



## CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY THAT THE FOLLOWING ELECTRONIC RECORDS ARE TRUE AND ACCURATE REPRODUCTIONS OF THE ORIGINAL RECORDS OF JAMES CITY COUNTY GENERAL SERVICES DEPARTMENT- STORMWATER DIVISION; WERE SCANNED IN THE REGULAR COURSE OF BUSINESS PURSUANT TO GUIDELINES ESTABLISHED BY THE LIBRARY OF VIRGINIA AND ARCHIVES; AND HAVE BEEN VERIFIED IN THE CUSTODY OF THE INDIVIDUAL LISTED BELOW.

**BMP NUMBER:** PC243

**DATE VERIFIED:** September 27, 2012

**QUALITY ASSURANCE TECHNICIAN:** Leah Hardenbergh

*Leah Hardenbergh*

**LOCATION:** WILLIAMSBURG, VIRGINIA



# Stormwater Division

## MEMORANDUM

Date: March 23, 2012  
To: Michael J. Gillis, Virginia Correctional Enterprises Document Management Services  
From: Leah Hardenbergh  
PO: 110426  
Re: Files Approved for Scanning

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**General File ID or BMP ID:** PC243  
**PIN:** 3822600001D  
**Owner Name (if known):** NEWTOWN OF WILLIAMSBURG VA LLC  
**Legal Property Description:** CA BLK 8 P-C NEW TOWN  
**Site Address:** CASEY BLVD (ADJACENT TO 4339)

*(For internal use only):*

**Box # 1**

**Agreements (in file as of scan date):** N      **Book or Doc #:**      **Page:**

### **Contents for Stormwater Management Facilities As-built Files**

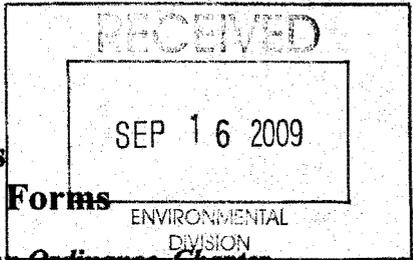
Each file is to contain:

- ~~1.~~ As-built plan
- ~~2.~~ Completed construction certification
3. Construction Plan
4. Design Calculations
5. Watershed Map
6. Maintenance Agreement
7. Correspondence with owners
- ~~8.~~ Inspection Records
9. Enforcement Actions



James City County, Virginia  
Environmental Division

Stormwater Management / BMP Facilities  
Record Drawing and Construction Certification Forms



*(Note: In accordance with the requirements of the Chesapeake Bay Preservation Ordinance, Chapter 23, Section 23-10(4), BMP's shall be designed and constructed in accordance with the manual entitled James City County Guidelines for Design and Construction of Stormwater Management BMP's. Erosion and sediment control policy and approved plans generally require that at the completion of the project and prior to release of surety, an "as-built" plan prepared by a registered Professional Engineer or Certified Land Surveyor must be provided for the drainage system for the project, including any Best Management Practice (BMP) facilities. In addition, for BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a Professional Engineer who has inspected the structure during its construction. Currently there are over 20 water quality type BMP's accepted by the County.)*

**Section 1 – Site Information:**

Project Name: New Town - Block 8 Phase 1B (Abbey Commons)  
Structure/BMP Name: Dry Detention Facility  
Project Location: New Town Section 2&4, Block 8  
BMP Location: 200' west of intersection of Casey Boulevard and Town Creek Drive  
County Plan No.: SP - 0018 - 2004

Project Type:  Residential  Business Tax Map/Parcel No.: 3822600001D  
 Commercial  Office BMP ID Code (if known): PC-243  
 Institutional  Industrial Zoning District: MU  
 Public  Roadway Land Use: Townhomes  
 Other Site Area (sf or acres): 8.7 acres

Brief Description of Stormwater Management/BMP Facility: \_\_\_\_\_  
Dry Detention Facility for Water Quantity Control Only (MS-19)

Nearest Visible Landmark to SWM/BMP Facility: Intersection of Casey Boulevard and Town Creek Drive

Nearest Vertical Ground Control (if known):  
 JCC Geodetic Ground Control  USGS  Temporary  Arbitrary  Other  
Station Number or Name: Station #325  
Datum or Reference Elevation: NGVD29 Elevation 110.67  
Control Description: Easting (X) 11995286.983, Northing (Y) 3628200.301, Elev 110.67  
Control Location from Subject Facility: \_\_\_\_\_

**Section 2 – Stormwater Management / BMP Facility Construction Information:**

PreConstruction Meeting Held for Construction of SWM/BMP Facility:  Yes  No  Unknown  
Approx. Construction Start Date for SWM/BMP Facility: June 2004  
Facility Monitored by County Representative during Construction:  Yes  No  Unknown  
Name of Site Work Contractor Who Constructed Facility: Purdue II Construction and Jack L Massie  
Name of Professional Firm Who Routinely Monitored Construction: None  
Date of Completion for SWM/BMP Facility: October 2008  
Date of Record Drawing/Construction Certification Submittal: June 2009

***(Note: Record Drawing and Construction Certifications are required within thirty (30) days of the completion of Stormwater Management and/or BMP facility construction. Record Drawings and Construction Certifications must be reviewed and approved by the James City County Environmental Division prior to final inspection, acceptance and bond or surety release.)***

**Section 3 – Owner / Designer / Contractor Information:**

Owner/Developer: *(Note: Site Owner or Applicant responsible for development of the project.)*

Name: Newtown of Williamsburg, VA LLC  
Mailing Address: P.O. Box 707  
Lightfoot, VA 23090  
Business Phone: (757) 220-2091 Fax: (757) 220-9012  
Contact Person: Don Cotton Title: \_\_\_\_\_

Design Professional: *(Note: Professional Engineer or Certified Land Surveyor responsible for the design and preparation of plans and specifications for the Stormwater Management / BMP facility.)*

Firm Name: AES Consulting Engineers  
Mailing Address: 5248 Olde Towne Road Suite 1  
Williamsburg, Virginia 23188  
Business Phone: 757-253-0040  
Fax: 757-220-8994  
Responsible Plan Preparer: Robert E. Cosby, III, P.E.  
Title: Project Manager  
Plan Name: New Town Block 8 Phase 1B  
Firm's Project No. 6632-E-12-2  
Plan Date: 8/11/2004  
Sheet No.'s Applicable to SWM/BMP Facility: 7 / 11 / 25 /

BMP Contractor: *(Note: Site Work Contractor directly responsible for construction of the Stormwater Management / BMP facility.)*

Name: Jack L. Massie  
Mailing Address: 3900 Cokes Lane  
Williamsburg, Virginia 23188  
Business Phone: 757-566-8643  
Fax: 757-566-8566  
Contact Person: \_\_\_\_\_  
Site Foreman/Supervisor: \_\_\_\_\_  
Specialty Subcontractors & Purpose (for BMP Construction Only):  
Purdue II Construction built initial Sediment Basin Facility which was converted by Massie as part of the final phase of development  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Section 4 – Professional Certifications:**

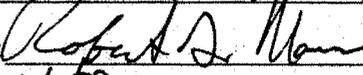
Certifying Professionals: *(Note: A Registered Professional Engineer of Certified Land Surveyor is responsible for preparation of a Record Drawing, sometimes referred to as an As-Built plan, for the drainage system for the project including any Stormwater Management/BMP Facilities. A Registered Professional Engineer is responsible for the inspection, monitoring and certification of Stormwater Management / BMP facilities during its construction.)*

**Record Drawing and Construction Certifications for Stormwater Management / BMP Facilities**

**Record Drawing Certification**

Firm Name: AES Consulting Engineers  
Mailing Address: 5248 Olde Towne Road Suite 1  
Williamsburg, Virginia 23188  
Business Phone: 757-253-0040  
Fax: 757-220-8994

Name: Robert D. Mann, L.S.  
Title: Senior Land Surveyor/Project Manager

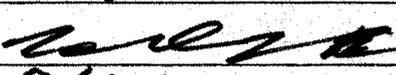
Signature:   
Date: 7/1/09

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the Stormwater Management / BMP facility. The facility appears to conform with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

**Construction Certification**

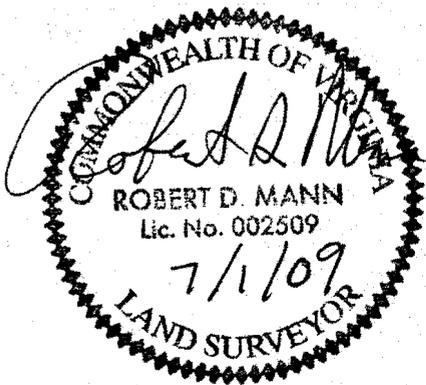
Firm Name: AES Consulting Engineers  
Mailing Address: 5248 Olde Towne Road Suite 1  
Williamsburg, Virginia 23188  
Business Phone: 757-253-0040  
Fax: 757-220-8994

Name: Robert E. Cosby, III, P.E.  
Title: Project Manager

Signature:   
Date: 7/1/09

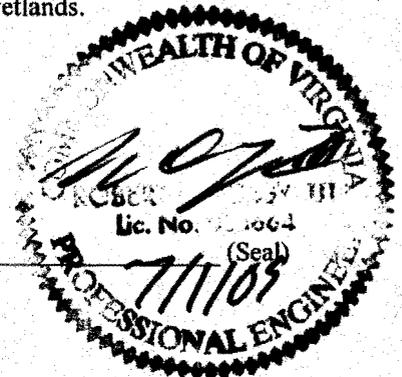
I hereby certify to the best of my knowledge and belief that this Stormwater Management / BMP facility was monitored and constructed in accordance with the provisions of the approved design plan, specifications and stormwater management plan, except as specifically noted.

Regular monitoring of construction was not requested or performed by AES. However visual inspection of the dam and facility upon completion of construction and use over the past years since completed have revealed no visual signs of deficiencies related to the construction of the dam or facility. The Emergency Spillway was modified as a result of the construction of Casey Boulevard and the gravel trail. The construction of those modifications was in accordance with the design. Final elevations within the facility vary from design but adequate protection during normal daily rainfall events and larger design storm events is adequate to protect the facility, adjacent homes, and minimize impact to downstream wetlands.



(Seal)

Virginia Registered Professional Engineer  
Or Certified Land Surveyor



(Seal)

Virginia Registered  
Professional Engineer

## **Section 5 – Record Drawing and Construction Certification Requirements and Instructions:**

- ❑ PreConstruction Meeting – Provides an opportunity to review SWM / BMP facility construction, maintenance and operation plans and address any questions regarding construction and/or monitoring of the structure. The design engineer, certifying professionals (if different), Owner/Applicant, Contractor and County representative(s) are encouraged to attend the preconstruction meeting. Advanced notice to the Environmental Division is requested. Usually, this requirement can be met simultaneously with Erosion and Sediment Control preconstruction meetings held for the project.
- ❑ A fully completed ***STORMWATER MANAGEMENT / BMP FACILITIES, RECORD DRAWING and CONSTRUCTION CERTIFICATION FORM and RECORD DRAWING CHECKLIST***. All applicable sections shall be completed in their entirety and certification statements signed and sealed by the registered professional responsible for individual record drawing and/or construction certification.
- ❑ The Record Drawing shall be prepared by a Registered Professional Engineer or Certified Land Surveyor for the drainage system of the project including any Best Management Practices.
- ❑ Construction Certification. Construction of Stormwater Management / BMP facilities which contain impoundments, embankments and related engineered appurtenances including subgrade preparation, compacted soils, structural fills, liners, geosynthetics, filters, seepage controls, cutoffs, toe drains, hydraulic flow control structures, etc. shall be visually observed and monitored by a Registered Professional Engineer or his/her authorized representative. The Engineer must certify that the structure, embankment and associated appurtenances were built in accordance with the approved design plan, specifications and stormwater management plan and standard accepted construction practice and shall submit a written certification and/or drawings to the Environmental Division as required. Soil and compaction test reports, concrete test reports, inspection reports, logs and other required construction material or installation documentation may be required by the Environmental Division to substantiate the certification, if specifically requested. The Engineer shall have the authority and responsibility to make minor changes to the approved plan, in coordination with the assigned County inspector, in order to compensate for unsafe or unusual conditions encountered during construction such as those related to bedrock, soils, groundwater, topography, etc. as long as changes do not adversely affect the integrity of the structure(s). Major changes to the approved design plan or structure must be reviewed and approved by the original design professional and the James City County Environmental Division.
- ❑ Record Drawing and Construction Certifications are required within **thirty (30) days** of the completion of Stormwater Management / BMP facility construction. Submittals must be reviewed and accepted by James City County Environmental Division prior to final inspection, acceptance and bond/surety release.

**Dual Purpose Facilities** – Completion of construction also includes an interim stage for Stormwater Management / BMP facilities which serve dual purpose as temporary sediment basins during construction and as permanent stormwater management / BMP facilities following construction, once development and stabilization are substantially complete. For these dual purpose facilities, construction certification is required once the temporary sediment basin phase of construction is complete. Final record drawing and construction certification of additional permanent components is required once permanent facility construction is complete.

*Interim Construction Certification* is required for those dual purpose embankment-type facilities that are generally ten (10) feet or greater in dam height (\*) and may not be converted, modified or begin function as a permanent SWM / BMP structure for a period generally ranging from six (6) to eighteen (18) months or more from issuance of a Land Disturbance permit for construction.

Interim or final record drawing and construction certifications are not required for temporary sediment basins which are designed and constructed in accordance with current minimum standards and specifications for temporary sediment basins per the Virginia Erosion and Sediment Control Handbook (VESCH); have a temporary service life of less than eighteen (18) months; and will be removed completely once associated disturbed areas are stabilized, unless a distinct hazard to the public's health, safety and welfare is determined by the Environmental Division due to the size or presence of the structure or due to evidence of improper construction.

(\*Note: Dam Height as referenced above is generally defined as the vertical distance from the natural bed of the stream or waterway at the downstream toe of the embankment to the top of the embankment structure in accordance with 4VAC50-20-30, Virginia Impoundment Structure Regulations and the Virginia Dam Safety Program.)

- Record Drawings shall provide, at a minimum, all information as shown within these requirements and the attached **RECORD DRAWING CHECKLIST** specific to the type of SWM/BMP facility being constructed. Other additional record data may be formally requested by the James City County Environmental Division. *(Note: Refer to the current edition of the James City County Guidelines for Design and Construction of Stormwater Management BMP's manual for a complete list of acceptable BMP's. Currently there are over 20 acceptable water quality type BMP's accepted by the County.)*
- Record Drawings shall consist of blue/black line prints and a reproducible (mylar, sepia, diazo, etc.) set of the approved stormwater management plan including applicable plan views, profiles, sections, details, maintenance plans, etc. as related to the subject SWM / BMP facility. The set shall indicate "**RECORD DRAWING**" in large text in the lower right hand corner of each sheet with record elevations, dimensions and data drawn in a clearly annotated format and/or boxed beside design values. Approved design plan values, dimensions and data shall not be removed or erased. Drawing sheet revision blocks shall be modified as required to indicate record drawing status. Elevations to the nearest 0.1' are sufficiently accurate except where higher accuracy is needed to show positive drainage. Certification statements as shown in Section 4 of the Record Drawing and Construction Certification Form, *or similar forms thereof*, and professional signatures and seals, with dates matching that of the record drawing status in the revision or title block, are also required on all associated record drawing plans, prints or reproducibles.
- Submission Requirements. Initial and subsequent submissions for review shall consist of a minimum of one (1) blue/black line set for record drawings and one copy of the construction certification documents with appropriate transmittal. Under certain circumstances, it is understood that the record drawing and construction certification submissions may be performed by different professional firms. Therefore, record drawing submission may be in advance of construction certification or vice versa. Upon approval and prior to release of bond/surety, final submission shall include one (1) reproducible set of the record drawings, one (1) blue/black line set of the record drawings and one (1) copy of the construction certification. Also for current and/or future incorporation into the County BMP database and GIS system, it is requested that the record drawings also be submitted to the Environmental Division on a diskette or CD-ROM in an acceptable electronic file format such as \*.dxf, \*.dwg, etc. or in a standard scanned and readable format. The electronic file requirement can be discussed and coordinated with Environmental Division staff at the time of final submission.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

(Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

- I. Methods and Presentation:** (Required for all Stormwater Management / BMP facilities.)
- XX 1. All constructed facilities meet approved design plans, unless otherwise shown. Record information or deviations from approved design plan shown in clearly annotated format and/or boxed beside design values.
  - XX 2. Elevations to the nearest 0.1' unless higher accuracy is needed to show positive drainage.
  - XX 3. All plan sheets labeled with "RECORD DRAWING" in large text in lower right hand corner (Approved County Plan Number and BMP ID Code can be included if known).
  - XX 4. All plans sheet revision blocks modified to indicate date and record drawing status.
  - XX 5. All plan sheets have certification statements and certifying professional's signature and seal.
- II. Minimum Standards:** (Required for all Stormwater Management / BMP facilities, as applicable.)
- XX 1. All requirements of Section I (Methods and Presentation) apply to this section.
  - XX 2. Plan Views: Show general location, arrangement and dimensions. Location and alignment shall generally match approved design plans.
  - XX 3. Profile or elevations along top or berm of the facility. At a minimum, elevations are required at each end, at intervals not to exceed 50 feet and where low spots may be present. Top of embankment or berm elevations must be no less than design elevation plus any settlement allowances.
  - XX 4. Top widths, berm widths and embankment side slopes.
  - XX 5. Show length, width and depth of facility or grading, contours or spot elevations as required to verify permanent pool and design storage volumes were met or were reasonably close to the approved design. Evaluation of as-built grading, contours, spot elevations, or cross-sections, may be necessary by the professional to ensure approved design configurations, depths and volumes were closely maintained. If grading or elevations are significantly different from the approved plan, the Environmental Division shall be contacted immediately to determine whether the variation is acceptable or whether further evidence will be required. Facilities which do not closely resemble approved plan grades, elevations or configurations may require regrading by the Contractor; check volumetric computations; and/or a check hydraulic routing to ensure approved design water surface elevations, discharges or freeboard were closely maintained.
  - XX 6. Cross-section of the embankment through the principal spillway or outlet barrel. Must extend at least 100 ft. downstream of the pipe outlet or to recorded site property line, whichever is closer. Proper correlation is required between principal spillway (control structure) crest, emergency spillway crest, orifice and weirs and the top of the dam or facility. All elevations and dimensions must reasonably match the design plan or be sequentially relative to each other and the facility must reflect the required design storage volume(s) and/or design depth.
  - XX 7. Profile or elevations along the entire centerline of the emergency spillway. Emergency spillway may be steeper, but no flatter or narrower than design.
  - XX 8. Elevation of the principal spillway crest or outlet crest of the structure.

- XX 9. Primary control structure (riser) diameter or dimensions, height, type of material and base size. Indicate provisions for access that are present such as steps, ladders, etc.
- XX 10. Dimensions, locations and elevations of outlet orifices, weirs, slots and drains.
- XX 11. Type and size of anti-vortex and trash rack device. Height, diameter, dimensions, bar spacings (if applicable) and elevations relative to the principal spillway crest. Indicate if lockable hatch is present or not.
- N/A 12. Type, location, size and number of anti-seep collars or documentation of other methods utilized for seepage control. **May need to obtain this information during construction.**
- N/A 13. Top of impervious core embankment, core trench limits and elevation of cut-off trench bottom. **May need to obtain this information during construction.**
- XX 14. Elevation of the principal spillway barrel (outlet pipe) inlet and outlet invert.
- XX 15. Outlet barrel diameter, length, slope, type and thickness class of material and type of flared end sections, headwall or endwall.
- XX 16. Outfall protection dimension, type and depth of rock and if underlain filter fabric is present.
- XX 17. BMP interior and periphery landscaping zones conform with arrangements and requirements of the approved design plan.
- XX 18. Maintenance plan taken from approved design plan transposed onto record drawing set.
- N/A 19. Fencing location and type, if applicable to facility.
- XX 20. BMP vicinity properly cleaned of stockpiles and construction debris.
- XX 21. No visual signs of erosion or channel degradation immediately downstream of facility.
- XX 22. Any other information formally requested by the Environmental Division specific to the constructed SWM/BMP facility.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

(Key for Checklist is as follows: **XX** Acceptable    **N/A** Not Applicable    **Inc** Incomplete)

- III.    Group A – Wet Ponds** (Includes A-1 Small Wet Ponds; A-2 Wet Ponds; A-3 Wet Ext Det Ponds.)
- \_\_\_\_\_ A1.    All requirements of Section II, Minimum Standards, apply to Group A facilities.
  - \_\_\_\_\_ A2.    Principal spillway consists of reinforced concrete pipe with O-Ring gaskets for watertight joint construction.
  - \_\_\_\_\_ A3.    Sediment forebays or pretreatment devices provided at inlets to pond. Generally 4 to 6 ft. deep.
  - \_\_\_\_\_ A4.    Access for maintenance and equipment is provided to the forebay(s). Access corridors are at least 12 ft. wide, have a maximum slope of 15 percent and are adequately stabilized to withstand heavy equipment or vehicle use.
  - \_\_\_\_\_ A5.    Adequate fixed vertical sediment depth markers installed in the forebay(s) for future sediment monitoring purposes.
  - \_\_\_\_\_ A6.    Pond liner (if required) provided. Either clay liners, polyliners, bentonite liners or use of chemical soil additives based on requirements of the approved plan.
  - \_\_\_\_\_ A7.    Minimum 6 percent slope safety bench extending a minimum of 15 feet outward from normal pool edge and/or an aquatic bench extending a minimum of 10 feet inward from the normal shoreline with a maximum depth of 12 inches below the normal pool elevation, if applicable, per the approved design plans. (Note: Safety benches may be waived if pond side slopes are no steeper than 4H:1V).
  - \_\_\_\_\_ A8.    No trees are present within a zone 15 feet around the embankment toe and 25 feet from the principal spillway structure.
  - \_\_\_\_\_ A9.    Wet permanent pool, typically 3 to 6 feet deep, is provided and maintains level within facility.
  - \_\_\_\_\_ A10.    Low flow orifice has a non-clogging mechanism.
  - \_\_\_\_\_ A11.    A pond drain pipe with valve was provided.
  - \_\_\_\_\_ A12.    Pond side slopes are not steeper than 3H:1V, unless approved plan allowed for steeper slope.
  - \_\_\_\_\_ A13.    End walls above barrels (outlet pipe) greater than 48 inch in diameter are fenced to prevent a fall hazard.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

( Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

- IV.    **Group B – Wetlands:** (Includes B-1 Shallow Marsh; B-2 Ext Det Shallow Wetlands; B-3 Pond Wetland System and B-4 Pocket Wetland).
- \_\_\_\_\_ B1.    Same requirements as Group A Wet Ponds.
- \_\_\_\_\_ B2.    Minimum 2:1 length to width flow path provided across the facility.
- \_\_\_\_\_ B3.    Micropool provided at or around outlet from BMP (generally 3 to 6 ft. deep).
- \_\_\_\_\_ B4.    Wetland type landscaping provided in accordance with approved plan. Includes correct pondscaping zones, plant species, planting arrangements, wetland beds, etc. Wetland plants include 5 to 7 emergent wetland species. Individual plants at 18 inches on center in clumps.
- \_\_\_\_\_ B5.    Adequate wetland buffer provided (Typically 25 ft. outward from maximum design water surface elevation and 15 ft. setback to structures).
- \_\_\_\_\_ B6.    No more than one-half (½) of the wetland surface area is planted.
- \_\_\_\_\_ B7.    Topsoil or wetland mulch provided to support vigorous growth of wetland plants.
- \_\_\_\_\_ B8.    Planting zones staked or flagged in field and locations subsequently established by appropriate field surveying methods for record drawing presentation.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

(Key for Checklist is as follows: **XX** Acceptable    **N/A** Not Applicable    **Inc** Incomplete)

- V.    **Group C – Infiltration Practices** (Includes C-1 Infiltration Trench; C-2 Infiltration Trench; C-3 Infiltration Basin; and C-4 Infiltration Basin)
- \_\_\_\_\_ C1.    All requirements of Section II, Minimum Standards, apply to Group C facilities as applicable.
- \_\_\_\_\_ C2.    Facility is not located on fill slopes or on natural ground in excess of six (6) percent.
- \_\_\_\_\_ C3.    Pretreatment devices provided prior to entry into the infiltration facility. Acceptable pretreatment devices include sediment forebays, sediment basins, sediment traps, sump pits or inlets, grass channels, plunge pools or other acceptable measures.
- \_\_\_\_\_ C4.    Three (3) or more of the following pretreatment devices provided to protect long term integrity of structure: grass channel; grass filter strip; bottom sand layer; upper filter fabric layer; use of washed bank run gravel aggregate.
- \_\_\_\_\_ C5.    Sides of infiltration practice lined with filter fabric.
- \_\_\_\_\_ C6.    Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- \_\_\_\_\_ C7.    Stabilization and acceptable vegetative cover established over contributing drainage area prior to conveyance of stormwater to the facility.
- \_\_\_\_\_ C8.    Minimum one hundred (100) foot separation horizontally from any known water supply well and minimum one hundred (100) foot separation upslope from any building.
- \_\_\_\_\_ C9.    Minimum twenty-five (25) foot separation down gradient from any structure.
- \_\_\_\_\_ C10.    Stormwater outfalls provided for overflow associated with larger design storms.
- \_\_\_\_\_ C11.    No visual signs of erosion or channel degradation immediately downstream of facility.
- \_\_\_\_\_ C12.    Facility does not currently cause any apparent surface or subsurface water problems to downgrade properties.
- \_\_\_\_\_ C13.    Observation well provided.
- \_\_\_\_\_ C14.    Adequate, direct access provided to the facility for future maintenance, operation and inspection.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

( Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

- VI.    **Group D – Filtering Systems**    *Includes D-1 Bioretention Cells; D-2 Surface Sand Filters; D-3 Underground Sand Filters; D-4 Perimeter Sand Filters; D-5 Organic Filters; and D-6 Pocket Sand Filters)*
- \_\_\_\_\_ D1.    All requirements of Section II, Minimum Standards, apply to Group D facilities.
- \_\_\_\_\_ D2.    Sediment pretreatment devices provided.
- \_\_\_\_\_ D3.    For D-1 BMPs (Bioretention Cells), pretreatment consisting of a grass filter strip below level spreader (deflector); a gravel diaphragm; and mulch and planting soil layers were provided.
- \_\_\_\_\_ D4.    For D-1 BMPs (Bioretention Cells), plantings consist of native plant species; vegetation provided was based on zones of hydric tolerances; trees and understory of shrubs and herbaceous materials were provided; woody vegetation is absent from inflow locations; and trees are located around facility perimeter.
- \_\_\_\_\_ D5.    Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- \_\_\_\_\_ D6.    No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed.
- \_\_\_\_\_ D7.    Filtering system is off-line from storm drainage conveyance system.
- \_\_\_\_\_ D8.    Overflow outlet has adequate erosion protection.
- \_\_\_\_\_ D9.    Deflector, diversion, flow splitter or regulator structure provided to divert the water quality volume to the filtering structure.
- \_\_\_\_\_ D10.    Minimum four (4) inch perforated underdrain provided in a clean aggregate envelope layer beneath the facility.
- \_\_\_\_\_ D11.    Minimum fifty (50) foot separation from any slope fifteen (15) percent or greater. Minimum one hundred (100) foot separation horizontally from any known water supply well. Minimum one hundred (100) foot separation upslope and twenty-five (25) foot separation downslope from any building.
- \_\_\_\_\_ D12.    Stabilization and acceptable vegetative cover established over contributing drainage area prior to conveyance of stormwater to the facility.
- \_\_\_\_\_ D13.    No visual signs of erosion or channel degradation immediately downstream of facility.
- \_\_\_\_\_ D14.    Adequate, direct access provided to the pretreatment area and/or filter bed for future maintenance.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

( Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

- VII.    Group E – Open Channel Systems**    *(Includes E-1 Wet Swales (Check Dams); E-2 Dry Swales; and E-3 Biofilters)*
- \_\_\_\_\_ E1.    All requirements of Section II, Minimum Standards, apply to Group E facilities as applicable.
- \_\_\_\_\_ E2.    Open channel system has constructed longitudinal slope of less than four (4) percent.
- \_\_\_\_\_ E3.    No visual signs of erosion in the open channel system's soil and/or vegetative cover.
- \_\_\_\_\_ E4.    Open channel side slopes are no steeper than 2H:1V at any location. Preferred channel sideslope is 3H:1V or flatter.
- \_\_\_\_\_ E5.    No visual signs of ponding are present at any location in the open channel system, except at rock check dam locations for E-1 systems (Wet Swales).
- \_\_\_\_\_ E6.    For E-2 BMPs (Dry Swales), an underdrain system was provided.
- \_\_\_\_\_ E7.    Treated timber or rock check dams provided as pretreatment devices for the open channel system.
- \_\_\_\_\_ E8.    Gravel diaphragm provided in areas where lateral sheet flow from impervious surfaces are directly connected to the open channel system.
- \_\_\_\_\_ E9.    Grass cover/stabilization in the open channel system appears adaptable to the specific soils and hydric conditions for the site and along the channel system.
- \_\_\_\_\_ E10.    Open channel system areas with grass covers higher than four (4) to six (6) inches were properly mowed.
- \_\_\_\_\_ E11.    Facility was not used for erosion and sediment control purposes and sediment was prevented from entering the facility to the greatest extent possible during construction.
- \_\_\_\_\_ E12.    No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed and no adverse affects to the function of the facility are anticipated.
- \_\_\_\_\_ E13.    For E-3 BMPs (Biofilters), the bottom width is six (6) feet maximum at any location.
- \_\_\_\_\_ E14.    For E-3 BMPs (Biofilters), sideslopes are 3H:1V maximum at any location.
- \_\_\_\_\_ E15.    For E-3 BMPs (Biofilters), the constructed channel slope is less than or equal to three (3) percent at any location.
- \_\_\_\_\_ E16.    For E-3 BMPs (Biofilters), the constructed grass channel is approximately equivalent to the constructed roadway length.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

( Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

**VIII.    Group F – Extended Dry Detention** (Includes F-1 Timber Walls; and F-2 Dry Extended Detention with Forebay)

- F1. All requirements of Section II, Minimum Standards, apply to Group F facilities.
- F2. Basin bottom has positive slope and drainage from all basin inflow points to the riser (or outflow) location.
- F3. Timber wall BMP used in intermittent stream only. (ie. Prohibited in perennial streams.)
- F4. Forebay provided approximately 20 ft. upstream of the facility. Forebays generally 4 to 6 feet in depth.
- F5. A reverse slope pipe, vertical stand pipe or mini-barrel and riser was provided to prevent clogging
- F6. Principal spillway and outlet barrel provided consisting of reinforced concrete pipe with O-Ring gaskets for watertight joint construction.
- F7. Mini-barrel and riser, if used, contains a removable trash rack to reduce clogging.
- F8. Low flow orifice, if used, has a minimum diameter of three (3) inches or two (2) inches if internal orifice control was utilized and a small, cage type external trash rack.
- F9. Timbers properly reinforced or concrete footing provided if soil conditions were prohibitive.
- F10. Timber wall cross members extended to a minimum depth of two (2) feet below ground elevation.
- F11. Protection against erosion and scour from the low flow orifice and weir-flow trajectory provided.
- F12. Stilling basin or standard outlet protection provided at principal spillway outlet.
- F13. Adequate, direct access provided to the facility. Access corridor to facility is at least ten (10) feet wide, slope is less than twenty (20) percent and appropriate stabilization provided for equipment and vehicle use. Access extends to forebay, standpipe and timber wall, as applicable.
- F14. No visual signs of undercutting of timber walls or clogging of the low orifice were present.
- F15. No visual signs of erosion or channel degradation immediately downstream of facility.
- F16. No visible signs of accumulated silt/sediment were present in the facility following construction or alternately, accumulated silt/sediment was properly removed and no adverse affects to the function of the facility are anticipated.

**STORMWATER MANAGEMENT / BMP FACILITIES  
RECORD DRAWING CHECKLIST**

( Key for Checklist is as follows: **XX** Acceptable    **N/A** Not Applicable    **Inc** Incomplete)

**IX.    Group G – Open Spaces**    (Includes All Open Space Types G-1; G-2; and G-3)

- G1.    All requirements of Section II, Minimum Standards, apply to Group G facilities as applicable.
- G2.    Constructed impervious areas appear to conform with locations indicated on the approved plan and appear less than sixty (60) percent impervious in accordance with the requirements of the James City County Chesapeake Bay Preservation Ordinance.
- G3.    Dedicated open space areas are in undisturbed common areas, conservation easements or are protected by other enforceable instruments that ensures perpetual protection.
- G4.    Provisions included to clearly specify how the natural vegetated areas utilized as dedicated open space will be managed and field identified (marked).
- G5.    Adequate protection measures were implemented during construction to protect the defined dedicated open space areas.
- G6.    Dedicated open space areas were not disturbed during construction (ie. cleared, grubbed or graded).

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

(Key for Checklist is as follows: XX Acceptable    N/A Not Applicable    Inc Incomplete)

### X. Storm Drainage Systems (Associated with BMP's Only)

*(Includes all incidental stormwater drainage conveyance systems associated with SWM/BMP facilities such as onsite or offsite storm drains, open channels, inlets, manholes, junctions, outlet protections, deflectors, etc. These facilities are external to the treatment function of, but are directly associated with drainage to and/or from a constructed SWM/BMP facility. The intent of this portion of the certification is to accurately identify the type and quantity of inflow or outflow points associated with the facility for future reference. The Professional may use his/her own discretion to determine inclusive facilities to meet the intent of this section. As a general rule, storm drainage systems would include incidental facilities to the nearest access structure upslope or downslope from the normal physical limits of the facility or 800 feet of storm drainage conveyance system length, whichever is less.)*

- XX SD1. All requirements of Section II, Minimum Standards, apply to Storm Drainage Systems.
- XX SD2. Horizontal location of all pipe and structures relative to the SWM/BMP facility.
- XX SD3. Type, top elevation and invert elevation of all access type structures (inlets, manholes, etc.).
- XX SD4. Material type, size or diameter, class, invert elevations, lengths and slopes for all pipe segments.
- XX SD5. Class, length, width and depth of riprap and outlet protections or dimensions of special energy dissipation structures.

### XII. Other Systems

*(Includes any non-typical, specialty, manufactured or innovative stormwater management/BMP practices or systems generally accepted for use as or in conjunction with other acceptable stormwater management / BMP practices. Requires evidence of prior satisfactory industry use and prior Environmental Division approval, waiver or exception.)*

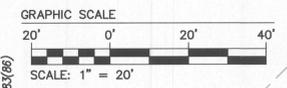
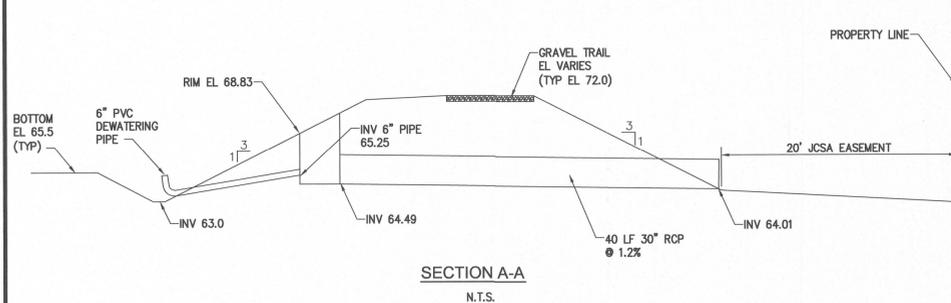
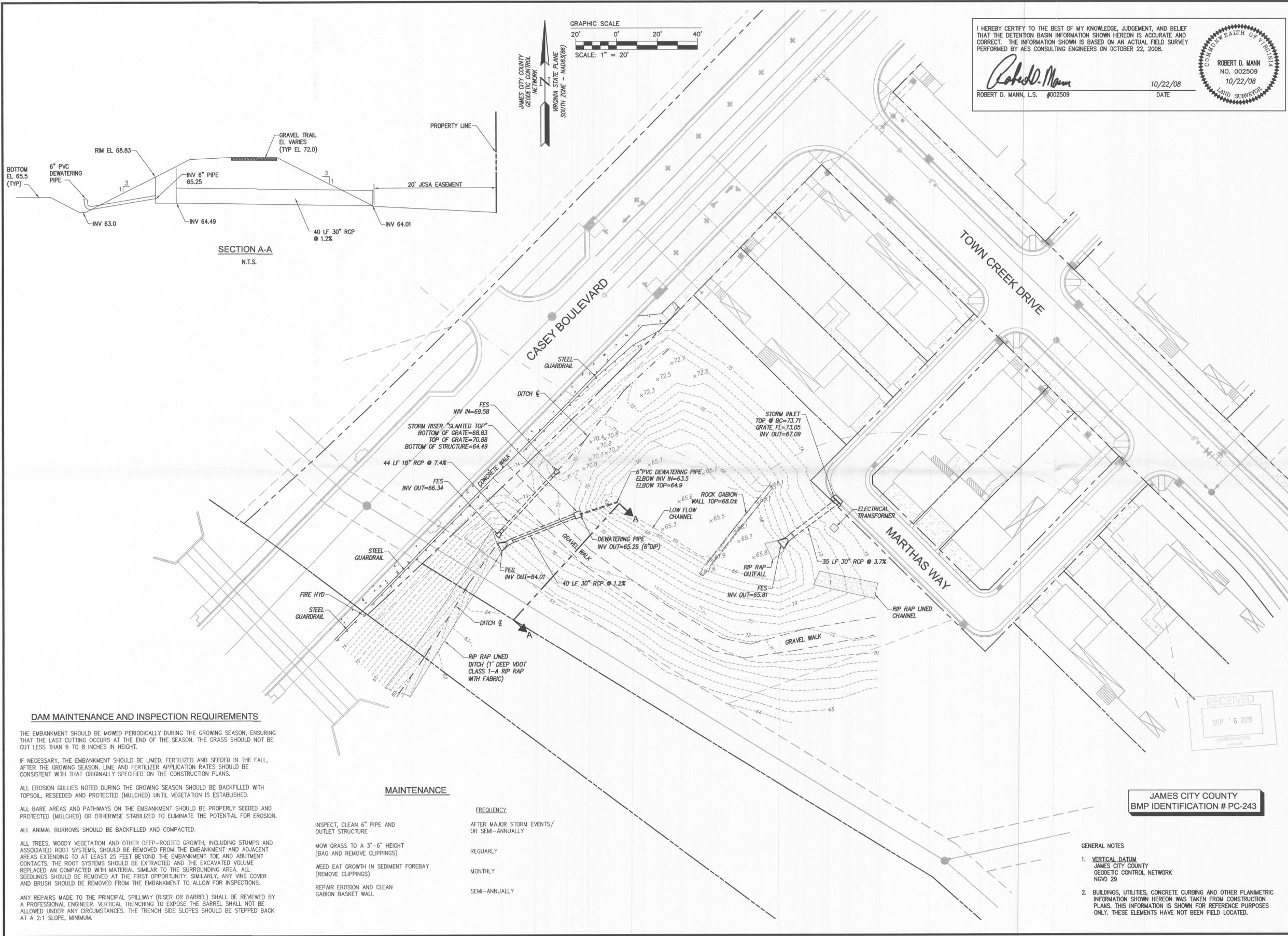
- XX O1. All requirements of Section II, Minimum Standards, apply to this section.
- XX O2. Certification criteria to be determined on a case-by-case basis by the Environmental Division specific to the proposed SWM/BMP facility.

## STORMWATER MANAGEMENT / BMP FACILITIES RECORD DRAWING CHECKLIST

### XIII. References

*(The James City County Record Drawing and Construction Certification Forms and Checklists for Stormwater Management / BMP facilities were developed using the following sources and references.)*

- Baltimore County, Maryland Soil Conservation District, As-Built Stormwater Management Pond Checklist.
- James City County, Virginia, Guidelines for Design and Construction of Stormwater Management BMP's (October 1999.)
- James City County, Virginia, Stormwater Detention/Retention Basin Design Checklist and Erosion and Sediment Control and Stormwater Management Design Plan Checklists.
- James City County Stormwater Policy Framework, Final Report of the James City County BMP Policy Project, October 1998, The Center for Watershed Protection.
- Prince Georges County, Maryland, As-Built Requirements Retention or Detention Pond/Basin.
- Prince William County, Virginia, Stormwater Management Fact Sheet.
- Stafford County, Virginia As-Built Plan Checklist.
- Stormwater Management Design Manual, NRCS Maryland Code No. 378, Pond Standards and Specifications.
- USEPA/Watershed Management Institute, Stormwater Management Inspection Forms.
- Virginia Impounding Structure Regulations (Dam Safety), Department of Conservation & Recreation, 1997.
- Virginia Erosion and Sediment Control Handbook, Third Edition 1992, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation.
- Virginia Stormwater Management Handbook, 1999 edition, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation.



JAMES CITY COUNTY  
GEODETIC CONTROL  
NETWORK  
VIRGINIA STATE PLANE  
SOUTH ZONE - NAD83(86)

I HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE, JUDGEMENT, AND BELIEF THAT THE DETENTION BASIN INFORMATION SHOWN HEREON IS ACCURATE AND CORRECT. THE INFORMATION SHOWN IS BASED ON AN ACTUAL FIELD SURVEY PERFORMED BY AES CONSULTING ENGINEERS ON OCTOBER 22, 2008.

*Robert D. Mann*  
ROBERT D. MANN, L.S. #002509

10/22/08  
DATE

COMMONWEALTH OF VIRGINIA  
ROBERT D. MANN  
NO. 002509  
10/22/08  
LAND SURVEYOR

**DAM MAINTENANCE AND INSPECTION REQUIREMENTS**

THE EMBANKMENT SHOULD BE MOWED PERIODICALLY DURING THE GROWING SEASON, ENSURING THAT THE LAST CUTTING OCCURS AT THE END OF THE SEASON. THE GRASS SHOULD NOT BE CUT LESS THAN 6 TO 8 INCHES IN HEIGHT.

IF NECESSARY, THE EMBANKMENT SHOULD BE LIMED, FERTILIZED AND SEEDED IN THE FALL, AFTER THE GROWING SEASON. LIME AND FERTILIZER APPLICATION RATES SHOULD BE CONSISTENT WITH THAT ORIGINALLY SPECIFIED ON THE CONSTRUCTION PLANS.

ALL EROSION GULLIES NOTED DURING THE GROWING SEASON SHOULD BE BACKFILLED WITH TOPSOIL, RESEEDED AND PROTECTED (MULCHED) UNTIL VEGETATION IS ESTABLISHED.

ALL BARE AREAS AND PATHWAYS ON THE EMBANKMENT SHOULD BE PROPERLY SEEDDED AND PROTECTED (MULCHED) OR OTHERWISE STABILIZED TO ELIMINATE THE POTENTIAL FOR EROSION.

ALL ANIMAL BURROWS SHOULD BE BACKFILLED AND COMPACTED.

ALL TREES, WOODY VEGETATION AND OTHER DEEP-ROOTED GROWTH, INCLUDING STUMPS AND ASSOCIATED ROOT SYSTEMS, SHOULD BE REMOVED FROM THE EMBANKMENT AND ADJACENT AREAS EXTENDING TO AT LEAST 25 FEET BEYOND THE EMBANKMENT TOE AND ADJUTMENT CONTACTS. THE ROOT SYSTEMS SHOULD BE EXTRACTED AND THE EXCAVATED VOLUME REPLACED AND COMPACTED WITH MATERIAL SIMILAR TO THE SURROUNDING AREA. ALL SEEDLINGS SHOULD BE REMOVED AT THE FIRST OPPORTUNITY. SIMILARLY, ANY VINE COVER AND BRUSH SHOULD BE REMOVED FROM THE EMBANKMENT TO ALLOW FOR INSPECTIONS.

ANY REPAIRS MADE TO THE PRINCIPAL SPILLWAY (RISER OR BARREL) SHALL BE REVIEWED BY A PROFESSIONAL ENGINEER. VERTICAL TRENCHING TO EXPOSE THE BARREL SHALL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES. THE TRENCH SIDE SLOPES SHOULD BE STEPPED BACK AT A 2:1 SLOPE, MINIMUM.

**MAINTENANCE**

	FREQUENCY
INSPECT, CLEAN 6" PIPE AND OUTLET STRUCTURE	AFTER MAJOR STORM EVENTS/ OR SEMI-ANNUALLY
MOW GRASS TO A 3"-6" HEIGHT (BAG AND REMOVE CLIPPINGS)	REGULARLY
WEED EAT GROWTH IN SEDIMENT FOREBAY (REMOVE CLIPPINGS)	MONTHLY
REPAIR EROSION AND CLEAN GABION BASKET WALL	SEMI-ANNUALLY

JAMES CITY COUNTY  
BMP IDENTIFICATION # PC-243

**GENERAL NOTES**

- VERTICAL DATUM:** JAMES CITY COUNTY GEODETIC CONTROL NETWORK NGVD 29
- BUILDINGS, UTILITIES, CONCRETE CURBING AND OTHER PLANIMETRIC INFORMATION SHOWN HEREON WAS TAKEN FROM CONSTRUCTION PLANS. THIS INFORMATION IS SHOWN FOR REFERENCE PURPOSES ONLY. THESE ELEMENTS HAVE NOT BEEN FIELD LOCATED.**

No.	DATE	REVISION / COMMENT / NOTE	REVISION BY
2	9/15/09	REVISED TO REFLECT CHANGES	REC
1	7/1/09	REVISED PER COUNTY COMMENTS	REC

5248 Old Towne Road, Suite 1  
Williamsburg, Virginia 23188  
(757) 263-0040  
Fax (757) 220-8994



**RECORD DRAWING**  
DETENTION BASIN (PC-243)  
(PER PHASE IA PLAN JCC-SF-139-03)  
BLOCK 8, PHASE IB  
NEW TOWN  
JAMES CITY COUNTY  
BERKELEY DISTRICT VIRGINIA

DESIGNED: AES  
DRAWN: CMA  
SCALE: NOTED  
DATE: 11/8/08  
PROJECT NO.: 6632-E12-2  
DRAWING NO.: 1 OF 1



**AES CONSULTING ENGINEERS**  
**Engineering, Surveying, and Planning**  
 5248 Olde Towne Road, Suite 1  
 Williamsburg, VA 23188  
**Phone: (757) 253-0040**  
**Fax: (757) 220-8994**

# LETTER OF TRANSMITTAL

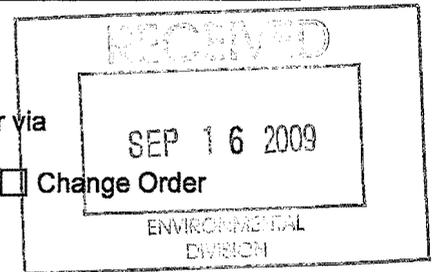
**ATTN: Amy Parker**

**CO.:** James City County  
 \_\_\_\_\_  
**Address:** Environmental Division  
 \_\_\_\_\_  
 \_\_\_\_\_  
**cc:**  
 \_\_\_\_\_

<b>DATE</b> 9/15/2009	<b>JOB NO.</b> 6632-e-12-2
<b>FROM:</b> Bob Cosby	
<b>RE</b> New Town - Abbey Commons Block 8 Residential BMP Record Drawings	

WE ARE SENDING YOU THE FOLLOWING ITEMS:

- Attached  
 Under separate cover via  
 Original(s)     Print(s)     Plan(s)     Specification(s)     Change Order  
 Copy of letter(s)     Other:



COPIES	DATE	No. of Pages	DESCRIPTION
1	9/15/09	1	Dry Detention Facility Record Drawing
1		16	Dry Detention Facility Certification
1	9/11/09	1	Bio-Retention Facility Record Drawing
1	9/15/09	16	Bio-Retention Facility Certification

THESE ARE TRANSMITTED as checked below:

- For your approval     For your signature     For review and comment  
 For your use     As you requested     As requested by:  
 Other:

REMARKS:

VIA:  Hand Deliver     UPS Ground     UPS Next Day Air     USPS Mail     Other:

*If enclosures are not as noted, kindly notify us at once.*

Date: 3/17/10

Subject: Record Drawing/Mylar

Newtown Block 8 Ph 1B Abbey Commons

TO: James City County Stormwater Division

From: Environmental Division

ATTN: Amy Parker

Comments:

Closed one file – PC247 Bioretention – ~~Mylars will be forwarded.~~ Remaining project info will be forwarded once subdivision surety is released and PC243 Dry Detention Pond is closed out.

*Mylars sent  
with this  
transmittal  
3/18/10  
[Signature]*



James City County Environmental Division  
Stormwater Management / BMP Inspection Report  
Detention and Retention Pond Facilities

County BMP ID Code (if known): PC243  
Name of Facility: New Town-BIK8 Ph. 1B (Abbey Commons) BMP No.: \_\_\_\_\_ of \_\_\_\_\_ Date: \_\_\_\_\_  
Location: 200' West of Intersec. of Casey Blvd + Town Creek Dr.  
Name of Owner: Newtown of Wmshg. VA LLC.  
Name of Inspector: Amy Parker  
Type of Facility: Dry Detention Facility  
Weather Conditions: Cloudy Type:  Final Inspection  County BMP Inspection Program  Owner Inspection

If an inspection item is not applicable, mark NA, otherwise mark the appropriate column.

- O.K. - The item checked is in adequate condition and the maintenance program is currently satisfactory. No action required.
- Routine - The item checked requires attention, but does not present an immediate threat to the function/integrity of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and to prevent damage to the facility.

Provide an explanation and details in the comment column, if routine or urgent are marked.

Facility Item	O.K.	Routine	Urgent	Comments
<b>Embankments and Side Slopes:</b>				
Grass Height	✓			
Vegetation Condition	✓			
Tree Growth	✓			
Erosion	✓			
Trash & Debris	✓			
Seepage	✓			
Fencing or Benches	N/A			
<b>Interior Landscaping/Planted Areas:</b> <input type="checkbox"/> None <input type="checkbox"/> Constructed Wetland/Shallow Marsh <input type="checkbox"/> Naturally Established Vegetation				
Vegetated Conditions				
Trash & Debris	✓			
Floating Material	✓			
Erosion	✓			
Sediment	✓			
Dead Plant	✓			
Aesthetics	✓			
Other				

Notes:

Facility Item	O.K.	Routine	Urgent	Comments
<b>Water Pools:</b> <input type="checkbox"/> Permanent Pool (Retention Basin) <input type="checkbox"/> Shallow Marsh (Detention Basin) <input type="checkbox"/> None, Dry (Detention Basin)				
Shoreline Erosion	✓			
Algae	✓			
Trash & Debris	✓			
Sediment	✓			
Aesthetics	✓			
Other				
<b>Inflows (Describe Types/Locations):</b>				
Condition of Structure	✓			
Erosion	✓			
Trash and Debris	✓			
Sediment	✓			
Outlet Protection	✓			
Other				
<b>Principal Flow Control Structure - Riser, Intake, etc. (Describe Type):</b>				
Condition of Structure	✓			
Corrosion	✓			
Trash and Debris	✓			
Sediment	✓			
Vegetation	✓			
Other				
<b>Principal Outlet Structure - Barrel, Conduit, etc. :</b>				
Condition of Structure	✓			
Settlement	✓			
Trash & Debris	✓			
Erosion/Sediment	✓			
Outlet Protection	✓			
Other				
<b>Emergency Spillway (Overflow):</b>				
Vegetation	✓			
Lining	✓			
Erosion	✓			
Trash & Debris	✓			
Other				
Notes:				

Facility Item	O.K.	Routine	Urgent	Comments
<b>Nuisance Type Conditions:</b>				
Mosquito Breeding	✓			
Animal Burrows	✓			
Graffiti	✓			
Other				
<b>Surrounding Perimeter Conditions:</b>				
Land Uses	✓			
Vegetation	✓			
Trash & Debris	✓			
Aesthetics	✓			
Access /Maintenance Roads or Paths	✓			
Other				
<b>Remarks:</b>				
Overall Environmental Division Internal Rating: _____				
Signature: <u>Amy P. Park</u>		Date: <u>9/16/09</u>		
Title: <u>Inspector</u>				

SWMPProg\BMP\CoInspProg\InspForms\DetRet.wpd



040024435

Newtown  
Overall site

PC 241  
PC 243

COUNTY OF JAMES CITY, VIRGINIA

DECLARATION OF COVENANTS

INSPECTION/MAINTENANCE OF DRAINAGE SYSTEM

THIS DECLARATION, made this 21<sup>st</sup> day of SEPTEMBER, 2004,  
between NEWTOWN OF WILLIAMSBURG, VA., L.L.C.  
and all successors in interest, ("COVENANTOR(S),") owner(s) of the following property: 5216 MONTICELLO AVE. (NEWTOWN OVERALL SITE) 8.70 ACRES (Parcel 3),  
project name, NEWTOWN - SECTION 4, BLOCK 8, PHASE 1B  
Document No. \_\_\_\_\_, Deed Book \_\_\_\_\_, Page No. \_\_\_\_\_; Instrument No. 000012573, P.B. 77, PG. 94-96, and the County of James City, Virginia ("COUNTY.")

WITNESSETH:

We, the COVENANTOR(S), with full authority to execute deeds, mortgages, other covenants, and all rights, titles and interests in the property described above, do hereby covenant with the COUNTY as follows:

1. The COVENANTOR(S) shall provide maintenance for the drainage system including any runoff control facilities, conveyance systems and associated easements, hereinafter referred to as the "SYSTEM," located on and serving the above-described property to ensure that the SYSTEM is and remains in proper working condition in accordance with approved design standards, and with the law and applicable executive regulations. The SYSTEM shall not include any elements located within any Virginia Department of Transportation rights-of-way.
2. If necessary, the COVENANTOR(S) shall levy regular or special assessments against all present or subsequent owners of property served by the SYSTEM to ensure that the SYSTEM is properly maintained
3. The COVENANTOR(S) shall provide and maintain perpetual access from public right-of-ways to the SYSTEM for the COUNTY, its agent and its contractor.
4. The COVENANTOR(S) shall grant the COUNTY, its agent and its contractor a right of entry to the SYSTEM for the purpose of inspecting, operating, installing, constructing, reconstructing, maintaining or repairing the SYSTEM.
5. If, after reasonable notice by the COUNTY, the COVENANTOR(S) shall fail to maintain the SYSTEM in accordance with the approved design standards and with the law and applicable executive regulations, the COUNTY may perform all necessary repair or maintenance work, and the COUNTY may assess the COVENANTOR(S) and/or all property served by the SYSTEM for the cost of the work and any applicable penalties.

6. The COVENANTOR(S) shall indemnify and save the COUNTY harmless from any and all claims for damages to persons or property arising from the installation, construction, maintenance, repair, operation or use of the SYSTEM.

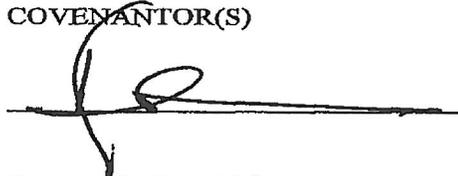
7. The COVENANTOR(s) shall promptly notify the COUNTY when the COVENANTOR(S) legally transfers any of the COVENANTOR(S)' responsibilities for the SYSTEM. The COVENANTOR(S)' shall supply the COUNTY with a copy of any document of transfer, executed by both parties.

8. The covenants contained herein shall run with the land and shall bind the COVENANTOR(S) and the COVENANTOR(S)' heirs, executors, administrators, successors and assignees, and shall bind all present and subsequent owners of property served by the SYSTEM.

9. This COVENANT shall be recorded in the County Land Records.

IN WITNESS WHEREOF, the COVENANTOR(S) have executed this DECLARATION OF COVENANTS as of the date first above written.

COVENANTOR(S)



Print Name/Title Kenneth L. Allen  
Co-Manager

ATTEST:

\_\_\_\_\_

COVENANTOR(S)

\_\_\_\_\_

Print Name/Title \_\_\_\_\_

ATTEST:

\_\_\_\_\_

COMMONWEALTH OF VIRGINIA  
CITY/COUNTY OF Newport News

I hereby certify that on this 23rd day of September, 2004, before the subscribed, a Notary Public of the State of Virginia, and for the City/County of Newport News, aforesaid personally appeared Kenneth L. Allen and did acknowledge the foregoing instrument to be their Act.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal, this 23rd day of September, 2004.

Frances K. Barber  
Notary Public

My Commission expires: November 30, 2006

Approved as to form:

M. M. M. M. M.  
Att - County Attorney

This Declaration of Covenants prepared by:

NANCY R. SMITH  
(Print Name)

OFFICE MANAGER  
(Title)

116 TENNING ROAD  
(Address)

Williamsburg VA 23188  
(City) (State) (Zip)

Phone: 220-2091

drainage.pre

VIRGINIA: CITY OF WILLIAMSBURG & COUNTY OF JAMES CITY  
This document was admitted to record on 29 Sept. 04  
at 9:22 AM. The taxes imposed by Virginia Code  
Section 58.1-801, 58.1-802 & 58.1-814 have been paid.

STATE TAX LOCAL TAX ADDITIONAL TAX  
\$ \_\_\_\_\_ \$ \_\_\_\_\_ \$ \_\_\_\_\_ 3

TESTE: BETSY B. WOOLRIDGE, CLERK

BY: Betsy B. Woolridge Clerk

Revised 01/02