

NOTES:

1. FOR MULTIPLE LINE INSTALLATIONS DIMENSION S IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W).
2. ON ANY SECONDARY ROADS INSTALLATION REQUIRING EROSION CONTROL STONE WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.
3. GEOTEXTILE FABRIC TO BE INSTALLED UNDER ALL EROSION CONTROL STONE IN ACCORDANCE WITH THE SPECIFICATIONS.
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.
5. *USE TYPICAL SECTION SHOWN ON PLANS OR FOR SIDESLOPE, BOTTOM WIDTH AND DEPTH OF CHANNEL, MATCH EXISTING DITCH OR NATURAL GROUND.

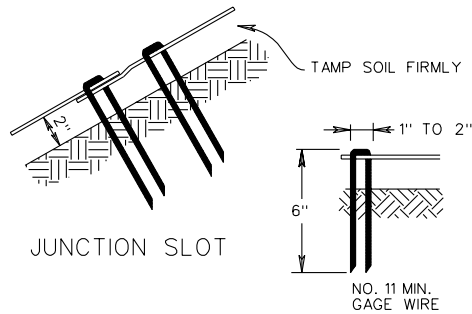
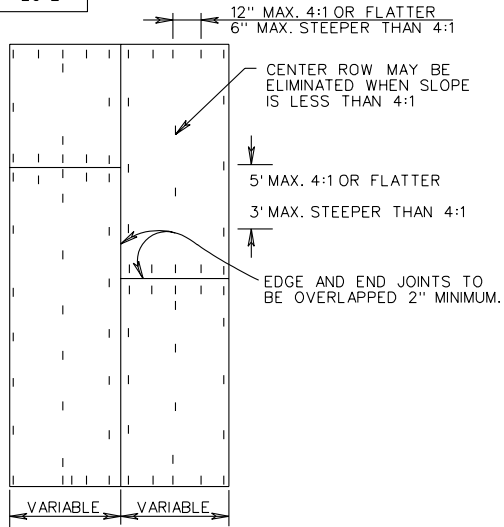
| EC-1 | MIN. DEPTH "D" |
|----------|----------------|
| CLASS I | 2' |
| CLASS II | 3' |

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| SPECIFICATION REFERENCE |
| 204 |
| 245 |
| 303 |
| 414 |

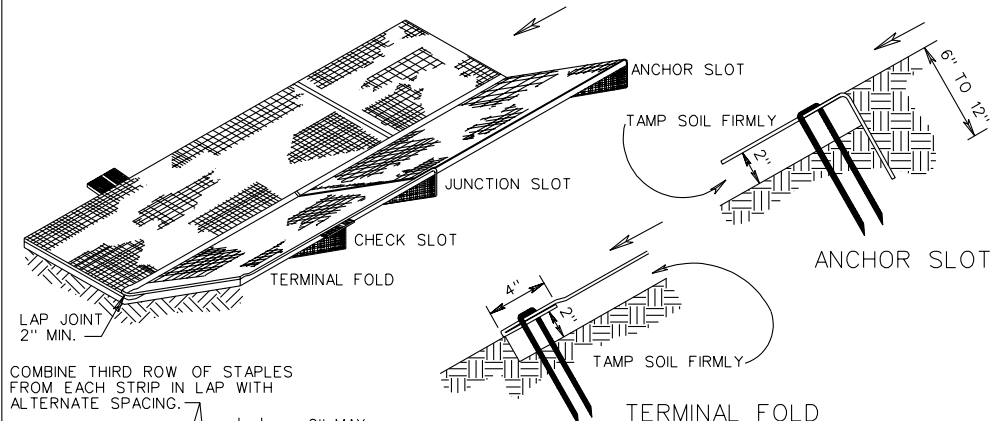
STONE FOR EROSION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

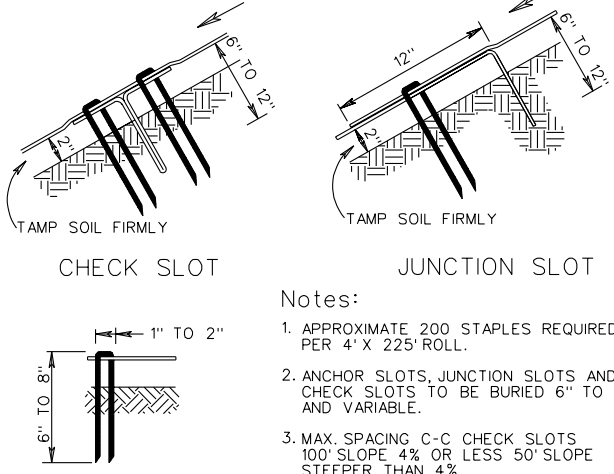
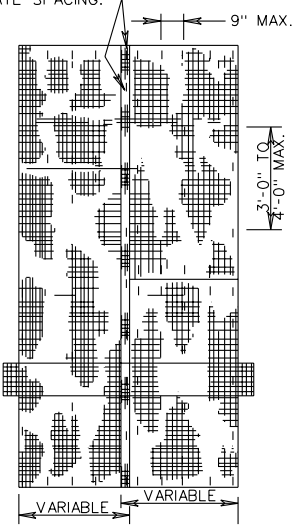
EC-2



SOIL RETENTION MAT



COMBINE THIRD ROW OF STAPLES FROM EACH STRIP IN LAP WITH ALTERNATE SPACING.



JUTE MESH

- Notes:
1. APPROXIMATE 200 STAPLES REQUIRED PER 4' X 225' ROLL.
 2. ANCHOR SLOTS, JUNCTION SLOTS AND CHECK SLOTS TO BE BURIED 6" TO 12" AND VARIABLE.
 3. MAX. SPACING C-C CHECK SLOTS 100' SLOPE 4% OR LESS 50' SLOPE STEEPER THAN 4%.
 4. STAPLES FORMED FROM NO. 8 STEEL WIRE 8" STAPLE MINIMUM LENGTH FOR SANDY SOIL 6" STAPLE MINIMUM LENGTH FOR OTHER SOIL.

GENERAL NOTES:

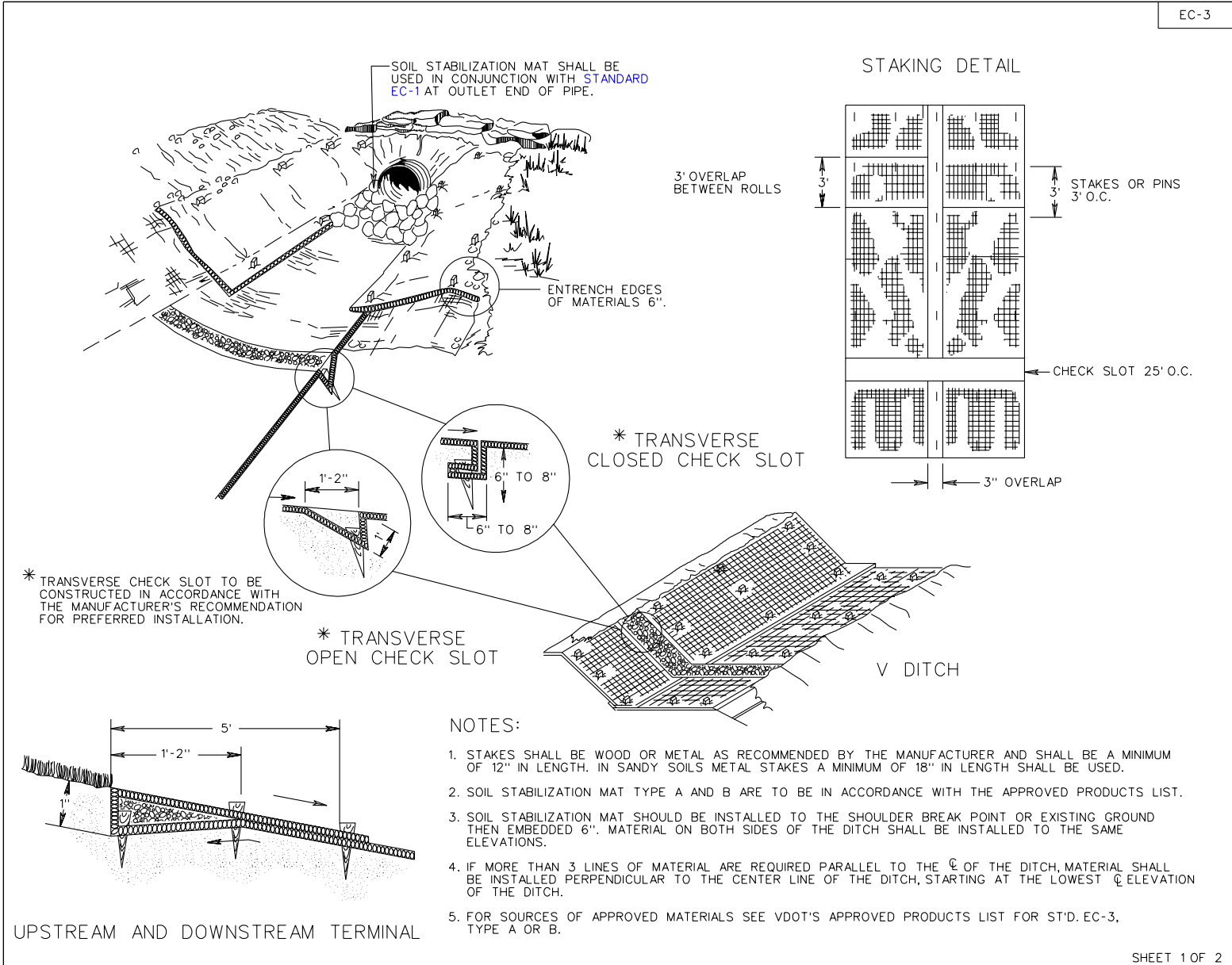
1. BASIS OF PAYMENT TO BE SQUARE YARDS OF PROTECTIVE COVERING COMPLETE IN PLACE. PROTECTIVE COVERING IS TO BE LOCATED AS INDICATED ON THE PLANS IN ACCORDANCE WITH THE DIMENSIONS SPECIFIED ON TYPICAL SECTION.
2. "T-TOP" STAPLES OR OTHER MANUFACTURER'S DESIGN APPROVED BY THE ENGINEER MAY BE SUBSTITUTED FOR THE STAPLES SHOWN.
3. JUTE MESH OR SOIL RETENTION MAT IN ACCORDANCE WITH THE SPECIFICATIONS MAY BE USED AT THE OPTION OF THE CONTRACTOR.
4. WIDTH OF MATERIAL MAY VARY FROM MINIMUM DIMENSION BY INCREMENTS OF 4 OR 5 FEET.
5. FOR SOURCES OF APPROVED MATERIAL SEE VDOT'S APPROVED PRODUCTS LIST FOR ST'D. EC-2 MATERIAL.

PROTECTIVE COVERING INSTALLATION CRITERIA

114.02

VIRGINIA DEPARTMENT OF TRANSPORTATION

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| SPECIFICATION REFERENCE |
| 244 606 |

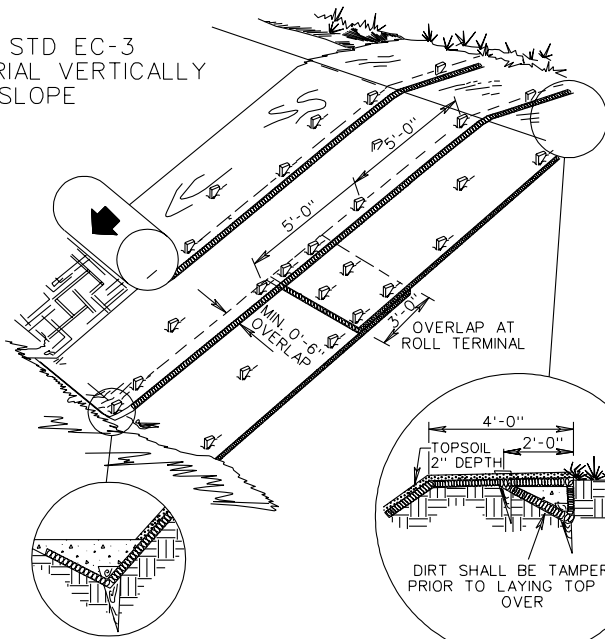


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| SPECIFICATION REFERENCE |
| 606 244 |

SOIL STABILIZATION MAT
DITCH INSTALLATION TYPE A OR B
VIRGINIA DEPARTMENT OF TRANSPORTATION

FILL SLOPE SECTION

DROP STD EC-3 MATERIAL VERTICALLY DOWNSLOPE



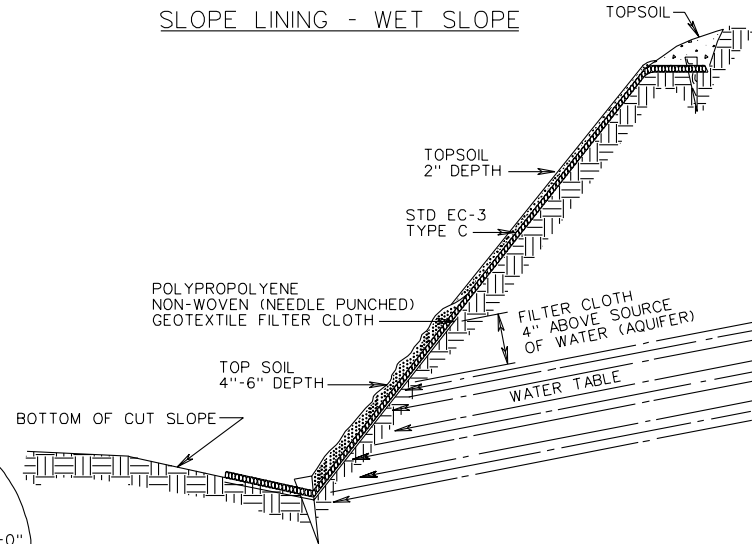
TOE OF FILL
MAINTAIN SLOPE ANGLE

BERM
TRENCH INTO BERM AND
PROGRESS DOWNSLOPE

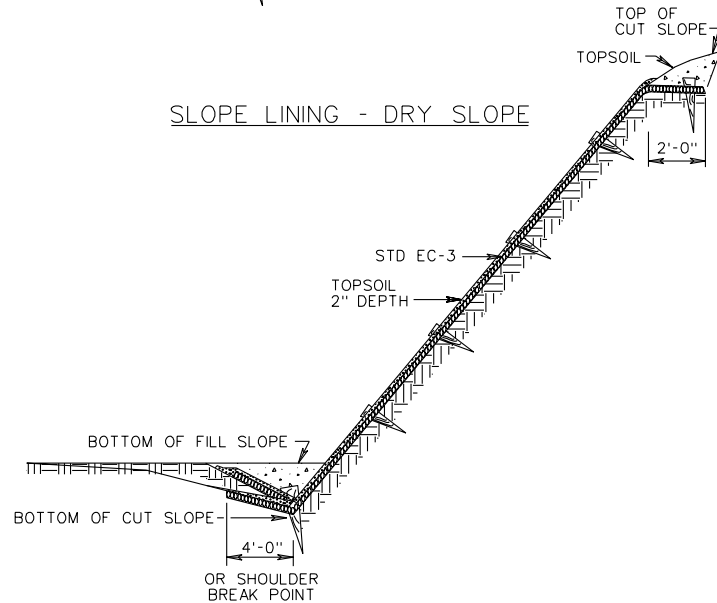
NOTE:

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 STD. 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 1 MULCH.
8. SLOPES STEEPER THAN 1/2:1 SHALL BE SEEDED IMMEDIATELY PRIOR TO INSTALLATION OF STD. EC-3 TYPE C MATERIAL.

SLOPE LINING - WET SLOPE

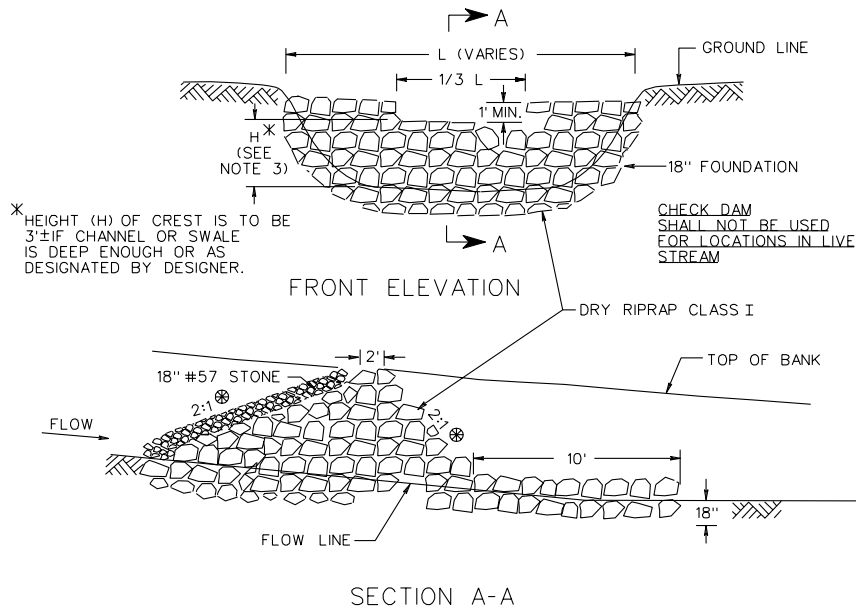


SLOPE LINING - DRY SLOPE

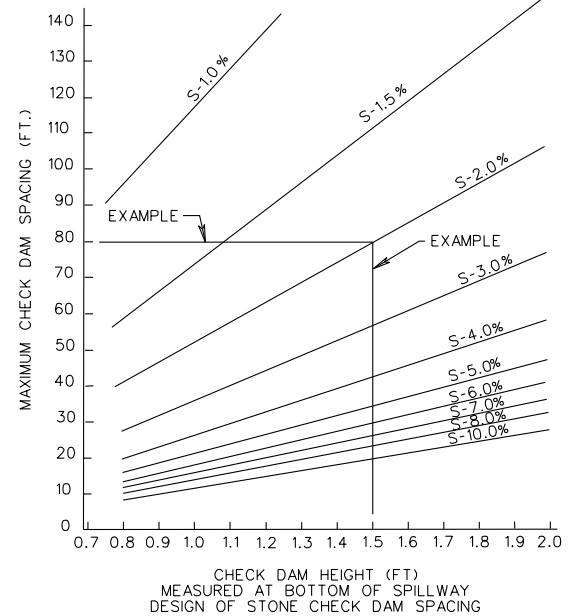


SOIL STABILIZATION MAT - SLOPE INSTALLATION TYPE C

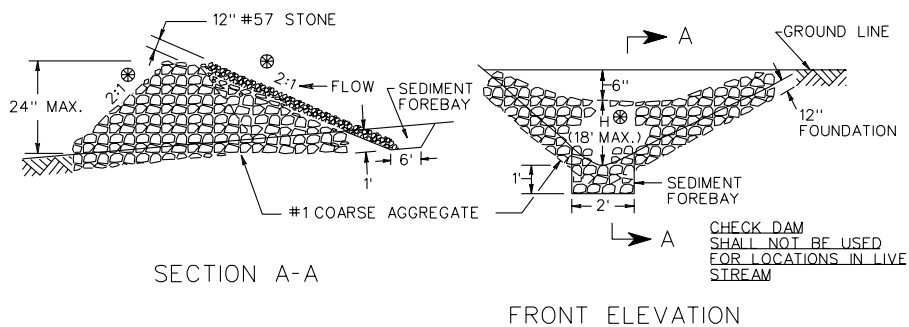
TYPICAL DETAIL FOR ROCK CHECK DAM TYPE I



SUGGESTED ROCK CHECK DAM SPACING



TYPICAL DETAIL FOR ROCK CHECK DAM TYPE II



NOTES:

- ROCK CHECK DAMS THAT ARE DESIGNATED ON THE PLANS AS A STORMWATER MANAGEMENT (SWM) ITEM ARE TO BE LEFT IN PLACE AS A PERMANENT INSTALLATION.
- WHERE DRAINAGE AREAS EXCEED 1 ACRE OR DITCH GRADE EXCEEDS 3%, A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.
- IF CHECK DAMS IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6:1 AND MAXIMUM H IS TO BE 12".
- ALTERNATIVE MATERIALS ON VDOT'S SPEL LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST TO THE DEPARTMENT.

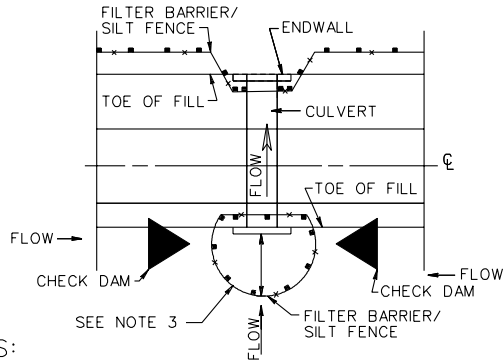
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| SPECIFICATION REFERENCE |
| 107 303 |

ROCK CHECK DAMS TYPE I & II

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EC-5

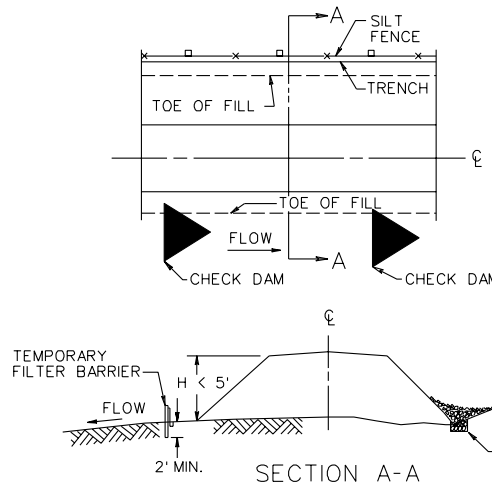
TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER/SILT FENCE/CHECK DAM AT CULVERT



NOTES:

1. IF ANY PORTION OF FILL IS GREATER THAN 5', SILT FENCE IS REQUIRED. IF FILL HEIGHT IS LESS THAN 5', FILTER BARRIER IS REQUIRED.
2. ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.
3. DISTANCE IS 6' MINIMUM AND IS TO BE CONTAINED WITHIN RIGHT OF WAY OR EASEMENT.

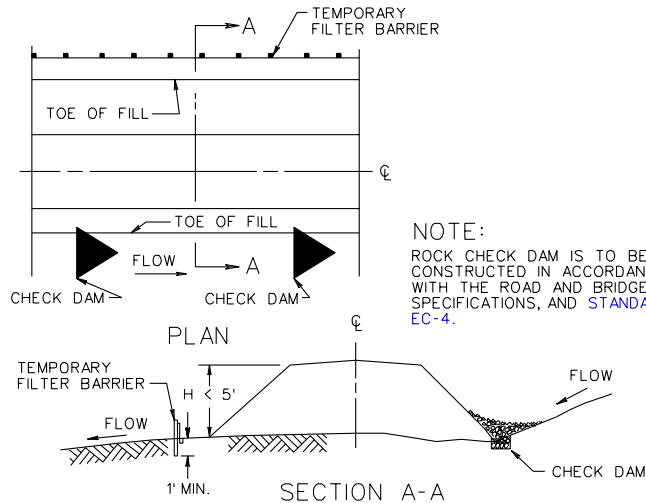
TYPICAL DETAIL FOR TEMPORARY SILT FENCE/CHECK DAM AT TOE OF FILL



NOTE:

ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

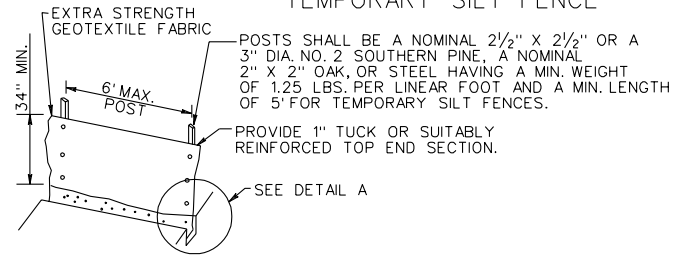
TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER/CHECK DAM AT TOE OF FILL



NOTE:

ROCK CHECK DAM IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS, AND STANDARD EC-4.

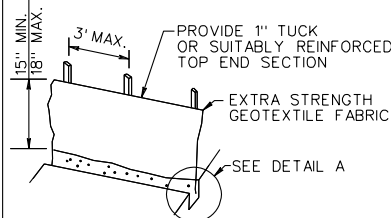
TEMPORARY SILT FENCE



POSTS SHALL BE A NOMINAL 2 1/2" X 2 1/2" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.

PROVIDE 1" TUCK OR SUITABLY REINFORCED TOP END SECTION.

TEMPORARY FILTER BARRIER

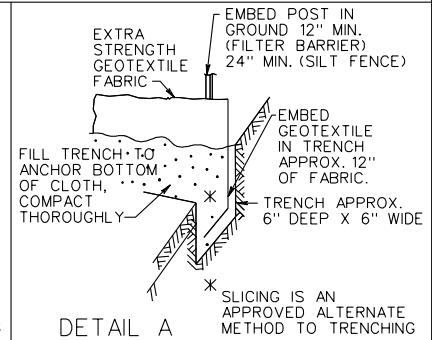


PROVIDE 1" TUCK OR SUITABLY REINFORCED TOP END SECTION

EXTRA STRENGTH GEOTEXTILE FABRIC

NOTE:

SUPPORTS FOR TEMPORARY FILTER BARRIERS SHALL BE A NOMINAL 1" X 2" OR A 1 1/2" DIA. NO. 2 SOUTHERN PINE OR OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.00 LBS. PER LINEAR FOOT.



TEMPORARY SILT FENCE AND FILTER BARRIER

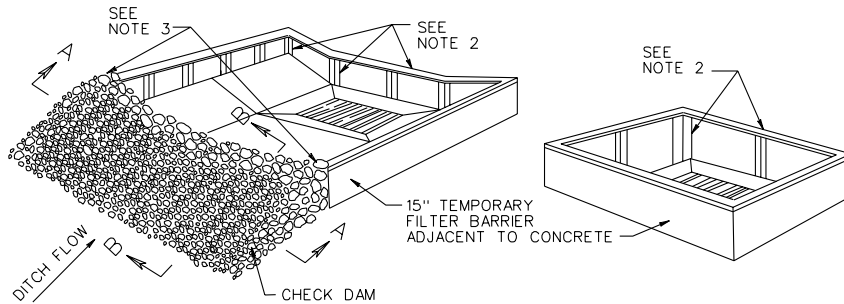
VIRGINIA DEPARTMENT OF TRANSPORTATION

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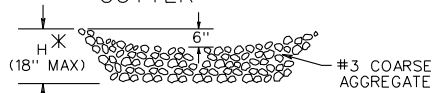
SPECIFICATION REFERENCE

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DROP INLET SILT TRAP (TYPE A)

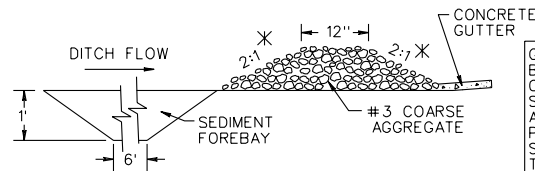


TYPICAL TREATMENT FOR DROP INLET WITH CONCRETE GUTTER



SECTION A-A

* IF CHECK DAM IS LOCATED INSIDE CLEAR ZONE AND ADJACENT TO A TRAVELWAY, SLOPE FACING ON COMING TRAFFIC IS TO BE 6:1 AND MAXIMUM H IS TO BE 12".

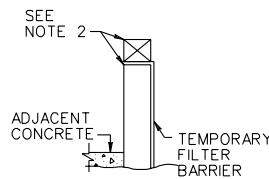


SECTION B-B

NOTES

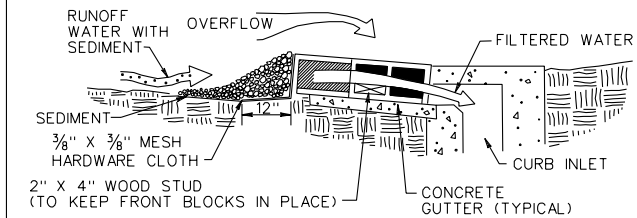
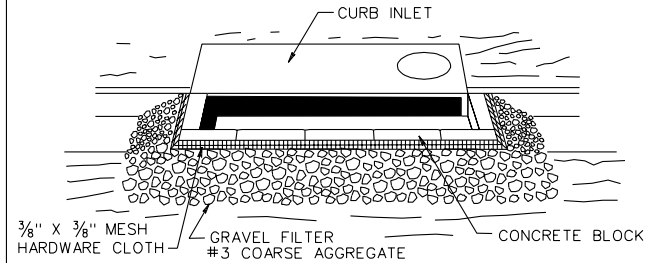
1. DROP INLET SILT TRAPS WILL BE MEASURED FOR PAYMENT IN LINEAR FEET OF TEMPORARY FILTER BARRIER.
2. POSTS AND TOP RAIL SHALL BE A NOMINAL 2 1/2" X 2 1/2" OR A 3" DIA. NO. 2 SOUTHERN PINE, A NOMINAL 2" X 2" OAK, OR STEEL HAVING A MIN. WEIGHT OF 1.25 LBS. PER LINEAR FOOT AND A MIN. LENGTH OF 5' FOR TEMPORARY SILT FENCES.
3. END OF FILTER BARRIER TO BE EMBEDDED INTO AGGREGATE.
4. IF A DROP INLET IS LOCATED IN A SAG IN THE DITCH GRADE, A CHECK DAM IS REQUIRED FOR EACH SIDE OF THE INLET THAT RECEIVES DITCH FLOW.
5. WHERE DRAINAGE AREAS EXCEED ONE ACRE OR DITCH GRADE EXCEEDS 3% A TEMPORARY SEDIMENT FOREBAY SHALL BE INSTALLED WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.

TYPICAL TREATMENT FOR DROP INLET WITHOUT CONCRETE GUTTER



GEOTEXTILE PRODUCTS DESIGNED TO BE INSERTED INTO GRATED DROP INLETS OR DESIGNED TO COVER THE SLOTS OF SLOT DROP INLETS, THAT HAVE BEEN APPROVED FOR USE ON VDOT'S PROJECTS AND ARE FOUND ON VDOT'S SPEL LIST, MAY BE SUBSTITUTED FOR THE DROP INLET PROTECTION DEVICES DETAILED HEREON.

DROP INLET SILT TRAP TYPE B (BLOCK AND GRAVEL)

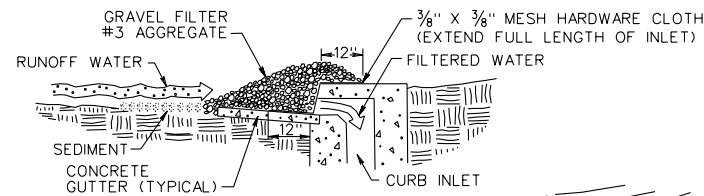


SECTION VIEW

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

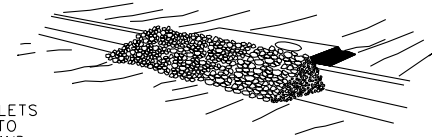
ALTERNATE DROP INLET SILT TRAP TYPE B (GRAVEL)



SECTION VIEW

SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

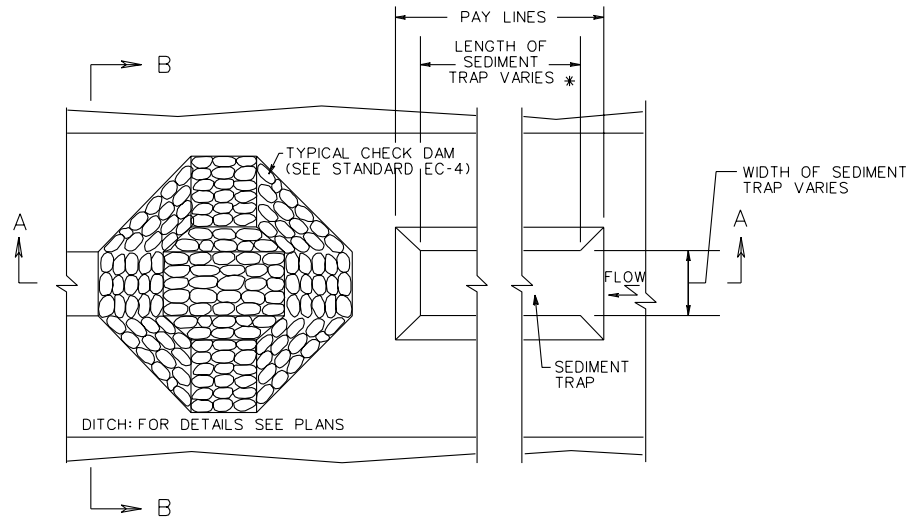


SPECIFICATION REFERENCE

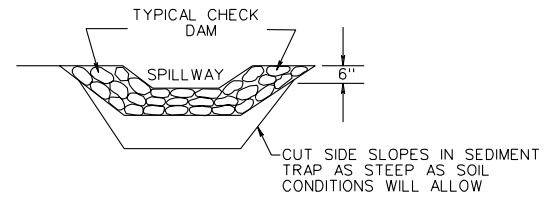
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DROP INLET SILT TRAP (TYPE A AND B)

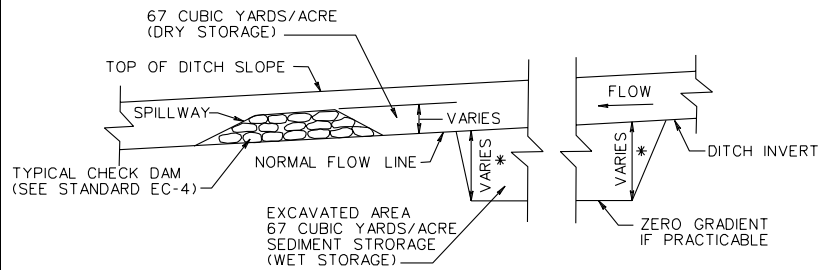
VIRGINIA DEPARTMENT OF TRANSPORTATION



PLAN VIEW



SECTION B-B



SECTION A-A

NOTES:

1. CHECK DAM IS SHOWN FOR ILLUSTRATION ONLY AND IS NOT INCLUDED IN PAYMENT FOR SEDIMENT TRAP.
2. THE SEDIMENT STORAGE VOLUME SHALL BE 134 CUBIC YARDS/ACRE OF TOTAL CONTRIBUTING DRAINAGE AREA AND SHALL CONSIST OF HALF IN THE FORM OF WET STORAGE AND HALF IN THE FORM OF DRY STORAGE.
- 3.* WHERE DRAINAGE AREAS EXCEED 1 ACRE OR DITCH GRADE EXCEEDS 3%, A SEDIMENT TRAP SHALL BE INSTALLED WITH EACH CHECK DAM WITH MINIMUM DIMENSIONS OF 12" DEPTH, 2' WIDTH AND 6' LENGTH.

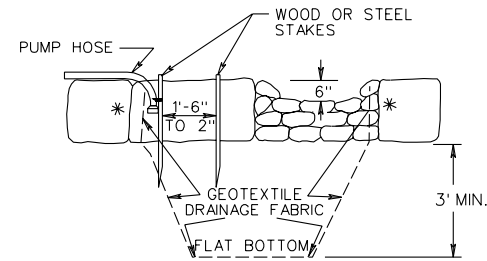
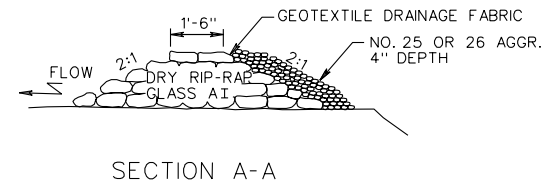
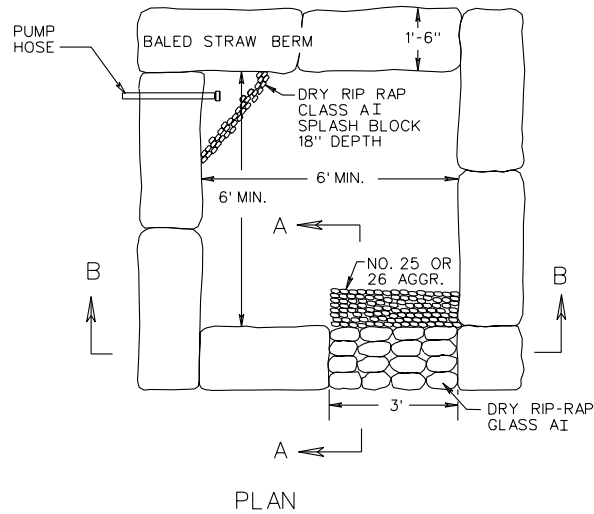
TYPICAL SEDIMENT TRAP

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

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303

TYPICAL DEWATERING BASIN

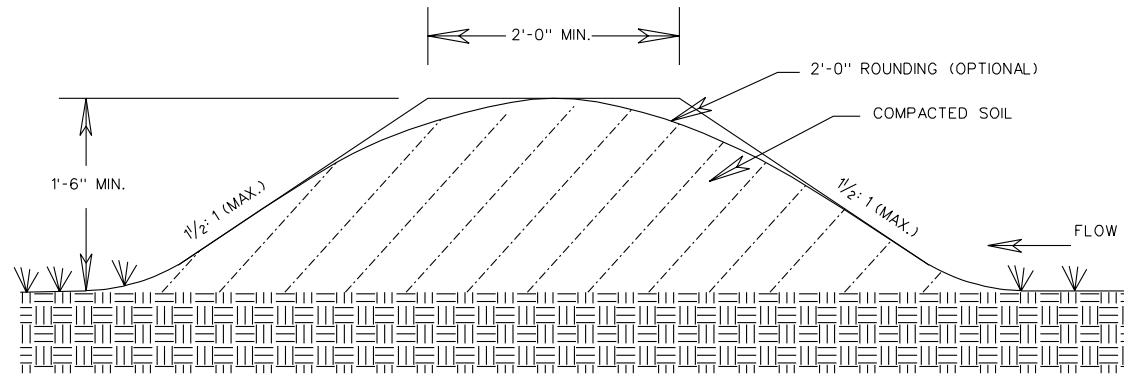


NOTES:

1. DEWATERING BASIN SIZE SHALL BE DETERMINED BY THE FORMULA
 $16 \times \text{GAL./MIN. OF PUMP} = \text{CU. FT. OF STORAGE CAPACITY.}$
2. THIS WORK SHALL CONSIST OF THE CONSTRUCTION OF A DEWATERING BASIN FOR THE PURPOSE OF RECEIVING SEDIMENT-LADENED WATER PUMPED FROM A CONSTRUCTION SITE TO ALLOW FOR FILTRATION BEFORE IT REENTERS THE WATERWAY. PUMPING INTO THESE BASINS SHALL CEASE WHEN THE FLOW FROM THE BASIN BECOMES SEDIMENT-LADENED.
3. SURFACE WATER FLOW SHALL BE DIVERTED AROUND THIS DEVICE.
4. THE OUTFALL FROM THE BASIN(S) SHALL HAVE A STABILIZED CONVEYANCE TO RECEIVING WATERS.
5. ONCE THE DEWATERING BASIN BECOMES FILLED TO HALF OF THE EXCAVATED DEPTH, ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED DISPOSAL AREA OUTSIDE OF THE 100-YEAR FLOODPLAIN UNLESS OTHERWISE APPROVED ON THE PLANS.
6. SEDIMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED AND THE ENGINEER APPROVES THEIR REMOVAL. GROUND CONTOURS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION UNLESS SPECIFICALLY APPROVED OTHERWISE BY THE ENGINEER.
7. SYNTHETIC PRODUCTS APPROVED BY VDOT'S NEW PRODUCTS COMMITTEE AS A SUBSTITUTE MAY BE USED IN LIEU OF THIS DESIGN. HOWEVER, VDOT WILL ONLY COMPENSATE THE CONTRACTOR UP TO THE BID PRICE PER EACH AT EACH SITE.

* GEOTEXTILE DRAINAGE FABRIC TO COVER INSIDE FACE OF BALED STRAW BERM.

| | | |
|-------------------------|--|--------|
| SPECIFICATION REFERENCE | <p>DEWATERING BASIN</p> <p>VIRGINIA DEPARTMENT OF TRANSPORTATION</p> | |
| 107 303 | | 114.09 |



TEMPORARY DIVERSION DIKE

NOTE:

1. THE CHANNEL CREATED BEHIND THE DIKE SHALL HAVE A POSITIVE GRADE TO A STABILIZED OUTLET. THE CHANNEL SHALL BE STABILIZED, AS NECESSARY, TO PREVENT EROSION.
2. TEMPORARY DIVERSION DIKE WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH SECTION 303 OF THE SPECIFICATIONS.

TEMPORARY DIVERSION DIKE

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION
REFERENCE

303