TIP PROJECT: B-4128

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4128	EC-1	

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

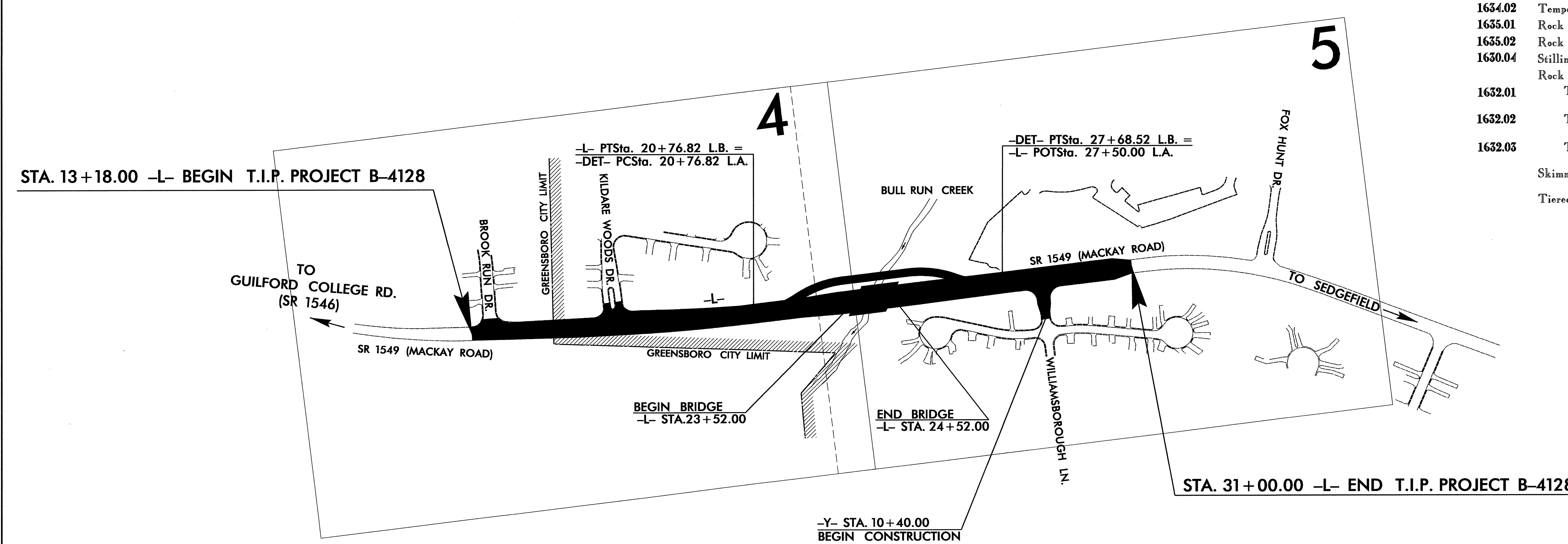
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

GUILFORD COUNTY

LOCATION: BRIDGE No. 73 OVER BULL RUN CREEK ON SR 1549 (MACKAY ROAD) IN GREENSBORO

TYPE OF WORK: WIDENING, GRADING, DRAINAGE, PAVING, RESURFACING, STRUCTURE, GUARDRAIL



NAD 83

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
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	
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	A
1632.02	Type B	B
1632.03	Type C	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

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

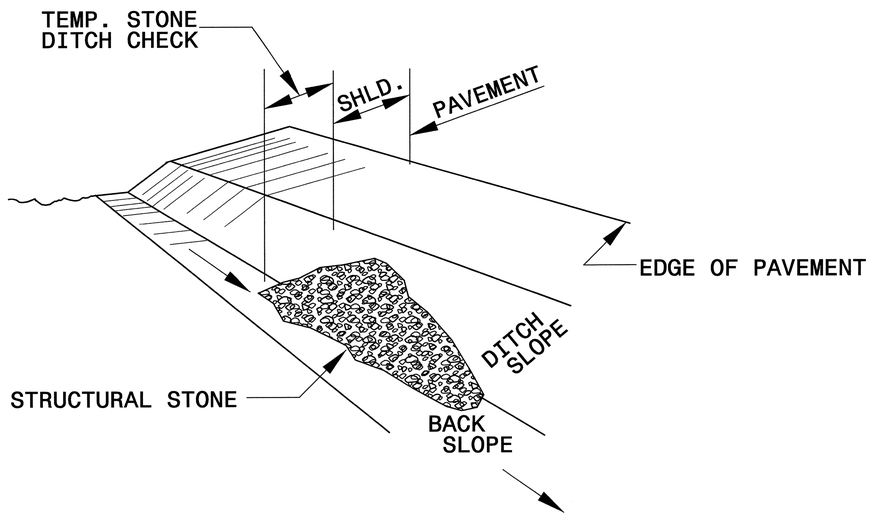
Roadway Standard Drawings

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
1607.01 Gravel Construction Entrance
1622.01 Temporary Berms and Slope Drains
1630.02 Silt Basin Type B
1630.03 Temporary Silt Ditch
1630.05 Temporary Diversion
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A
1634.02 Temporary Rock Sediment Dam Type B
1635.02 Rock Pipe Inlet Sediment Trap Type B

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

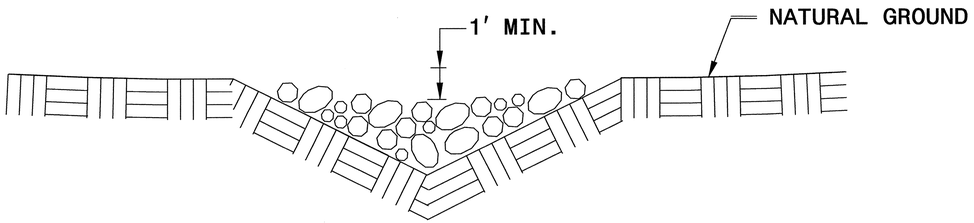


ISOMETRIC VIEW

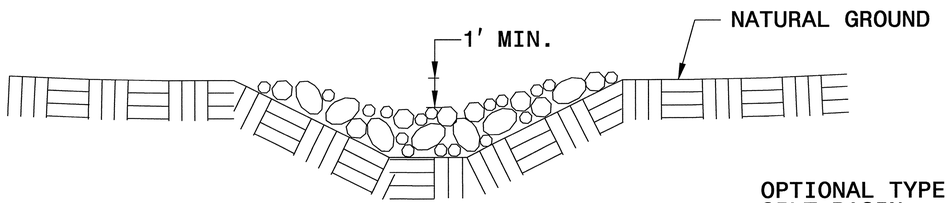
NOTES:

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

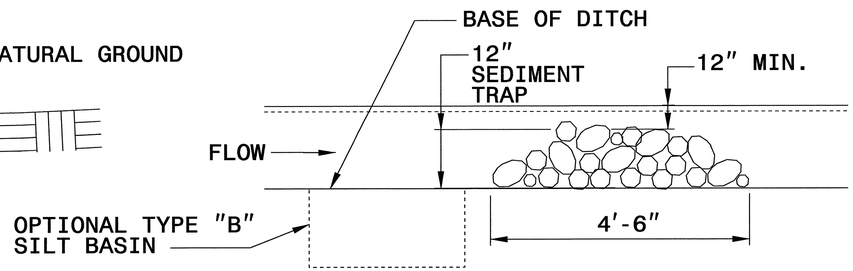
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



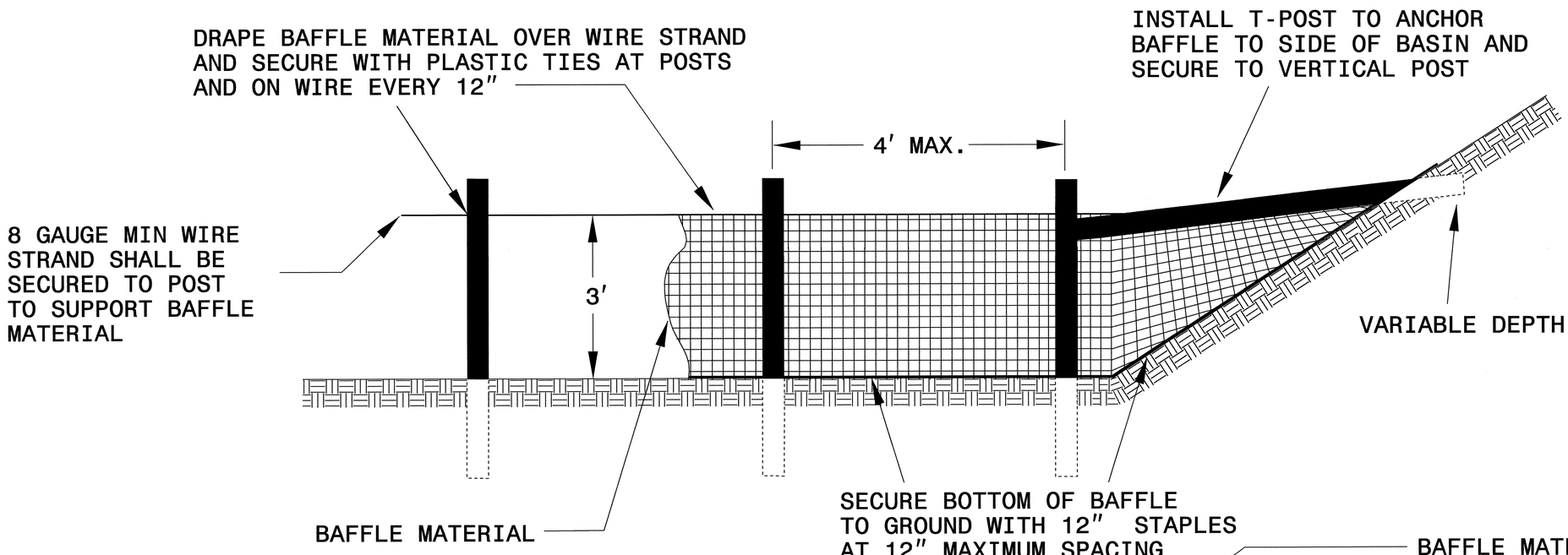
CROSS SECTION TRAPEZOIDAL DITCH

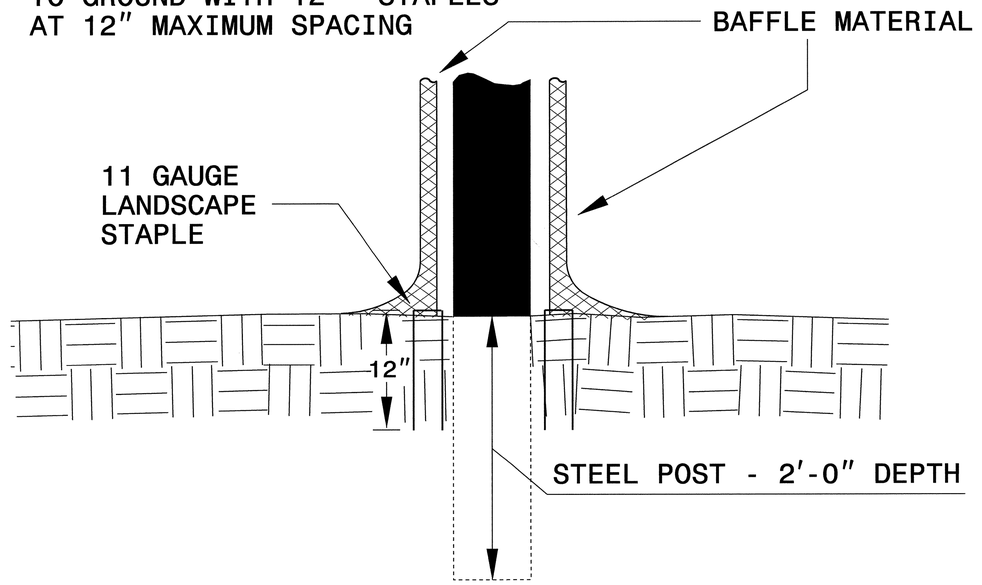


ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



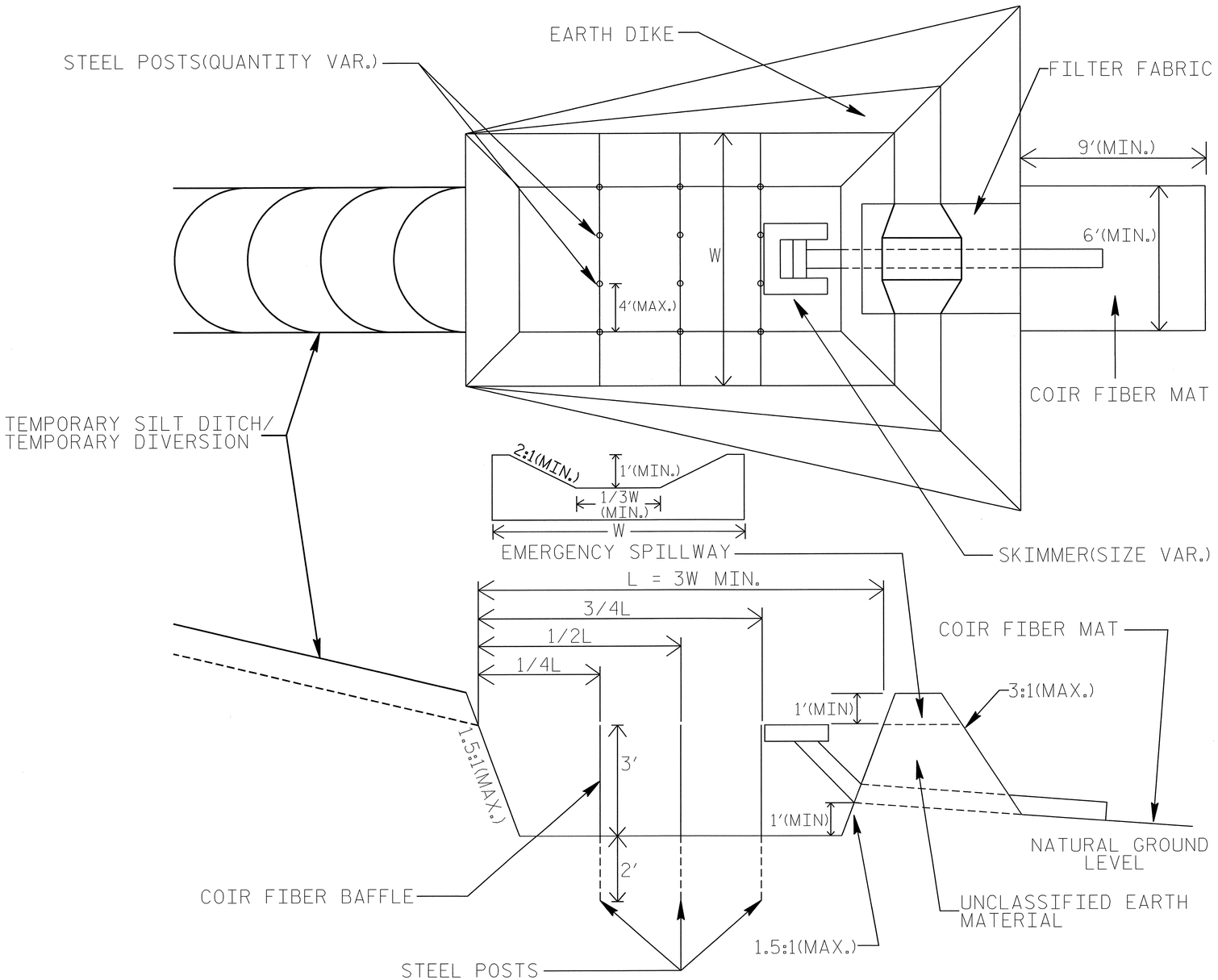


BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12″ LANDSCAPE STAPLES

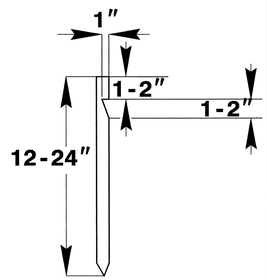
NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

SKIMMER BASIN WITH BAFFLES DETAIL

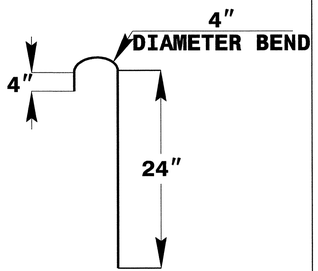
PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-2B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



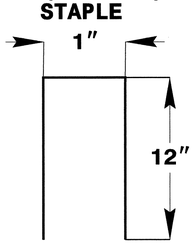
2" x 2" (nominal)
WOODEN STAKE



#10 STEEL
REINFORCEMENT BAR



1" (nominal)
STAPLE



COIR FIBER MAT ANCHOR OPTIONS

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-3
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)
5	L	29+05	29+50	LT	35
6	DETOUR	23+09	24+60	LT	110
			SUBTOTAL		145
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1015
				TOTAL	1160
				SAY	1160

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
6	DETOUR	26+11	27+18	LT	115
			SUBTOTAL		115
		ADDITIONAL PSRM TO BE INSTALLED			55
				TOTAL	170
				SAY	170

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-4/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.

	Kildaire Woods Drive	
2005 ADT / 2025 ADT	900 / 1,600	
SR 1549	200/400 ● 200/400 ● 200/400 ● 4,500/9,600	–L–
9,400 / 20,000	200/400 ● 4,500/9,600	9,400 / 20,000

NAD 83

10+00

15+00

20+00

46 x 19 x 3
6' weir
ID 4.1C

5' UTILITY EASEMENT
CEDARHURST CT
10' X 20' UTILITY EASEMENT
TELEPHONE UTILITY EASEMENT
10' FENCE EASEMENT
WD DECK
ISFD
WOODS
–L– PT Sta. 13+13.08
S 82° 06' 50.6" E
60' WD
8" DIP
EXISTING R/W (VARIABLE WIDTH)
TO SR 1549
GUILFORD COLLEGE RD.
REMOVE 18"RCP
15" CSP
CB
–L– POT Sta. 10+00.00
–L– PC Sta. 10+25.43
–L– POT STA. 13+18.00
BEGIN PROJECT B-4128
SIGN EASEMENT
10'X70' SIGHT EASEMENT
10' CONC
5' UTILITY EASEMENT
7' EXISTING 50' EASEMENT COLONIAL PIPELINE DB 2097 PG 0348
VENT POSTS
SR 1549 (MACKAY ROAD) VARIABLE WIDTH (ST)
N 86° 53' 55" E
EXISTING 30' EASEMENT COLONIAL PIPELINE DB 2095 PG 0262
15' UTILITY & LANDSCAPE EASEMENT
KILDAIRE WOODS DRIVE
KILDAIRE WOODS COURT
BRICK SIGN
LANDSCAPE EASEMENT
–L– PC Sta. 17+37.99
–L– PT Sta. 20+76.82
–DET– PC Sta. 20+76.82
N 83° 00' 57.0" E
GRAU 350
ADAMS FARM COMPANY DB 3505 PG 1500 PB 114 PG 30 1.82 ACRES
MATCH LINE SEE SHEET 5 –L– STA. 23+00.00
SEE SHEET 7 FOR –L– PROFILE

–L–
PI Sta 11+69.70
Δ = 10° 59' 14.3" (LT)
D = 3° 49' 11.0"
L = 287.65'
T = 144.27'
R = 1,500.00'
SE = EXIST.

54 x 26 x 3
9' weir
ID 4.3C

–L–
PI Sta 19+07.47
Δ = 3° 52' 58.1" (LT)
D = 1° 08' 45.3"
L = 338.84'
T = 169.48'
R = 5,000.00'
SE = 0.02

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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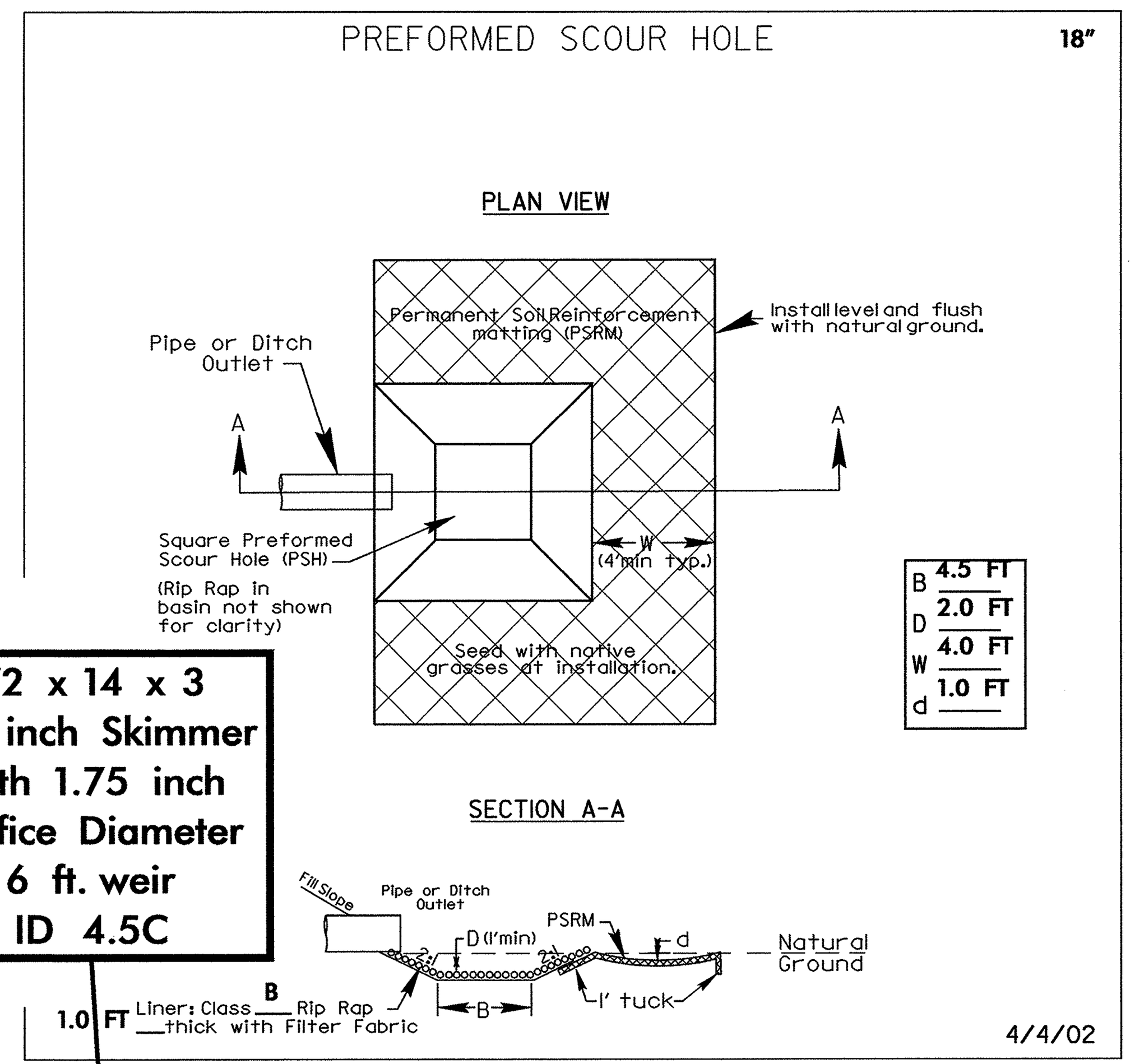
achan
AT RENV23182

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-5/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

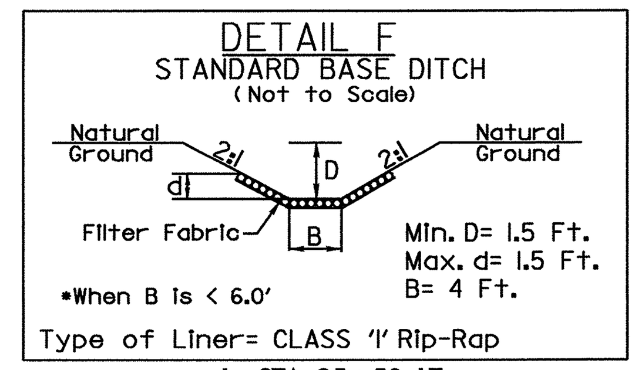
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE – B AS STILLING BASIN WHERE APPLICABLE.

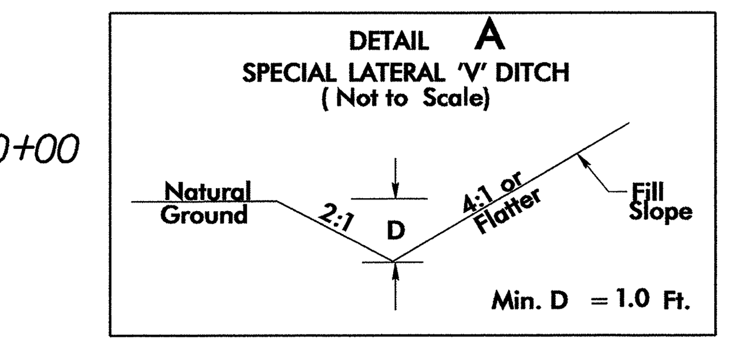
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.



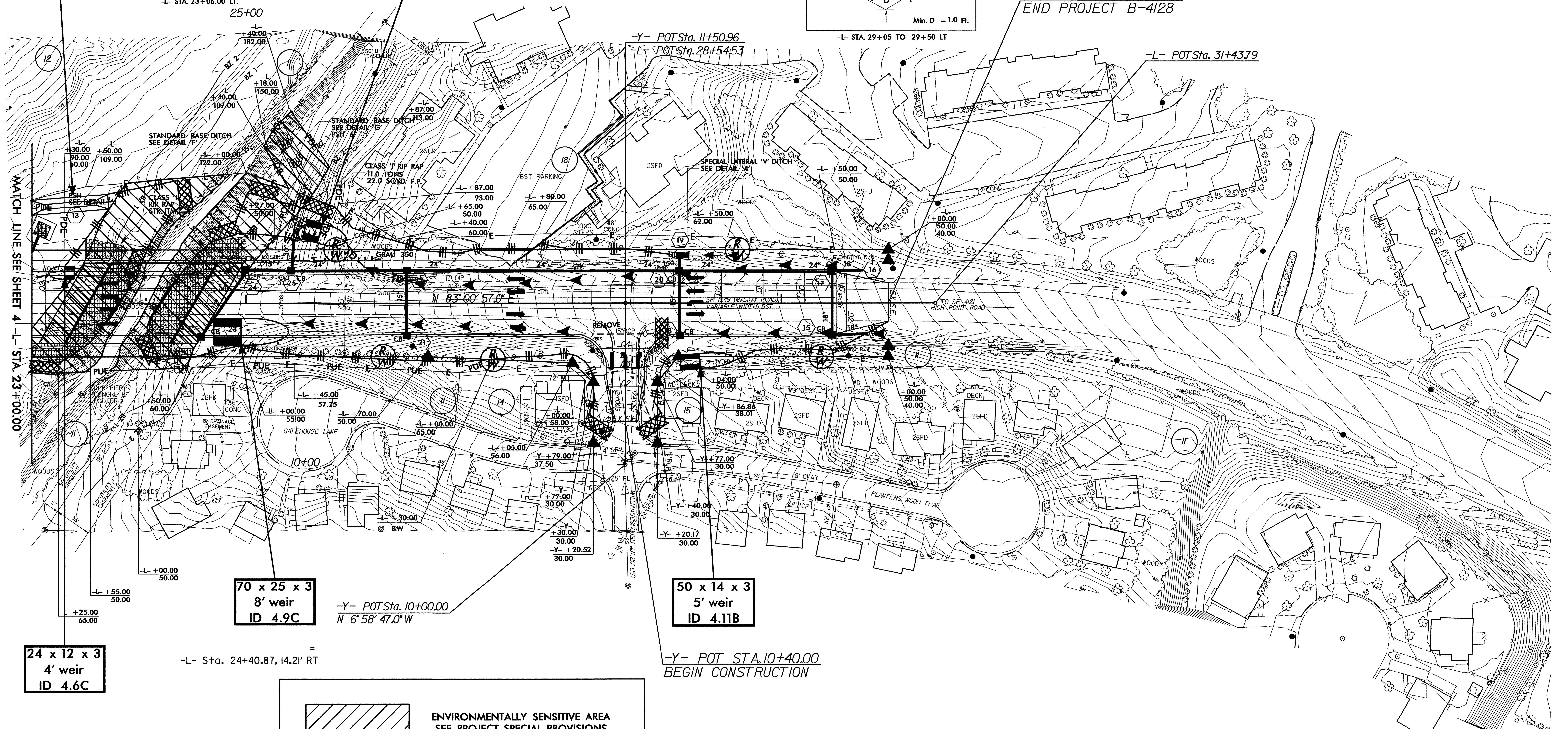
-L- STA. 23+06.00 LT.



-L- STA. 25+50 LT
DDE = 40 CY
RIP RAP = 65 TONS
FILTER FABRIC = 92.3 SQ YD



-L- STA. 29+05 TO 29+50 LT



-L- Sta. 24+40.87, 14.21' RT

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

SEE SHEET 7 FOR -L- PROFILE
SEE SHEET 7 FOR -Y- PROFILE

8/17/99

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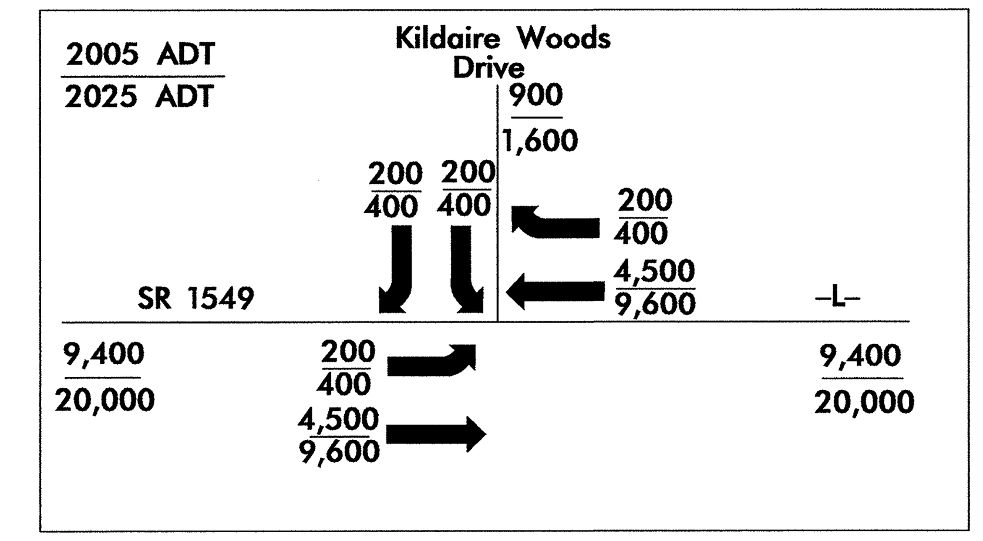
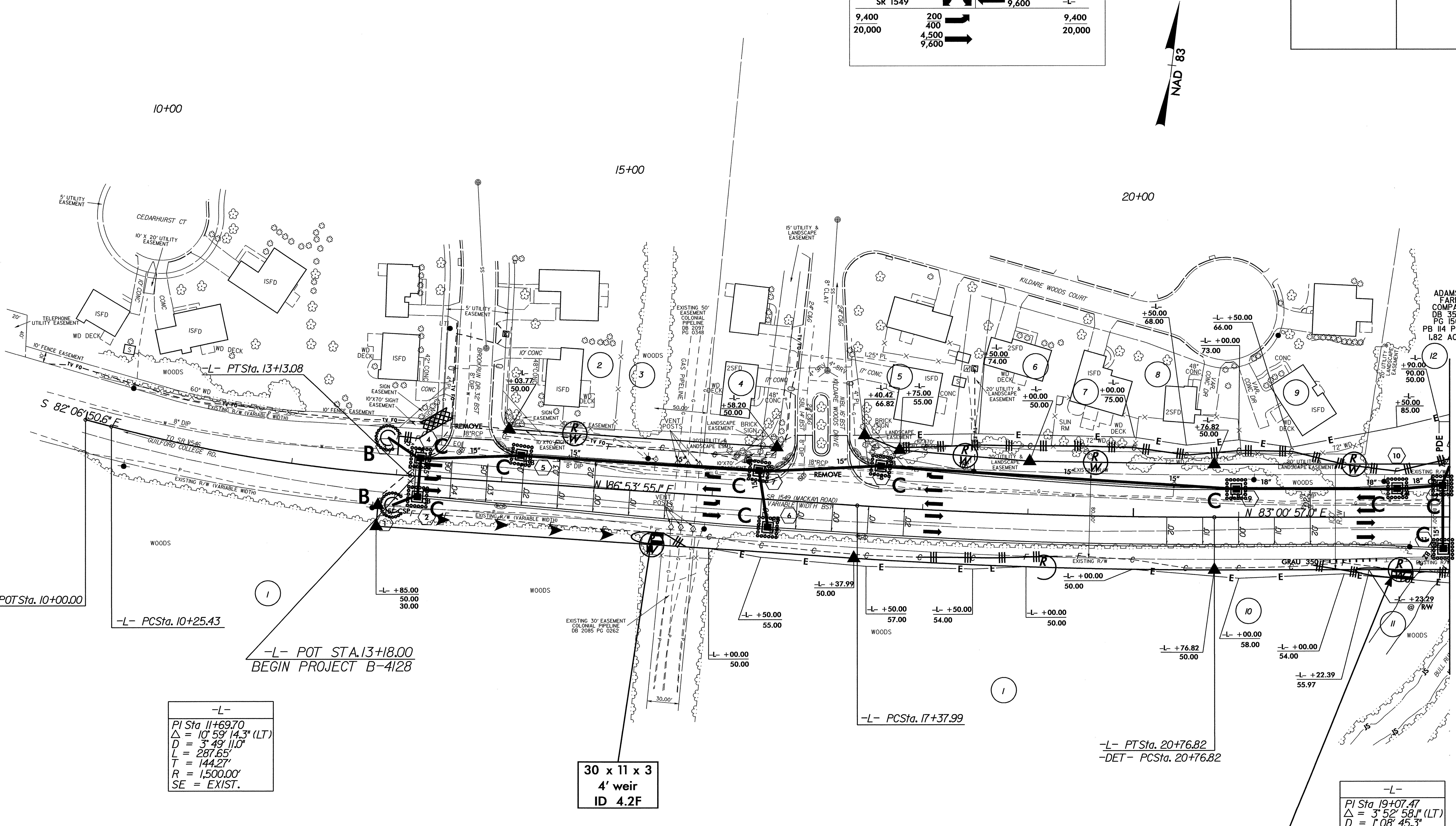
nchan AT RENV2318I2

PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-6/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER





-L-
PI Sta 11+69.70
Δ = 10° 59' 14.3" (LT)
D = 3° 49' 11.0"
L = 287.65'
T = 144.27'
R = 1,500.00'
SE = EXIST.

-L-
PI Sta 19+07.47
Δ = 3° 52' 58.1" (LT)
D = 1° 08' 45.3"
L = 338.84'
T = 169.48'
R = 5,000.00'
SE = 0.02

SEE SHEET 7 FOR -L- PROFILE

8/17/99

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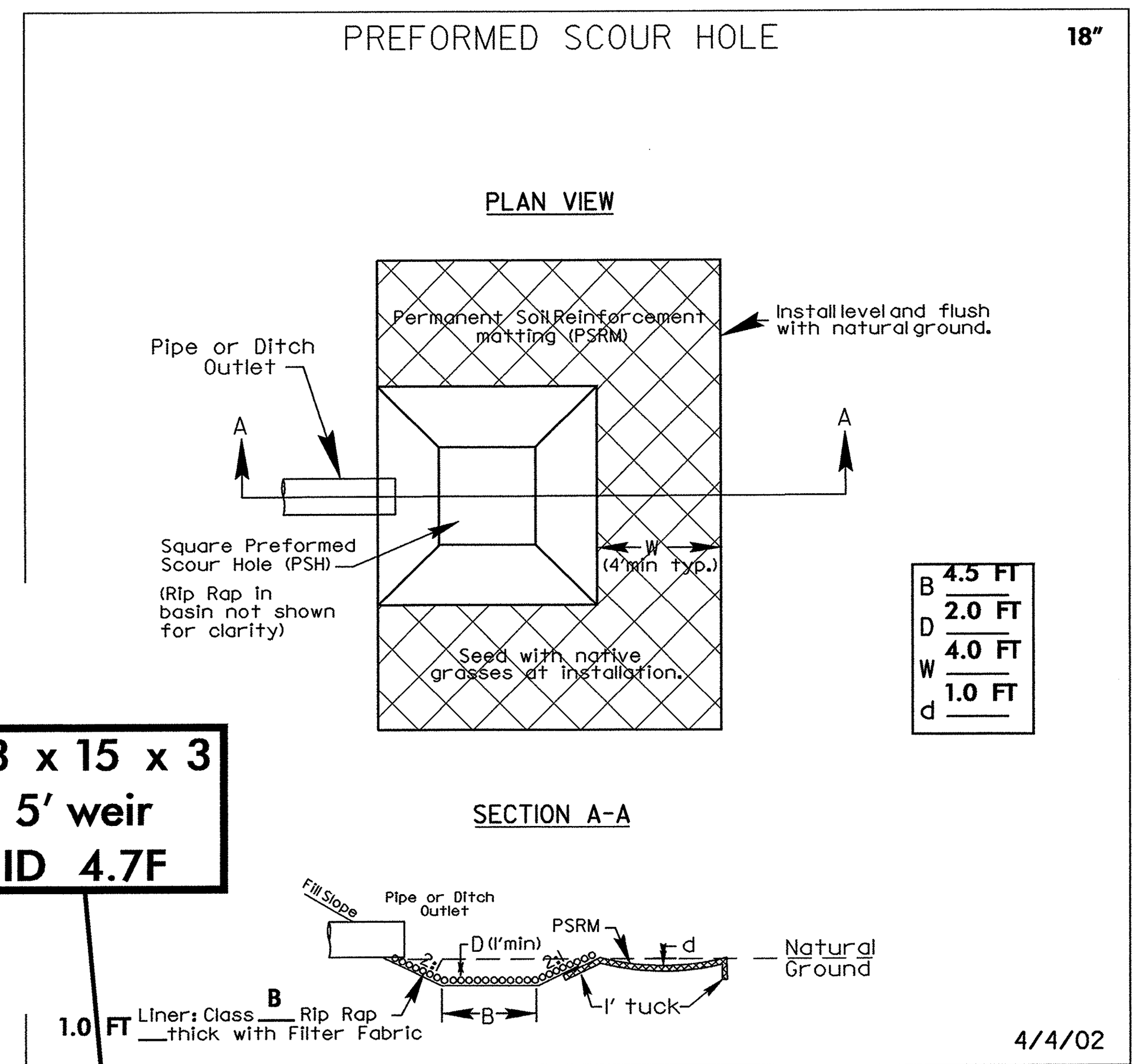
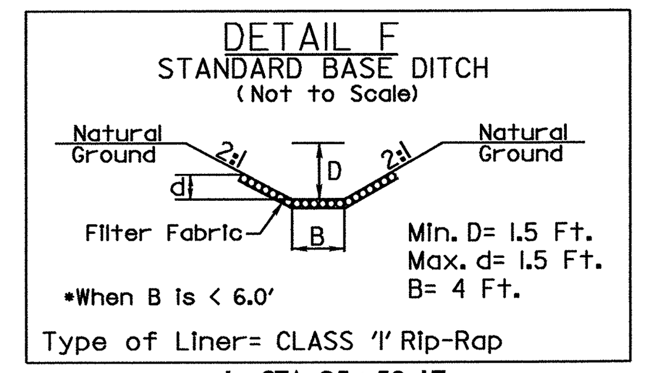
PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-7/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: UTILIZE TEMPORARY ROCK SEDIMENT DAM TYPE – B AS STILLING BASIN WHERE APPLICABLE.

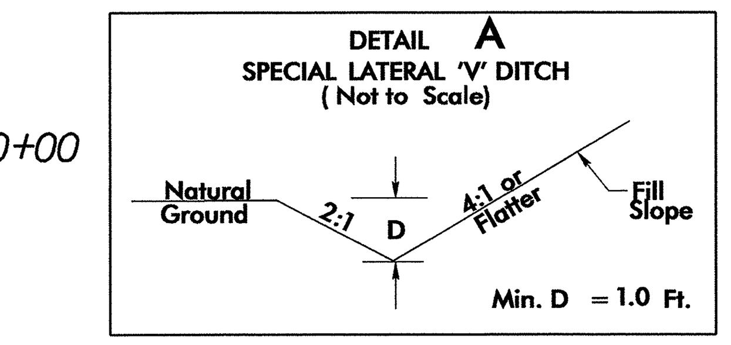


PREFORMED SCOUR HOLE
18"
PLAN VIEW
Pipe or Ditch Outlet
Permanent Soil Reinforcement matting (PSRM)
Install level and flush with natural ground.
Square Preformed Scour Hole (PSH)
(Rip Rap in basin not shown for clarity)
Seed with native grasses at installation.
SECTION A-A
Natural Ground
B 4.5 FT
D 2.0 FT
W 4.0 FT
d 1.0 FT
1.0 FT
4/4/02

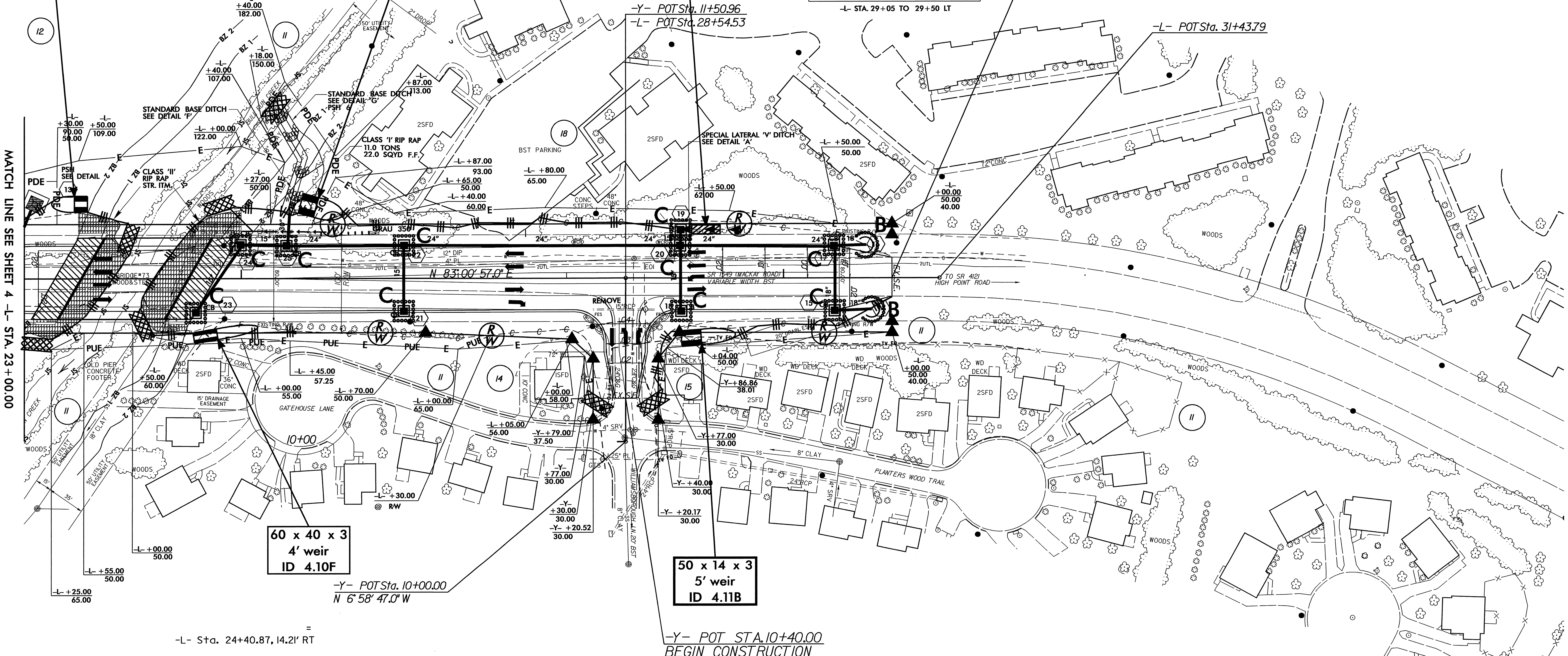
–L– STA. 23+06.00 LT.



–L– STA. 25+50 LT
DDE = 40 CY
RIP RAP = 65 TONS
FILTER FABRIC = 92.3 SQ YD



–L– STA. 29+05 TO 29+50 LT



NAD 83
33 x 15 x 3
5' weir
ID 4.7F
40 x 19 x 3
6' weir
ID 4.8B
26 x 8 x 3
ID 4.12F
60 x 40 x 3
4' weir
ID 4.10F
50 x 14 x 3
5' weir
ID 4.11B
25+00
30+00
10+00
–Y– POT Sta. 11+50.96
–L– POT Sta. 28+54.53
–L– POT STA. 31+00.00
END PROJECT B-4128
–L– POT Sta. 31+43.79
–Y– POT Sta. 10+00.00
N 6°58' 47.0" W
–Y– POT STA. 10+40.00
BEGIN CONSTRUCTION
N 83°00' 57.0" E
MATCH LINE SEE SHEET 4 –L– STA. 23+00.00
STANDARD BASE DITCH SEE DETAIL 'F'
STANDARD BASE DITCH SEE DETAIL 'G'
SPECIAL LATERAL 'V' DITCH SEE DETAIL 'A'
CLASS 'I' RIP RAP 11.0 TONS 22.0 SQYD F.F.
CLASS 'II' RIP RAP STR. ITM.
PSH SEE DETAIL
BST PARKING
GATEHOUSE LANE
PLANTERS WOOD TRAIL
SR 1249 (MACKAY ROAD) VARIABLE WIDTH BST
TO SR 4121 HIGH POINT ROAD
WOODS
2SFD
REMOVE

-L- Sta. 24+40.87, 14.21' RT

SEE SHEET 7 FOR –L– PROFILE
SEE SHEET 7 FOR –Y– PROFILE

8/17/99

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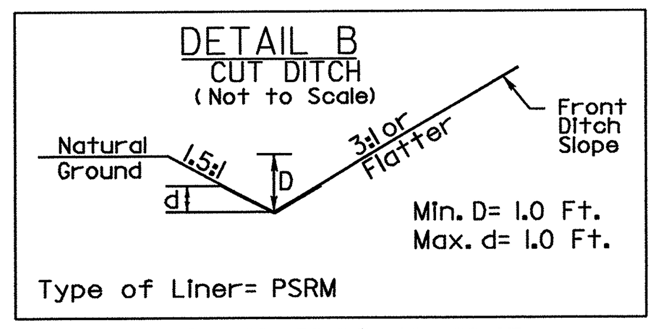
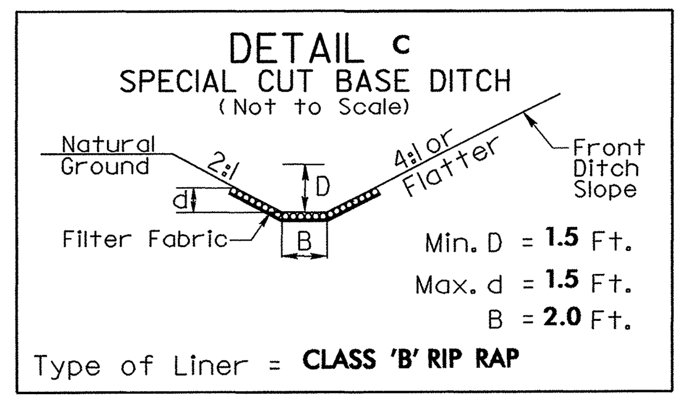
nchan AT RENV231812

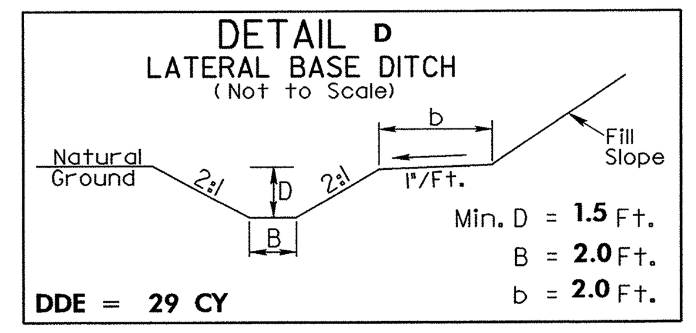
PROJECT REFERENCE NO.	SHEET NO.
B-4128	EC-8/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



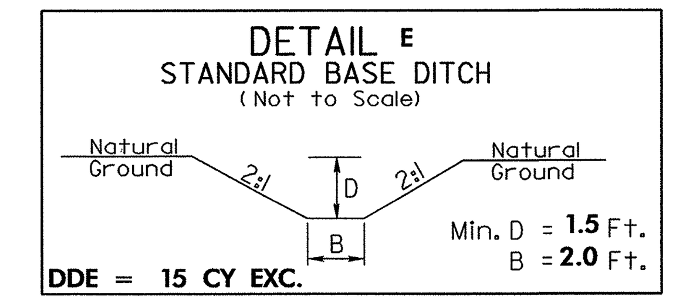
-DET- STA. 21+50 TO 22+58 LT



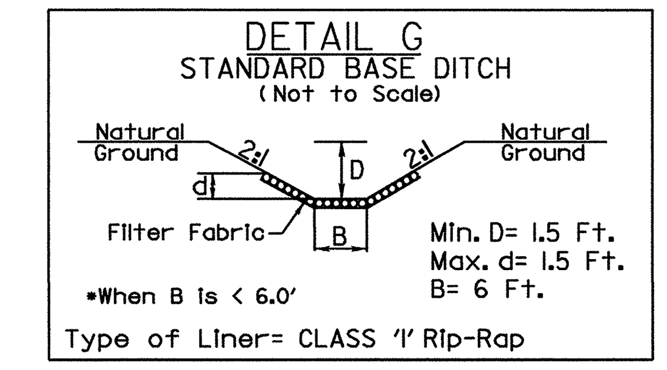
-DET- STA. 22+58 TO 23+09 LT
RIP RAP = 29 TONS
FILTER FABRIC = 49 SQ YD



-DET- STA. 23+09 TO 24+20 LT



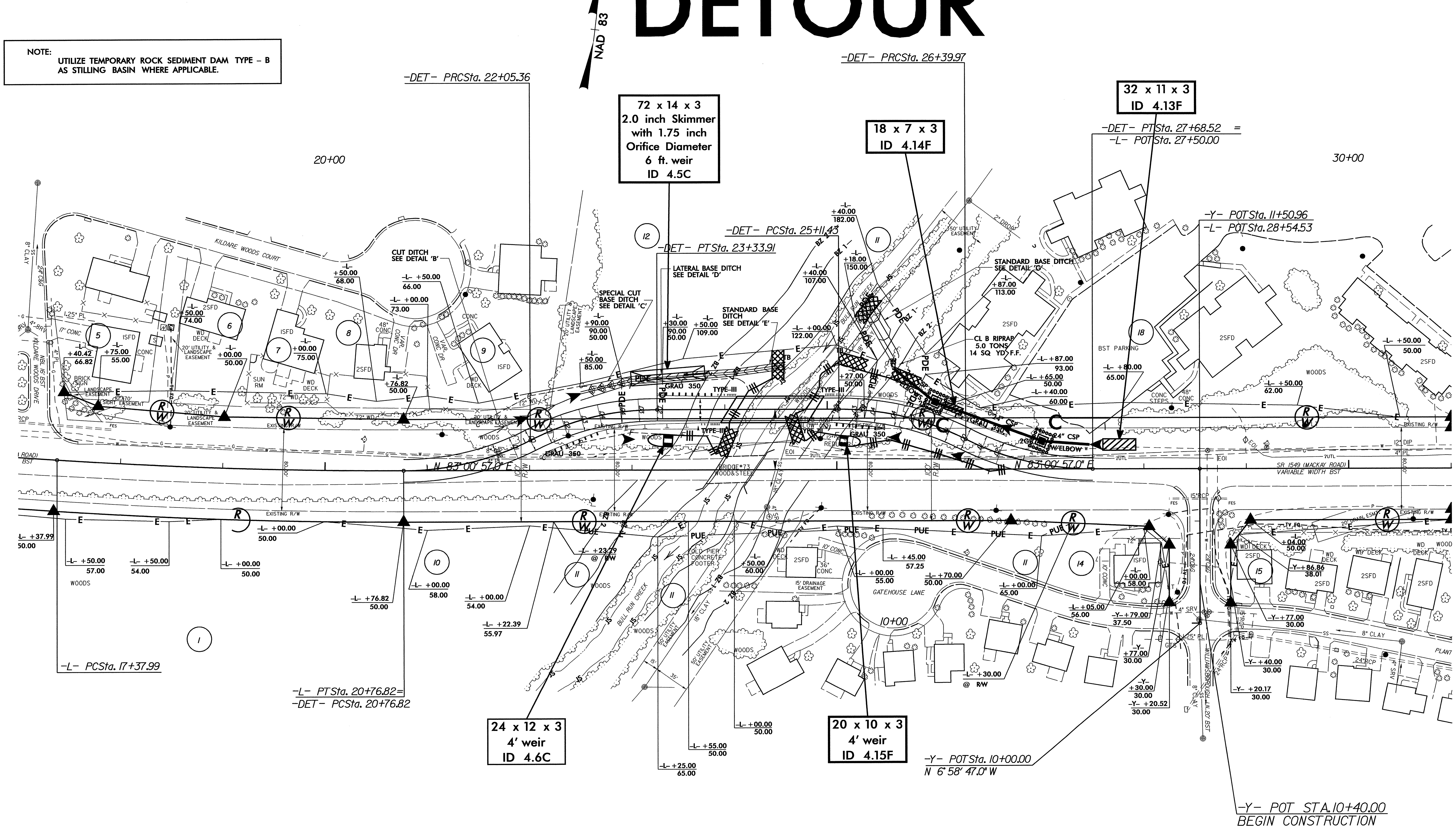
-DET- STA. 24+20 TO 24+60 LT



-DET- STA. 25+43 LT
DDE = 40 CY
RIP RAP = 65 TONS
FILTER FABRIC = 136.9 SQ YD

DETOUR

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



NAD 83
-DET- PRCSta. 22+05.36
-DET- PRCSta. 26+39.97
72 x 14 x 3
2.0 inch Skimmer
with 1.75 inch
Orifice Diameter
6 ft. weir
ID 4.5C
18 x 7 x 3
ID 4.14F
32 x 11 x 3
ID 4.13F
-DET- PTSta. 27+68.52 =
-L- POTSta. 27+50.00
20+00
30+00
KILDARE WOODS COURT
CUT DITCH SEE DETAIL 'B'
-DET- PCSta. 25+11.43
-DET- PTSta. 23+33.91
LATERAL BASE DITCH SEE DETAIL 'D'
SPECIAL CUT BASE DITCH SEE DETAIL 'C'
STANDARD BASE DITCH SEE DETAIL 'E'
STANDARD BASE DITCH SEE DETAIL 'G'
CL B RIPRAP
5.0 TONS
14 SQ YD F.F.
-Y- POTSta. 11+50.96
-L- POTSta.28+54.53
N 83°00'57.0" E
SR 1549 (MACKAY ROAD)
VARIABLE WIDTH BST
GATEHOUSE LANE
BULL RUN CREEK
10+00
-L- PCSta. 17+37.99
-L- PTSta. 20+76.82=
-DET- PCSta. 20+76.82
24 x 12 x 3
4' weir
ID 4.6C
20 x 10 x 3
4' weir
ID 4.15F
-Y- POTSta. 10+00.00
N 6°58'47.0" W
-Y- POT STA.10+40.00
BEGIN CONSTRUCTION

SEE SHEET 8 FOR -DET- PROFILE

8/17/99

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