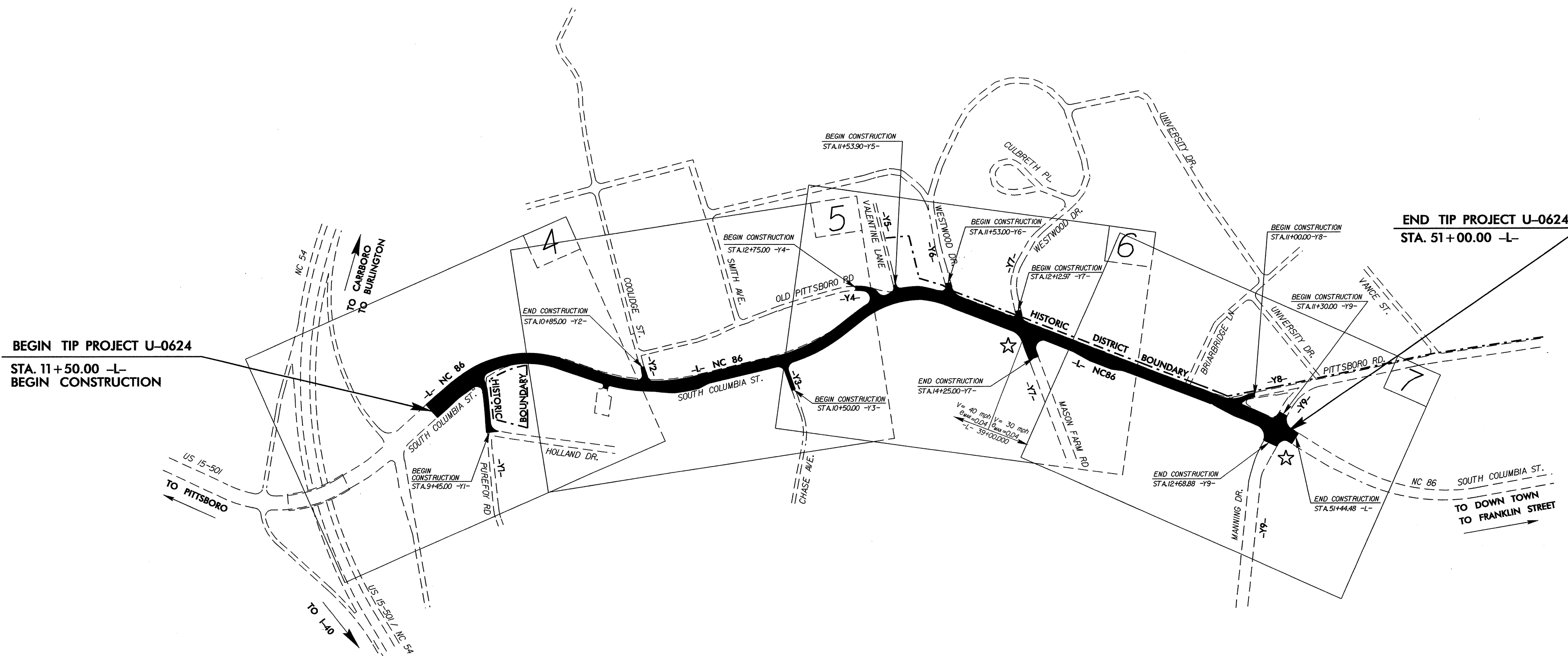
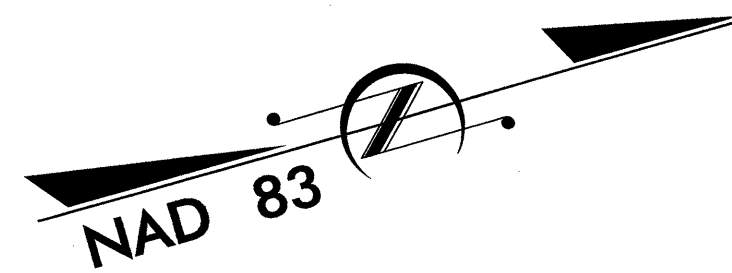


TIP PROJECT: U-0624

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

**LOCATION: NC 86 (SOUTH COLUMBIA STREET) FROM
 SR 1906 (PUREFOY ROAD) TO SR 1902 (MANNING DRIVE) IN CHAPEL HILL**
TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING, AND SIGNALS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-0624	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	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.01	Riser Basin	RB
1633.01	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSCA
1633.01	Temporary Rock Silt Check Type-B	TRSCB
1633.01	Wattle	W
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1635.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
Rock Inlet Sediment Trap:		
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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

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

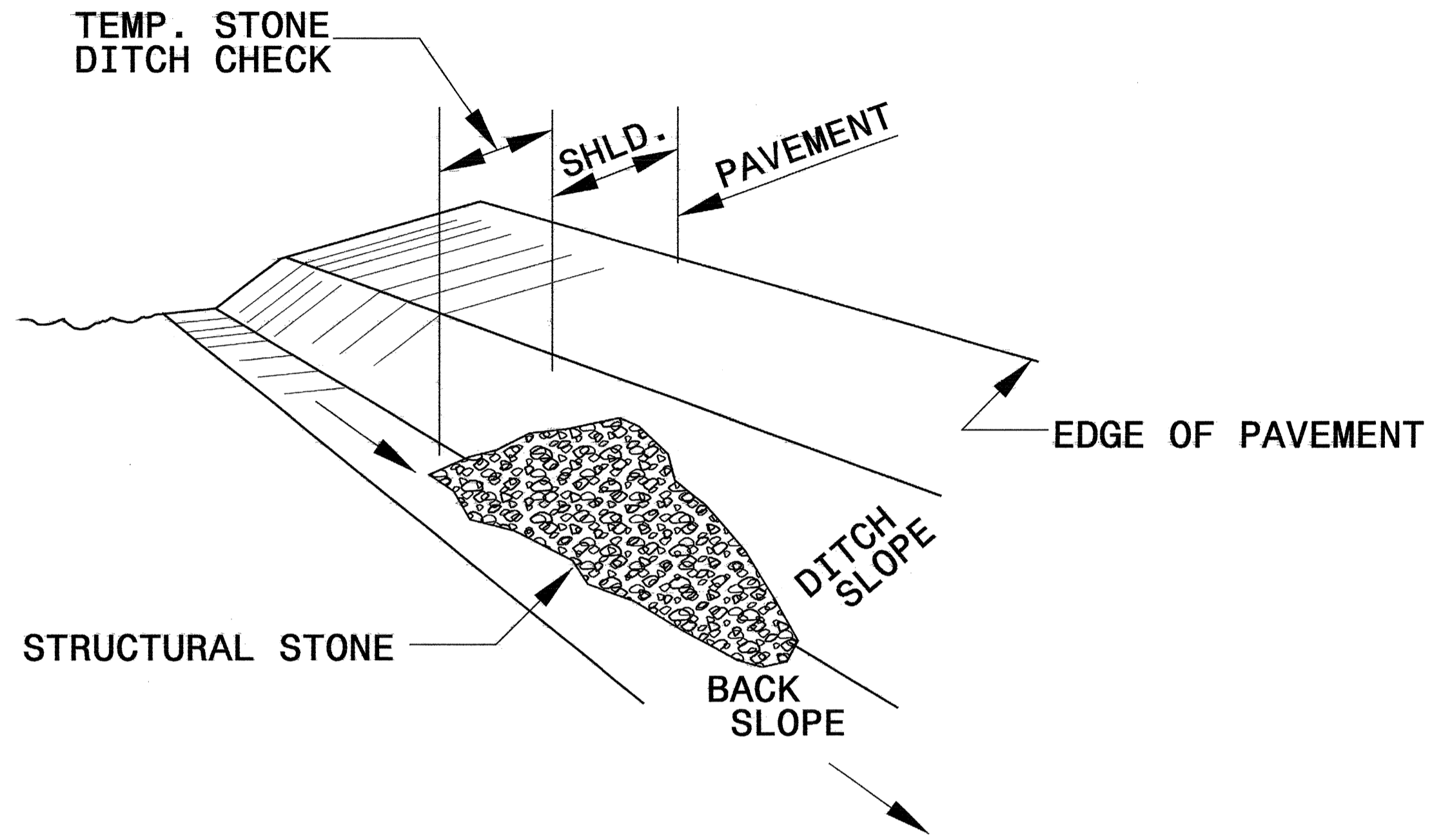
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

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
1630.05 Temporary Diversion	1635.01 Rock Pipe Inlet Sediment Trap Type A
	1635.02 Rock Pipe Inlet Sediment Trap Type B

P:\10-JAN-2011\458
 Jenni.Ferguson\10
 10-21-11 10:00 AM
 U-0624-EC-1.dgn

PROJECT REFERENCE NO. U-0624	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

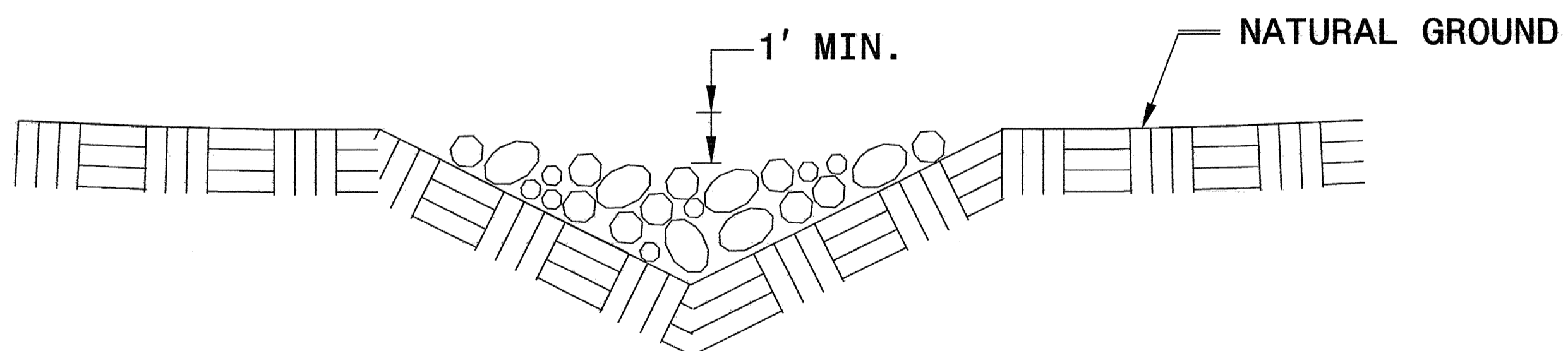


ISOMETRIC VIEW

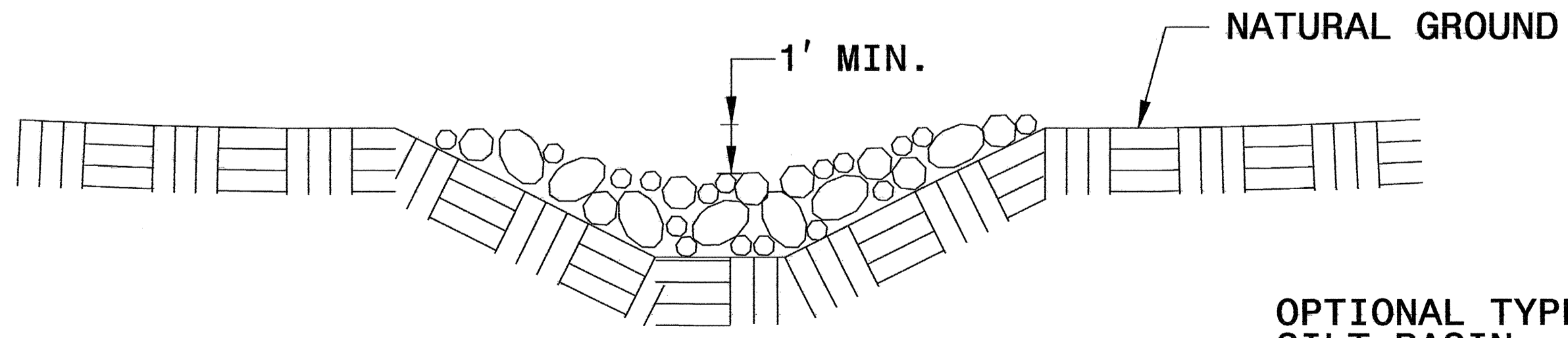
NOTES:

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

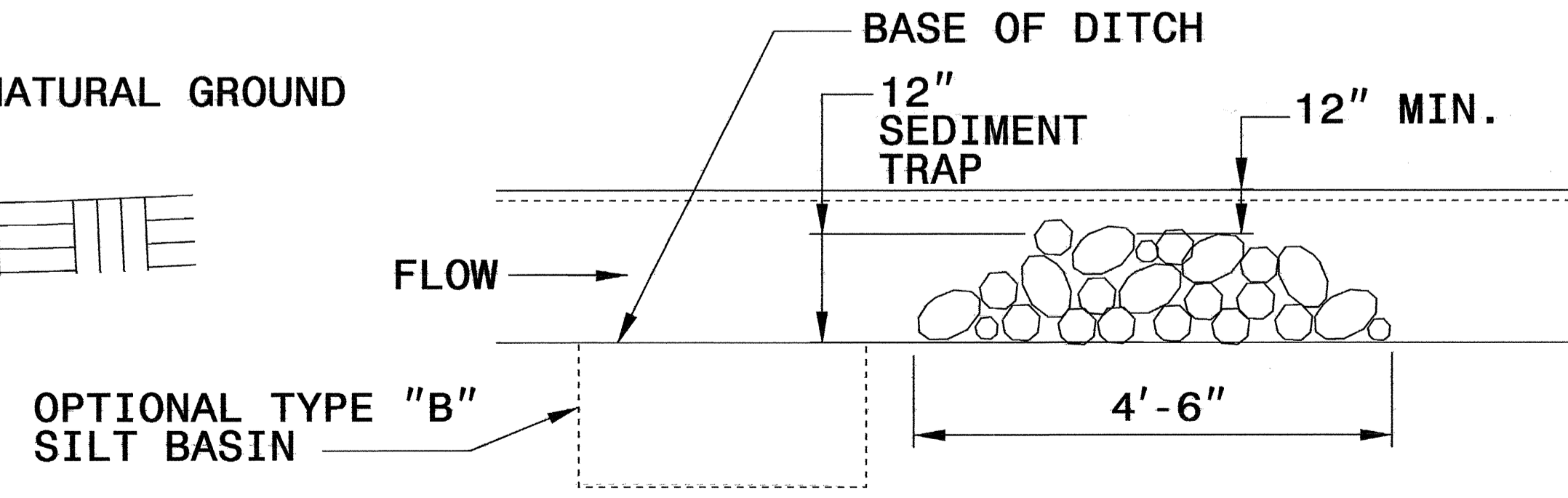
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



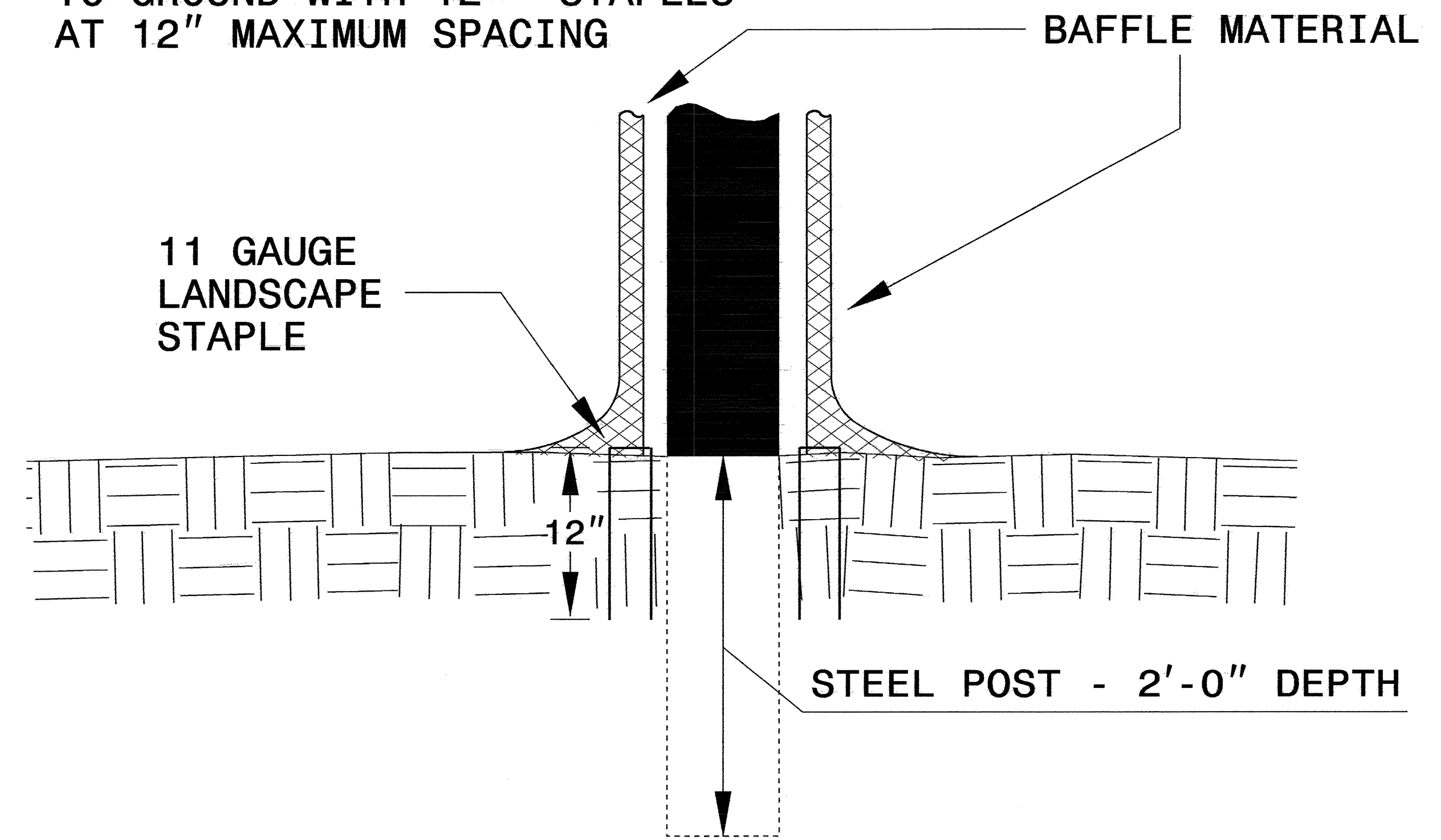
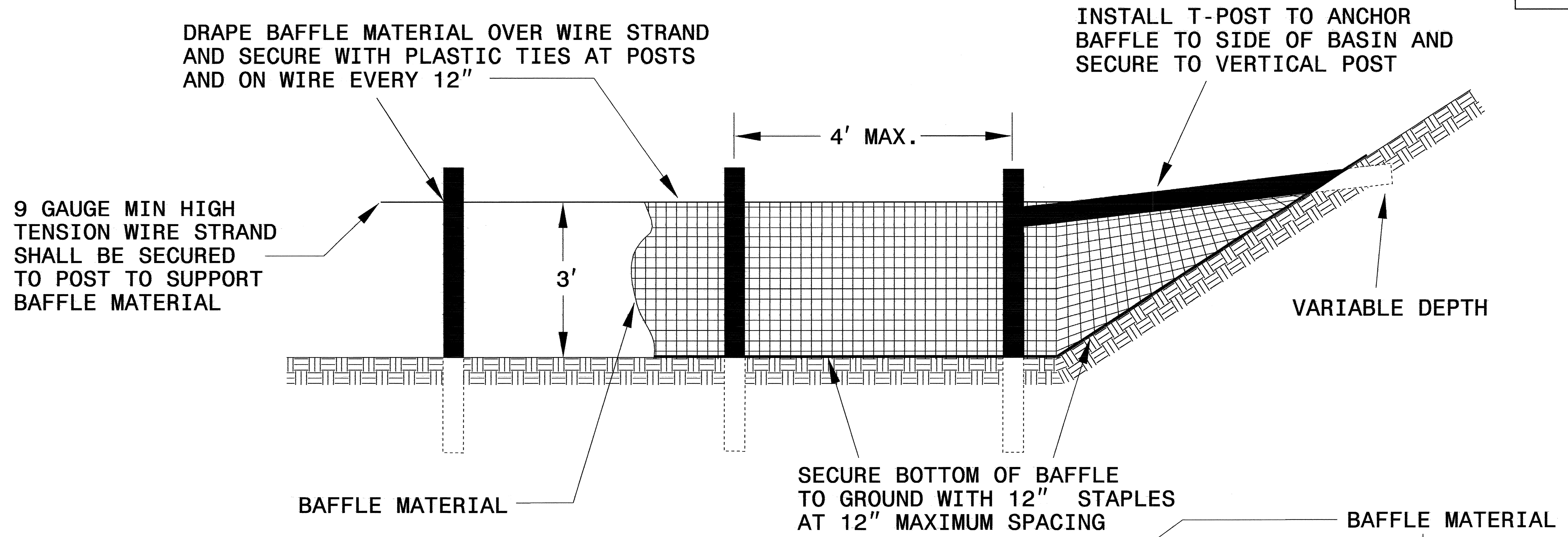
CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO. U-0624	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



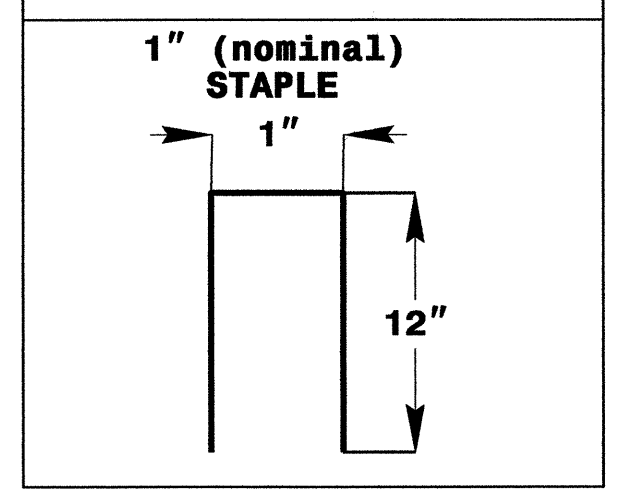
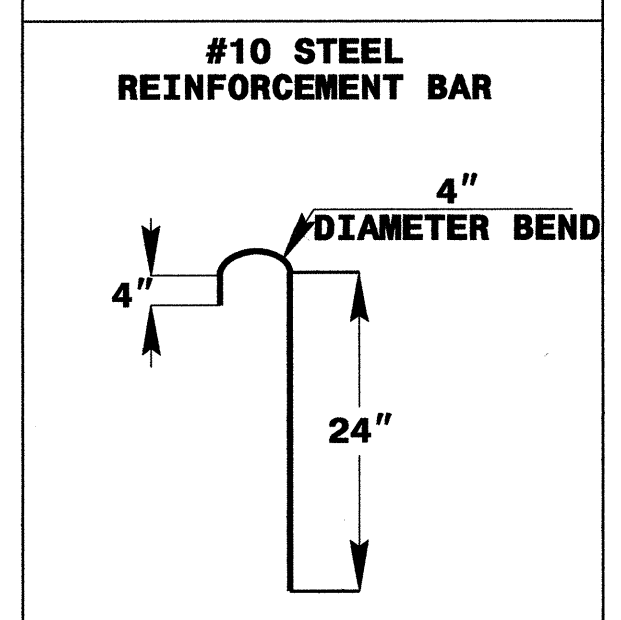
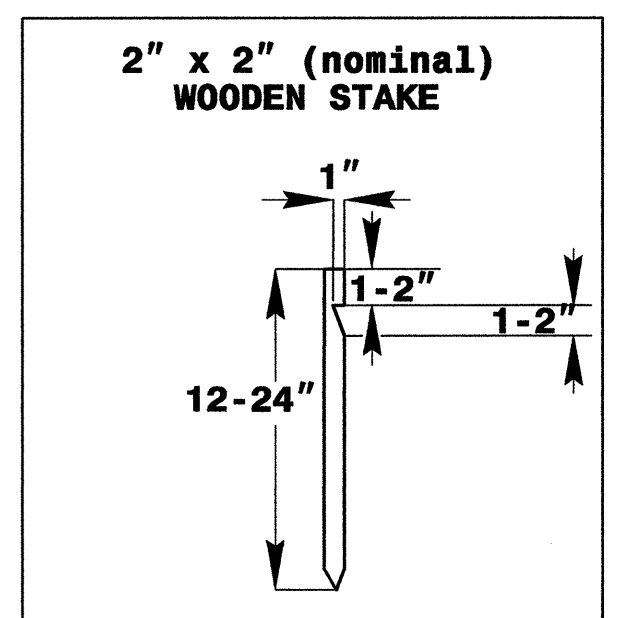
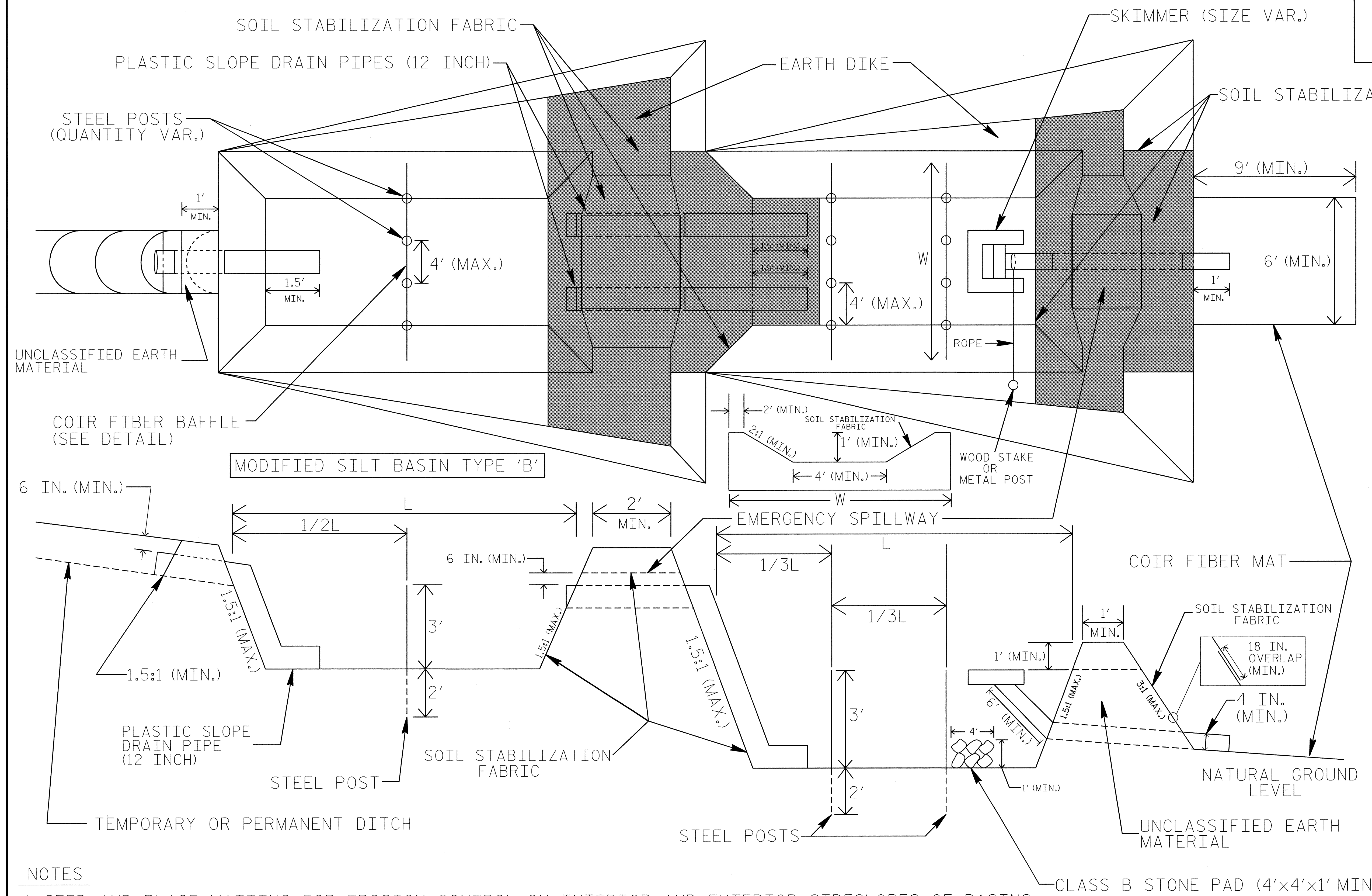
NOTES:

1. 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.
2. 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.
3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

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

PROJECT REFERENCE NO. U-0624	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TIERED SKIMMER BASIN DETAIL



COIR FIBER MAT ANCHOR OPTIONS

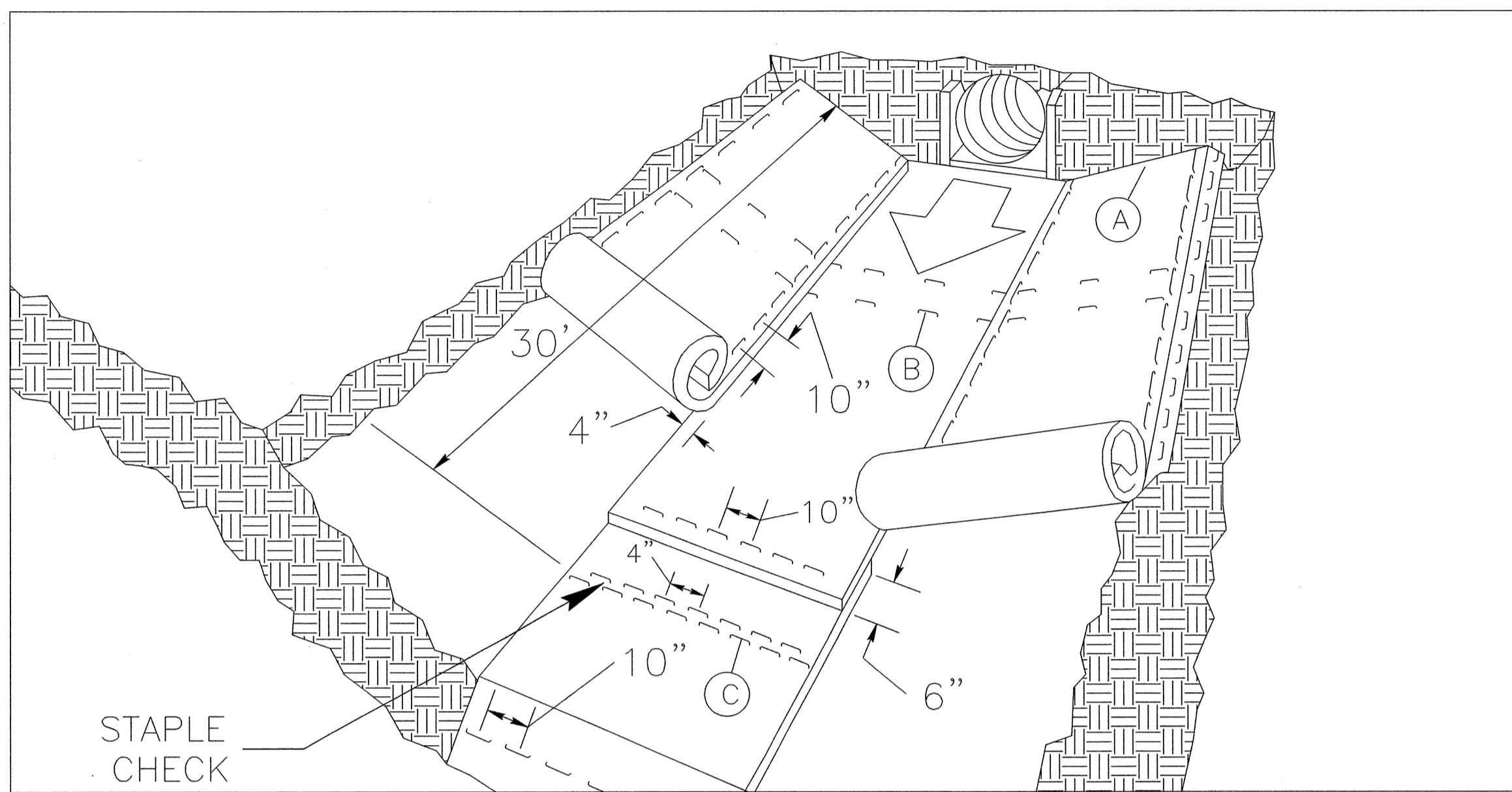
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 5 FT.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 3FT., THE MINIMUM BASIN WIDTHS SHALL BE 9 FT.
5. DETERMINE EMERGENCY SPILLWAY LENGTHS (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO UPPER BASIN.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

PROJECT REFERENCE NO. U-0624	SHEET NO. EC-2C
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATTING INSTALLATION DETAIL



MATTING IN DITCHES

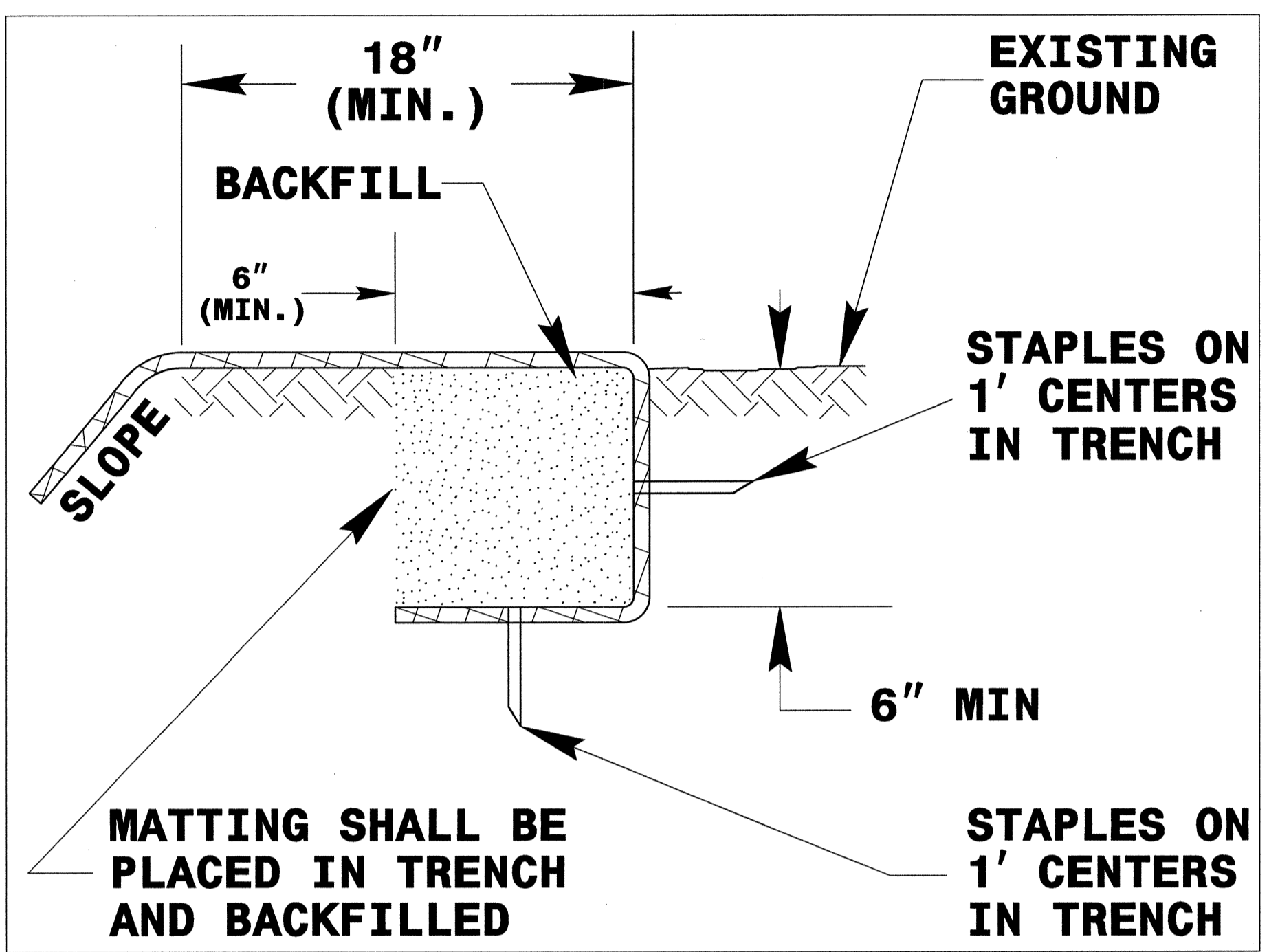
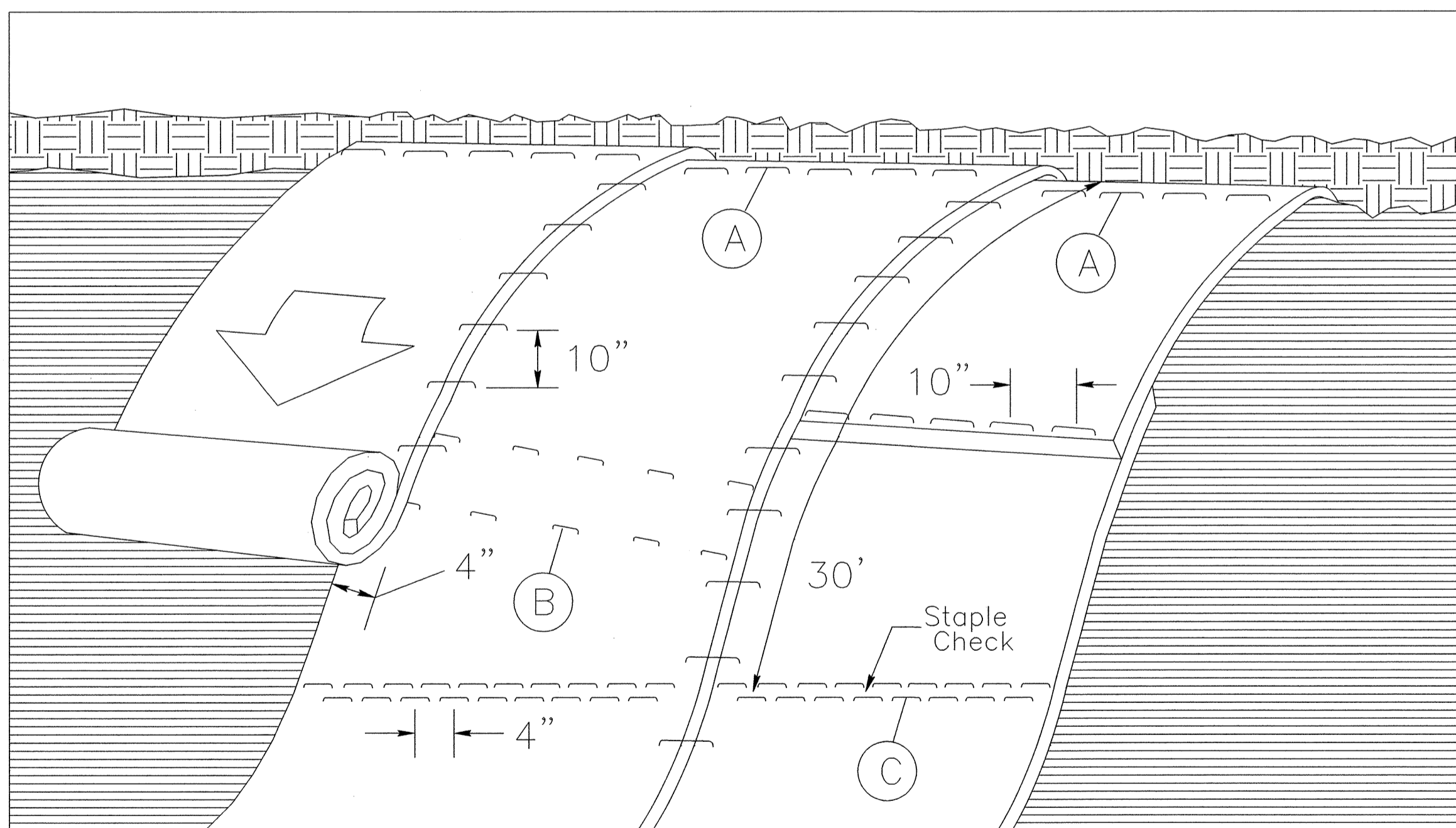


DIAGRAM (A)



MATTING ON SLOPES

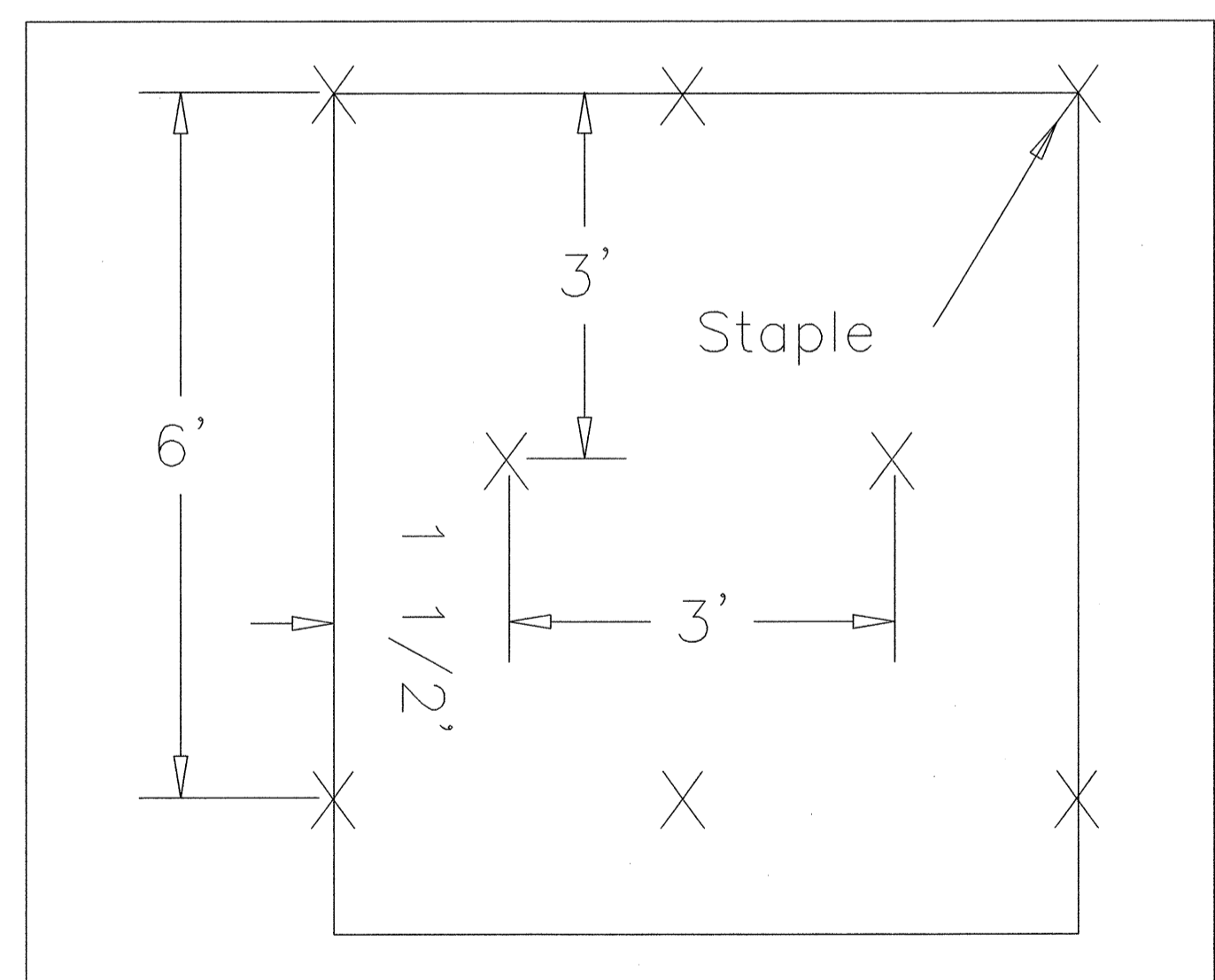


DIAGRAM (B)

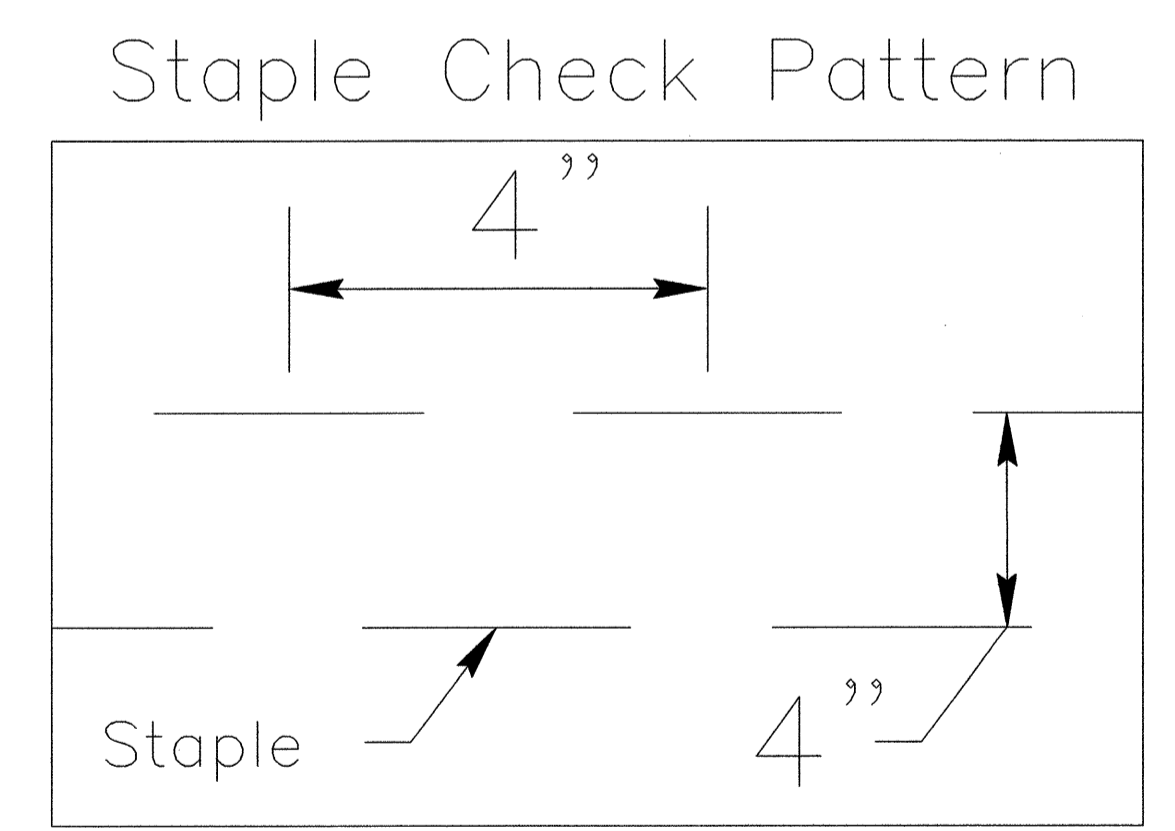


DIAGRAM (C)

NOTES:

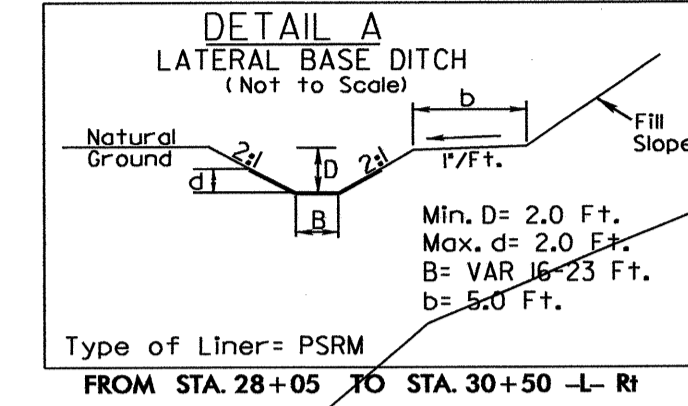
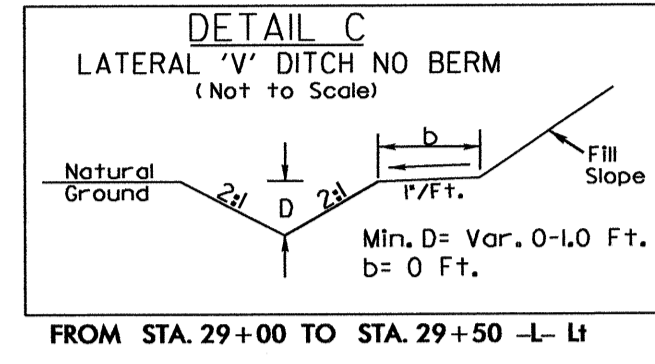
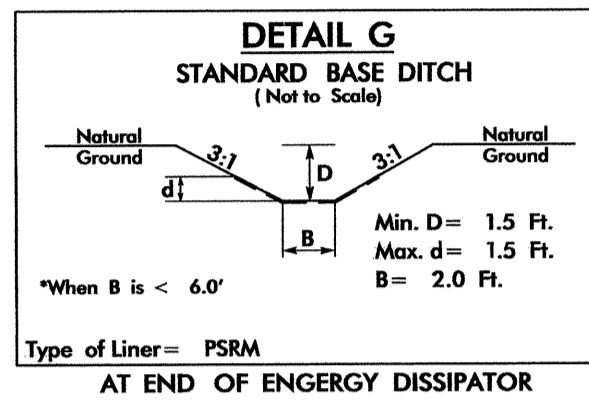
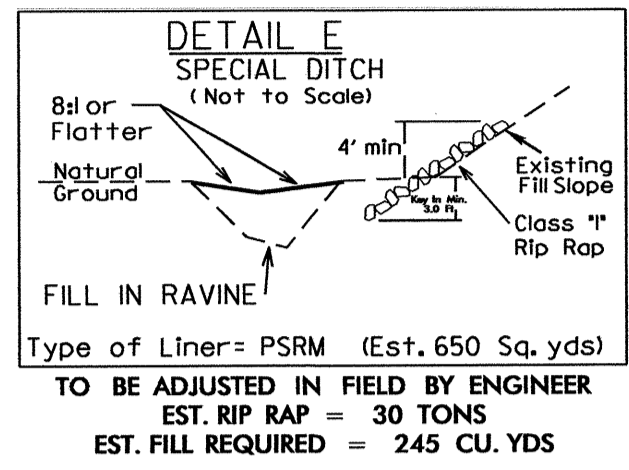
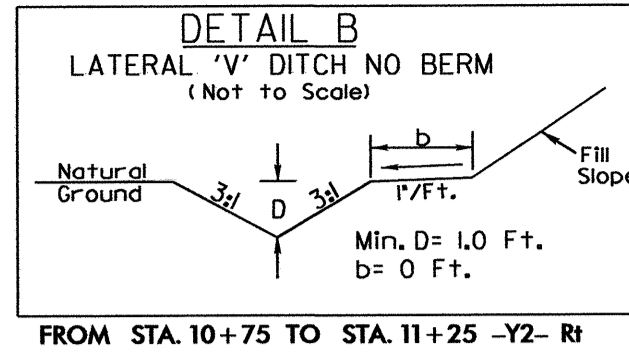
THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.
 STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

8/17/99

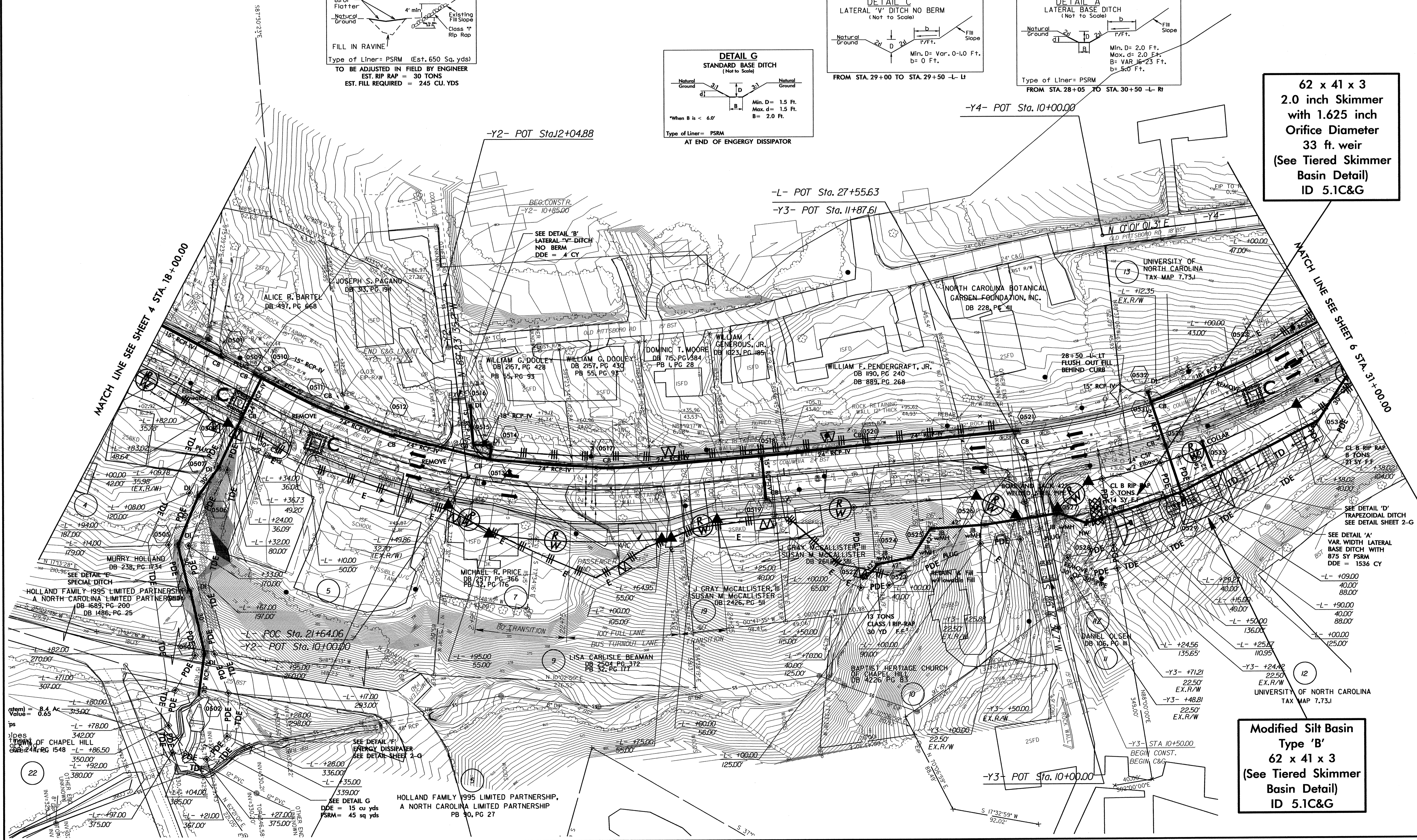
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 5

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



NAD 8395

PROJECT REFERENCE NO. U-0624	SHEET NO. EC-5/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



62 x 41 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
33 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.1C&G

Modified Silt Basin
Type 'B'
62 x 41 x 3
(See Tiered Skimmer
Basin Detail)
ID 5.1C&G

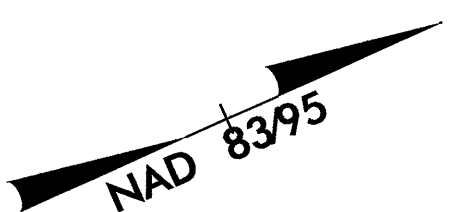
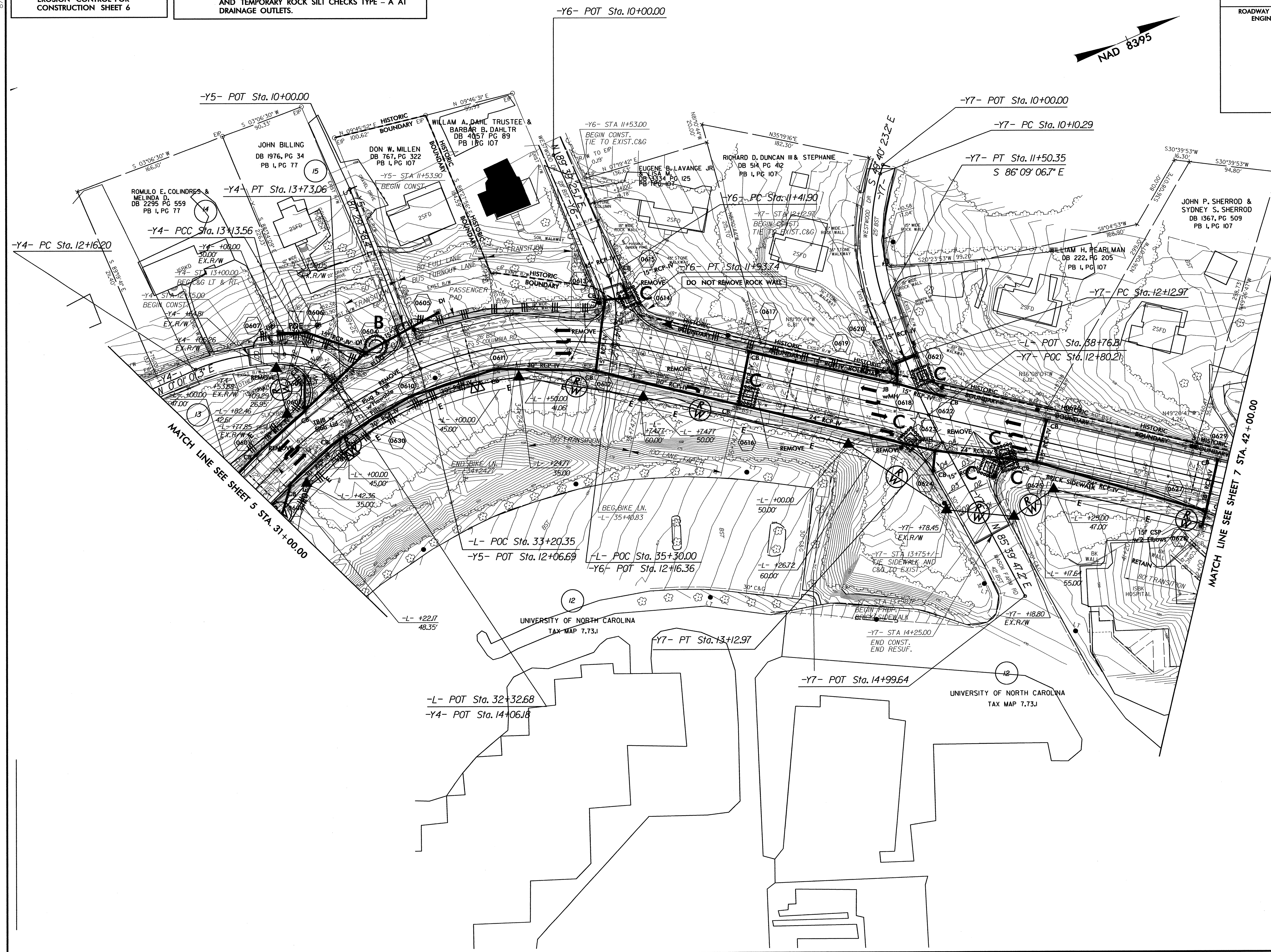
22

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

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

PROJECT REFERENCE NO. U-0624		SHEET NO. EC-6/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



MATCH LINE SEE SHEET 5 STA. 31+00.00

MATCH LINE SEE SHEET 7 STA. 42+00.00

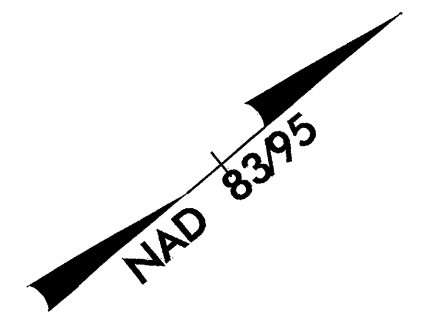
UNIVERSITY OF NORTH CAROLINA
TAX MAP 7.73J

UNIVERSITY OF NORTH CAROLINA
TAX MAP 7.73J

8/17/99

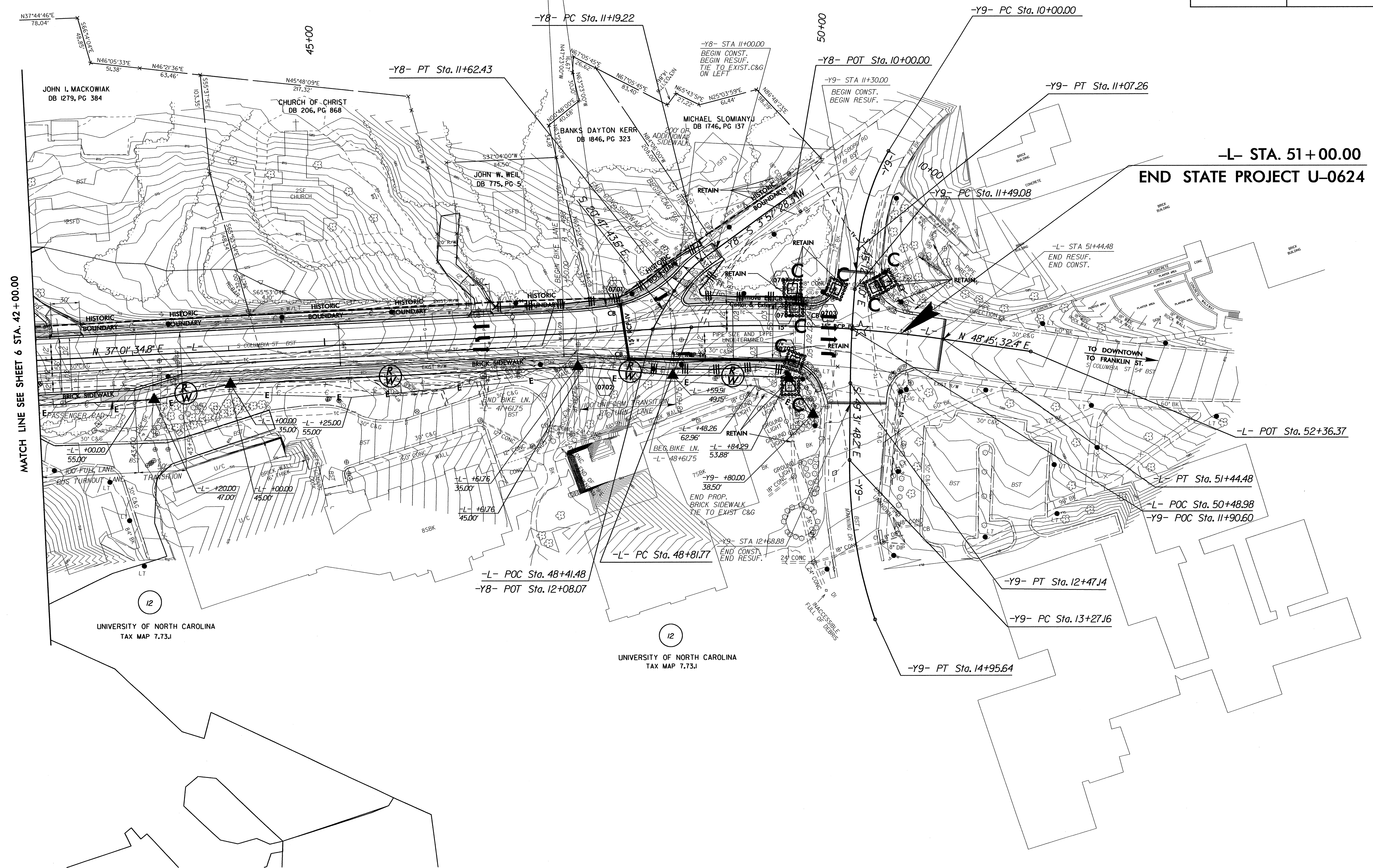
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

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



-L-	-Y8-	-Y9-	-Y9-	-Y9-
PI Sta 50+13.55	PI Sta 11+41.17	PI Sta 10+54.47	PI Sta 11+98.13	PI Sta 14+12.21
$\Delta = 11' 13' 57.6''$ (RT)	$\Delta = 24' 45' 11.9''$ (LT)	$\Delta = 24' 34' 59.6''$ (LT)	$\Delta = 4' 19' 17.2''$ (LT)	$\Delta = 19' 18' 21.8''$ (LT)
D = 4' 16' 32.9"	D = 57' 17' 44.8"	D = 22' 55' 05.9"	D = 4' 24' 26.5"	D = 11' 27' 33.0"
L = 262.70'	L = 43.20'	L = 107.26'	L = 98.05'	L = 168.48'
T = 131.77'	T = 21.94'	T = 54.47'	T = 49.05'	T = 85.04'
R = 1,340.00'	R = 100.00'	R = 250.00'	R = 1,300.00'	R = 500.00'
SE = NC	SE = N/A			
V = 40 mph	V = 40 mph			

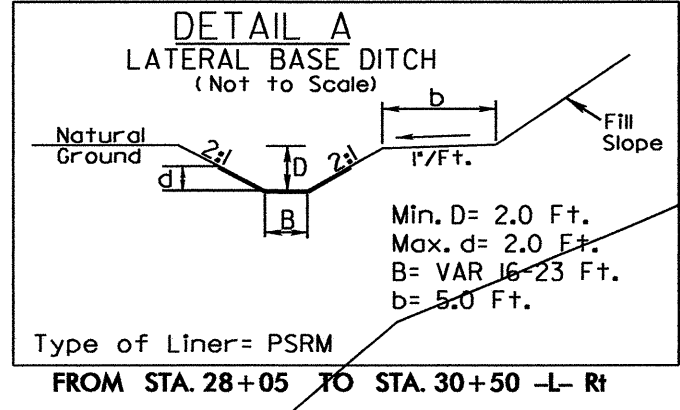
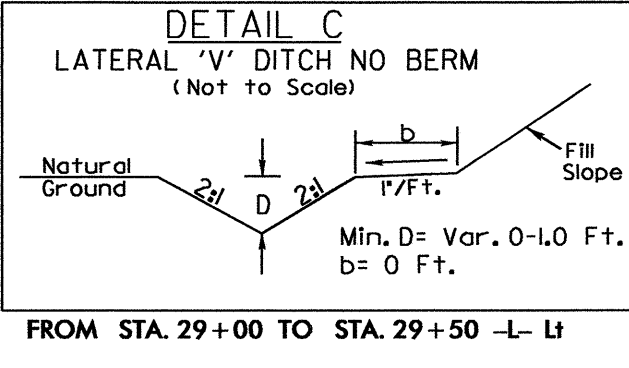
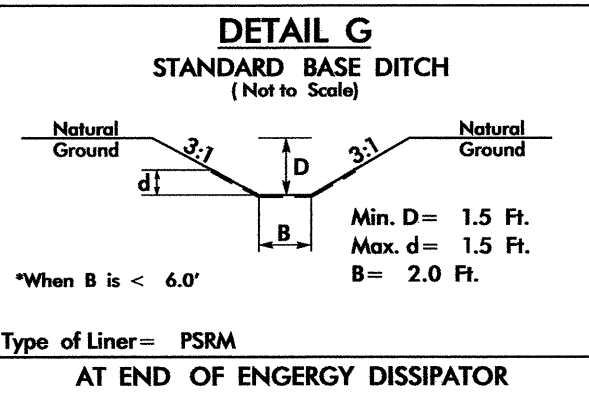
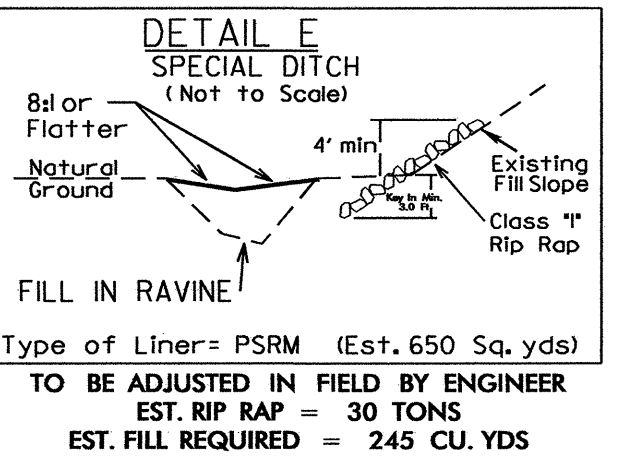
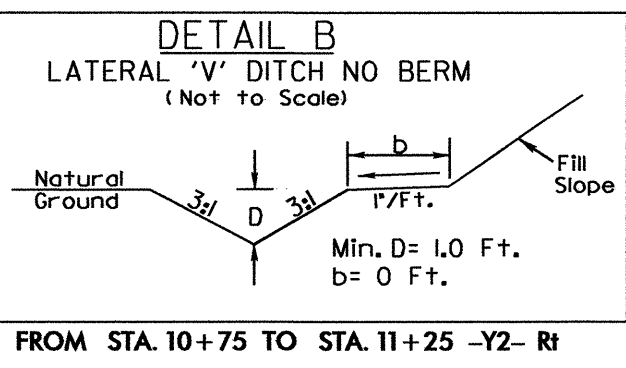
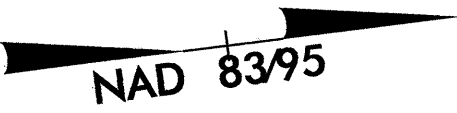
PROJECT REFERENCE NO. U-0624	SHEET NO. EC-7/CONST.7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



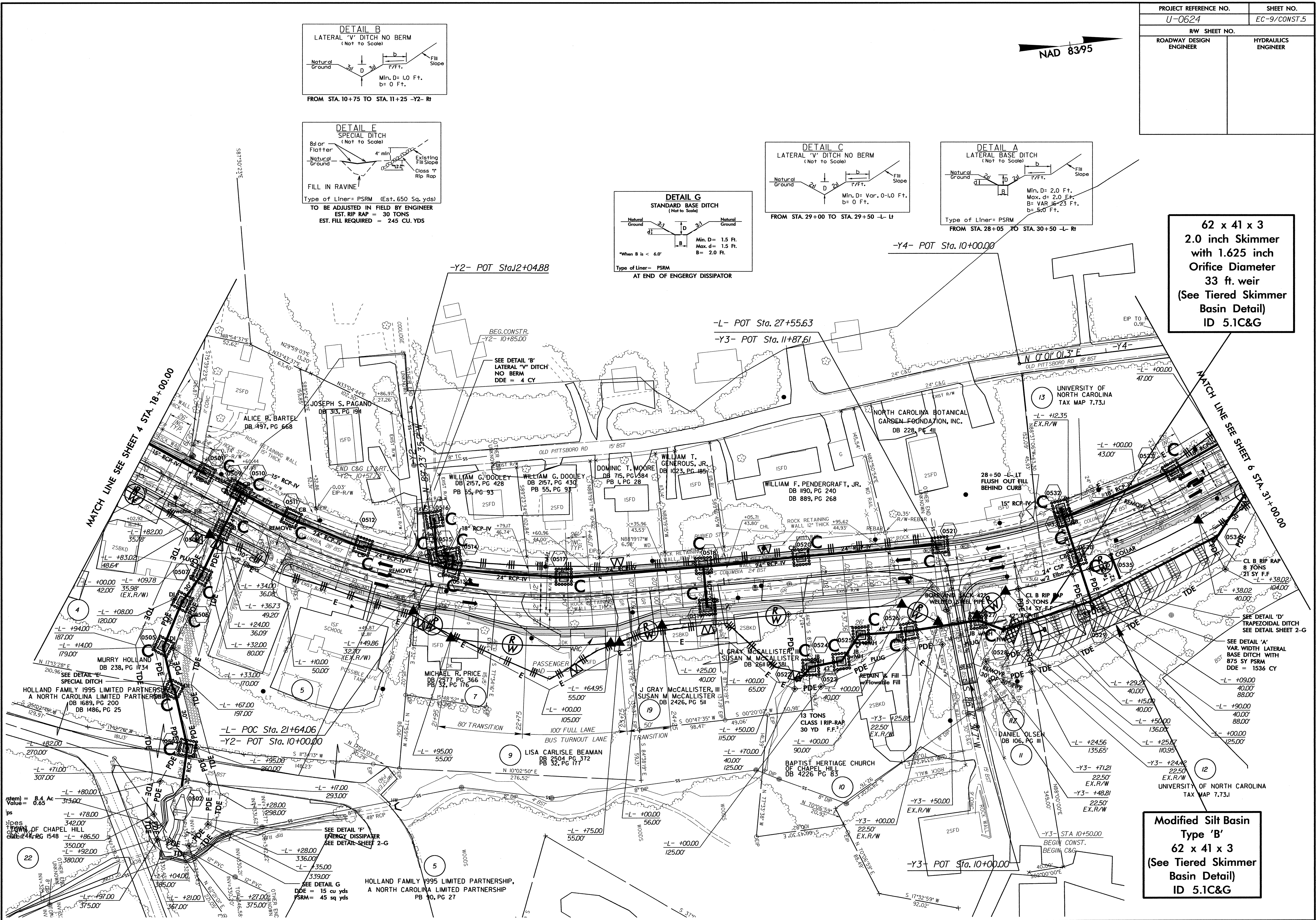
MATCH LINE SEE SHEET 6 STA. 42+00.00

-L- STA. 51+00.00
END STATE PROJECT U-0624

PROJECT REFERENCE NO. U-0624		SHEET NO. EC-9/CONST.5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



62 x 41 x 3
2.0 inch Skimmer
with 1.625 inch
Orifice Diameter
33 ft. weir
(See Tiered Skimmer
Basin Detail)
ID 5.1C&G

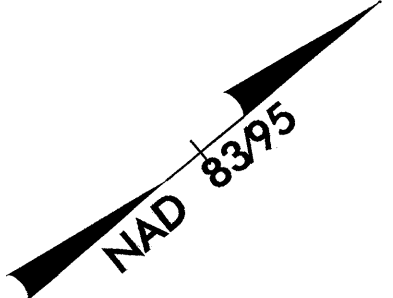
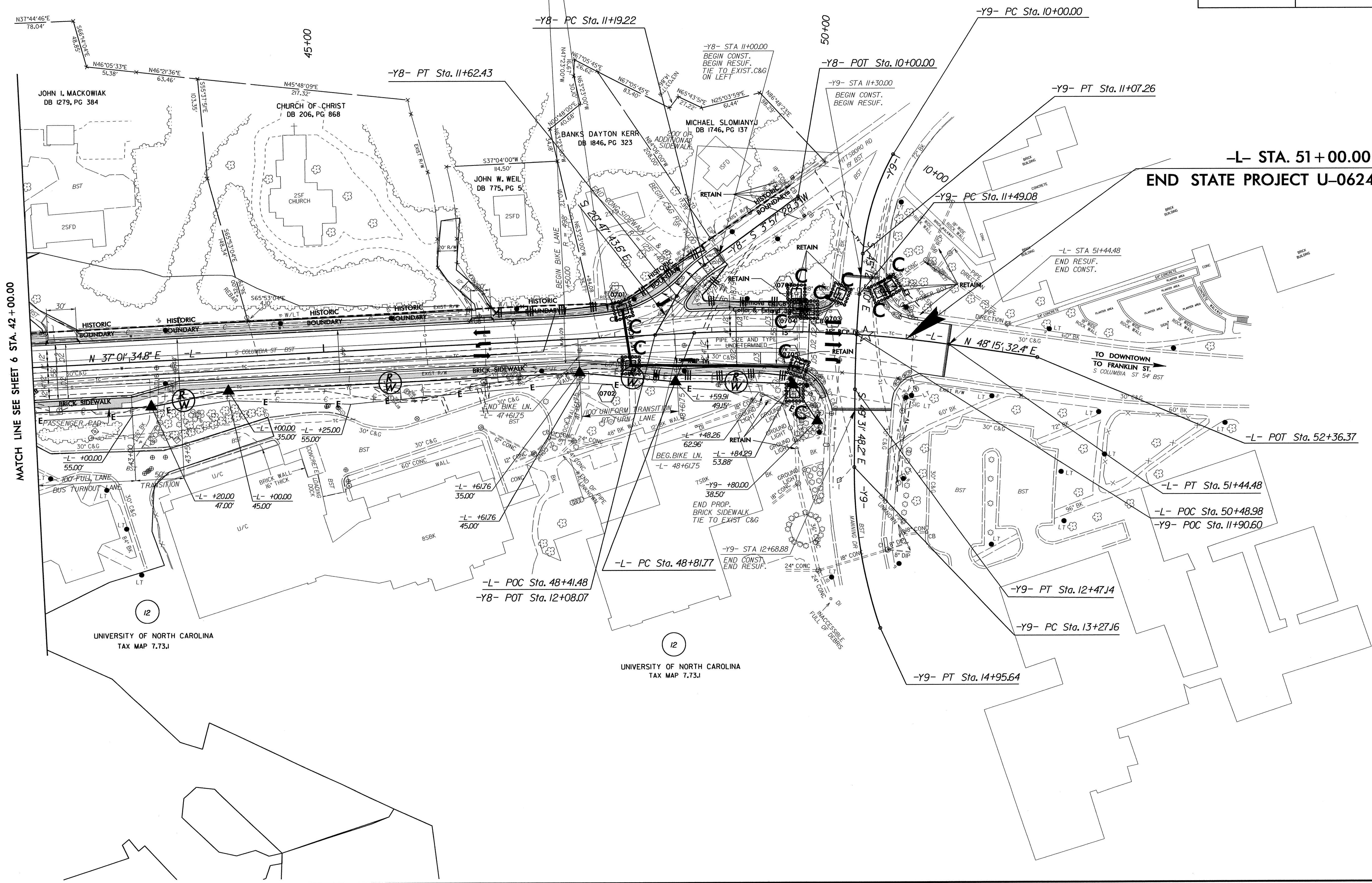


Modified Silt Basin
Type 'B'
62 x 41 x 3
(See Tiered Skimmer
Basin Detail)
ID 5.1C&G

8/17/99

PROJECT REFERENCE NO.		SHEET NO.	
U-0624		EC-11/CONST.7	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

-L-	-Y8-	-Y9-	-Y9-	-Y9-
PI Sta 50+13.55	PI Sta 11+41.7	PI Sta 10+54.47	PI Sta 11+98.13	PI Sta 14+12.21
$\Delta = 1^\circ 13' 57.6''$ (RT)	$\Delta = 24^\circ 45' 11.9''$ (LT)	$\Delta = 24^\circ 34' 59.6''$ (LT)	$\Delta = 4^\circ 19' 17.2''$ (LT)	$\Delta = 19^\circ 18' 21.8''$ (LT)
D = 4' 16" 32.9"	D = 57' 17" 44.8"	D = 22' 55' 05.9"	D = 4' 24" 26.5"	D = 11' 27" 33.0"
L = 262.70'	L = 43.20'	L = 107.26'	L = 98.05'	L = 168.48'
T = 131.77'	T = 21.94'	T = 54.47'	T = 49.05'	T = 85.04'
R = 1,340.00'	R = 100.00'	R = 250.00'	R = 1,300.00'	R = 500.00'
SE = NC	SE = N/A			
V = 40 mph	V = 40 mph			



MATCH LINE SEE SHEET 6 STA. 42+00.00

-L- STA. 51+00.00
END STATE PROJECT U-0624

TO DOWNTOWN
TO FRANKLIN ST
S COLUMBIA ST 54' BST

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TAX MAP 7.73.1

UNIVERSITY OF NORTH CAROLINA
TAX MAP 7.73.1