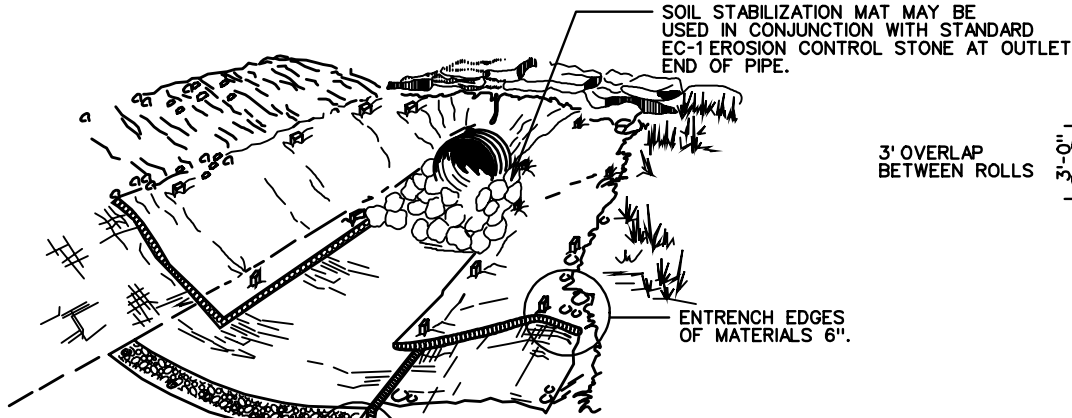
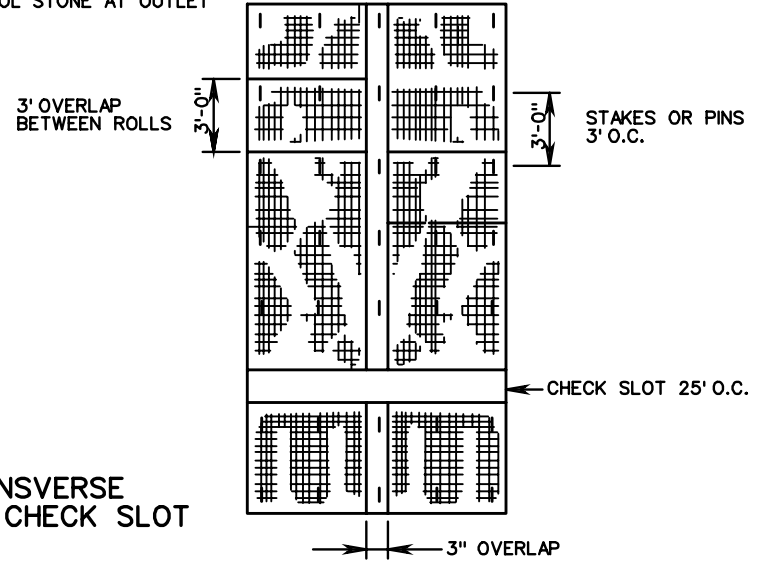


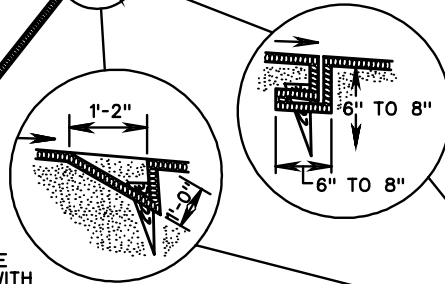
TYPICAL INSTALLATION AT END OF PIPE



STAKING DETAIL

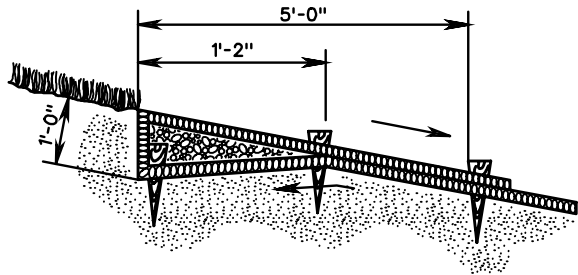


\* TRANSVERSE CLOSED CHECK SLOT



\* TRANSVERSE CHECK SLOT TO BE CONSTRUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION FOR PREFERRED INSTALLATION.

\* TRANSVERSE OPEN CHECK SLOT



UPSTREAM AND DOWNSTREAM TERMINAL

V DITCH

NOTES:

1. STAKES SHALL BE WOOD OR METAL AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE A MINIMUM OF 12" IN LENGTH. IN SANDY SOILS METAL STAKES A MINIMUM OF 18" IN LENGTH SHALL BE USED.
2. SOIL STABILIZATION MAT TYPE A AND B ARE TO BE IN ACCORDANCE WITH THE APPROVED PRODUCTS LIST.
3. SOIL STABILIZATION MAT SHOULD BE INSTALLED TO THE SHOULDER BREAK POINT OR EXISTING GROUND THEN EMBEDDED 6". MATERIAL ON BOTH SIDES OF THE DITCH SHALL BE INSTALLED TO THE SAME ELEVATIONS.
4. IF MORE THAN 3 LINES OF MATERIAL ARE REQUIRED PARALLEL TO THE  $\text{C}$  OF THE DITCH, MATERIAL SHALL BE INSTALLED PERPENDICULAR TO THE CENTER LINE OF THE DITCH, STARTING AT THE LOWEST  $\text{C}$  ELEVATION OF THE DITCH.
5. FOR SOURCES OF APPROVED MATERIALS SEE VDOT'S APPROVED PRODUCTS LIST FOR ST'D. EC-3, TYPE A OR B.

SPECIFICATION REFERENCE

244  
606

SOIL STABILIZATION MAT  
DITCH INSTALLATION TYPE A OR B

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

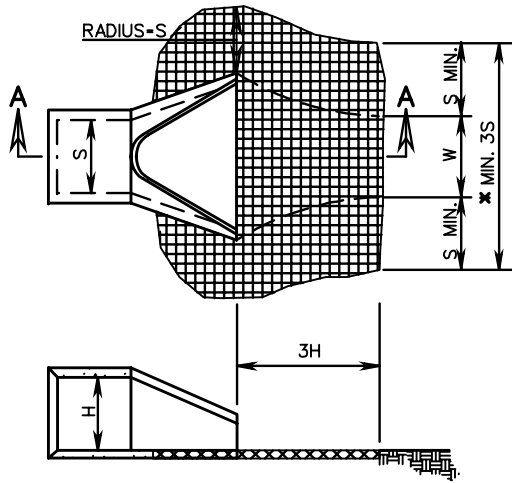
ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 1 OF 3

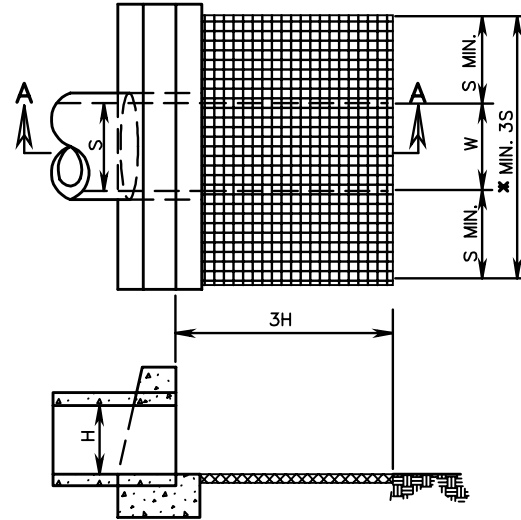
113.03

DETAIL 1



SECTION A-A

DETAIL 2



SECTION A-A

NOTES:

1. FOR MULTIPLE LINE INSTALLATIONS, DIMENSION S IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W).
  2. ON ANY INSTALLATION REQUIRING CULVERT OUTLET PROTECTION WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON THE PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.
  3. SOIL STABILIZATION MAT TYPE B SHALL BE USED FOR CULVERT OUTLET PROTECTION WHERE THE OUTLET VELOCITY IS 6 FPS OR LESS FOR THE DESIGN STORM AND THE TOTAL HYDRAULIC OPENING IS LESS THAN 7 SQUARE FEET. IF THE TOTAL HYDRAULIC OPENING IS 7 SQUARE FEET OR GREATER, OR THE DESIGN STORM OUTLET VELOCITY IS GREATER THAN 6 FPS USE STANDARD EC-1.
  4. S = DIAMETER OF CIRCULAR CULVERT OR SPAN FOR BOX, ELLIPTICAL OR ARCH CULVERT.  
H = DIAMETER OF CIRCULAR CULVERT OR RISE/HEIGHT FOR BOX, ELLIPTICAL OR ARCH CULVERT.
- \* USE TYPICAL SECTION SHOWN ON PLANS FOR SIDE SLOPE, BOTTOM WIDTH AND DEPTH OF CHANNEL OR MATCH EXISTING DITCH OR NATURAL GROUND.



ROAD AND BRIDGE STANDARDS

SHEET 2 OF 3

REVISION DATE

113.04

# SOIL STABILIZATION MAT CULVERT OUTLET PROTECTION INSTALLATION

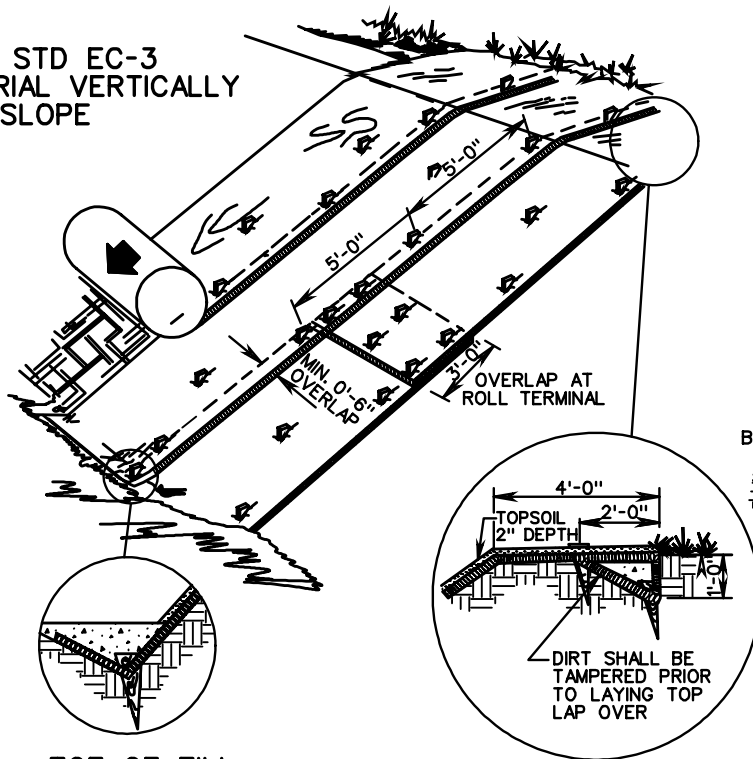
VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION  
REFERENCE

- 204
- 245
- 303
- 414

**FILL SLOPE SECTION**

DROP STD EC-3 MATERIAL VERTICALLY DOWNSLOPE



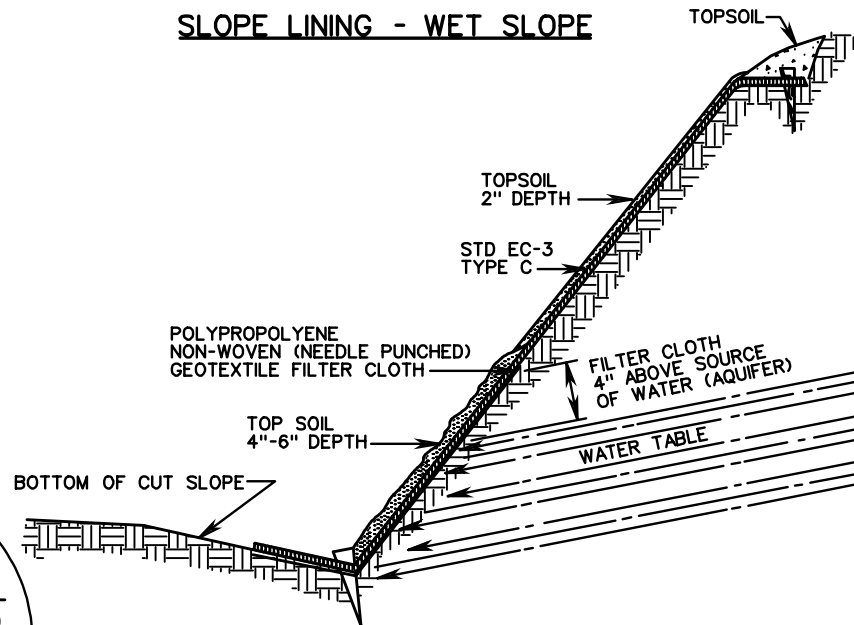
**TOE OF FILL**

MAINTAIN SLOPE ANGLE

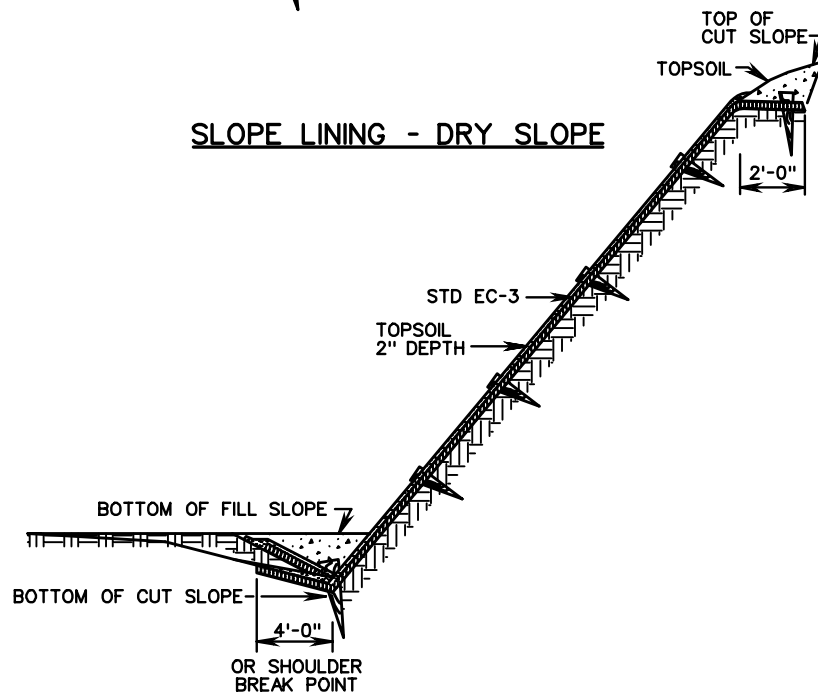
**BERM**

TRENCH INTO BERM AND PROGRESS DOWNSLOPE

**SLOPE LINING - WET SLOPE**



**SLOPE LINING - DRY SLOPE**



**NOTE:**

1. SLOPE SURFACE SHALL BE SMOOTH AND FREE OF ROCKS, LUMPS OF DIRT, GRASS, AND STICKS. MAT SHALL BE PLACED FLAT ON SURFACE FOR PROPER SOIL CONTACT.
2. STAKES SHALL BE WOOD OR METAL AS RECOMMENDED BY THE MANUFACTURER AND SHALL BE A MINIMUM OF 18 INCHES IN LENGTH.
3. BASIS OF PAYMENT SHALL BE SQUARE YARDS OF STANDARD EC-3 (TYPE C) IN PLACE.
4. SOIL STABILIZATION MAT TYPE C SHALL BE IN ACCORDANCE WITH THE APPROVED PRODUCT LIST.
5. TOPSOIL SHALL BE SPREAD TO A UNIFORM THICKNESS PRIOR TO APPLICATION OF SEED AND MULCH.
6. FOR SOURCES OF APPROVED MATERIALS SEE VDOT'S APPROVED PRODUCTS LIST FOR ST'D. EC-3, TYPE C MATERIALS.
7. SLOPES 1/2:1 AND FLATTER SHALL BE BACKFILLED WITH TOPSOIL AT 2 INCH DEPTH. SEED SHALL BE APPLIED TO THE TOPSOIL AND MULCHED WITH TYPE I MULCH.
8. SLOPES STEEPER THAN 1/2:1 SHALL BE SEEDED IMMEDIATELY PRIOR TO INSTALLATION OF ST'D. EC-3 TYPE C MATERIAL.

SPECIFICATION REFERENCE

244  
606

**SOIL STABILIZATION MAT -  
SLOPE INSTALLATION TYPE C**

VIRGINIA DEPARTMENT OF TRANSPORTATION

**VDOT**

ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 3 OF 3

113.05