

TYPICAL EARTHEN STRUCTURE

Design Criteria: No formal design is required. The following criteria shall be met

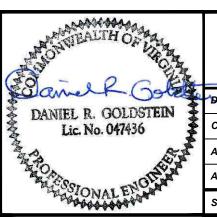
Height- The minimum allowable height of the diversion is 18 inches; Side Slopes-Side slopes should be 2:1 or flatter to allow the passage of construction traffic, along with a minimum base width of 6 feet; Width-The measure should be constructed completely across the disturbed portion of the right-of-way;

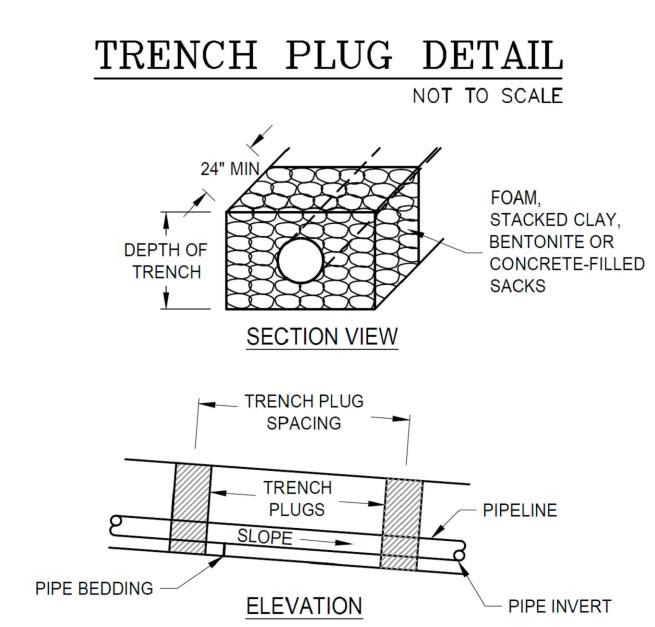
Spacing-Use the following to determine the spacing of right-of-way diversions within the VA Erosion Control Handbook; - less than 7% slope: 100 ft.

- between 7% and 25% slope: 75ft.
- between 25% and 40% slope: 50ft,
- Greater than 40%: 25 ft.

Grade- Positive drainage (with less than 2% slope) should be provided to a stabilized outlet, sediment-trapping facility, or a vegetative buffer strip of adequate size.

Outlet- Interceptor dikes must have an outlet which is not subject to erosion. The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet. Concentrated flows should spread over the widest possible area after release. Flows with high sediment concentrations should pass through an appropriate sediment-trapping measure.

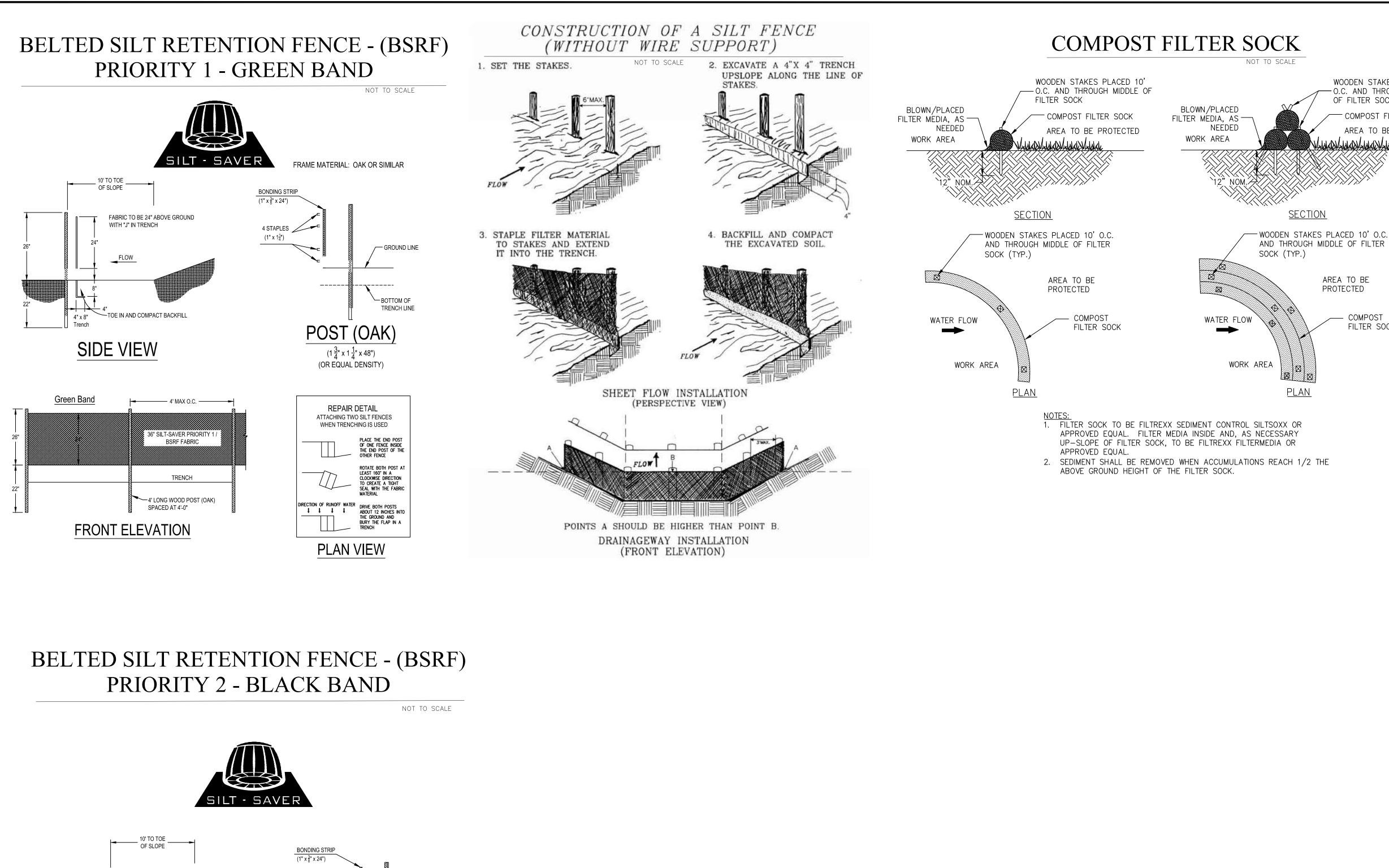


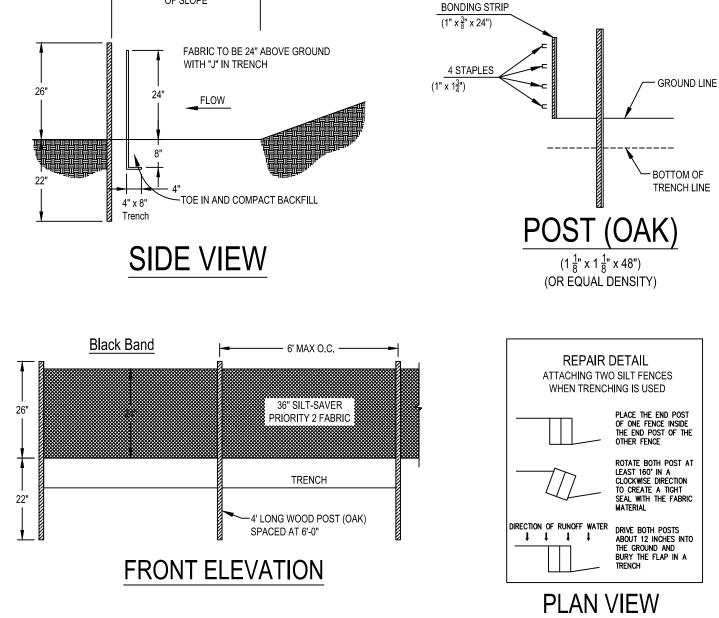


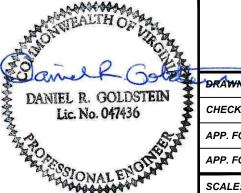
CONSTRUCTION NOTES:

- TRENCH PLUGS ARE REQUIRED AT ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS REGARDLESS OF TRENCH SLOPE.
- 2. TOPSOIL MAY NOT BE USED TO FILL SACKS.
- 3. TRENCH PLUG LOCATION AND SPACING SHALL BE IN ACCORDANCE WITH CONSTRUCTION ALIGNMENT SHEETS, OR AS OTHERWISE DIRECTED BY THE EL.

ERM	Environme Resources Manageme				Pipeline, LLC					
DRAWN:	EJB	05/22/2017		925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000						
CHECKED:	JEY	05/22/2017								
APP. FOR BID:			EROSIO	N AND SEDIM	ENT CO	ONTRO)L DETAILS	;		
APP. FOR CONST.:			DISTRICT: -	COUNTY: -	STATE: VA	GROUP	DWG. NO.	REV.		
SCALE:	AS NOTED		DIR/FILE:	ACP\Virginia\Details		-	1 OF 7	0		







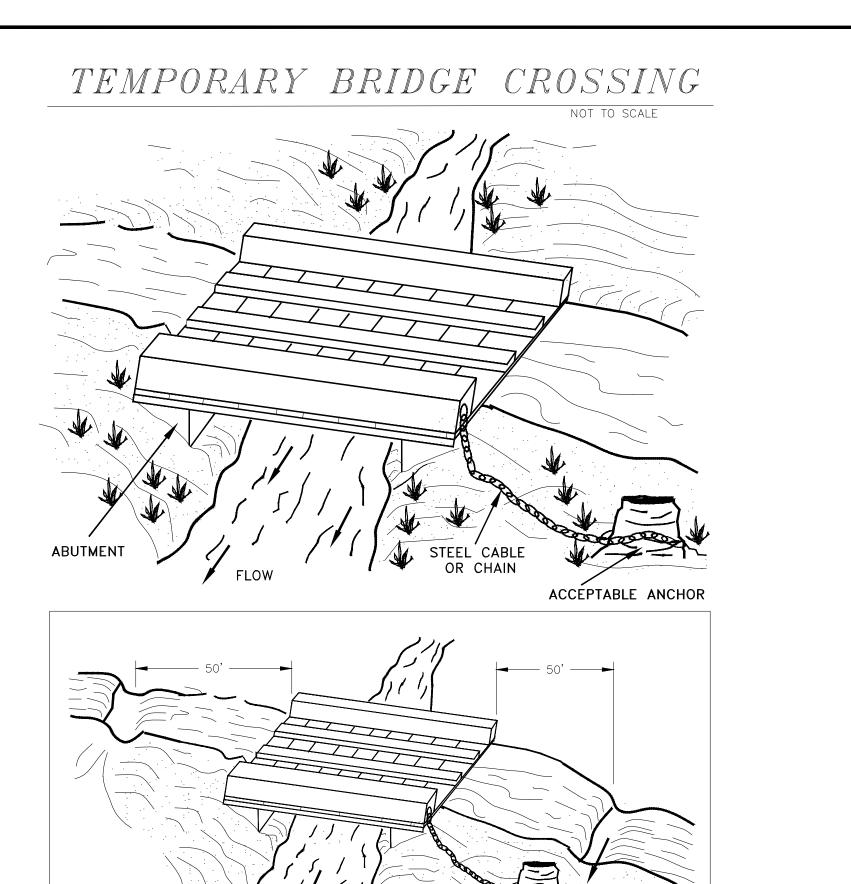
WOODEN STAKES PLACED 10' - O.C. AND THROUGH MIDDLE OF FILTER SOCK - COMPOST FILTER SOCK AREA TO BE PROTECTED

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AREA TO BE PROTECTED

- COMPOST FILTER SOCK

Environmental Resources ERM Management		Atlantic Coast Pipeline, LLC 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000										
WN:	EJB	05/22/2017										
CKED:	JEY	05/22/2017	TITLE:	TITLE: ATLANTIC COAST P								
FOR BID:			E	ROSIO	N AND	SEDIM	ENT CO	ONTRO)L DETAILS	;		
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SURFACE FLOW DIVERTED

BY SWALE AND/OR DIKE

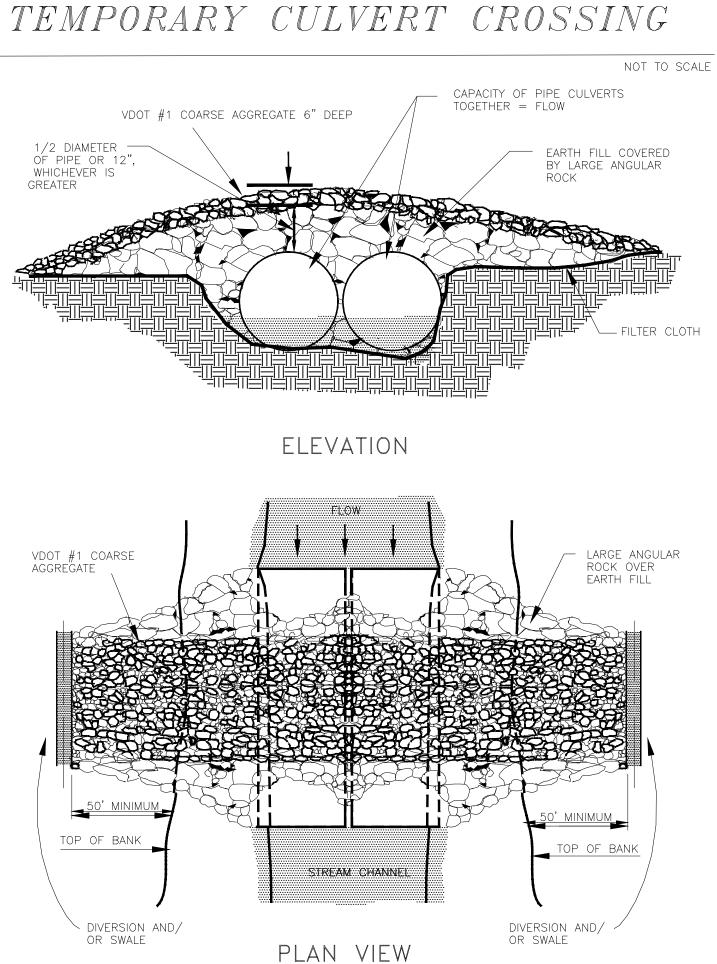
VDOT #1 COARSE AGGREGATE

50' MINIMUM TOP OF BANK

PIPE DIAMETER (IN	TABLE 3.2 (CHES) FO		I CROSSIN	GS ^a
	Av	erage Slope	e of Watersh	ned
Drainage Area (Acres)	1%	4%	8%	16%
1 - 25	24	24	30	30
			6	
26 - 50	24	30	36	36
51 - 100	30	36	42	48
101 - 150	30	42	48	48
151 - 200	36	42	48	54
301 - 350	42	48	60	60
351 - 400	42	54	60	60
451 - 500	42	54	60	72
501 - 550	48	60	60	72
551 - 600	48	60	60	72
601 - 640	48	60	72	72

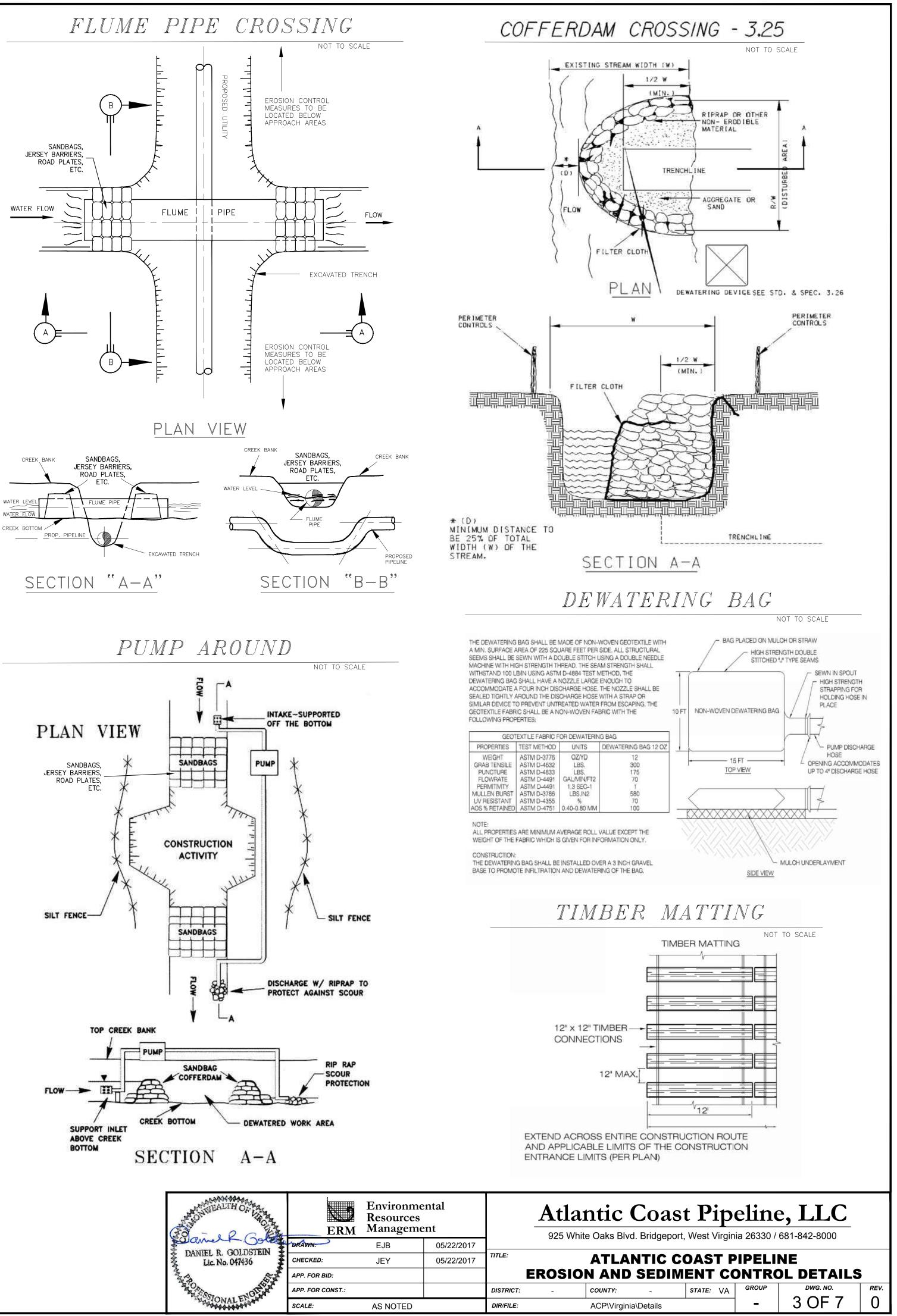
Source: Va. DSWC

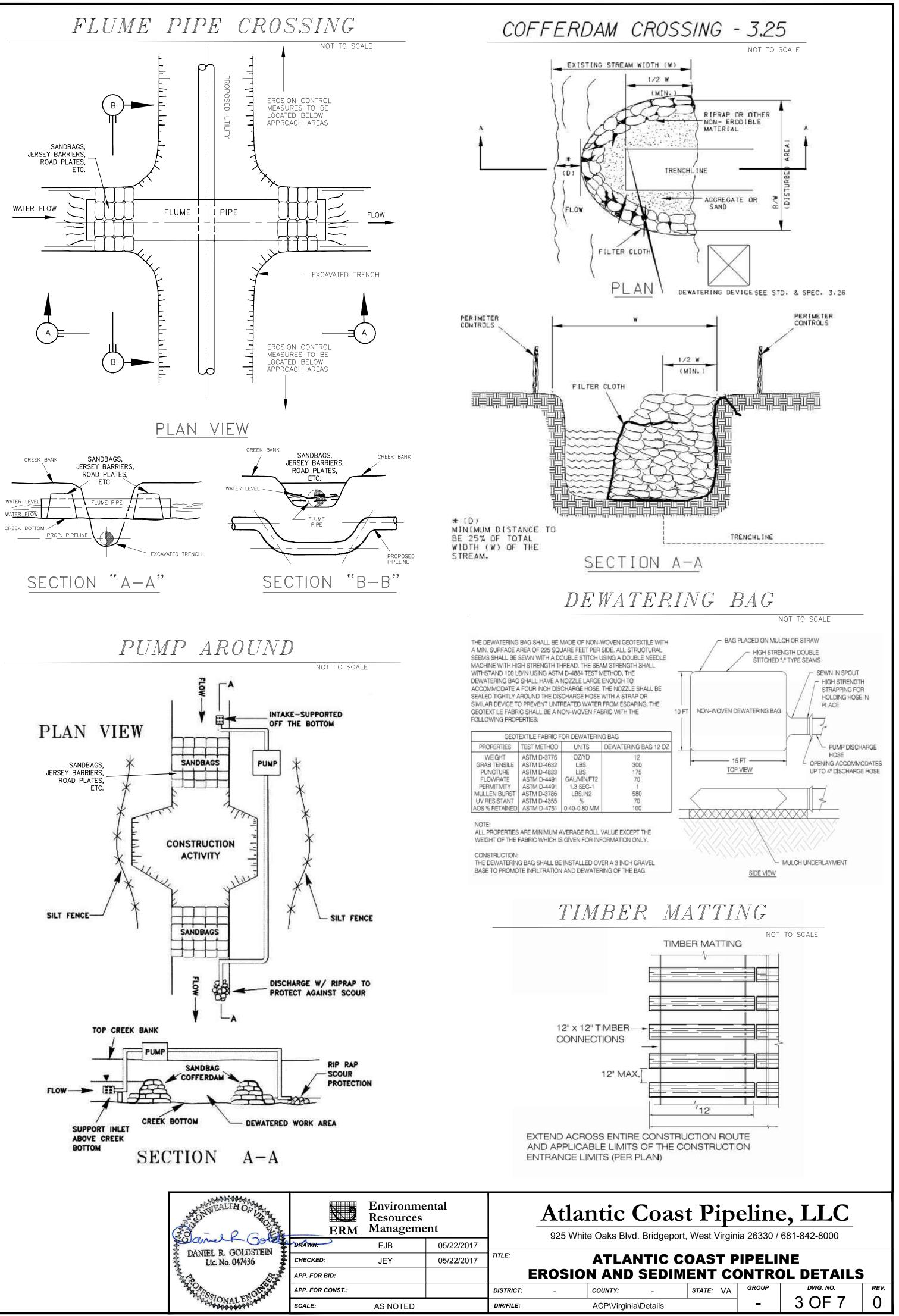
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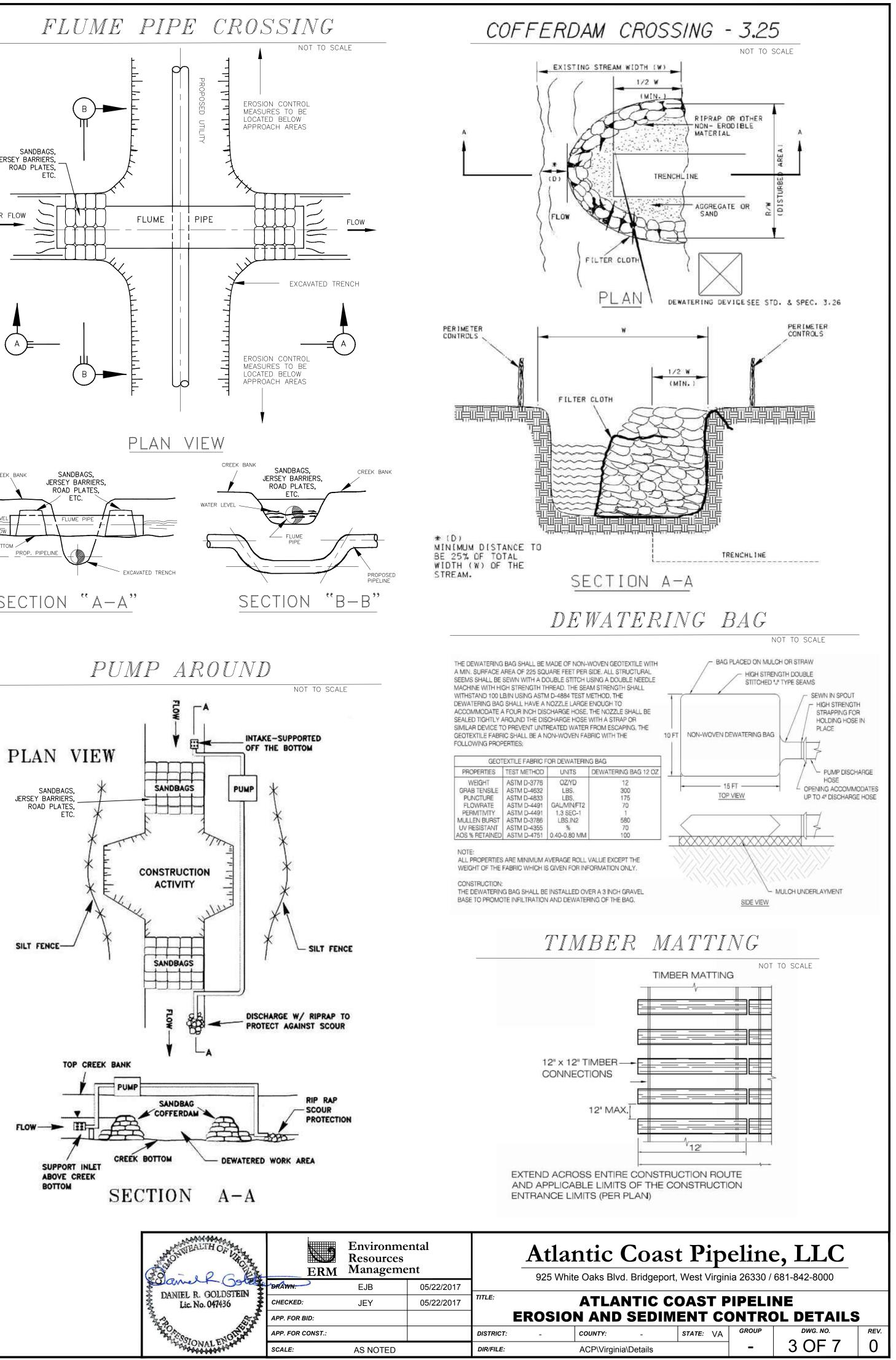


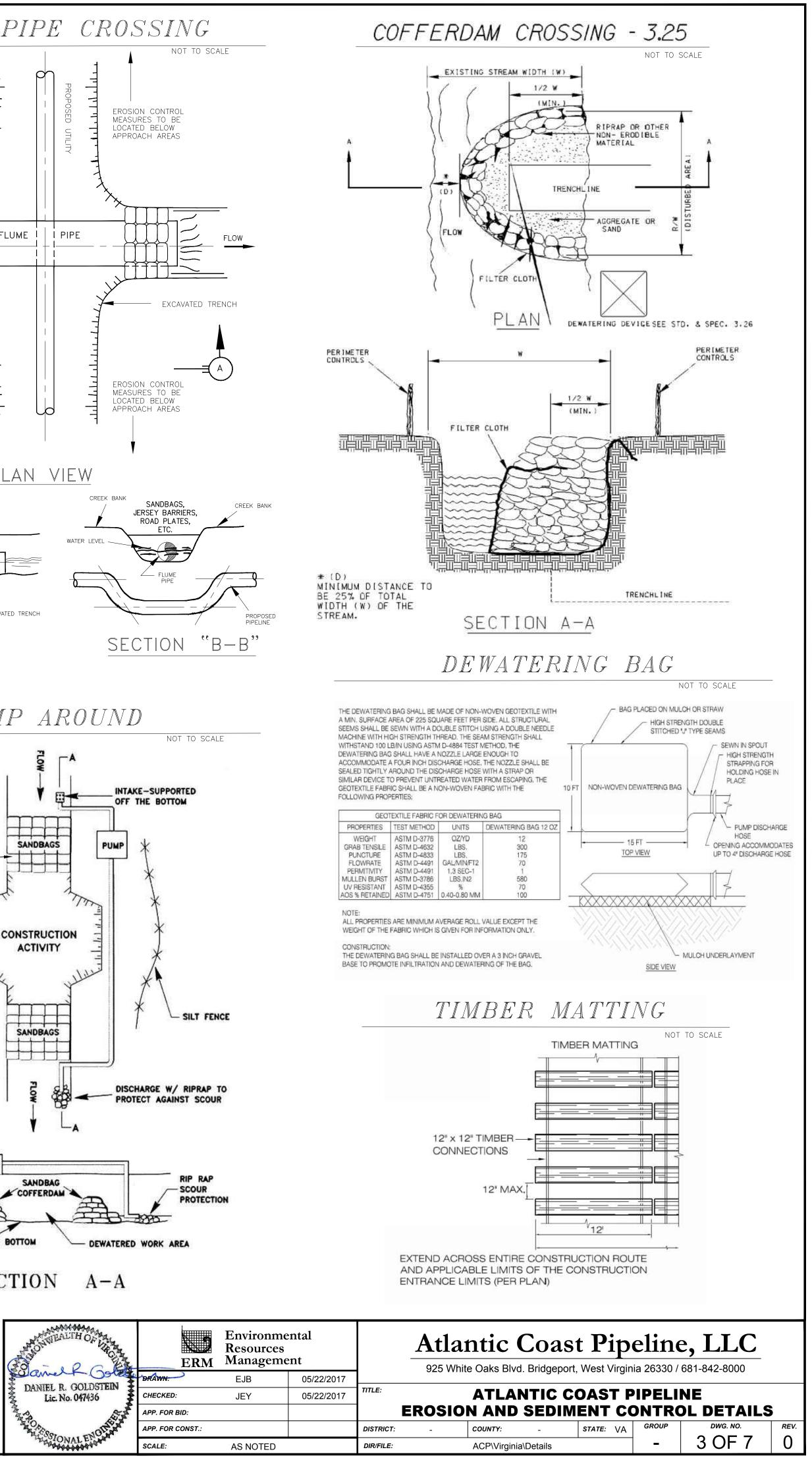
^a Note: Table is based on USDA-SCS Graphical Peak Discharge Method for 2-year frequency storm event, CN = 65; Rainfall depth = 3.5 inches (average for Virginia).

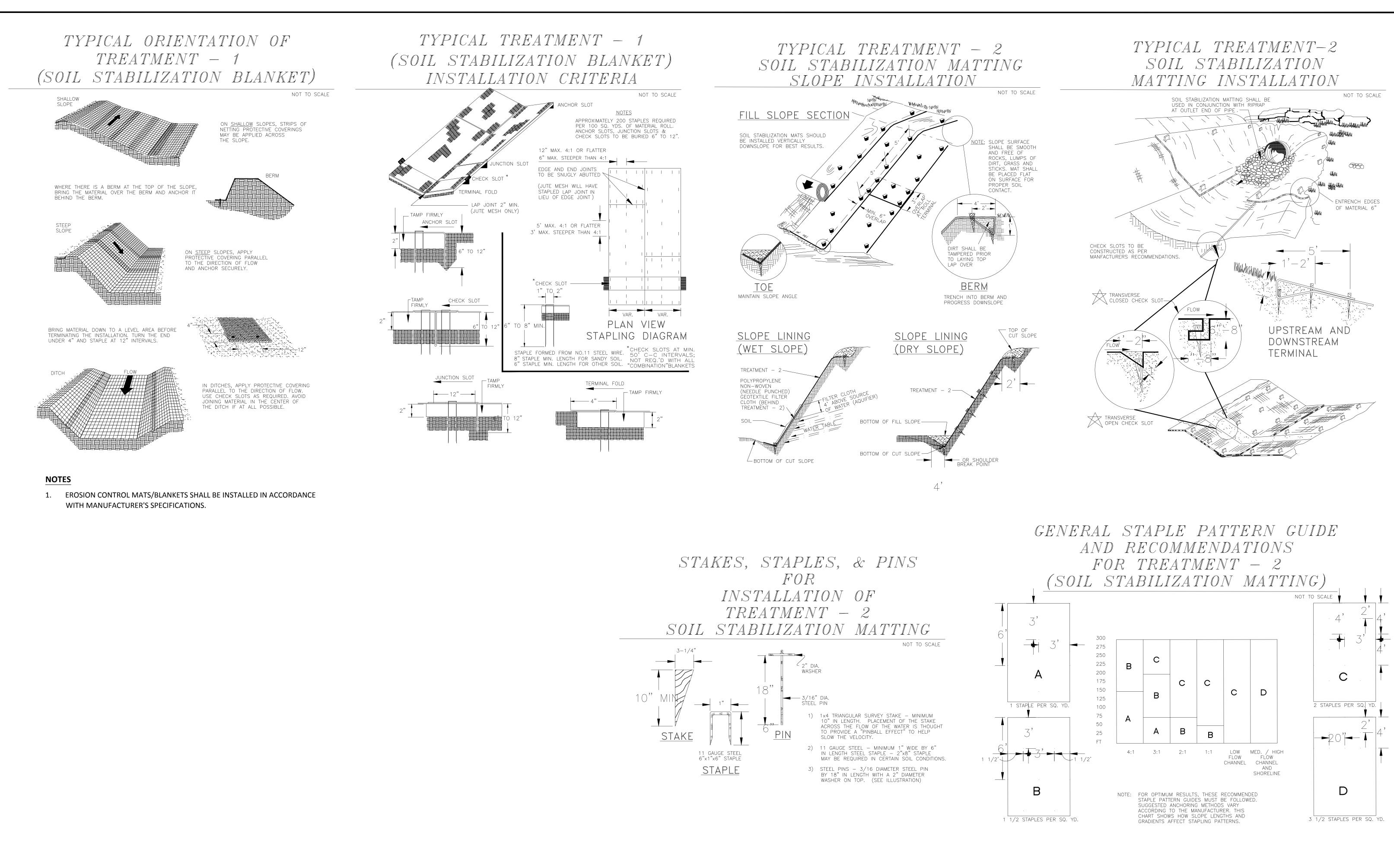
1. IF APPLICATION OF SIZING CRITERIA DEPICTED HEREIN RESULTS IN A CULVERT THAT IS LARGER THAN THE CROSS-SECTION OF THE WATERBODY, THE SELECTED CULVERT SIZE WILL BE BASED ON THAT WHICH CAN BE ACCOMMODATED WITHOUT MODIFICATION OF THE STREAM GEOMETRY.

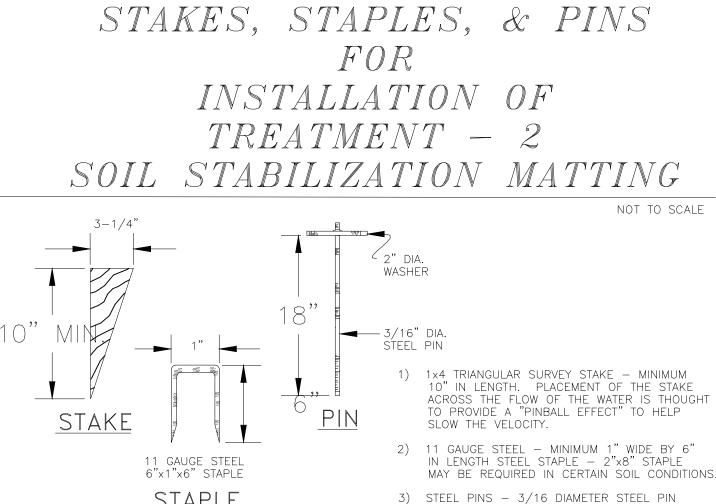






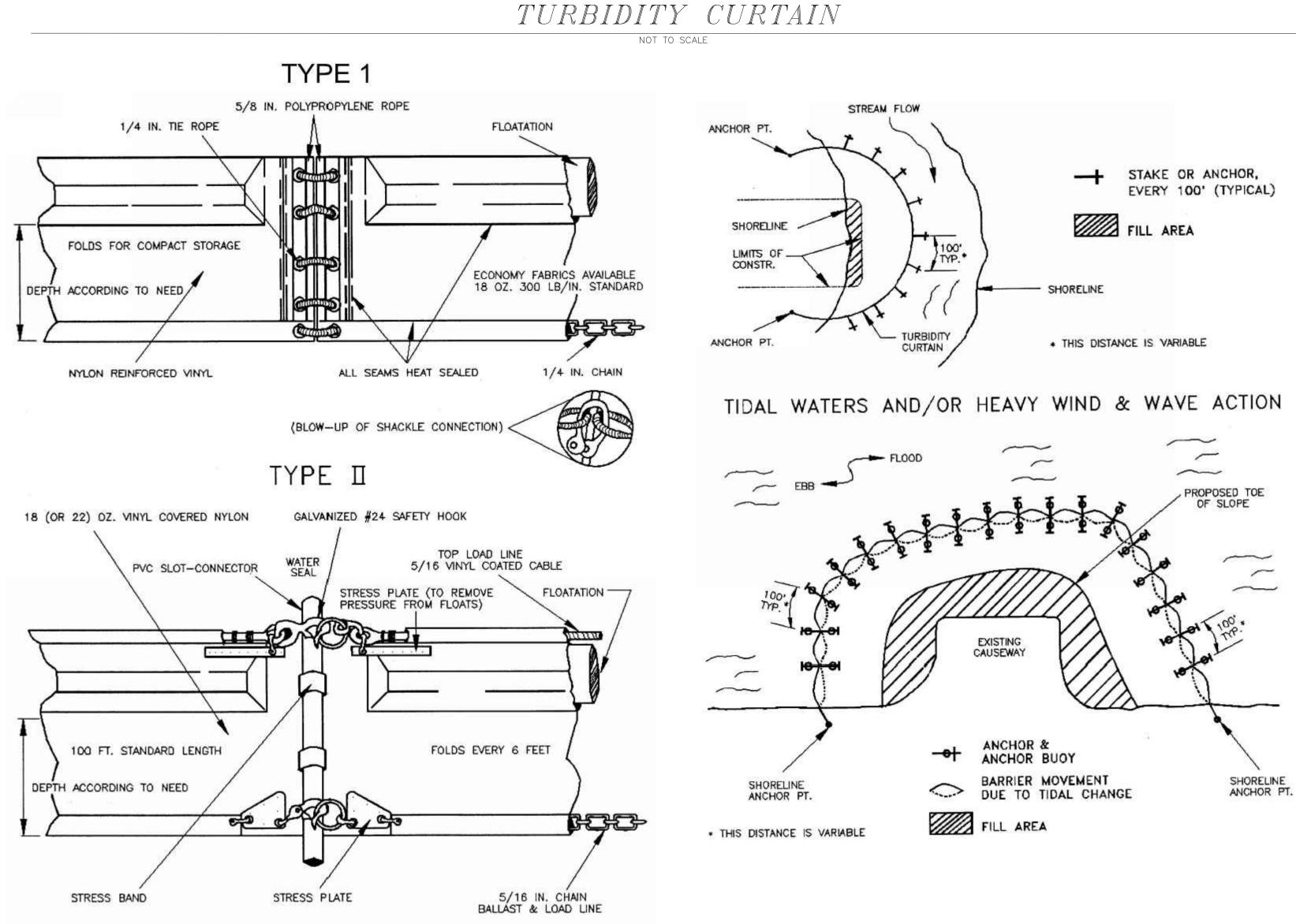








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FOR CONST.:			DISTRICT:	-	COUNTY:	-	STATE: VA	GROUP	DWG. NO.	REV.
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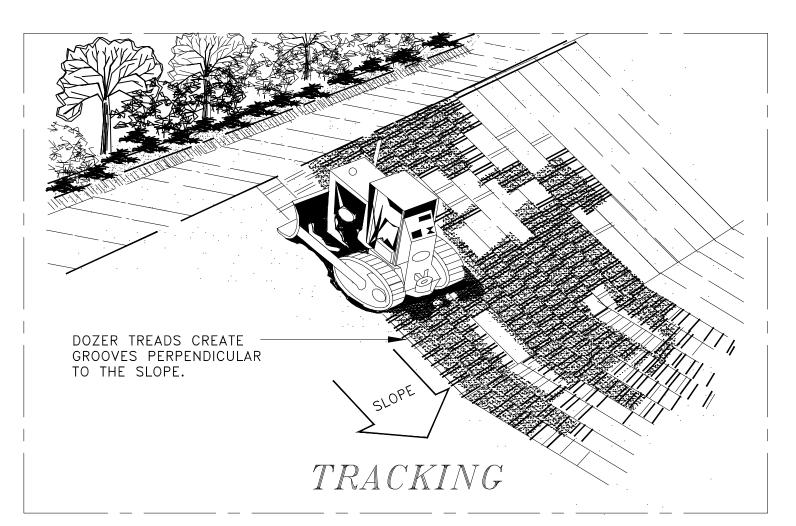


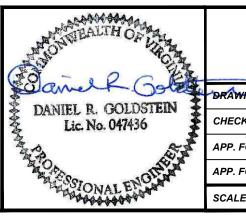


Notes Notes
All slopes steeper than 3:1 require surface roughening, either stair-step grading, grooving, furrowing, or tracking if they are to be stabilized with vegetation;
Areas with grades less steep than 3:1 should have the soil surface lightly roughened and loose to a depth of 2 to 4 inches prior to seeding;
Areas which have been graded and will not be stabilized immediately may be roughened to reduce runoff velocity until seeding takes place;
Slopes with a stable rock face do not require roughening or stabilization.
Individual vertical cuts shall not be more than 30 inches on soft soil materials and not more than 40 inches in rocky materials. not more than 40 inches in rocky materials. 6. Grooves shall not be less than 3 inches deep nor further than 15 inches apart.

EACH LIFT OF THE FILL IS COMPACTED, BUT THE OUTER FACE OF THE SLOPE IS ALLOWED TO REMAIN LOOSE SO THAT THE ROCKS, CLODS, ETC. REACH THE NATURAL ANGLE OF REPOSE.

FILL SLOPE TREATMENT



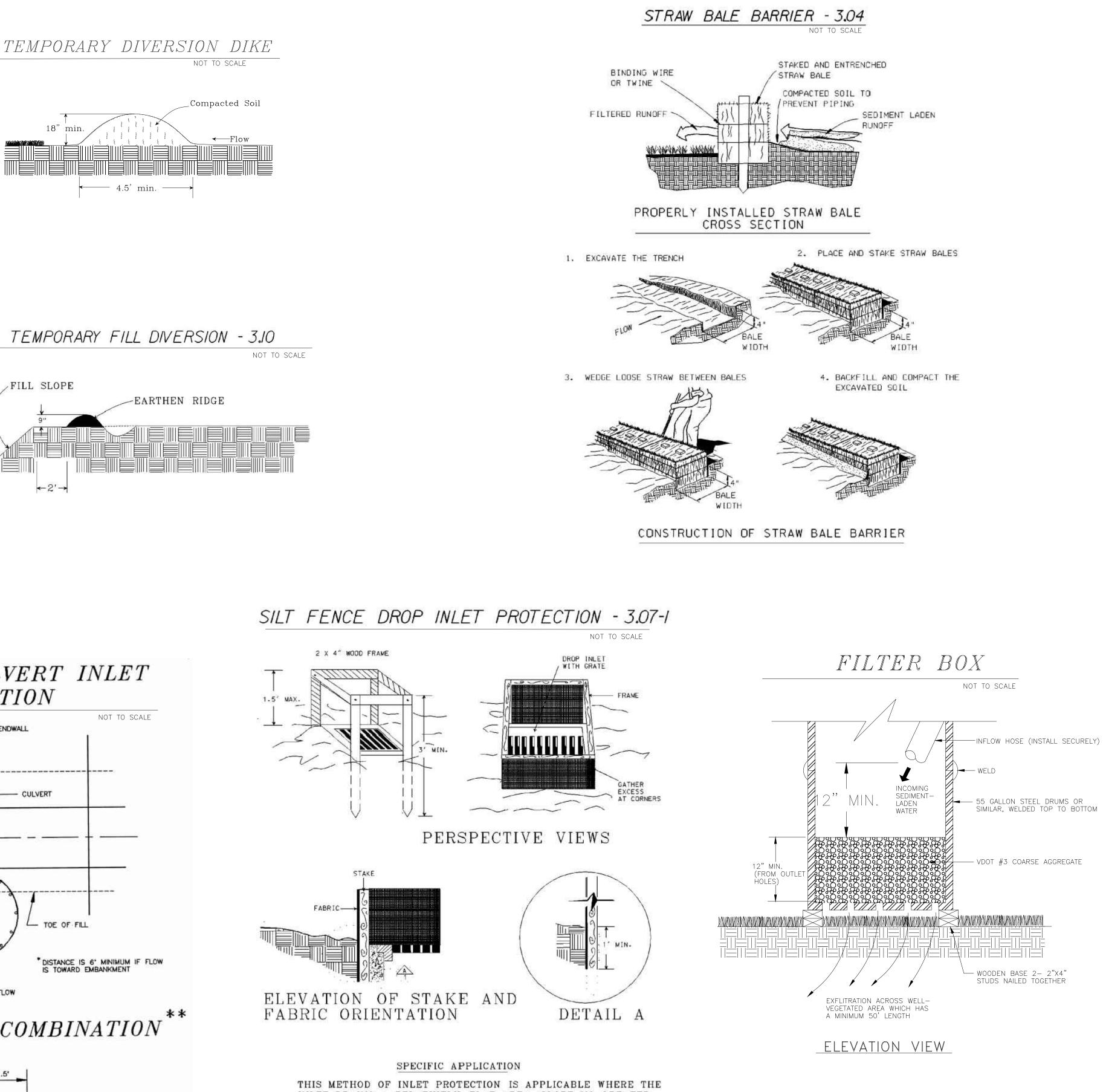


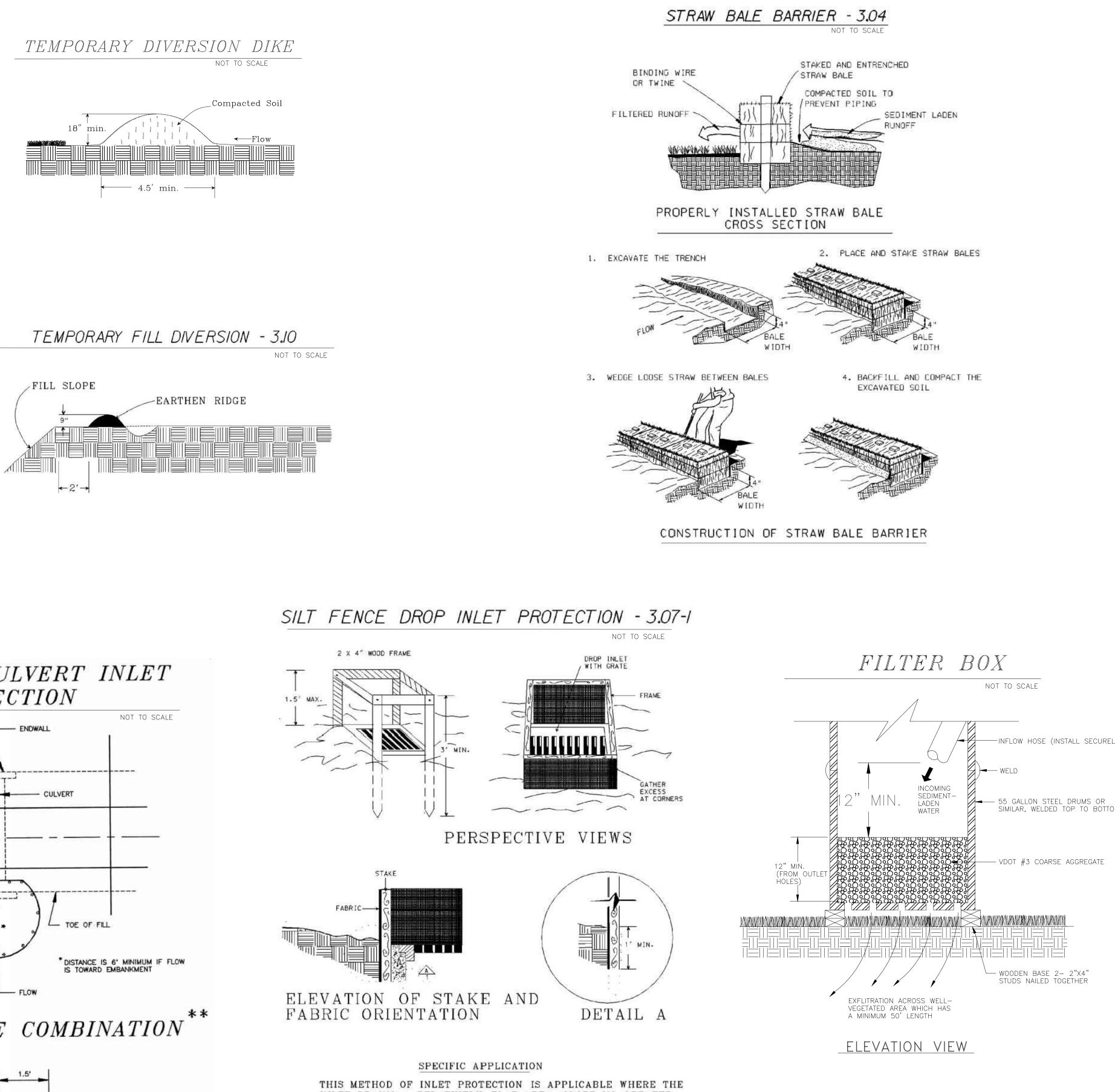
NOT TO SCALE

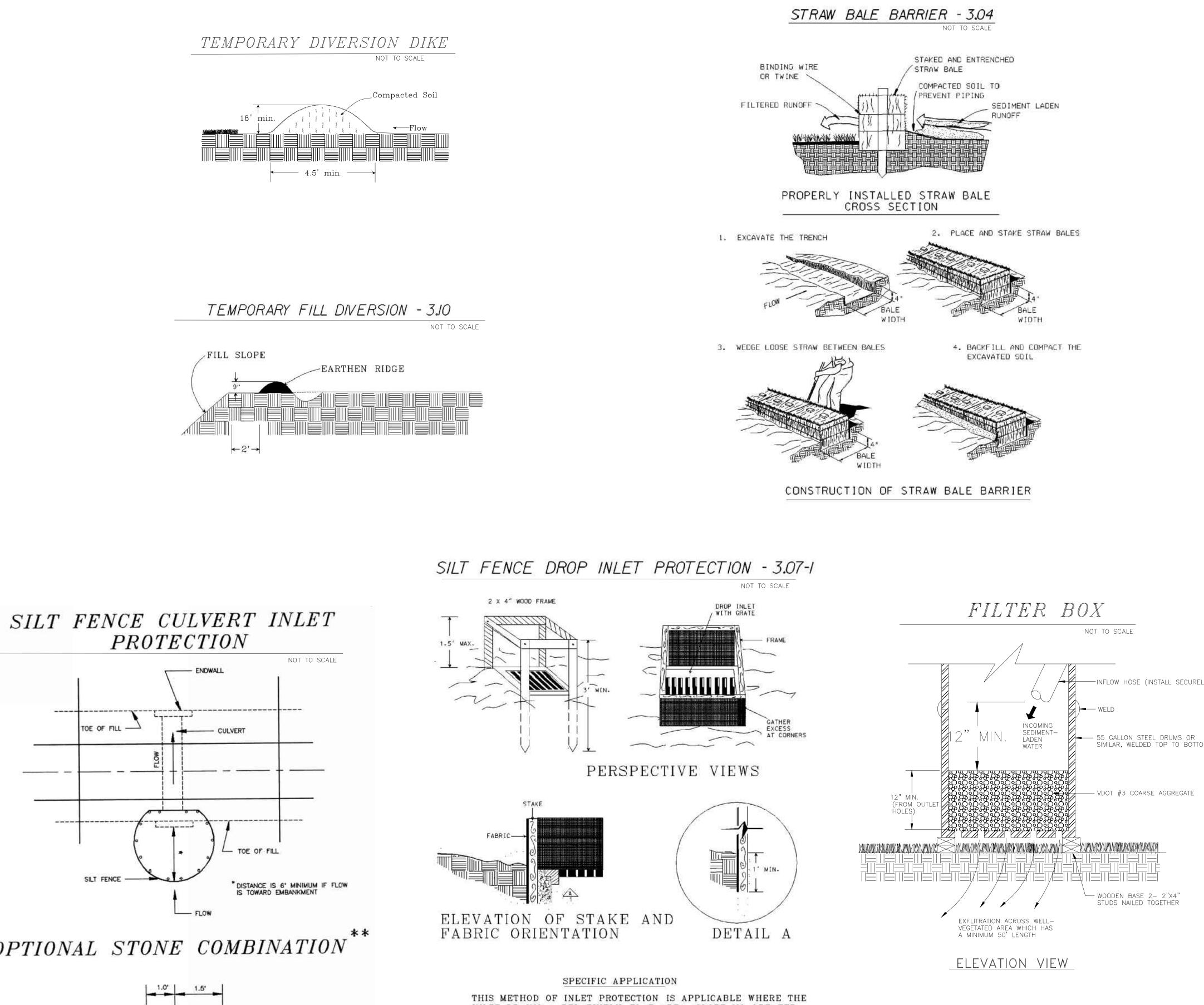


STAIR STEPPING CUT SLOPES NOT TO SCALE DEBRIS FROM SLOPE ABOVE IS CAUGHT by steps— 40"-50" WATER, SOIL AND FERTILIZER ARE HELD BY STEPS — PLANTS CAN BECOME ESTABLISHED ON THE STEPS. GROOVING SLOPES GROOVING IS CUTTING FURROWS ALONG THE CONTOUR OF A SLOPE. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND PROVIDE SOME COVERAGE OF LIME, FERTILIZER AND SEED.

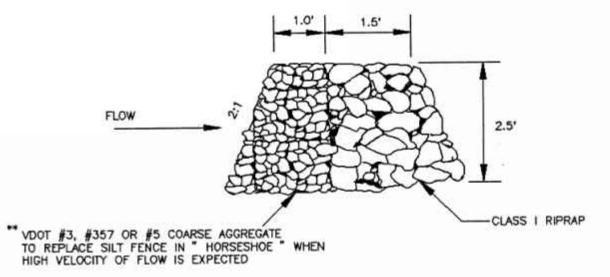
Environmental Resources ERM Management			Atlantic Coast Pipeline, LLC 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000									
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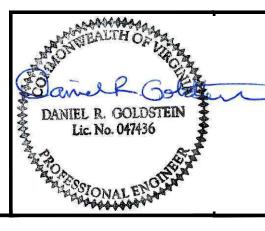






OPTIONAL STONE COMBINATION





INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) WHERE THE INLET SHEET OR OVERLAND FLOWS (NOT EXCEEDING 1 C.F.S.) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS.

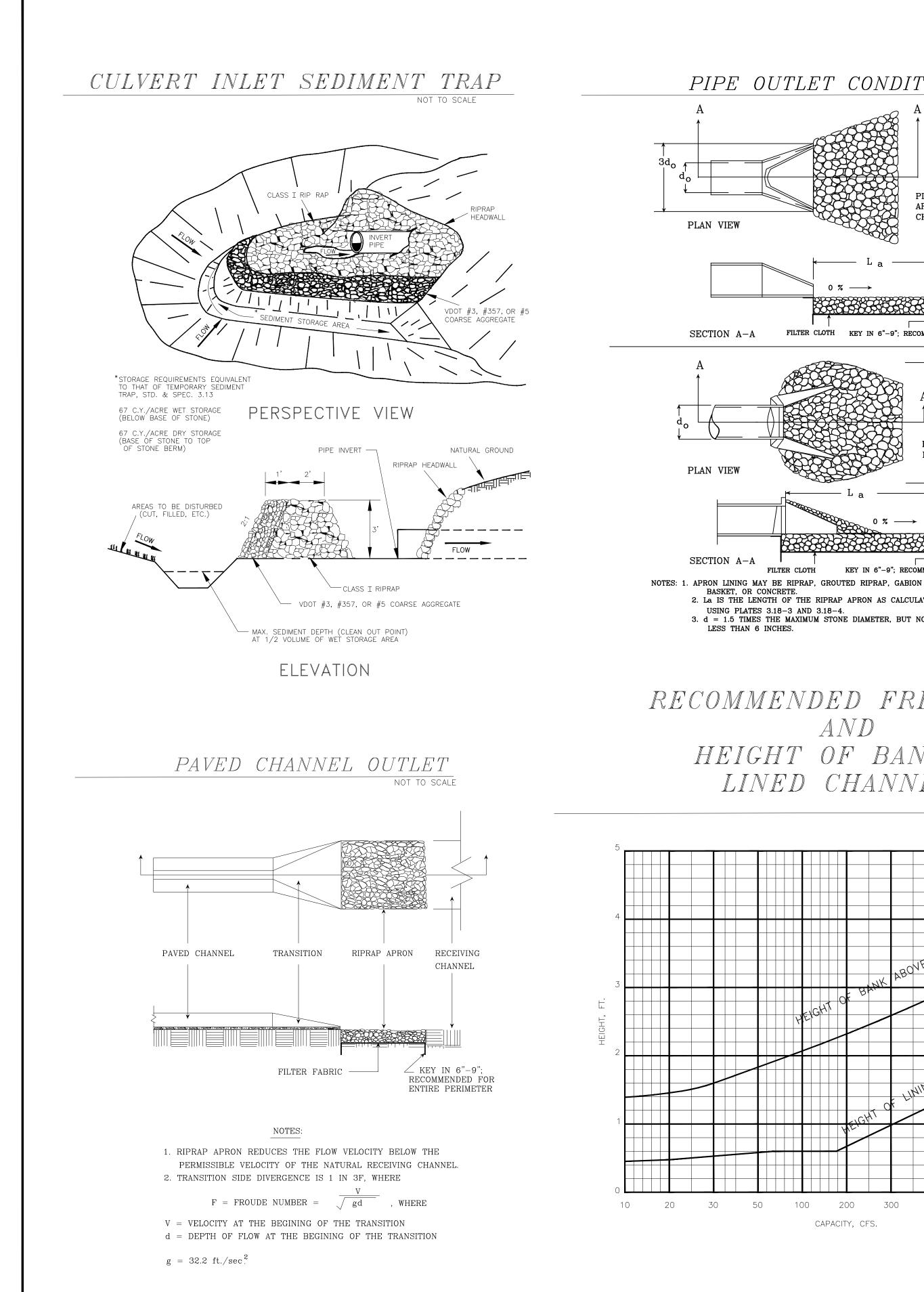


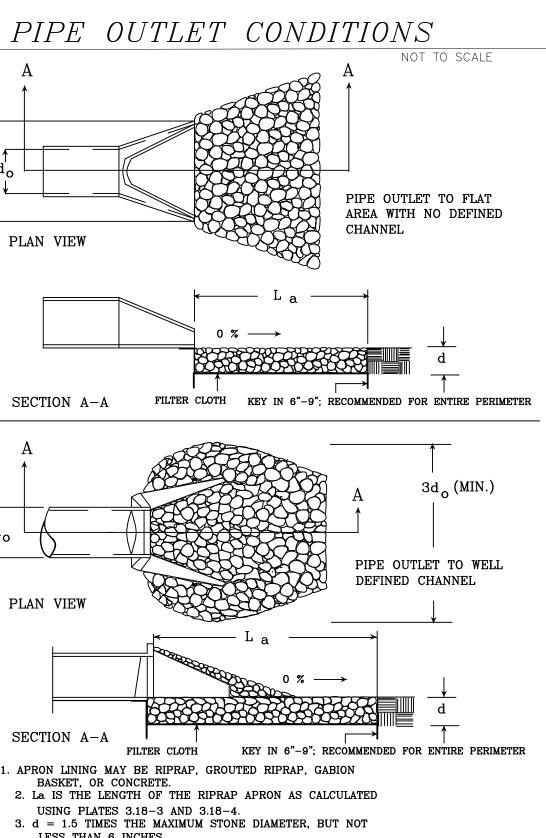


Environmer Resources Environmental Atlantic Coast Pipeline, LLC ERM Management 925 White Oaks Blvd. Bridgeport, West Virginia 26330 / 681-842-8000 05/22/2017 EJB TITLE: ATLANTIC COAST PIPELINE 05/22/2017 JEY **EROSION AND SEDIMENT CONTROL DETAILS** GROUP DWG. NO. DISTRICT: COUNTY: STATE: VA NST .: -6 OF 7 -AS NOTED ACP\Virginia\Details DIR/FILE:

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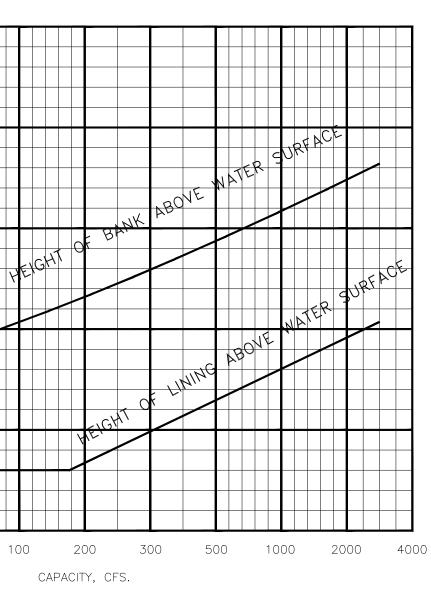
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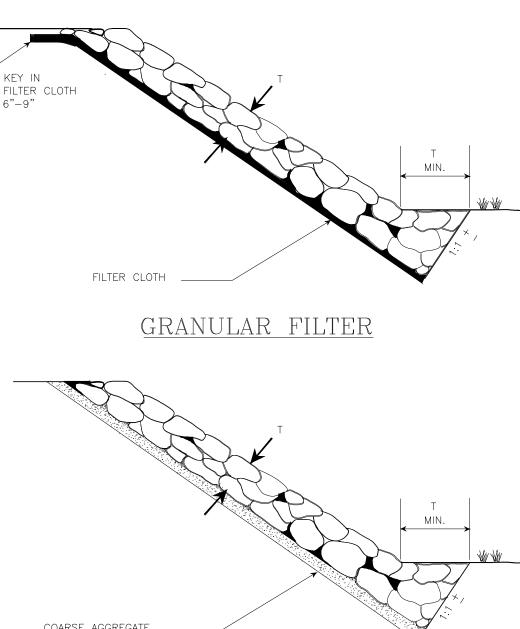


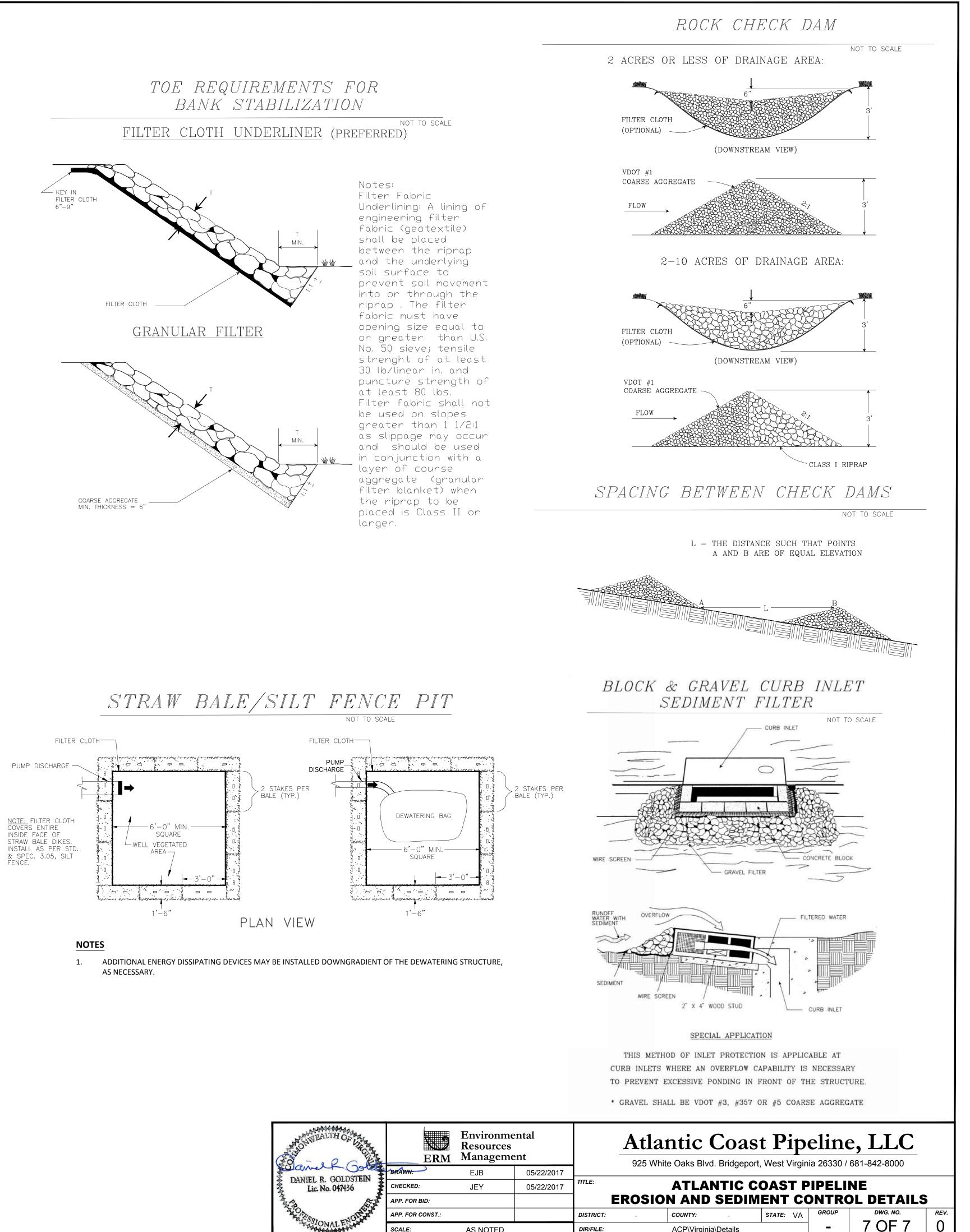
RECOMMENDED FREEBOARD ANDHEIGHT OF BANK OF LINED CHANNELS

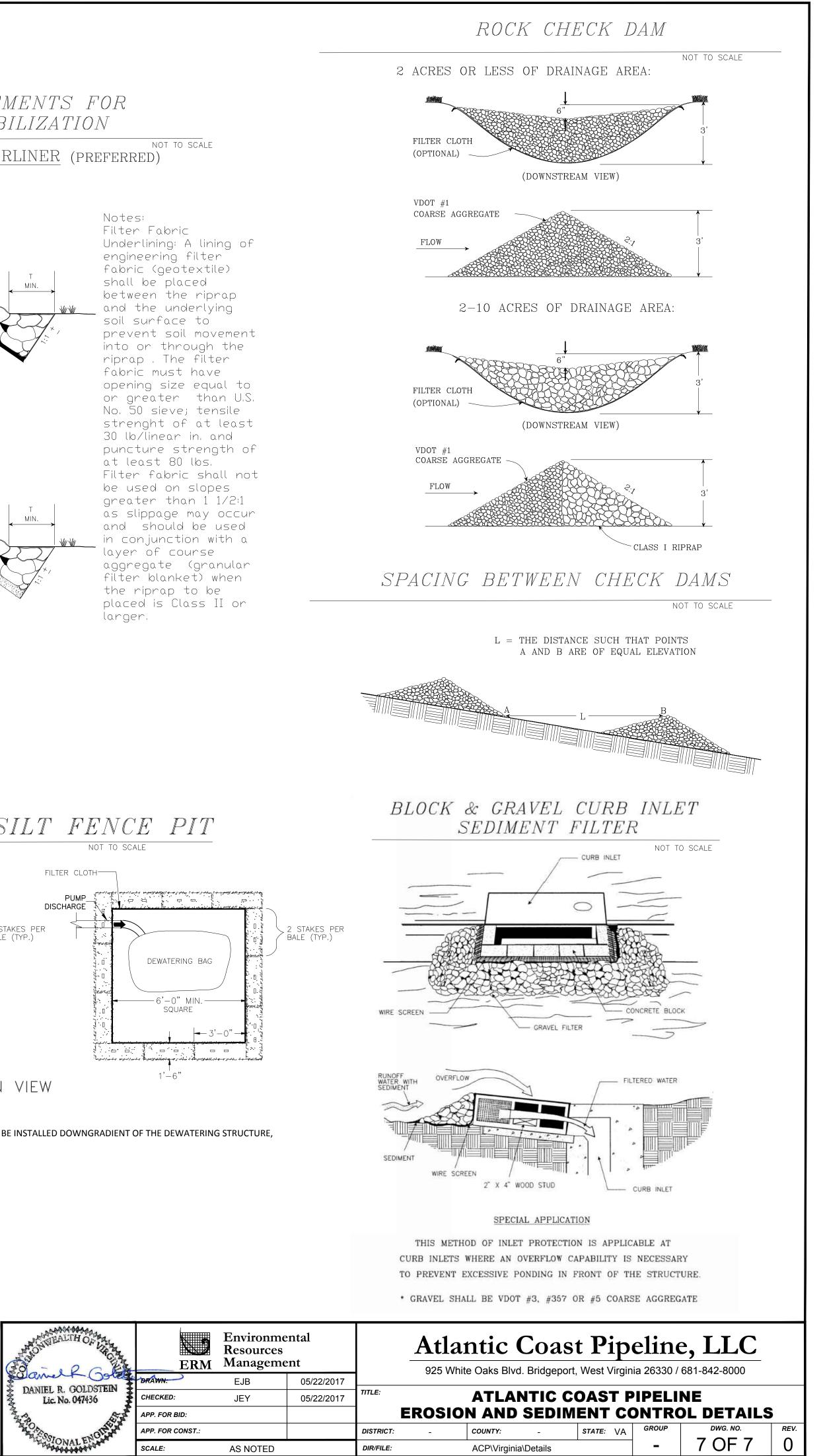
NOT TO SCALE



BANK STABILIZATION







GENERAL EROSION AND SEDIMENT CONTROL PLAN NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840: EROSION AND SEDIMENT CONTROL REGULATIONS.
- THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ALL EROSION AND SEDIMENT (E&S) CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN (E&SC PLAN) SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

EROSION AND SEDIMENT CONTROL DETAIL NOTES

THE DETAILS ON EROSION AND SEDIMENT CONTROL DETAIL SHEETS 1 THROUGH 4 CORRESPOND TO E&S CONTROL MEASURES SPECIFICALLY IDENTIFIED ON THE E&SC PLAN. DETAILS ON SHEETS 5 THROUGH 7 CORRESPOND TO E&S CONTROL MEASURES THAT, WHILE NOT SPECIFICALLY IDENTIFIED ON THE E&SC PLANS, COULD POTENTIALLY BE REQUIRED.

EROSION AND SEDIMENT CONTROL VARIANCE NOTES

VIRGINIA EROSION AND SEDIMENT CONTROL (ESC) REGULATION MINIMUM STANDARD 16A (9 VAC 25-840-40.16A) REQUIRES THAT NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME. IN ACCORDANCE WITH VIRGINIA ESC REGULATION FOR VARIANCES (9 VAC 25-840-50.1), A VARIANCE TO ALLOW MORE THAN 500 LINEAR FEET OF TRENCH TO BE OPEN AT ANY ONE TIME IS REQUESTED TO BECOME PART OF THE APPROVED E&SC PLAN. THE VARIANCE IS DEEMED APPROPRIATE FOR A LARGE PIPELINE PROJECT SUCH AS ACP IN ORDER TO OPTIMIZE THE CONSTRUCTION SEQUENCE AND THUS MINIMIZE THE AMOUNT OF TIME THE WORK AREA REMAINS DISTURBED. STORMWATER AND/OR GROUNDWATER INTERCEPTED BY THE PIPELINE TRENCH WILL BE MANAGED CONSISTENT WITH FEDERAL AND STATE REGULATORY REQUIREMENTS TO INCLUDE: (I) THE USE OF HARD OR SOFT TRENCH BREAKERS IN COMBINATION WITH SLOPE BREAKERS PLACED AT INTERVALS IN COMPLIANCE WITH FEDERAL ENERGY REGULATORY COMMISSION (FERC) REQUIREMENTS IN ORDER TO REDUCE THE VELOCITY AND EROSION POTENTIAL OF WATER COLLECTED WITHIN THE TRENCH AND (II) THROUGH THE USE OF FERC AND VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (VDEQ) APPROVED TRENCH DEWATERING METHODS. DEWATERING WILL BE CONDUCTED IN SUCH A MANNER THAT DOES NOT CAUSE EROSION AT THE DISCHARGE POINT AND DOES NOT RESULT IN SILT-LADEN WATER FLOWING INTO ANY WATERBODY, WETLAND, OR OFF-SITE PROPERTY. SEE CONSTRUCTION ALIGNMENT SHEETS FOR TRENCH AND SLOPE BREAKER LOCATIONS AND FREQUENCY AS WELL AS DETAILED DRAWINGS FOR APPROVED DEWATERING MEASURES.

OPEN TRENCH LENGTH IS DETERMINED IN THE FIELD BASED ON SITE-SPECIFIC SAFETY CONSIDERATIONS AS WELL AS ENVIRONMENTAL CONDITIONS (E.G. TERRAIN, WEATHER FORECAST, GEOLOGY). PROJECTED LENGTHS OF CONTIGUOUS TRENCH SEGMENTS THAT MAY BE OPEN AT ANY ONE TIME ARE AS FOLLOWS:

Spread	Project Segment	From Milepost	To Milepost	Maximum Continguous Open Trench Length (feet)
Spread 3A	AP-1	90.77	91.05	2,135.5
Spread 4	AP-1	91.31	91.84	4,550.9
Spread 4A	AP-1	103.11	104.61	12,210.2
Spread 5	AP-1	135.09	137.07	11,682.1
Spread 6	AP-1	192.57	196.31	19,771.6
Spread 7	AP-1	250.87	254.57	19,710.5
Spread 11	AP-3	66.11	71.22	26,735.3
Spread 12 - AP - 4	AP-4	0.00	0.29	1,530.0
Spread 12 - AP - 5	AP-5	0.63	0.98	1,798.8

2. IN ACCORDANCE WITH VIRGINIA ESC REGULATION MINIMUM STANDARD 16B AND 16F (9 VAC 25-840-40.16B AND 9 VAC 25-840-40.16F), EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES ONLY IF COMPLIANT WITH APPLICABLE SAFETY REQUIREMENTS. IN ORDER TO ENSURE WORKER SAFETY AND TO COMPLY WITH ALL APPLICABLE FEDERAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS, DTI CONTRACTORS MAY PLACE EXCAVATED MATERIAL ON THE DOWNHILL SIDE OF TRENCHES INSTEAD OF THE UPHILL SIDE OF TRENCHES. TO CONTROL EROSION AND SEDIMENTATION, ALL SOIL STOCK PILES WILL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES IN ACCORDANCE WITH VIRGINIA ESC REGULATION MINIMUM STANDARD 2 (9 VAC 25-840-40.2). SEDIMENT BARRIERS SUCH AS BELTED SILT RETENTION FENCING WILL BE USED TO PREVENT SEDIMENT TRANSPORT OFF THE PIPELINE ROW. IN ACCORDANCE WITH VIRGINIA ESC REGULATION MINIMUM STANDARD 1 (9 VAC 25-840-40.1), TEMPORARY SOIL STABILIZATION (I.E. MULCHING OR TEMPORARY SEEDING) WILL BE APPLIED TO A SOIL STOCKPILE WITHIN 7 DAYS OF THE FORMATION OF THE STOCKPILE IF IT IS TO REMAIN DORMANT FOR LONGER THAN 14 DAYS. IN ADDITION, PERMANENT STABILIZATION WILL BE APPLIED TO STOCKPILES THAT ARE LEFT DORMANT FOR MORE THAN ONE YEAR.

EROSION AND SEDIMENT CONTROL PLAN NARRATIVE

THE E&S CONTROL MEASURES FOR THE PIPELINE CONSTRUCTION ACTIVITIES CONSIST OF BUT ARE NOT LIMITED TO SAFETY FENCE, COMPOST FILTER SOCK, BELTED SILT RETENTION FENCE, WATERBARS, TRENCH PLUGS, ROCK CONSTRUCTION ENTRANCES, DIVERSION SWALES, CULVERTS, OUTLET PROTECTION, AND TEMPORARY AND PERMANENT SEEDING AND MULCHING. BEST MANAGEMENT PRACTICES (BMP) SPECIFICATIONS FOR THE E&SC PLAN ARE TO BE UTILIZED BY THE CONSTRUCTION CONTRACTOR ACCORDING TO THE PROVIDED PLAN.

GENERAL CONSTRUCTION NOTES:

- DISCHARGING SEDIMENT LADEN WATER, WHICH WILL CAUSE OR CONTRIBUTE TO THE DEGRADATION OF A BENEFICIAL USE OF A WATER OF THE STATE FROM THE CONSTRUCTION SITE OR A DEWATERING SITE, INTO ANY WATERBODY OR STORM DRAIN WITHOUT FILTRATION OR EQUIVALENT TREATMENT IS PROHIBITED.
- THE DISCHARGER SHALL AMEND THE EROSION & SEDIMENT CONTROL PLAN WHENEVER THERE IS A CHANGE IN THE CONSTRUCTION OR OPERATIONS, WHICH MAY EFFECT THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS, GROUNDWATER, OR A MUNICIPAL STORM DRAIN SYSTEM.
- DISCHARGES ORIGINATING FROM OFF-SITE SOURCES, WHICH FLOW THROUGH OR ACROSS THE AREAS DISTURBED BY 3. CONSTRUCTION, SHALL BE DIVERTED AROUND THE ACTIVE CONSTRUCTION AREA WHENEVER POSSIBLE.
- 4. SOIL STABILIZATION (TEMPORARY SEED AND MULCHING) PROCEDURES WILL TAKE PLACE WITHIN 7 DAYS IF AREA IS TO BE LEFT IDLE FOR 21 DAYS AND/OR PRIOR TO PERIODS OF CESSATION IN CONSTRUCTION ACTIVITIES. PERMANENT STABILIZATION MUST ULTIMATELY BE COMPLETED IN ALL DISTURBED AREAS.

- 5. DUE TO VARYING SITE CONDITIONS, ADDITIONAL SEDIMENT CONTROL BMPS MAY BE NECESSARY BEYOND THE MEASURES SHOWN ON THE E&SC PLAN.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES, LOCATED WITHIN THE IMMEDIATE AREA AND ABLE TO GET TO THE SITE WITHIN A REASONABLE TIMEFRAME. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON-SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY BMP DEVICES WHEN RAIN OR SNOW MELT EVENTS ARE IMMINENT.
- 7. DUE TO VARYING SITE CONDITIONS, SOIL STOCKPILE LOCATIONS/EXTENT AND LOCATION OF EROSION CONTROL MEASURES ASSOCIATED WITH THESE STOCKPILES SHALL BE PREVIEWED/APPROVED BY THE RESPECTIVE PROJECT ENVIRONMENTAL **INSPECTOR** (EI).
- 8. STAGING AREAS, ASSEMBLY AREAS, TEMPORARY EQUIPMENT AND NON-HAZARDOUS MATERIAL STORAGE AREAS SHALL BE LOCATED OUTSIDE 100-YR FLOOD ZONES. HAZARDOUS MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM SURFACE WATER BODIES.
- BMPs ARE TO BE INSPECTED IN ACCORDANCE WITH THE FREQUENCIES STIPULATED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). A WRITTEN REPORT MUST ALSO BE COMPLETED, DOCUMENTING EACH INSPECTION AND, IF NECESSARY, ANY REPAIR, REPLACEMENT OR MAINTENANCE ACTIVITY.
- 10. THE LOCATION AND EXISTENCE OF EXISTING UNDERGROUND FACILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM A SEARCH OF AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN ON THE DRAWINGS, AND ANY OTHER WHICH IS NOT ON RECORD OR NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AT THE POINTS OF CONNECTION AND ALL UTILITY CROSSINGS TO DETERMINE EXACT LOCATIONS PRIOR TO THE START OF WORK. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER OF RECORD IMMEDIATELY.
- 11. ALL REQUIRED PERMITS MUST BE OBTAINED PRIOR TO STARTING WORK.
- 12. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EXISTING AND PROPOSED SITE E&S CONTROL DEVICES AND FACILITIES.
- 13. THE CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING EROSION & SEDIMENTATION DEVICES AND SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE ENGINEER OF RECORD HARMLESS OF ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF ENGINEER OF RECORD.
- 14. AS SITE SPECIFIC CONDITIONS MAY WARRANT, THE E&SC PLAN MAY REQUIRE MINOR MODIFICATIONS TO ENSURE PROPER PROTECTION OF RECEIVING WATERS. THE EI WILL IDENTIFY SITE SPECIFIC AREAS WHERE A CERTAIN BMP MODIFICATION(S) IS NECESSARY TO EITHER OMIT OR ENHANCE BMPS IN SUCH AREAS. THIS PROCESS ENTAILS THE EI TO IDENTIFY LOCATIONS WHERE BMPS WILL NEED TO BE ALTERED, SUBSTITUTED OR OMITTED AND CONTACT THE DOMINION COMPLIANCE SPECIALIST TO REVIEW PROPOSED CHANGES. UPON REVIEW AND APPROVAL BY THE DOMINION COMPLIANCE SPECIALIST, THE EI WILL REDLINE, DATE, AND SIGN THE E&SC PLAN DRAWING(S) DEPICTING THE REDLINE CHANGE(S). ONCE THIS PROCESS IS COMPLETED, THE EI WILL NOTIFY THE VADEQ OF SUCH MINOR MODIFICATION REDLINE AMENDMENTS AS REQUIRED.
- 15. FOR THE PURPOSES OF THIS DOCUMENT, THE FOLLOWING DEFINITIONS APPLY:
 - a. LIMITS OF DISTURBANCE (LOD) THE BOUNDARY WITHIN WHICH GROUND DISTURBANCE OCCURS (OR MAY OCCUR) AS A **RESULT OF CONSTRUCTION RELATED ACTIVITIES.**
 - LIMITS OF CONSTRUCTION (LOC) THE BOUNDARY WITHIN WHICH GROUND DISTURBANCE OCCURS AS A RESULT OF THE CONSTRUCTION RELATED ACTIVITIES, IDENTIFIED AS LIMITS OF DISTURBANCE (LOD) ON THE E&SC PLANS, AS WELL AS WORK AREAS INCLUDING VEHICLE PARKING AND EQUIPMENT AND MATERIAL STAGING.

BMP INSTALLATION AND REMOVAL SEQUENCE

CONSTRUCTION MUST BE IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. THIS SEQUENCE IS DESIGNED TO MINIMIZE SOIL EROSION AND SEDIMENTATION. THE CONTRACTOR MAY DEVIATE SLIGHTLY FROM THE STAGING OF PERMANENT SITE IMPROVEMENTS, BUT NO DEVIATION FROM THE RELATIVE ORDER OF E&S CONTROL MEASURES WILL BE ALLOWED.

THE STAGING OF EARTHMOVING ACTIVITIES FOR THIS PROJECT IS A GENERAL DESCRIPTION OF THE WORK REQUIRED. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH COMPANY STANDARDS, THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY REGULATIONS AND ALL OTHER APPLICABLE FEDERAL, STATE OR LOCAL REQUIREMENTS.

THE APPROVED E&SC PLAN INCLUDING THE SOIL EROSION CONTROL DRAWINGS AND NARRATIVE SHALL BE AVAILABLE ON SITE AT ALL TIMES DURING EARTH DISTURBANCE.

- STAKE/FLAG ALL LIMITS OF DISTURBANCE FOR CONSTRUCTION ACTIVITIES, CLEARLY IDENTIFYING WETLAND AND STREAM EDGES. INSTALL SIGNS TO DESIGNATE THE AREA TO IDENTIFY IMPORTANT PROJECT ATTRIBUTES SUCH AS WETLAND/STREAM BOUNDS, **EXCLUSION AREAS ETC.**
- 2. INSTALL ROCK CONSTRUCTION ENTRANCE IMMEDIATELY BEFORE INITIAL DISTURBANCES. THE ROCK CONSTRUCTION ENTRANCE TO BE UNDERLAIN BY FILTER FABRIC. ALL CONSTRUCTION TRAFFIC SHOULD USE ONLY ROCK CONSTRUCTION ENTRANCE FOR INGRESS AND EGRESS. ALL MUD OR SEDIMENT TRACKED ONTO THE EXISTING ROADWAY SHALL BE REMOVED BY THE CONTRACTOR AS NECESSARY.
- INSTALL EROSION CONTROL MEASURES (I.E., COMPOST FILTER SOCK AND/OR SILT FENCE) AS NECESSARY WITH THE ACCESS ROADS TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING DOWNSTREAM WATER BODIES. MAINTAIN THE ACCESS ROAD AS REQUIRED, ASSOCIATED DITCHES, AND NECESSARY OUTLET PROTECTION.
- PRIOR TO GRADING AND EXCAVATION, INSTALL REMAINING EROSION CONTROL DEVICES (ECDs) SHOWN ON THE PLANS.
- COMMENCE GRADING AND ASSOCIATED CUT AND FILL SLOPES. THE EARTH MOVING ACTIVITY SHALL BEGIN IN AREA OF CUT SO THAT THE CUTS CAN BE PLACED IN AREAS OF FILL.
- FINALIZE CONTRACTOR YARD INSTALLATION AND ROADWAY GRADES AND PLACE TOPSOIL ON THE CUT AND FILL AREAS. IMMEDIATELY INSTALL EROSION CONTROL BLANKETS OR EQUIVALENT ON CUT AND FILL SLOPES, AFTER PLACEMENT OF STOCKPILES TOPSOIL ON EXCAVATED SLOPES. AND AS DIRECTED.
- 7. RE-DISTRIBUTION OF WET SEDIMENT FROM DEVICES AND FACILITIES SHALL ONLY BE PERMITTED UPHILL OF AN EFFECTIVE SEDIMENT CONTROL DEVICE OR FACILITY. SEDIMENT LADEN RUNOFF SHALL NOT BE ALLOWED TO FLOW DIRECTLY INTO, ONTO OR THROUGH UNPROTECTED INLETS, STORM DRAINS, AND WATER BODIES.
- 8. ANY EXPOSED TOPSOIL PILES SHOULD BE STABILIZED & SEEDED PER THE PERMIT REGULATIONS, AND BY TABLES SHOWN ON THE APPROVED EROSION CONTROL PLANS AND MULCHED WITH STRAW AS SPECIFIED BY THE PROJECT OWNER.
- UPON MINIMUM 70% UNIFORM PERENNIAL VEGETATIVE GROWTH, REMOVE TEMPORARY SEDIMENT CONTROLS. REMOVE ACCUMULATED SEDIMENTS WITHIN DEVICES, RE-GRADE TO FINAL CONTOURS. STABILIZE SITE PER THE RESTORATION AND **REHABILITATION PLAN.**

SEQUENCE OF CONSTRUCTION

- LIMITS OF CONSTRUCTION MUST BE FIELD MARKED PRIOR TO CLEARING, INSTALLATION OF SEDIMENT CONTROL MEASURES, CONSTRUCTION, OR OTHER LAND DISTURBING ACTIVITIES.
- 2. DETAILED SEQUENCE OF CONSTRUCTION:
- a. INSTALL STABILIZED CONSTRUCTION ENTRANCE.

MAINTENANCE SCHEDULE

- MEASURE.

MATERIAL WASTE HANDLING AND RECYCLING

SOLID WASTE DISPOSAL SHALL BE HANDLED THROUGH ONE OF THE LOCAL LICENSED WASTE MANAGEMENT PROVIDERS AND PERMITTED DISPOSAL FACILITIES. THE CONTRACTOR WILL PROVIDE MOBILE AND COVERED WASTE RECEPTACLES AS NEEDED ALONG THE PROJECT LIMITS. CONTRACTOR SHALL ALSO PROVIDE A COVERED DUMPSTER FOR CONSOLIDATION OF WASTE FOR PICK UP AND DISPOSAL FOR THE DURATION OF THE PROJECT. ALL SOLID WASTE SHALL BE DISPOSED OF AT A LICENSED PERMITTED MUNICIPAL LANDFILL.

THE CONTRACTOR WILL DISPOSE OF ALL SCRAP MATERIAL. THE SCRAP MATERIAL MUST BE REMOVED FROM THE SITE AND DISPOSED OF OR RECYCLED AT A PROPERLY LICENSED/PERMITTED FACILITY. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY PERMITS AND/OR DISPOSAL FEES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ASSURE THAT ALL MATERIALS ARE HANDLED AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS, RULES, AND REGULATIONS, INCLUDING BUT NOT LIMITED TO THOSE ISSUED BY THE ENVIRONMENTAL PROTECTION AGENCY, VADEQ, AND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.

CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING FOR THE DURATION OF THE PROJECT INCLUDING THE ROUTINE REMOVAL AND DISPOSAL OF SOLID WASTE.

SEEDING AND MULCHING

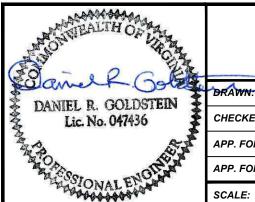
SEE SEED MIXES, SOIL AMENDMENTS, AND MULCH SPECIFICATIONS SPECIFIED IN THE ACP RESTORATION AND REHABILITATION PLAN. 1. SEEDBED PREPARATION: AREAS TO BE SEEDED SHALL BE FREE OF ROCKS AND STONES, DISKED TO A DEPTH OF 4-IN TO 6-IN, AND SMOOTHLY GRADED.

- ALLOW.
- 5.

POLLUTANT CONTROLS

INCORPORATION OF STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

THE CONTRACTOR SHALL BE READILY FAMILIAR WITH AND MAINTAIN ON SITE FOR IMMEDIATE REFERENCE THE PROJECT SWPPP. THE REQUIREMENTS OF THE SWPPP PROVIDE ADDITIONAL DETAIL AND INFORMATION BEYOND THE PROJECT NOTES AND DETAILS. THE PERFORMANCE REQUIREMENTS OF THE SWPPP ARE INCORPORATED AND MADE PART OF THESE PLANS.



CLEAR AND GRADE AS NECESSARY FOR INSTALLATION OF E&S CONTROL DEVICES.

INSTALL E&S CONTROL DEVICES.

PREPARE "TEMPORARY" PARKING AND STORAGE AREA(S).

CLEAR AND GRUB THE SITE, AS REQUIRED

START CONSTRUCTION OF THE SITE IMPROVEMENTS.

BEGIN GRADING THE SITE.

INSTALL PIPELINE

BACKFILL TRENCH.

COMPLETE GRADING, INSTALL GRAVEL AND PERMANENT SEEDING AND PLANTING.

AT THE CONCLUSION OF THE CONSTRUCTION ACTIVITIES, TEMPORARY SOIL STOCKPILES SHALL BE REMOVED, REGRADED, AND STABILIZED TO PRE-EXISTING CONDITIONS.

REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (ONLY IF SITE IS STABILIZED).

AFTER REVEGETATION HAS BEEN ACHIEVED, ALL BMPS WILL BE REMOVED AND ANY LAND DISTURBED BY REMOVAL WILL BE PERMANENTLY STABILIZED. UNLESS OTHERWISE SPECIFIED, ALL MAINTENANCE MUST BE COMPLETED IMMEDIATELY AFTER AN INSPECTION IDENTIFIES THAT A BMP IS NOT FUNCTIONING AS REQUIRED.

• THE ROW AND E&S CONTROLS WILL BE INSPECTED DAILY AT THE ACTIVE CONSTRUCTION SITE, AT LEAST ONCE EVERY SEVEN CALENDAR DAYS FOR ACTIVELY DISTURBED AREAS, EVERY 14 CALENDAR DAYS FOR RESTORED AREAS, AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5-INCH PER 24-HOUR PERIOD DURING THE ENTIRE PROJECT.

SEDIMENT MUST BE REMOVED WHERE ACCUMULATION REACHES ONE-HALF THE ABOVE GROUND HEIGHT OF THE CONTROL

EROSION CONTROL MEASURES, WHICH HAVE BEEN UNDERMINED OR TOPPED, MUST IMMEDIATELY BE REPAIRED.

OTHER REQUIRED REPAIRS OR MAINTENANCE SHALL BE MADE IMMEDIATELY.

TEMPORARY AND PERMANENT E&S CONTROL BMPS SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

4. CONTRACTOR SHALL KEEP RECORDS OF PROPER SOLID WASTE DISPOSAL AND PROVIDE COPIES TO THE EI.

TOPSOIL SHALL BE REDISTRIBUTED ON ALL DISTURBED AREAS TO BE STABILIZED PRIOR TO SEEDING.

STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 21 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS PERMANENTLY CEASED.

4. WHERE THE INITIATION OF STABILIZATION MEASURES WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASES IS PRECLUDED BY SNOW COVER, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS CONDITIONS

WHERE CONSTRUCTION ACTIVITY WILL RESUME ON A PORTION OF THE SITE WITHIN 21 DAYS FROM WHEN ACTIVITIES CEASED (E.G., THE TOTAL TIME PERIOD THAT CONSTRUCTION ACTIVITY IS TEMPORARILY HALTED IS LESS THAN 21 DAYS), THEN STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE BY THE SEVENTH DAY AFTER CONSTRUCTION ACTIVITIES HAVE TEMPORARILY CEASED.

AREAS WHERE THE SEED HAS FAILED TO GERMINATE ADEQUATELY (UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70%) WITHIN 30 DAYS AFTER SEEDING AND MULCHING MUST BE RE-SEEDED IMMEDIATELY, OR AS SOON AS WEATHER CONDITIONS ALLOW.

SPILLS OCCURRING DURING CONSTRUCTION, OPERATION AND MAINTENANCE ARE TO BE REPORTED IMMEDIATELY TO THE MONITORING CENTER AT 1-800-835-7191. DOMINION'S ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT WILL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE AGENCIES, EXCEPT AS PROVIDED FOR BELOW.

• IF THE CALL TO THE MONITORING CENTER IS NOT RETURNED WITHIN 30 MINUTES AND THE SPILL HAS IMPACTED WATER, THE PERSON DISCOVERING THE SPILL OR RELEASE WILL CONTACT THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 AND REPORT THE RELEASE. THAT PERSON WILL CONTINUE CALLING THE MONITORING CENTER UNTIL A REPRESENTATIVE IS REACHED.

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