

TEMPORARY DIVERSION DIKE

TOE OF FILL

SILT FENCE ON INTERIOR -

STONE COMBINATION -

\*VDOT #3, #357, #5, #56 OR #57 COARSE AGGREGATE TO REPLACE SILT FENCE IN " HORSESHOE " WHEN HIGH VELOCITY OF FLOW IS EXPECTED

SOURCE: ADAPTED from VDOT Standard Sheets and Va. DSWC

CULVERT INLET PROTECTION

CIP SHALL UTILIZE STONE

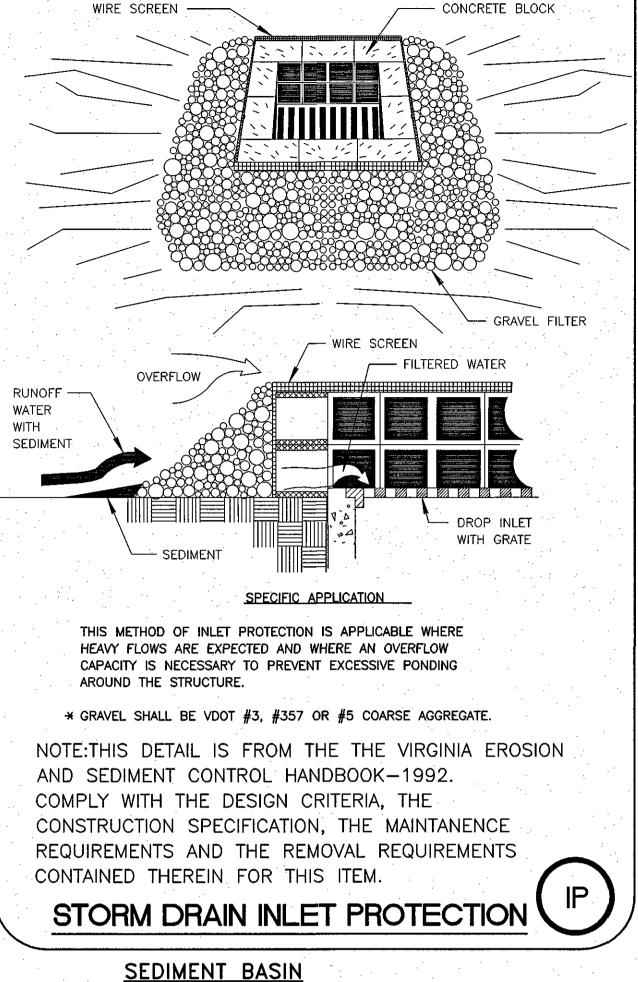
COMBINATION SHOWN BELOW

DISTANCE IS 6' MINIMUM IF FLOW

(CIP)

PLATE. 3.08-1

IS TOWARD EMBANKMENT



BLOCK AND GRAVEL DROP INLET

SEDIMENT FILTER

PROVIDE DOUBLE ROW WHERE SHOWN . SET POSTS AND EXCAVATE A 4"X4" 2. STAPLE WIRE FENCING TO THE POSTS TRENCH UPSLOPE ALONG THE LINE ATTACH THE FILTER FABRIC TO THE WIRE BACKFILL AND COMPACT THE FENCE AND EXTEND IT INTO THE TRENCH. EXCAVATED SOIL. THIS DETAIL IS FROM THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK-1992. THE CONTRACTOR SHALL COMPLY WITH THE DESIGN CRITERIA, THE CONSTRUCTION SPECIFICATION, THE MAINTENANCE REQUIREMENTS AND THE REMOVAL REQUIREMENTS SILT FENCE PROVIDE DOUBLE ROW WHERE SHOWN

THE STORMWATER MANAGEMENT POND SHALL SERVE AS THE SEDIMENT BASIN DURING CONSTRUCTION AND THE SIZE OF THE POND IS DICTATED BY THE VOLUME REQUIREMENTS FOR THE SEDIMENT BASIN, AS OPPOSED TO THE SIZE REQUIRED TO DETAIN THE Q25 AND Q10 FLOWS.

THE STAGE-STORAGE RELATIONSHIP OF THE POND/SEDIMENT BASIN IS PROVIDED IN THE ACCOMPANYING STORMWATER CALCUATIONS PACKAGE. BELOW IS A

AREA DRAINING TO POND= 5.26 ACRES

WET VOLUME REQUIRED= 5.26 ACRES X 67 CY/AC = 352 CY = 9.515 CUBIC FEET WET VOLUME IS ACHIEVED AT ELEVATION= 1126.60

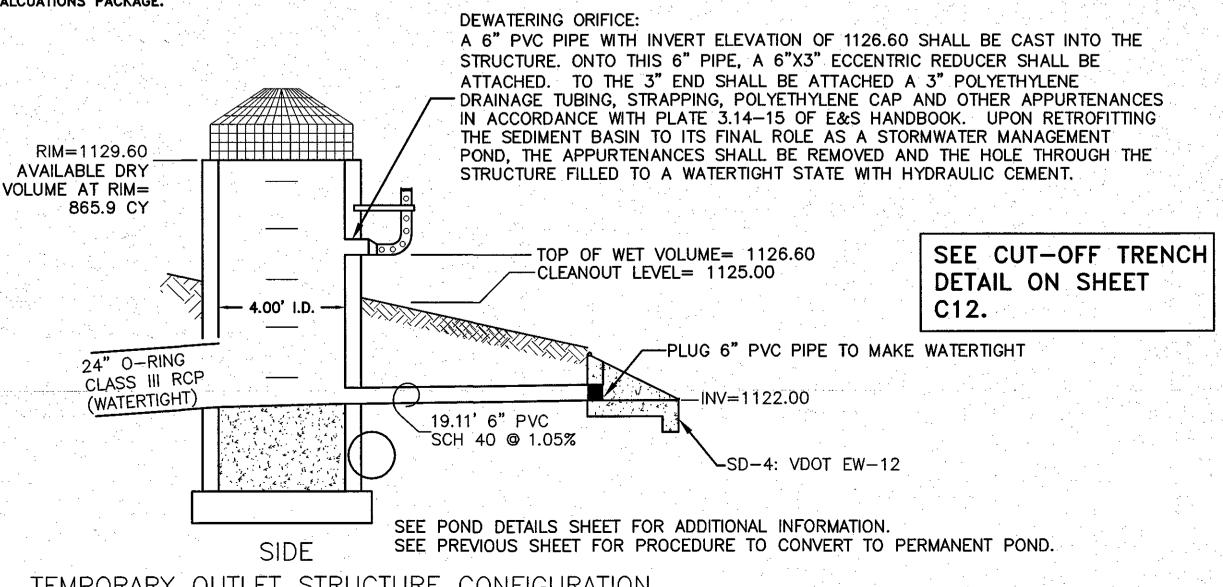
THE CLEANOUT VOLUME IS HALF THE WET VOLUME (176 CY OR 4752 CF) AND IS ACHIEVED AT ELEVATION 1125.00

DRY VOLUME REQUIRED= 5.26 ACRES X 67 CY/AC = 352 CY = 9,515 CUBIC FEET. THIS IS ON TOP OF THE WET VOLUME. BRINGING THE TOTAL REQUIRED POND VOLUME TO

 $2 \times 352 \text{ CY} = 704 \text{ CY} (19,008 \text{ CF}).$ THE ACTUAL AVAIALBE VOLUME AT THE TOP OF THE RISER STRUCTURE IS 23,379 CF.

THE PRINCIPAL SPILLWAY HAS ITS CREST SET AT 1129.60.

THE STORMDRAIN COMPUTATIONS PACKAGE ROUTES THE 10, 25, AND 100 YEAR STORMS THROUGH THE PRINCIPAL SPILLWAY. AN EMERGENCY SPILLWAY IS ALSO PROVIDED AND IT HAS THE CAPACITY TO PASS THE 100 YEAR PEAK FLOW WHILE STILL ALLOWING 1' OF FREEBOARD BETWEEN THE 100 YEAR WATER SURFACE AND THE TOP OF THE DAM. ADDITIONAL INFORMATION ON THE POND'S THE STAGE-STORAGE-DISCHARGE RELATIONSHIP IS PROVIDED IN THE ACCOMPANYING STORMWATER CALCUATIONS PACKAGE.



TEMPORARY OUTLET STRUCTURE CONFIGURATION FOR SEDIMENT BASIN USE (SD-3) NO SCALE

DATE: 05/02/2014 11/16/2015 12/16/2015 07/12/2016

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**OUTLET PROTECTION** 

FILTER CLOTH KEY IN 6"-9"; RECOMMENDED FOR ENTIRE PERIMETE

 $W = 3d_{\alpha}(MIN.)$ 

PIPE OUTLET TO FLAT AREA WITH NO DEFINED

Plate 3.18-1

MINIMUM OUTLET PROTECTION SIZES WERE DETERMINED USING PLATE 3.18-3 OF THE E&S HANDBOOK.

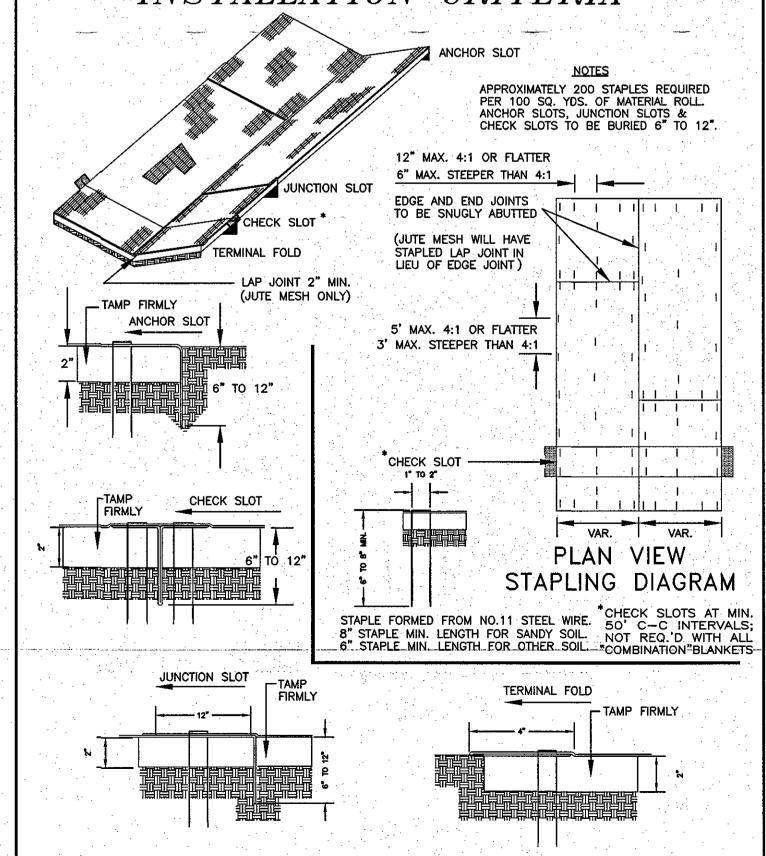
PIPE OUTLET CONDITIONS

(OP)

Source: Va. DSWC

(NOTE THAT THE MINIMUM SIZE WAS EXPANDED TO ACCOMMODATE THE TRANSITION TO THE EXISTING CHANNEL)

TYPICAL TREATMENT: EC-2 (SOIL STABILIZATION BLANKET) INSTALLATION CRITERIA



SOURCE: VDOT ROAD AND BRIDGE STANDARDS

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL ONLY

SEDIMENT CONTROL DETAILS 07/12/2016 RODERICK F. PIERSON Z 023842

COMMISSION R201410

PLATE: 3.36-2

**EROSION** 

MAPPROVED