

Erosion and Sediment Control Narrative
Project Description

The purpose of this project is to construct an access road due to the proposed Oppidan Retail Center. Gander Way is a three lane commercial entrance road with curb and gutter. Gander Way throughout the site is drained through curb inlets and a storm drain network. Stormwater management will be provided as part of the overall site stormwater management plan prepared by Lumsden Associates. Total disturbed area is approximately 39 acres. This project is located in Roanoke County, VA.

Existing Site Conditions

The undeveloped area of the site consists of pasture fields and hillsides. The site generally runs in a north-south direction with the terrain sloping downward from the north toward Tinkerdale Road. A small portion of the site includes the access to the existing Fairfield Inn.

Adjacent Areas

This development is bordered on the south by residential and commercial property, to the north and east by commercial property, to the west by commercial property, and to the east by commercial property and the Plantation Road right-of-way.

Offsite Areas

No offsite fill or borrow sites are covered by this erosion and sediment control plan.

Soils

The soils identified for this project include topsoil, man-made fill, colluvium, and residuum. Topsoil was encountered at the ground surface and varied in thickness from 0.2 foot to 1.0 foot. Man-made fill was identified beneath the topsoil and varied in thickness from 2.2 feet to 3.2 feet. The fill was described as tan, gray and brown silty clay with rock fragments, or orange-tan and gray sandy clay with rock fragments. Colluvium (soil transported and deposited by gravity) was beneath the topsoil and can largely be described as reddish-tan, tan, brown, reddish brown, black, gray and/or orange-brown sandy silt with varying amounts of rock fragments. Residuum was identified beneath the topsoil, man-made fill or colluvium in all borings. The thickness ranged from 1.0 foot to 21.2 feet and can be described as tan, orange-tan, orange brown, silty clay with varying amounts of shale fragments.

Critical Areas

Not Applicable

Stormwater Management Considerations

This project does result in an increase of runoff. However, Stormwater Management facilities proposed with the approved plans for "Oppidan Retail Center" submitted under separate cover are intended to serve the "Gander Mountain/Camping World" development. No new stormwater management facilities are proposed with this plan set.

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 Virginia Erosion and Sediment Control Regulations (VESCRL). The minimum standards of the VESCRL shall be adhered to unless otherwise waived or approved by a variance.

Structural Practices

Temporary Construction Entrance - VESCRL STD & SPEC 3.02. Temporary construction entrances with wash racks shall be installed where the access area intersects public roads. During muddy conditions, drivers of construction vehicles will be required to wash their wheels before entering the highway.

Silt Fence Barrier - VESCRL STD & SPEC 3.05. Silt fence sediment barriers will be installed down slope of fill areas to filter sediment-laden runoff from sheet flow as indicated on the erosion and sediment control plans.

Storm Drain Inlet Protection - VESCRL STD & SPEC 3.07. All storm sewer inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the storm sewer inlets.

Temporary Diversion Dike - VESCRL STD & SPEC 3.09. Wherever stormwater runoff must be temporarily diverted to protect disturbed areas and slopes or retain sediment on site during construction, these structures generally have a life expectancy of 18 months or less, which can be prolonged with proper maintenance.

Right-of-Way Diversions - VESCRL STD & SPEC 3.11. Temporary right-of-way diversions will be installed to divert runoff from the construction road into the sediment traps.

Outlet Protection - VESCRL STD & SPEC 3.18. Riprap shall be placed at the outlet of all pipes as indicated per the plans and detail sheets unless existing outlet protection is in place.

Check Dam - VESCRL STD & SPEC 3.20. Rock check dams shall be installed at appropriate intervals to reduce the velocity of concentrated flows which will help increase the effectiveness of the outfall.

Topsoiling - VESCRL STD & SPEC 3.30. Topsoil shall be stripped from areas to be graded and stockpiled for future use. Topsoil stockpiles shall be protected by silt fence installed along the downhill sides around the stockpile. Topsoil shall be uniformly spread over disturbed areas prior to permanent seeding.

Temporary Seeding - VESCRL STD & SPEC 3.31. All denuded areas which will be left dormant for extended periods of time shall be seeded with fast germinating temporary vegetation immediately following grading. Selection of the seed mixture will depend on the time of year it is applied.

Permanent Seeding - VESCRL STD & SPEC 3.32. Permanent seeding shall be installed on all disturbed areas of the site not otherwise stabilized.

Mulch - VESCRL STD & SPEC 3.35. Mulch (straw or fiber) shall be used on relatively flat areas and will be applied as a second step in the seeding operation.

Management Strategies

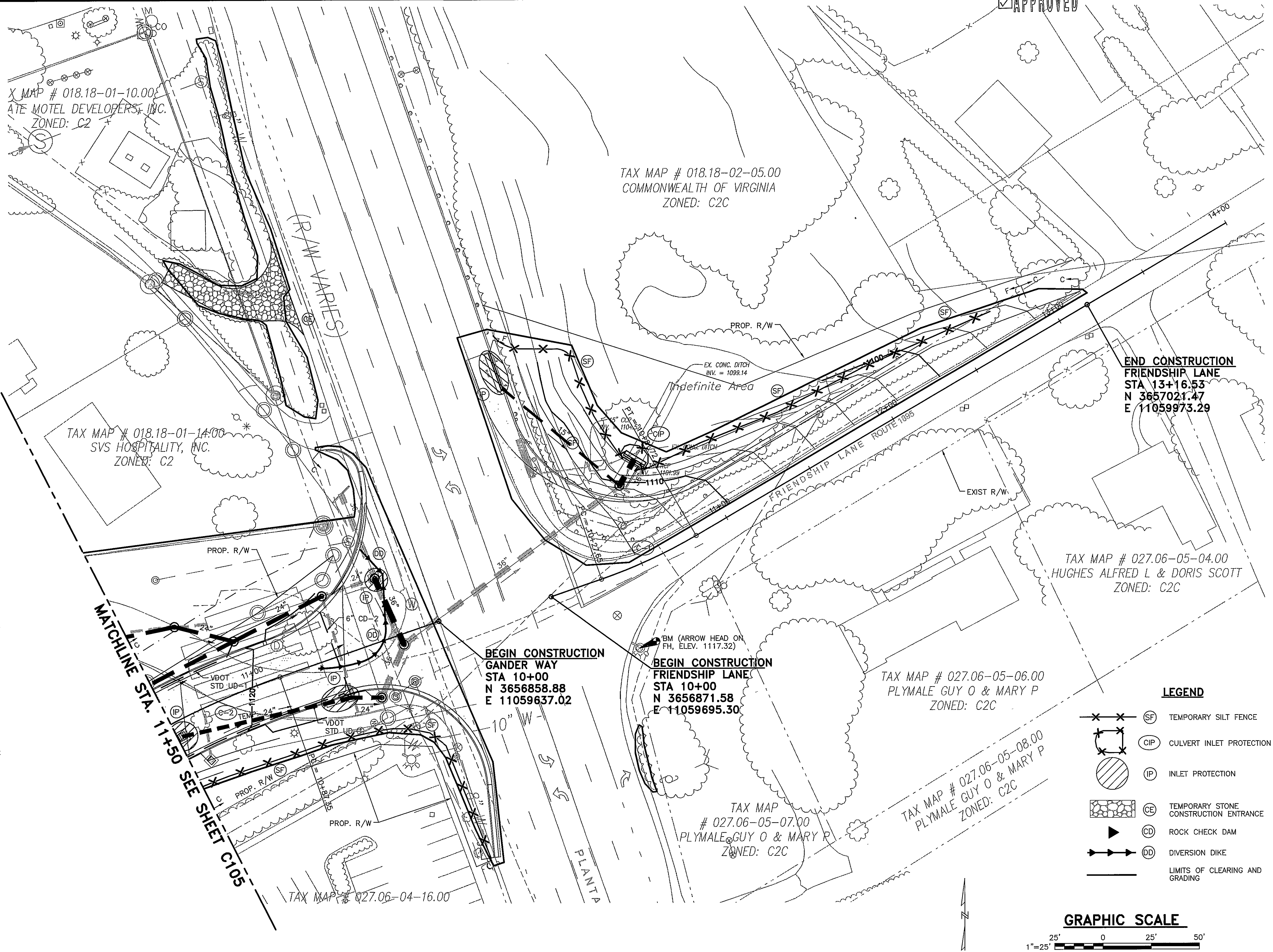
Construction shall be sequenced so that grading operations can begin and end as quickly as possible. Temporary seeding or other stabilization shall follow immediately after grading. Areas which are not to be disturbed will be clearly marked by flags, signs, etc. The job superintendent shall be responsible for the installation and maintenance of all erosion and sediment control practices. After achieving adequate stabilization, the temporary E&S controls shall be cleaned and removed.

Permanent Stabilization

All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading. In all seeding operations, seed, fertilizer and lime shall be applied prior to mulching.

Maintenance

In general, all erosion and sediment control measures shall be checked daily and after each significant rainfall. The following items shall be given particular attention: Inlets and outlets shall be checked regularly for sediment buildup which will prevent drainage. If clogged by sediment, inlets and outfalls shall be cleaned. Seeded areas shall be checked regularly to ensure that a good stand is maintained. Areas shall be fertilized and reseeded as needed. The silt fence barrier will be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed when the level of sediment deposition reaches halfway to the top of the barrier. The basin should be mowed periodically to preserve the basin volume and to ensure easy access to the basin and the outlet control structure.



SEALS

CONSULTANT

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CIVIL

EROSION AND SEDIMENT
CONTROL PLAN

C104

