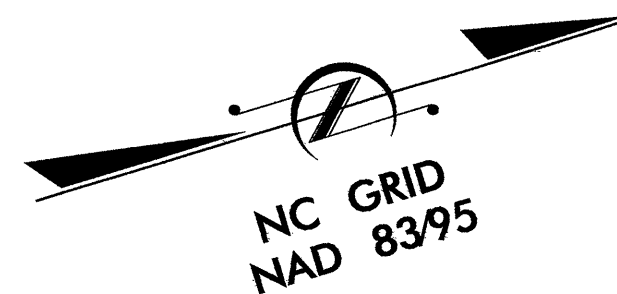


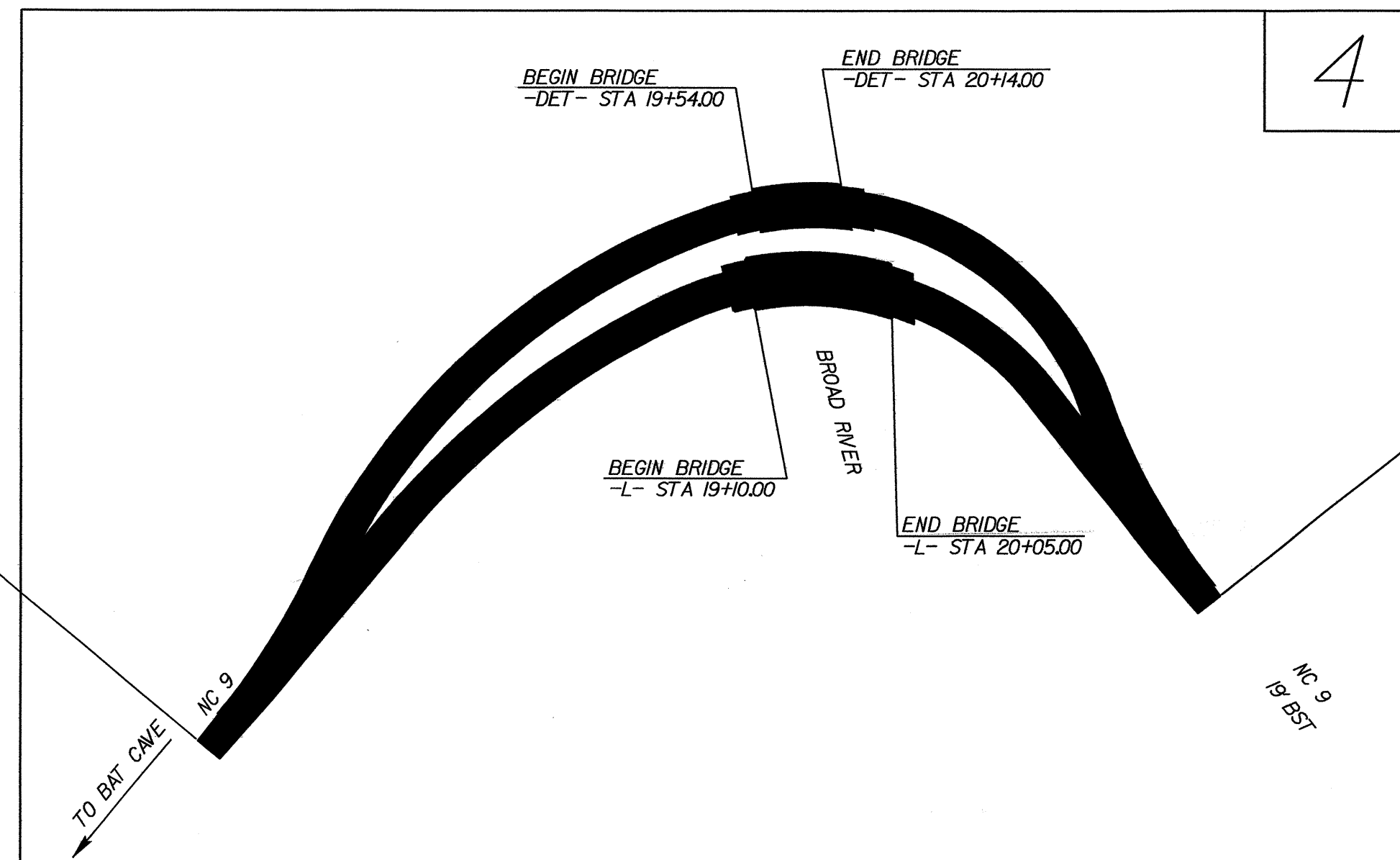
**TIP PROJECT: B-4032**

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

**LOCATION: BRIDGE NO. 130 OVER THE BROAD RIVER ON NC 9**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE**



STA 14+24.00 -L- =  
 STA 14+24.00 -DET- =  
 BEGIN STATE PROJECT B-4032  
 BEGIN CONSTRUCTION



STA 23+93.00 -DET- =  
 STA 23+08.76 -L- =  
 END CONSTRUCTION

STA 23+09.00 -L- =  
 END STATE PROJECT B-4032  
 END CONSTRUCTION

TO BLACK MOUNTAIN

TO BAY CAKE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4032	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**EROSION AND SEDIMENT CONTROL MEASURES**

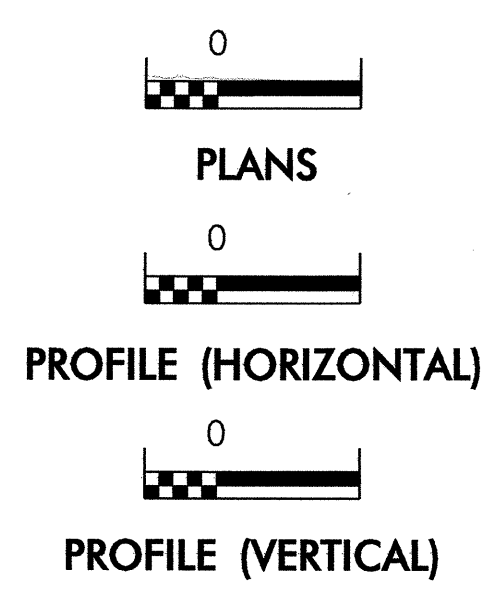
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	T
1630.01	Riser Basin	⊙
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt 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	▭
	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**



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**

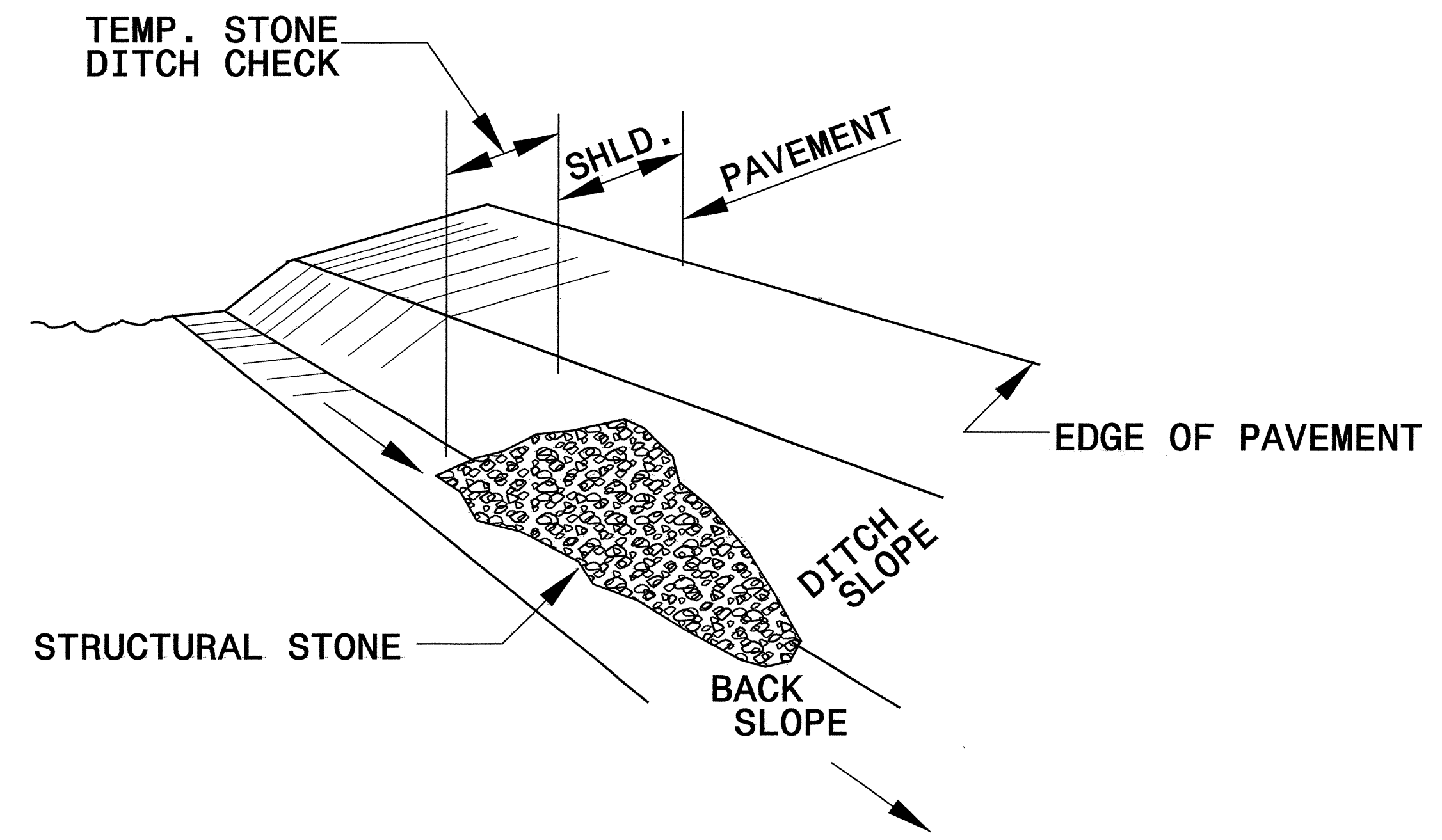
Roadway Standard Drawings

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	1632.03 Rock Inlet Sediment Trap Type C
1606.01 Special Sediment Control Fence	1633.01 Temporary Rock Silt Check Type A
1607.01 Gravel Construction Entrance	1634.02 Temporary Rock Sediment Dam Type B
1630.02 Silt Basin Type B	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.05 Temporary Diversion	

PROJECT REFERENCE NO. B-4032	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

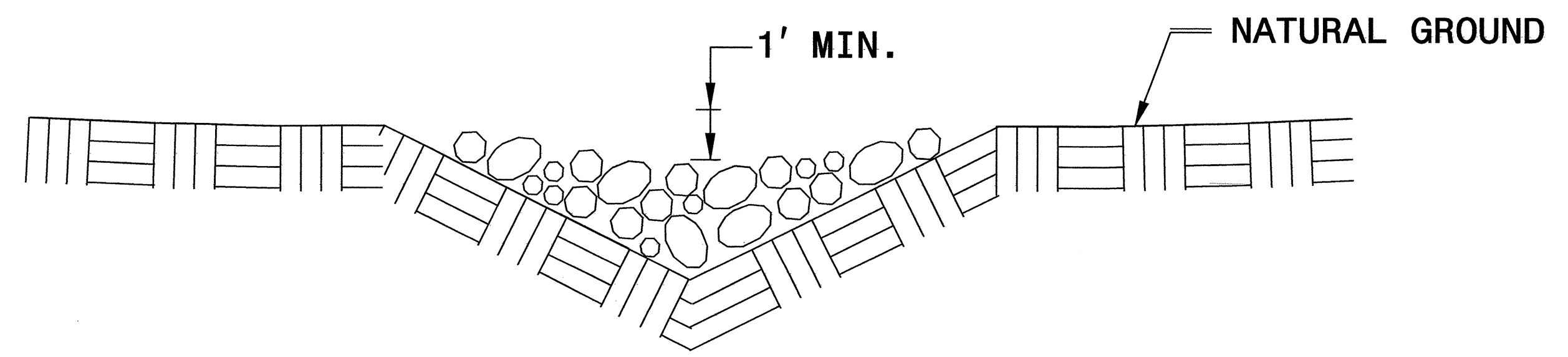


**ISOMETRIC VIEW**

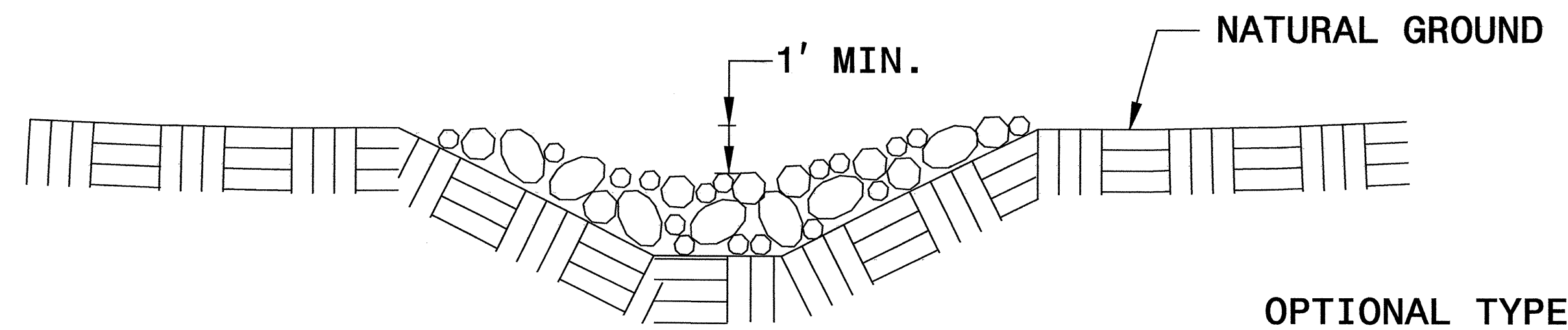
**NOTES:**

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

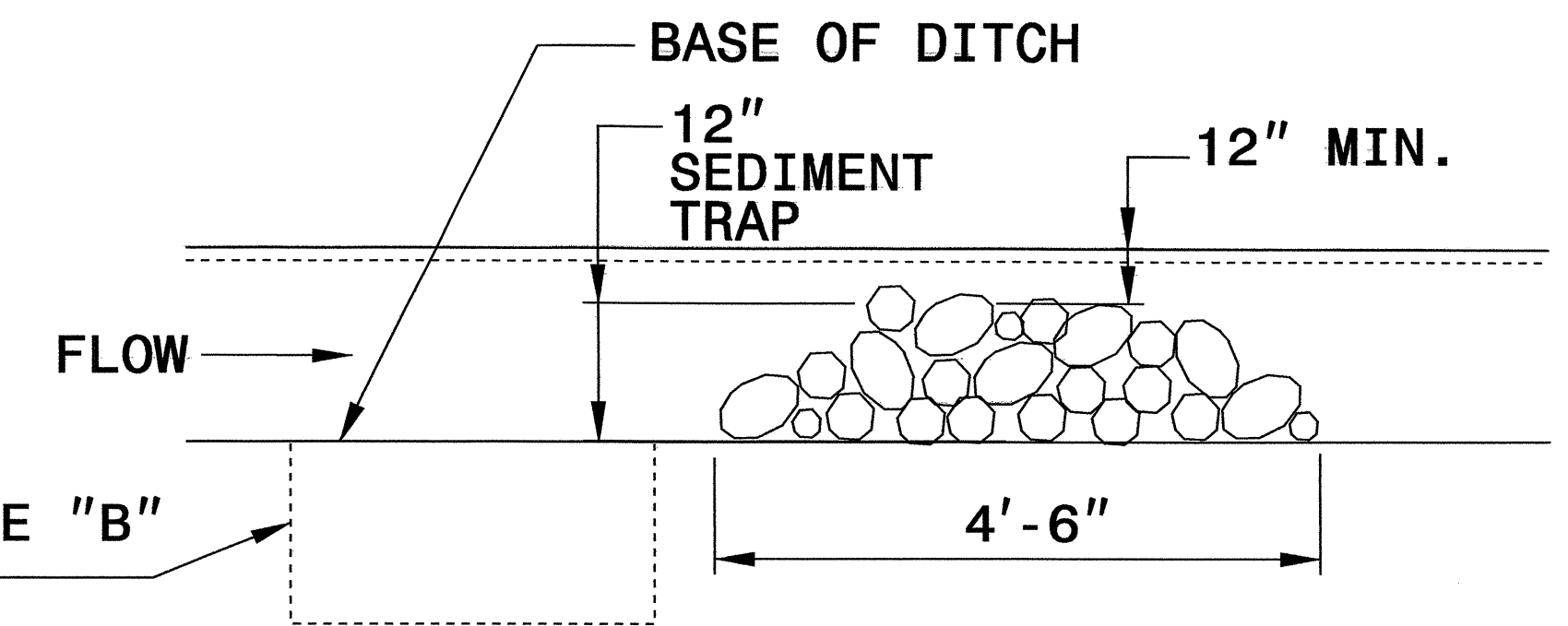
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION VEE DITCH**



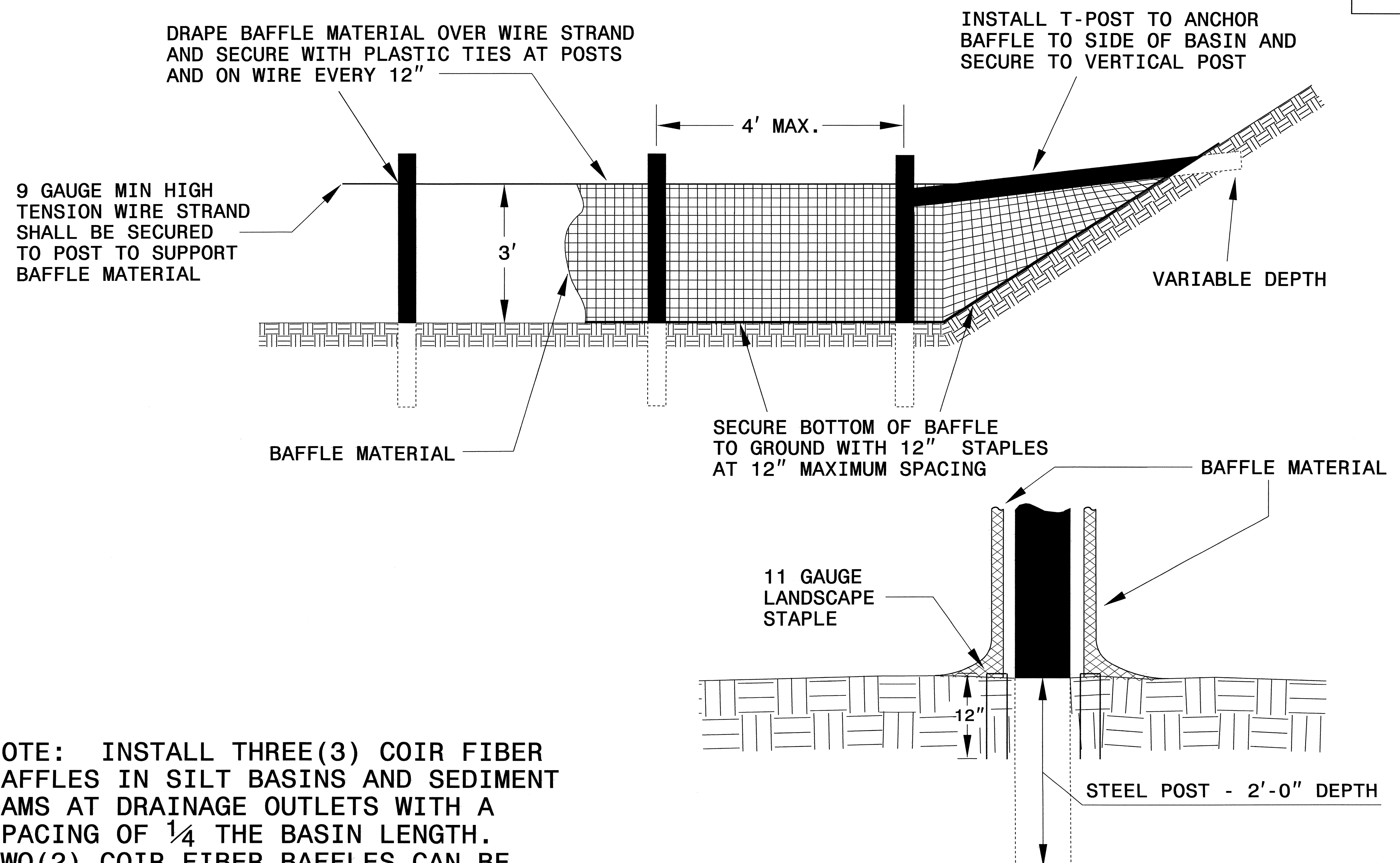
**CROSS SECTION TRAPEZOIDAL DITCH**



**ELEVATION VIEW**

PROJECT REFERENCE NO. B-4032	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL

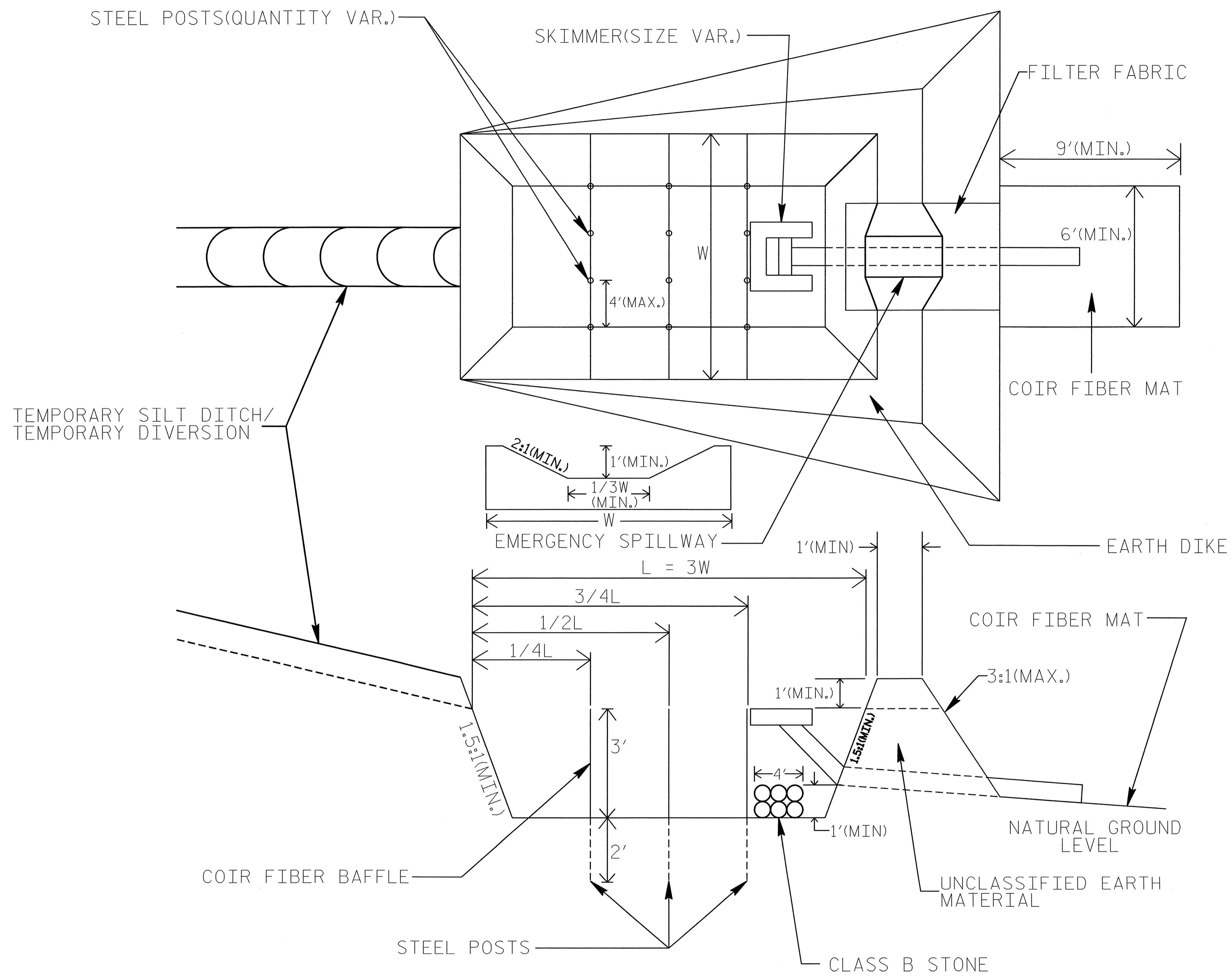


NOTE: INSTALL THREE (3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO (2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

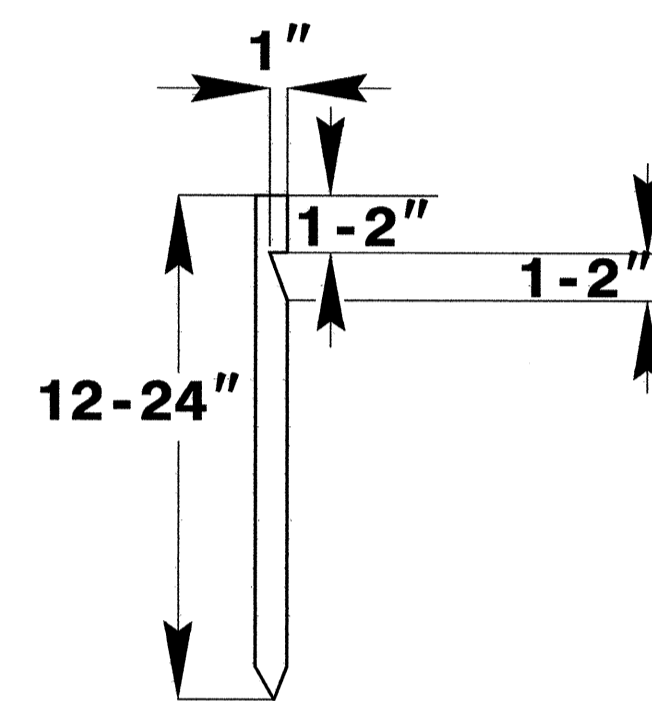
BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

# SKIMMER BASIN WITH BAFFLES DETAIL

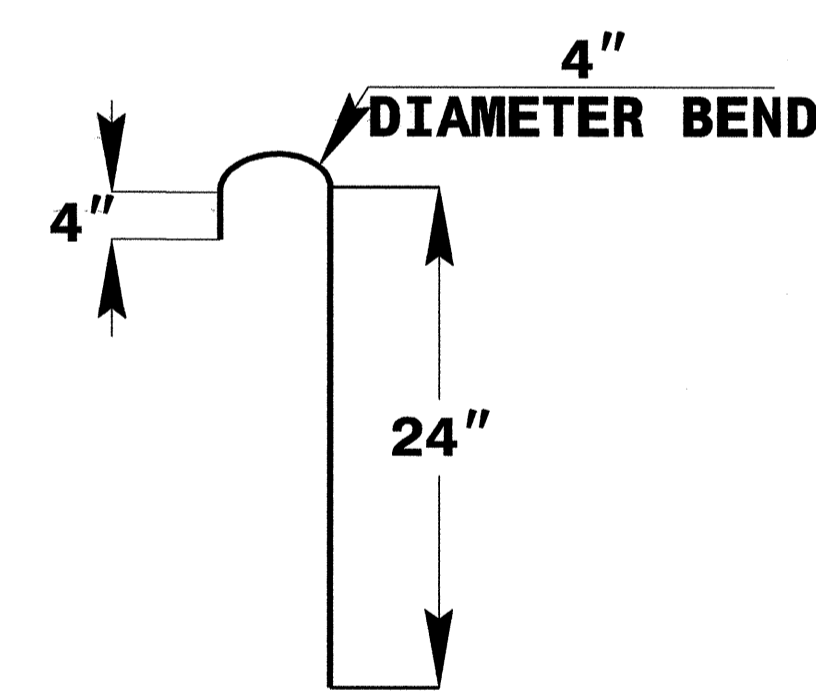
PROJECT REFERENCE NO. B-4032	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



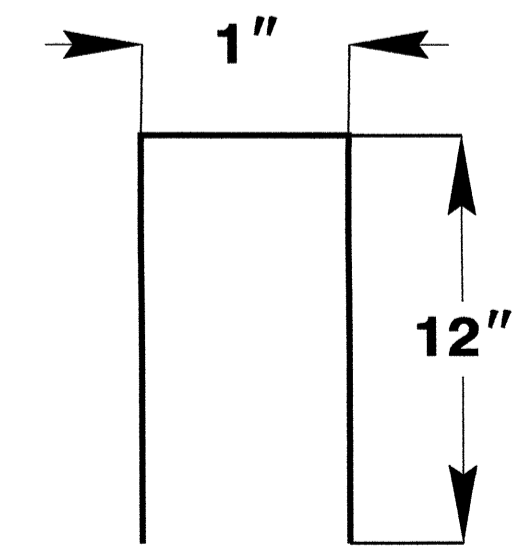
**2" x 2" (nominal)  
WOODEN STAKE**



**#10 STEEL  
REINFORCEMENT BAR**



**1" (nominal)  
STAPLE**



**COIR FIBER MAT  
ANCHOR OPTIONS**

**NOTES:**

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.

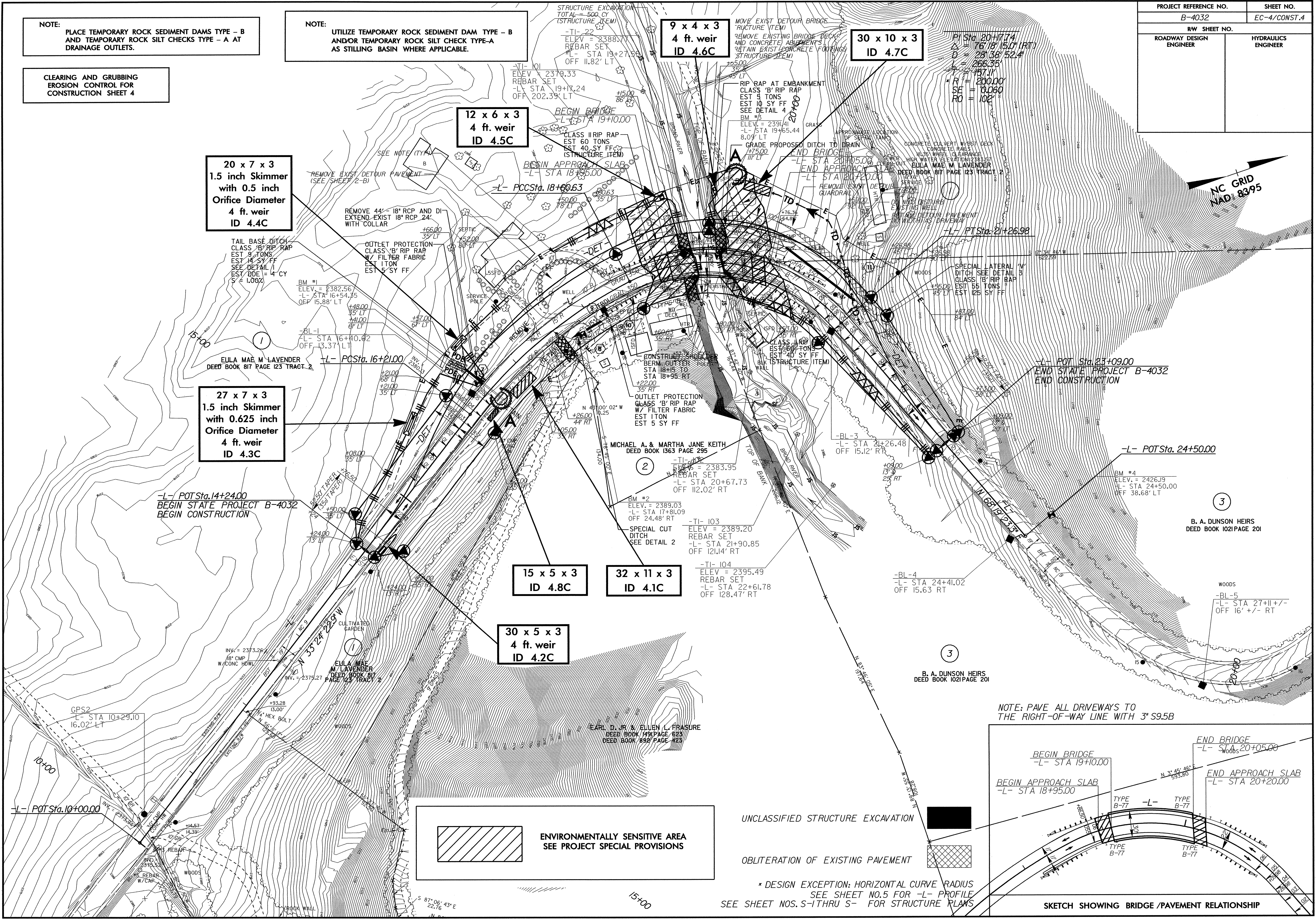


PROJECT REFERENCE NO.	SHEET NO.
B-4032	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AND/OR TEMPORARY ROCK SILT CHECK TYPE-A AS STILLING BASIN WHERE APPLICABLE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4



NOTE: PAVE ALL DRIVEWAYS TO THE RIGHT-OF-WAY LINE WITH 3" S9.5B

\* DESIGN EXCEPTION: HORIZONTAL CURVE RADIUS SEE SHEET NO.5 FOR -L- PROFILE SEE SHEET NOS. S-1 THRU S- FOR STRUCTURE PLANS

SKETCH SHOWING BRIDGE / PAVEMENT RELATIONSHIP

PROJECT REFERENCE NO.	SHEET NO.
B-4032	EC-5/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE:  
UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B AND/OR TEMPORARY ROCK SILT CHECK TYPE-A AS STILLING BASIN WHERE APPLICABLE.

36 x 12 x 3  
1.5 inch Skimmer  
with 1.125 inch Orifice Diameter  
4 ft. weir  
ID 4.1F

PI Sta 20+17.74  
 $\Delta = 76' 18" 15.0" (RT)$   
 $D = 28' 38" 52.4"$   
 $L = 266.35'$   
 $T = 457.1'$   
 $R = 200.00'$   
 $SE = 0.060$   
 $RO = 102'$

12 x 6 x 3  
4 ft. weir  
ID 4.5C

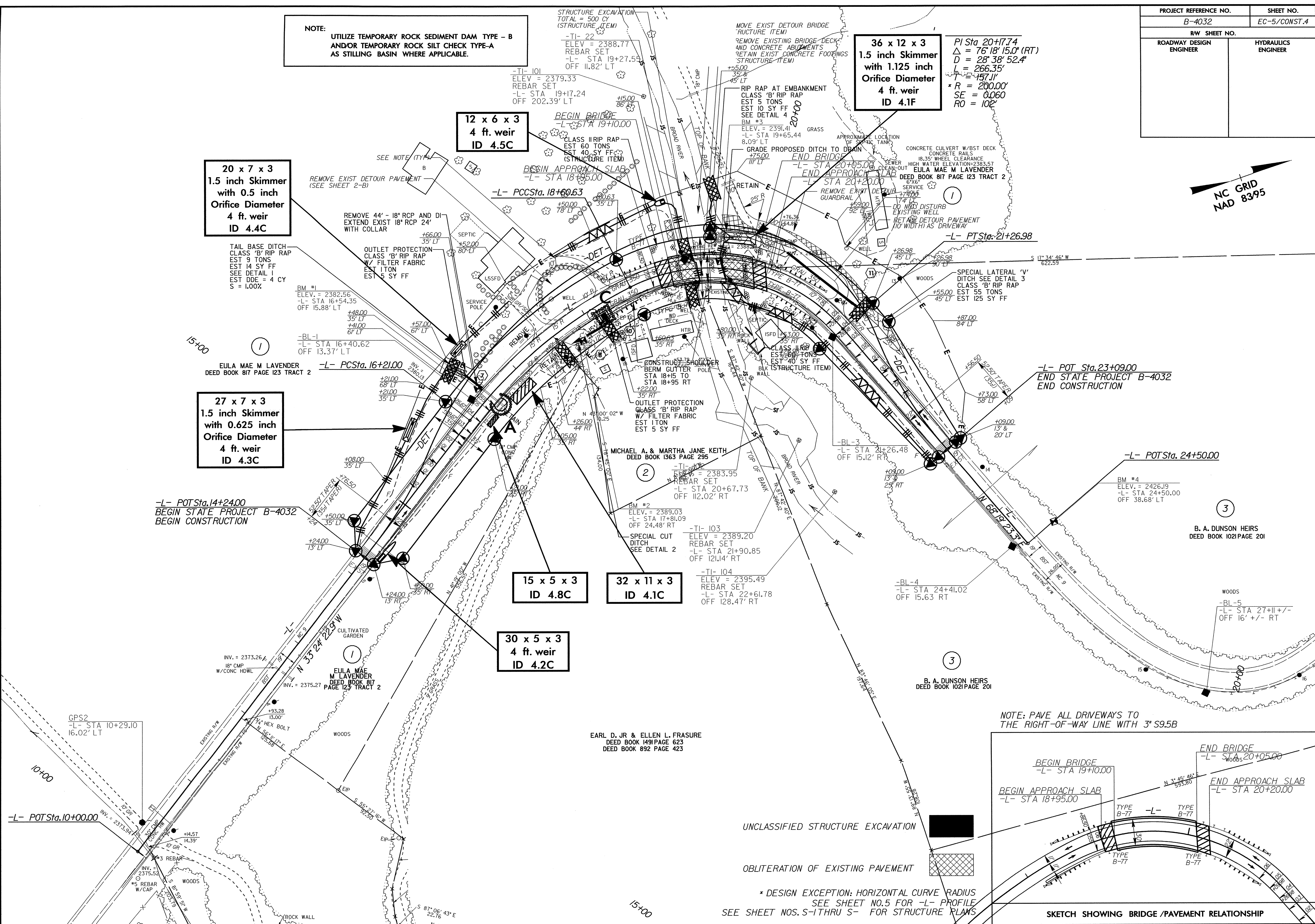
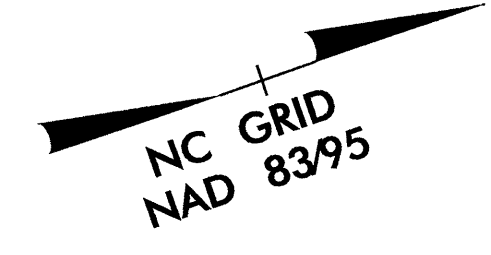
20 x 7 x 3  
1.5 inch Skimmer  
with 0.5 inch Orifice Diameter  
4 ft. weir  
ID 4.4C

27 x 7 x 3  
1.5 inch Skimmer  
with 0.625 inch Orifice Diameter  
4 ft. weir  
ID 4.3C

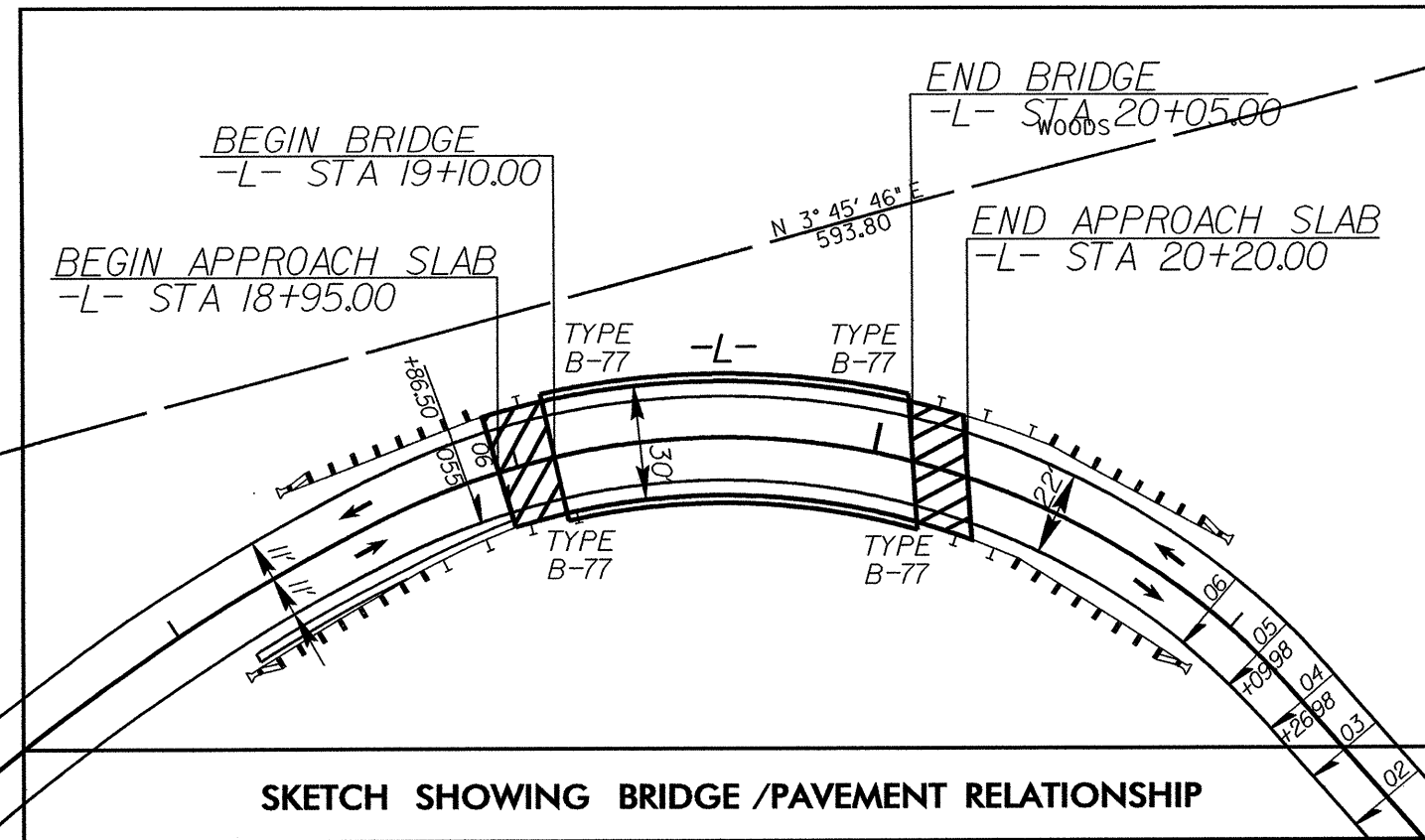
15 x 5 x 3  
ID 4.8C

32 x 11 x 3  
ID 4.1C

30 x 5 x 3  
4 ft. weir  
ID 4.2C



NOTE: PAVE ALL DRIVEWAYS TO THE RIGHT-OF-WAY LINE WITH 3" S9.5B



UNCLASSIFIED STRUCTURE EXCAVATION  
OBLITERATION OF EXISTING PAVEMENT  
\* DESIGN EXCEPTION: HORIZONTAL CURVE RADIUS SEE SHEET NO.5 FOR -L- PROFILE SEE SHEET NOS. S-1 THRU S- FOR STRUCTURE PLANS

SKETCH SHOWING BRIDGE /PAVEMENT RELATIONSHIP

\$DATE\$

\$FILEL\$

PROJECT REFERENCE NO.	SHEET NO.
B-4032	EC-6/CONST.2-B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-DET-

PI Sta 15+05.30	PI Sta 17+55.57
$\Delta = 14' 56" 51.2" (LT)$	$\Delta = 46' 11" 28.4" (RT)$
$D = 12' 43" 56.6"$	$D = 12' 43" 56.6"$
$L = 117.40'$	$L = 362.78'$
$T = 59.03'$	$T = 191.90'$
$R = 450.00'$	$R = 450.00'$
$SE = 0.02$	$SE = 0.05$
$RO = SEE PLAN$	$RO = 75'$

TAIL BASE DITCH  
SEE DETAIL 2  
CLASS 'B' RIP RAP  
EST 7 TON  
EST 21 SY FF  
EST DDE = 6 CY  
S = 1.00%

RIP RAP AT EMBANKMENT  
SEE DETAIL 4  
CLASS 'B' RIP RAP  
EST 4 TONS  
EST 9 SY FF  
CLASS II RIP RAP  
EST 60 TONS  
EST 40 SY FF  
(STRUCTURE ITEM)

30 x 10 x 3  
ID 4.7C

12 x 6 x 3  
4 ft. weir  
ID 4.5C

20 x 7 x 3  
1.5 inch Skimmer  
with 0.5 inch  
Orifice Diameter  
4 ft. weir  
ID 4.4C

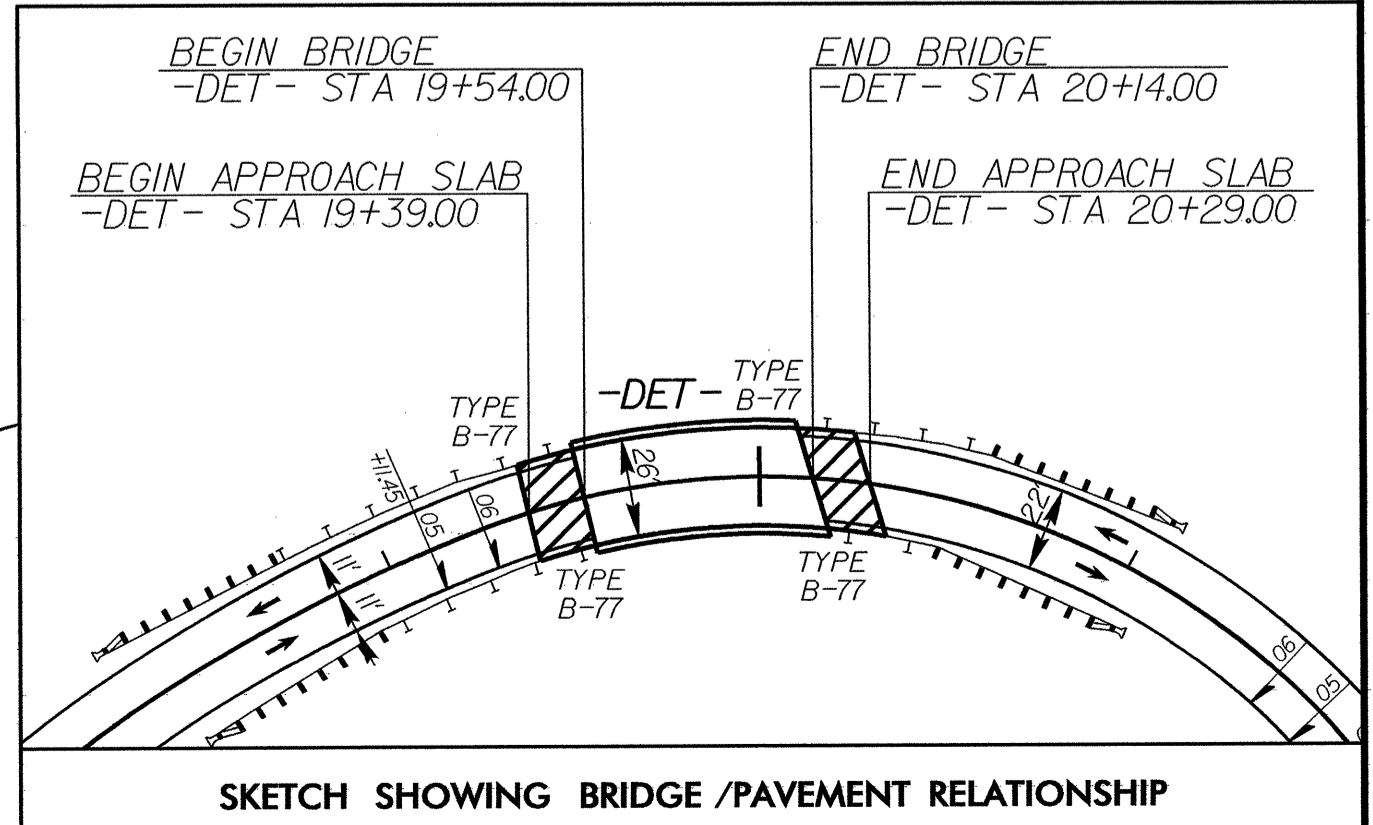
27 x 7 x 3  
1.5 inch Skimmer  
with 0.625 inch  
Orifice Diameter  
4 ft. weir  
ID 4.3C

15 x 5 x 3  
ID 4.8C

32 x 11 x 3  
ID 4.1C

30 x 5 x 3  
4 ft. weir  
ID 4.2C

NOTE:  
UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE - B  
AND/OR TEMPORARY SILT BASIN TYPE-B AS STILLING  
BASIN WHERE APPLICABLE.



NC GRID  
NAD 8395

-DET- POTSta. 13+00.00 =  
-L- POTSta. 13+00.00

-DET- PVI Sta. 14+24.00  
BEGIN CONSTRUCTION

-DET- PTSta. 23+85.94 =  
-L- POTSta. 23+01.69

-DET- POTSta. 23+93.00 =  
-L- POTSta. 23+08.76  
END CONSTRUCTION

-DET- POTSta. 25+34.00

B. A. DUNSON HEIRS  
DEED BOOK 1021 PAGE 201

B. A. DUNSON HEIRS  
DEED BOOK 1021 PAGE 201

EARL D. JR & ELLEN L. FRASURE  
DEED BOOK 1491 PAGE 623  
DEED BOOK 892 PAGE 423

MICHAEL A. & MARTHA JANE KEITH  
DEED BOOK 1363 PAGE 295

EULA MAE M LAVENDER  
DEED BOOK 817 PAGE 123 TRACT 2

EULA MAE M LAVENDER  
DEED BOOK 817  
PAGE 123 TRACT 2

FILED \$  
DATE \$