLS  
 WOODEN WINGWALLS  
 7 STEEL "I" BEAMS  
 HIGH WATER MARK=2156.57'

NOTE:  
 UTILIZE SKIMMER BASIN  
 AS STILLING BASIN WHERE APPLICABLE.



SEE SHEET S1 THROUGH S13 FOR STRUCTURE PLANS  
 SEE SHEET W1 THROUGH W3 FOR WALL PLANS



INSTALL PSRM IN THE  
 PROPOSED DITCH LINE.

30 x 10 x 3  
 1.5 inch Skimmer  
 with 0.375 inch  
 Orifice Diameter  
 4 ft. weir  
 ID 4.1 CG

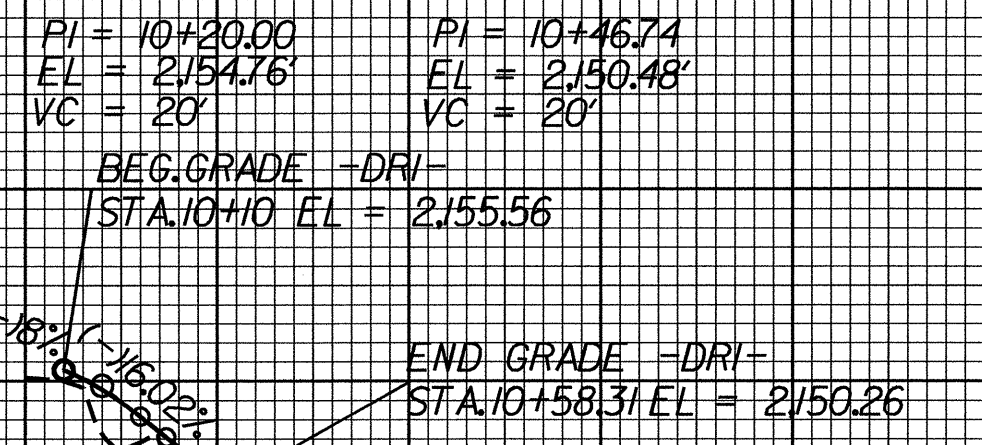
**BRIDGE HYDRAULIC DATA**

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DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 2152.9	FT
BASE DISCHARGE	= 3880	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 2154.9	FT
OVERTOPPING DISCHARGE	= 8500	CFS
OVERTOPPING FREQUENCY	= 500	YRS
OVERTOPPING ELEVATION	= 2154.7	FT

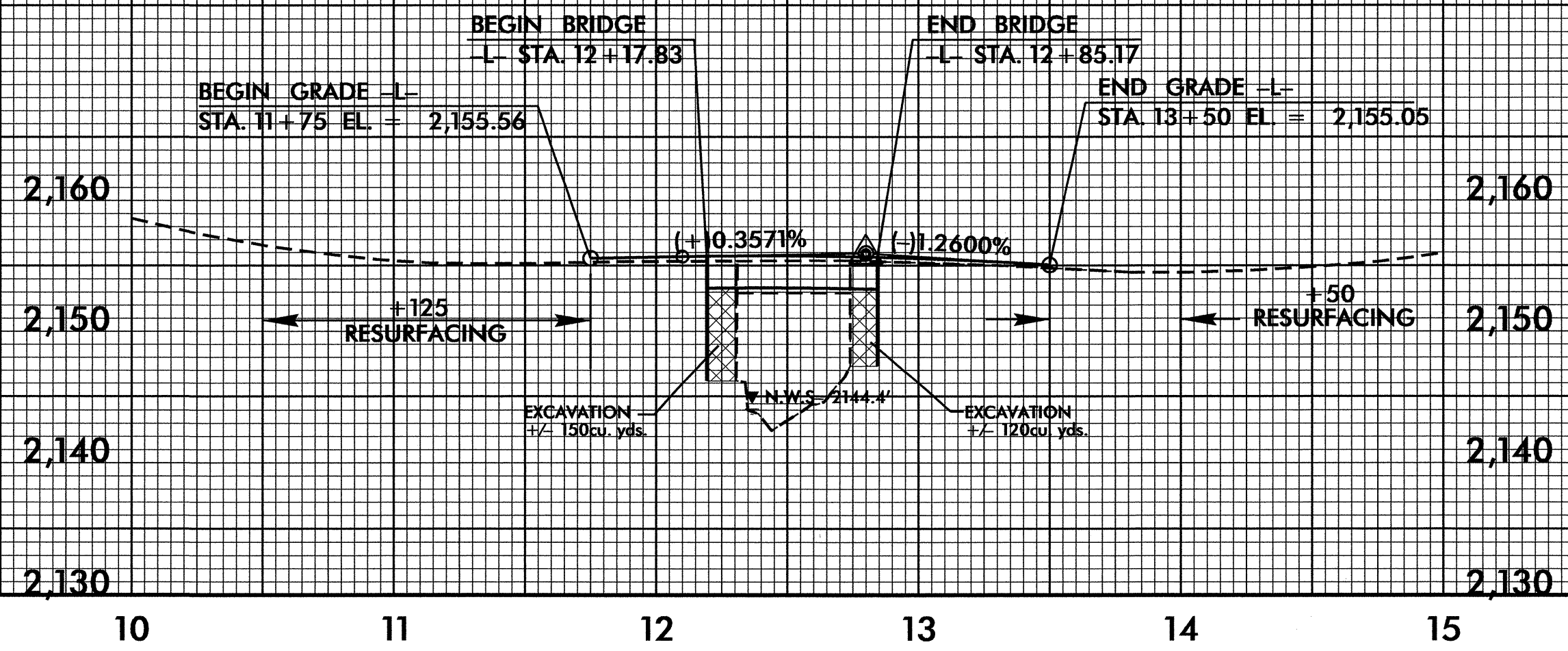
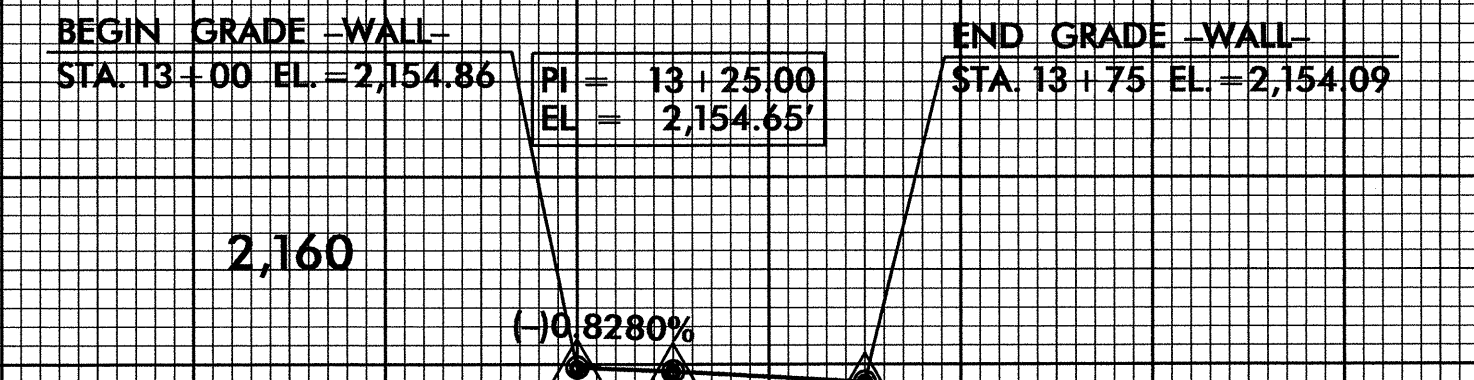
DATE OF SURVEY = 11-15-2010  
 WS ELEVATION  
 AT DATE OF SURVEY = 2144.4 FT

**-L-**

PI = 12+80.00  
 EL = 2,155.93'  
 VC = 140'  
 K = 87



**-WALL-**



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