TIP PROJECT: B-4525

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4525	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

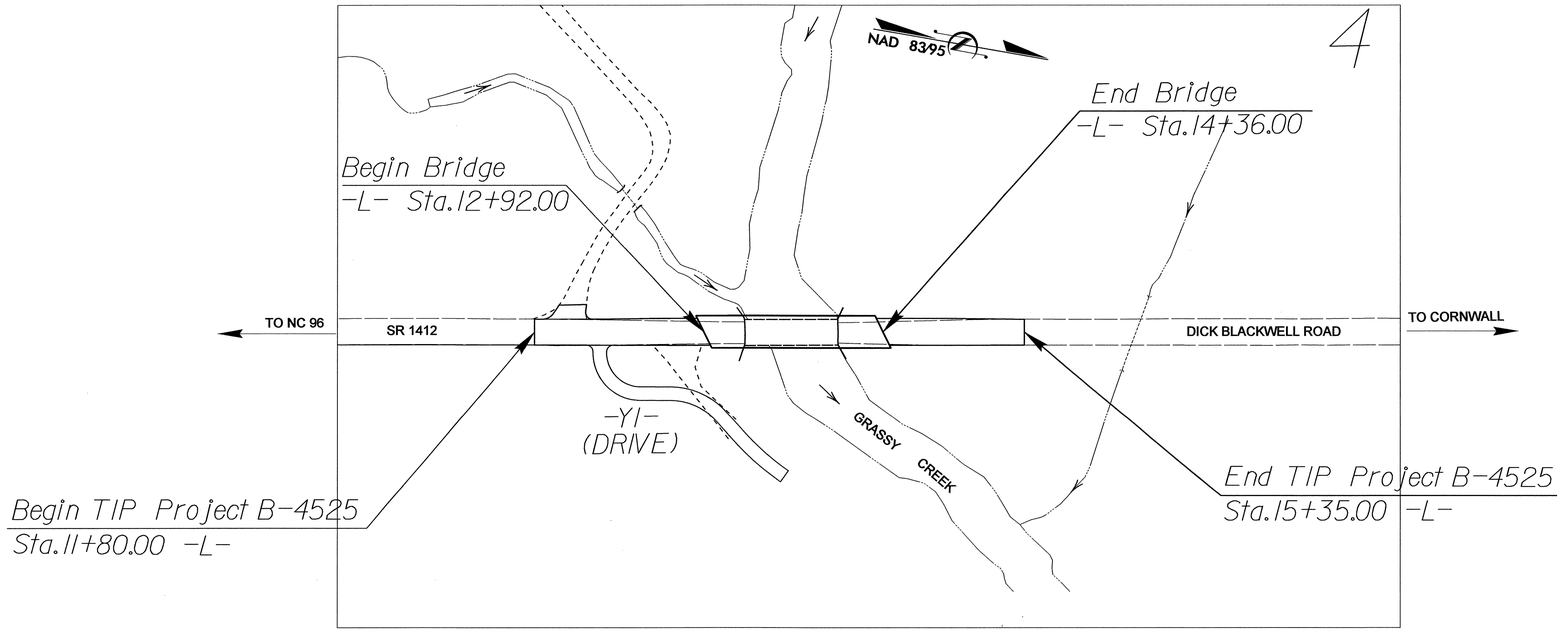
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

GRANVILLE COUNTY

LOCATION: BRIDGE #133 OVER GRASSY CREEK ON SR 1412 (Dick Blackwell Rd)

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



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
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	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.

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

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 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 July 18, 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1630.06 Special Stilling Basin
1607.01 Gravel Construction Entrance	1632.03 Rock Inlet Sediment Trap Type C
1630.05 Temporary Diversion	1633.01 Temporary Rock Silt Check Type A
	1635.02 Rock Pipe Inlet Sediment Trap Type B

PROJECT REFERENCE NO.	SHEET NO.
B-4525	EC-2
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-Y1-	10+30	11+80	RT	115
				SUBTOTAL	115
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					3015
				TOTAL	3130
				SAY	3150

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	12+40	13+00	RT	100
4	-L-	13+75	14+40	LT	35
				SUBTOTAL	135
		ADDITIONAL PSRM TO BE INSTALLED			20
				TOTAL	155
				SAY	160

PROJECT REFERENCE NO.	SHEET NO.
B-4525	EC-3/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

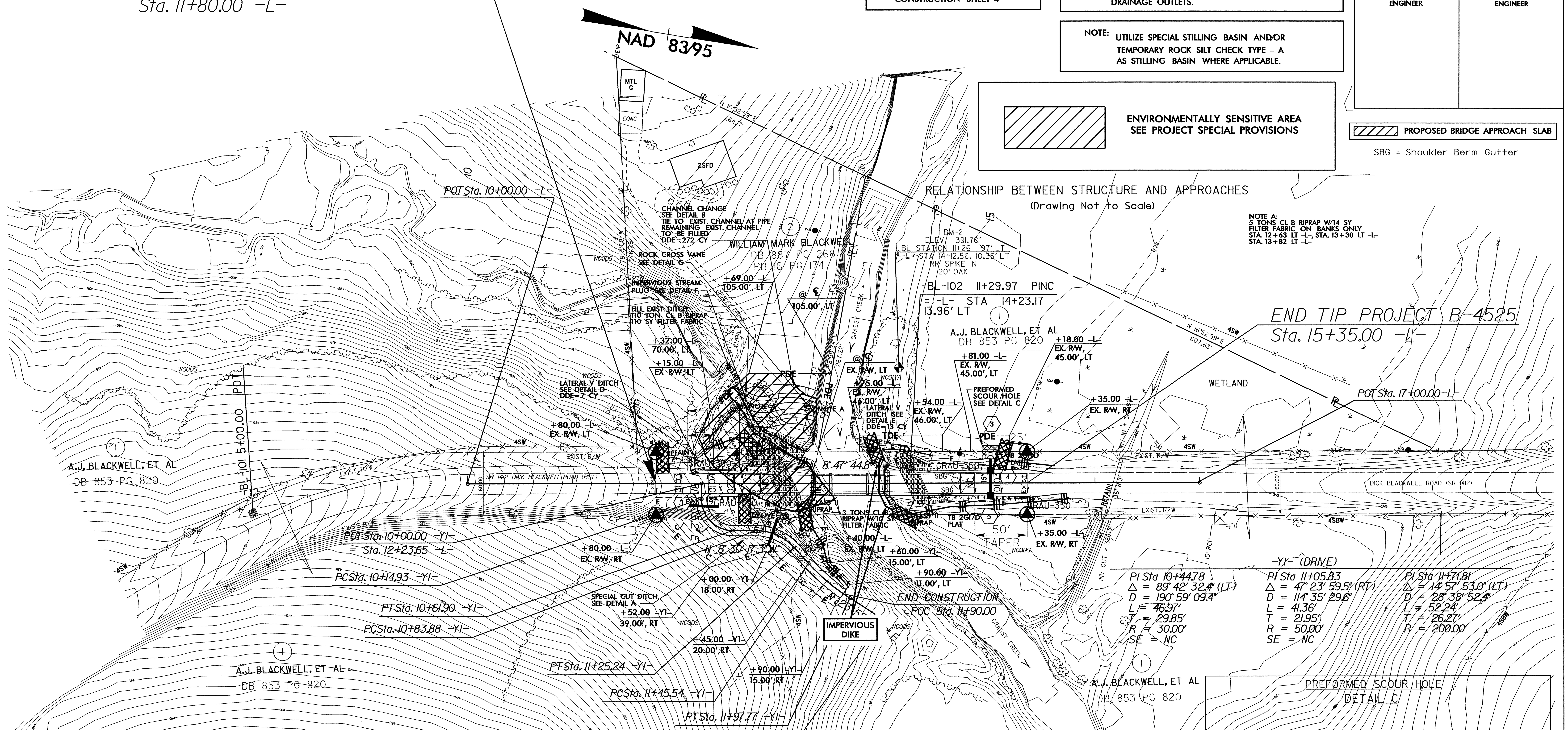
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE: UTILIZE SPECIAL STILLING BASIN AND/OR TEMPORARY ROCK SILT CHECK TYPE – A AS STILLING BASIN WHERE APPLICABLE.

▨ ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

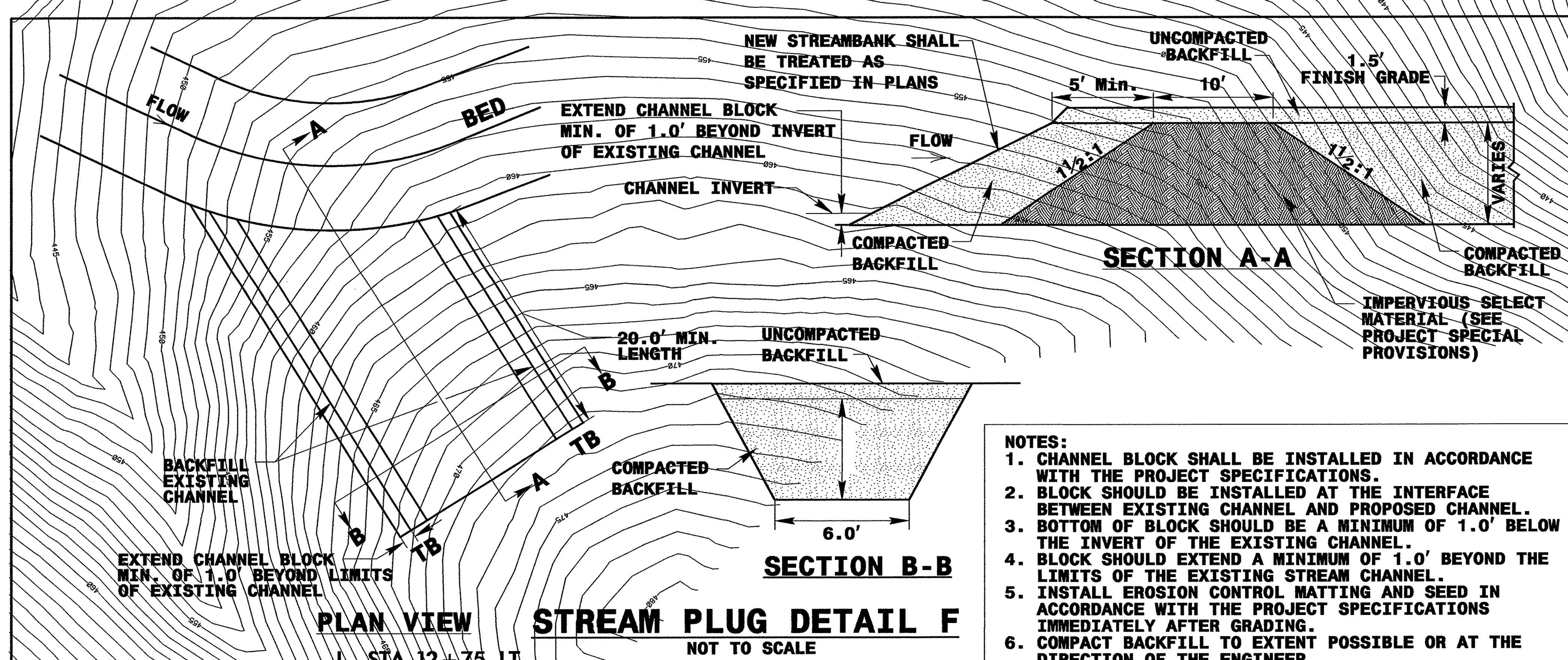
▨ PROPOSED BRIDGE APPROACH SLAB

SBG = Shoulder Berm Gutter



BEGIN TIP PROJECT B-4525
Sta. 11+80.00 -L-
NAD 83/95
END TIP PROJECT B-4525
Sta. 15+35.00 -L-
RELATIONSHIP BETWEEN STRUCTURE AND APPROACHES
(Drawing Not to Scale)
NOTE A:
5 TONS CL B RIPRAP W/14 SY
FILTER FABRIC ON BANKS ONLY
STA. 12+63 LT -L-, STA. 13+30 LT -L-
STA. 13+82 LT -L-
POT Sta. 10+00.00 -L-
POT Sta. 17+00.00-L-
WILLIAM MARK BLACKWELL
DB 887 PG 266
PB 16 PG 174
A.J. BLACKWELL, ET AL
DB 853 PG 820
BM-2
ELEV.= 391.70'
BL STATION 11+26 97' LT
-L- STA 14+12.56, 110.35' LT
RR SPIKE IN
20" OAK
-BL-102 11+29.97 PINC
= -L- STA 14+23.17
13.96' LT
-BL-101 5+00.00 POT
CHANNEL CHANGE
SEE DETAIL B
TIE TO EXIST. CHANNEL AT PIPE
REMAINING EXIST. CHANNEL
TO BE FILLED
DDE=272 CY
ROCK CROSS VANE
SEE DETAIL G
IMPERVIOUS STREAM
PLUG SEE DETAIL F
FILL EXIST. DITCH
110 TON CL B RIPRAP
110 SY FILTER FABRIC
LATERAL V DITCH
SEE DETAIL D
DDE=7 CY
LATERAL V
DITCH SEE
DETAIL E
DDE=13 CY
PREFORMED
SCOUR HOLE
SEE DETAIL C
WETLAND
GRASSY CREEK
SR 1412 DICK BLACKWELL ROAD (BST)
DICK BLACKWELL ROAD (SR 1412)
EXIST. R/W
3 TONS CL B
RIPRAP W/10 SY
FILTER FABRIC
CLASS II RIPRAP
TB 2GI/D
FLAT
50'
TAPER
IMPERVIOUS
DIKE
SPECIAL CUT DITCH
SEE DETAIL A
END CONSTRUCTION
POC Sta. 11+90.00
POT Sta. 10+00.00 -Y1-
= Sta. 12+23.65 -L-
PC Sta. 10+14.93 -Y1-
PT Sta. 10+61.90 -Y1-
PC Sta. 10+83.88 -Y1-
PT Sta. 11+25.24 -Y1-
PC Sta. 11+45.54 -Y1-
PT Sta. 11+97.77 -Y1-
POT Sta. 12+35.91 -Y1-
-Y1- (DRIVE)
PI Sta 10+44.78
Δ = 89° 42' 32.4" (LT)
D = 190° 59' 09.4"
L = 46.97'
T = 29.85'
R = 30.00'
SE = NC
PI Sta 11+05.83
Δ = 47° 23' 59.5" (RT)
D = 114° 35' 29.6"
L = 41.36'
T = 21.95'
R = 50.00'
SE = NC
PI Sta 11+71.81
Δ = 14° 57' 53.0" (LT)
D = 28° 38' 52.4"
L = 52.24'
T = 26.27'
R = 200.00'

PSRM = Permanent Soil Reinforcement Mat.

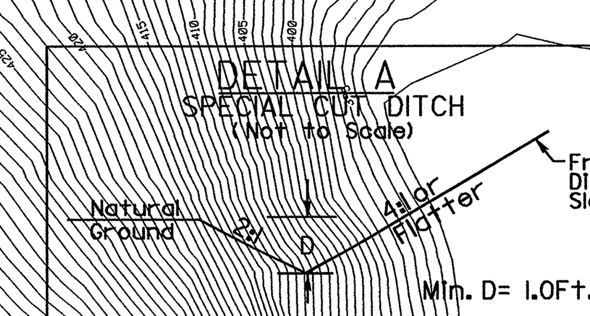


NEW STREAMBANK SHALL BE TREATED AS SPECIFIED IN PLANS
UNCOMPACTED BACKFILL
1.5'
FINISH GRADE
5' Min.
10'
FLOW
BED
EXTEND CHANNEL BLOCK MIN. OF 1.0' BEYOND INVERT OF EXISTING CHANNEL
CHANNEL INVERT
COMPACTED BACKFILL
SECTION A-A
IMPERVIOUS SELECT MATERIAL (SEE PROJECT SPECIAL PROVISIONS)
VARIES
20.0' MIN. LENGTH
BACKFILL EXISTING CHANNEL
EXTEND CHANNEL BLOCK MIN. OF 1.0' BEYOND LIMITS OF EXISTING CHANNEL
6.0'
SECTION B-B
PLAN VIEW
-L- STA. 12+75 LT

STREAM PLUG DETAIL F
NOT TO SCALE

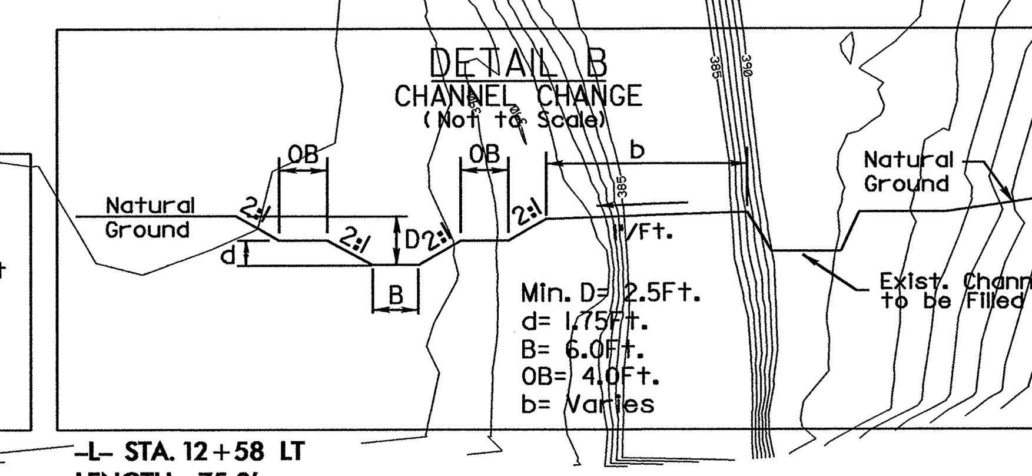
NOTES:
1. CHANNEL BLOCK SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
2. BLOCK SHOULD BE INSTALLED AT THE INTERFACE BETWEEN EXISTING CHANNEL AND PROPOSED CHANNEL.
3. BOTTOM OF BLOCK SHOULD BE A MINIMUM OF 1.0' BELOW THE INVERT OF THE EXISTING CHANNEL.
4. BLOCK SHOULD EXTEND A MINIMUM OF 1.0' BEYOND THE LIMITS OF THE EXISTING STREAM CHANNEL.
5. INSTALL EROSION CONTROL MATTING AND SEED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS IMMEDIATELY AFTER GRADING.
6. COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



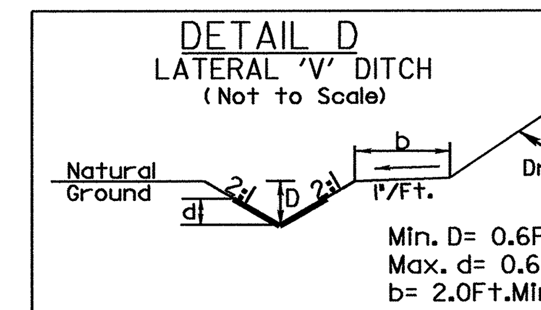
FROM -Y1- STA. 10+70 TO STA. 11+30 RT

DETAIL B
CHANNEL CHANGE
(Not to Scale)



-L- STA. 12+58 LT
LENGTH=75.0'
S=0.50% W/1.0' STEP ROCK CROSS VANE
BEG EL=386.00', END EL=384.63'

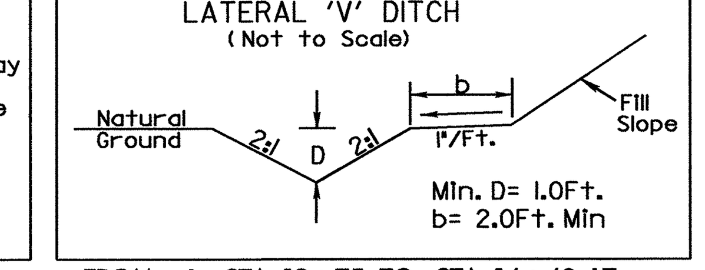
DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

-L- STA. 12+20 LT
LENGTH=70.0', S=15.87%
BEG EL=397.06', END EL=385.95'

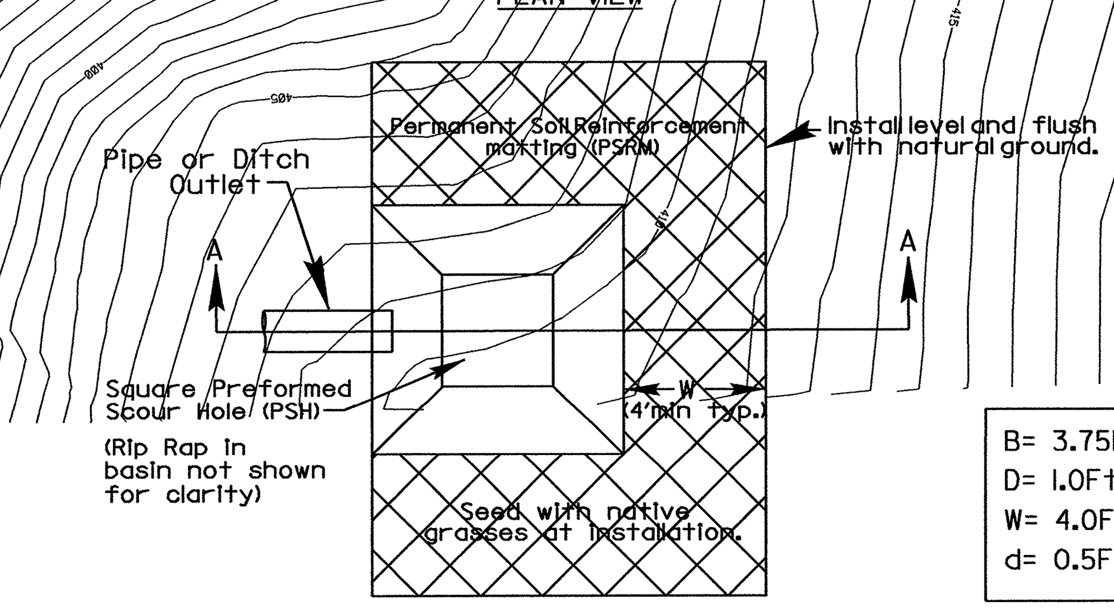
DETAIL E
LATERAL 'V' DITCH
(Not to Scale)



FROM -L- STA. 13+75 TO STA. 14+40 LT

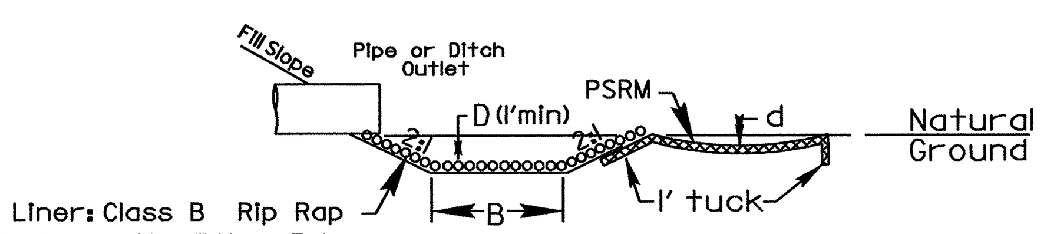
PREFORMED SCOUR HOLE
DETAIL C

PLAN VIEW



B= 3.75Ft.	
D= 1.0Ft.	
W= 4.0Ft.	
d= 0.5Ft.	

SECTION A-A



5/05

SEE SHEET 5 FOR -L- & -Y1- PROFILE
SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-4525	EC-4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

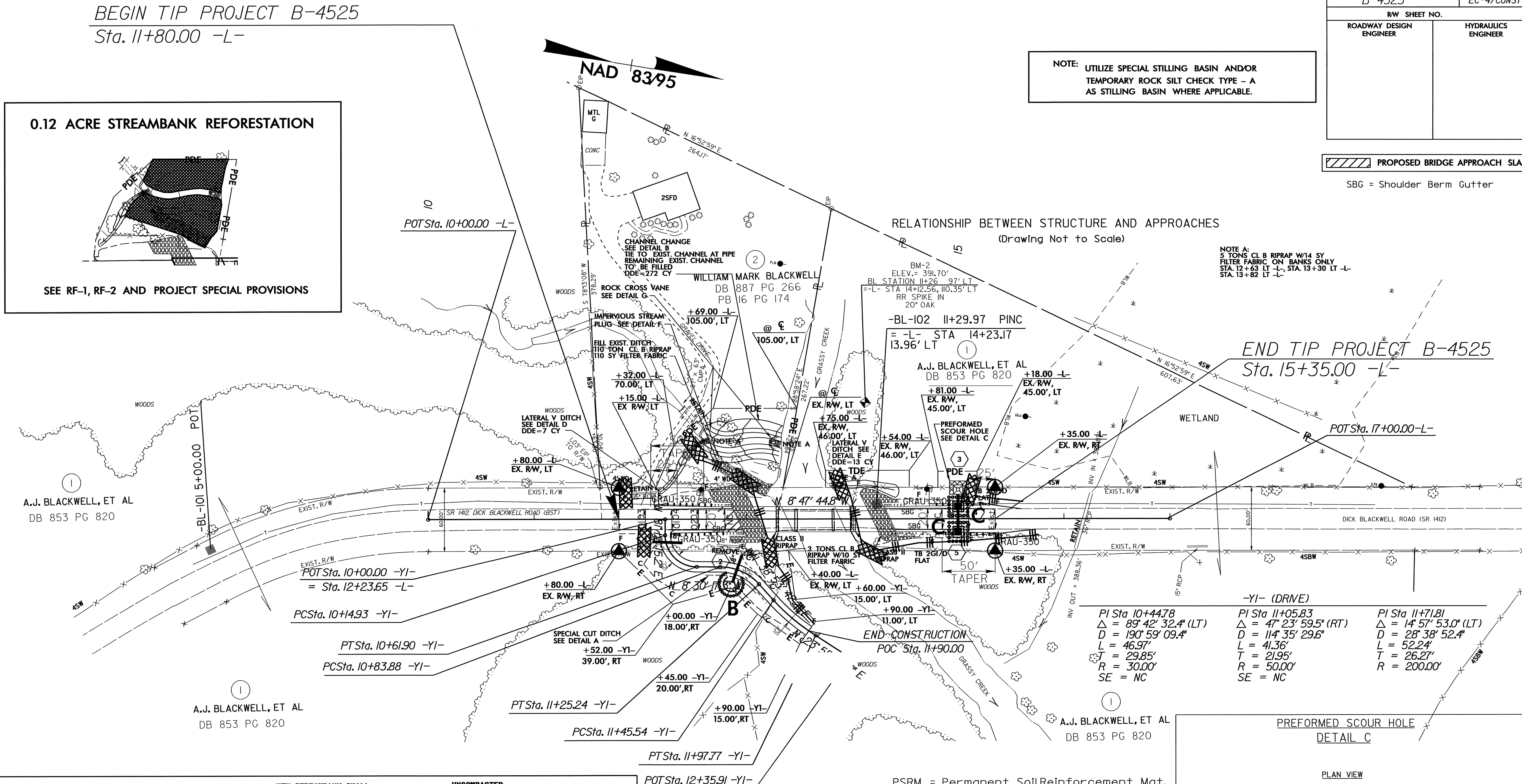
NOTE: UTILIZE SPECIAL STILLING BASIN AND/OR TEMPORARY ROCK SILT CHECK TYPE – A AS STILLING BASIN WHERE APPLICABLE.

▨ PROPOSED BRIDGE APPROACH SLAB

SBG = Shoulder Berm Gutter

0.12 ACRE STREAMBANK REFORESTATION

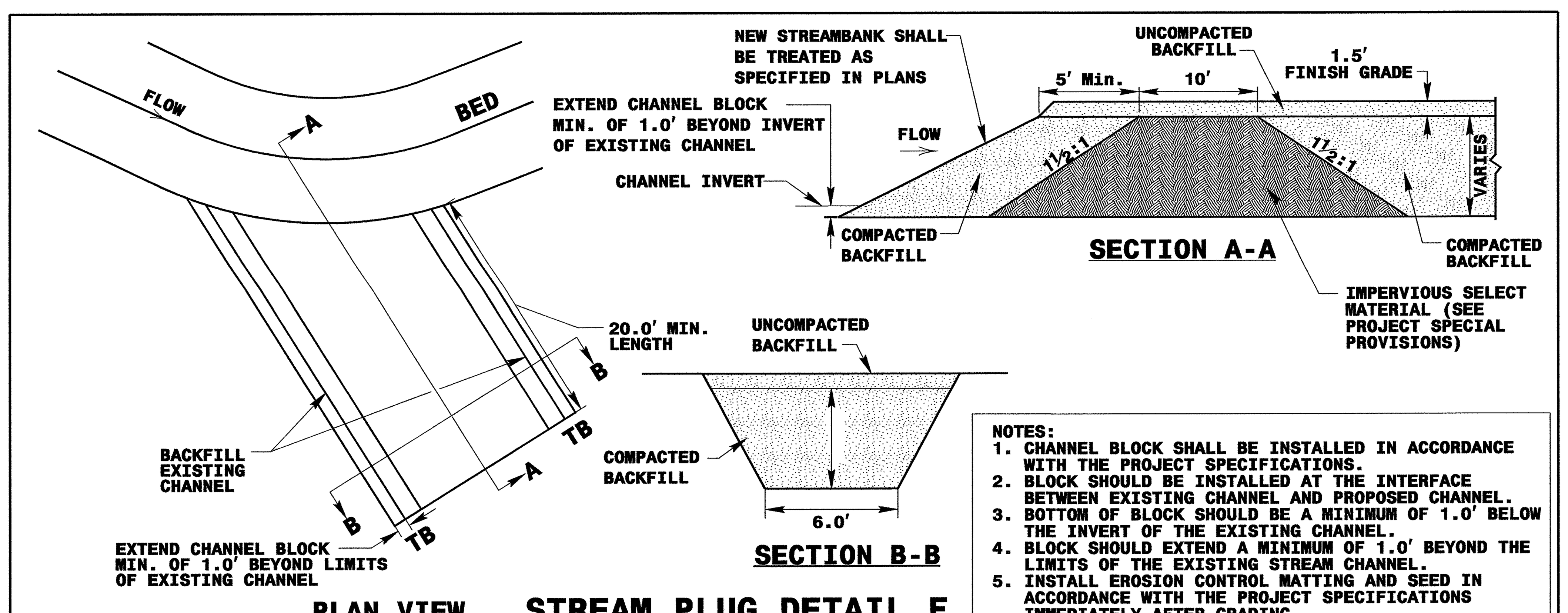
SEE RF-1, RF-2 AND PROJECT SPECIAL PROVISIONS



-Y1- (DRIVE)

PI Sta 10+44.78	PI Sta 11+05.83	PI Sta 11+71.81
Δ = 89° 42' 32.4" (LT)	Δ = 47° 23' 59.5" (RT)	Δ = 14° 57' 53.0" (LT)
D = 190° 59' 09.4"	D = 114° 35' 29.6"	D = 28° 38' 52.4"
L = 46.97'	L = 41.36'	L = 52.24'
T = 29.85'	T = 21.95'	T = 26.27'
R = 30.00'	R = 50.00'	R = 200.00'
SE = NC	SE = NC	

STREAM PLUG DETAIL F
NOT TO SCALE



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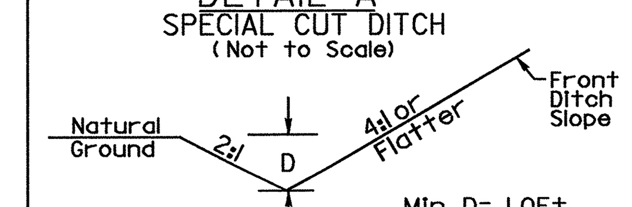
6. COMPACT BACKFILL TO EXTENT POSSIBLE OR AT THE DIRECTION OF THE ENGINEER.

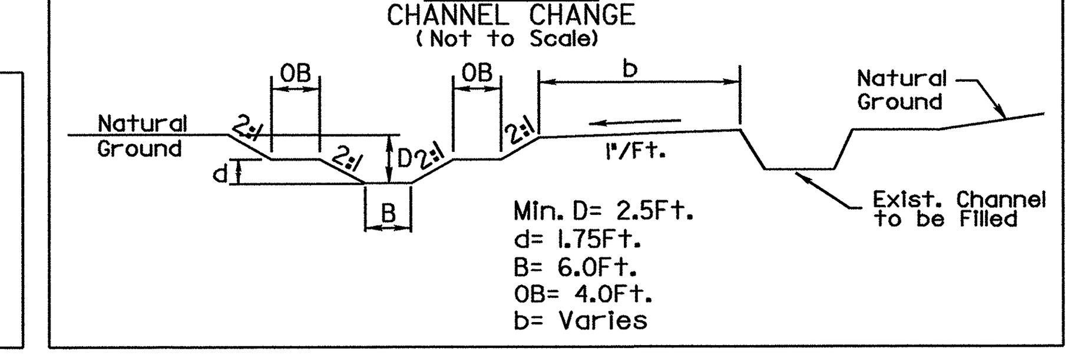
PSRM = Permanent Soil Reinforcement Mat.

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



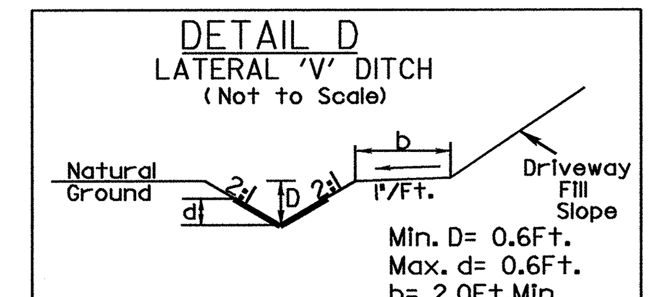
FROM -Y1- STA. 10+70 TO STA. 11+30 RT

DETAIL B
CHANNEL CHANGE
(Not to Scale)



-L- STA. 12+58 LT
LENGTH=75.0'
S=0.50% W/1.0' STEP ROCK CROSS VANE
BEG EL=386.00', END EL=384.63'

DETAIL D
LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

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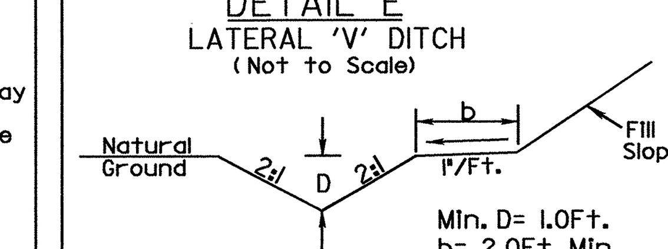
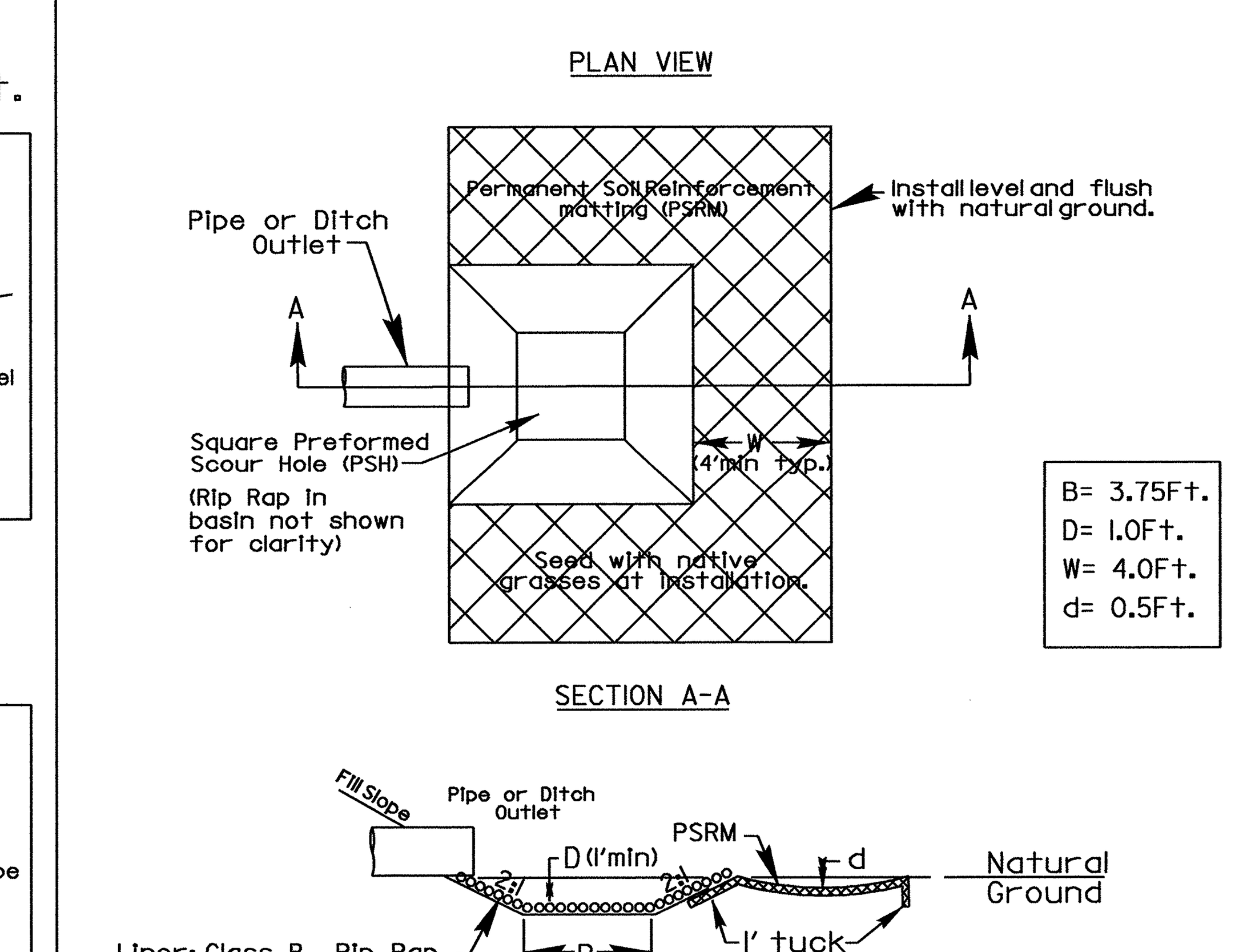
LENGTH=70.0', S=15.87%
BEG EL=397.06', END EL=385.95'

DETAIL E
LATERAL 'V' DITCH
(Not to Scale)



FROM -L- STA. 13+75 TO STA. 14+40 LT

PREFORMED SCOUR HOLE
DETAIL C



B= 3.75Ft.
D= 1.0Ft.
W= 4.0Ft.
d= 0.5Ft.

5/05

SEE SHEET 5 FOR -L- & -Y1- PROFILE

SEE SHEET S-1 THRU S- FOR STRUCTURE PLANS