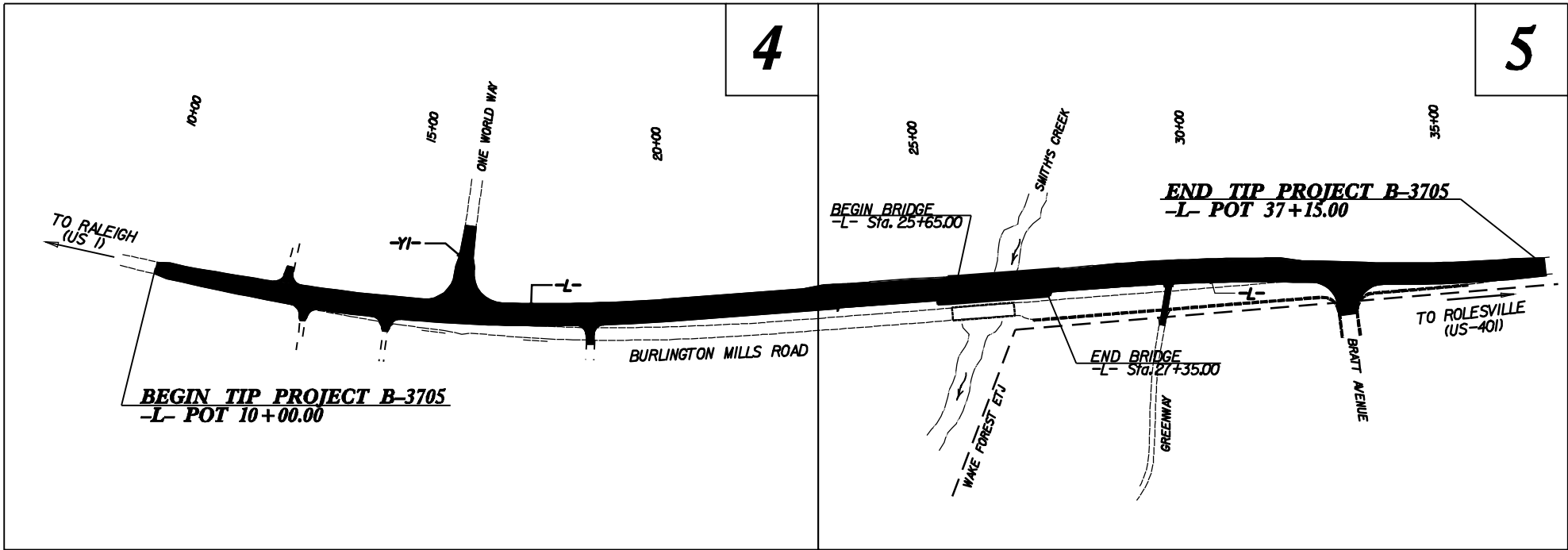


TIP PROJECT: B-3705



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
WAKE COUNTY

LOCATION: BRIDGE NO.125 OVER SMITH'S CREEK ON SR 2045 (BURLINGTON MILLS RD)



EROSION AND SEDIMENT CONTROL MEASURES

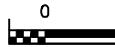
Sta. #	Description	Symbol
	Streambank Replantation	
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
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	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	
	Tiered Skimmer Basin	

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

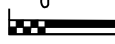
THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

ENVIRONMENTALLY
SENSITIVE AREA(S) EXIST
ON THIS PROJECT
Refer to E.C. Special Provisions
for Special Considerations

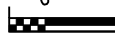
GRAPHIC SCALE



PLANS



PROFILE (HORIZONTAL)



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

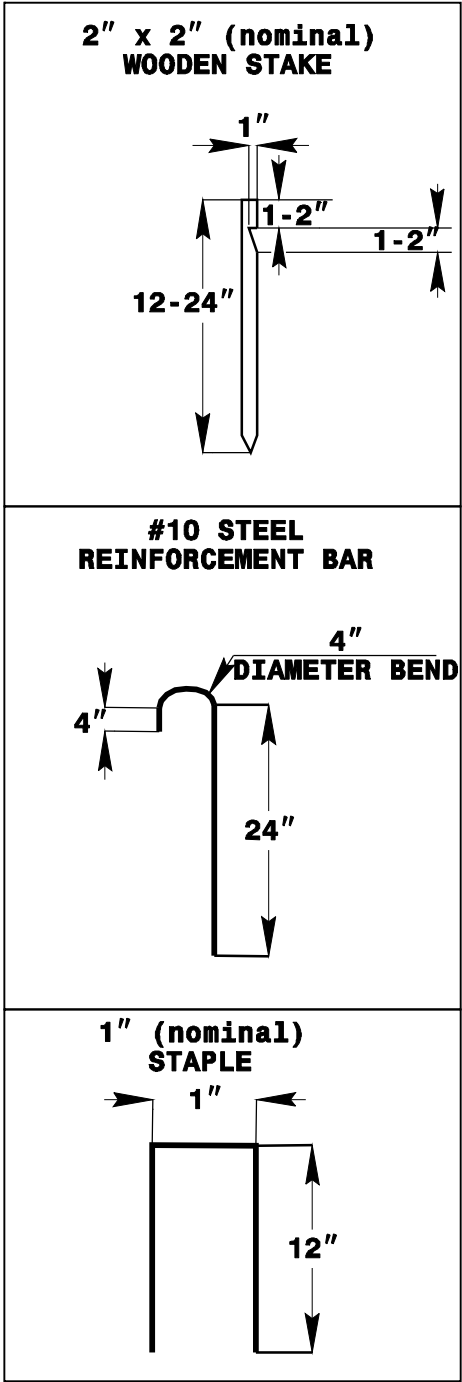
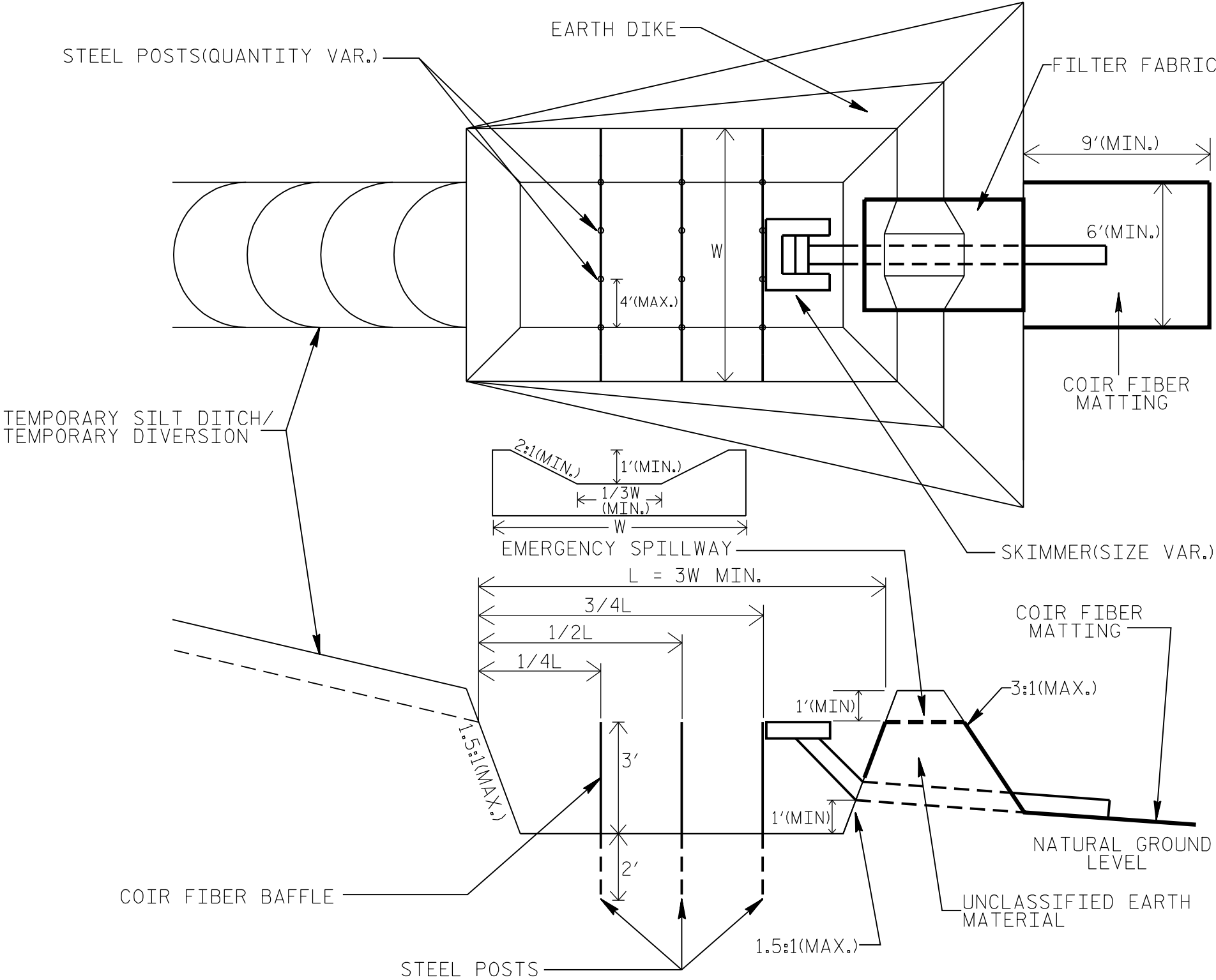
Roadway Standard Drawings

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 revision 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	1632.01	Rock Inlet Sediment Trap Type A
1622.01	Temporary Berms and Slope Drains	1632.03	Rock Inlet Sediment Trap Type C
1630.03	Temporary Silt Ditch	1633.01	Temporary Rock Silt Check Type A
1630.05	Temporary Diversion	1634.02	Temporary Rock Sediment Dam Type B
		1635.02	Rock Pipe Inlet Sediment Trap Type B

SKIMMER BASIN WITH BAFFLES DETAIL

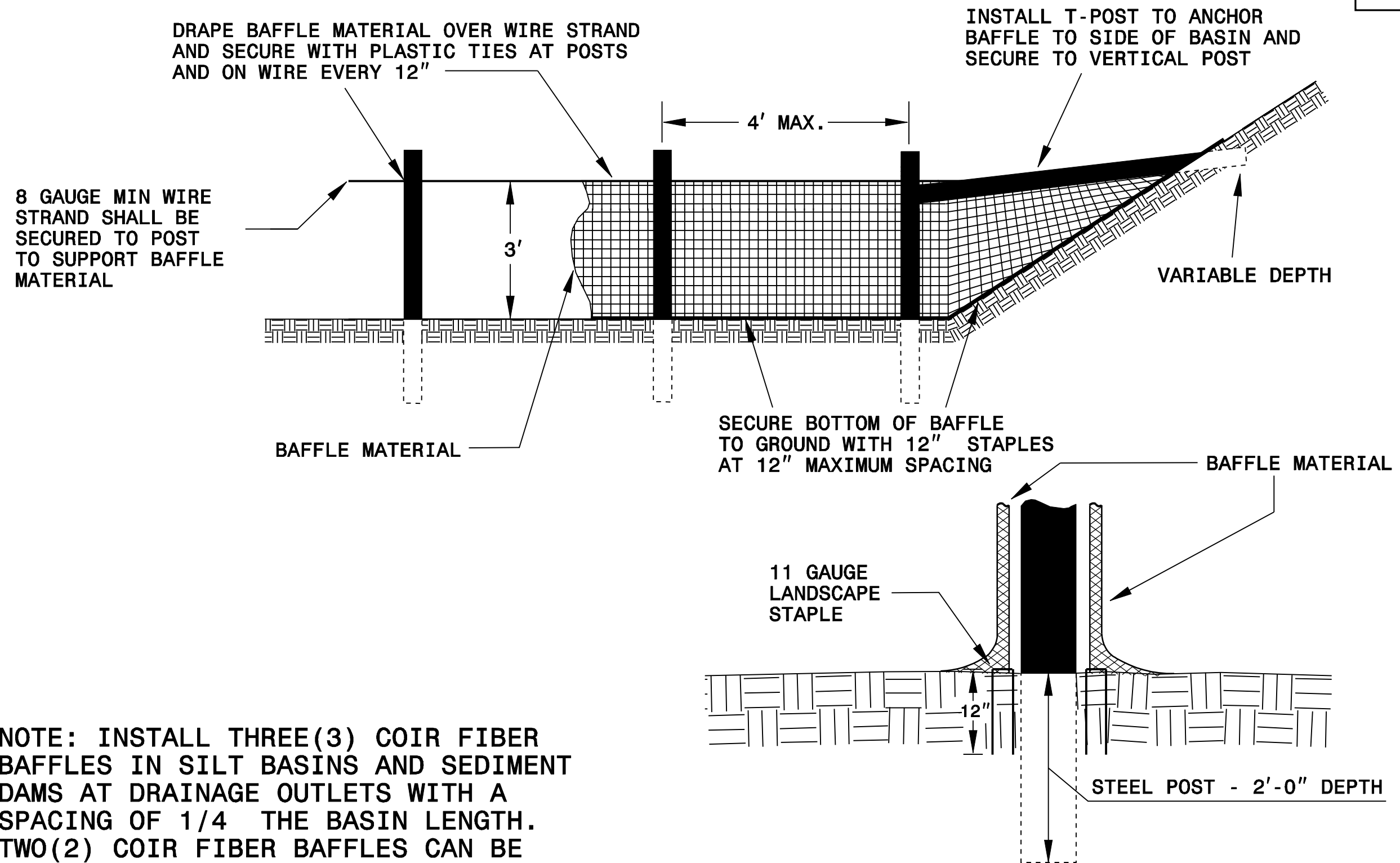
PROJECT REFERENCE NO.		SHEET NO.	
B-3705		EC-2	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



COIR FIBER MAT
ANCHOR OPTIONS

PROJECT REFERENCE NO.	SHEET NO.
B-3705	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL

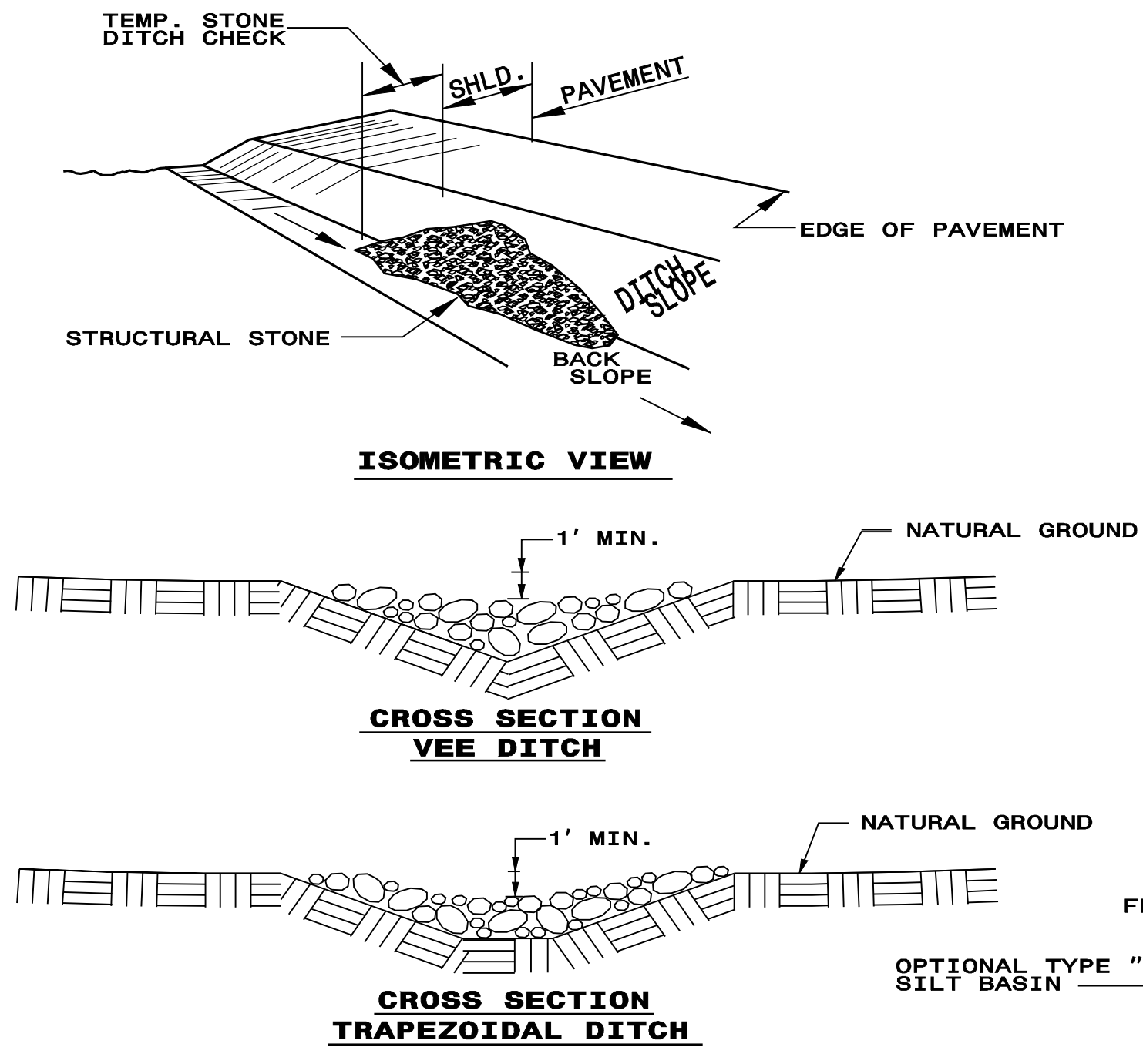


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF 1/4 THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

PROJECT REFERENCE NO.		SHEET NO.	
B-3705		EC-2B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

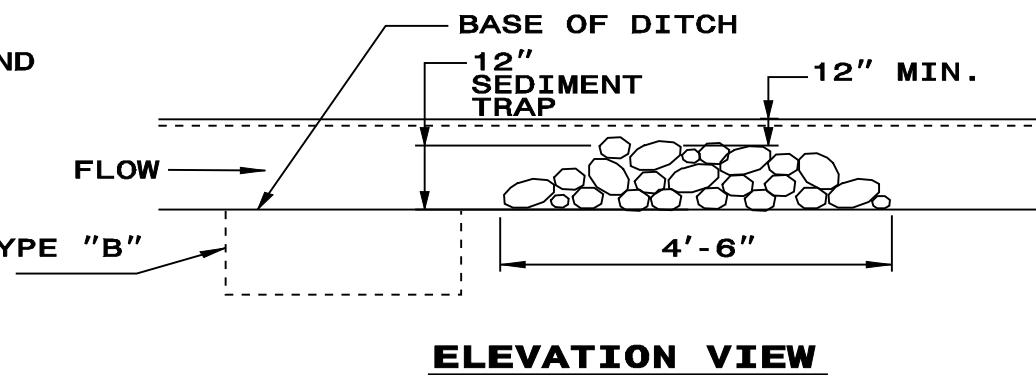
TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL



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%.



DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

PERMANENT SOIL REINFORCEMENT MAT

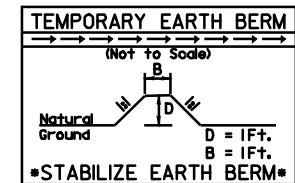
[illegible][illegible]

PROJECT REFERENCE NO.	SHEET NO.
<i>B-3705</i>	<i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

-L-

PI = 15+33.94
Δ = 17° 01' 21.8" (LT)
D = 1' 47" 25.8"
L = 950.73'
T = 478.89'
R = 3,200.00'
DS = 50 MPH
SE = 0.04
RUNOFF = 96'



PROJECT REFERENCE NO.	SHEET NO.
B-3705	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

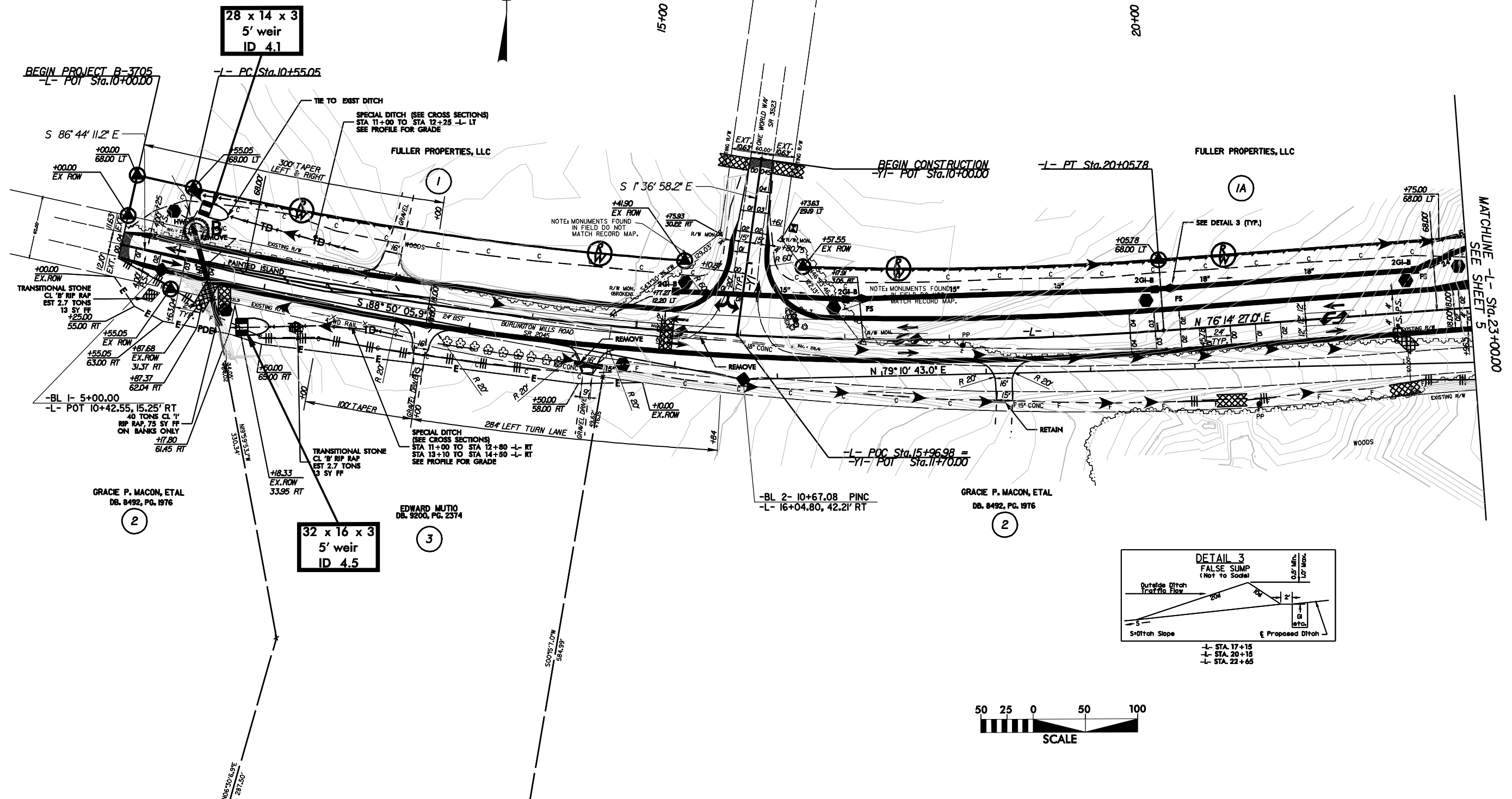
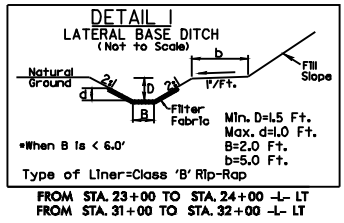
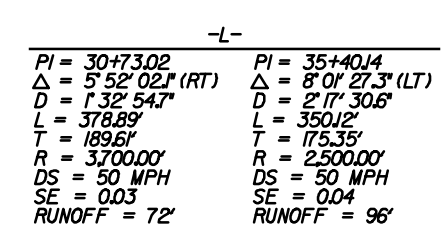


Diagram illustrating a Temporary Earth Berm. The berm is shown as a raised structure on natural ground. The diagram is labeled "(Not to Scale)". The berm is flanked by "Natural Ground". The berm is labeled "B" and "D". The dimensions are given as $D = 1\text{ft.}$ and $B = 1\text{ft.}$. The diagram is labeled ***STABILIZE EARTH BERM***.

35+00

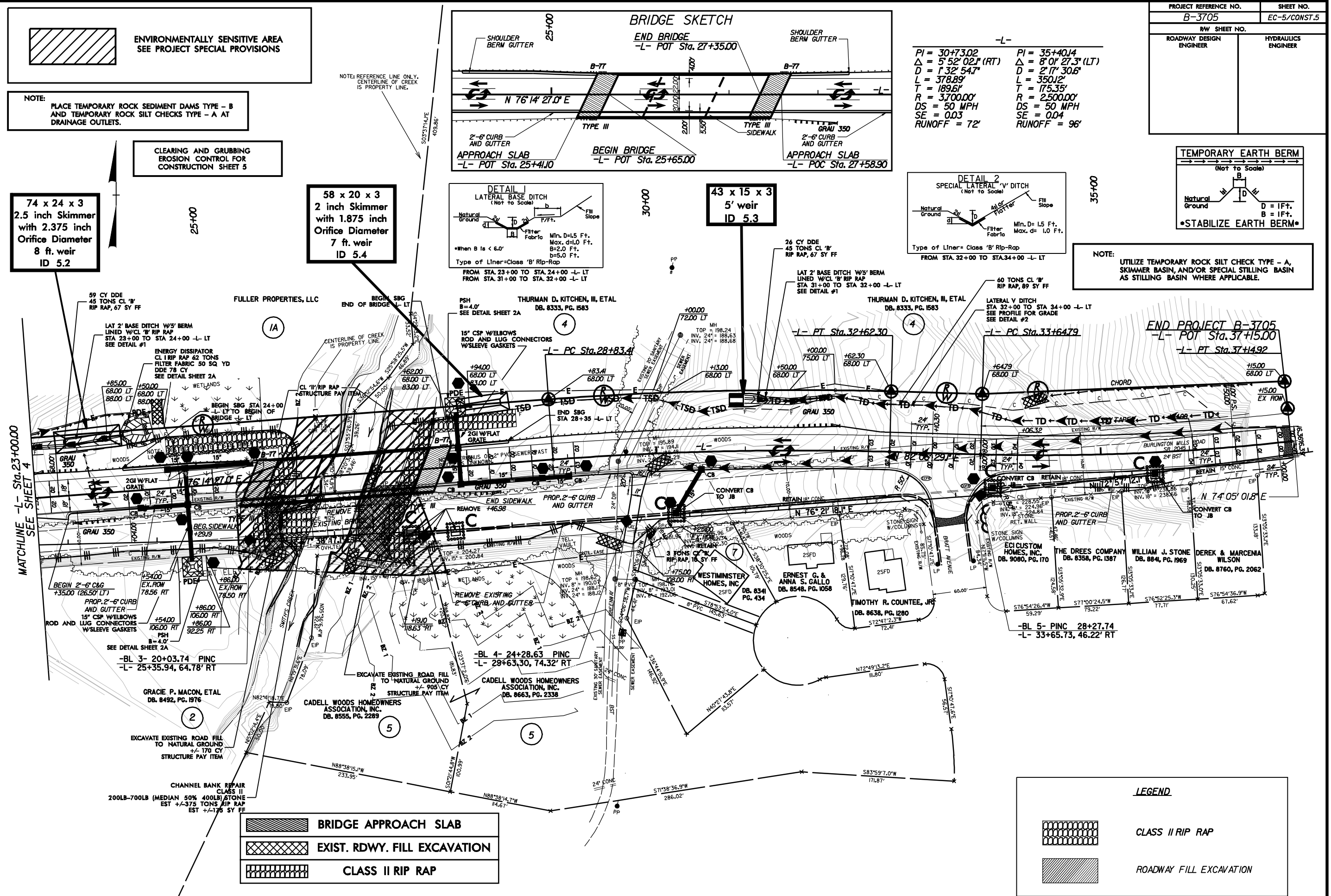


NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

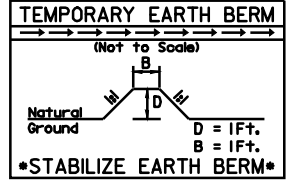
74 x 24 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
8 ft. weir
ID 5.2

58 x 20 x 3
2 inch Skimmer
with 1.875 inch
Orifice Diameter
7 ft. weir
ID 5.4

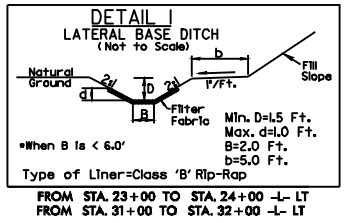
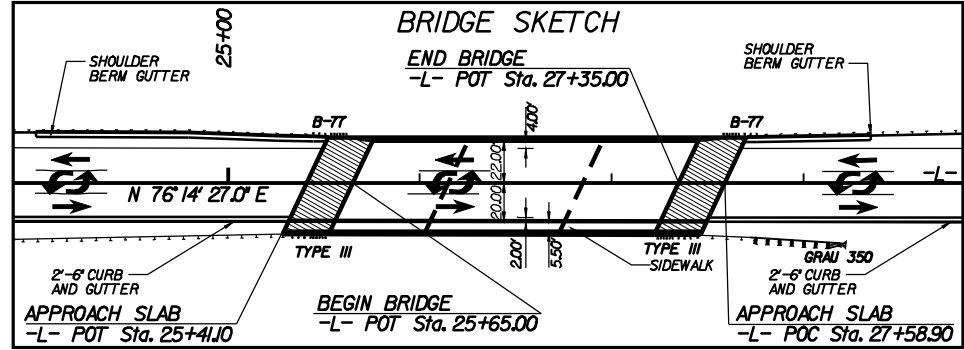


PROJECT REFERENCE NO.	SHEET NO.
B-3705	EC-7/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

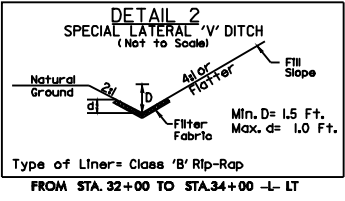
$PI = 30+73.02$ $\Delta = 5' 52" 02" (RT)$ $D = 1' 32" 54.7"$ $L = 378.89'$ $T = 189.61'$ $R = 3700.00'$ $DS = 50 MPH$ $SE = 0.03$ $RUNOFF = 72'$	$PI = 35+40.14$ $\Delta = 8' 01" 27.3" (LT)$ $D = 2' 17" 30.6"$ $L = 350.12'$ $T = 175.35'$ $R = 2500.00'$ $DS = 50 MPH$ $SE = 0.04$ $RUNOFF = 96'$
---	---



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

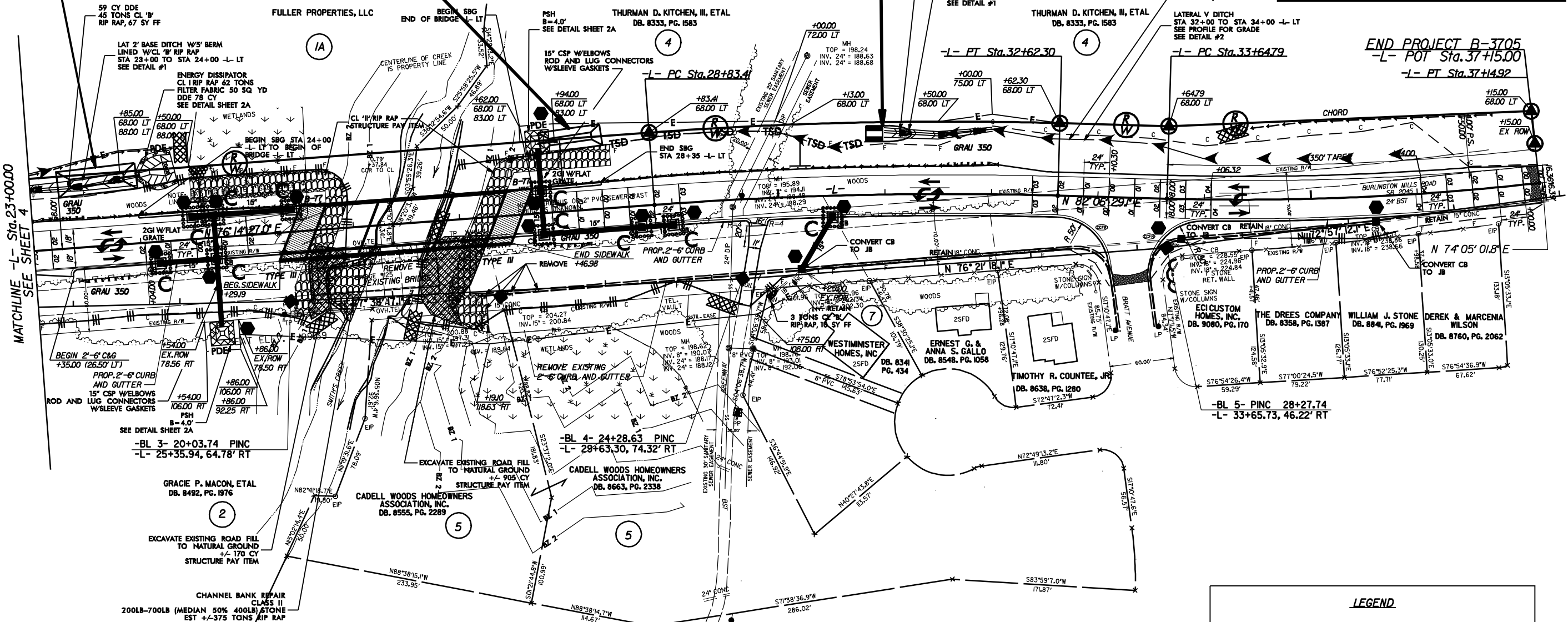


43 x 15 x 3
5' weir
ID 5.3



74 x 24 x 3
2.5 inch Skimmer
with 2.375 inch
Orifice Diameter
8 ft. weir
ID 5.2

58 x 20 x 3
2 inch Skimmer
with 1.875 inch
Orifice Diameter
7 ft. weir
ID 5.4



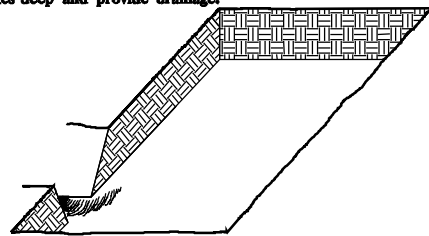
	BRIDGE APPROACH SLAB
	EXIST. RDWY. FILL EXCAVATION
	CLASS II RIP RAP

LEGEND	
	CLASS II RIP RAP
	ROADWAY FILL EXCAVATION

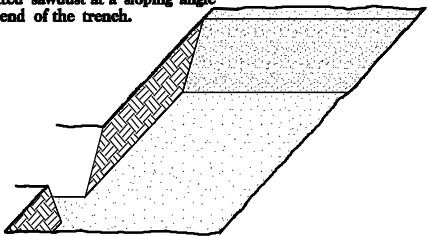
PLANTING DETAILS
SEEDLING / LINER BARERROOT PLANTING DETAIL

HEALING IN

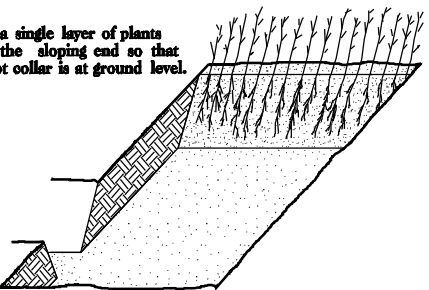
1. Locate a healing-in site in a shady, well protected area.
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



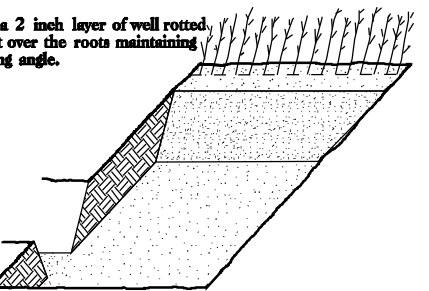
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

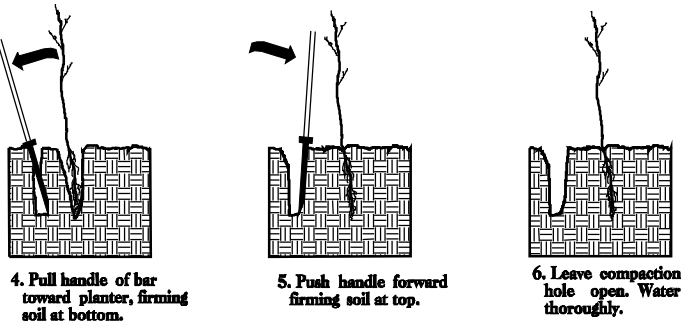
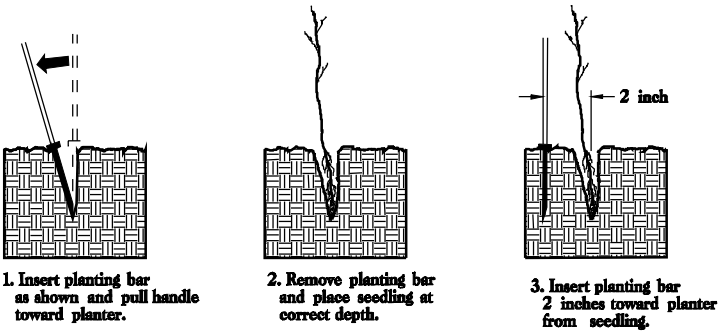


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.



6. Repeat layers of plants and sawdust as necessary and water thoroughly.

DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.



KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.



ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

REFORESTATION

- TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

40% LIRIODENDRON TULIPIFERA	YELLOW POPLAR	12 in - 18 in BR
30% QUERCUS FALCATA	SOUTHERN RED OAK	12 in - 18 in BR
30% QUERCUS ALBA	WHITE OAK	12 in - 18 in BR

REFORESTATION DETAIL SHEET

N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT