### **Erosion and Control Narrative**

#### Project Description

The project is located in the Cloverdale area of Botetourt County, Virginia. This plans shows the construction of a waterline and sewerline. The disturbed area consists of approximately 0.50 acres. It will take approximately 3 months to complete the project

### Existing Site Condition

Most of the site consists of sparse trees & fields and along the existing pavement. The terrain slopes in the 0.5% to 15% range. Utility contractor is responsible for clearing all trees, stumps, debris and spoils and removing them from the site.

## Adjacent areas

The site is bordered by residential areas and pavement.

### Soils

Soils found at this site are common to the area. None of these soils have high erosion

#### Critical Areas

Their are no critical erosion areas.

#### Erosion and Sediment Control Measures

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the handbook. The minimum standards of the VESCR shall be adhere to unless otherwise waived or approved by a variance.

#### Structural Practices

- a. Silt Fence (Section 3.05)
- Temporary silt fence will be installed as indicated on the site plan.
- b. Temporary & Permanent Seeding (Section 3.31 & 3.32) Temporary seeding will be placed on all disturbed areas that will not be brought to final grade within 30 days or less. Temporary seeding will aid in the reduction of dust and sediment.

Temporary Seeding (Section 3.31)

(TS)

Rates per acre: Winter - 40 lbs. annual rye and 40 lbs. cereale rye. Summer - 40 lbs. annual rye and 40 lbs foxtail millet. Fertilizer - 1500 lbs. of 10-18-10 per acre. Lime - 2 tons per acre.

Permanent Seeding (Section 3.32)

After final grading, permanent seeding will be employed to reduce erosion and sediment.



Seeding Specifications:	(UTILITY	CONTRACTOR RE	SPONSIBLE FOR	ALL SEEDING.
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Feb. 1 to May 15 100 lbs. tali fescue 15 lbs. annual rye

May 16 to July 31

2 lbs. red clover

Aug. 1 to Sept. 15 100 lbs. tall fescue 15 lbs. annual rye 2 lbs. red clover

2 lbs. red clover

Fertilizer - all seasons - 1500 lbs. of 10-18-10 per acre Lime - ali seasons - 2 tons per acre A mulch cover is required on every seeding: Straw at 80 bales per acre or an approved manufactured

mulch/stabilization material. Sept. 16 to Jan. 31All seeding, with required associated practices, will be in accordance with all applicable sections of the Virginia Erosion and Sediment Control Handbook.

2 lbs. red clover

120 lbs. tall fescue

g. Mulching (Section 3.35) To prevent erosion by protecting the soil surface from raindrop impact and reducing velocity of overland flow. Areas which have been permanently seeded shall be mulched immediately following seeding. If fiber mulch is used as part of hydroseeding, no

tacking is required. If straw is utilized as mulch, fiber mulch shall be utilized as anchor material and applied by means of a hydrospreader.

Provide erosion control matting for all water ways, slopes that are disturbed and exceed a 25% slope

# or have a high erosion potential. Management

- a. Construction should be sequenced so that grading operations can begin and end as quickly as possible.
- b. Erosion and Sediment control devices shall be installed as the first step of construction.
- c. Areas which are not to be disturbed shall be clearly marked by flags, signs, etc.
- The grading contractor shall be responsible for the installation and maintenance of all erosion and sediment control practices. Inspections are to be made periodically and after every significant rainfall.

# Maintenance

In general, all erosion and sediment control measures will be checked daily and after each significant rainfall. Any items not found in accordance with the Virginia Erosion and Sediment Control Handbook will be immediately replaced and/or repaired. The following items will be checked inn particular:

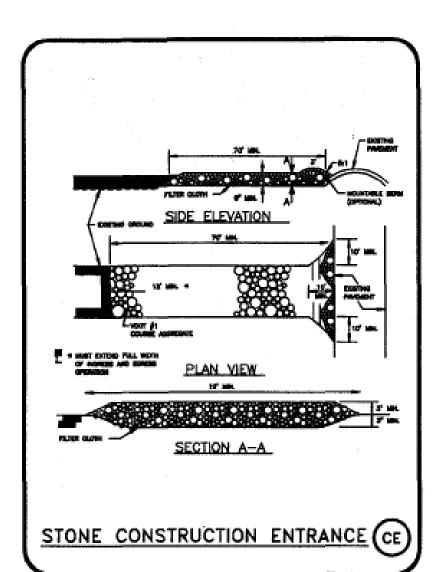
- a. The silt fence barrier will be checked regularly for undermining of deterioration of the fabric. Sediment shall be removed when the level of sediment deposition b. The seeded areas will be checked regularly to ensure that a good stand is maintained.
- Areas should be fertilized, limed and reseeded as needed. c. All graveled areas shall be checked for a uniform grade with no ruts or channels
- and top dressed with new gravel as required. d. All erosion and sediment control measures shall remain in place until their removal has been approved by the Botetourt County Erosion and Sediment

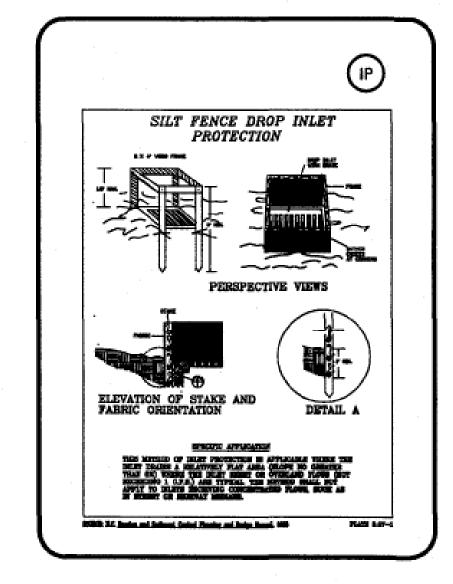
Control Administrator.

e. If, during construction, the Erosion and Sediment Control reviewing Officers considers the Erosion and Sediment items to be inadequate, he or she, at their discretion require the addition of other control measures.

KEY	ΠTLE	NO.	SYMBOL
@	CONSTRUCTION ENTRANCE	3.02	
(S)	CONSTRUCTION ROAD STABILIZATION	3.03	
(8)	SILT FENCE	3.05	<del></del>
(8)	STORM DRAIN INLET PROTECTION	3.07	
8	CULVERT INLET PROTECTION	3.08	<b>(</b>
(8)	TEMPORARY DIVERSION DIKE	3.09	<b>+</b>
<b>(</b> 5)	TEMPORARY SEDIMENT TRAP	3.13	<del>-</del>
8	OUTLET PROTECTION	3.18	
(8)	ROCK CHECK DAM	3.20	
(%)	PERMANENT SEEDING	3.35	<del>®</del>

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(3)	PERMANENT SEEDING	3.35	<del></del>





QUANTITIES AND COST ESTIMATE

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CONSTRUCTION ENTRANCE

SILT FENCE

MULCHING

SUBTOTAL

TOTAL COST

20% CONTINGENCY

INLET PROT.

PERM. SEEDING

QUANTITY

1400 LF

LS

3

.5Ac.

UNIT PRICE COST

\$200/EA \$600

2.00/LF

\$2000Ac.

LS

\$800

\$2800

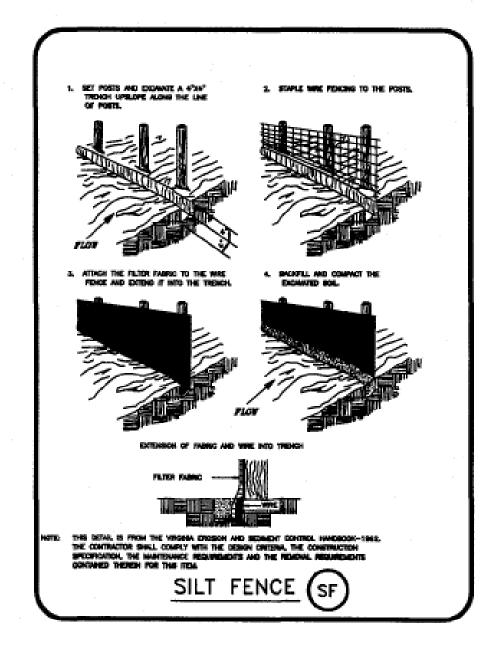
\$1,000

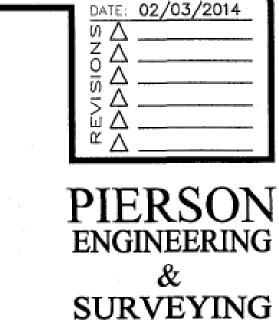
\$1,500

\$6,700

\$1,340

\$8,040





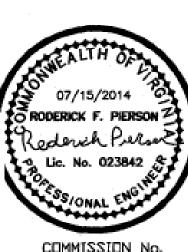
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E & S DETAILS



COMMISSION No. R201250 SHEET

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General

The erosion and sediment control measures shown on the construction plans are the minimum measures required. Due to construction phasing and other considerations, all measures can not be shown. The owner, through his contractor will employ whatever measures which may be required to assure that sediment laden runoff does not leave the site.

All materials and measures employed for erosion and sediment control will be in accordance

with the Virginia Erosion and Sediment Control Handbook, latest edition. If during construction, additional Erosion and Sediment Control measures are deemed

necessary, they shall be installed as directed by the Owner, Engineer or County agent.

This project is to be constructed consistent with the Virginia Erosion and Sediment Control Regulations, (Latest Edition).

# GENERAL NOTES:

- 1. NO SEARCH OF UNDERGROUND UTILITIES WAS CONDUCTED.
- 2. UTILITY CONTRACTOR SHALL CONTACT THE COUNTY OF BOTETOURT AND MISS UTILITY PRIOR TO WORK FOR LOCATION OF UNDERGROUND UTILITIES.
- 3. UTILITY CONTRACTOR SHALL MOVE AND TRANPLANT ANY EXISTING LANDSCAPE MATERIAL WITHIN THE DISTURBED AREA.