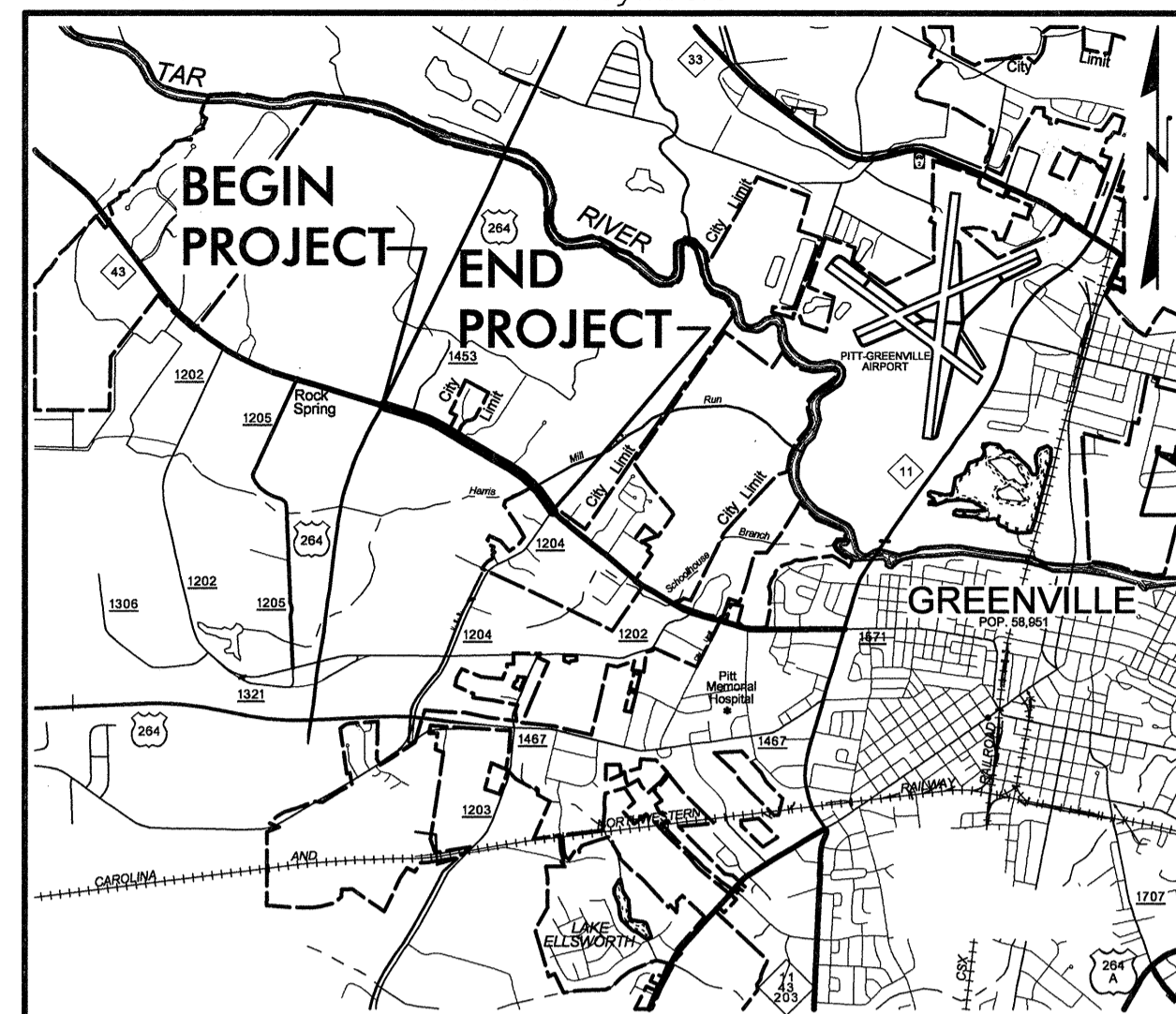


See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

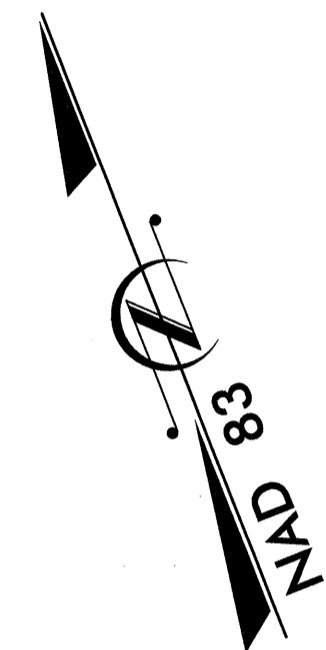
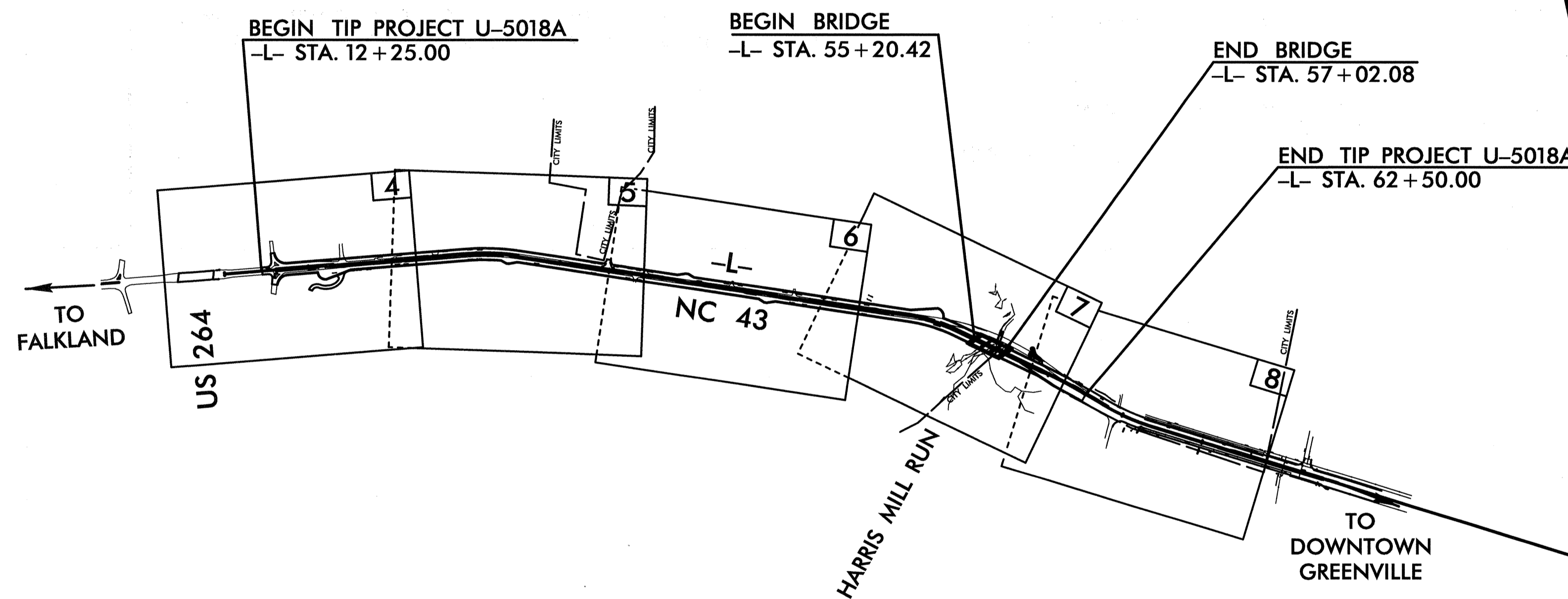


VICINITY MAP

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

LOCATION: GREENVILLE - NC 43 FROM US 264 TO WEST OF SR 1204 (B'S BARBEQUE ROAD)

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



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5018A	EC-1	TOTAL SHEETS
WBS NO.	F.A. PROJ. NO.	DESCRIPTION	
41431.1.2		P.E.	
41431.2.1		RW	
41431.3.2		CONST.	

EROSION AND SEDIMENT CONTROL MEASURES

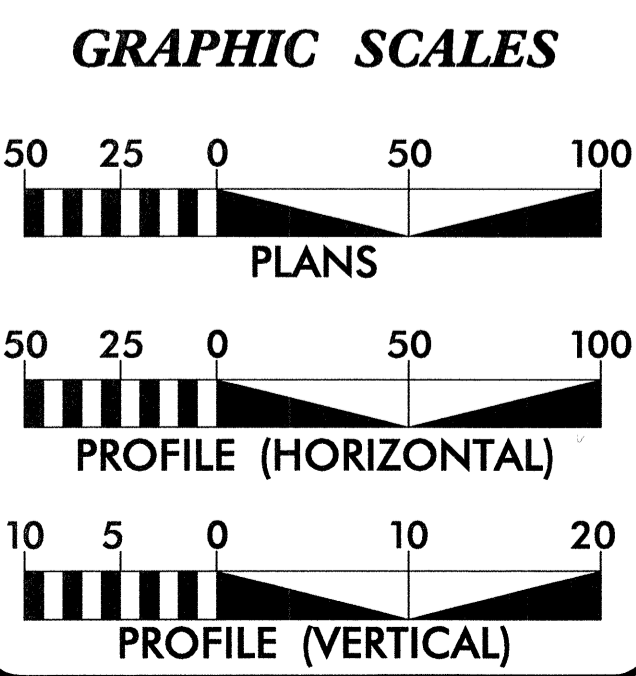
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	TD
1630.01	Riser Basin	RB
1630.02	Silt Basin Type B	SB
1633.01	Temporary Rock Silt Check Type-A	TRSA
	Temporary Rock Silt Check Type-B	TRSB
	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	RPISA
1635.02	Rock Pipe Inlet Sediment Trap Type-B	RPISB
1630.04	Stilling Basin	SB
	Rock Inlet Sediment Trap:	
1632.01	Type A	RA
1632.02	Type B	RB
1632.03	Type C	RC
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

TIP PROJECT: U-5018A

CONTRACT: C201904



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5018A	=	0.946 MILES
LENGTH STRUCTURE TIP PROJECT U-5018A	=	0.034 MILES
TOTAL LENGTH TIP PROJECT U-5018A	=	0.980 MILES

Prepared In the Office of:

MULKEY
ENGINEERS & CONSULTANTS
FOR
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

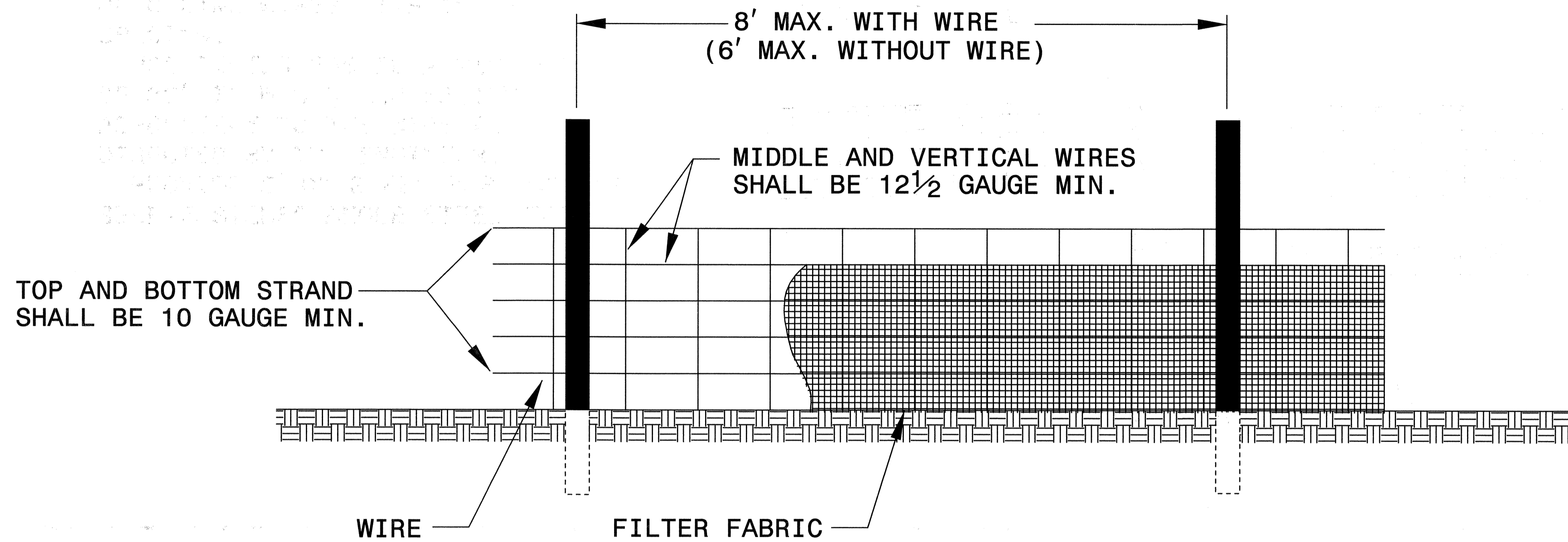
Roadway Standard Drawings

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.

1604.01 Railroad Erosion Control Detail	1630.06 Special Stilling Basin
1605.01 Temporary Silt Fence	1632.01 Rock Inlet Sediment Trap Type A
1606.01 Special Sediment Control Fence	1632.02 Rock Inlet Sediment Trap Type B
1607.01 Gravel Construction Entrance	1632.03 Rock Inlet Sediment Trap Type C
1622.01 Temporary Berms and Slope Drains	1633.01 Temporary Rock Silt Check Type A
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	

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TEMPORARY SILT FENCE

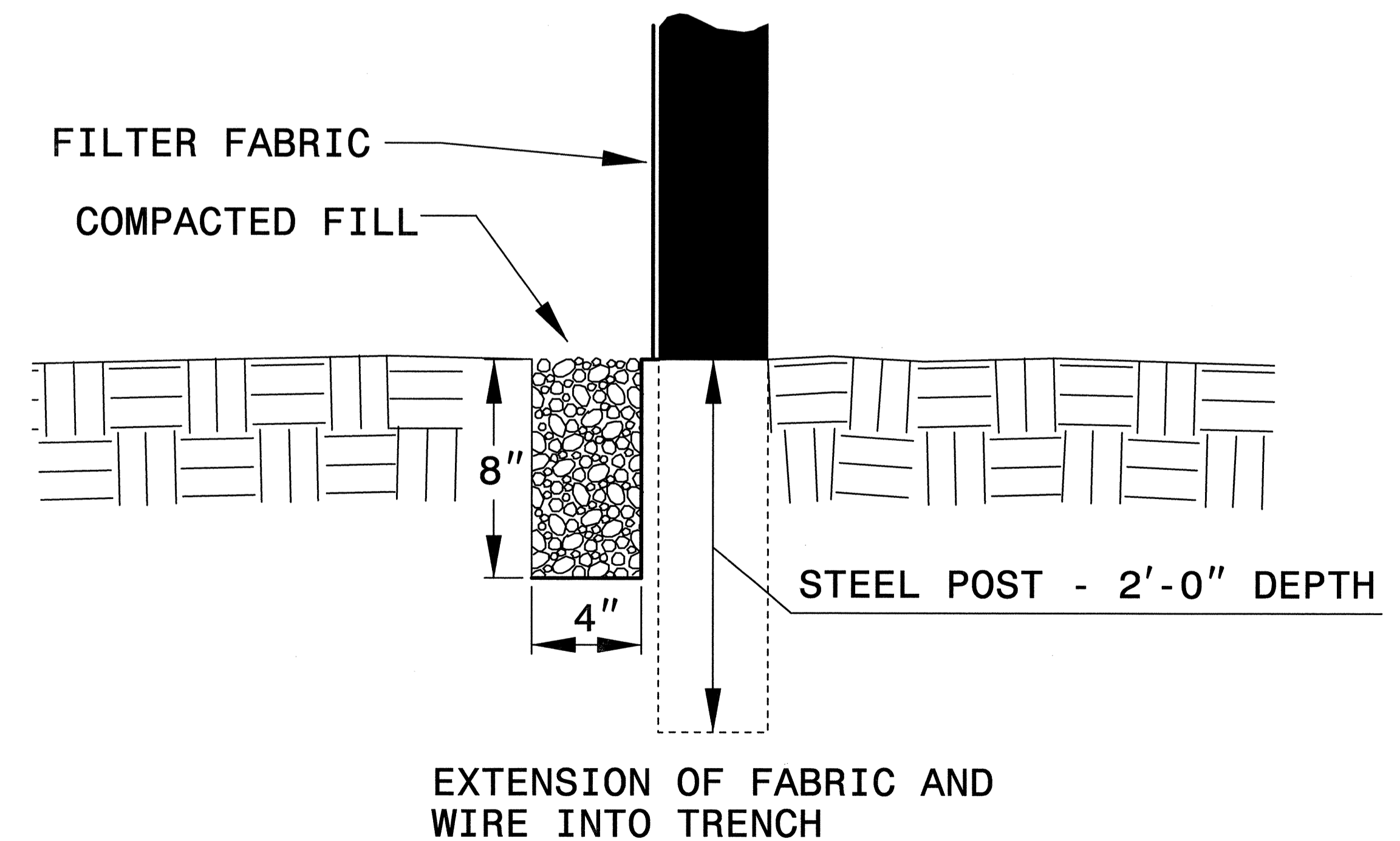


NOTES

USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.

USE FILTER FABRIC A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.



ROCK PIPE INLET SEDIMENT TRAP TYPE 'B'

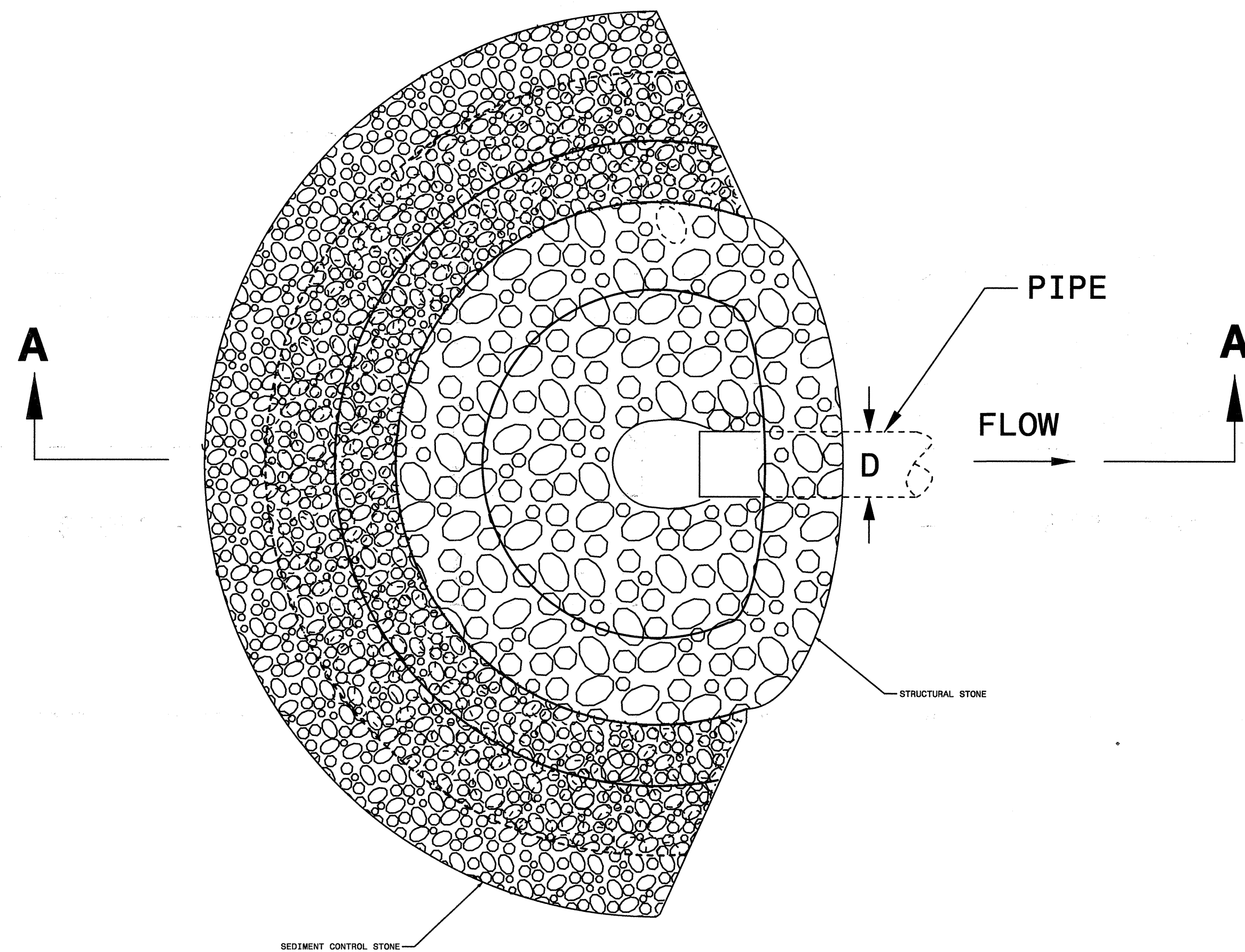
NOTE:

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

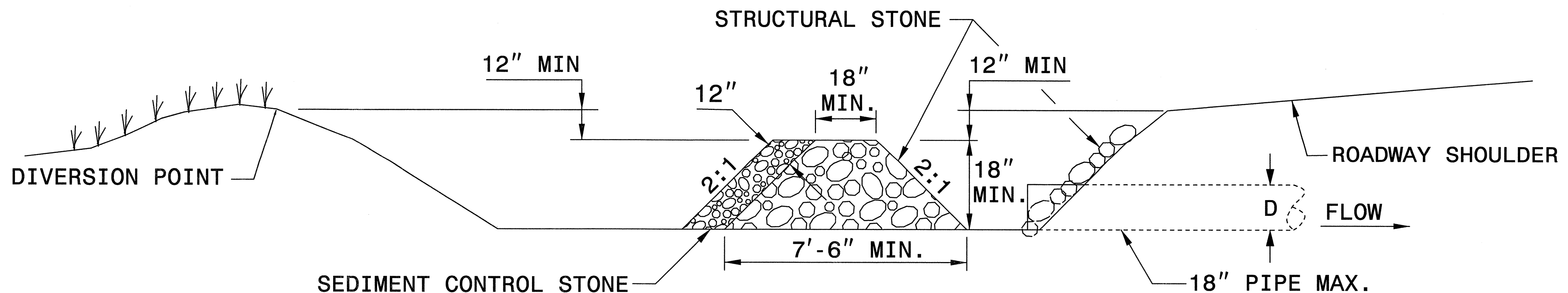
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

CONSTRUCT TOP OF BERM A MINIMUM OF ONE FOOT BELOW THE SHOULDER OR DIVERSION POINT.

PROVIDE A TOTAL SEDIMENT TRAP VOLUME OF 1800± CUBIC FEET PER ACRE OF DISTURBED AREA. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY OTHER UP OR DOWNSTREAM CONTROLS.

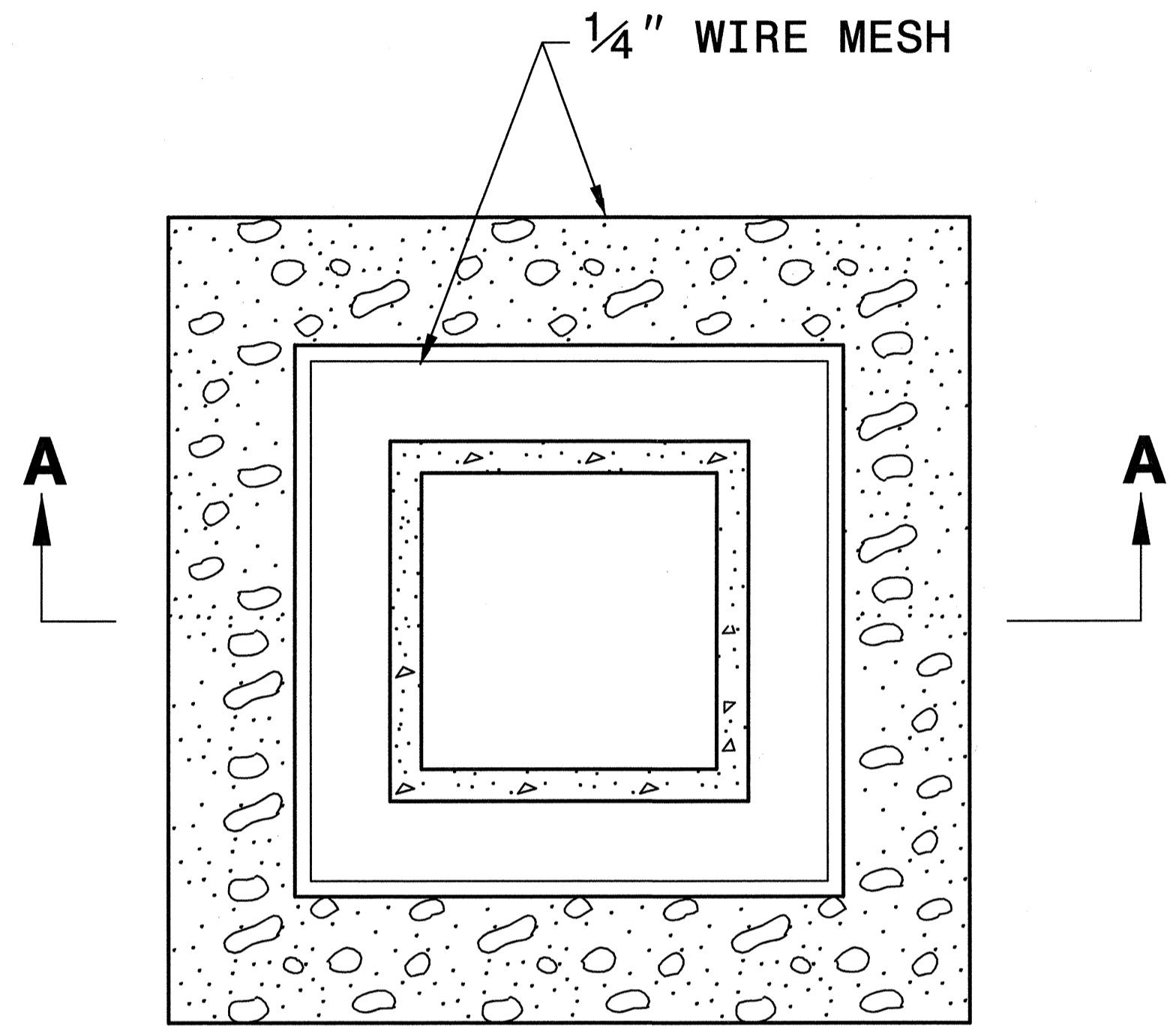


PLAN

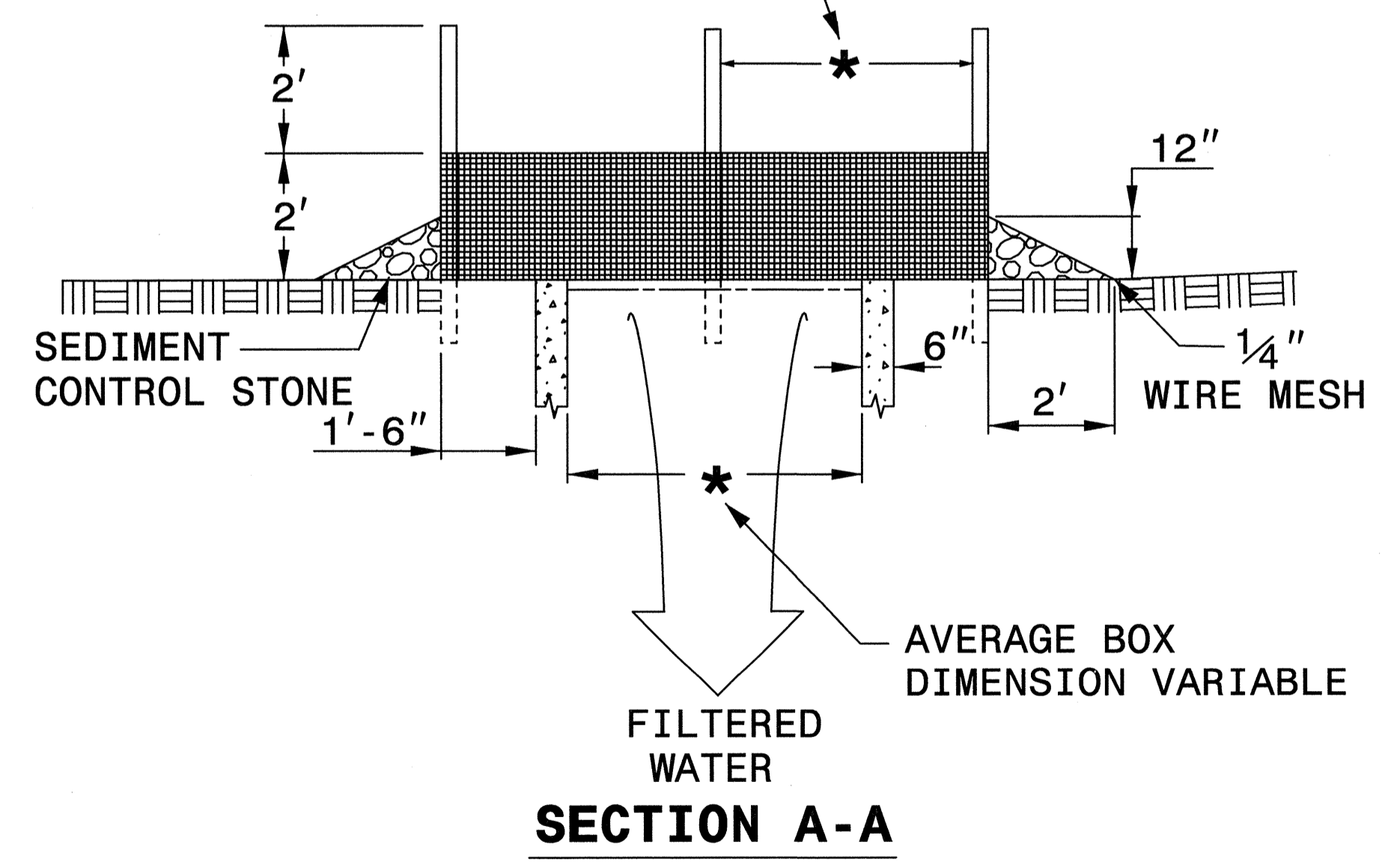


SECTION A-A

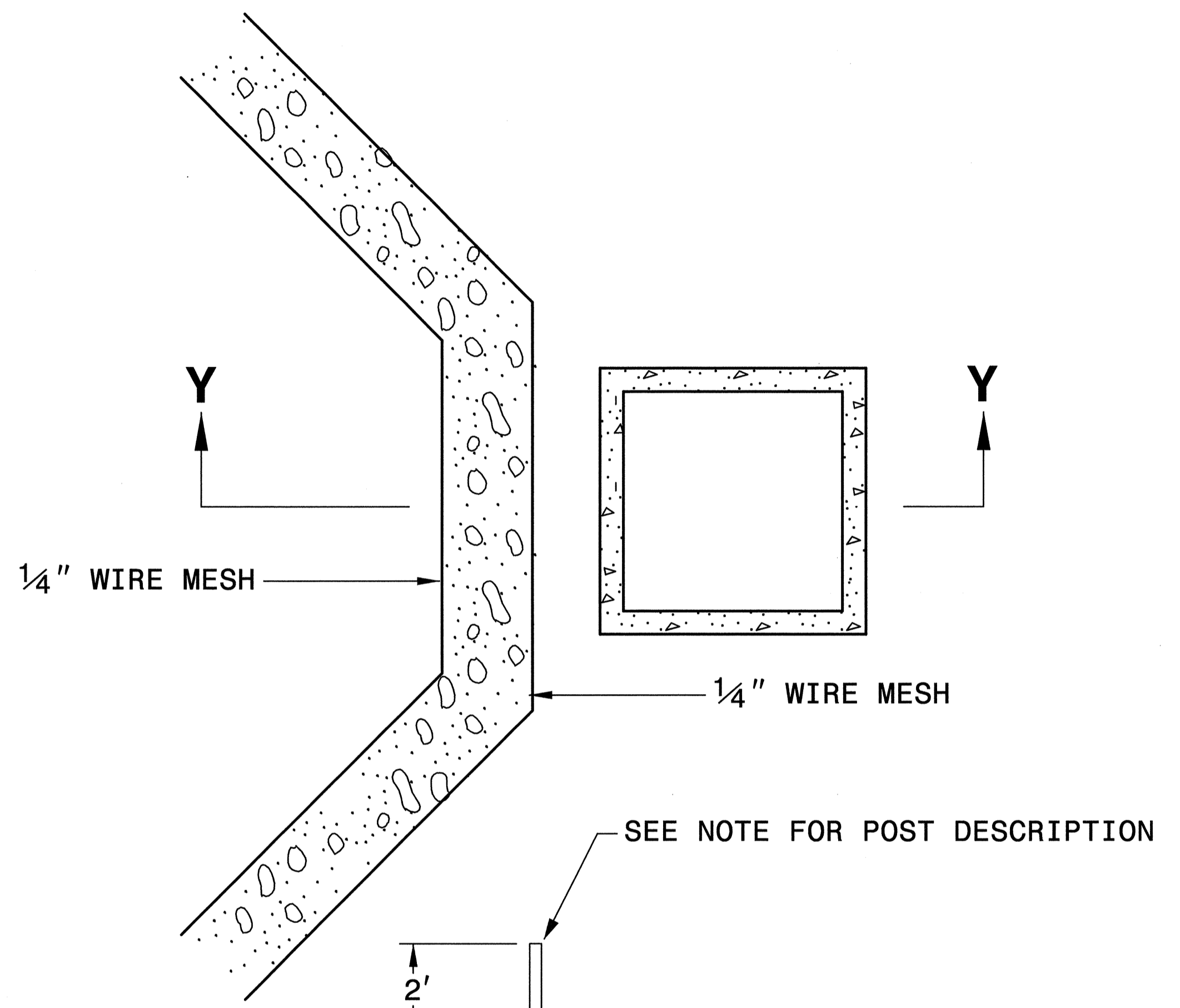
ROCK INLET SEDIMENT TRAP TYPE 'C'



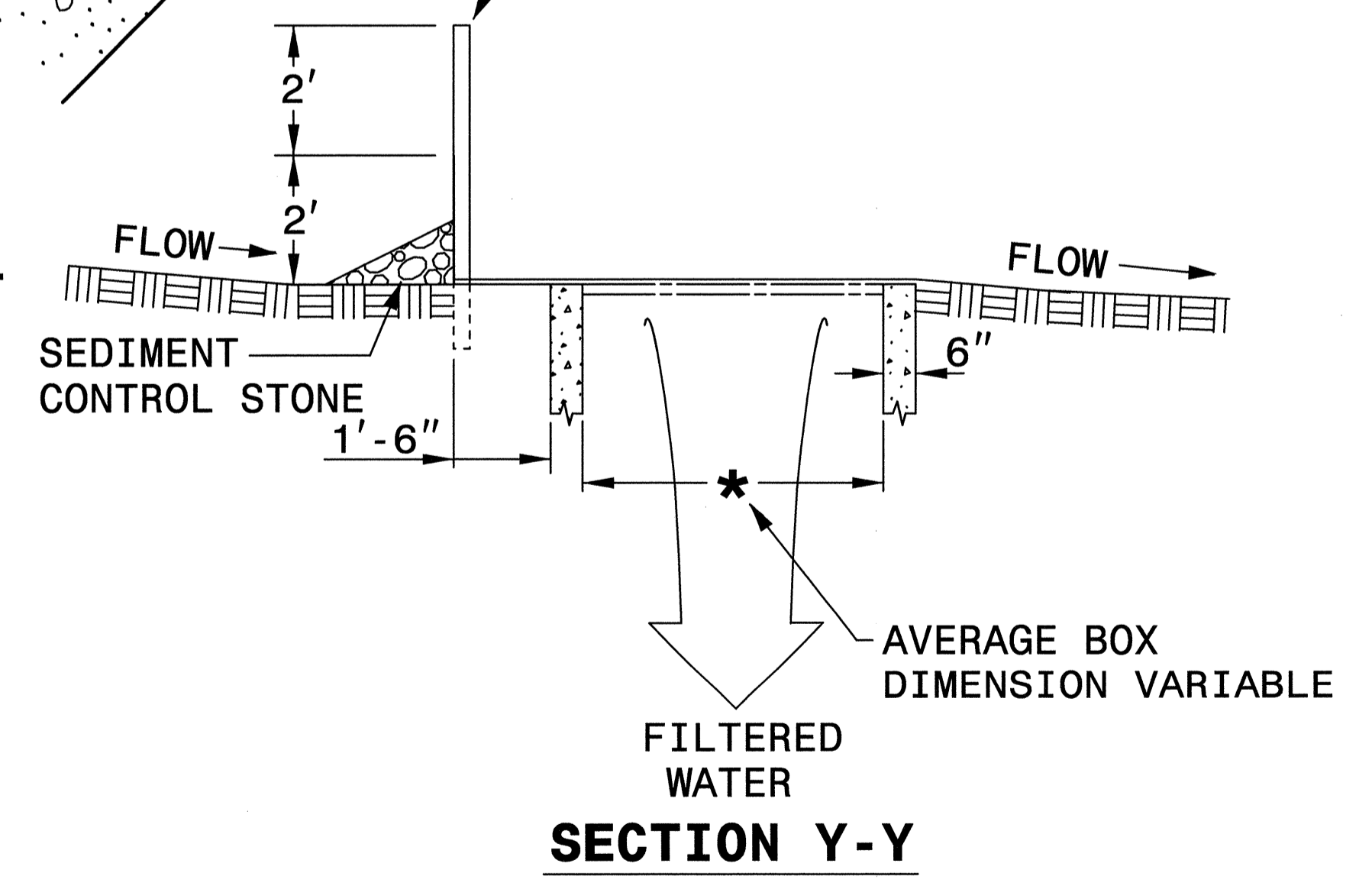
MAXIMUM POST SPACING 4 FT.



MULTI-DIRECTIONAL FLOW



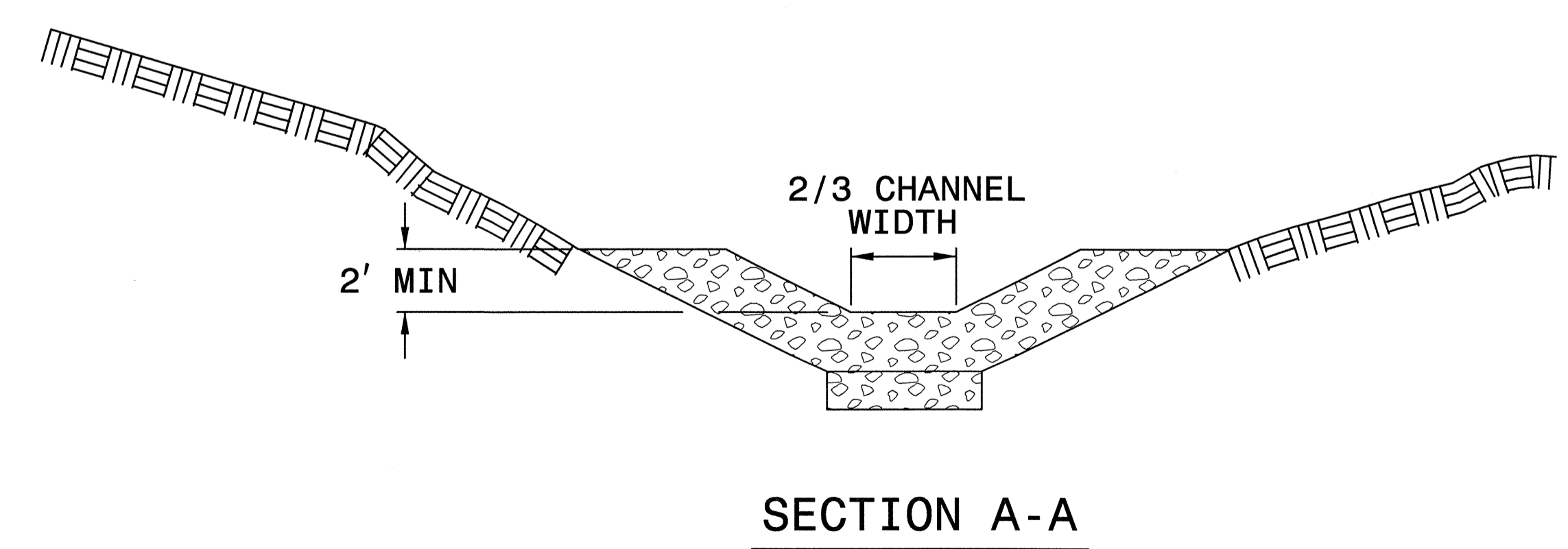
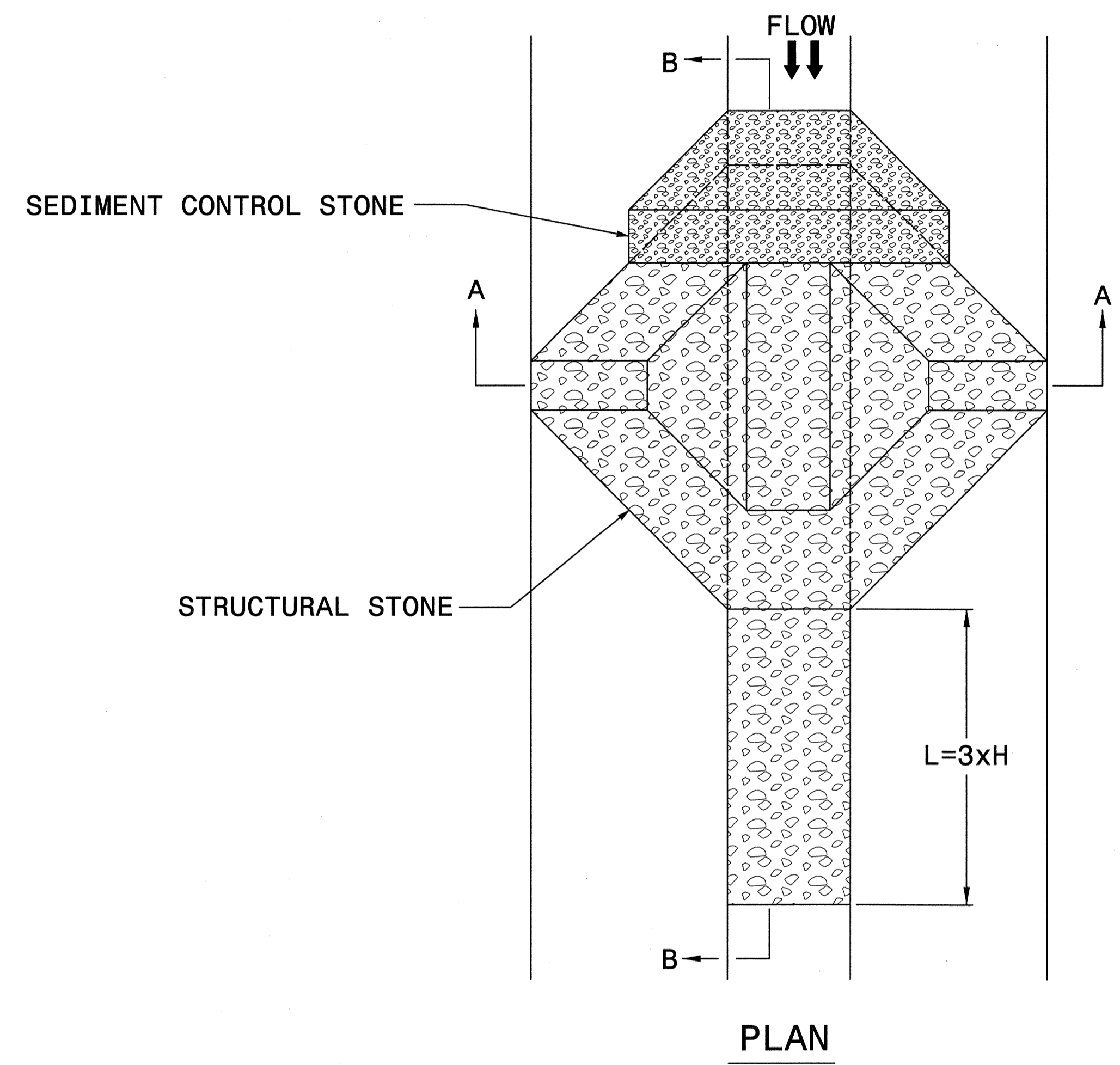
SEE NOTE FOR POST DESCRIPTION



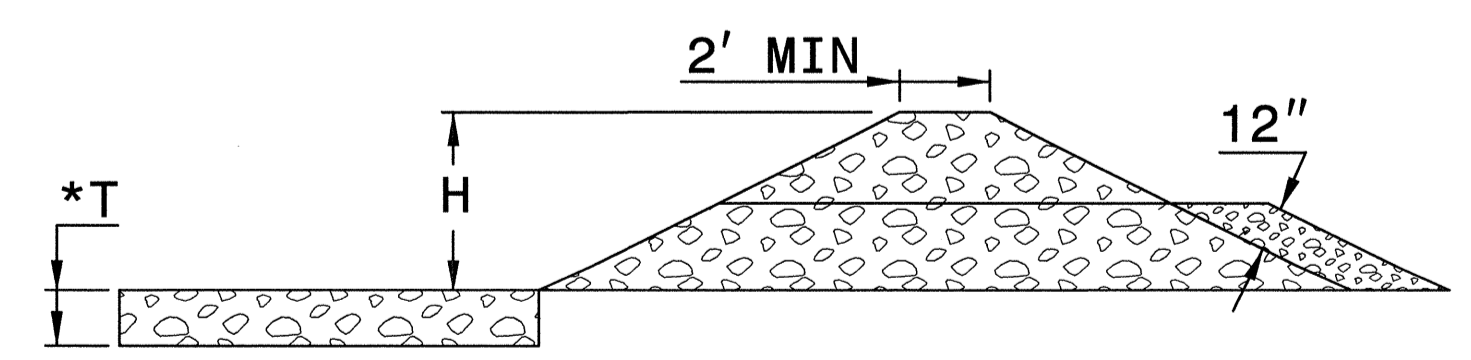
SINGLE-DIRECTIONAL FLOW

NOTE
 WIRE MESH SHALL BE
 HARDWARE CLOTH 23 GAUGE MIN.
 AND SHALL HAVE 1/4 INCH MESH
 OPENINGS.
 TOP OF WIRE MESH SHALL BE
 A MINIMUM OF ONE FOOT BELOW
 THE SHOULDER OR ANY
 DIVERSION POINT.
 INSTALL WIRE MESH UNDER
 SEDIMENT CONTROL STONE.
 STEEL POST SHALL BE 5 FT.
 IN HEIGHT, BE INSTALLED
 1.5 FT. DEEP MINIMUM, AND
 BE OF THE SELF-FASTENER
 ANGLE STEEL TYPE.
 POST SPACING SHALL BE
 A MAXIMUM OF 4 FT.

TEMPORARY ROCK SILT CHECK TYPE 'A'



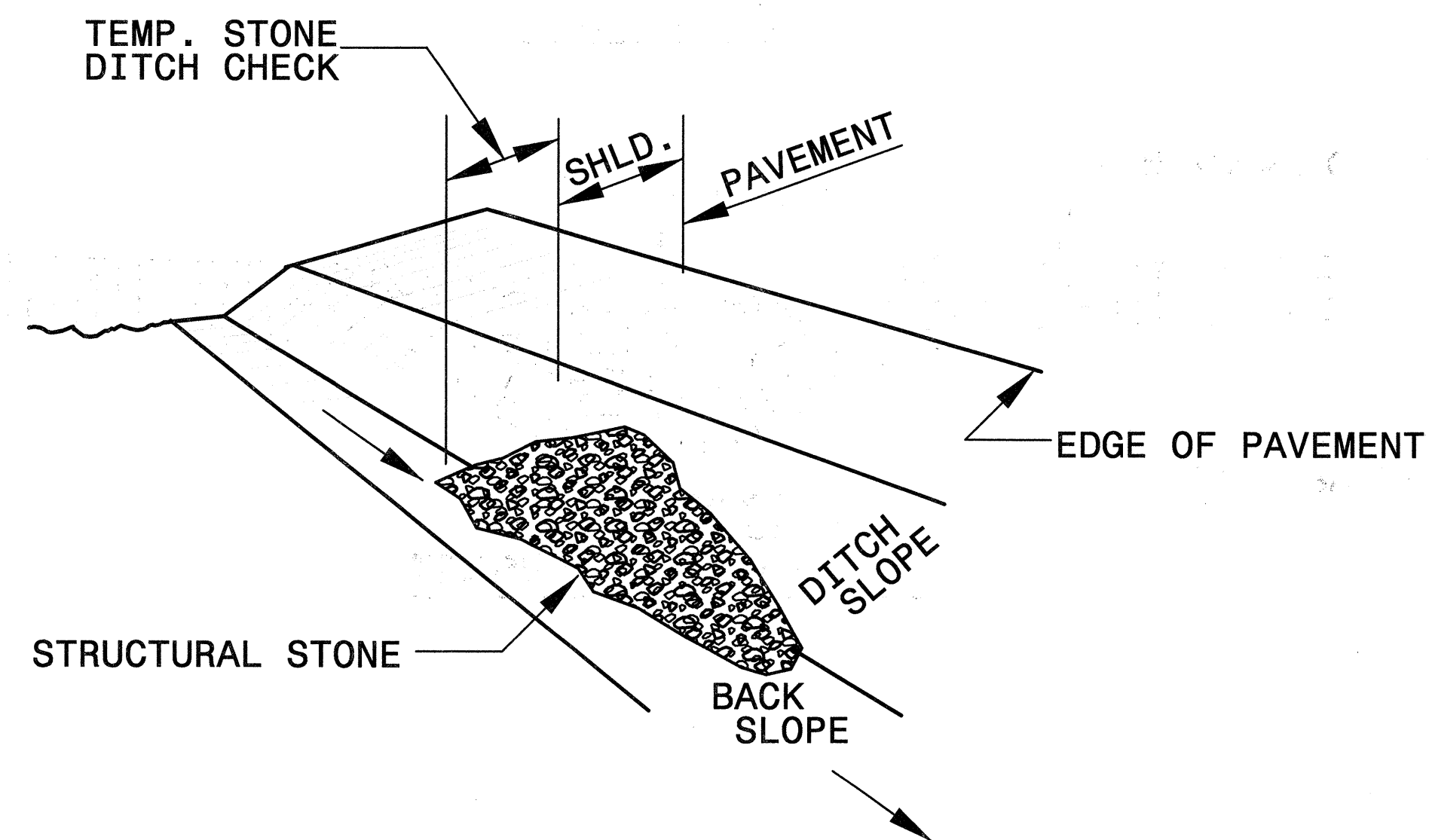
SECTION A-A



SECTION B-B

*T = 12" MIN., 18" MAX.

TEMPORARY ROCK SILT CHECK TYPE 'B'

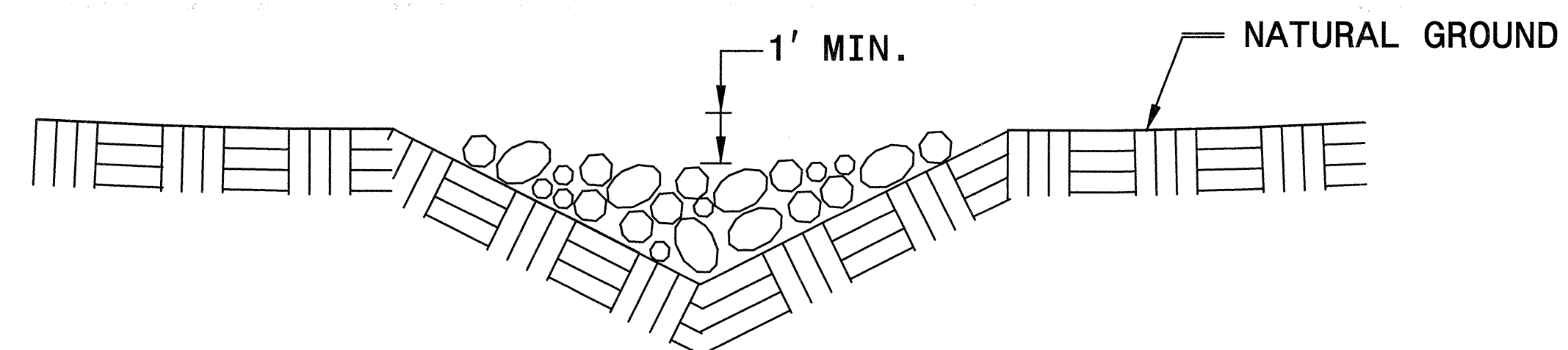


ISOMETRIC VIEW

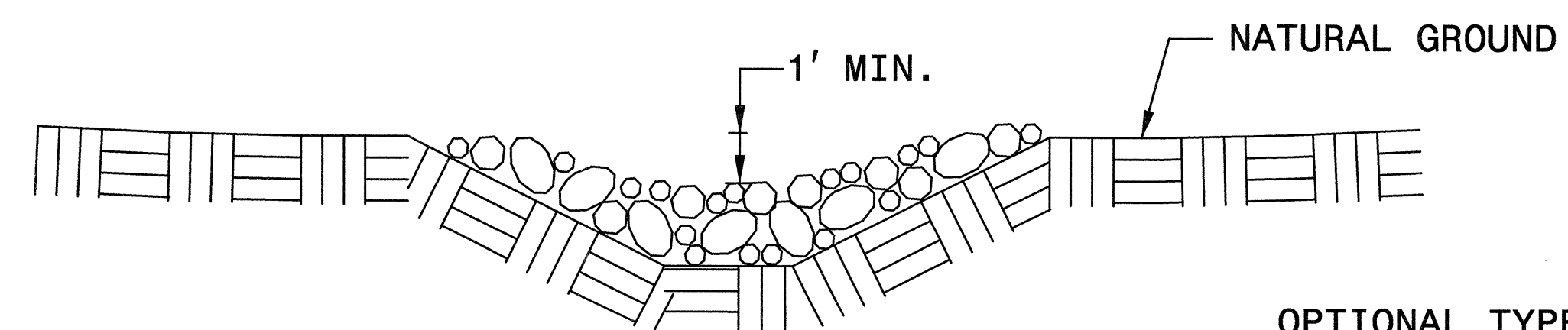
NOTES:

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

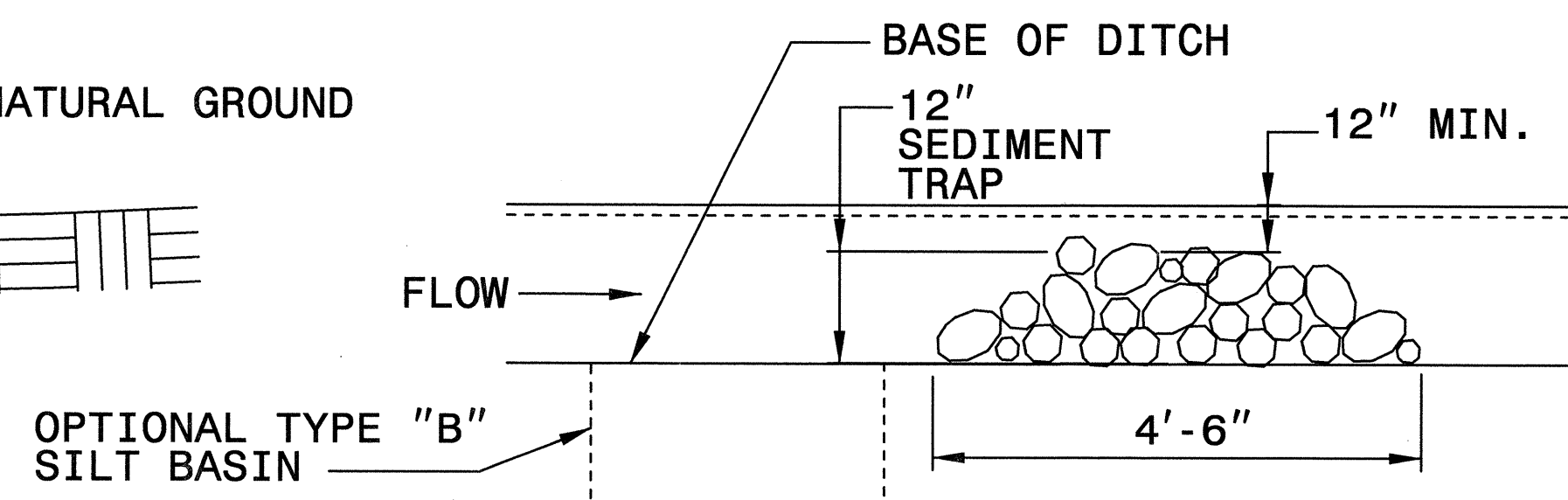
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION
VEE DITCH**

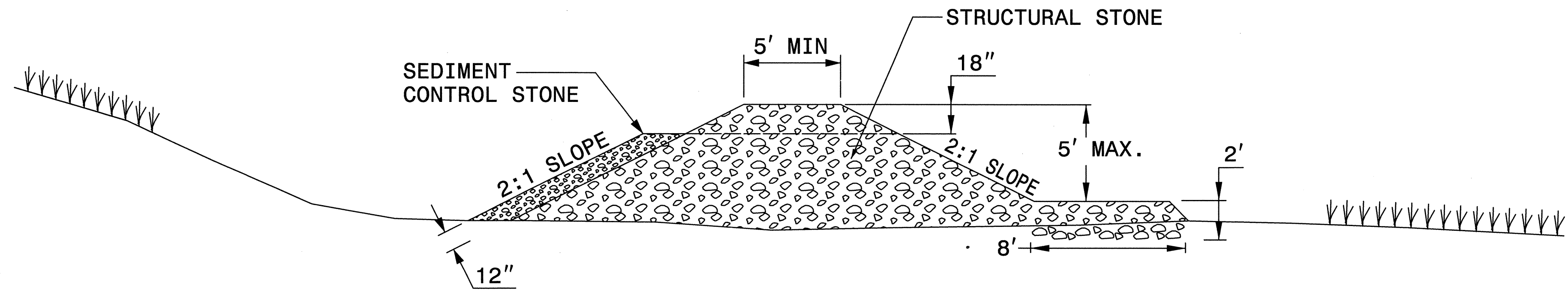


**CROSS SECTION
TRAPEZOIDAL DITCH**

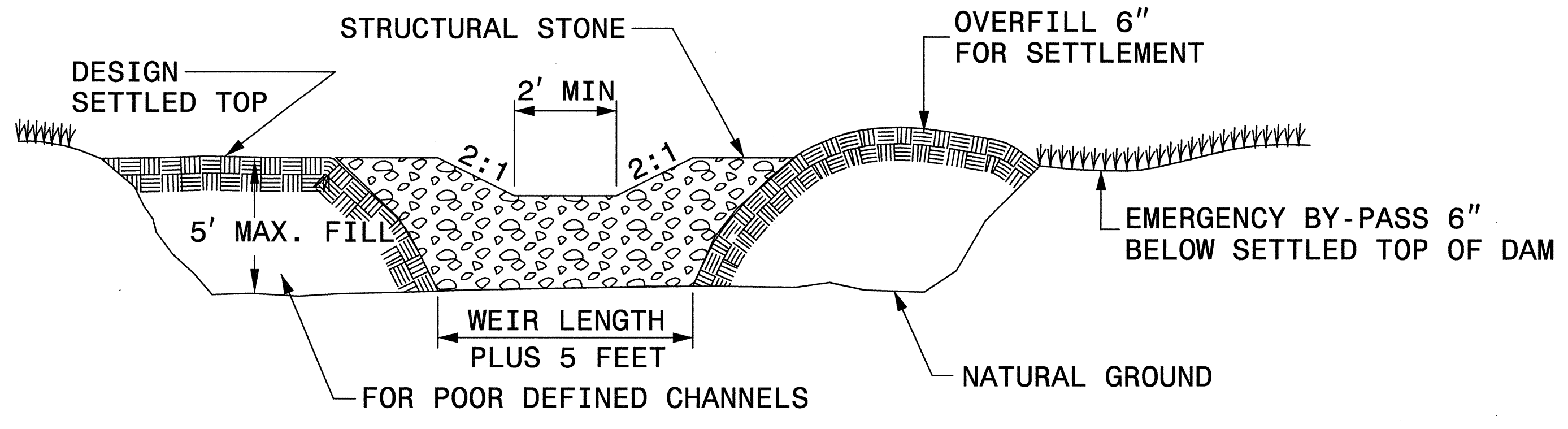


ELEVATION VIEW

TEMPORARY ROCK SEDIMENT DAM TYPE 'B'



PROFILE SECTION



CROSS SECTION

DRAINAGE AREA (ACRES)	WEIR LENGTH (FT)
1	4.0
2	6.0
3	8.0
4	10.0
5	12.0

NOTES:
 DIKE MAY EXTEND ALONG MORE THAN ONE SIDE OF THE TRAP AREA. A TOTAL SEDIMENT STORAGE VOLUME OF 1800± CUBIC FEET PER ACRE OF DISTURBED AREA SHOULD BE PROVIDED. SOME OF THE REQUIRED VOLUME MAY BE PROVIDED BY OTHER UP OR DOWNSTREAM CONTROLS.

SPECIAL SEDIMENT CONTROL FENCE

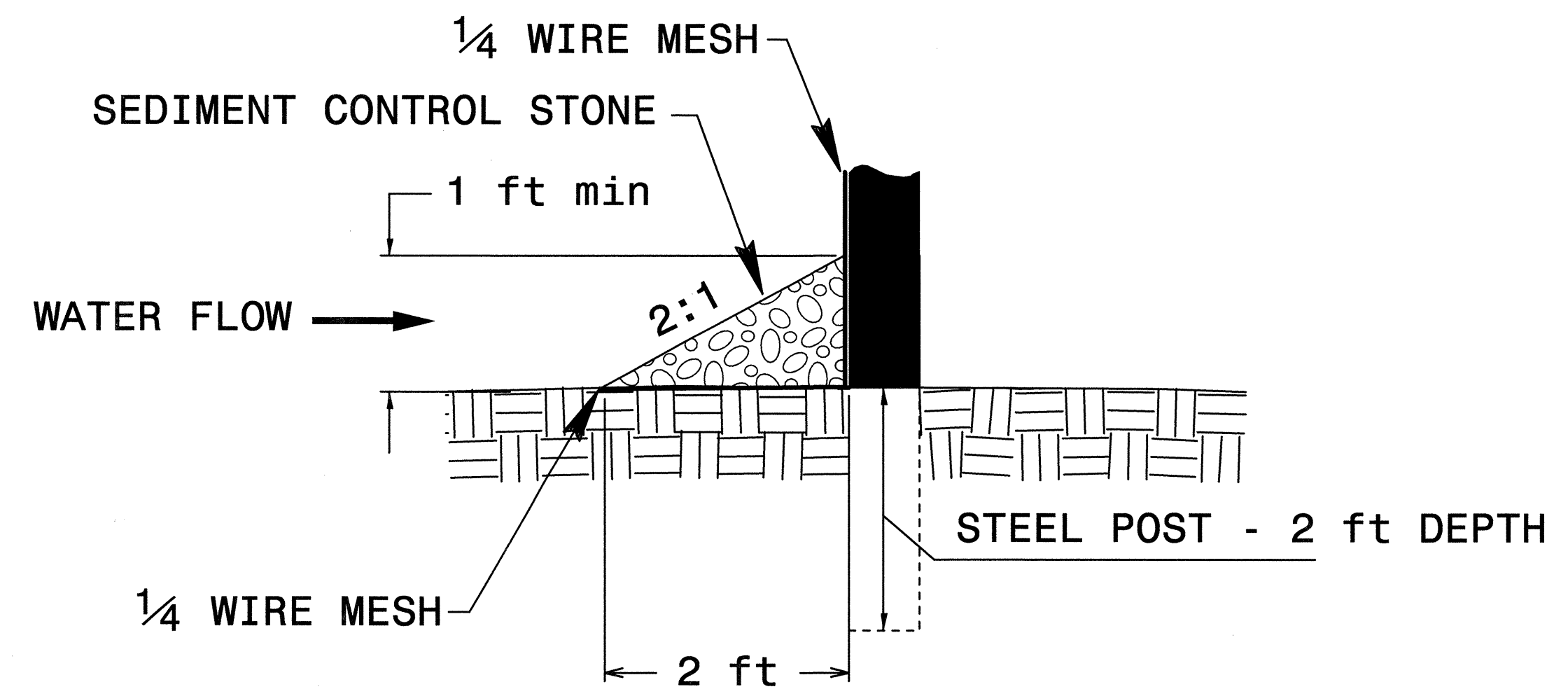
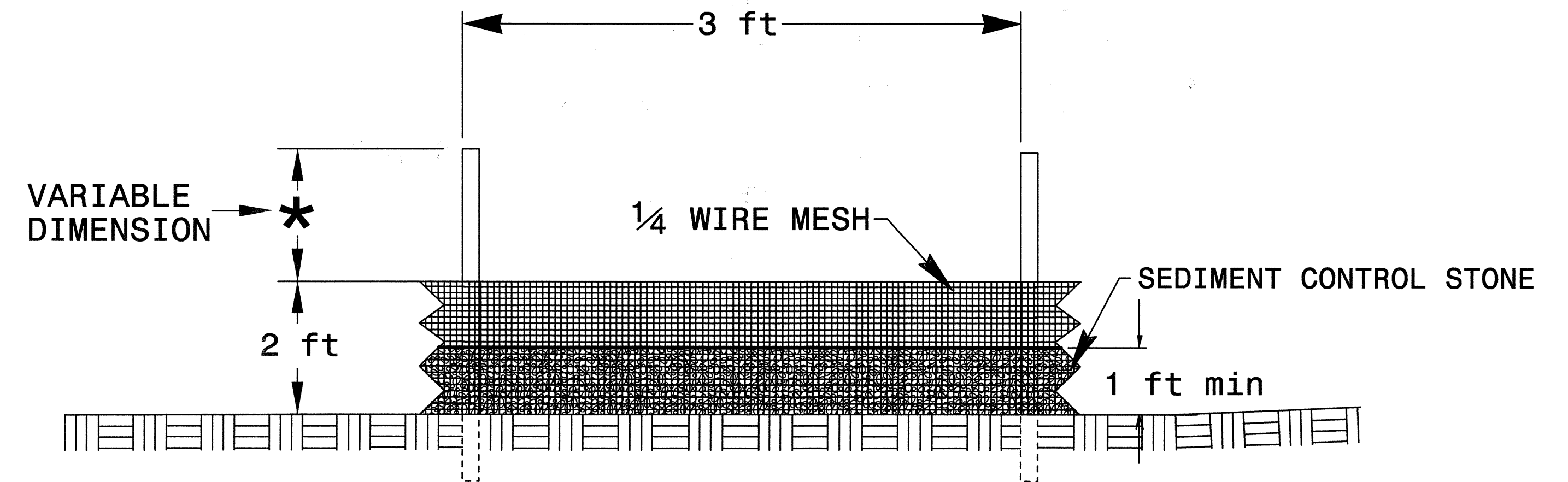
GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.

INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.

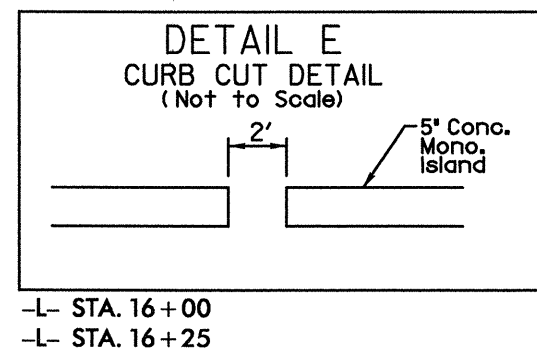
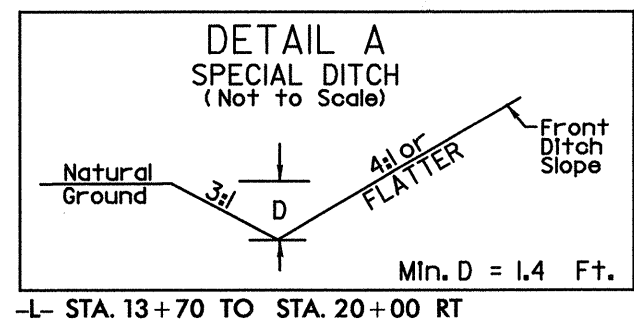
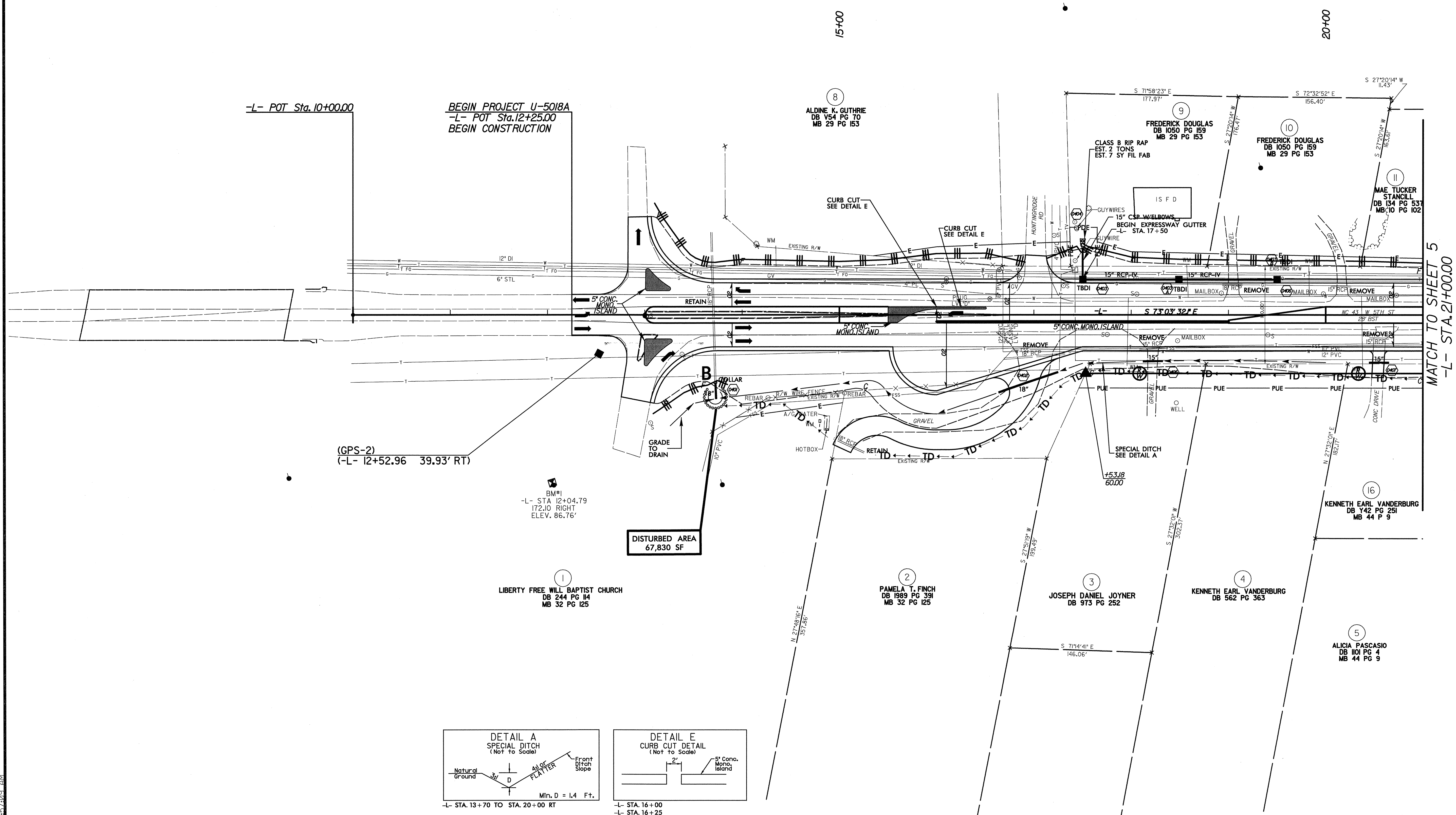
SPACE POST A MAXIMUM OF 3 FT.



5/28/99

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 4



MATCH TO SHEET 5
-L- STA. 21+00.00

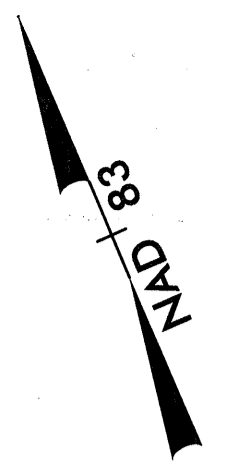
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5/28/99

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

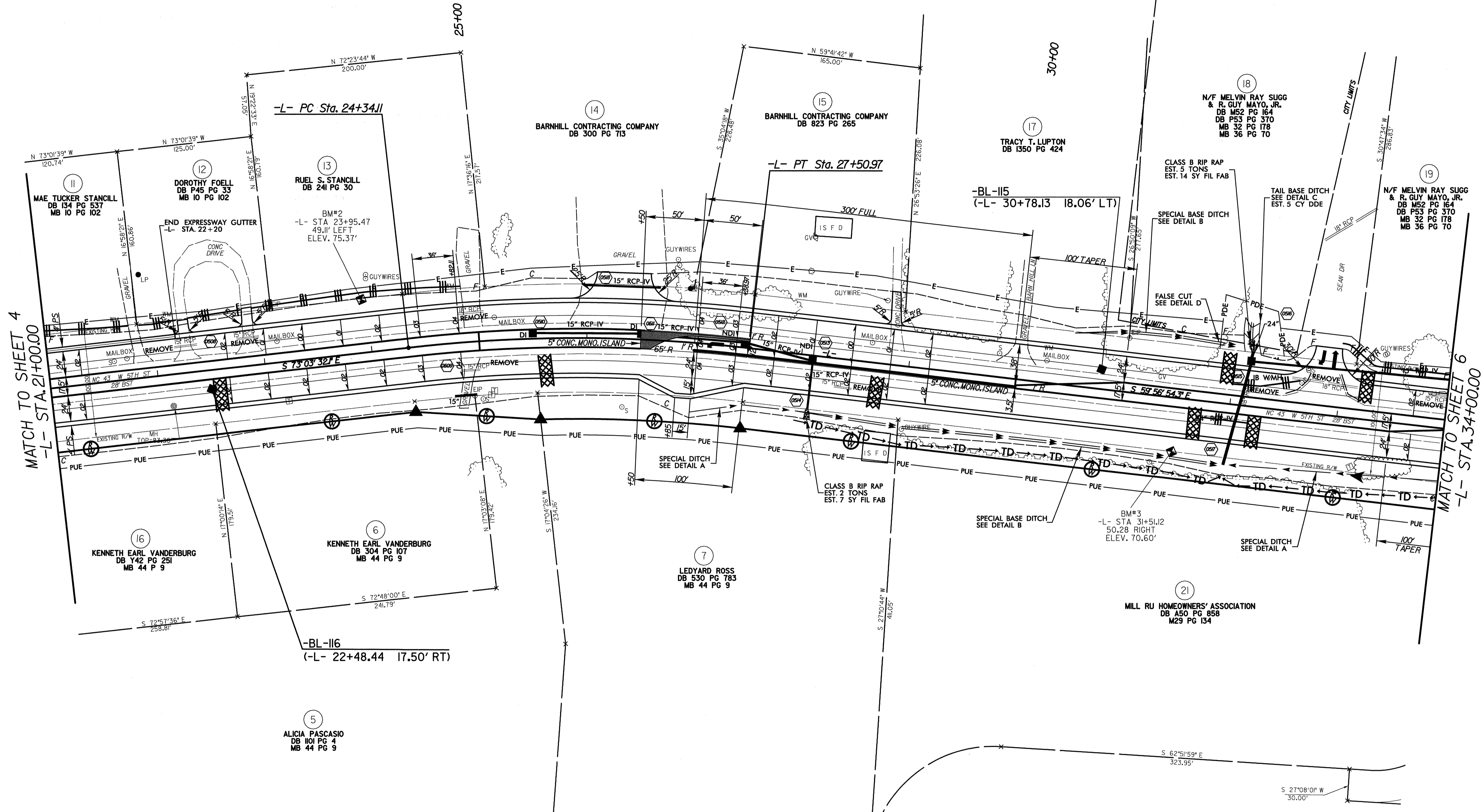
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

-L-
PI Sta 25+93.23
 $\Delta = 13^{\circ}06'37.8''$ (RT)
 $D = 4^{\circ}08'15.5''$
 $L = 316.86'$
 $T = 159.12'$
 $R = 1,384.74'$
 $SE = 04$
 $RO = 144'$



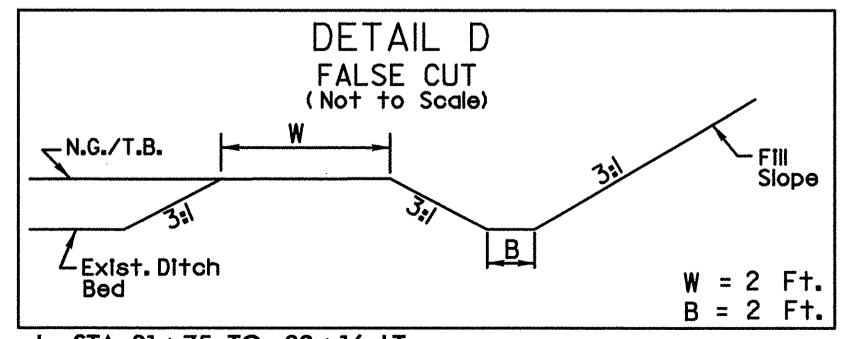
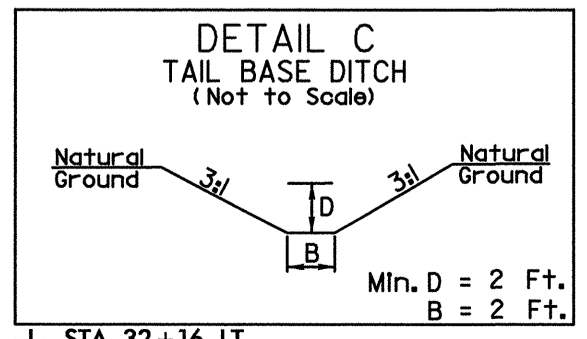
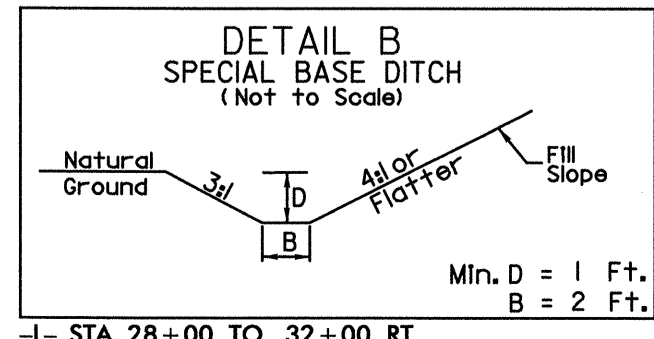
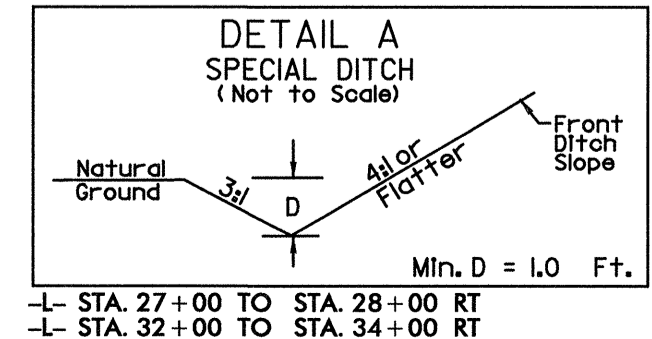
MULKEY
ENGINEERS & CONSULTANTS
PO BOX 33127
RALEIGH, N.C. 27636
(919) 881-1918 (FAX)
WWW.MULKEYINC.COM

PROJECT REFERENCE NO. U-5018A SHEET NO. EC-5/CONST.5



MATCH TO SHEET 4
-L- STA. 21+00.00

MATCH TO SHEET 6
-L- STA. 34+00.00



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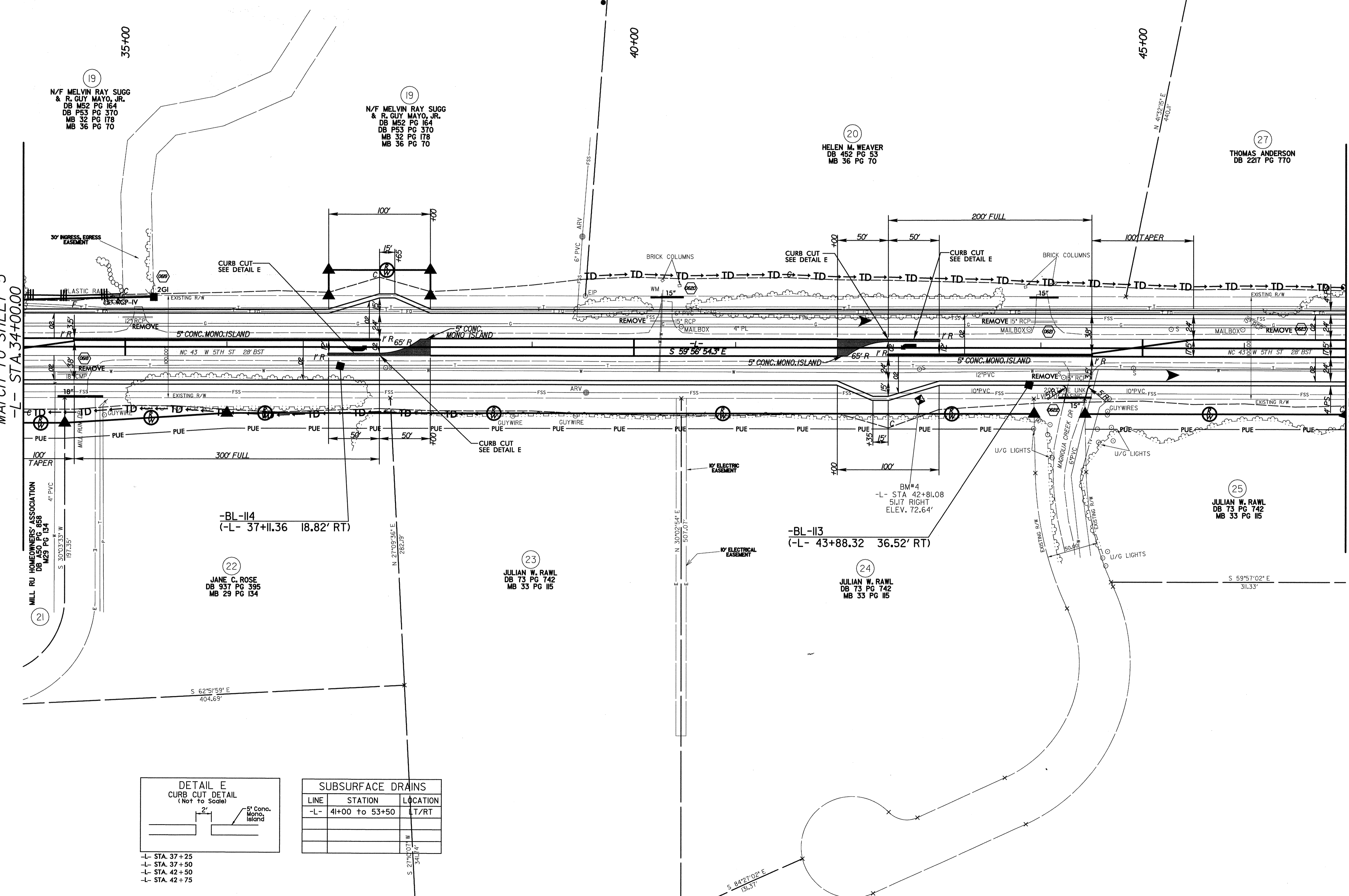
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6



MATCH TO SHEET 5
-L- STA. 34+00.00

MATCH TO SHEET 7
-L- STA. 47+00.00



19
N/F MELVIN RAY SUGG
& R. GUY MAYO, JR.
DB M52 PG 164
DB P53 PG 370
MB 32 PG 178
MB 36 PG 70

19
N/F MELVIN RAY SUGG
& R. GUY MAYO, JR.
DB M52 PG 164
DB P53 PG 370
MB 32 PG 178
MB 36 PG 70

20
HELEN M. WEAVER
DB 452 PG 53
MB 36 PG 70

27
THOMAS ANDERSON
DB 2217 PG 770

21
MILL RU HOMEOWNERS' ASSOCIATION
DB A50 PG 658
DB M29 PG 134
S 30°03'33" W
187.35'

-BL-114
(-L- 37+11.36 18.82' RT)

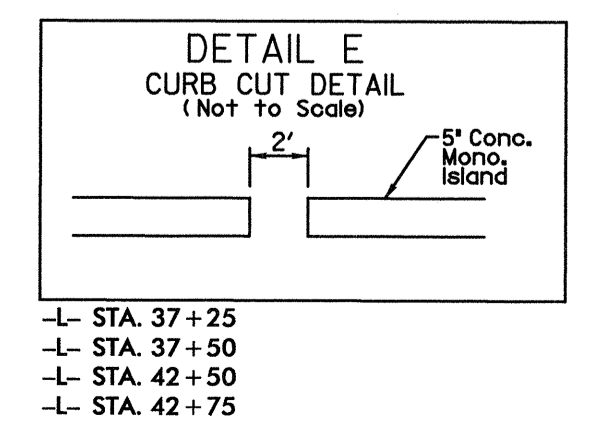
22
JANE C. ROSE
DB 937 PG 395
MB 29 PG 134

23
JULIAN W. RAWL
DB 73 PG 742
MB 33 PG 115

-BL-113
(-L- 43+88.32 36.52' RT)

24
JULIAN W. RAWL
DB 73 PG 742
MB 33 PG 115

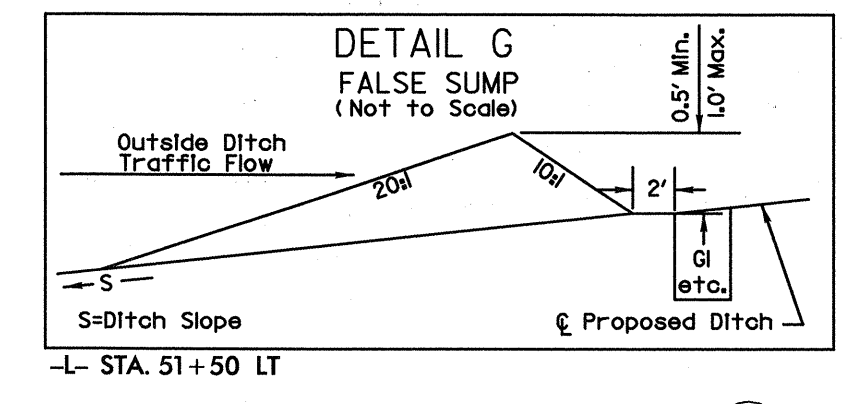
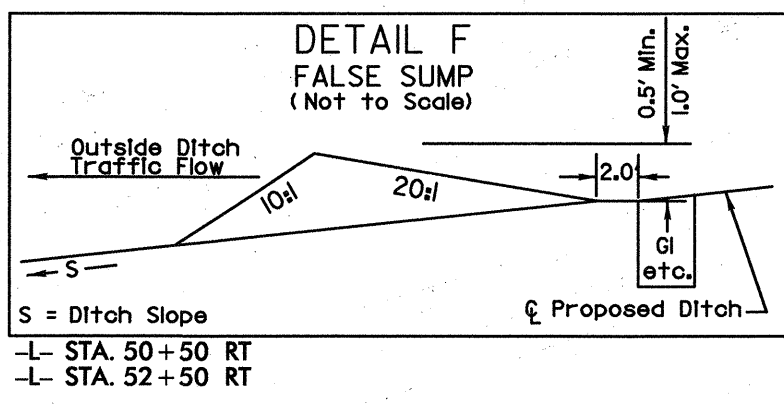
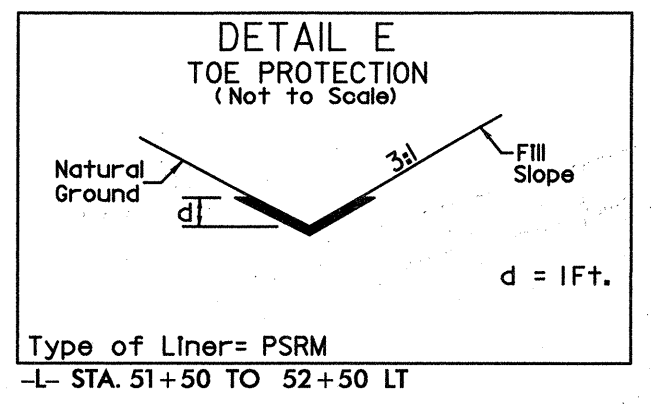
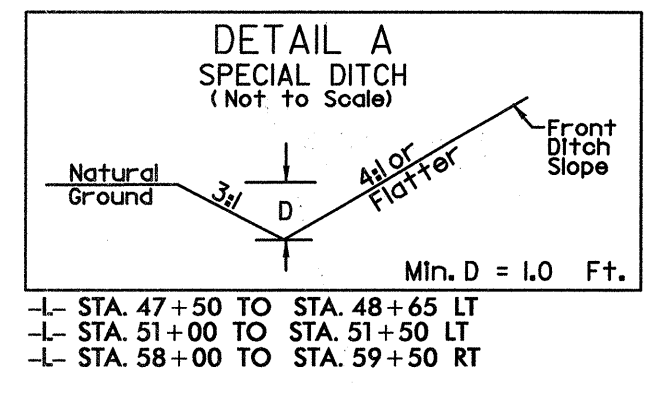
25
JULIAN W. RAWL
DB 73 PG 742
MB 33 PG 115



LINE	STATION	LOCATION
-L-	41+00 to 53+50	LT/RT

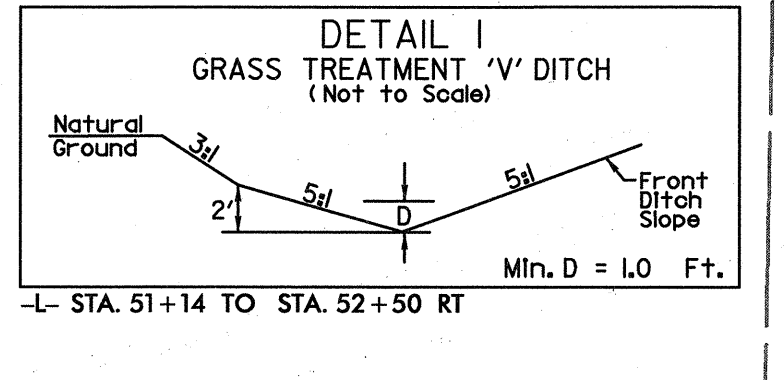
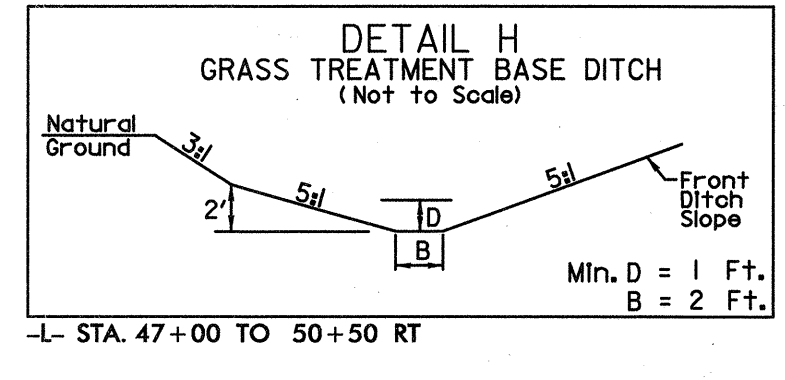
- L- STA. 37+25
- L- STA. 37+50
- L- STA. 42+50
- L- STA. 42+75

6/3/2010
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PI Sta 52+50.83 Δ = 17° 01' 22.4" (RT)
D = 6' 01' 52.1"
L = 282.25'
T = 142.17'
R = 950.00'
SE = 04
RO = 144'

PI Sta 61+27.90 Δ = 5° 09' 00.9" (RT)
D = 1' 09' 35.4"
L = 444.05'
T = 222.17'
R = 4940.00'
SE = 02
RO = 72'

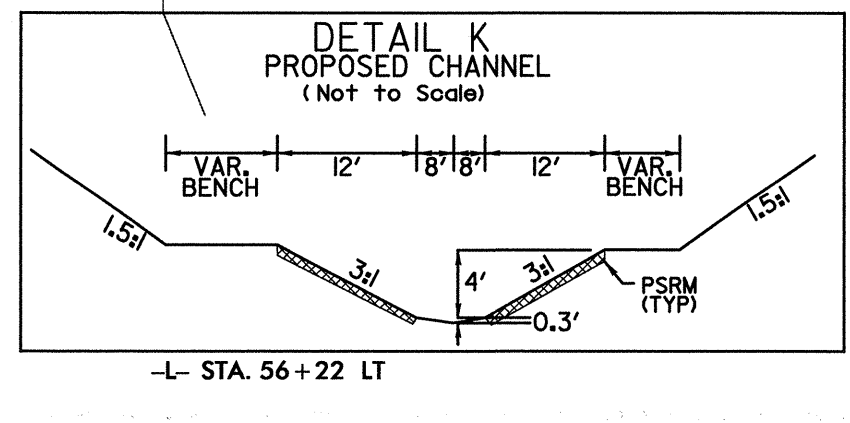
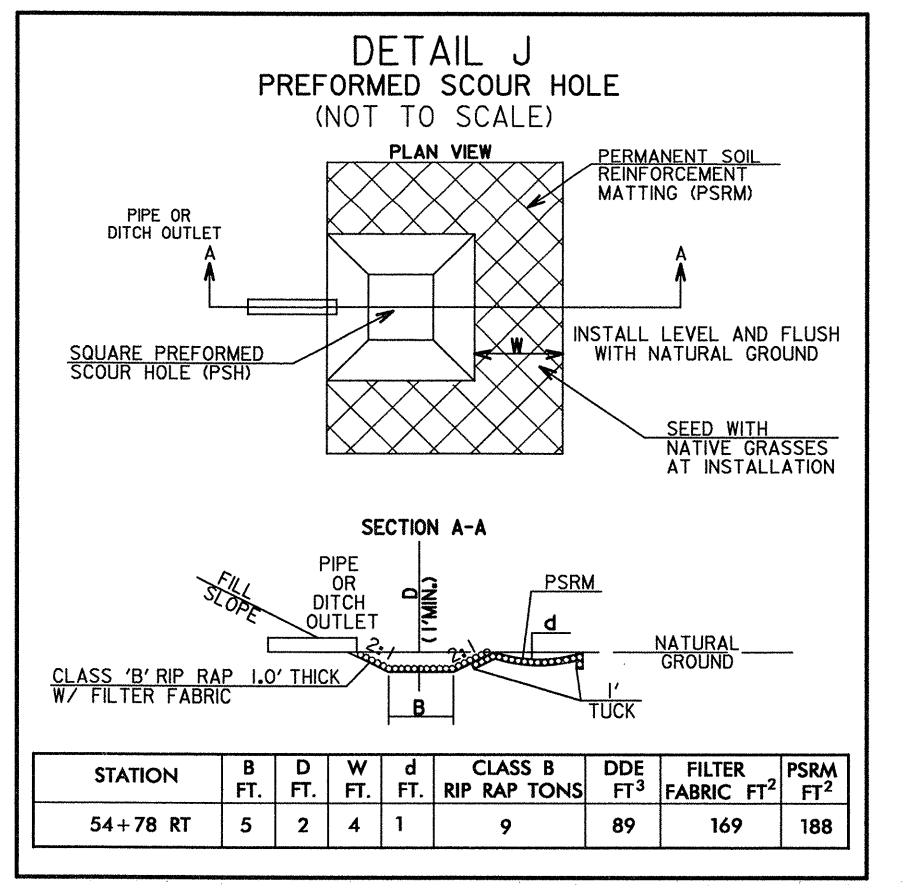
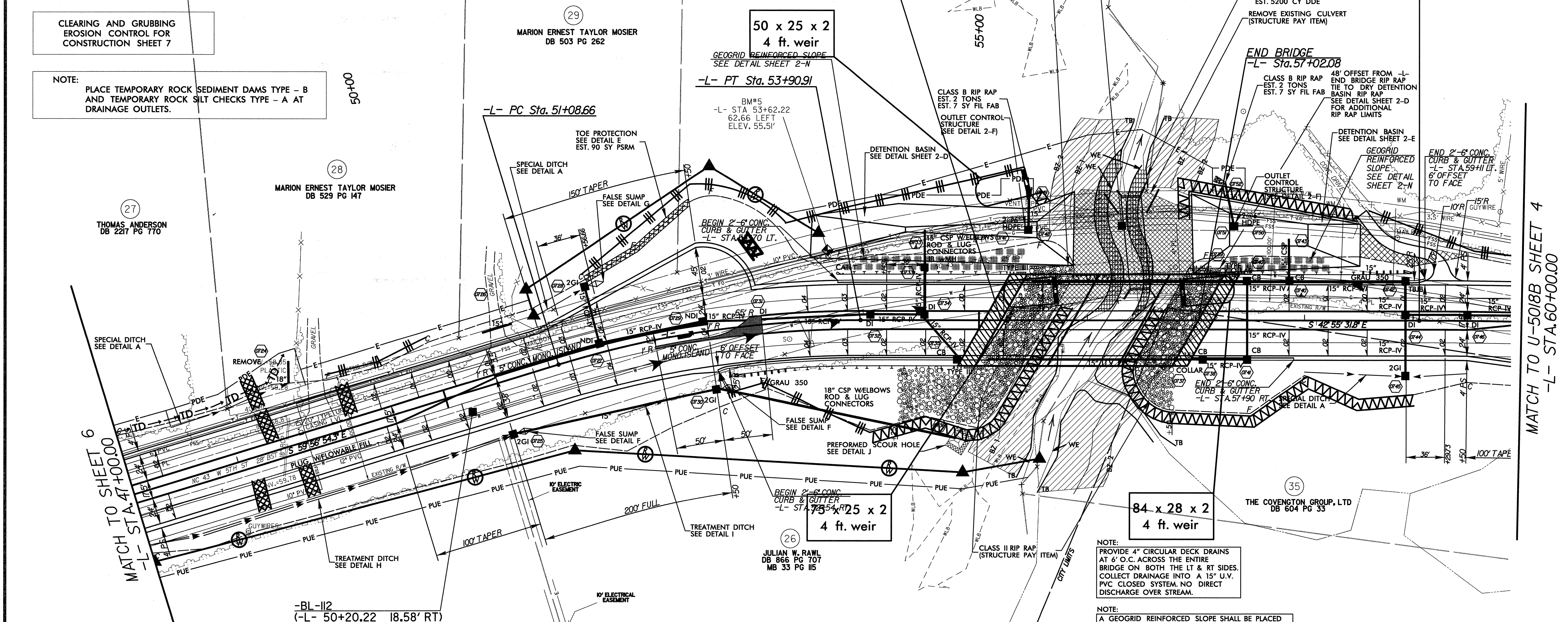


SUBSURFACE DRAINS

LINE	STATION	LOCATION
-L-	41+00 to 53+50	LT/RT

**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.



**CULVERT #1
TWO BARRELS**

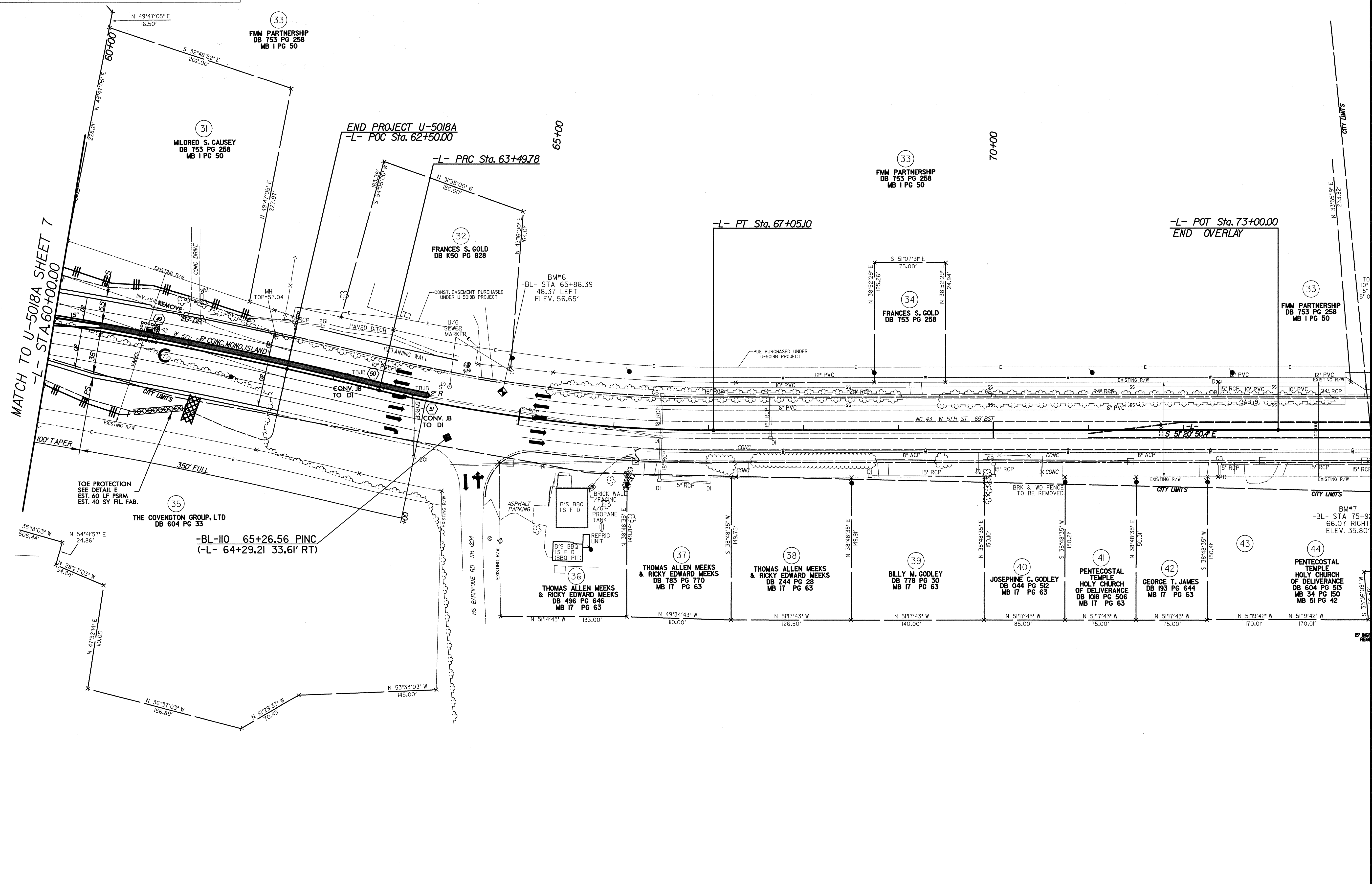
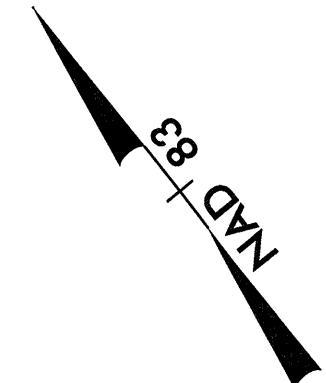
	NORTH	EAST	ELEV.
CUL1	685536.02	2469885.38	20.63
CUL2	685530.15	2469890.67	20.69
CUL3	685529.99	2469891.04	19.72
CUL4	685524.26	2469896.73	19.56
CE1			30.47
HW1			30.47
CUL5	685470.46	2469826.00	19.78
CUL6	685464.44	2469833.36	19.59
CUL7	685464.21	2469833.60	19.63
CUL8	685458.40	2469839.24	19.55
CE2			30.59
HW2			30.59

6/3/2010
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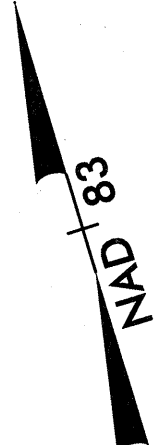
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 8

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

-L-
PI Sta 61+27.90 PI Sta 65+28.27
Δ = 5° 09' 00.9" (RT) Δ = 13° 34' 19.5" (LT)
D = 1° 09' 35.4" D = 3° 49' 11.0"
L = 444.05' L = 355.32'
T = 222.17' T = 178.49'
R = 4,940.00' R = 1,500.00'
SE = 02 SE = 04
RO = 72' RO = 144'



5/28/99

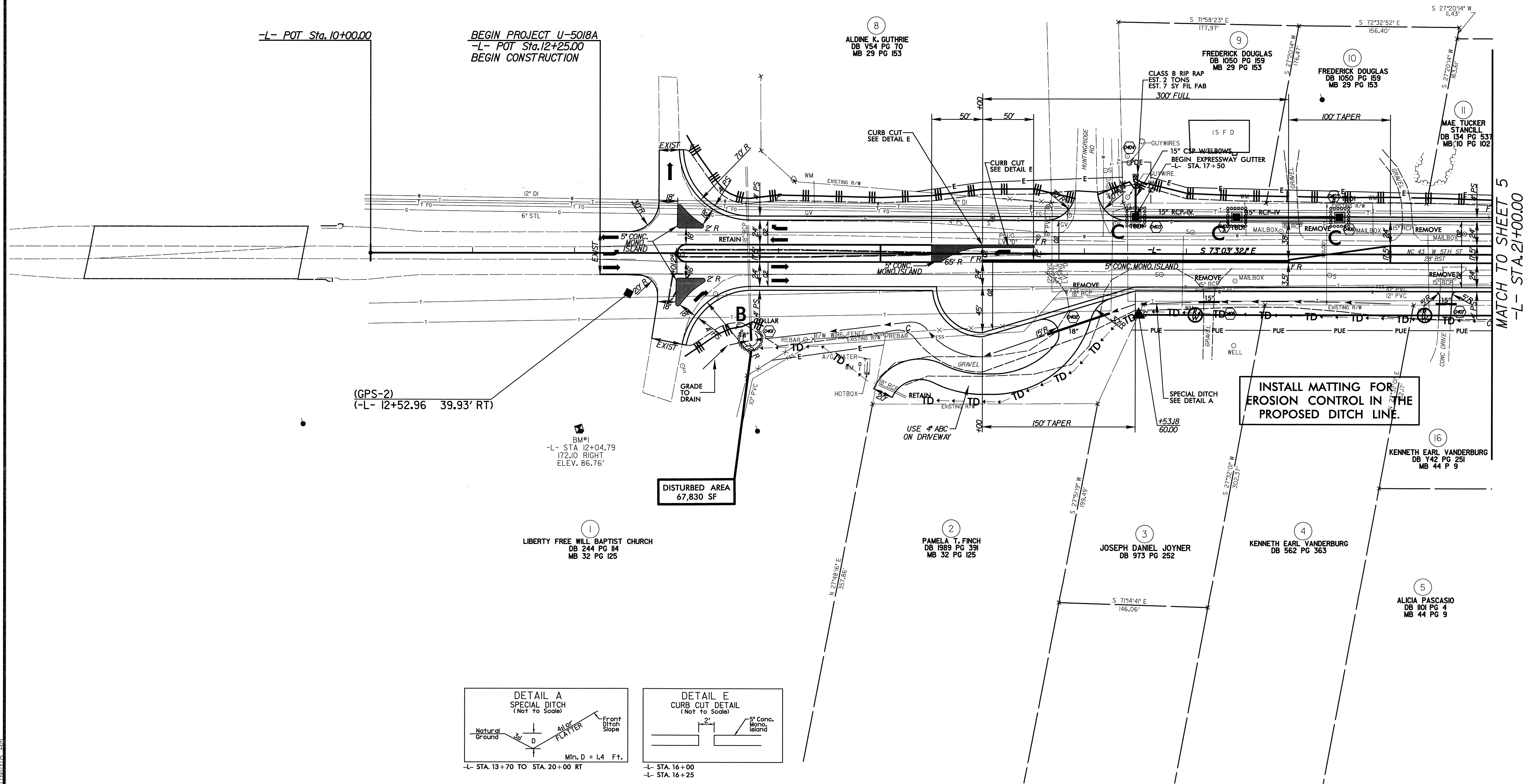


-L- POT Sta. 10+00.00

BEGIN PROJECT U-5018A
-L- POT Sta. 12+25.00
BEGIN CONSTRUCTION

15+00

20+00



MATCH TO SHEET 5
-L- STA. 21+00.00

(GPS-2)
(-L- 12+52.96 39.93' RT)

BM#1
-L- STA 12+04.79
172.10 RIGHT
ELEV. 86.76'

DISTURBED AREA
67,830 SF

LIBERTY FREE WILL BAPTIST CHURCH
DB 244 PG 14
MB 32 PG 125

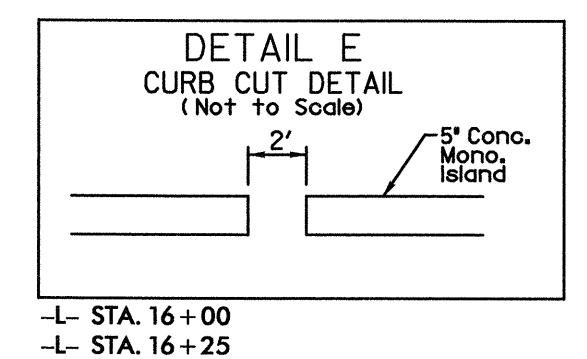
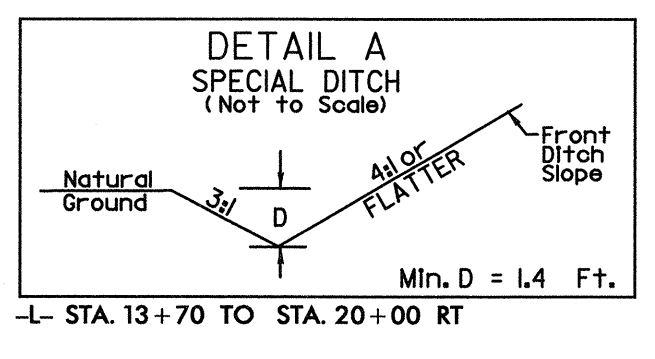
PAMELA T. FINCH
DB 1989 PG 391
MB 32 PG 125

JOSEPH DANIEL JOYNER
DB 973 PG 252

KENNETH EARL VANDERBURG
DB 562 PG 363

KENNETH EARL VANDERBURG
DB 142 PG 251
MB 44 P 9

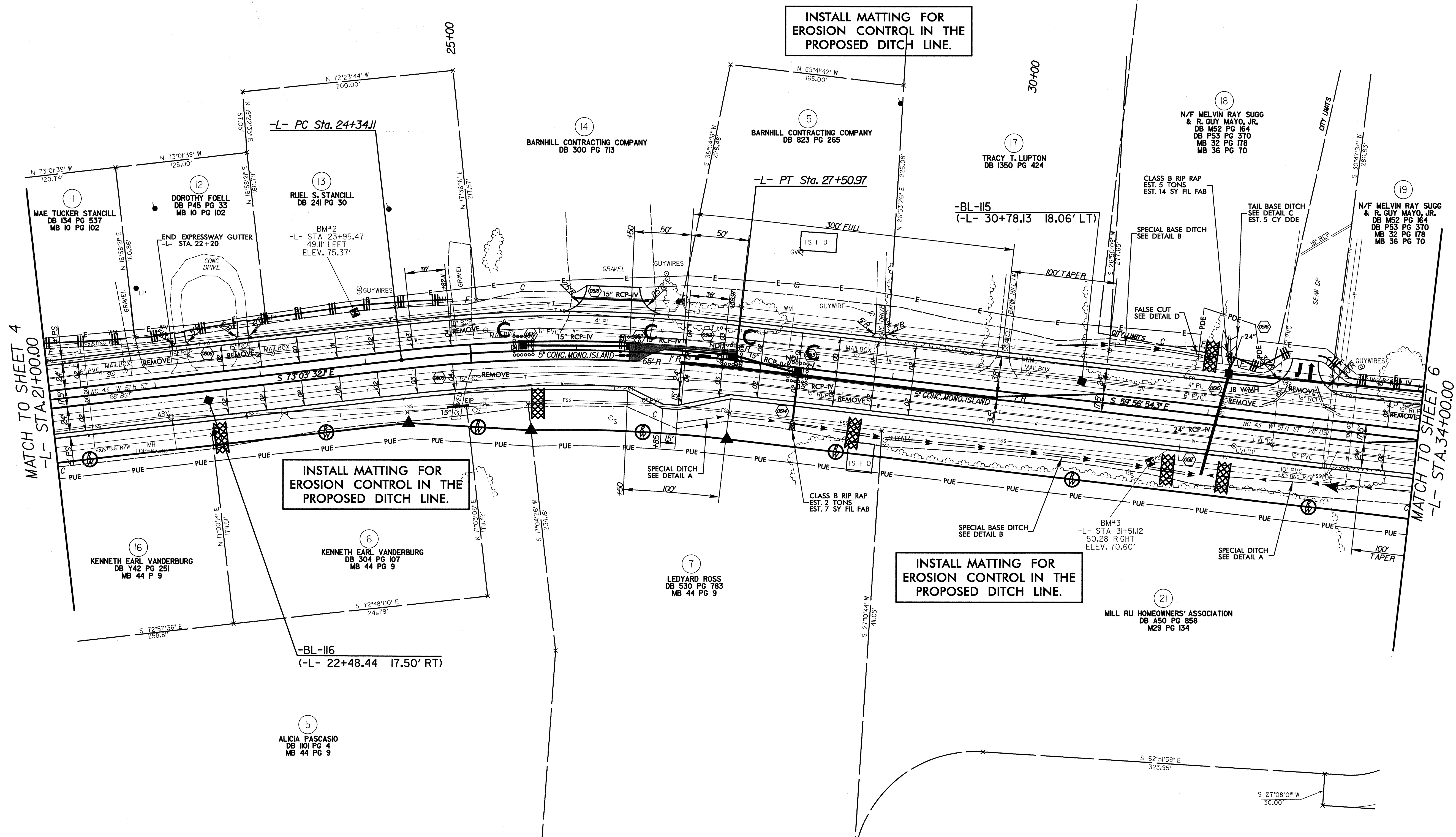
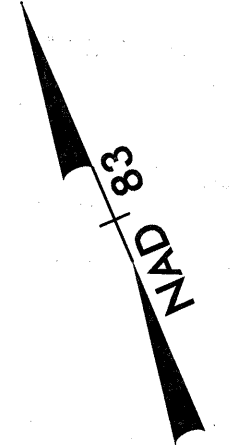
ALICIA PASCASIO
DB 1101 PG 4
MB 44 PG 9



INSTALL MATTING FOR
EROSION CONTROL IN THE
PROPOSED DITCH LINE.

6/1/2010
R:\Hydro\Utilities\CADD\Erosion Control\U5018A\U5018A_EC_psh09.dgn
11:18:18 AM

-L-
 PI Sta 25+93.23
 $\Delta = 13^{\circ}06'37.8"$ (RT)
 $D = 4^{\circ}08'15.5"$
 $L = 316.86'$
 $T = 159.12'$
 $R = 1,384.74'$
 $SE = 04'$
 $RO = 144'$



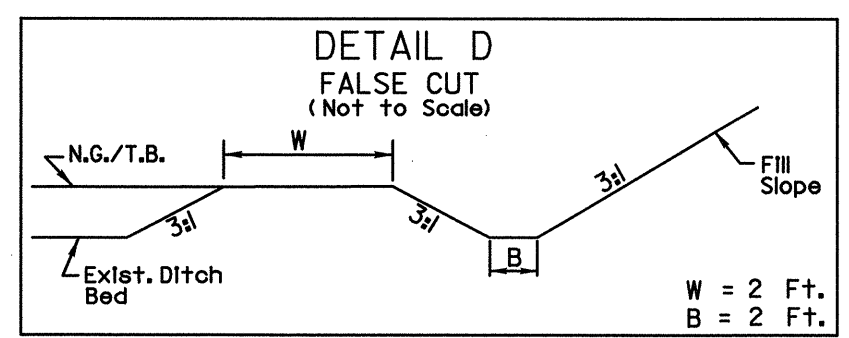
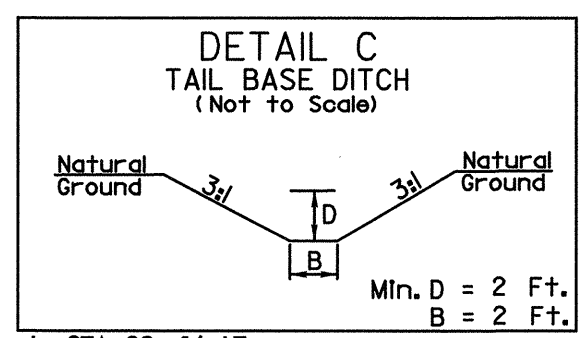
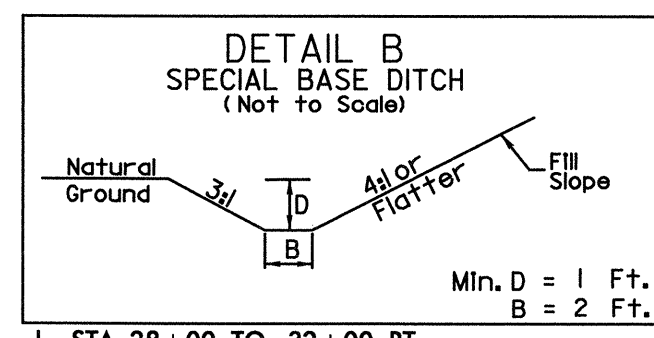
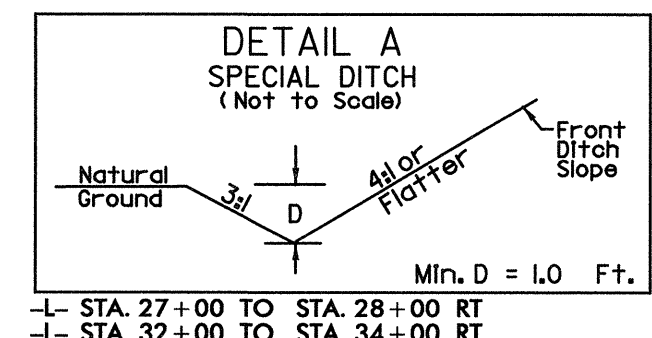
MATCH TO SHEET 4
 -L- STA. 21+00.00

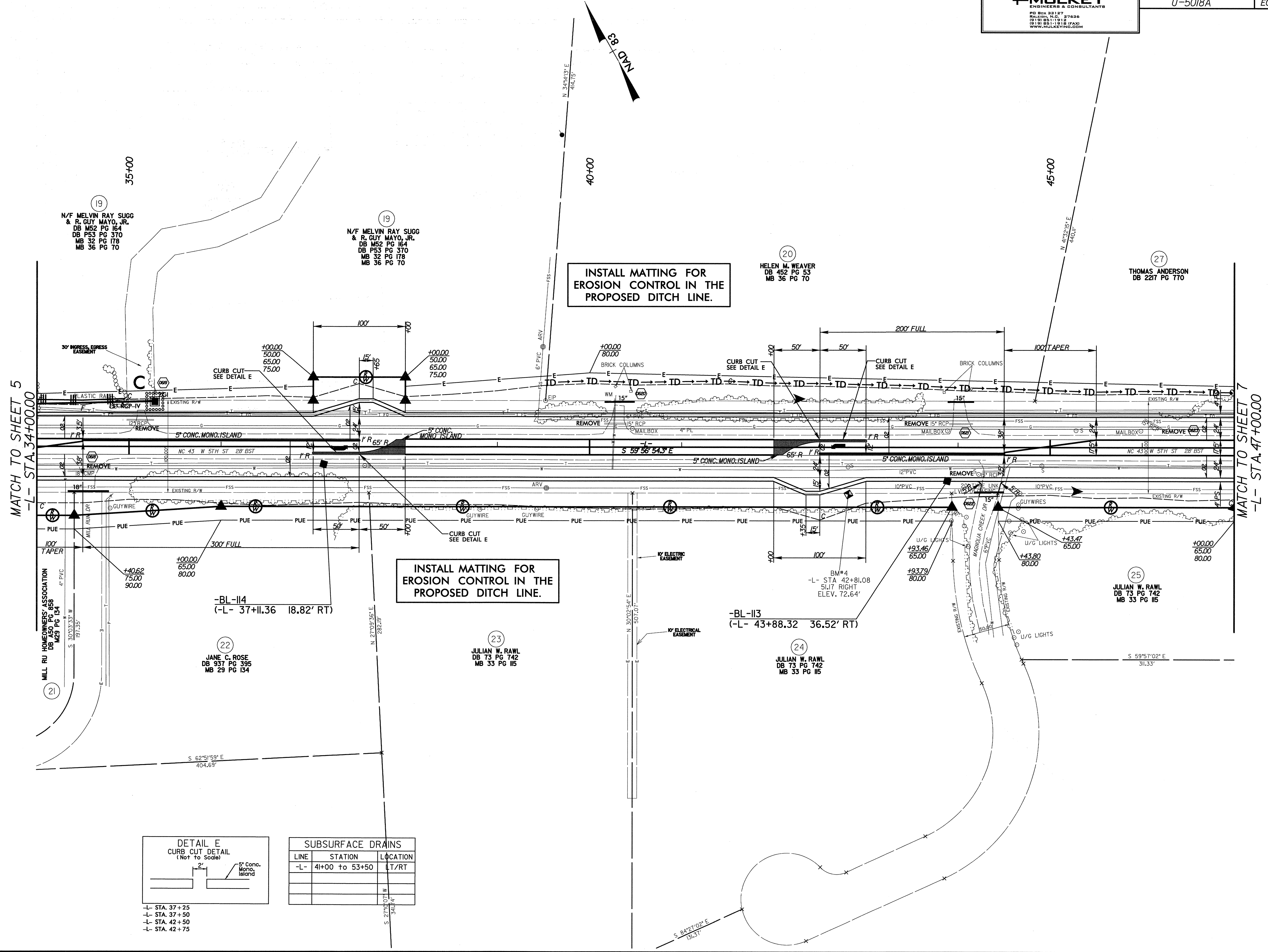
MATCH TO SHEET 6
 -L- STA. 34+00.00

INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.

INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.

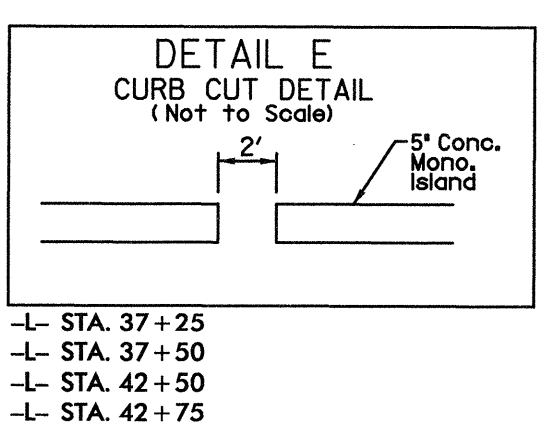
INSTALL MATTING FOR
 EROSION CONTROL IN THE
 PROPOSED DITCH LINE.





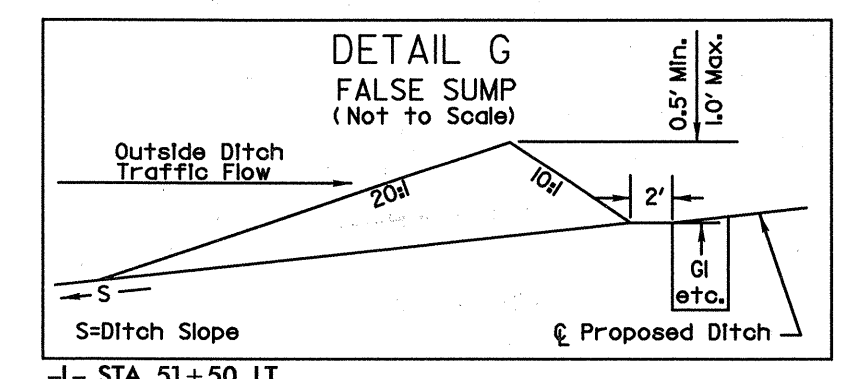
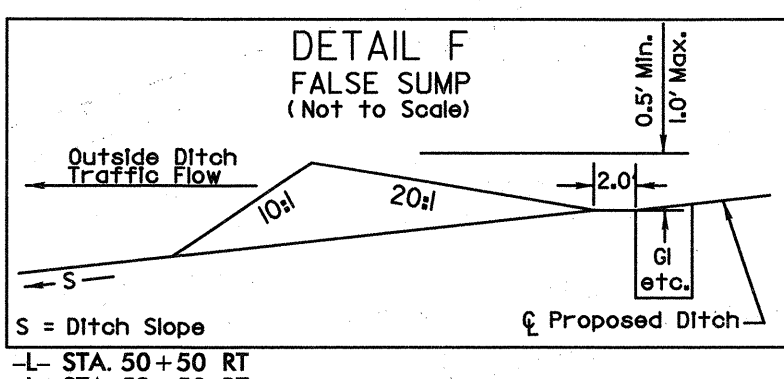
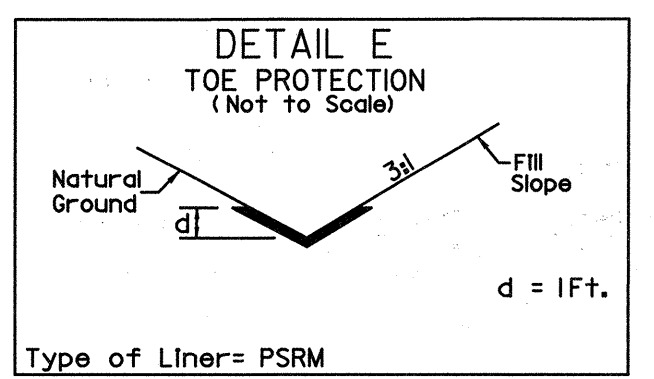
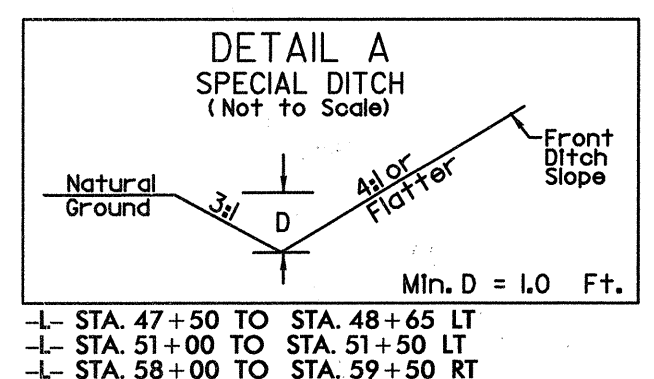
MATCH TO SHEET 5
-L- STA. 34+00.00

MATCH TO SHEET 7
-L- STA. 47+00.00



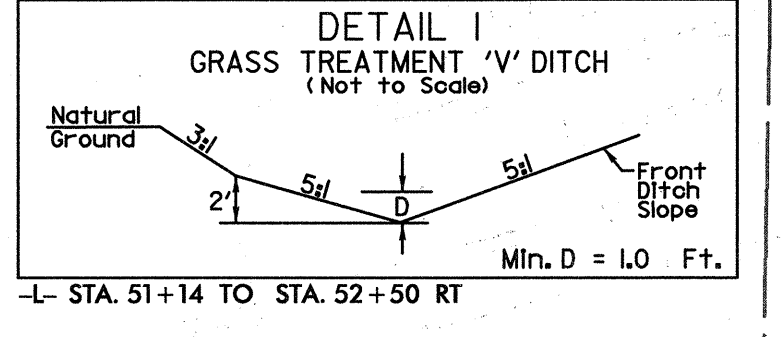
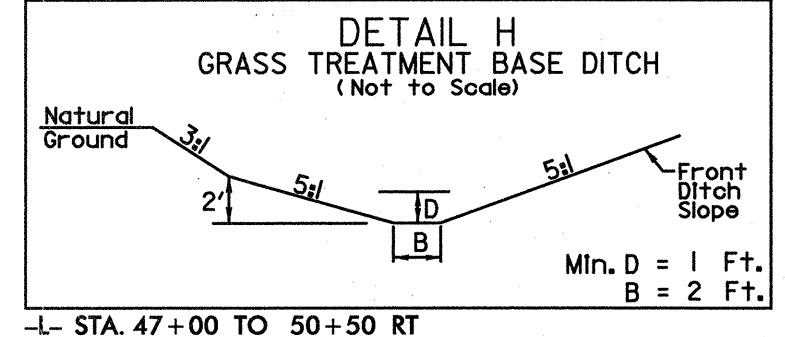
SUBSURFACE DRAINS

LINE	STATION	LOCATION
-L-	4+00 to 53+50	LT/RT



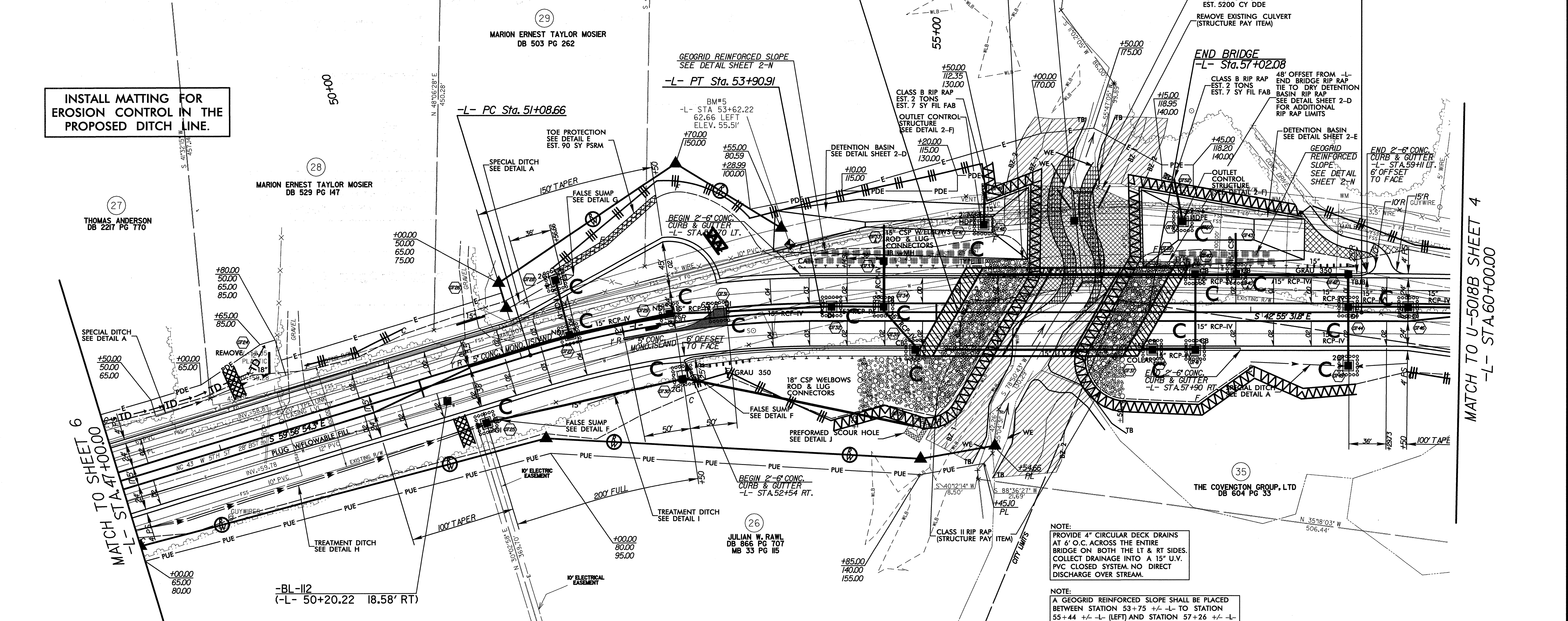
PI Sta 52+50.83 Δ = 17' 01" 22.4" (RT) D = 6' 01" 52" L = 282.25' T = 142.17' R = 950.00' SE = 04' RO = 144'

PI Sta 61+27.90 Δ = 5' 09" 00.9" (RT) D = 1' 09" 35.4" L = 444.05' T = 222.17' R = 4940.00' SE = 02' RO = 72'



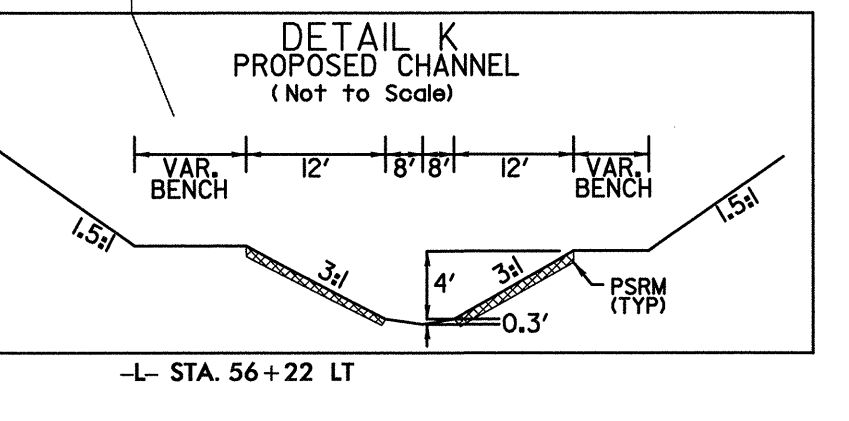
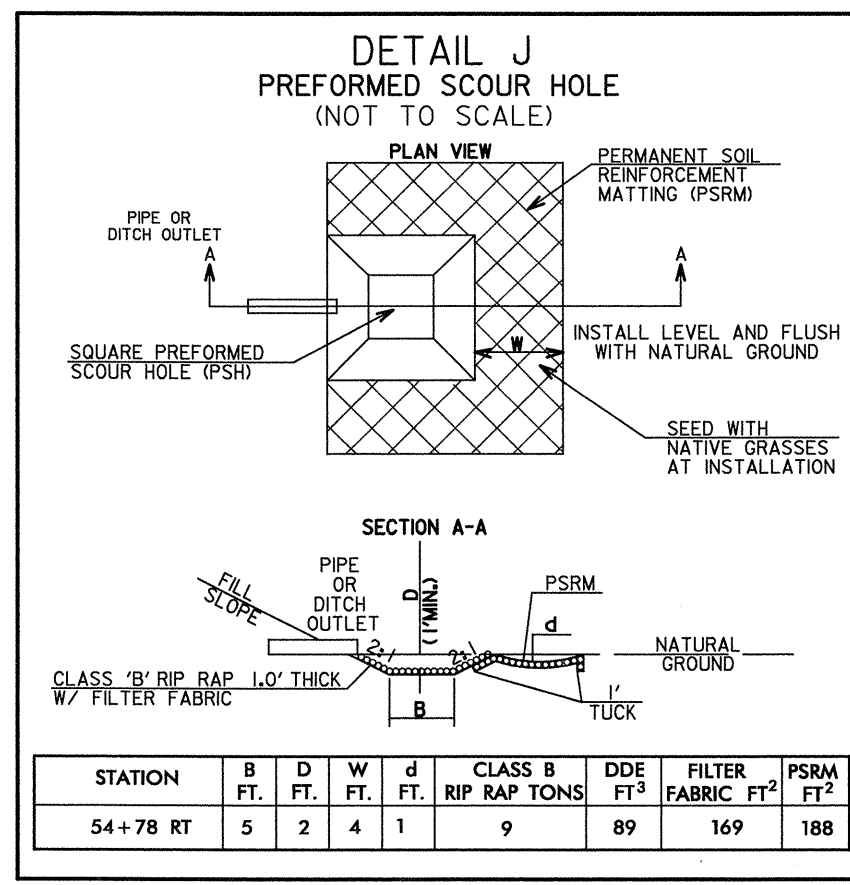
SUBSURFACE DRAINS table with columns: LINE, STATION, LOCATION

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



MATCH TO SHEET 6 -L- STA. 47+00.00

MATCH TO U-5018B SHEET 4 -L- STA. 60+00.00



CULVERT #1 TWO BARRELS table with columns: NORTH, EAST, ELEV.

INSTALL MATTING FOR EROSION CONTROL IN THE PROPOSED DITCH LINE.



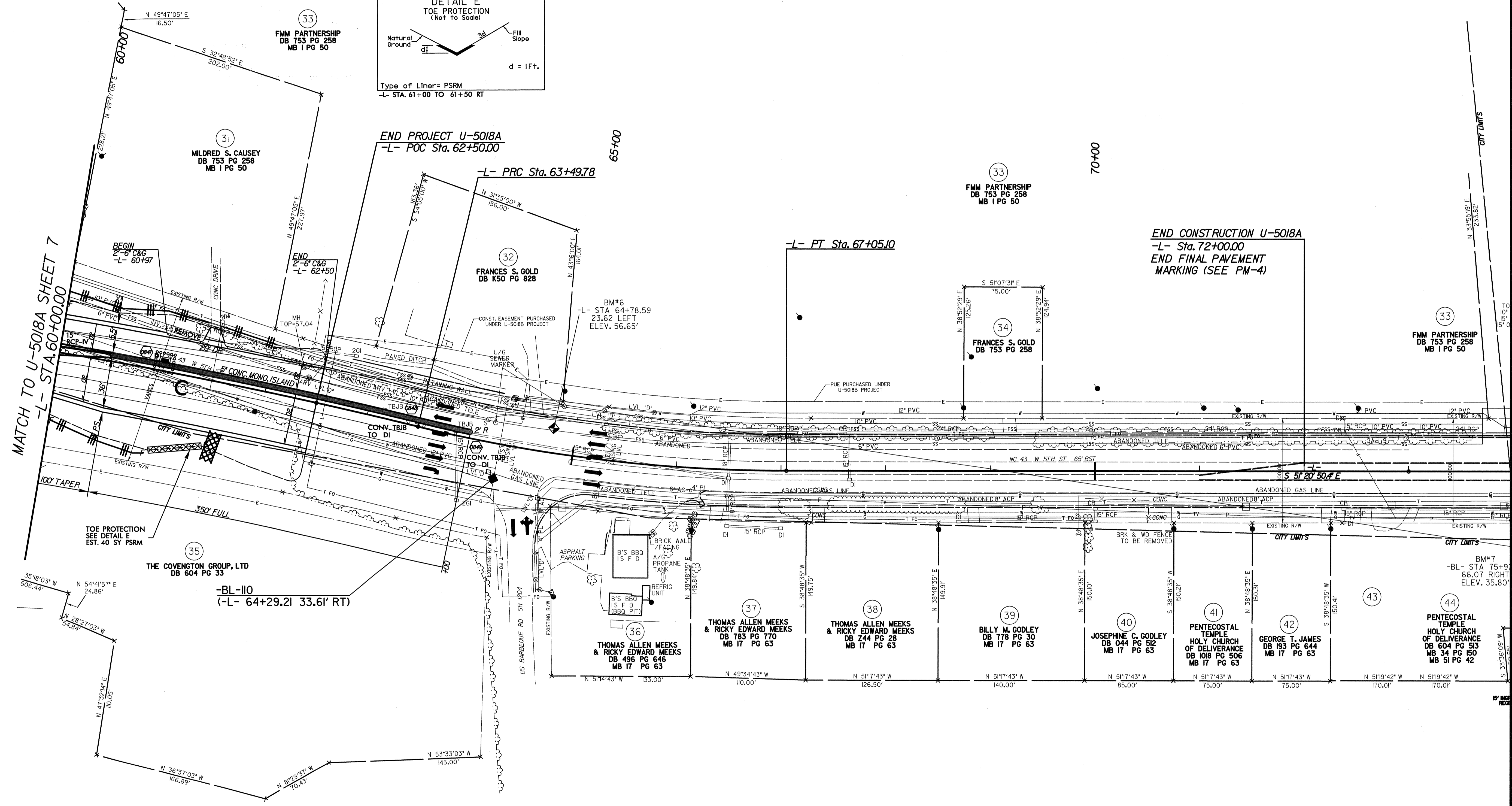
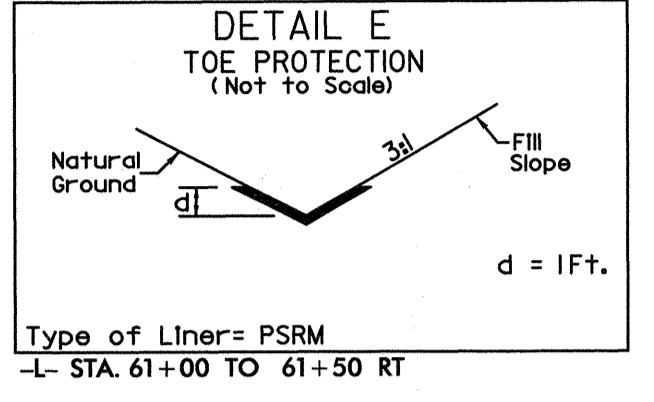
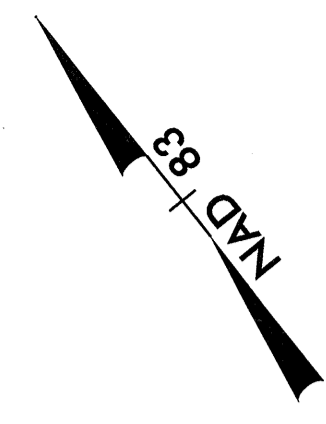
NOTE: PROVIDE 4" CIRCULAR DECK DRAINS AT 6' O.C. ACROSS THE ENTIRE BRIDGE ON BOTH THE LT & RT SIDES. COLLECT DRAINAGE INTO A 15" U.V. PVC CLOSED SYSTEM. NO DIRECT DISCHARGE OVER STREAM.

NOTE: A GEOGRID REINFORCED SLOPE SHALL BE PLACED BETWEEN STATION 53+75 +/- -L- TO STATION 55+44 +/- -L- (LEFT) AND STATION 57+26 +/- -L- TO STATION 58+25 +/- -L- (LEFT). SEE GEOGRID REINFORCED SLOPE SPECIAL PROVISION.

5/28/99



-L-
PI Sta 61+27.90 Δ = 5° 09' 00.9" (RT) D = 1' 09' 35.4" L = 444.05' T = 222.17' R = 4,940.00' SE = 02' RO = 72'
PI Sta 65+28.27 Δ = 13° 34' 19.5" (LT) D = 3' 49' 11.0" L = 355.32' T = 178.49' R = 1,500.00'



MATCH TO U-5018A SHEET 7
-L- STA. 60+00.00

END CONSTRUCTION U-5018A
-L- Sta. 72+00.00
END FINAL PAVEMENT MARKING (SEE PM-4)

TOE PROTECTION
SEE DETAIL E
EST. 40 SY PSRM

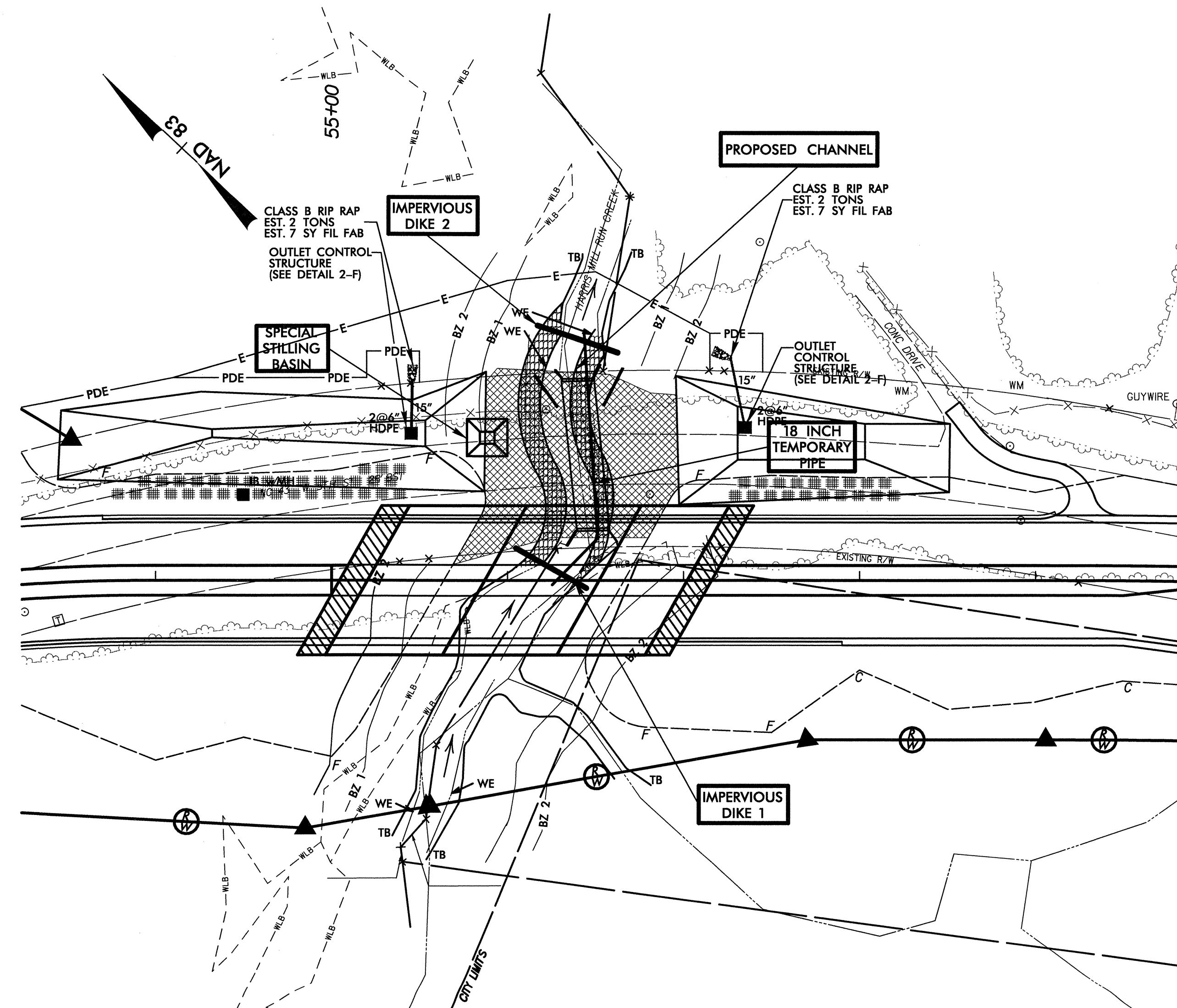
THE COVENINGTON GROUP, LTD
DB 604 PG 33
-BL-110
(-L- 64+29.21 33.61' RT)

6/4/2010
C:\Hydro\Utilities\CADD\Erosion Control\U5018A\U5018A_EC.psh13.dgn
7:30:13 AM

STREAM CONSTRUCTION SEQUENCE STA. 56+30 -L-

STREAM CONSTRUCTION SEQUENCE IS TO TAKE PLACE AFTER TRAFFIC HAS BEEN SHIFTED OFF OF EXISTING ROADWAY.

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT IMPERVIOUS DIKES 1 & 2 AND INSTALL 18" TEMPORARY CSP.
3. REMOVE EXISTING CULVERT AND REINSTALL 18" TEMPORARY CSP.
4. CONSTRUCT PROPOSED CHANNEL.
5. INSTALL COIR MATTING AND VEGETATE STREAM BANKS.
6. REMOVE IMPERVIOUS DIKES 1 & 2 AND 18" TEMPORARY CSP.
7. REMOVE ANY REMAINING SPECIAL STILLING BASINS.



Impervious Dike:

The work covered by this section consists of furnishing, installing, maintaining, and removing an impervious dike for the purpose of diverting normal stream flow around the construction site. The Contractor shall construct an impervious dike in such a manner approved by the Engineer. The impervious dike shall not permit seepage of water into the construction site or contribute to siltation of the stream. The impervious dike shall be constructed of an acceptable material in the locations noted on the plans or as directed by the Engineer.

Acceptable materials shall include but not be limited to sheet piles, sandbags, and/or the placement of an acceptable size stone lined with polypropylene or other impervious fabric.

Earth material shall not be used to construct an impervious dike when it is in direct contact with the stream unless vegetation can be established before contact with the stream takes place.