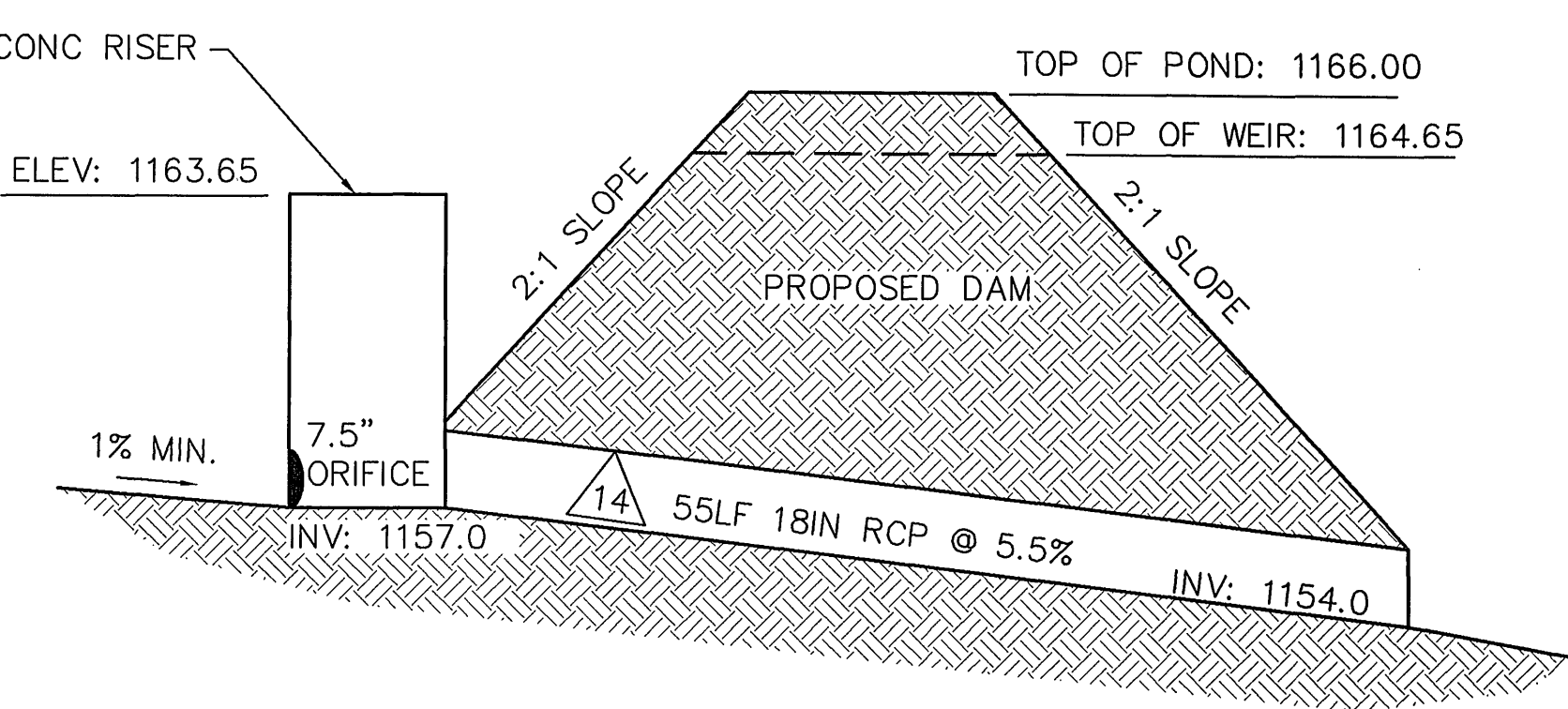
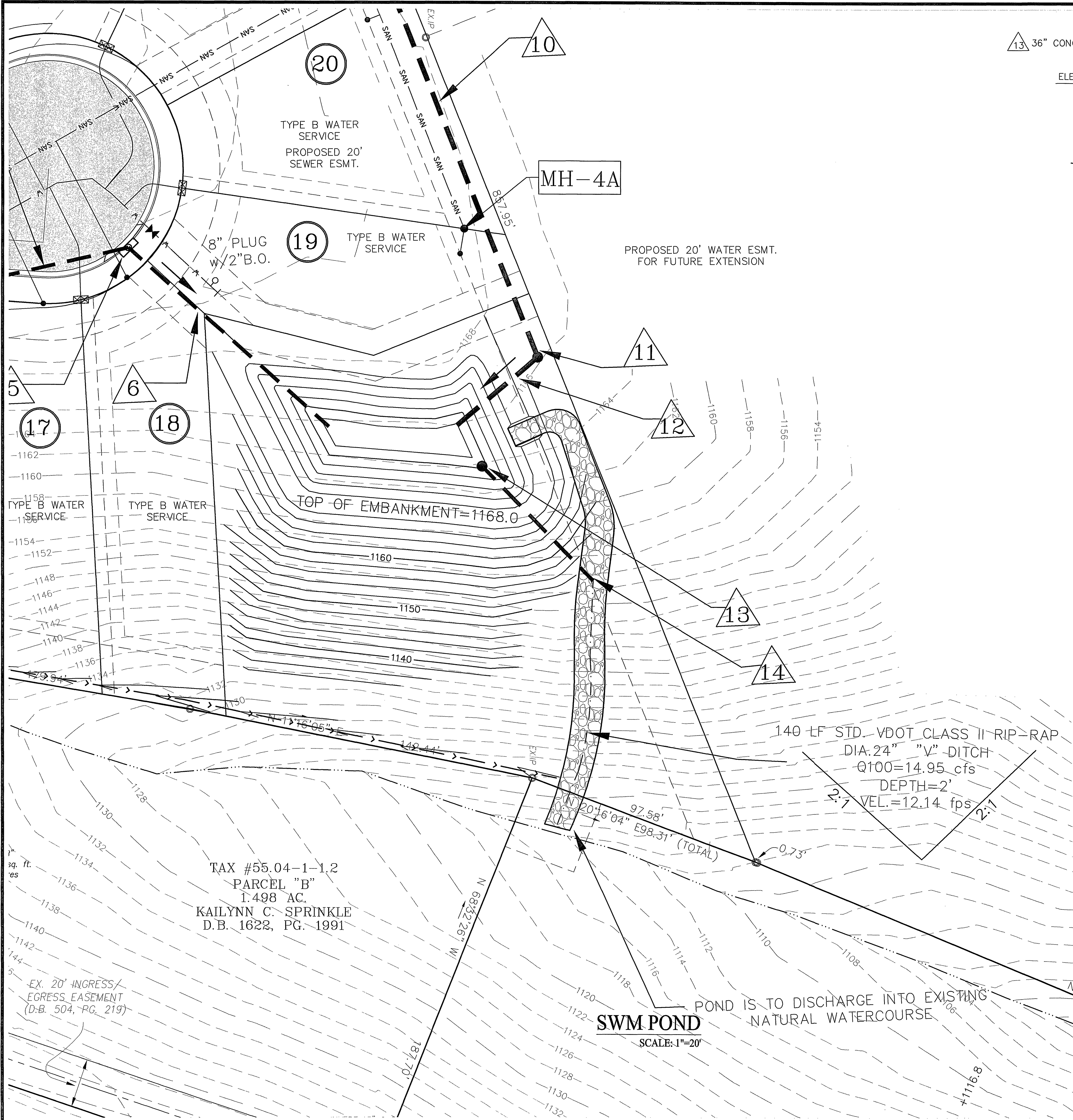


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STORMWATER MANAGEMENT POND
OUTLET DETAIL
N.T.S.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

The site is located on the southern side of Va Route 639, also known as West Riverside Drive, approximately 2,500ft east of the Va Route 639 and Harboorwood Road intersection. It consists of 45 zero-lot line residential lots and associated infrastructure. Proposed water and sewer will be installed and will be an addition to Roanoke County's utility system. Storm water runoff will be controlled via curb and gutter, curb inlets, pipe structures, ditches, and a stormwater management pond. A total of 9.2 ± acres will be disturbed during construction.

EXISTING CONDITIONS

The existing site varies from gently sloping to very steep. The site will be accessed by an extension to Green Hill Drive. The area to be subdivided into lots is open grassland and has gentle to moderate slopes, and lies on the highest point of the property. An existing drainage channel collects water from adjacent subdivisions and this property and routes storm water runoff to the Roanoke River.

ADJACENT PROPERTY

This property is bordered by residential property to the south, west, and east. The northern side is bordered by the Roanoke River. Storm water from the adjacent subdivision to the east flows onsite and will be managed. Using all specified erosion and sediment control measures, will reduce sediment transport problems to the Roanoke River. No offsite properties will receive storm water runoff from this site.

OFF-SITE AREAS

All cut material will be used as fill onsite and all disturbed areas will be protected by the appropriate erosion control measures. No offsite areas will be impacted.

SOILS

Soils information was obtained from the "Soil Survey of Roanoke County, Virginia". The soils consist of the Shottower loams. These soils are generally well drained, very deep, and strongly sloping. Permeability is moderate. These soils fall into the hydrologic group B. A soils map is included in Appendix A.

CRITICAL EROSION AREAS

Critical erosion areas are as follows:

- The proposed 2:1 cut/fill slopes along the proposed roadway. The contractor shall verify the slopes are stable. Geotechnical services may be necessary to determine if slope treatment is needed.
- The outfall ditch from the storm water management pond. EC-2 lining is specified and should control erosion and scouring. The contractor should monitor after each rainfall and determine if further treatment is necessary.

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise stated all erosion and sediment control measures shall be constructed and maintained in accordance with minimum standards and specifications of the latest edition of the "Virginia Erosion and Sediment Control Handbook".

STRUCTURAL PRACTICES

Temporary Construction Entrance (3.01) - A temporary construction entrance will be installed to minimize mud being transported onto existing roadways.

Silt Fence (3.02) - Silt fence will protect the existing downstream drainage channels from sediment laden runoff.

Storm Drain Inlet Protection (3.07) - Storm drain inlet protection will be installed to protect drop inlets from sediment laden runoff.

Culvert Inlet Protection (3.08) - Temporary culvert inlet protection will be installed to prevent sediment from entering, accumulating and being transferred by the culverts and associated drainage systems.

Diversions (3.12) - A diversion will direct stormwater away from adjacent properties. This will minimize the impact of downstream properties.

Temporary Sediment Basins (3.14) - A temporary sediment basin will be installed to detain sediment laden runoff from disturbed areas until the majority of the sediment has settled out.

Outlet Protection (3.18) - Outlet protection will be installed to prevent scour from stormwater outlets, and to minimize the potential for downstream erosion by reducing the velocity and energy of concentrated stormwater flows.

MANAGEMENT STRATEGIES

- Construction will be sequenced to begin and end grading operations as quickly as possible.
- Temporary diversion dikes and sediment traps and basins will be installed as the first step of the grading process.
- All areas shall be seeded with permanent stabilization as soon as they reach final grade.
- The contractor shall be responsible for installation and maintenance of all erosion and sediment control measures.
- Once the site has been stabilized, the temporary erosion and sediment control measures may be removed and those areas brought to final grade and stabilized.

PERMANENT STABILIZATION

All disturbed areas shall receive permanent stabilization accordance with the "Virginia Erosion and Sediment Control Handbook", STD and Spec. 3.32 as soon as those areas are brought to final grade. For permanent seeding mixture see the Erosion and Sediment Control detail sheet.

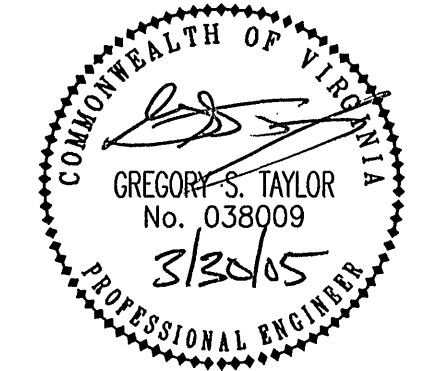
MAINTENANCE

All sediment and erosion control measures shall be checked daily and after all significant rainfall. In particular:

- Sediment traps shall be checked regularly for sediment cleanout.
- Silt Fence shall be checked regularly to ensure that the fabric has not been undermined or has deteriorated. Sediment shall be removed when level of buildup reaches halfway up the barrier.
- Areas which have received seeding shall be checked regularly to ensure that a good stand of grass is maintained. Areas shall be fertilized and reseeded as required.

Barnes Grogan Bower & Taylor
DESIGN GROUP, PC
LANDSCAPE ARCHITECTS - ENGINEERS - PLANNERS
201 E. Main Street
Suite 100
Salem, Virginia 24153
Phone: 540.387.9100
Fax: 540.387.9101
www.bgbt-design.com

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Riverland Vineyards
Catawba Magisterial District
Roanoke County, Virginia

REVISIONS:

NO.	DATE	DESCRIPTION
1	December 14, 2004	County Comments
2	February 9, 2005	County & VDOT Comments
3	March 30, 2005	County & VDOT Comments

DESIGNED BY:	JCG
DRAWN BY:	JCG
CHECKED BY:	GST
SCALE:	As Shown
DATE:	September 28, 2004

SHEET TITLE:
**SWM Plan
& Details**

C08
08 OF 12
PROJECT NUMBER:
S03046-02

WWW ID# 6GWEXM