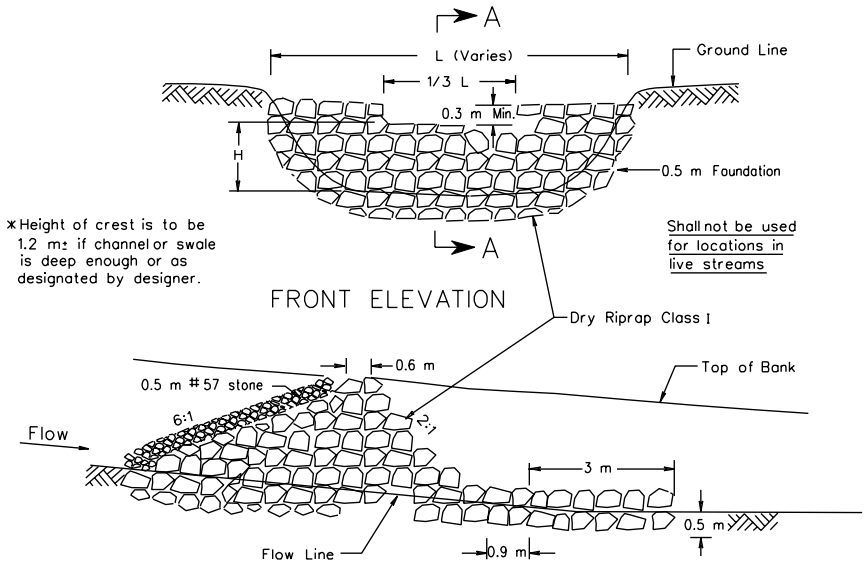
REVISED ON 8/97 REVISED ON 2/01

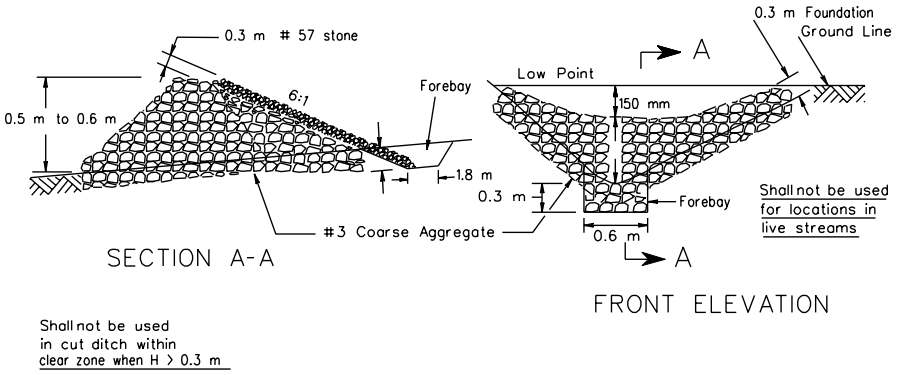
ESC-INS

CHECK DAMS

TYPICAL DETAIL FOR ROCK CHECK DAM TYPE I

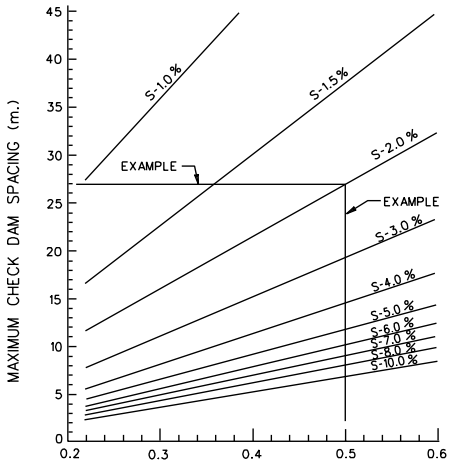


TYPICAL DETAIL FOR ROCK CHECK DAM TYPE II



Shall not be used in cut ditch within clear zone when H > 0.3 m

ROCK CHECK DAM SPACING



DESIGN OF STONE CHECK DAM SPACING
(n=0.030, V=0.6 m/s)

EXAMPLE : HEIGHT OF STRUCTURE 0.5 m
GRADE 2%
EXTEND PERPENDICULAR FROM 0.5 m HEIGHT TO INTERSECT 2% GRADE°
EXTEND 90 TO THE LEFT TO DETERMINE SPACING (27 m±)

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.

H = Height of dam 0.3 m or as designated by designer.

Where drainage areas exceed 0.4 hectares or ditch grade exceeds 3%, a temporary sediment trap shall be installed with minimum dimensions of 0.3 m deep and 1.8 m in length.

SPECIFICATION REFERENCE
107 303

TEMPORARY EROSION & SILTATION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

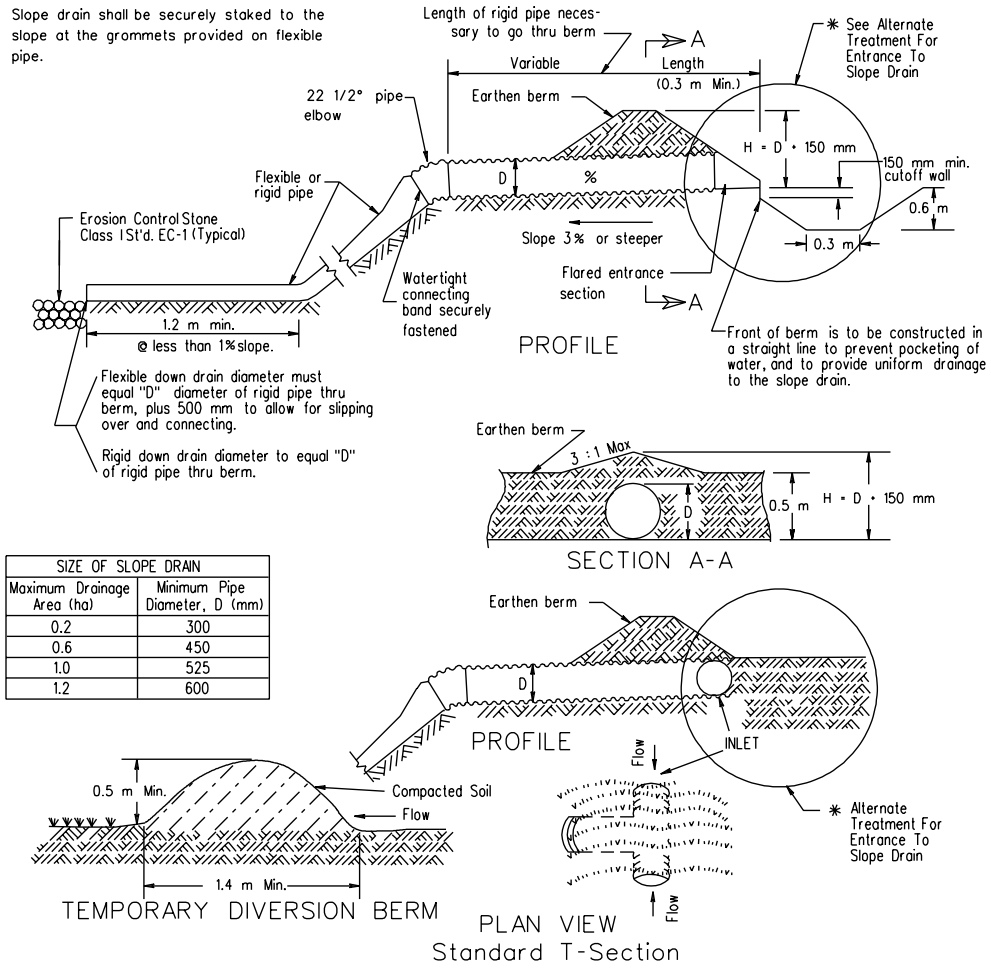
UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS

115.01

REVISED ON 2/01

ESC-INS

TEMPORARY BERM & SLOPE DRAIN



SIZE OF SLOPE DRAIN	
Maximum Drainage Area (ha)	Minimum Pipe Diameter, D (mm)
0.2	300
0.6	450
1.0	525
1.2	600

Sheet 2 of 8

TEMPORARY EROSION & SILTATION CONTROL

SPECIFICATION REFERENCE

107
303

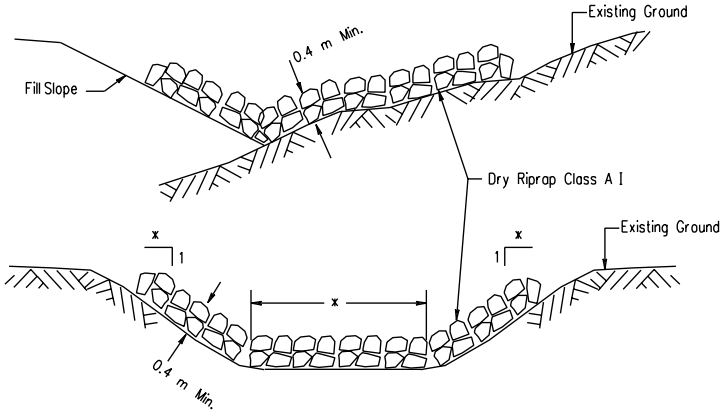
115.02 | UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS

VIRGINIA DEPARTMENT OF TRANSPORTATION

REVISED ON 2/01 REVISED ON 3/03

ESC-INS

SUGGESTED METHOD OF PLACING RIPRAP FOR EROSION CONTROL IN CHANNELS, DITCHES, & AT TOE OF FILL SLOPES

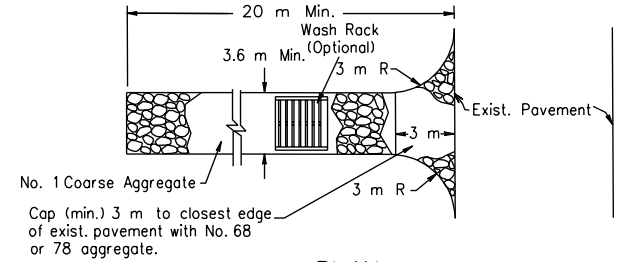


NOTES:

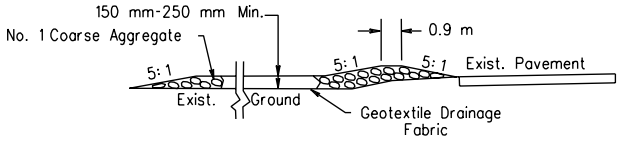
The depth of protection will depend on whatever depth is attainable, with the riprap being evenly spread with the quantity shown on these plans. Riprap may be added or deleted as found necessary by the Engineer.

* Side slopes and bottom width (if trapezoidal) shown in typical section of proposed ditch or channel.

MINIMUM REQUIREMENTS FOR STABILIZED CONSTRUCTION ENTRANCE



PLAN



PROFILE

Surface water shall be piped under the construction entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.

The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way shall be removed immediately.

Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.

Periodic inspection and needed maintenance shall be provided after heavy use and each rain.

SPECIFICATION REFERENCE
107 303

TEMPORARY EROSION & SILTATION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

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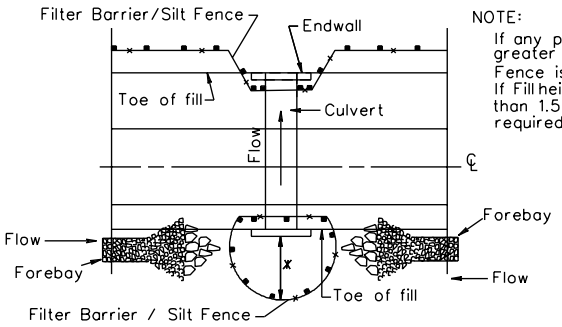
115.03

REVISED ON 8/97 REVISED ON 2/01

ESC-INS

TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER / SILT FENCE AT CULVERT OR PIPE

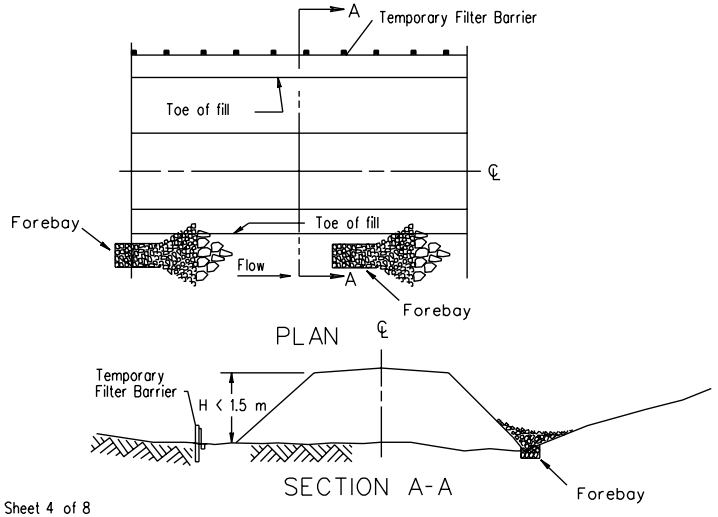


NOTE:
If any portion of Fill is greater than 1.5 m, Silt Fence is required.
If Fill height is less than 1.5 m, Filter Barrier is required.

* Distance is 1.8 m minimum if flow is toward the embankment. To be contained in right of way or easement.

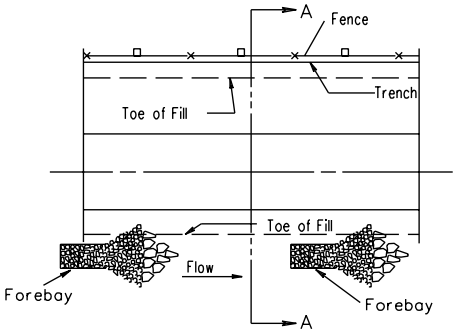
When straw bales are substituted, they are to be entrenched 100 mm with 2 stakes per bale to prevent movement.

TYPICAL DETAIL FOR TEMPORARY FILTER BARRIER AT TOE OF FILL

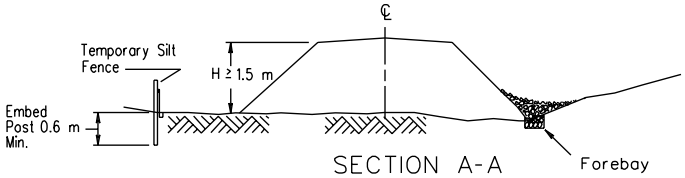


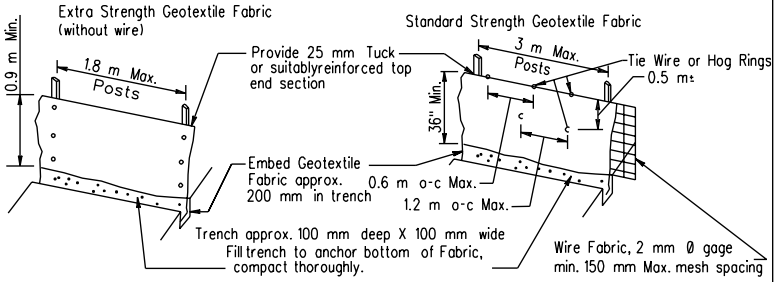
Sheet 4 of 8

TEMPORARY SILT FENCE

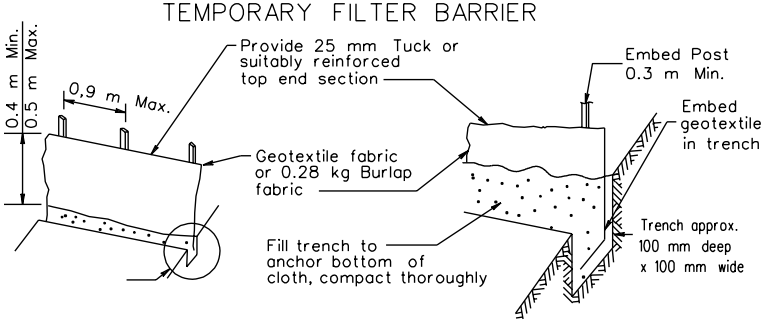


NOTE:
Rock Check Dam is to be constructed in accordance with the Road and Bridge Specifications, and Standard ESC-INS sheet 115.01.





TEMPORARY FILTER BARRIER



TEMPORARY EROSION & SILTATION CONTROL

SPECIFICATION REFERENCE
107
303

115.04 | UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS

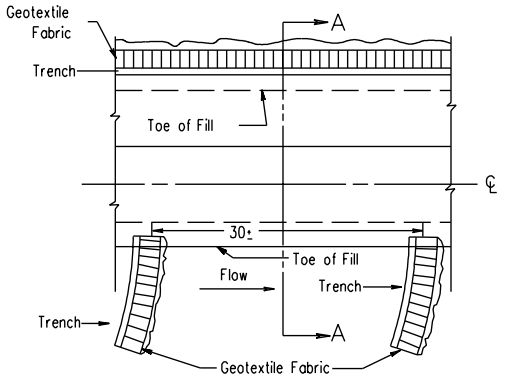
VIRGINIA DEPARTMENT OF TRANSPORTATION

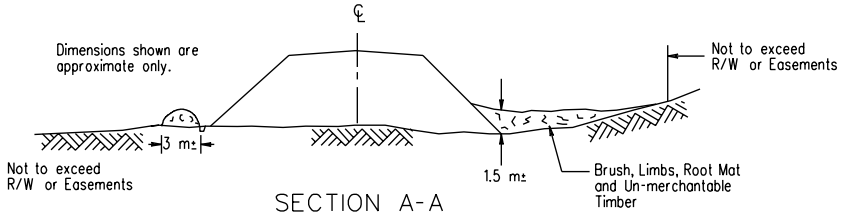
REVISED ON 2/01

ESC-INS

SILT BARRIERS

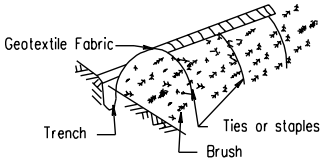
TYPICAL DETAIL FOR BRUSH BARRIER
(TO BE USED AT ALL APPLICABLE LOCATIONS)



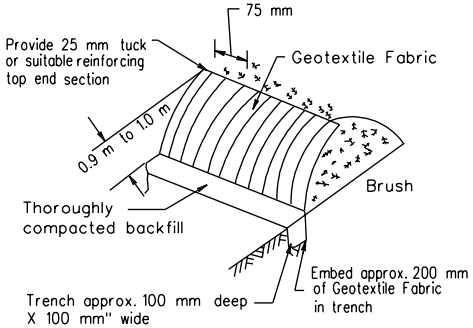


SECTION A-A

NO BRUSH WILL BE DESTROYED OR REMOVED FROM THE PROJECT UNTIL ALL BRUSH SILT BARRIERS ARE IN PLACE AND HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.



BACK ISOMETRIC



FRONT ISOMETRIC

NOTES:

Brush barriers shall be constructed at locations shown on the plans or as directed by the Engr. Brush shall be pilled against existing trees to prevent movement of barrier. Brush shall be piled as tightly as possible and weighted down by unmerchantable logs.

Geotextile fabric conforming to the Road and Bridge Specifications shall be installed as detailed above. Geotextile fabric may also be attached to existing fences when specified on the plans or directed by the Engineer.

SPECIFICATION REFERENCE
107 303

TEMPORARY EROSION & SILTATION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

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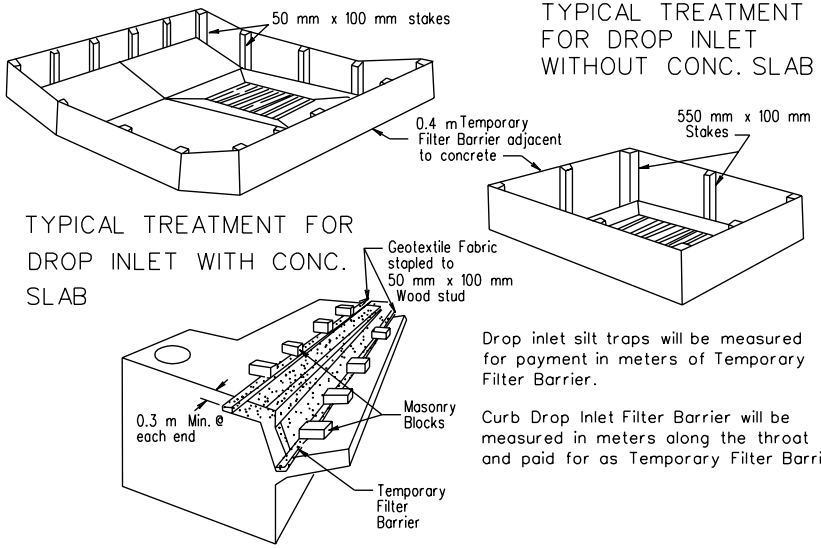
115.05

REVISED ON 8/97 REVISED ON 2/01

ESC-INS

DROP INLET SILT TRAP



TYPICAL TREATMENT FOR DROP INLET WITHOUT CONC. SLAB

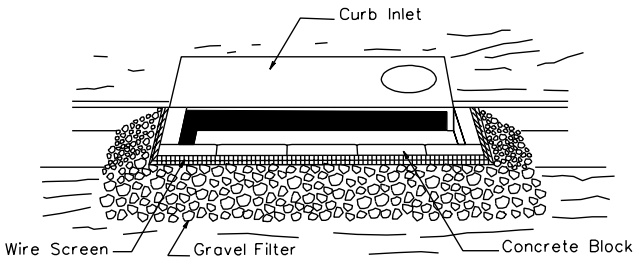
TYPICAL TREATMENT FOR DROP INLET WITH CONC. SLAB

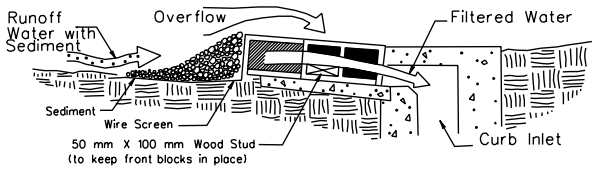
TYPICAL TREATMENT CURB DROP INLET

Drop inlet silt traps will be measured for payment in meters of Temporary Filter Barrier.

Curb Drop Inlet Filter Barrier will be measured in meters along the throat and paid for as Temporary Filter Barrier.

ALTERNATE DROP INLET SILT TRAP (BLOCK AND GRAVEL TYPE)



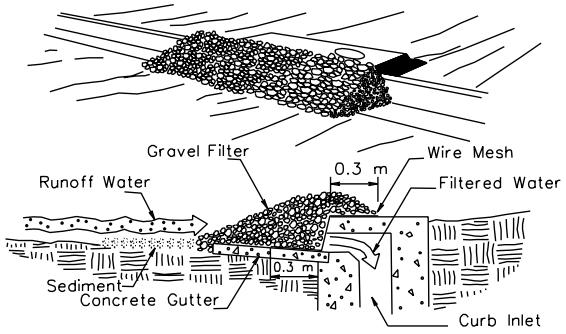


SECTIONAL VIEW

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 (GRAVEL TYPE)



SECTIONAL 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.

TEMPORARY EROSION & SILTATION CONTROL

SPECIFICATION REFERENCE
107 303

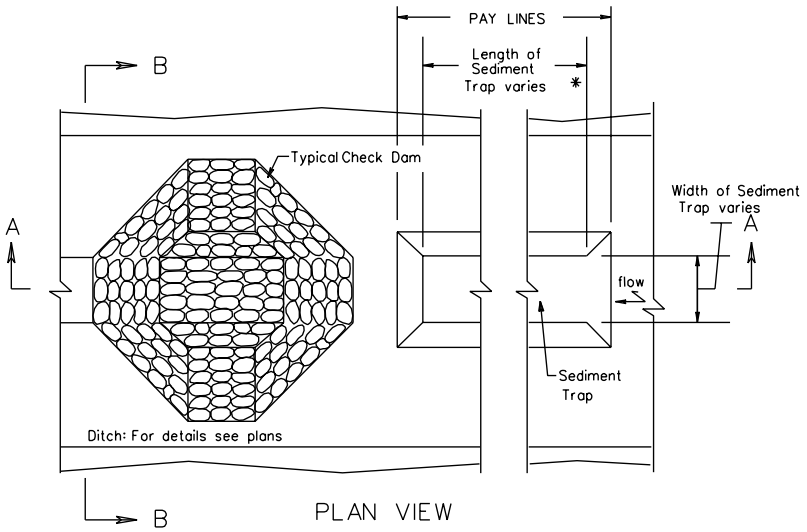
115.06 UNLESS OTHERWISE NOTED, ALL DIMENSIONS ON THIS SHEET ARE IN MILLIMETERS

VIRGINIA DEPARTMENT OF TRANSPORTATION

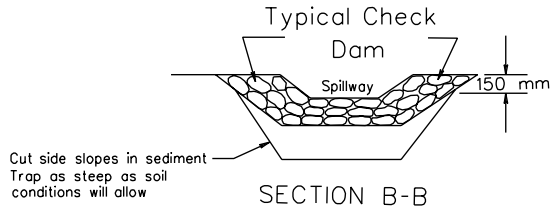
REVISED ON 8/97 REVISED ON 2/01

ESC-INS

TYPICAL SEDIMENT TRAP



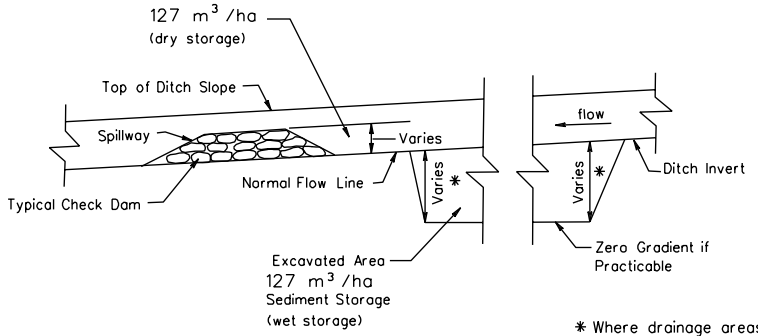
PLAN VIEW



SECTION B-B

NOTES:

Check Dam is shown for illustration only and is not included in payment for Sediment Trap.



SECTION A-A

* Where drainage areas exceed 0.4 ha or ditch grade exceeds 3%, a Sediment Trap shall be installed with each Check Dam with minimum dimensions of 0.3 m deep and 1.8 m in length.

Note: The sediment storage volume shall be 254 m³ /ha of disturbed area and/or erosion prone area in the watershed and shall consist of half in the form of wet storage and half in the form of dry storage.

SPECIFICATION REFERENCE
107 303

TEMPORARY EROSION & SILTATION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

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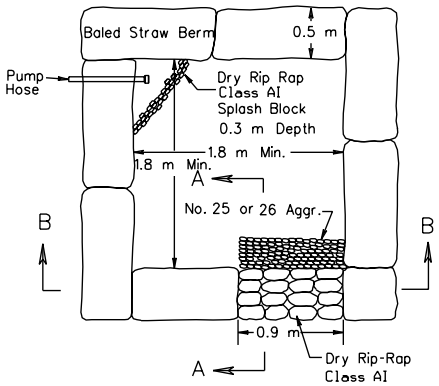
115.07

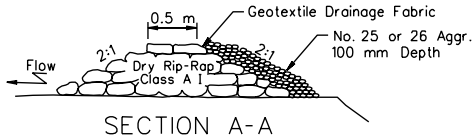
REVISED ON 2/01

ESC-INS

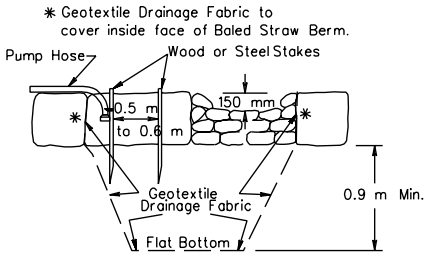
TYPICAL DEWATERING BASIN



PLAN



SECTION A-A



SECTION B-B

NOTES:

Dewatering Basin size shall be determined by the formula 0.1 X liters per minute of pump = m^3 of storage capacity.

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 follow filtration before the water reenters the waterway. Pumping into these basins shall cease when the flow from the basin becomes sediment-ladened.

Surface water flow shall be diverted around this device.

The outfall from the basin(s) shall have a stabilized conveyance to receiving waters.

Once the dewatering basin becomes filled to 1/2 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.

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.

TEMPORARY EROSION & SILTATION CONTROL

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE
107
303

115.08