## Erosion and Control Narrative

### Project Description

The project is located in the Fincastle area of Botetourt County, Virginia This plans shows the construction of roadways associated with a  $\pm/-$  18 lot subdivision. The disturbed area consists of approximately 4.2 acres. It will take approximately 8 months, to grade the road and install the water, sewer and drainage utilites.

## Existing Site Condition

Most of the site consists of sparse trees & fields. The terrain slopes in the 0.5% to 15% range.

#### Adjacent areas

The site is bordered on the west, east and south by woods, and to the northt by a state road.

# 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. Temporary Construction Entrance (Section 3.02); One temporary construction entrance will be installed.
- b. Silt Fence (Section 3.05)
- Temporary silt fence will be installed as indicated on the site plan.
- c. Culvert Inlet Protection (Section 3.08) Culvert Inlet Protection will be installed as indicated on the site plan.
- d. Outlet Protection (Section 3.18) Outlet Protection will be installed as indicated on the site plan.
- 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)

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.

TITLE

CONSTRUCTION ENTRANCE

CONSTRUCTION ROAD

STABILIZATION

STORM DRAIN

INLET PROTECTION

INLET PROTECTION

OUTLET PROTECTION

ROCK CHECK DAM

PERMANENT SEEDING

TEMPORARY DIVERSION DIKE

TEMPORARY SEDIMENT TRAP

SILT FENCE

CULVERT

SYMBOL

 $\rightarrow \rightarrow \rightarrow$ 

(57)

8888

PS)

3.20 ---

3.03

3.07

3.08

## Seeding Specifications: Seasonal rates per acre:

May 16 to July 31

Feb. 1 to May 15 100 lbs. tall fescue 15 lbs. annual rye 2 lbs. red clover

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

Sept. 16 to Jan. 31 10 lbs. cereale rye

2 lbs. red clover

Fertilizer - all seasons - 1500 lbs. of 10-18-10 per acre Lime — all 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.

All seeding, with required associated practices, will be in accordance with all applicable sections of the Virginia Erosion and Sediment Control Handbook.

# g. Mulching (Section 3.35)

120 lbs. tall fescue

10 lbs foxtail millet

2 lbs. red clover

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.

- h. Dust Control (Section 3.39)
- If arid condition prevail, dust control practices will be employed as required.
- I. Construction Road Stabilization (Section 3.03) Temporary stabilization of roadways with stone immediatelly after grading.



# 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.
- d. 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

P.O. Box 311

540.966.3027

44 Catawba Road

Daleville, VA 24083

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:

- 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 The seeded areas will be checked regularly to ensure that a good stand is maintained. Areas should be fertilized, limed and reseeded as needed.
- All graveled areas shall be checked for a uniform grade with no ruts or channels and top dressed with new gravel as required.

Roderick F. Pierson, P.E., L.L.S.

- 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.

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.

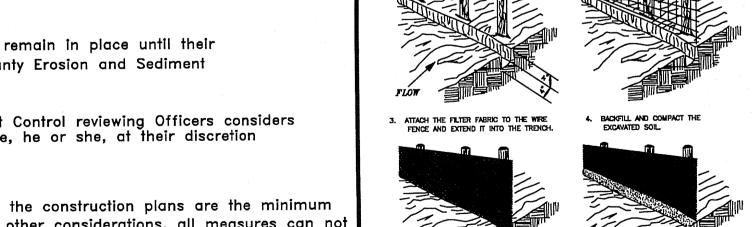
If during construction, additional Erosion and Sediment Control measures are deemed necessary, they shall be installed as directed by the Owner, Engineer or County agent.

This project is to be constructed consistent with the Virginia Erosion and Sediment Control

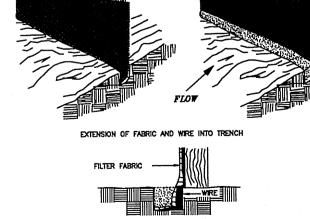
Regulations, (Latest Edition).

NO SEARCH OF UNDERGROUND UTILITIES WAS CONDUCTED. CONTRACTOR SHALL CONTACT THE COUNTY OF BOTETOURT AND MISS UTILITY PRIOR TO WORK FOR LOCATION OF UNDERGROUND UTILITIES.

BY APP DESCRIPTION REV DATE



SET POSTS AND EXCAVATE A 4"X4"
TRENCH UPSLOPE ALONG THE LINE
OF POSTS.



RUNOFF WATER

SEDIMENT\_

CONCRETE GUTTER-

GRAVEL CURB INLET SEDIMENT FILTER

DD)

DIVERSION DIKE

\* Gravel shall be VDOT #3, #357 or 5

coarse aggregate.

FILTERED WATER

\_ CURB INLET

-COMPACTED SOIL

ES-8:

SILT FENCE (SF

GENERAL EROSION AND SEDIMENT CONTROL NOTES

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook and Virginia Regulations VR 625-02-00 Erosion and Sediment Control Regulations.

The plan approving authority must be notified one week prior to the preconstruction conference, one week prior to the commencement of land disturbing activity, and one week prior to the final inspection.

All erosion and sediment control measures are to be placed to or as the first step in clearing.

A copy of the approved erosion and sediment control plan & narrative, as well as a copy of the Land Disturbing Permit, shall be maintained on the site at all times. The Erosion and Sediment Control Administrator will deliver these materials at the onsite preconstruction conference.

Prior to commencing land disturbing activities in areas to her than indicated on these plans (including, but not limited to, off—site borrow or waste areas), the contractor shall submit supplementary erosion control plan to the owner for review and approval by the plan approving authority.

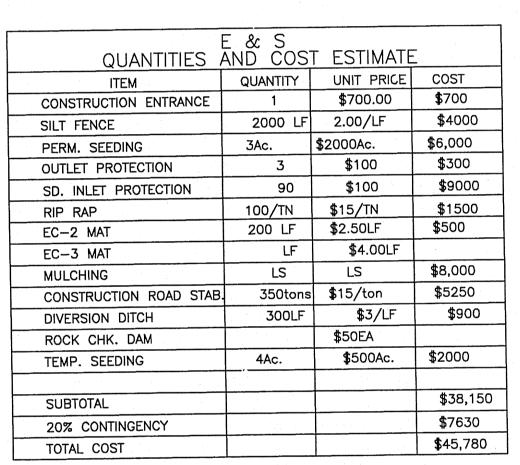
The contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the plan approving authority.

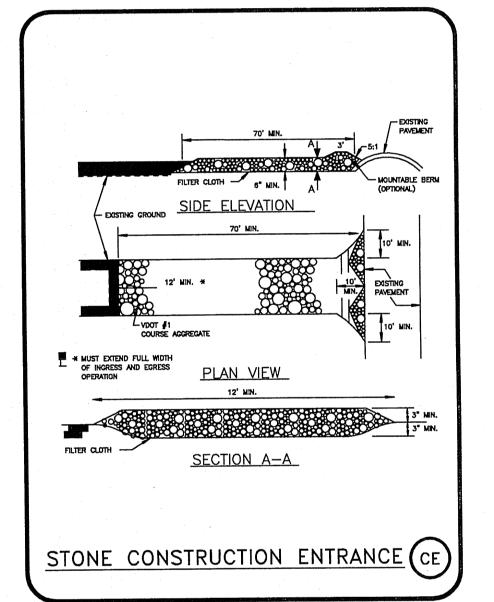
All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is

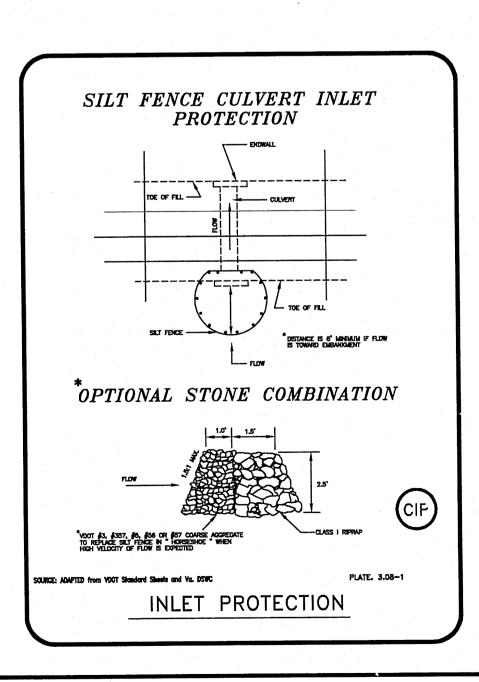
During any dewatering operations, water will be pumped into an approved filtering

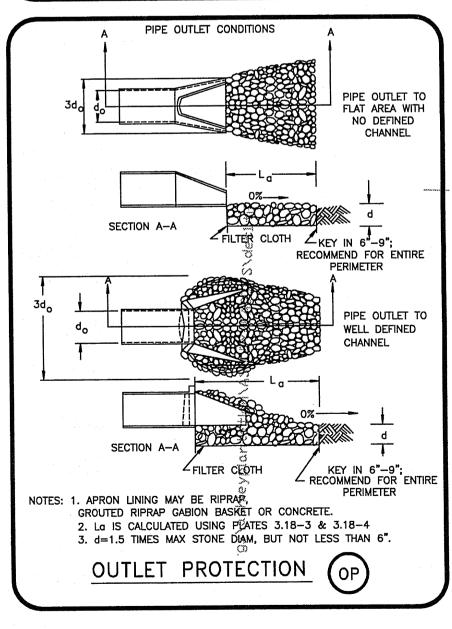
The contractor shall inspect all erosion control measures periodically and after each runoff-producing rainfall event. Any necessary repairs or cleanup to maintain the effectiveness of the erosion control devices shall be made immediately.

An inspections report must be filed with the Botetourt County Erosion and Sediment Administrator once every two weeks, beginning with commencement of the land disturbing activity, and with 48 hours of any runoff—producing rainfall event. Failure to submit a report will be grounds for immediate revocation of the Land Disturbing Permit. Reports must be postmarked within 24 hours of the deadline. A standard inspection report form will be supplied, which should be copied as necessary. This provision in no way waives the right of Botetourt County personnel to conduct site inspections, nor does it deny the right of the permittee(s) to accompany the inspector(s).

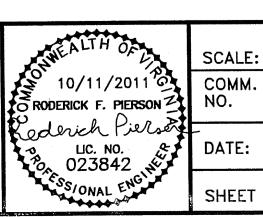








E & S DETAIL SHEET SANTILLANE TOWNHOMES BOTETOURT COUNTY, VIRGINIA



DATE: 11/12/09