4605-4625 E. Princess Anne Road Stormwater Retrofits

**For The Elizabeth River Project Site Plan Submittal SP #18-103**

March 29, 2019

**Project Location**

**City of Norfolk, approved for Construction Details**

**Department of City Planning and Community Development**

**Admirals Landing**

475 Water Street, Suite C103A

Portsmouth, VA 23704

Phone: 757-399-7487

**Norfolk, VA 23510**

Tel: 757-329-1527

**Contact:** Justin Shafer

2233 McKann Ave

Norfolk, VA 23502

Contact: Dennis Laflambas, LS

(757) 588-5888

**DKT Associates**

**Aard-Alltuf Screenprinting**

4625 East Princess Anne Road

**Limit of Disturbance:** 25,700 sf

**Ownership of BMP:** The bioreactors will be the City of Norfolk, and the swale and dry well will be Aard-Alltuf Screenprinting and Admirals Landing, Inc.

**Type of BMP:** Bioreactor, dry well

**Area Treated:** 3.6 acres

**Existing Use:** Lawn, roadside ditch

**Proposed Use:** Stormwater management facility, roadside ditch

**Center of Project:** 36.866748, -76.231428

**Site Address:** 4605-4625 East Princess Anne Road

**INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS.**

**No utilities should need to be moved or replaced. The depth and location of all the utilities should be found by the contractor before construction begins.**

**Construction Sequence**

1. Obtain necessary permits before the start of construction.

2. The contractor shall contact the City of Norfolk, Bureau of Environmental Services (664-4368) at least 48 hours prior to any land disturbing activity so that a preconstruction conference can be scheduled. Mr. P. F. Arco, AICUZ, and (823-4089) is to be present at the preconstruction meeting.

3. The contractor shall call Miss Utility 72 hours prior to any excavation work.

4. Mark the limits of the BMPs with orange spray paint, stakes, or flags.

5. Install orange construction/safety fence at the limits of disturbance (LOD) and silt fence around stockpiles and super silt fence around outlet pipes, as shown on the construction plans.

6. Install stabilized construction entrance, temporary stockpile area, and associated erosion and sediment control devices as shown in construction drawings and outlined in the construction specifications at least 48 hours prior to the start of excavation.

7. Stabilized construction entrances shall be provided at exits from all temporary construction access points onto main paved areas.

8. Dirt tracked onto existing pavement must be cleaned up by the end of the work day or before the next rain event (whichever is sooner).

9. Add 2' of woodchips to the bioreactor area. Add 8" of topsoil to the woodchip surface.

10. Grade site to meet proposed elevations. Unless otherwise specified, all slopes are to be 3:1 or flatter.

11. Stabilize graded slopes with ECS-1b (biodegradable) or equivalent matting. Promptly provide permanent stabilization in accordance with the planting plan.

12. Stabilize erosion control.native grass mixtures. Promptly provide permanent stabilization in accordance with the planting plan.

13. Excavate the dry well areas, minimizing the disturbed area. Haul excess soil offsite, add gravel and pipe as indicated on construction drawings.

14. Install catch basins, french drains, and pipes as indicated on the design. Promptly provide permanent stabilization in accordance with the planting plan.

15. All seeding shall be secured under stabilizing fabric.

16. The project designer shall perform a final site inspection. All comments received by the contractor shall be addressed before the site can be approved for construction.

17. The project designer shall perform a final site inspection. All comments received by the contractor shall be addressed before the site can be approved for construction.

18. Remove all temporary erosion and sediment control measures in accordance with the Virginia Erosion and Sediment Control Handbook. Do not remove erosion control measures until the entire site has been permanently stabilized.

19. After completion of all work, remove construction entrance and temporary stockpile area.

**Preparation of Site**

**Erosion and Sediment Control Notes**

**Planting Plan**

**General Notes**

**Existing Conditions**

**Project Summary:** This project is managed by the Elizabeth River Project on a cooperative grant associated development. The retrofits are located on the right of way, in the roadside ditches. The retrofits are located on the back side of the buildings - this will be addressed by conveying the downspouts towards the front of the building and creating a drainage pipe to the roadside ditches. Due to the lack of...
During/after large rainfall events (>2") in first year after construction: Check inlet for erosion. Twice per year: Schedule of plant inspection will be twice a year in spring and fall.

Excavation and Restoration in the Right of Way: Excavation & Restoration Manual, (Ordinance No. 40,778), Department of Public Works Right-of-Way Division. Download at http://www.norfolk.gov/documentcenter/view/779. It is important that contractors familiarize themselves with the requirements outlined in the manual. Exceptions may be permitted. A review meeting with Right of Way is required. Please contact Public Works at pwrow@norfolk.gov to schedule.

In order to ensure a smooth and successful project, a construction plan must be submitted to the City of Norfolk. At a minimum, the plan must include:

1. The Contractor, owner, or developer will be required to post a cash, check, or surety bond. The bond will be set at the discretion of the Director of Public Works and/or ROW Manager.

2. All work within the Right of Way shall comply with the City of Norfolk Design Standards: VDOT Road and Bridge Specifications. For backfill around the pipe use Select Material and for backfill around the sidewalk use Select Material.

3. Bond will be reduced down to 10% from the date of final inspection for a 2 year period. All city projects and special utility projects (as determined by the ROW Administrator) cannot be bid until utilities are relocated or arrangements have been coordinated by the City of Norfolk.

Permits:

1. A permit and inspection is required to slow, close, redirect, detour, or alter vehicular and pedestrian traffic for any duration. Applications: http://www.norfolk.gov/index.aspx?NID=362

2. A permit and inspection is required for lane or sidewalk closures for work washing, grading, or installing any item above or underground. Applications: http://www.norfolk.gov/index.aspx?NID=362

3. A permit and inspection is required for temporary bulk waste containers placed in the right of way. If the container is placed on private property a permit from the Health Department is required.


5. As part of the contractor’s permit application to work in the right of way, the contractor must submit a map identifying the projects storage and lay down area. The City does not encourage to make arrangements to store materials and lay down on private property or businesses in the immediate area that will be affected by the construction. Door hangers must be placed at least 48 hours prior to construction and must include a 24 hour contact person.

6. A permit and inspection are required when a new apron and/or sidewalk is installed, all new monolithic apron or sidewalk. Sidewalk shall be removed to the nearest joint. All new monolithic apron or sidewalk. Contact the Division of Right-of-Way for approval at pwrow@norfolk.gov.

Traffic Control:

1. The Contractor will be required to submit a detailed Traffic Control Plan (MOT) with the start date. The MOT shall be a drawing or aerial photo with site specific details. These details include the following:
   - Traffic signs
   - Traffic control devices
   - Speed limit signs
   - Warning signs
   - Lane closures
   - Access to driveways

2. The Contractor will also be required to submit a Notice to the City of Norfolk Department of Public Works Right-of-Way Division prior to construction. The notice must include the following:
   - Date of construction
   - Description of work
   - Contact information

3. The Contractor will be required to submit a Certificate of Completion to the City of Norfolk Department of Public Works Right-of-Way Division prior to final payment. The certificate must include the following:
   - Date of completion
   - Description of work
   - Contact information

4. The Contractor will be required to submit a Final Inspection Request to the City of Norfolk Department of Public Works Right-of-Way Division prior to final payment. The request must include the following:
   - Date of inspection
   - Description of work
   - Contact information

5. The Contractor will be required to submit a Final Payment Request to the City of Norfolk Department of Public Works Right-of-Way Division prior to final payment. The request must include the following:
   - Date of payment
   - Description of work
   - Contact information
- Bioreactor:
  - ORANGE UTILITY PAINT
  - CONC. CURB 0.5' REVEAL 2' PAN
  - Gravel Chimney
  - Add outlet protection

- Cross Section A-A'
  - Existing Elevation
  - Elevation: 6.8'
  - 8' Topsoil
  - Groundwater
  - 2' Woodchips
  - Bottom Elevation: 4.13'

- Typical Gravel Chimney Cross Section
  - 1.67 #57 stone
  - Filter fabric around stone layer

Legend:
- Right of Way Line
- Easement Line
- Gas Line
- Overhead Electric
- Contour Lines
- Telecommunication Line
- Top of Ditch Line
- Center of Ditch Line
- Asphalt Line
- Building
- Water Meter
- Tree
- Bush
- Limit of Disturbance (LOD)

Proposed Plans - West
Norfolk, VA

PREPARED BY: The Center for Watershed Protection
3290 North Ridge Rd Ste 290
Ellicott City, MD 21043
410-461-8323

DESIGN BY: CKW
CHECKED BY: GPH
DRAWN BY: CKW

SHEET NUMBER 49

Scale: 1" = 6'

DATE: November 26, 2018

CITY OF NORFOLK SITE PLAN SUB.

SURVEY COMPLETED BY: DKT Associates
1100 Granby Street
Norfolk, VA 23510
(757) 588-5888
Contact: Dennis Laflambas, LS

PREPARED FOR: Elizabeth River Project
Admirals Landing
475 Water Street, Suite C103A
Portsmouth, VA 23704
Phone: 757-399-7487

Proposed Plans - West
Norfolk, VA

Sheet Notes:
1. All stone and gravel shall be cleaned and washed
Erosion and Sediment Control Narrative:

Project Description: The project is a retrofit along N. Princess Anne Road. The project consists of two bioreactors inside a widened roadside ditch. A dry well and grass swale will be added in the back of the property to allow for added water treatment and infiltration. The total area disturbance is 22,700 square feet.

Existing Site Conditions: The project is located in the right of way ditch off E. Princess Anne Road and along the side of Aard-Alltuf Screenprinters.

ESC Measures: All proposed erosion and sediment control measures shall be in accordance with the latest edition of the VA Erosion and Sediment Control Handbook.

Soils: The Web Soil Survey shows that the project is located within the Udorthents-Dumps complex.

General E&SC Notes:
1. All erosion and sediment control measures shall be installed and maintained in continuous compliance with the latest version of the Virginia Erosion and Sediment Control Handbook.
2. Temporarily stabilize stockpile as per the stabilization specifications or cover the stockpile with plastic tarp and anchor at end of workday.
3. All utilities, such as storm drain, public water, sanitary sewer, electric power, telephone, and cable and gas lines, which are not in paved areas and are not undergoing active grading, shall be temporarily or permanently stabilized within 3 days of initial disturbance.
4. Any accumulated sediment shall be removed and disposed of in a suitable area and shall be temporarily or permanently stabilized.
5. Silt fence shall be installed at the point of entry with an approved ESC plan.
6. All work conducted on existing pavement must be cleaned up by the end of the workday or before the next rain event (whichever is sooner).

Standard Stabilization Note:
Following initial soil disturbance or re-disturbance, permanent or temporary stabilization must be completed within:
A. Three (3) calendar days to the surface of all perimeter dikes, swales, silt fences, and all slopes steeper than 3 horizontal to 1 vertical (3:1) and
B. Seven (7) calendar days as to all other disturbed or graded areas on project site not under active grading.

Additional Notes:
1. If significant rainfall is anticipated during construction, the silt fence barriers below the final outfall may need to be substituted with high-flow filter logs or straw bale barriers.
2. If any slopes exceeding 1 horizontal to 1 vertical (1:1) should be protected with Temporary Slope Stabilization Matting (TSSM) if the stabilizing groundcover is damaged.
3. Permanent slope stabilization should include Permanent Slope Stabilization Matting (PSSM) with the seed and mulch application, or sod should be applied.

Alternates:
If Contractor prefers to use a different method than those prescribed in these plans to accomplish the necessary erosion and sediment control, temporary or permanent control functions, those means and methods may be proposed and analyzed if approved by the Engineer of Record.