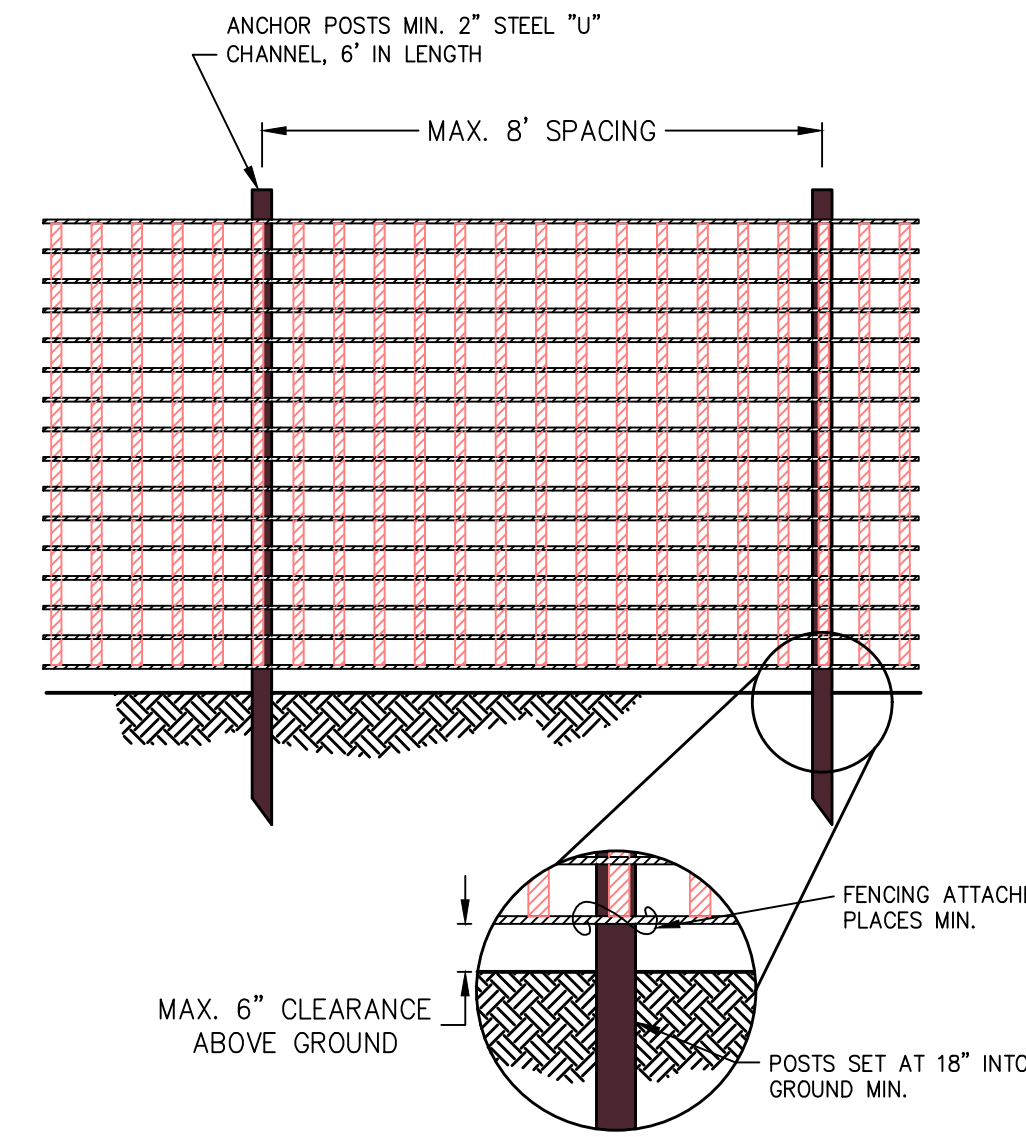


STONE CONSTRUCTION ENTRANCE DETAIL
 NOT TO SCALE



- NOTES:**
- PROTECTION BARRIER SHALL BE 4' HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW FENCE MAY BE USED).
 - PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
 - ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.

CONSTRUCTION FENCE DETAIL
 NOT TO SCALE

INTRODUCTION

- PROTECTIVE FENCING SHOULD BE INSTALLED TO PREVENT ACCESS TO POTENTIALLY HAZARDOUS AREAS OF A CONSTRUCTION SITE.

CONDITIONS WHERE PRACTICE APPLIES

- APPLICABLE TO ANY CONTROL MEASURE OR SERIES OF MEASURES, WHICH CAN BE CONSIDERED UNSAFE BY VIRTUE OF POTENTIAL FOR ACCESS BY THE PUBLIC, THE DESIGNER, DEVELOPER, AND CONTRACTOR SHOULD ALWAYS BE SURE THAT THE MOST APPROPRIATE TYPE OF FENCE IS UTILIZED FOR A PARTICULAR NEED.

CONSTRUCTION SPECIFICATIONS

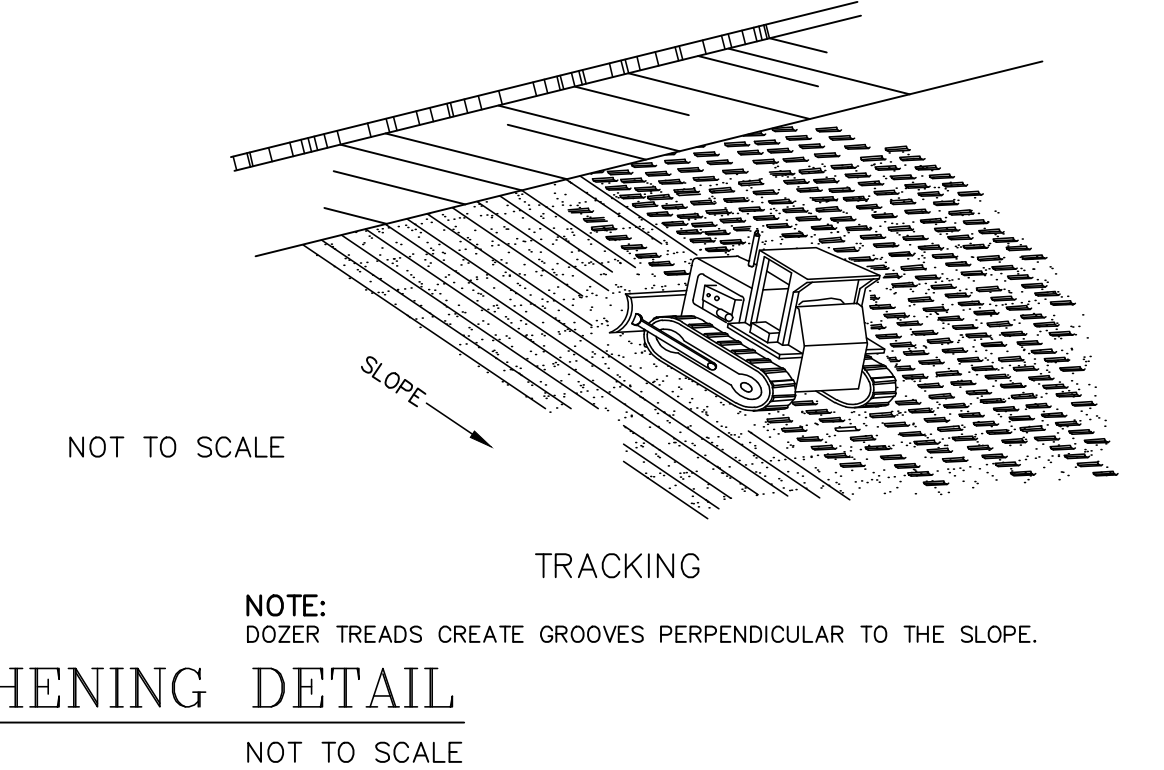
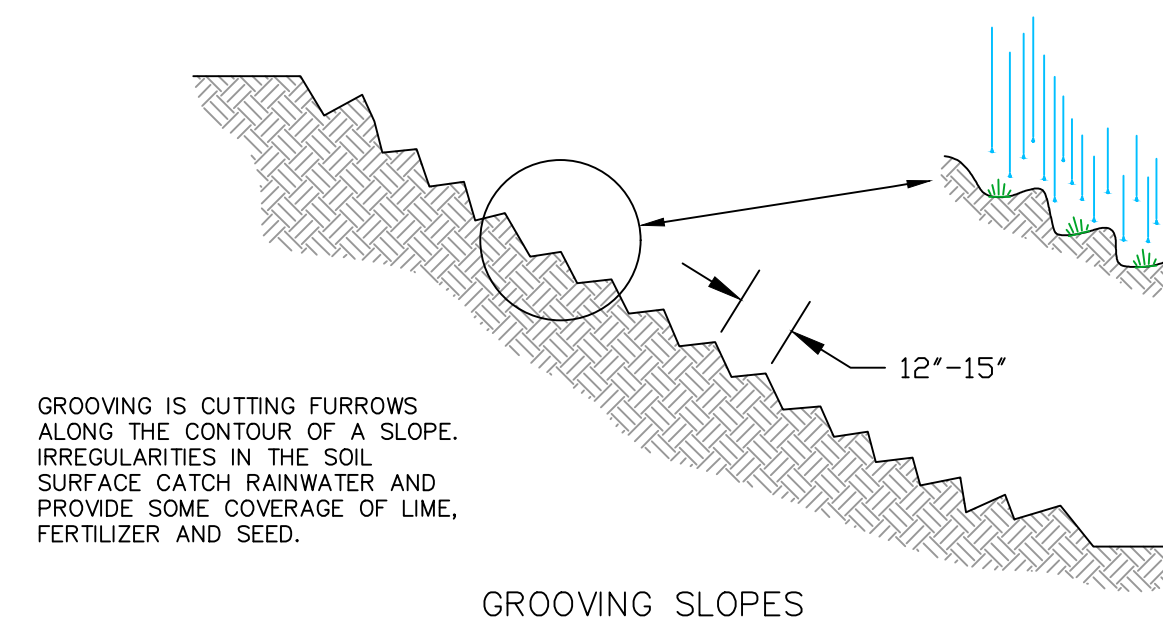
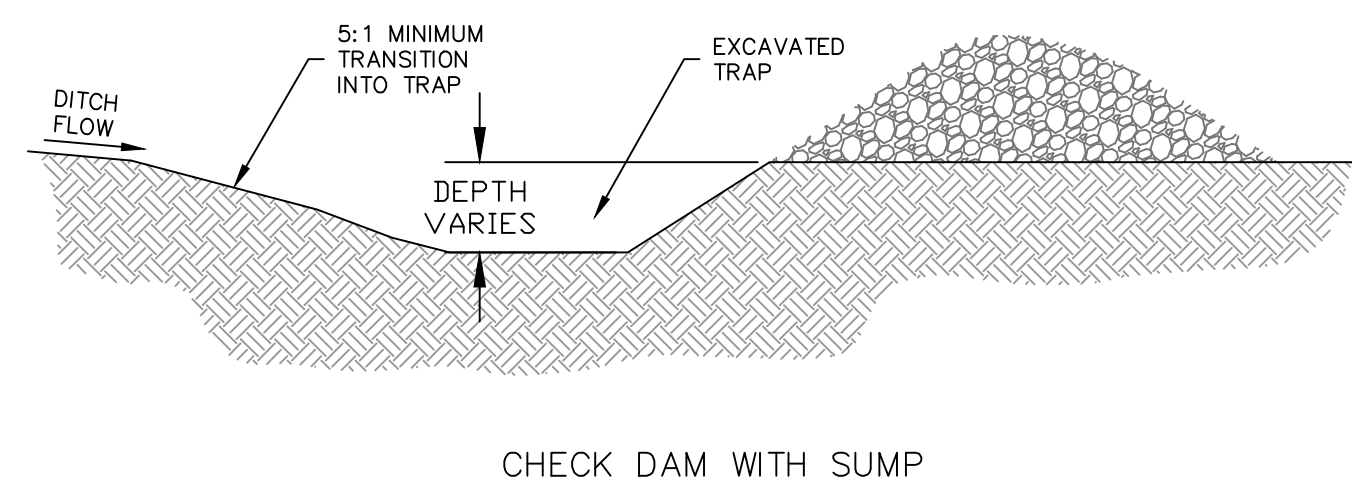
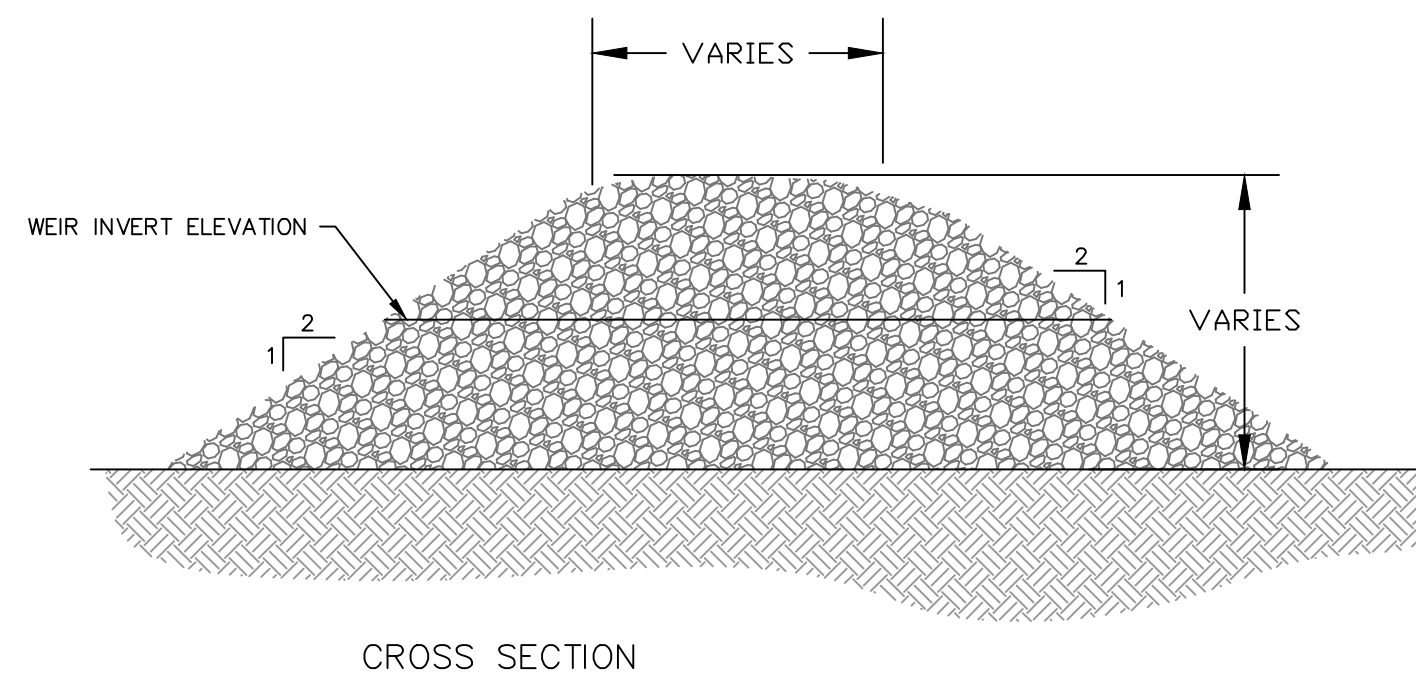
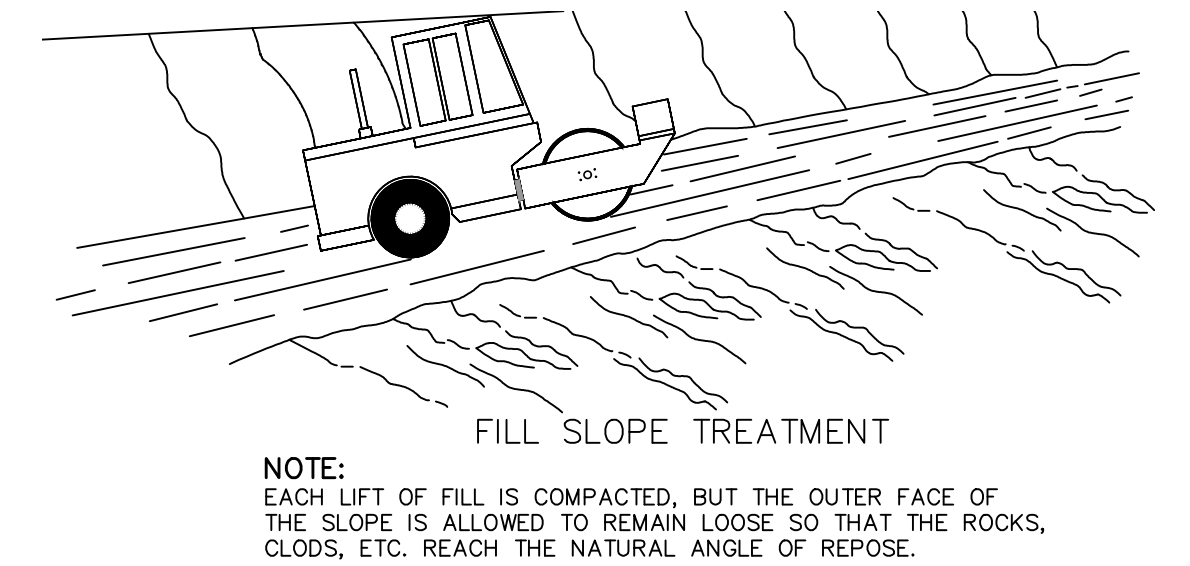
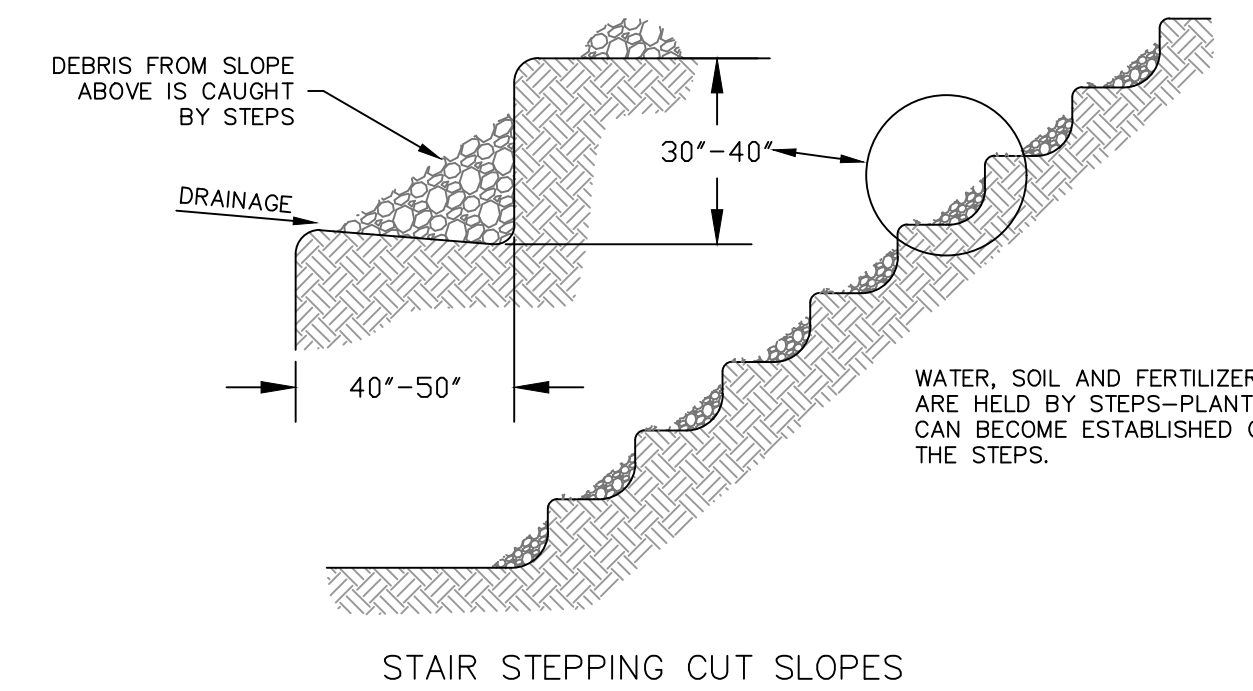
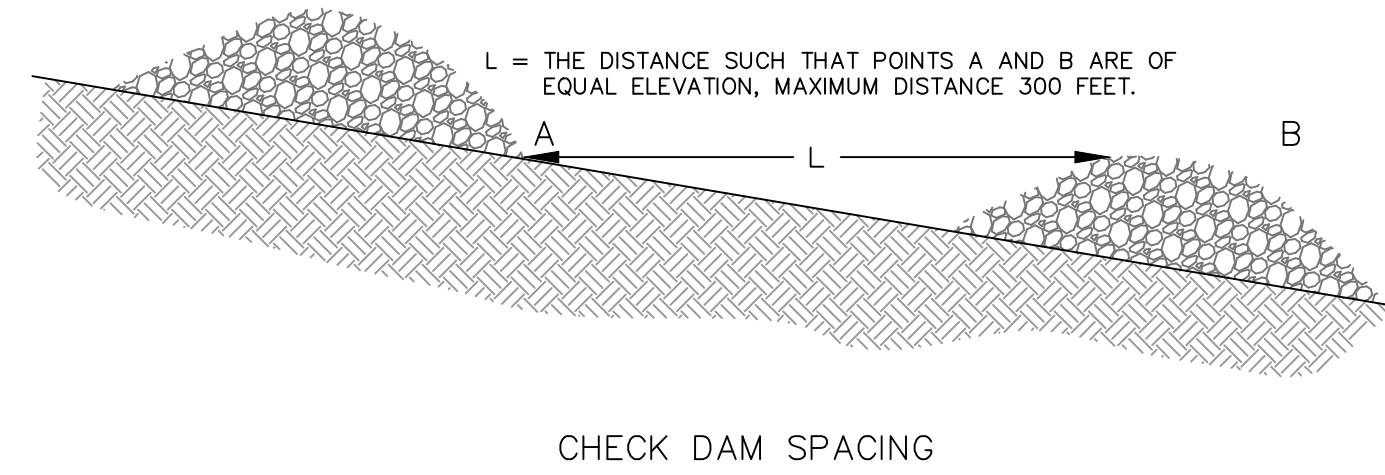
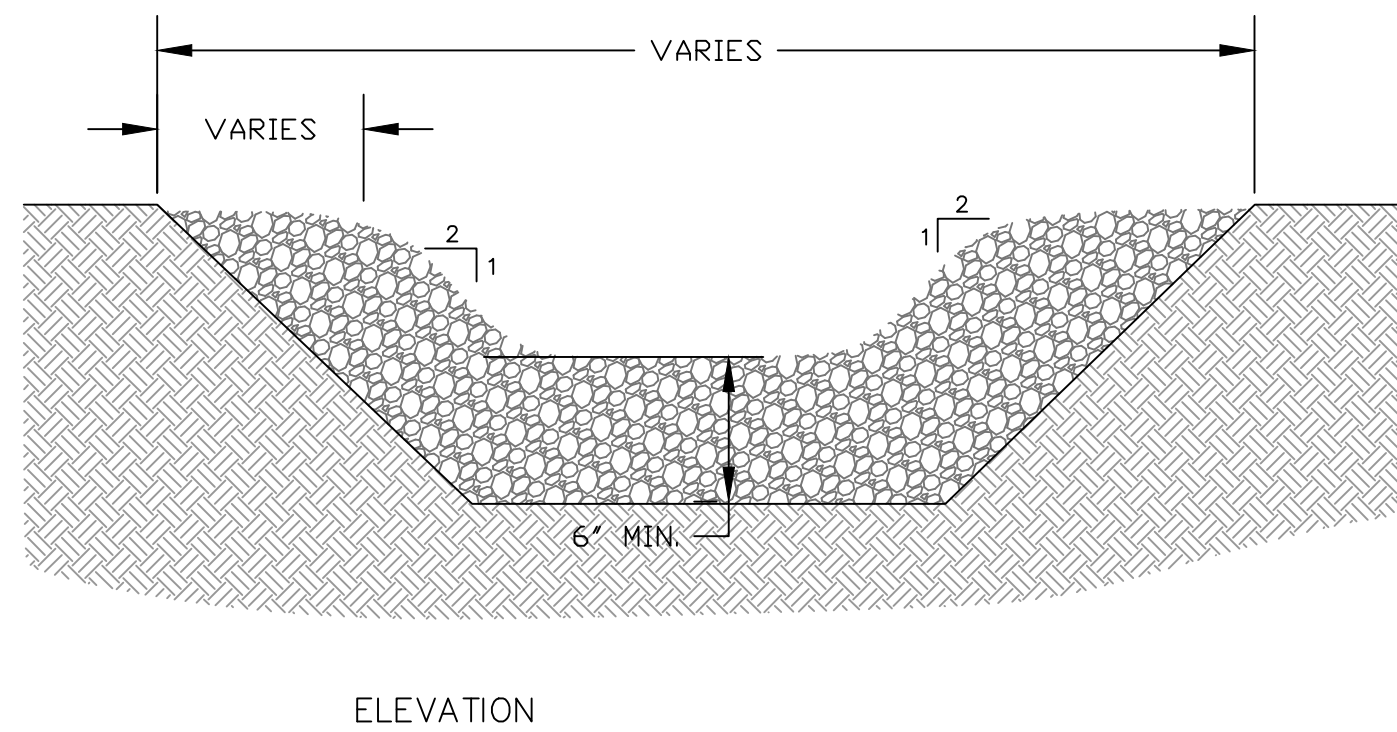
- SAFETY FENCES SHOULD BE LOCATED SO AS TO CREATE A FORMIDABLE BARRIER TO UNDESIRABLE ACCESS, WHILE ALLOWING FOR THE CONTINUATION OF NECESSARY CONSTRUCTION OPERATIONS.
- SAFETY FENCES ARE MOST APPLICABLE TO THE CONSTRUCTION OF TRAPS AND DAMS. IN USE WITH THOSE STRUCTURES, SAFETY FENCES SHOULD BE LOCATED FAR ENOUGH BEYOND THE OUTER TOE OF THE EMBANKMENT TO ALLOW FOR THE PASSAGE OF MAINTENANCE VEHICLES. FENCES SHOULD NOT BE INSTALLED ACROSS THE SLOPE OF A DAM OR DIKE.
- SIGNS NOTING POTENTIAL HAZARDS SUCH AS "DANGER" OR "HAZARDOUS AREA - KEEP OUT" SHOULD BE POSTED AND EASILY SEEN BY ANYONE APPROACHING THE PROTECTED AREA.
- PLASTIC (POLYETHYLENE) FENCE MAY BE USED AS SAFETY FENCING, PRIMARILY IN SITUATIONS WHERE THE NEED IS FOR A TEMPORARY BARRIER. THE FENCE SHOULD MEET THE PHYSICAL REQUIREMENTS NOTED IN TABLE 3.04.1.
- SAFETY FENCES SHOULD BE INSTALLED PRIOR TO THE SEDIMENT CONTROL MEASURE BECOMING ACCESSIBLE.
- APPLICABLE WARNING SIGNS NOTING HAZARDOUS CONDITIONS MUST BE INSTALLED IMMEDIATELY UPON INSTALLATION OF SAFETY FENCE.
- CHAIN LINK FENCE SHOULD BE USED FOR PERMANENT STRUCTURES (GREATER THAN ONE YEAR).

MAINTENANCE

- SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER-RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY.
- CARE SHOULD BE TAKEN TO SECURE ALL ACCESS POINTS (GATES) AT THE END OF EACH WORKING DAY. ALL LOCKING DEVICES MUST BE REPAIRED OR REPLACED AS NECESSARY.

PHYSICAL PROPERTY	TEST	REQUIREMENTS
RECOMMENDED COLOR	N/A	INTERNATIONAL ORANGE
TENSILE YIELD	ASTM D638	AVERAGE 2,000 lbs.
ULTIMATE TENSILE STRENGTH	ASTM D638	AVERAGE 2,000 lbs. per 4FT. WIDTH
ELONGATION AT BREAK(%)	ASTM D638	GREATER THAN 1000%
CHEMICAL RESISTANCE	N/A	INERT TO MOST CHEMICALS/ACIDS

SAFETY FENCE SPECIFICATIONS

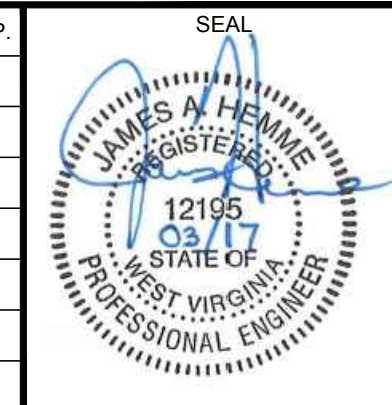


ROCK CHECK DAM DETAIL
 NOT TO SCALE

SURFACE ROUGHENING DETAIL
 NOT TO SCALE

GENERAL NOTES AND COMMENTS:

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.



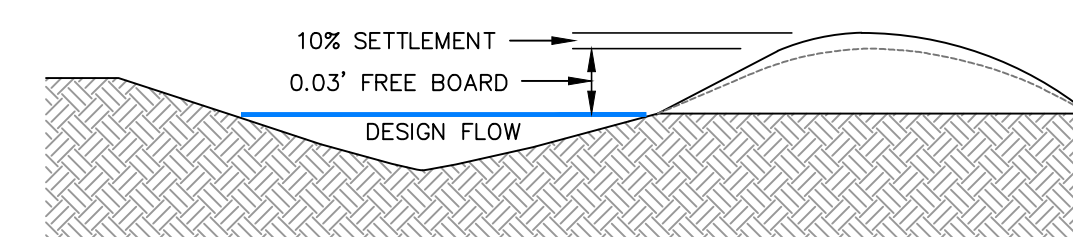
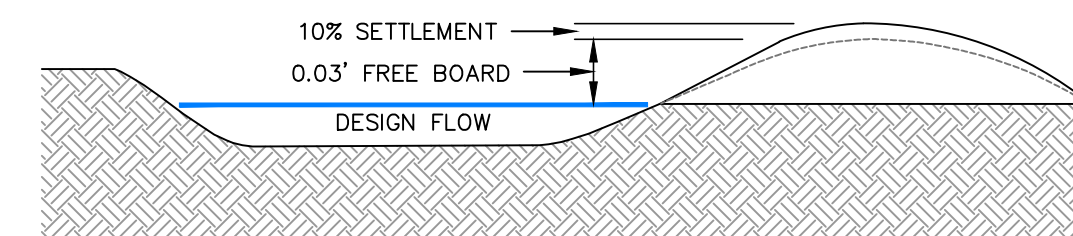
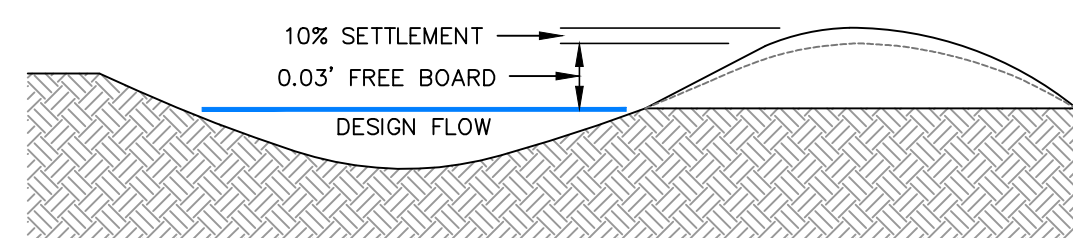
ERM Environmental Resources Management Environmental Resources Management	
DRAWN:	JEY 03/03/2017
CHECKED:	JH 03/03/2017
APP. FOR BID:	
APP. FOR CONST.:	
SCALE:	AS NOTED

Atlantic Coast Pipeline, LLC
 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000

ATLANTIC COAST PIPELINE EROSION AND SEDIMENT CONTROL DETAILS

DISTRICT:	COUNTY:	STATE:	GROUP:	DWG. NO.:	REV.:
		WV		1 OF 5	0

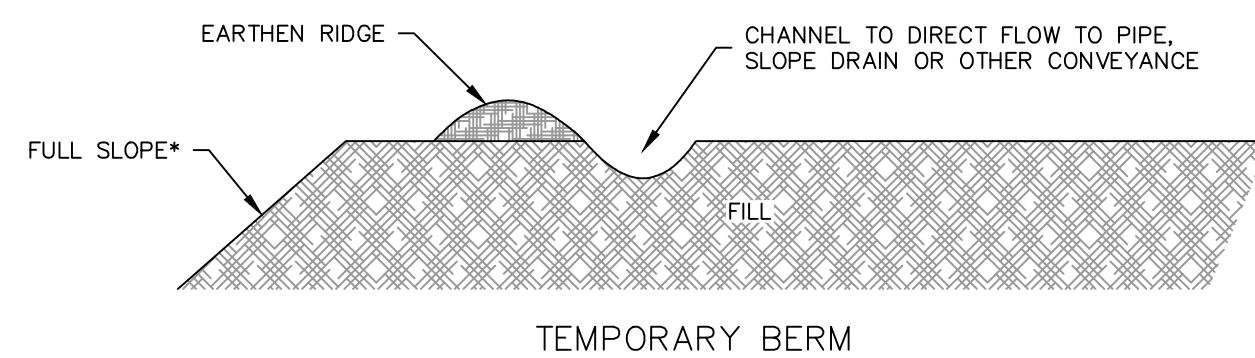
DIR/FILE: ACPWest Virginia/Details



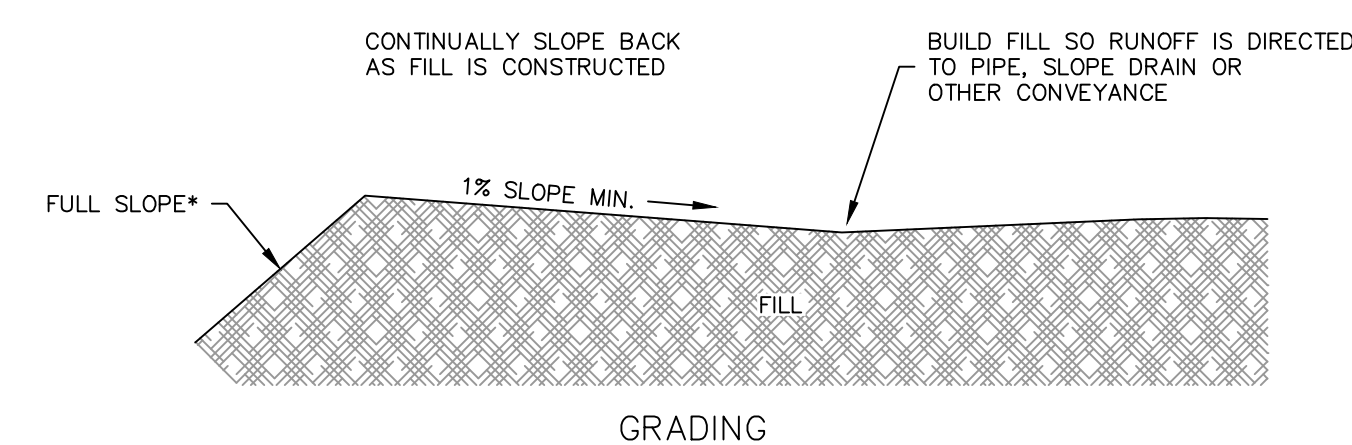
**Table 3.15.1
CHANNEL CROSS SECTION REQUIREMENTS**

	A	B
Drainage area	< 5 acres	5 - 10 acres
Bottom width flow channel	4 feet	6 feet
Depth of flow channel	1 foot	1 foot
Side slopes	2:1 or flatter	2:1 or flatter
Grade	0.5% minimum	0.5% minimum

DIVERSION DETAIL NOT TO SCALE



* SEED AND MULCH FILL SLOPE EVERY 10 FEET OF FILL OR EVERY 7 DAYS, WHICHEVER COMES FIRST



**Table 3.15.2
STABILIZATION REQUIREMENTS**

channel Grade (%)	A < 5 acres	B 5 - 10 acres
0.5 - 3.0	Seed & straw mulch	Seed & straw mulch
3.1 - 5.0	Seed & straw mulch	Seed & cover / RECP; sod; or line with riprap
5.1 - 8.0	Seed & cover w/ RECP; sod; or line with riprap	Line with riprap
8.1 - 20.0	Line with riprap	Engineering design

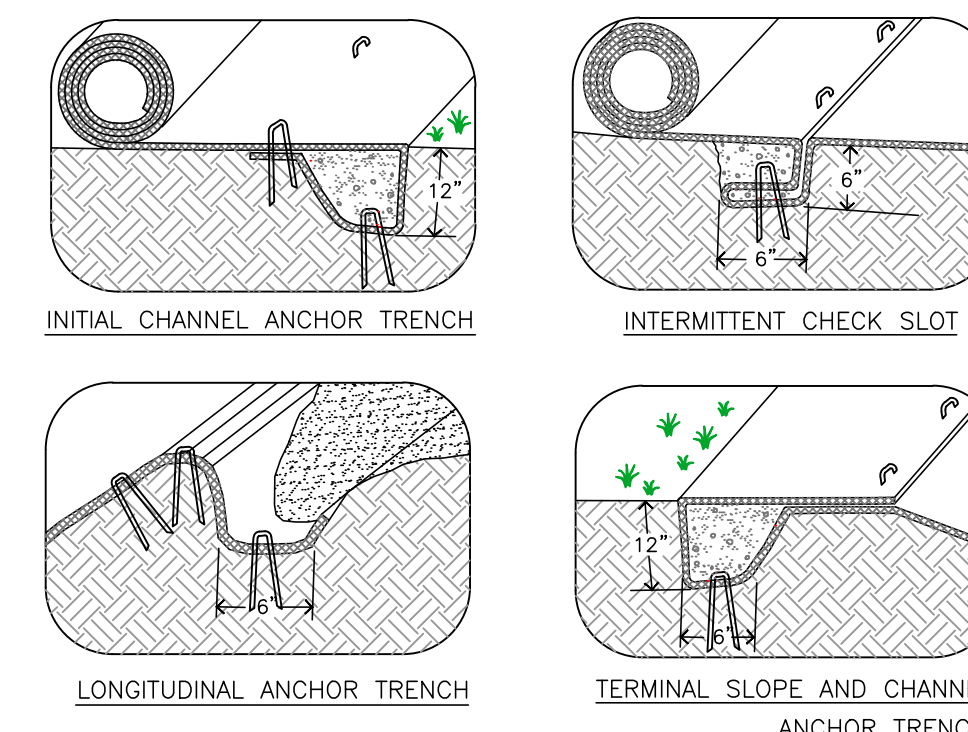
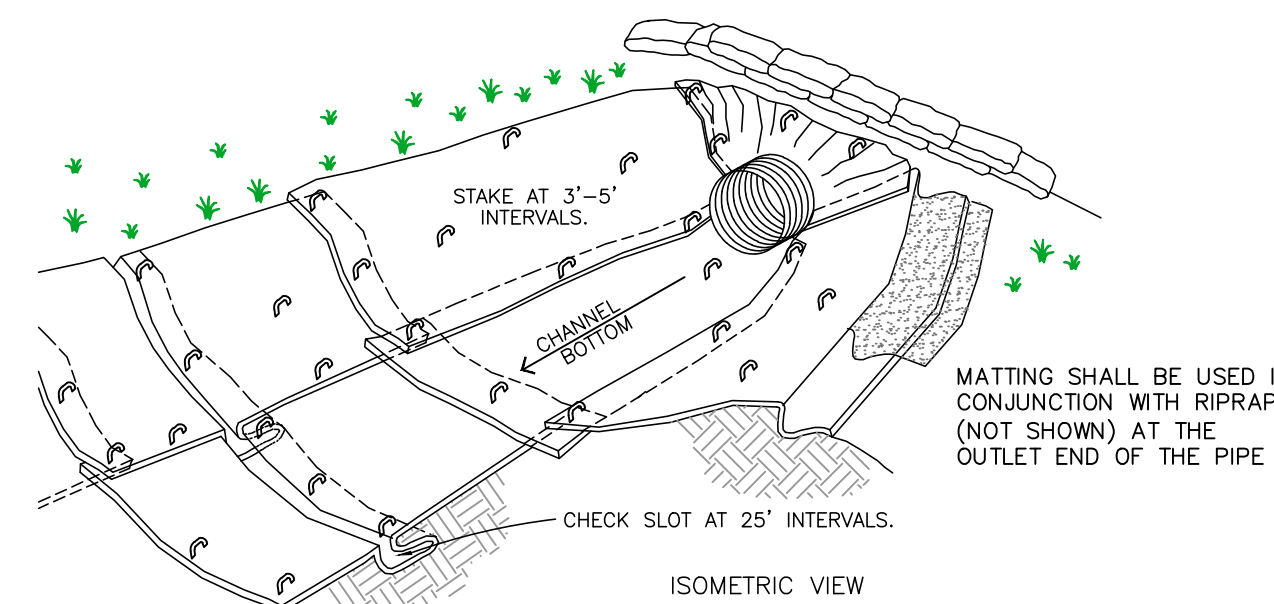
TEMPORARY FILL DIVERSION DETAIL NOT TO SCALE

SOIL AMENDMENT	PERMANENT SEEDING APPLICATION RATE			NOTES
	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	
AGRICULTURAL LIME	7.5 TONS	300 LB.	3,100 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS
10-10-20 FERTILIZER	1,000 LB.	25 LB.	210 LB.	OR AS PER SOIL TEST; MAY NOT BE REQUIRED IN AGRICULTURAL FIELDS

MULCH TYPE	APPLICATION RATE (MIN.)			NOTES
	PER ACRE	PER 1,000 SQ. FT.	PER 1,000 SQ. YD.	
STRAW	3 TONS	140 LB.	1,240 LB.	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	140 LB.	1,240 LB.	TIMOTHY, MIXED FLOWER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES
WOOD CHIPS	4 - 6 TONS	185 - 275 LB	1,650 - 2,500 LB.	MAY PREVENT GERMINATION OF GRASSES AND LEGUMES
HYDROMULCH	1 TON	47 LB.	415 LB.	SEE NOTE 1

NOTES:
1. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED TACKIFIER IS USED. THE APPLICATION RATE FOR ANY HYDROMULCH SHOULD BE 2,000 LB./ACRE AT MINIMUM.

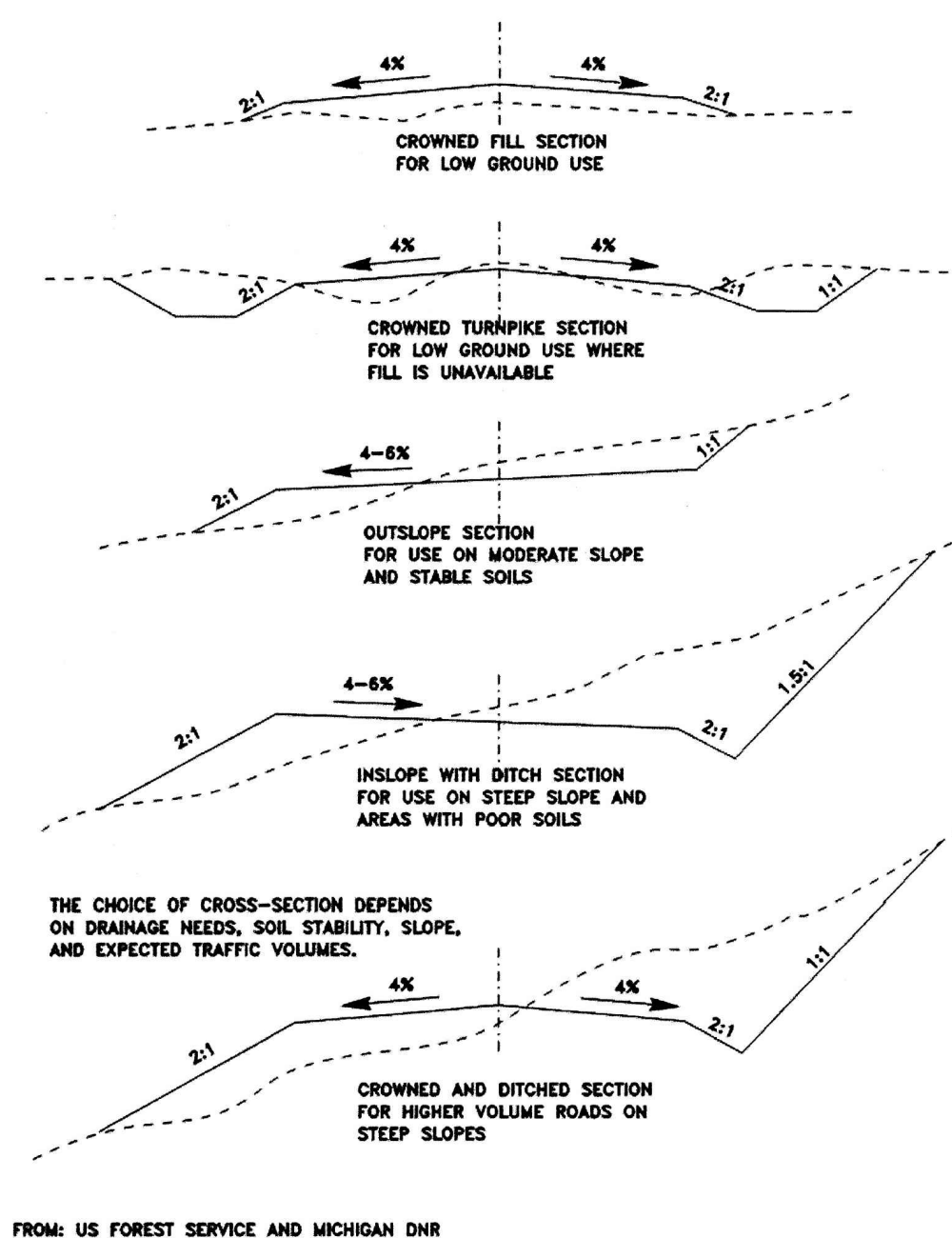
MULCH AND FERTILIZER



NOTES:
1. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.
2. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.

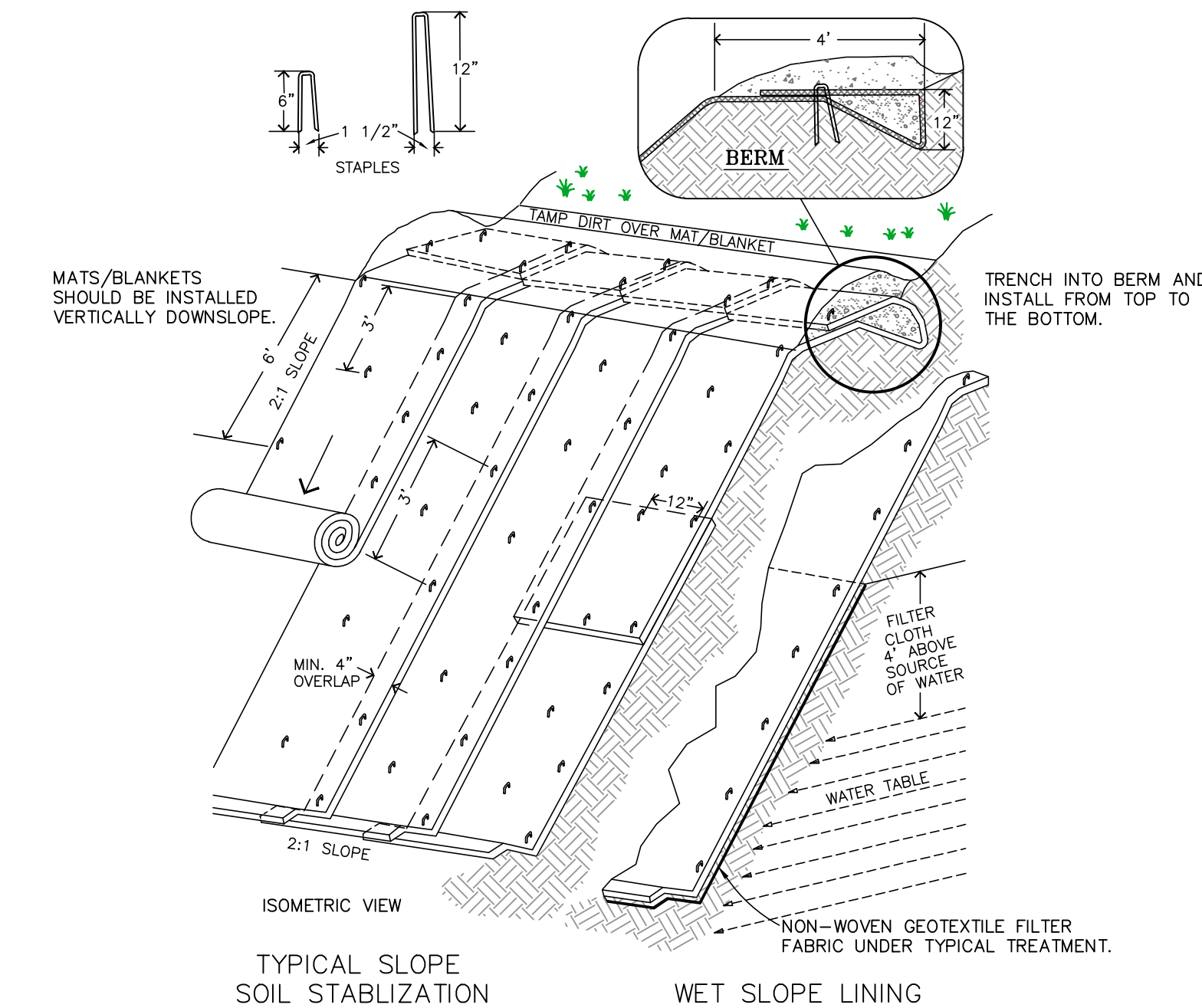
TYPICAL RECP CHANNEL INSTALLATION DETAIL NOT TO SCALE

**FIGURE 3.35.1
TYPES OF ROAD CROSS-SECTIONS**



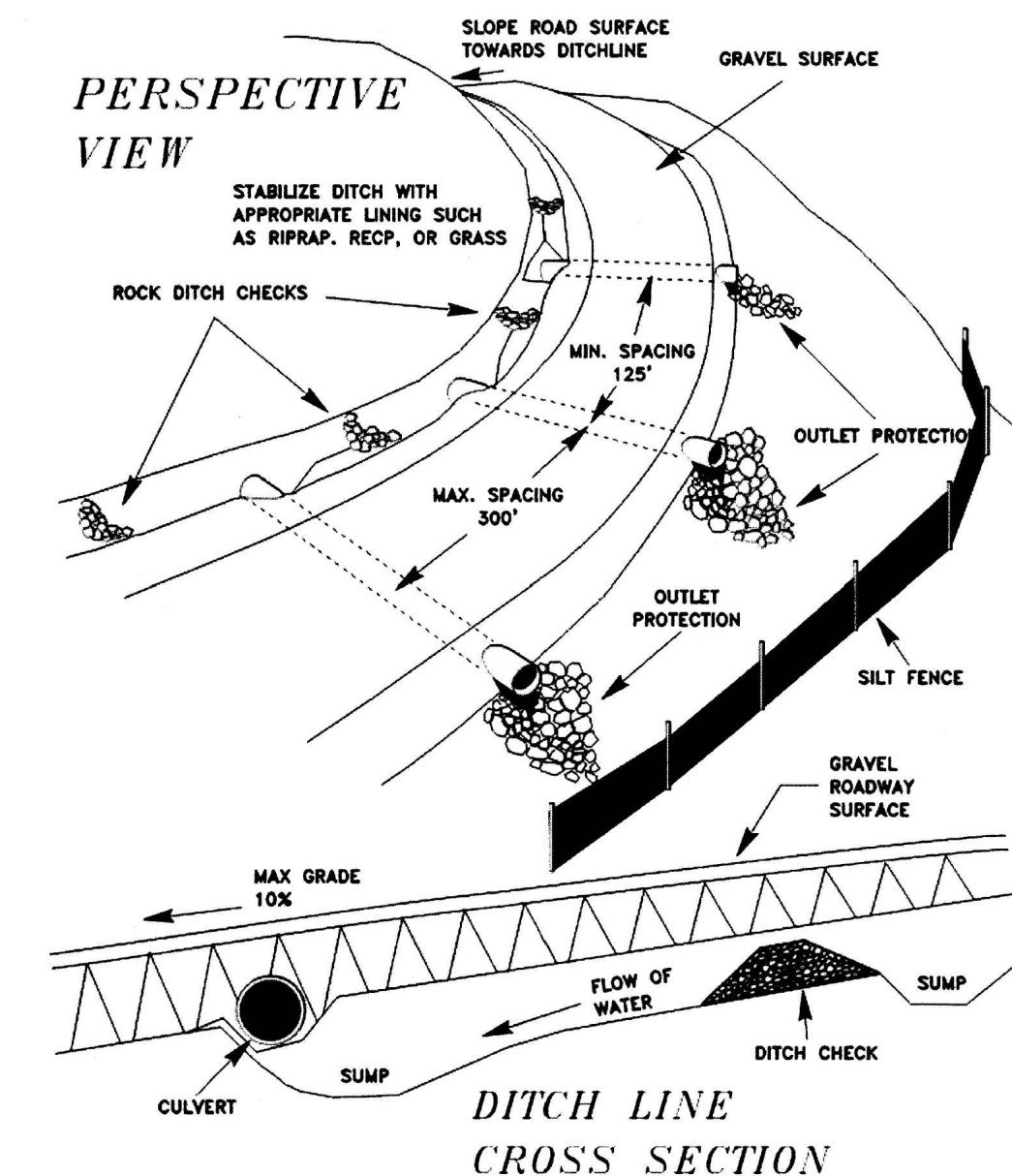
FROM: US FOREST SERVICE AND MICHIGAN DNR

TYPES OF ROAD CROSS-SECTIONS NOT TO SCALE



NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

ROLLED EROSION CONTROL DETAIL NOT TO SCALE



CULVERT SIZING TABLE

DRAINAGE AREA (AC)	PIPE DIAMETER (IN)	PIPE CAPACITY (CFS)
10	15	5
20	18	9
30	21	12
50	24	18
80	27	24
100	30	29
300	36	60
500	42	85

SOURCE: WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, MAY 2012

SEDIMENT AND EROSION CONTROL FOR ACCESS ROADS AND DRIVEWAYS NOT TO SCALE

GENERAL NOTES AND COMMENTS:

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.

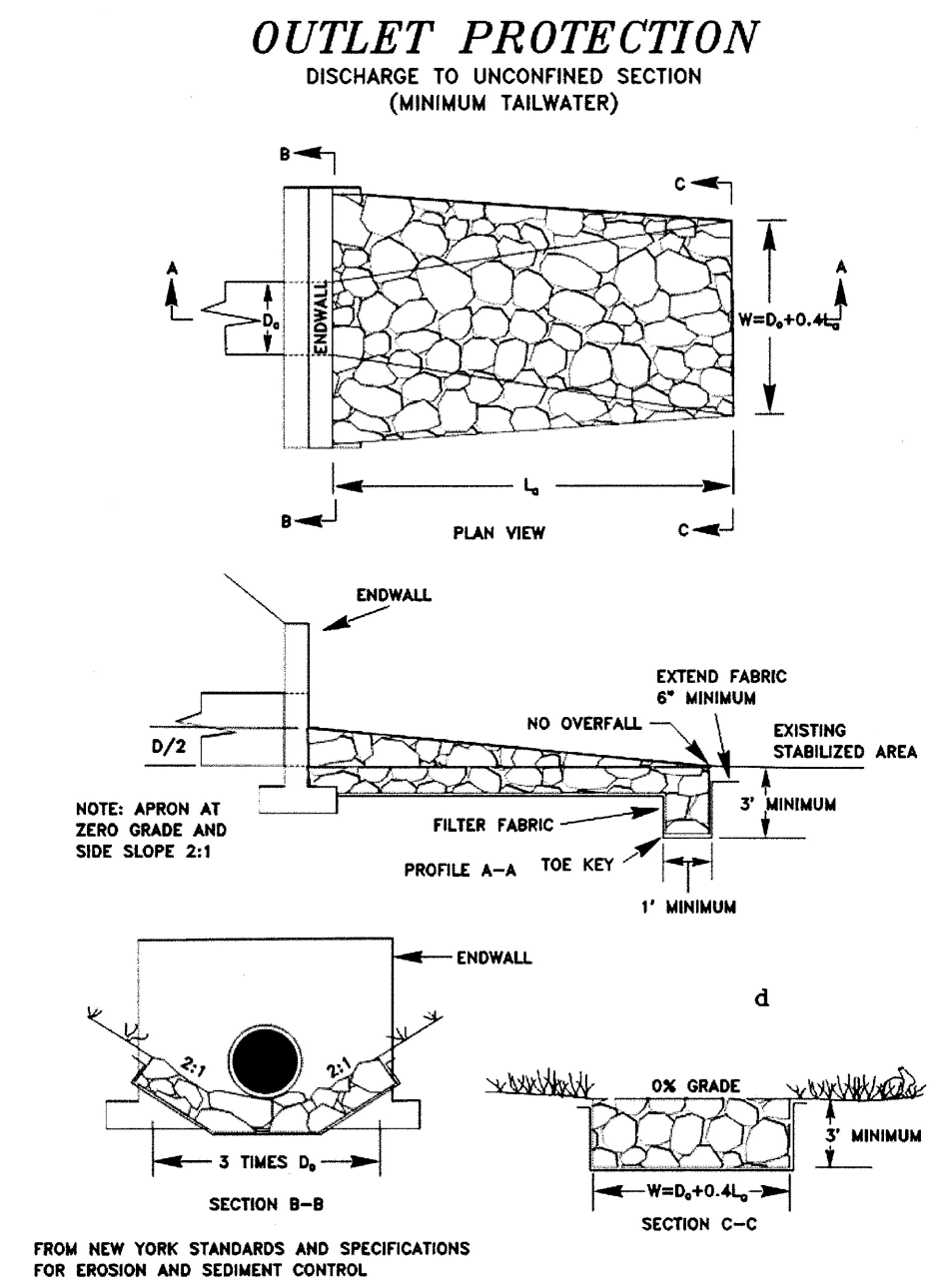
SEAL
JAMES A. HEMME
REGISTERED PROFESSIONAL ENGINEER
12195
WEST VIRGINIA
STATE OF
PROFESSIONAL ENGINEER

Environmental Resources Management

DRAWN:	JEY	03/03/2017
CHECKED:	JH	03/03/2017
APP. FOR BID:		
APP. FOR CONST.:		
SCALE:	AS NOTED	

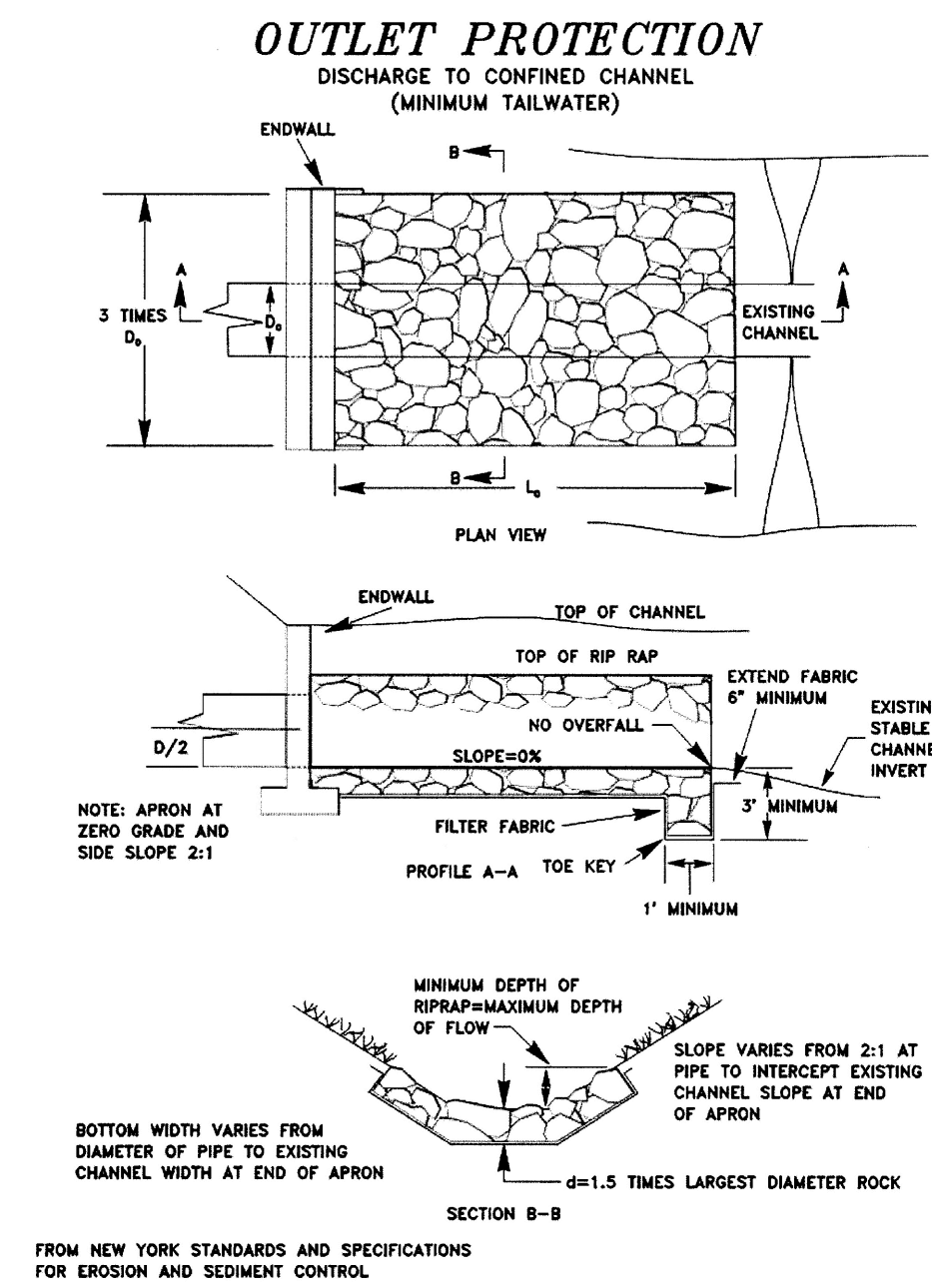
Atlantic Coast Pipeline, LLC				
925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000				
TITLE: ATLANTIC COAST PIPELINE EROSION AND SEDIMENT CONTROL DETAILS				
DISTRICT:	COUNTY:	STATE: WV	GROUP:	DWG. NO. 2 OF 5
DIR/FILE:	ACPWest Virginia/Details			REV. 0

FIGURE 3.17.1



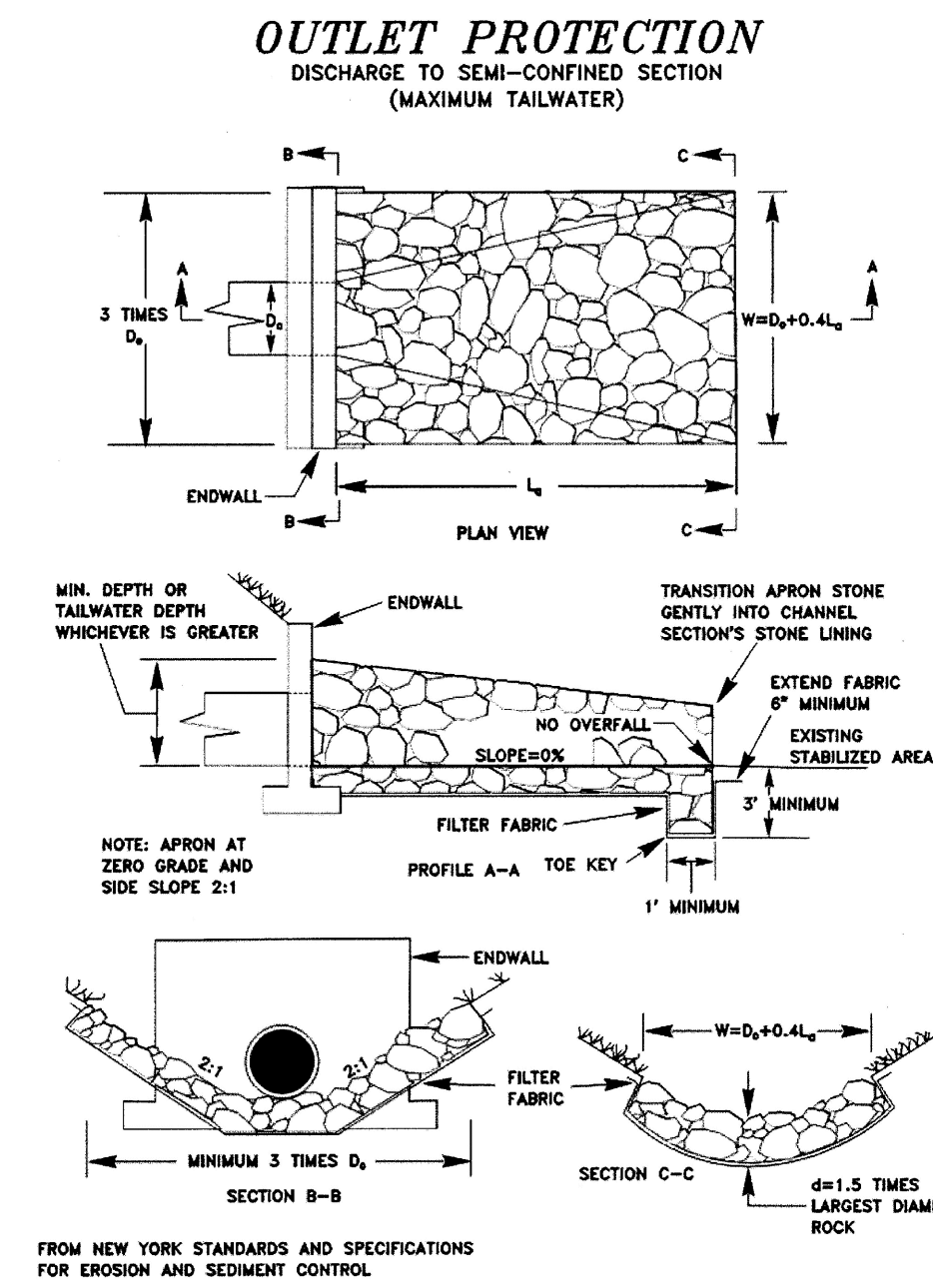
OUTLET PROTECTION UNCONFINED
NOT TO SCALE

FIGURE 3.17.2



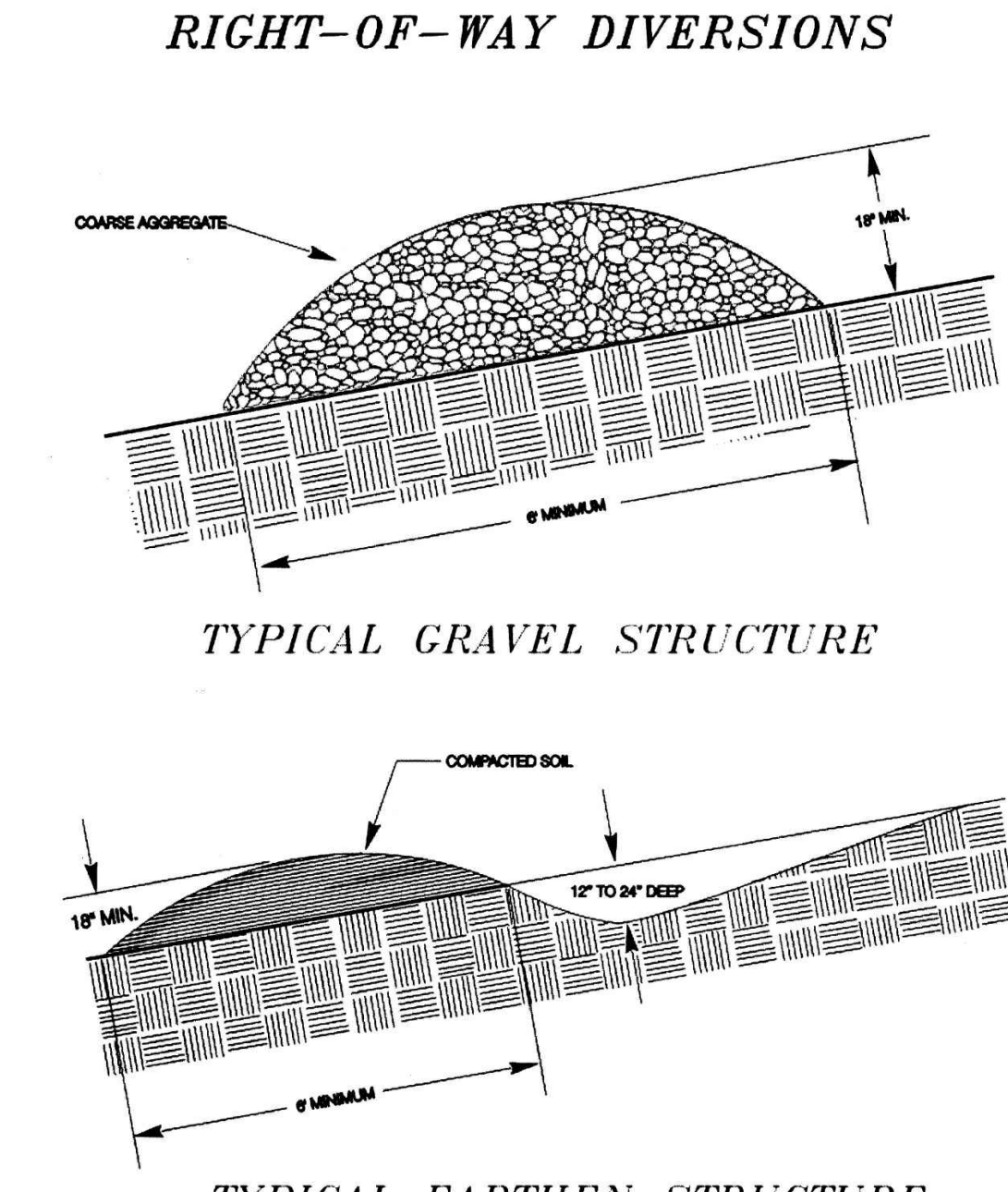
OUTLET PROTECTION CONFINED
NOT TO SCALE

FIGURE 3.17.3



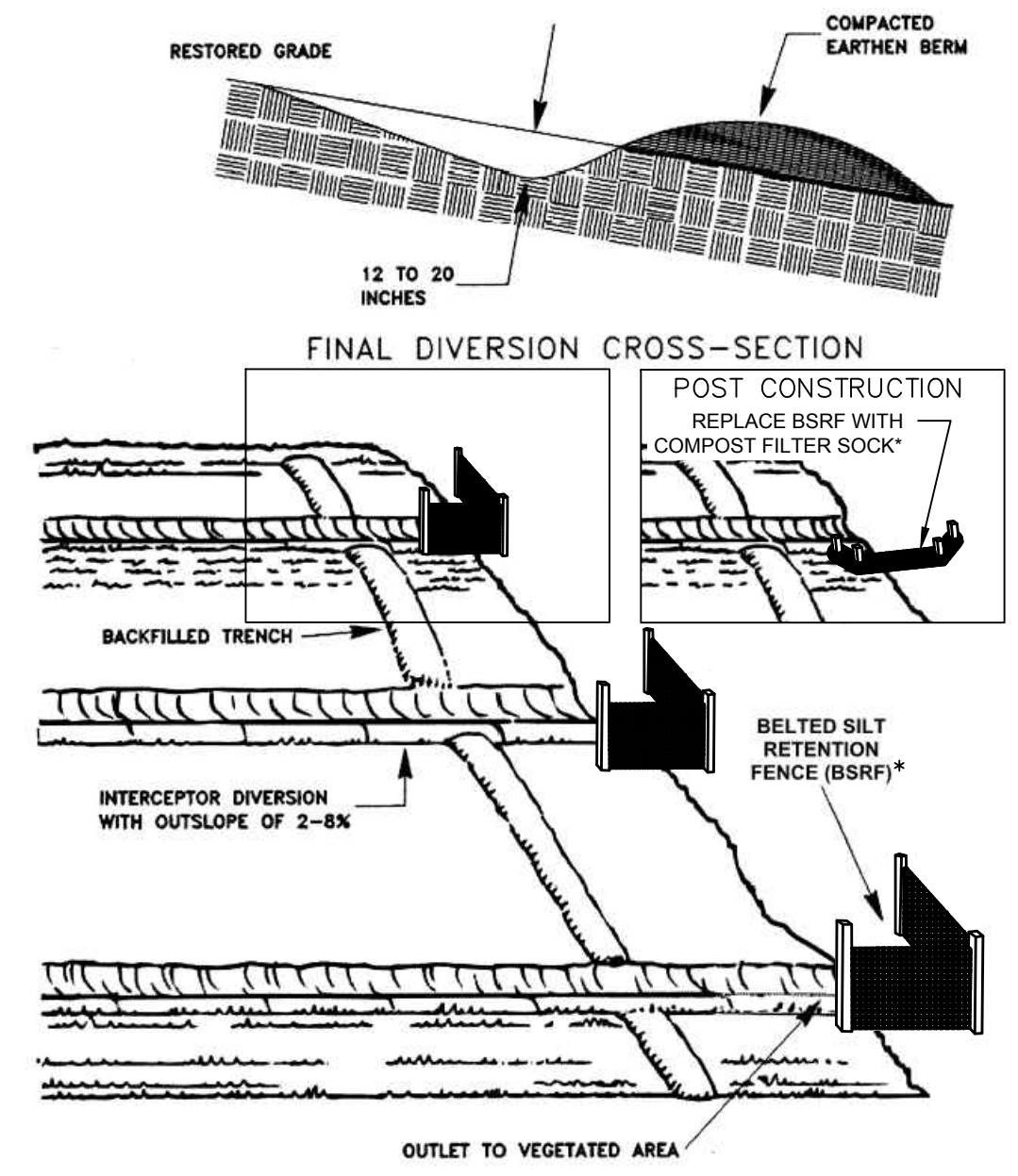
OUTLET PROTECTION SEMI-CONFINED
NOT TO SCALE

FIGURE 3.18.1



RIGHT-OF-WAY DIVERSIONS
NOT TO SCALE

RIGHT-OF-WAY DIVERSION



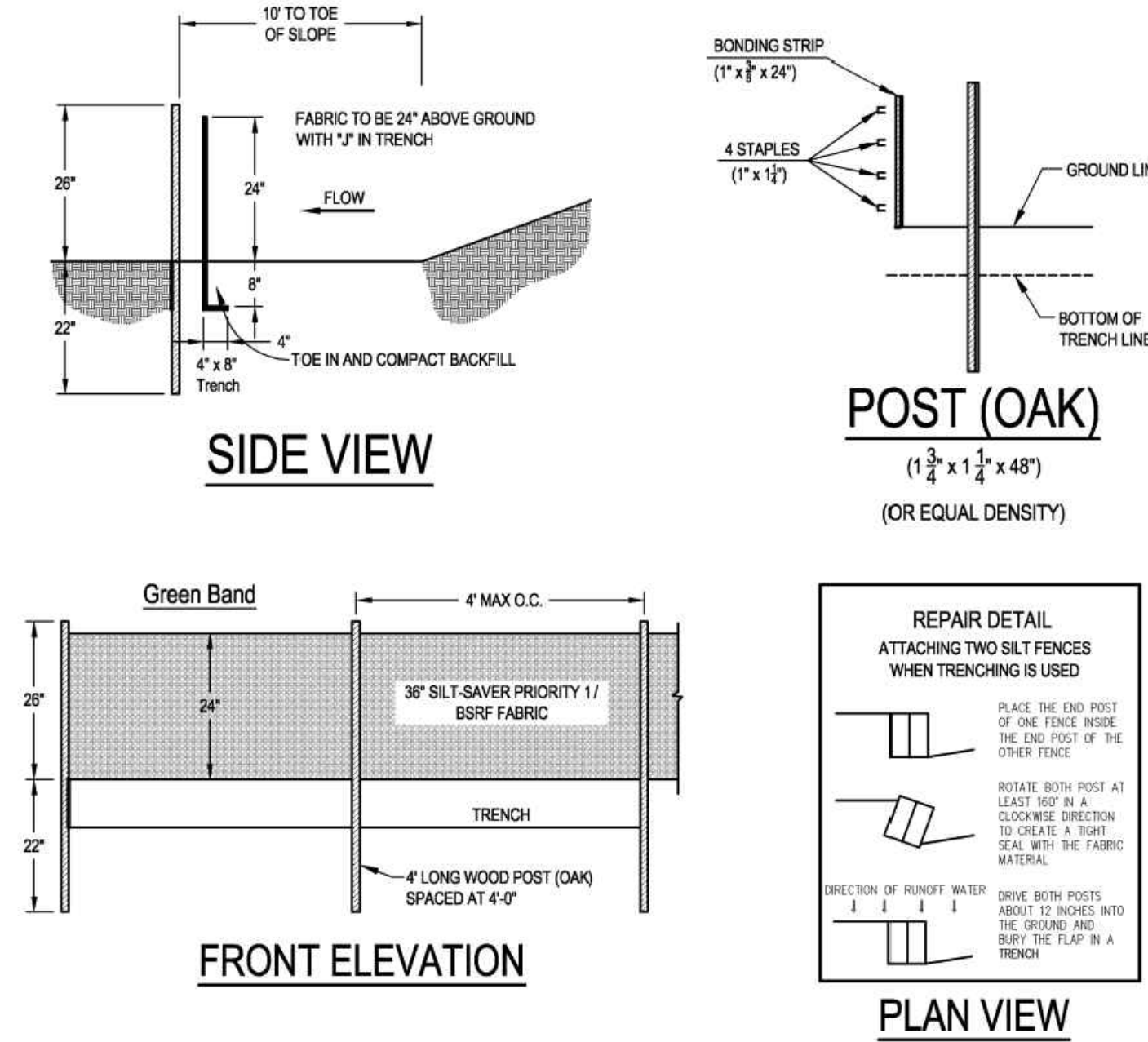
*CONTRACTOR MAY SUBSTITUTE STRAW WATTLES, COIR LOGS, MULCH SOCK OR SIMILAR BMP. FURTHER, SALVAGED OR IMPORTED ROCK MAY ALSO BE USED TO REDUCE VELOCITY AND DISTRIBUTE FLOW.

RIGHT-OF-WAY DIVERSION
NOT TO SCALE

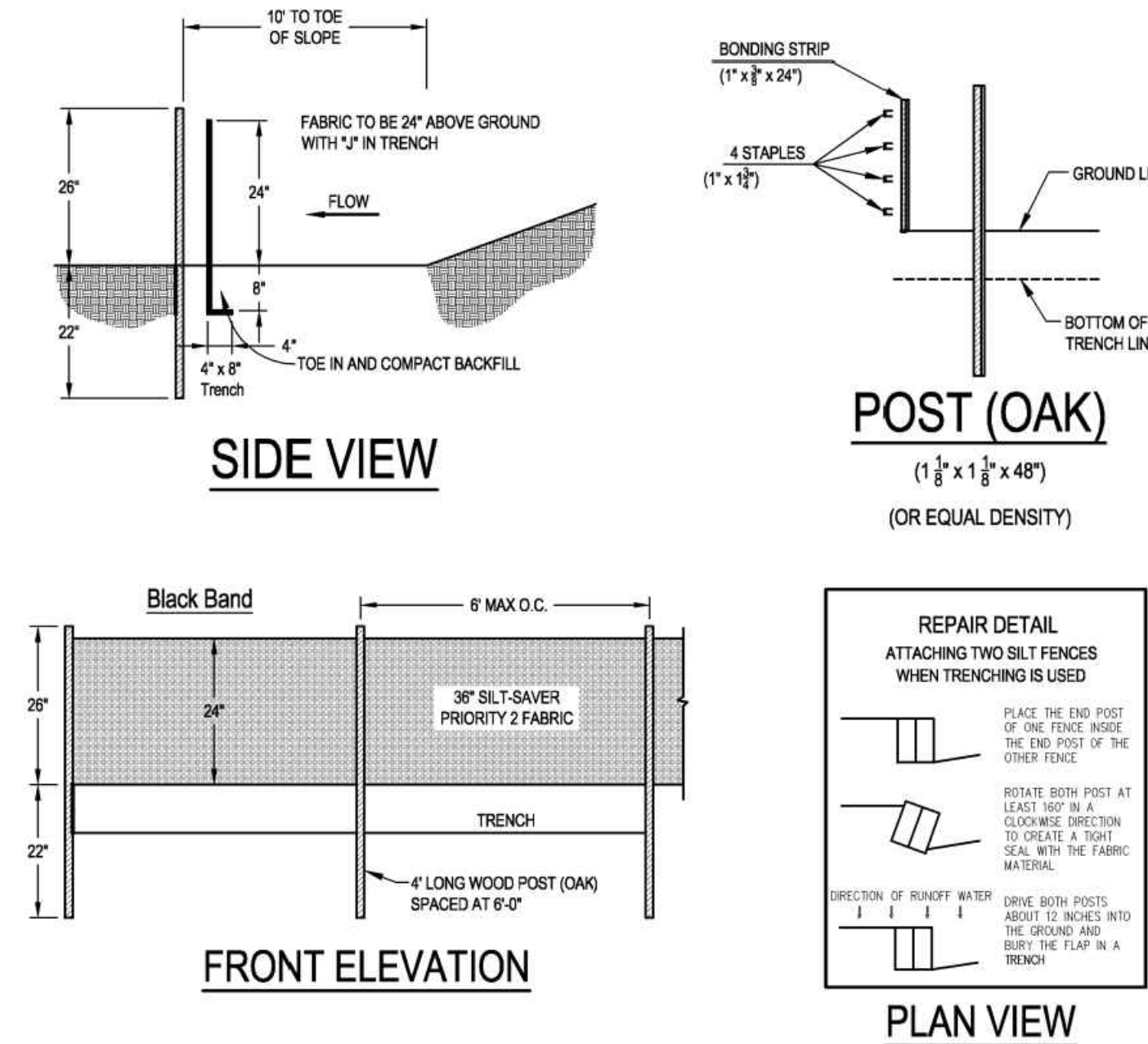


FIGURE 3.28.1

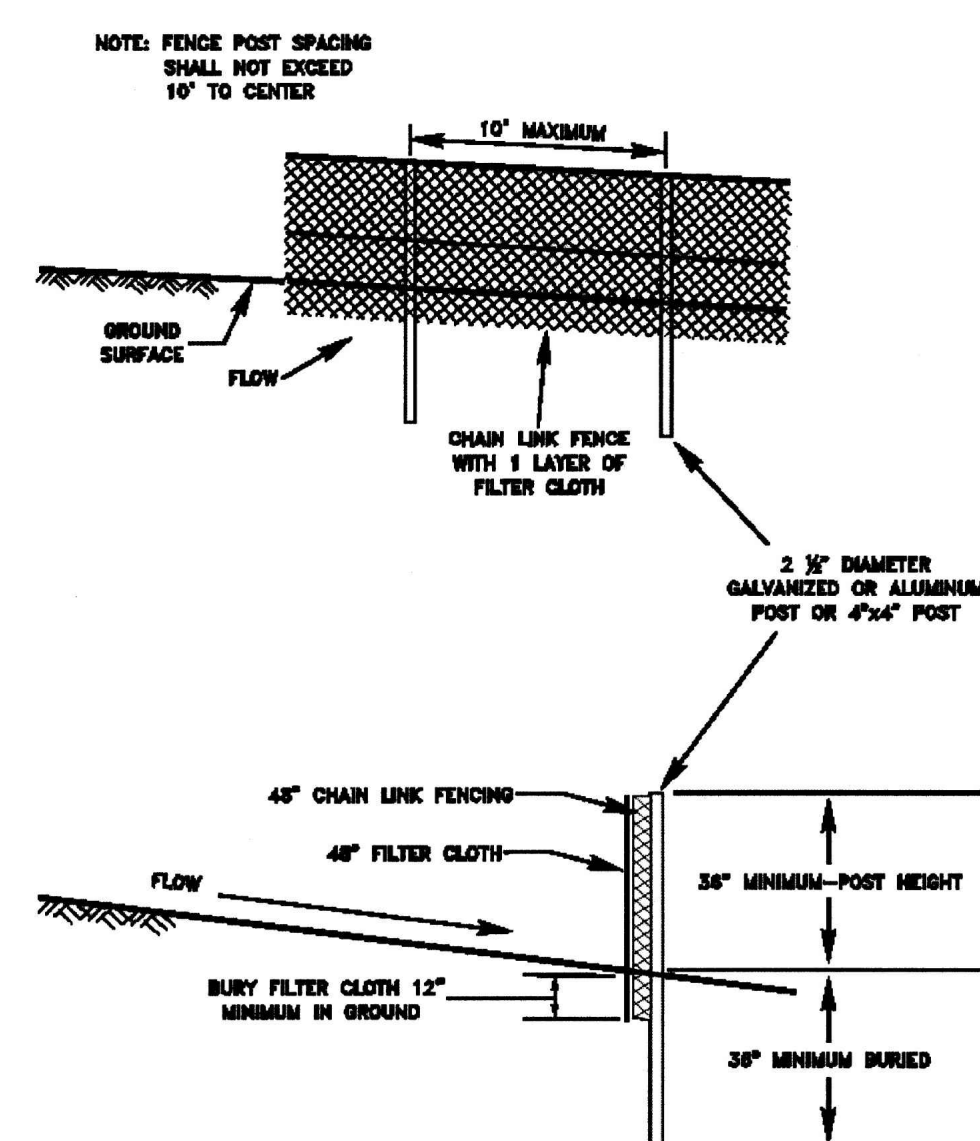
SUPER SILT FENCE



BELTED SILT RETENTION FENCE (BSRF)
PRIORITY 1 - GREEN BAND
NOT TO SCALE

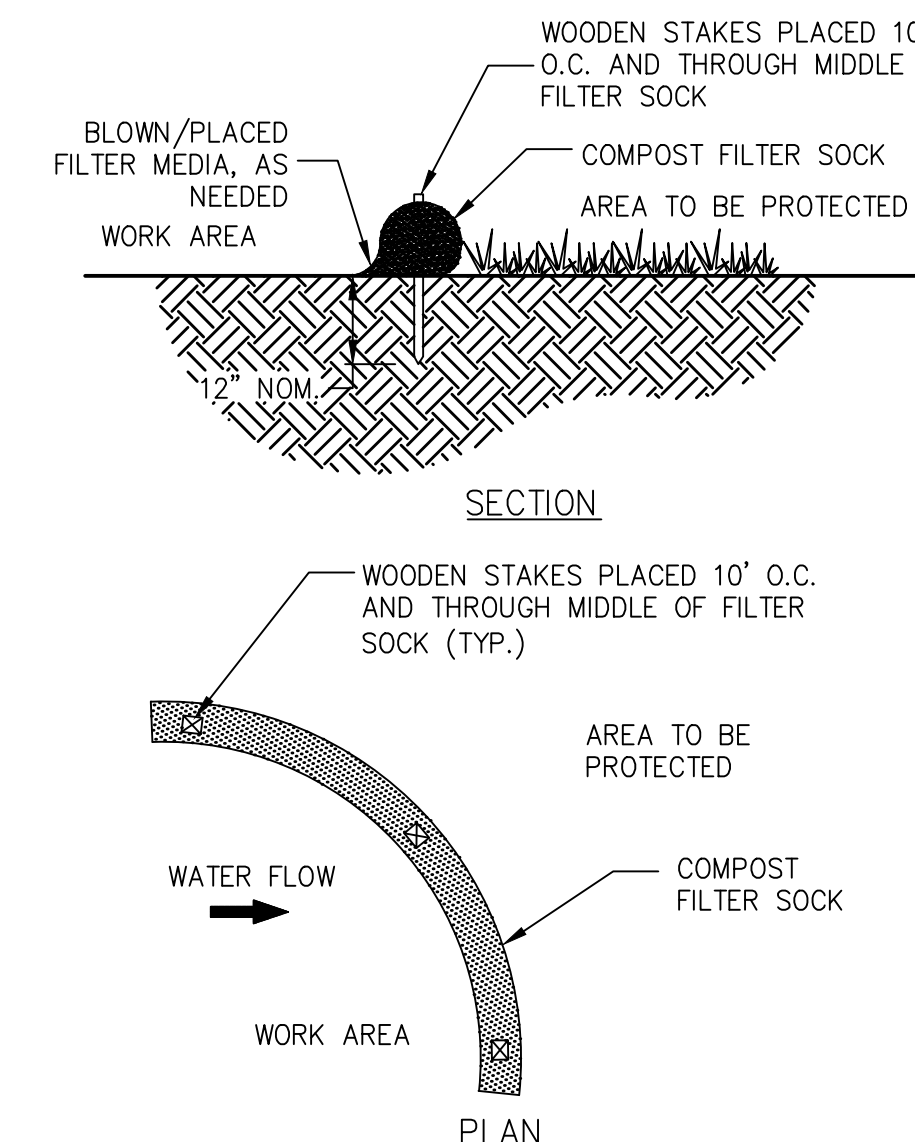


BELTED SILT RETENTION FENCE (BSRF)
PRIORITY 2 - BLACK BAND
NOT TO SCALE



NOTE: WHERE SUPER SILT FENCE IS SHOWN ON THE ALIGNMENT SHEETS AN ACCEPTABLE SUBSTITUTE SHALL BE A PYRAMID STACK OF THREE 18 INCH DIAMETER COMPOST FILTER SOCKS, SUBJECT TO THE APPROVAL OF THE E.I.

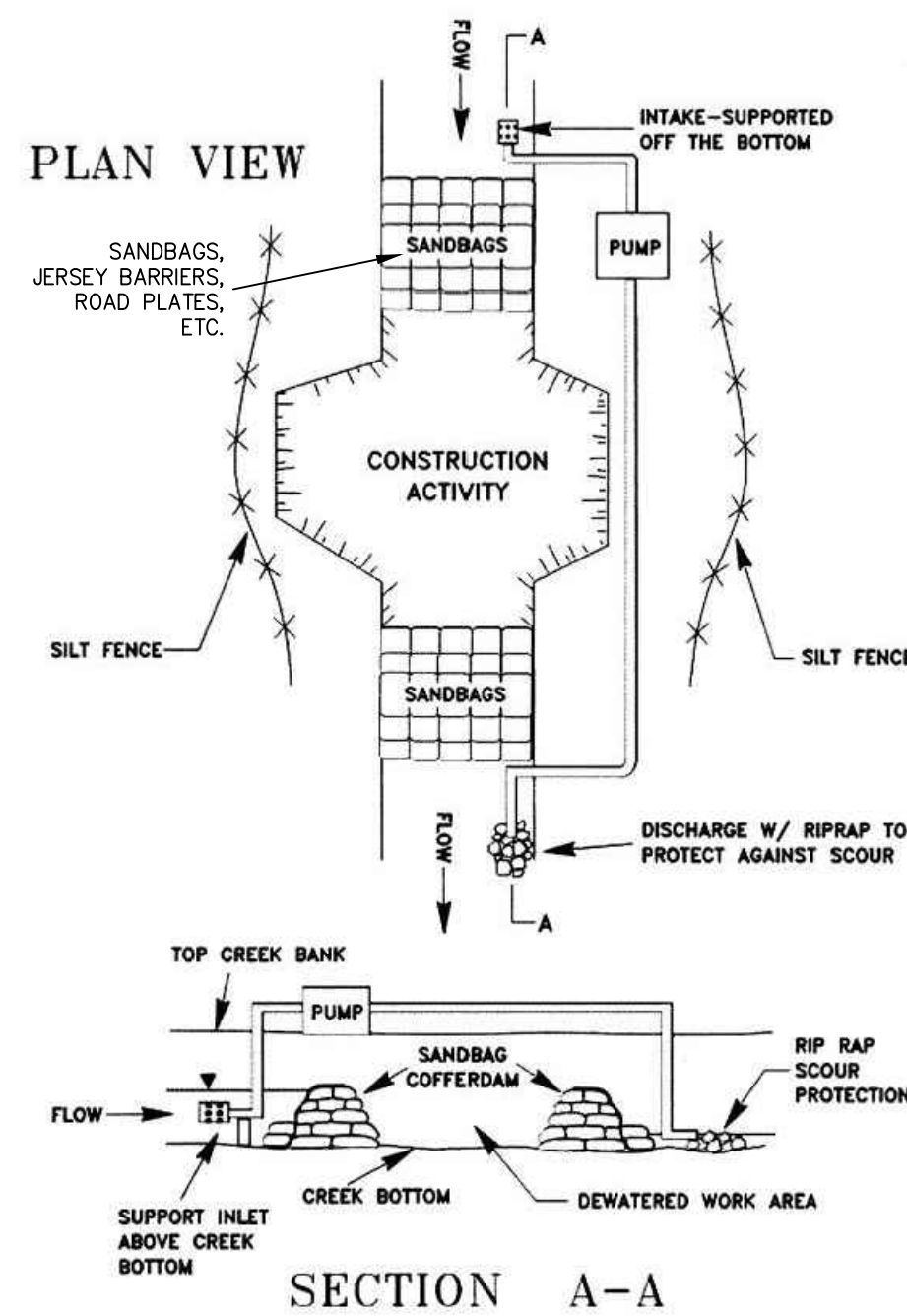
SUPER SILT FENCE
NOT TO SCALE



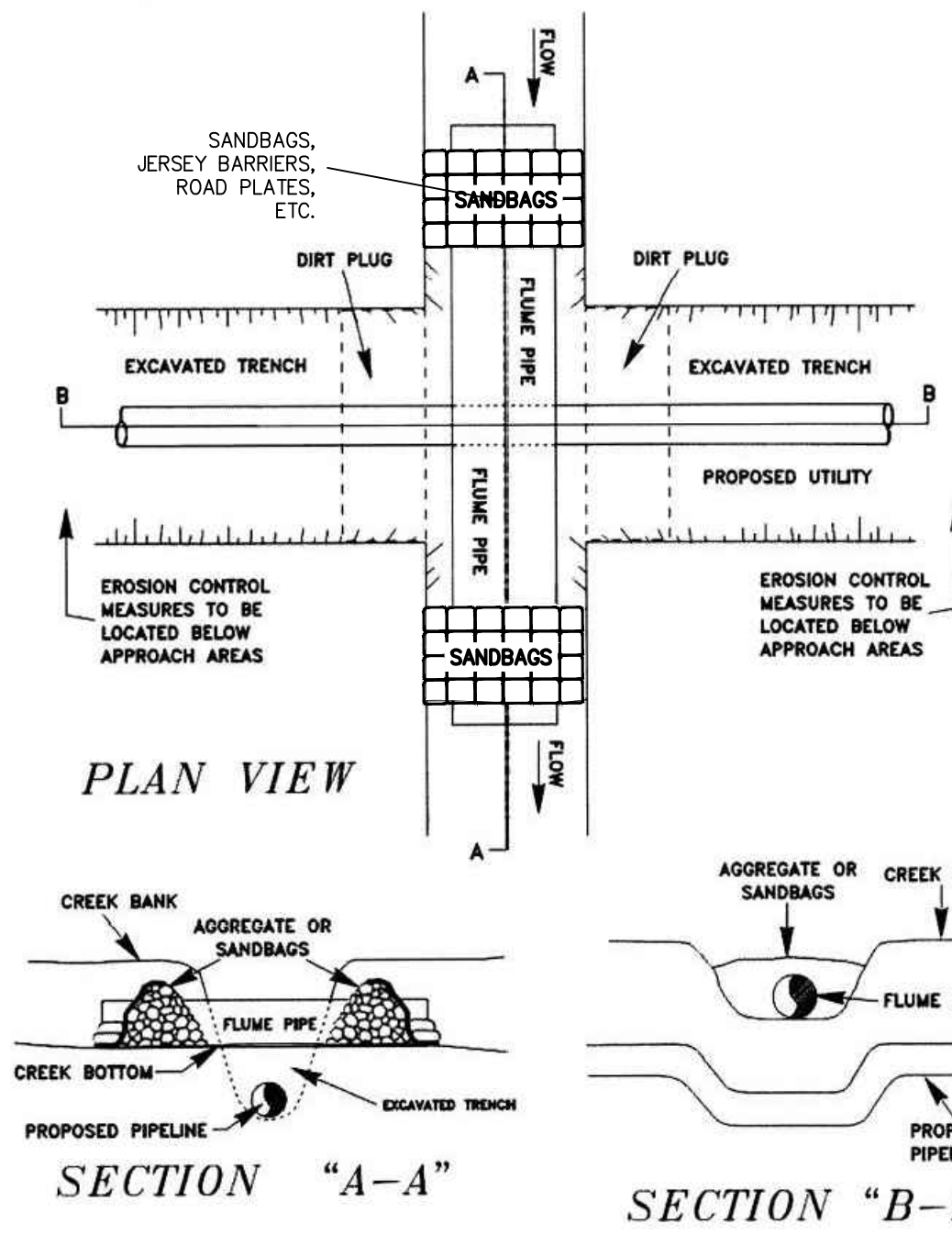
- NOTES:
1. FILTER SOCK TO BE FILTREXX SEDIMENT CONTROL SILT SOCK OR APPROVED EQUAL. FILTER MEDIA INSIDE AND, AS NECESSARY UP-SLOPE OF FILTER SOCK, TO BE FILTREXX FILTER MEDIA OR APPROVED EQUAL.
 2. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FILTER SOCK.

COMPOST FILTER SOCK
NOT TO SCALE

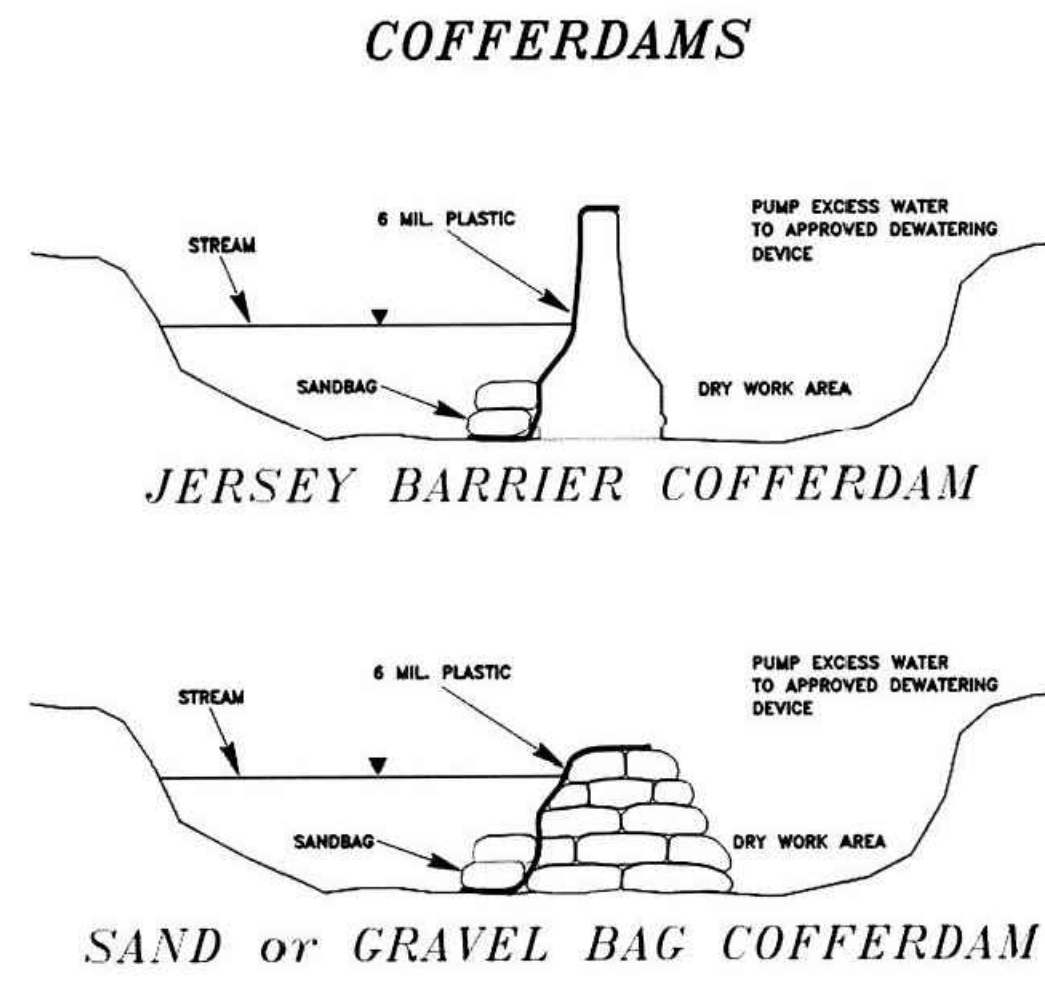
GENERAL NOTES AND COMMENTS:	SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.			Atlantic Coast Pipeline, LLC 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000					
									DRAWN: JEY 03/03/2017 CHECKED: JH 03/03/2017 APP. FOR BID: APP. FOR CONST.: SCALE: AS NOTED	TITLE: ATLANTIC COAST PIPELINE EROSION AND SEDIMENT CONTROL DETAILS DISTRICT: COUNTY: STATE: WV GROUP: DWG. NO. 3 OF 5 REV. 0				
							03/03/2017	JEY	ISSUED FOR PERMITTING					



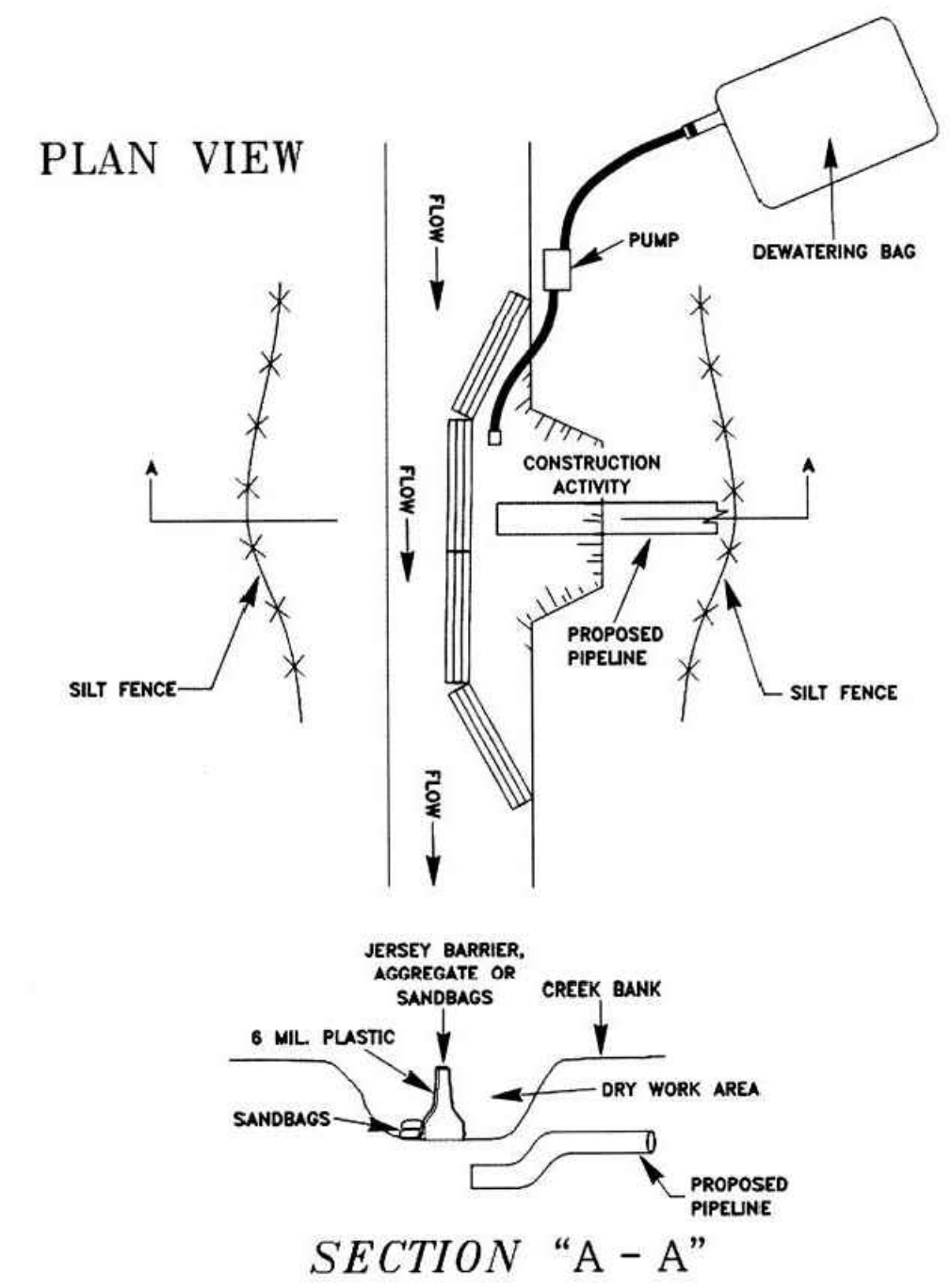
PUMP AROUND
NOT TO SCALE



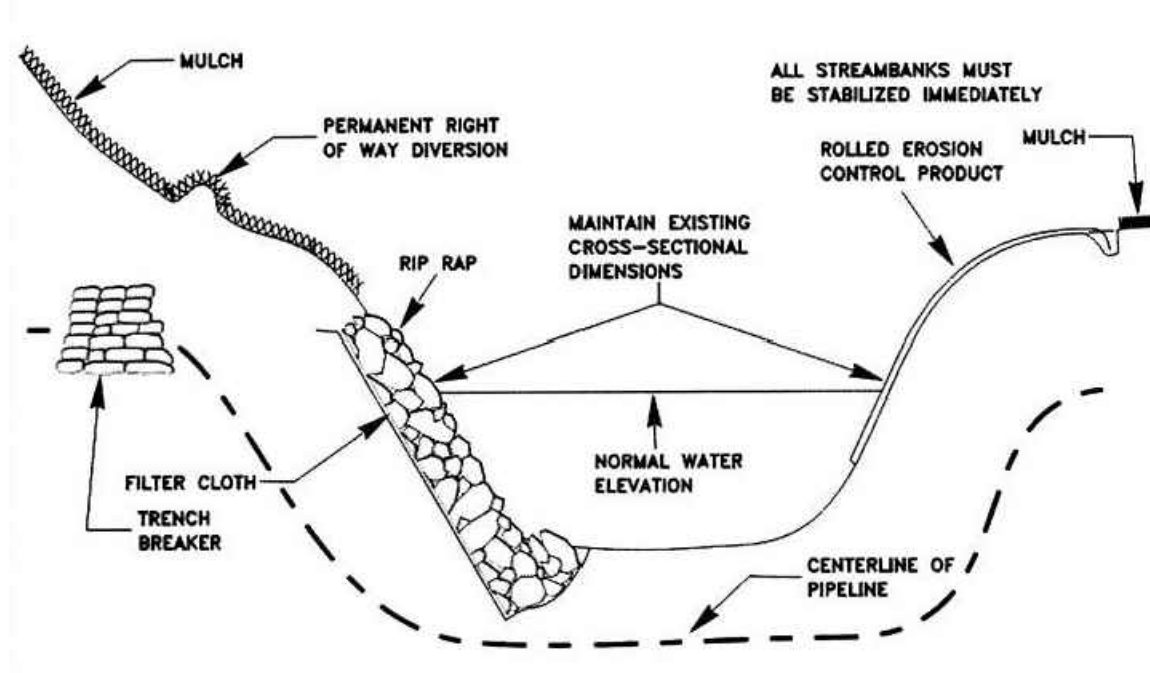
FLUME PIPE CROSSING
NOT TO SCALE



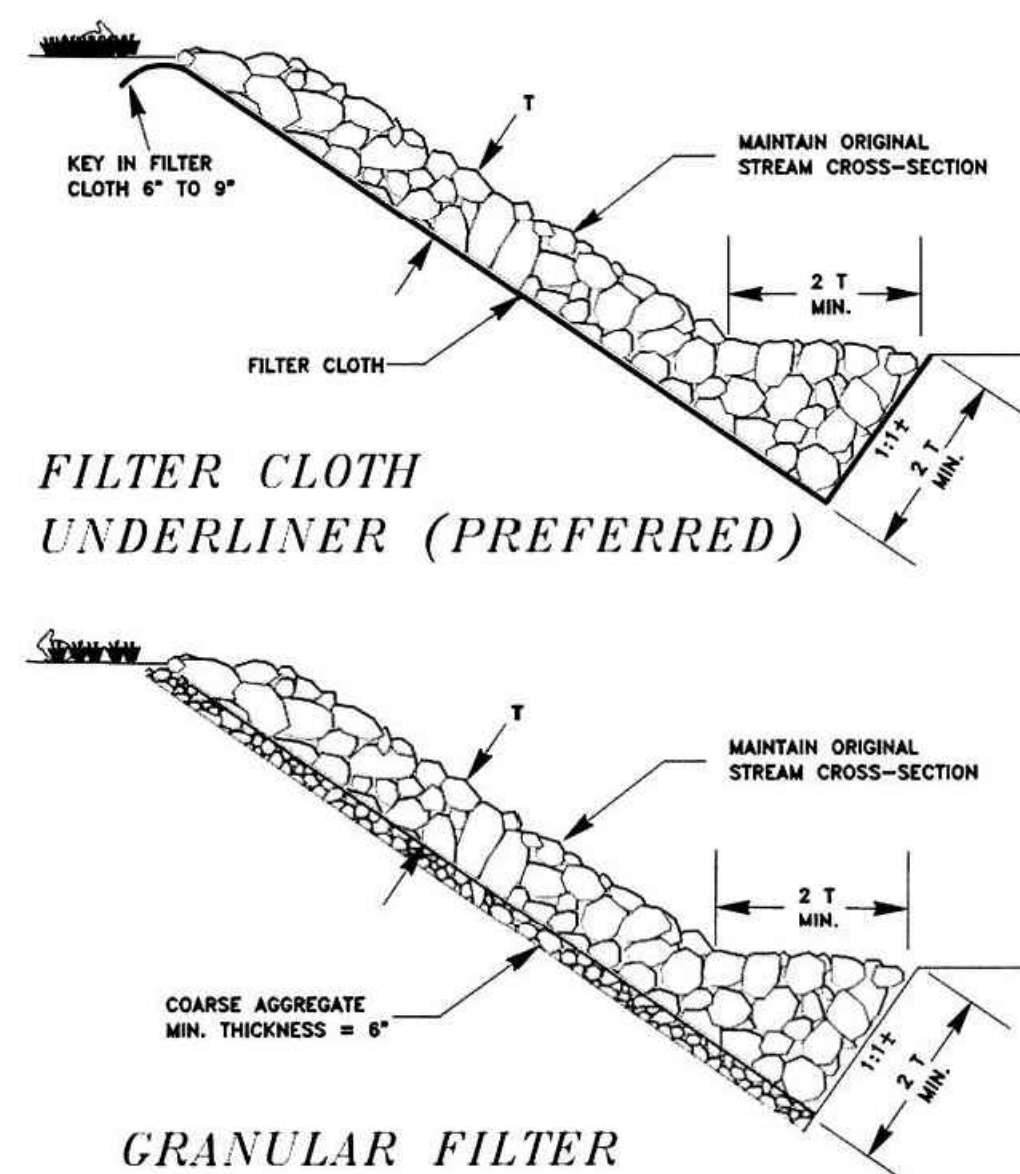
COFFERDAMS
NOT TO SCALE



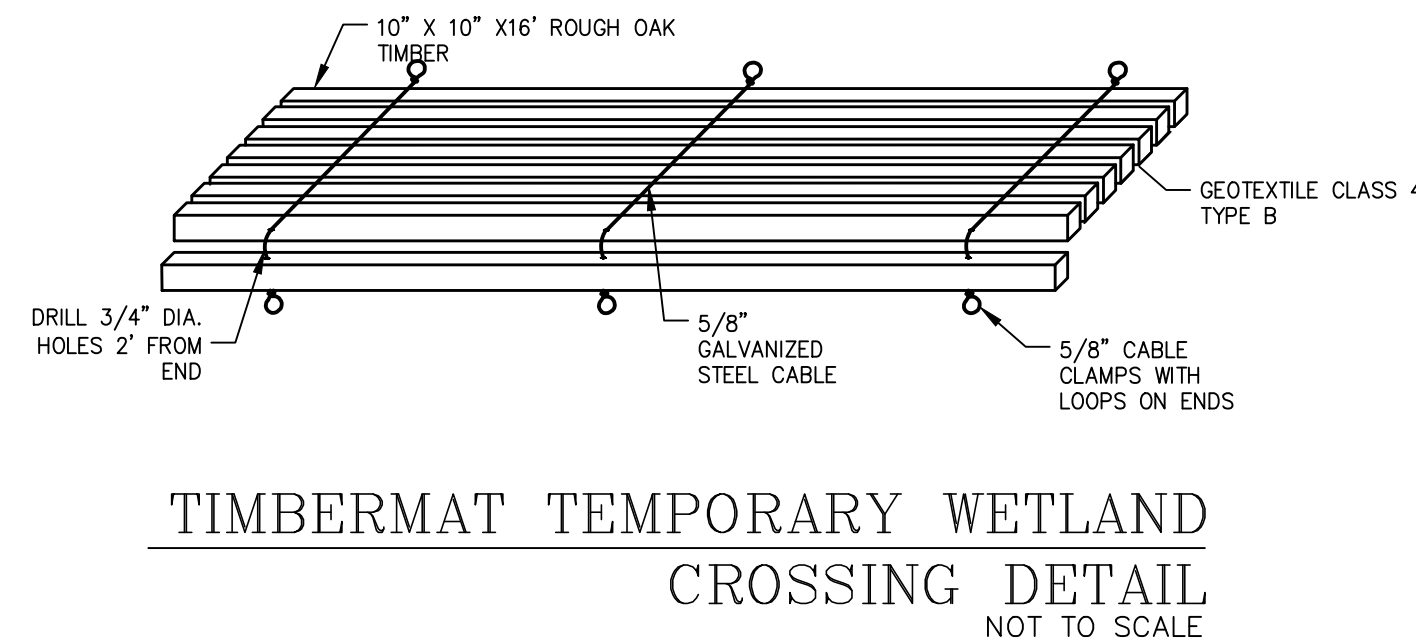
COFFERDAM CROSSING
NOT TO SCALE



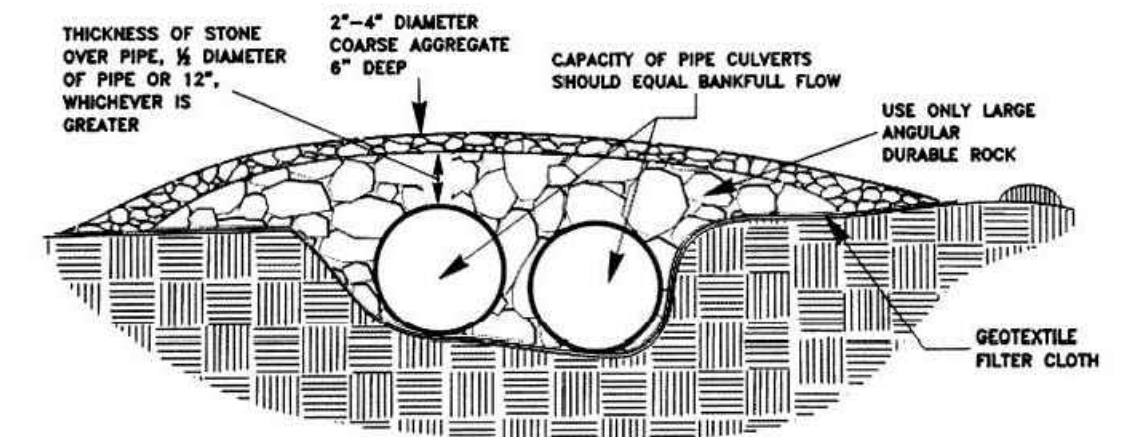
STREAM BANK STABILIZATION
NOT TO SCALE



STREAM BANK STABILIZATION
NOT TO SCALE



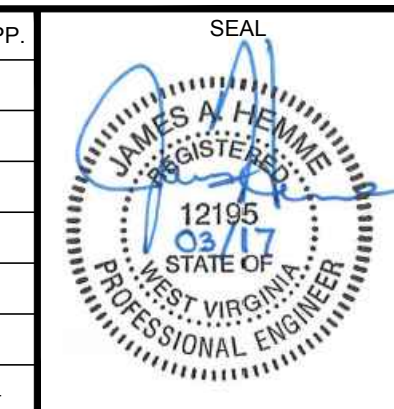
TEMPORARY BRIDGE CROSSING
NOT TO SCALE



CULVERT STREAM CROSSING
NOT TO SCALE

GENERAL NOTES AND COMMENTS:

SYM.	DATE	BY	REVISION INFORMATION	PROJECT/TASK	APP.
	03/03/17	JEY	ISSUED FOR PERMITTING		



Environmental Resources Management (ERM)
 DRAWN: JEY 03/03/2017
 CHECKED: JH 03/03/2017
 APP. FOR BID:
 APP. FOR CONST.:
 SCALE: AS NOTED

Atlantic Coast Pipeline, LLC
 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000

TITLE: **ATLANTIC COAST PIPELINE EROSION AND SEDIMENT CONTROL DETAILS**

DISTRICT: COUNTY: STATE: WV GROUP: DWG. NO.: REV: 5 OF 5 0
 DIR/FILE: ACPWest Virginia/Details

