

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO PROVIDE CLEARING AND GRADING OPERATIONS FOR THE CONSTRUCTION OF TWO PUBLIC ROADS TOTALING APPROXIMATELY 3,850 LF OF ROAD. THE AMOUNT OF LAND DISTURBANCE IS ESTIMATED AT 279,000 SQUARE FEET (6.4 ACRES) WHICH IS A PORTION OF THE 11.249 ACRE TRACT, LOCATED WEST OF VIRGINIA HIGHWAY ROUTE 218. THE IMPROVEMENTS AUTHORITY ARE BEING DISCHARGED TO ADEQUATE, NATURAL CHANNELS THAT EXIST ON THE SITE. PUBLIC DRAINAGE CULVERTS, A PUBLIC WATERLINE AND PRIVATE FORCE MAINS TO PRIVATE SEPTIC SYSTEMS ARE ALSO INCLUDED WITH THIS PROJECT. THE EROSION & SEDIMENT CONTROL MEASURES SHOWN HERE ARE DESIGNED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VA ESCH).

THE SITE WILL UTILIZE A CONSTRUCTION ENTRANCE OFF MOREWOOD ROAD (ROUTE 616). SILT FENCE, DIVERSION DIKE, AND SEDIMENT TRAPS WILL BE UTILIZED AS THE INITIAL PHASE. AS CULVERTS ARE INSTALLED, CULVERT INLET PROTECTION AND OUTLET PROTECTION ON EACH CULVERT WILL BE UTILIZED AS SHOWN. RIPRAP SHALL BE INSTALLED ON THE DOWNSTREAM NATURAL CHANNELS. AS THE ROADSIDE DITCH IS INSTALLED, BLANKET MATTING WILL BE UTILIZED AT LOCATIONS SHOWN ON THE PLANS. TEMPORARY SEEDING AND PERMANENT SEEDING WILL BE UTILIZED IN ACCORDANCE TO THE REQUIRED STANDARDS AND SPECIFICATIONS. REFERENCE IS DIRECTED TO "GRADING & EROSION SEDIMENT CONTROL PLAN" SHEETS.

EXISTING SITE CONDITIONS: THE PROPERTY CURRENTLY HAS TEN DRAINAGE AREAS. TWO OF THE LARGER DRAINAGE AREAS HAVE NATURAL DEFINED SWALES. THE OTHER DRAINAGE AREAS ARE EITHER OVERLAND FLOW OR HAVE SMALL DEFINED SWALES. A MAJORITY OF THE AREA DRAINS TO THE WEST, TOWARD THE WESTLAKE GOLF COURSE; HOWEVER, SOME OF THE SITE DRAINS TO THE SOUTH, TOWARD AN EXISTING CREEK, UNNAMED TRIBUTARY TO SMITH MOUNTAIN LAKE.

CRITICAL AREAS: THE CONTRACTOR SHALL INSTALL A CONSTRUCTION ENTRANCE OFF MOREWOOD ROAD (ROUTE 616). THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE TO THE MINIMUM REQUIRED STANDARDS. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON THE PLANS TO CAPTURE SEDIMENT LADEN RUNOFF AND FILTER RUNOFF PRIOR TO ENTERING DOWNSTREAM AREAS. ALL SILT FENCE SHALL BE INSTALLED AND CHECKED REGULARLY. THE DIVERSION DIKE SHALL BE PLACED AS SHOWN TO KEEP UPSTREAM, UNDISTURBED DRAINAGE AREAS FROM ENTERING DISTURBED AREAS. THE CONTRACTOR SHALL INSTALL STABILIZATION MEASURES TO EARTHEN EMBANKMENT STRUCTURES SUCH AS DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION. THE CONTRACTOR SHALL INSTALL SEDIMENT TRAPS AS SHOWN TO CAPTURE SEDIMENT LADEN RUNOFF PRIOR TO ENTERING INTO THE DRAINAGE WATERCOURSES. SEDIMENT TRAP DESCRIPTIONS AND SIZES ARE SHOWN NEAR EACH TRAP. THE CONTRACTOR SHALL INSTALL CULVERT INLET PROTECTION AND OUTLET PROTECTION IMMEDIATELY UPON INSTALLATION OF PROPOSED CULVERTS. DETAILED OUTLET PROTECTION INFORMATION IS SHOWN ON THE PLANS NEAR THE OUTLET PROTECTION. RIPRAP LINING SHALL BE INSTALLED ON THE DOWNSTREAM CHANNELS AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL INSTALL BLANKET MATTING/SOIL BLANKETS/HYDROMULCH IN AREAS SHOWN ON THE PLANS AS THE ROADSIDE DITCH IS CONSTRUCTED. THE CONTRACTOR SHALL PROVIDE TEMPORARY AND PERMANENT SEEDING WITHIN SEVEN (7) DAYS OF OBTAINING FINAL GRADES. THE CONTRACTOR SHALL HAVE EQUIPMENT ON-SITE TO KEEP SEDIMENT OFF OF EXISTING PAVED AREAS.

ADJACENT PROPERTY: SEE PLAN SHEETS FOR ADJOINING PROPERTY OWNERS AND BOUNDARY DESCRIPTION.

EROSION AND SEDIMENT CONTROL MEASURES: UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.

1. REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS. THIS WORK SHALL BE COORDINATED IN ORDER OF THE WORK WHICH IS TO FOLLOW: CONTROL AT CENTERS OF FLOW, AND OTHER POINTS OF CONCENTRATION SHOWN SHALL BE CONSTRUCTED IN PLACE FIRST.

2. AFTER THE INSTALLED CONTROL DEVICES ARE FOUND TO BE FUNCTIONAL, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH DEMOLITION, CLEARING, AND PRELIMINARY GRADING OPERATIONS. ALL EXPOSED DENUDED AREAS SHALL BE SEEDING WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.

3. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:

A. MEASURES SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
B. ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
C. ALL SEEDING AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDING AS NEEDED.

4. FOLLOWING THE COMPLETION OF DEVELOPMENT AND STABILIZATION OF ALL AREAS AND AFTER IT HAS BEEN DETERMINED THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE SITE OR AT ITS BOUNDARIES AND THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, ORGANIZED MANNER.

GENERAL COMMENTS: 1. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

2. THE APPROVING AUTHORITY RESERVES THE RIGHT TO ADD TO, DELETE, OR OTHERWISE CHANGE EROSION CONTROL DEVICES AS MAY BE DEEMED NECESSARY BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

3. NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE APPROVING AUTHORITY.

4. THE ENGINEER, PARKER DESIGN GROUP, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

GENERAL EROSION & SEDIMENT CONTROL NOTES

- ALL SOIL EROSION & SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
- ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED, AS FAR AS PRACTICAL.
- IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
- FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
- REFERENCE IS DIRECTED TO "EROSION & SEDIMENT CONTROL PLAN" FOR SITE DEPICTING EROSION AND SEDIMENT CONTROL MEASURES.

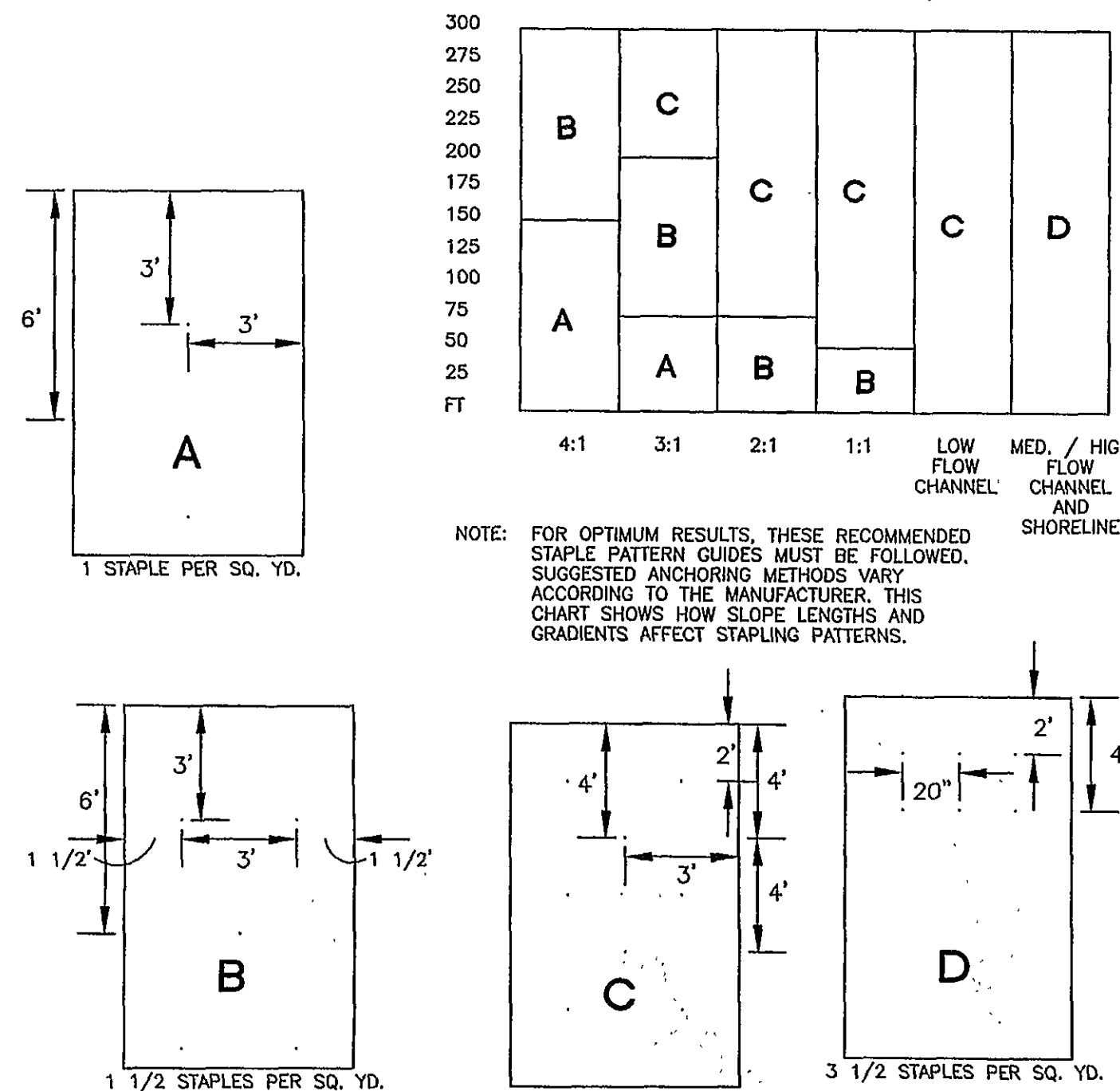
OFFSITE WASTE AND BORROW NOTE:

THE PROPOSED DEVELOPMENT DOES NOT ANTICIPATE OFF-SITE WASTE AREAS; HOWEVER, SHOULD THE PROJECT REQUIRE OFF-SITE WASTE AREAS OR BORROW AREAS, THE LOCATION OF THESE AREAS NEED TO BE SUBMITTED TO THE LOCAL GOVERNING AUTHORITY, AND OTHER LOCAL GOVERNING AUTHORITIES WHERE WASTE/BORROW OCCURS. EROSION CONTROL PLANS OR MEASURES MAY BE REQUIRED FOR THESE OFF-SITE LOCATIONS.

GENERAL STAPLE PATTERN GUIDE FOR TREATMENT - 2 (SOIL STABILIZATION MATTING)

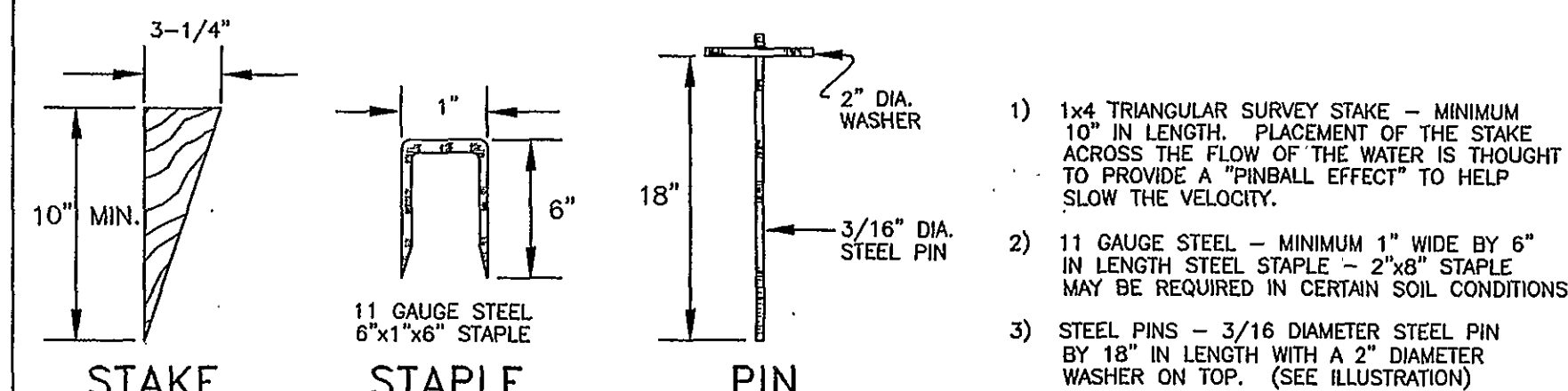
SOURCE: PRODUCT LITERATURE FROM NORTH AMERICAN GREEN

PLATE: 3.36-6



NOTE: FOR OPTIMUM RESULTS, THESE RECOMMENDED STAPLE PATTERN GUIDES MUST BE FOLLOWED. SUGGESTED ANCHORING METHODS VARY ACCORDING TO THE MANUFACTURER. THIS CHART SHOWS HOW SLOPE LENGTHS AND GRADIENTS AFFECT STAPLING PATTERNS.

STAKES, STAPLES, & PINS TREATMENT - 2 SOIL STABILIZATION MATTING



SOURCE: PRODUCT LITERATURE FROM GREENSTREAK, INC. PLATE: 3.36-3

THE CONTRACTOR SHALL UTILIZE SOME MEASURE OF BLANKET MATTING, SOIL STABILIZATION, OR HYDROMULCH MATERIAL TO STABILIZE DISTURBED SLOPES AT 3:1 SLOPE OR STEEPER.

SOIL STABILIZATION BLANKETS & MATTING: VESCH STD. & SPEC 3.36
TREATMENT-1: DEGRADABLE SOIL STABILIZATION BLANKET
EXAMPLES: JUTE MESH, LANDSCAPE SUPPLY (NORTH AMERICAN GREEN) P300, C350, C125 EQUIVALENT SUPPLIERS
USE TO HELP ESTABLISH VEGETATIVE GROWTH, TEMPORARY MEASURES.

TREATMENT-2: NON-DEGRADABLE SOIL STABILIZATION BLANKET
EXAMPLES: LANDSCAPE SUPPLY (NORTH AMERICAN GREEN) P550 PYRAMAT

HYDRO MULCH: COMBINATION OF THERMALLY REFINED WOOD AND MULTI DIMENSIONAL TACKIFIER INSTALLED DURING THE HYDROSEEDING PROCESS OF STEEP SLOPES. MATERIAL CAN BE USED IN PLACE OF TREATMENT-1.

EXAMPLES: CONWEED FIBERS HYDRO MULCH 2500 MAT, INC SOIL GUARD HYDROGRASS - GEOPERM EQUIVALENT SUPPLIERS
INSTALLATION RATE PER MANUFACTURER RECOMMENDATIONS
INSTALLATION: USE 60" AN TYPE NOZZLE

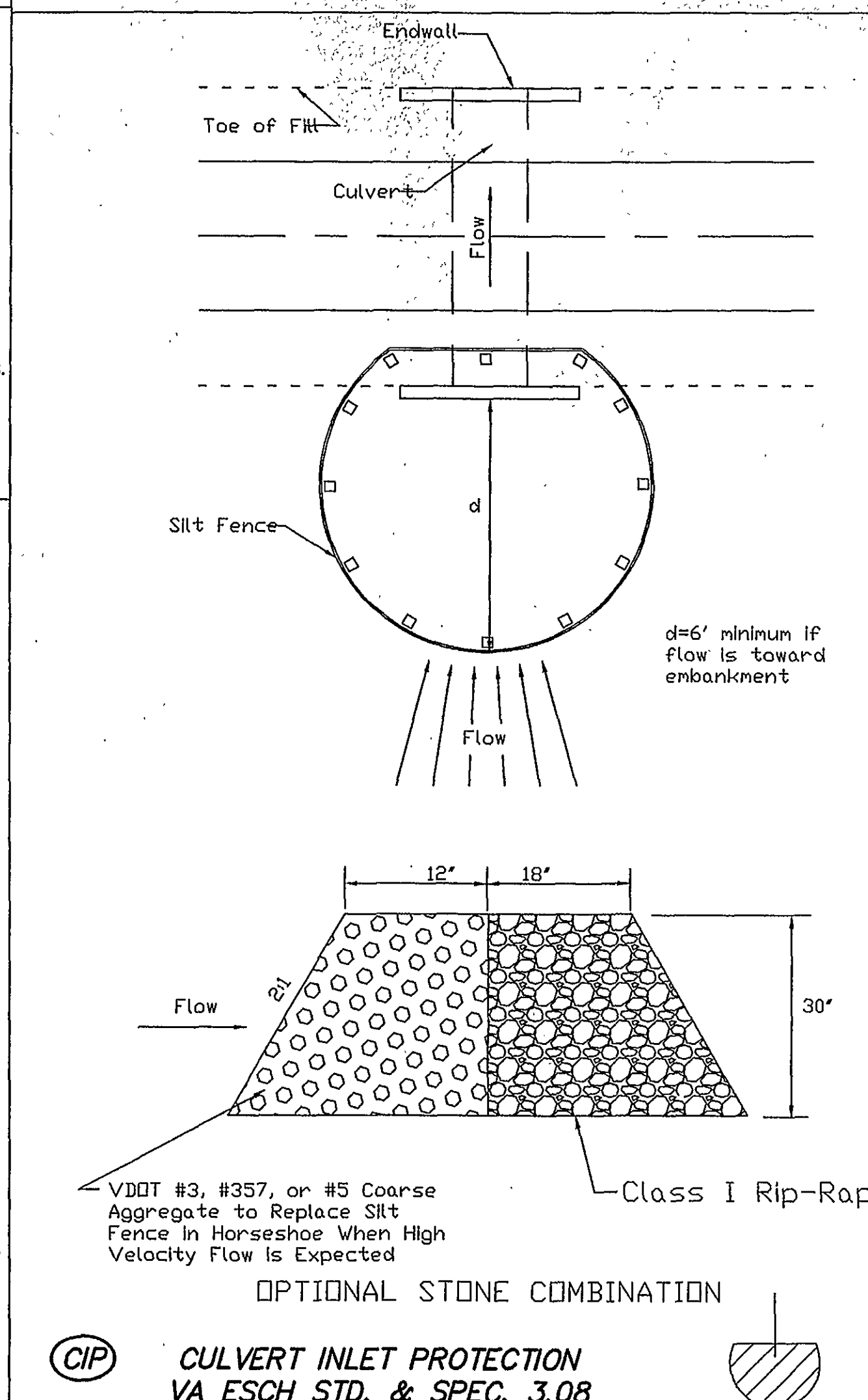
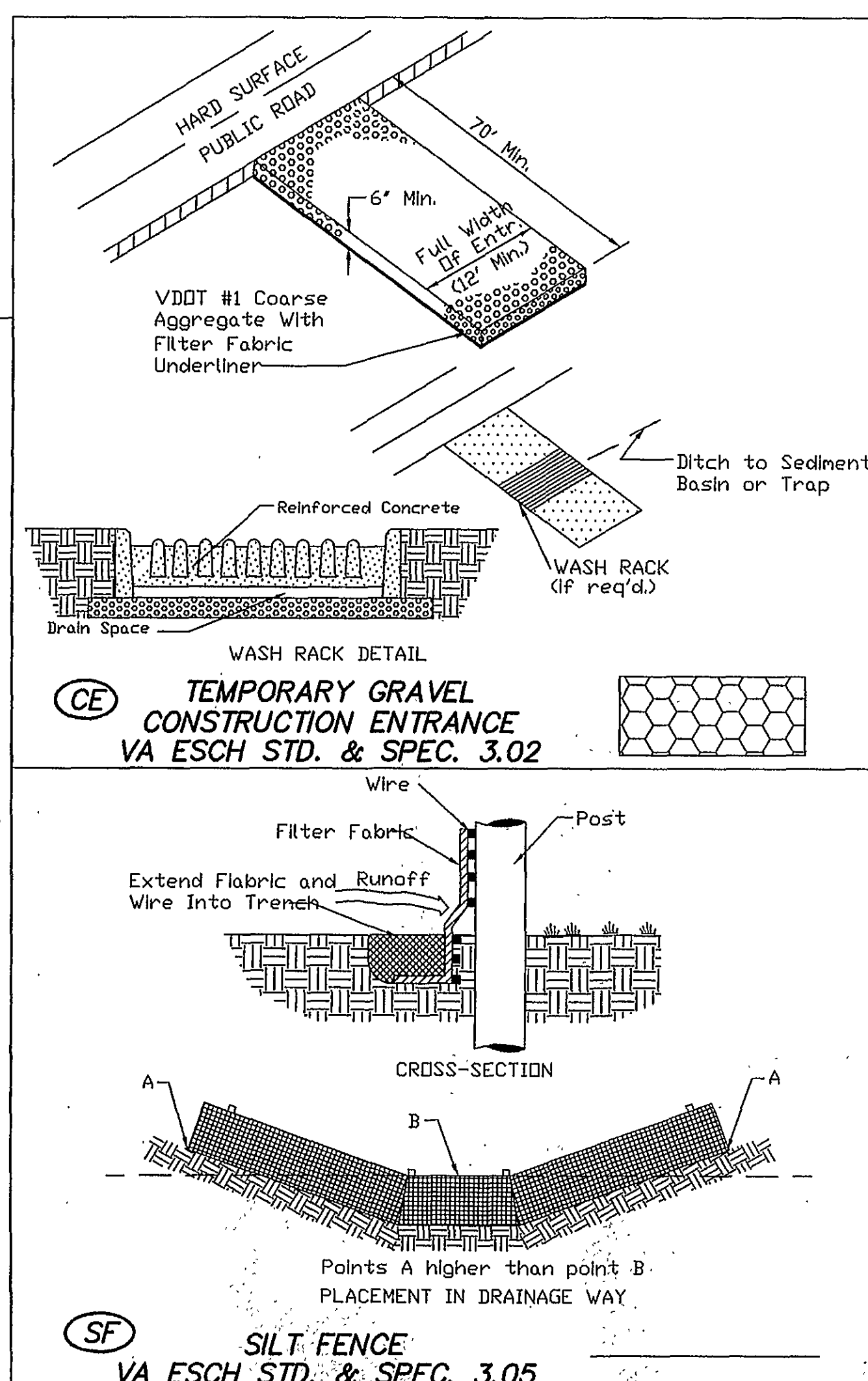
APPLICATION RATES: 3:1 OR FLATTER, USE 3,000 LBS/AC
2:1 USE 3,500 LBS/AC

PRODUCT CONTENTS: THERMALLY REFINED WOOD FIBER = 90%
BLENDED MULTI-DIMENSIONAL HYDRO-COLLOID BASED TACKIFIER = 10%
GREEN COLOR
MOISTURE: 10-13% +/- 2%

APPLICATION: RAIN DOWN ON SURFACE TO IMPROVE SOIL COVERAGE.
APPLY FROM OPPOSING DIRECTIONS TO
MUST CURE OR DRY COMPLETELY TO BE EFFECTIVE.
SHOULD NOT BE APPLIED WITHIN 24 HOURS OF EXPECTED RAINFALL.

B/M SOIL STABILIZATION BLANKETS/MATting/HYDROMULCH VA ESCH STD. & SPEC 3.36

FOR THE PURPOSE OF THIS PROJECT, THE CONTRACTOR SHALL ANTICIPATE UTILIZATION OF SOIL STABILIZATION BLANKET MATTING, EC-2 AND EC-3 AS NOTED. THE 3:1 FILL SLOPES SHALL BE STABILIZED USING PERMANENT SEEDING AND/OR HYDROMULCHING.



01 MARCH TO 30 APRIL
WINTER RYE (SECALE CERALE) @ 2 1/2 LB / 1000 SF
OR ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) @ 1 1/2 LB / 1000 SF
OR KOREAN LESPEDEZA (LESPEDEZA STIPULACEA) @ 1 1/2 LB / 1000 SF

01 MAY TO 15 AUGUST
GERMAN MILLET (SETARIA ITALICA) @ 1 LB / 1000 SF
OR WEEPING LOVEGRASS (ERAGROSTIS CLIVULA) @ 5 1/2 OZ / 1000 SF
OR KOREAN LESPEDEZA (LESPEDEZA STIPULACEA) @ 1 1/2 LB / 1000 SF

15 AUGUST TO 01 NOVEMBER
WINTER RYE (SECALE CERALE) @ 1 LB / 1000 SF
AND ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) @ 1 LB / 1000 SF

MULCH: SHALL BE USED OVER ALL SEEDING AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3rd ED.

SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. MAX. SEEDING DEPTH SHALL BE 1/4 INCH.

TEMPORARY SEEDING MIXTURE VA ESCH STD & SPEC 3.31

TYPE A (SLOPES FLATTER THAN 3:1)
15 OCTOBER TO 1 FEBRUARY
K-31 FESCUE @ 5 LB / 1000 SF
BORZY WINTER RYE @ 1/2 LB / 1000 SF

TYPE B (SLOPES 3:1 OR STEEPER)
15 MARCH TO 1 MAY
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

15 AUGUST TO 1 OCTOBER
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

LIME: 140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE
FERTILIZER: 5-20-10 @ 25 LB / 1000 SF
38-0-0 @ 7 LB / 1000 SF

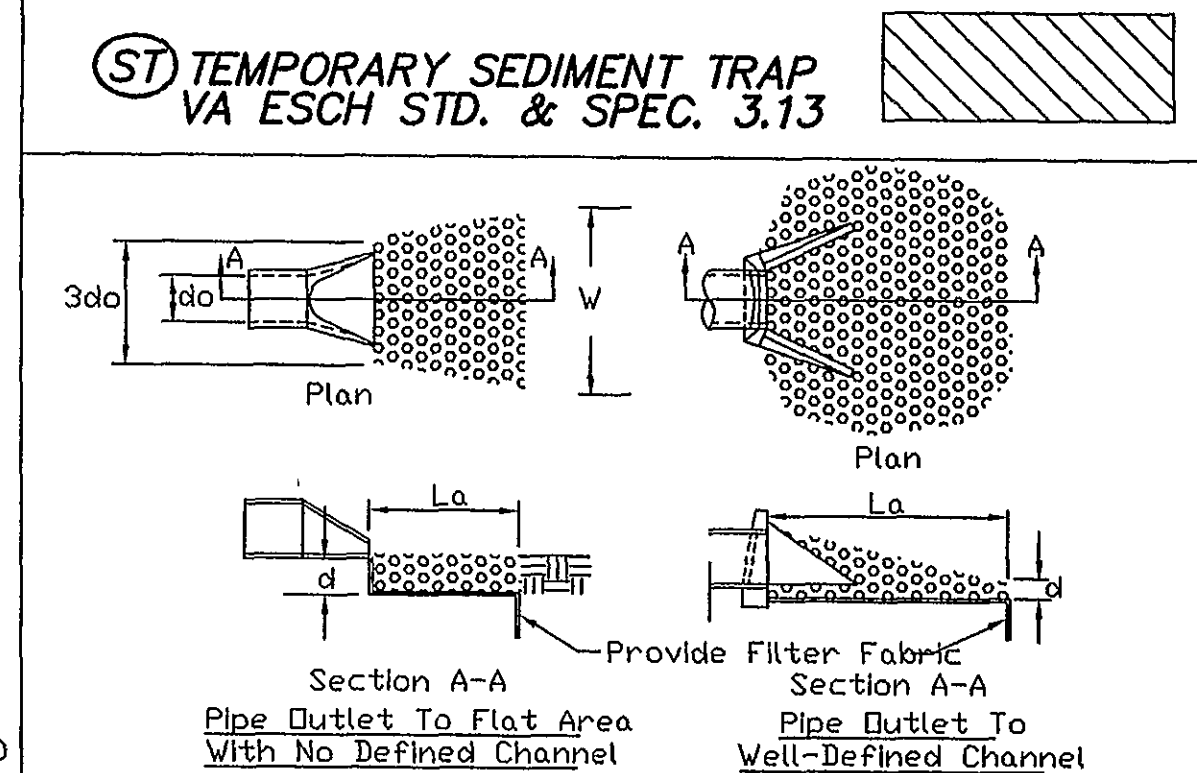
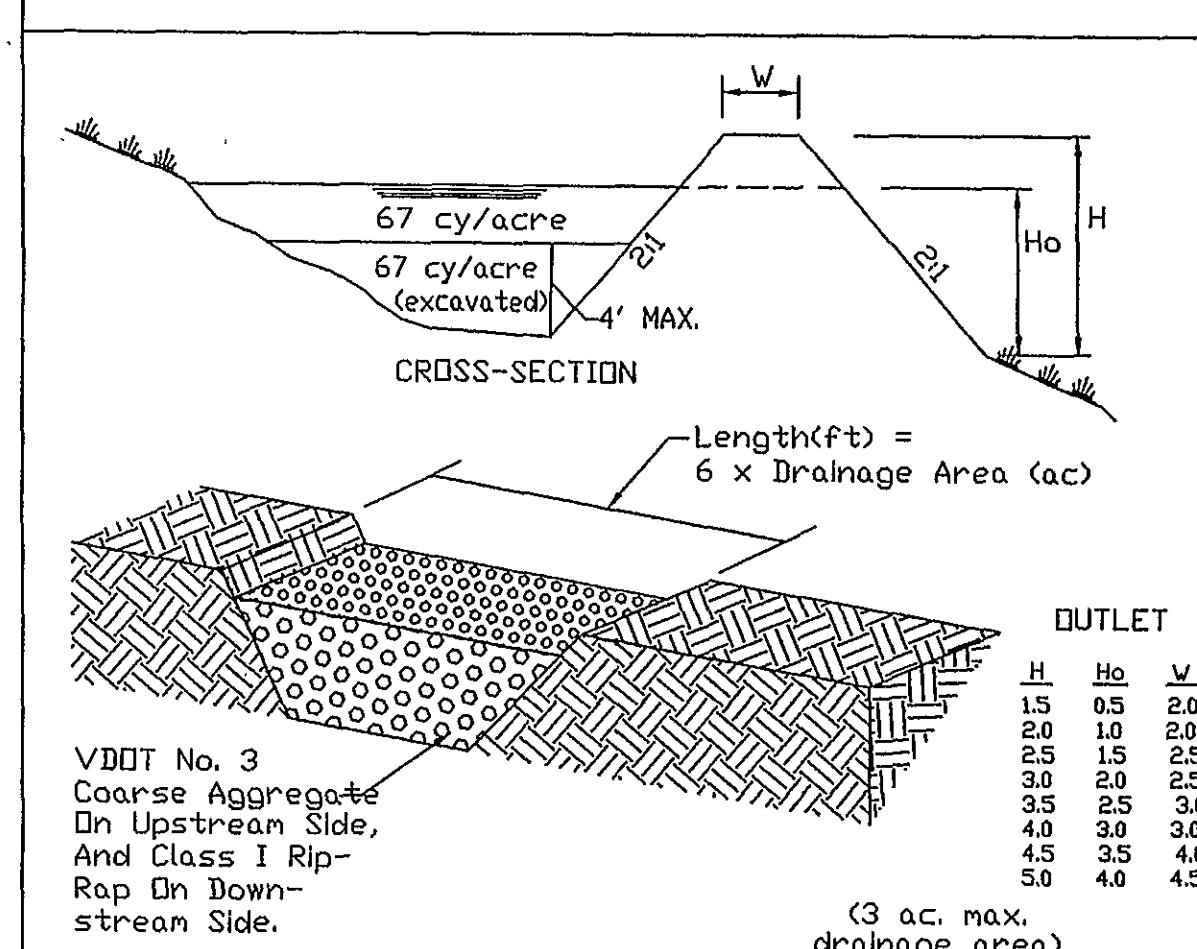
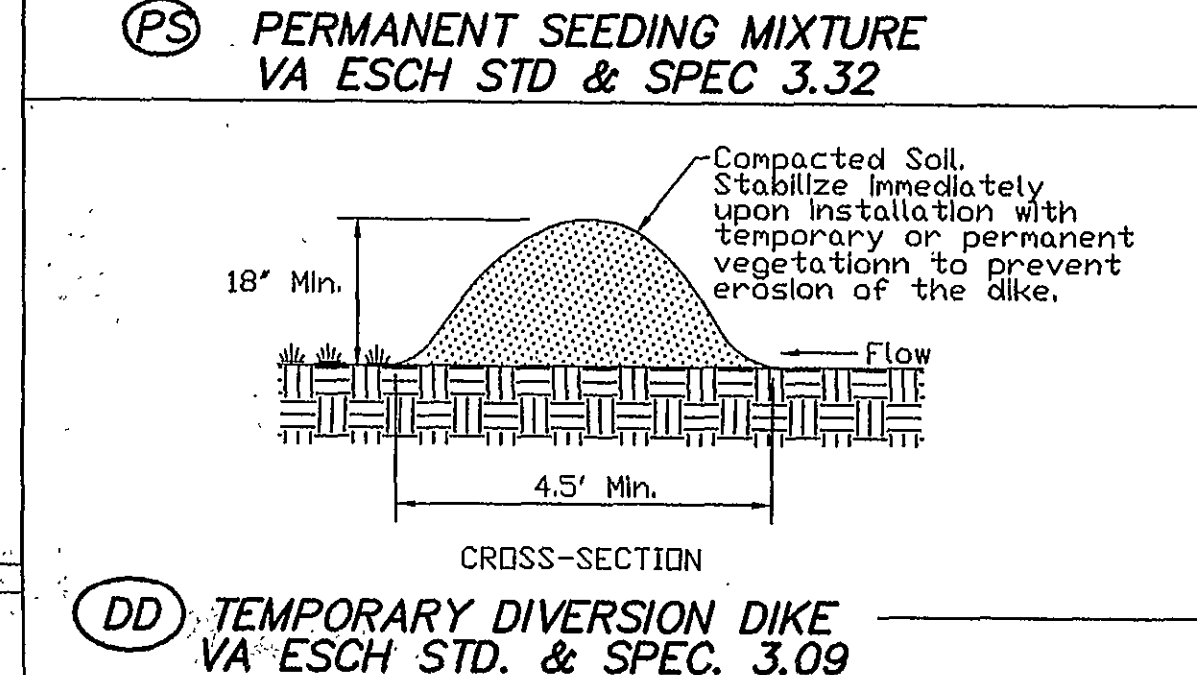
MULCH SHALL BE USED OVER ALL SEEDING AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VA ESCH.

SOIL CONDITIONING INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDING, AND RESEEDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED WITHIN THE VA ESCH.

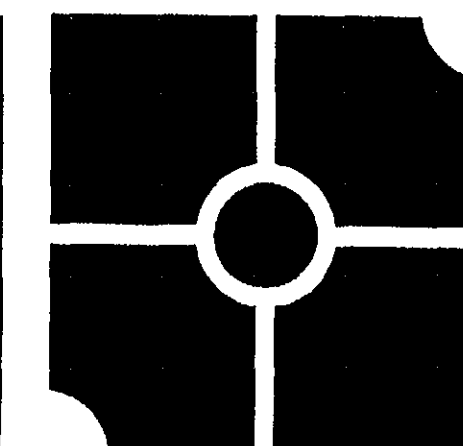
ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE INSPECTOR.

SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. MAX. SEEDING DEPTH SHALL BE 1/4 INCH.

PERMANENT SEEDING MIXTURE VA ESCH STD & SPEC 3.32



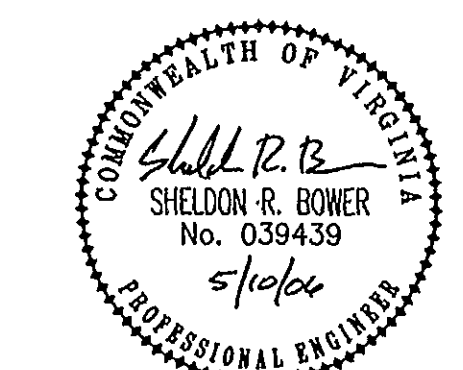
NOTES:
1. Apron lining may be rip-rap, grouted rip-rap, gabion basket, or concrete.
2. La is the length of the rip-rap apron as calculated using plates 3.18-3 and 3.18-4.
3. d = 1.5 times the maximum stone diameter, but not less than 6".



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The Reserve at Westlake
Prepared for CIR Developments
Gills Creek Magisterial District
Franklin County, Virginia

REVISIONS:

NO.	DATE	DESCRIPTION
1	MAY 10, 2006	COUNTY COMMENTS

DESIGNED BY: SRB / PJB

DRAWN BY: SRB / PJB

CHECKED BY: SRB

SCALE: As Shown

DATE: February 22, 2006

SHEET TITLE:

Erosion & Sediment Control Narrative & Details

C08
08 OF 14
PROJECT NUMBER:
05-0031-02