



## 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.

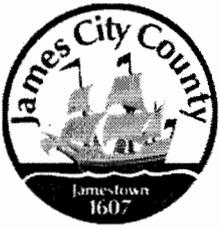
**BMP NUMBER:** PC001

**DATE VERIFIED:** October 30, 2012

**QUALITY ASSURANCE TECHNICIAN:** Leah Hardenbergh

*Leah Hardenbergh*

**LOCATION:** WILLIAMSBURG, VIRGINIA



# Stormwater Division

## MEMORANDUM

**DATE:** March 13, 2010  
**TO:** Michael J. Gillis, Virginia Correctional Enterprises Document Management Services  
**FROM:** Jo Anna Ripley, Stormwater  
**PO:** 270712  
**RE:** Files Approved for Scanning

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**General File ID or BMP ID:** PC001

**PIN:** 3240100037A

**Subdivision, Tract, Business or Owner**

**Name (if known):**

Mews at Williamsburg

**Property Description:**

Common Area

**Site Address:**

5144 Longhill Road

**(For internal use only)**

**Box** 3

**Drawer:** 2

**Agreements:** (in file as of scan date) N

**Book or Doc#:**

**Page:**

Comments



AES a professional corporation  
 5248 Old Towne Road Williamsburg, Va. 23185  
 804-253-0040  
 Architecture, Engineering, Surveying, Planning

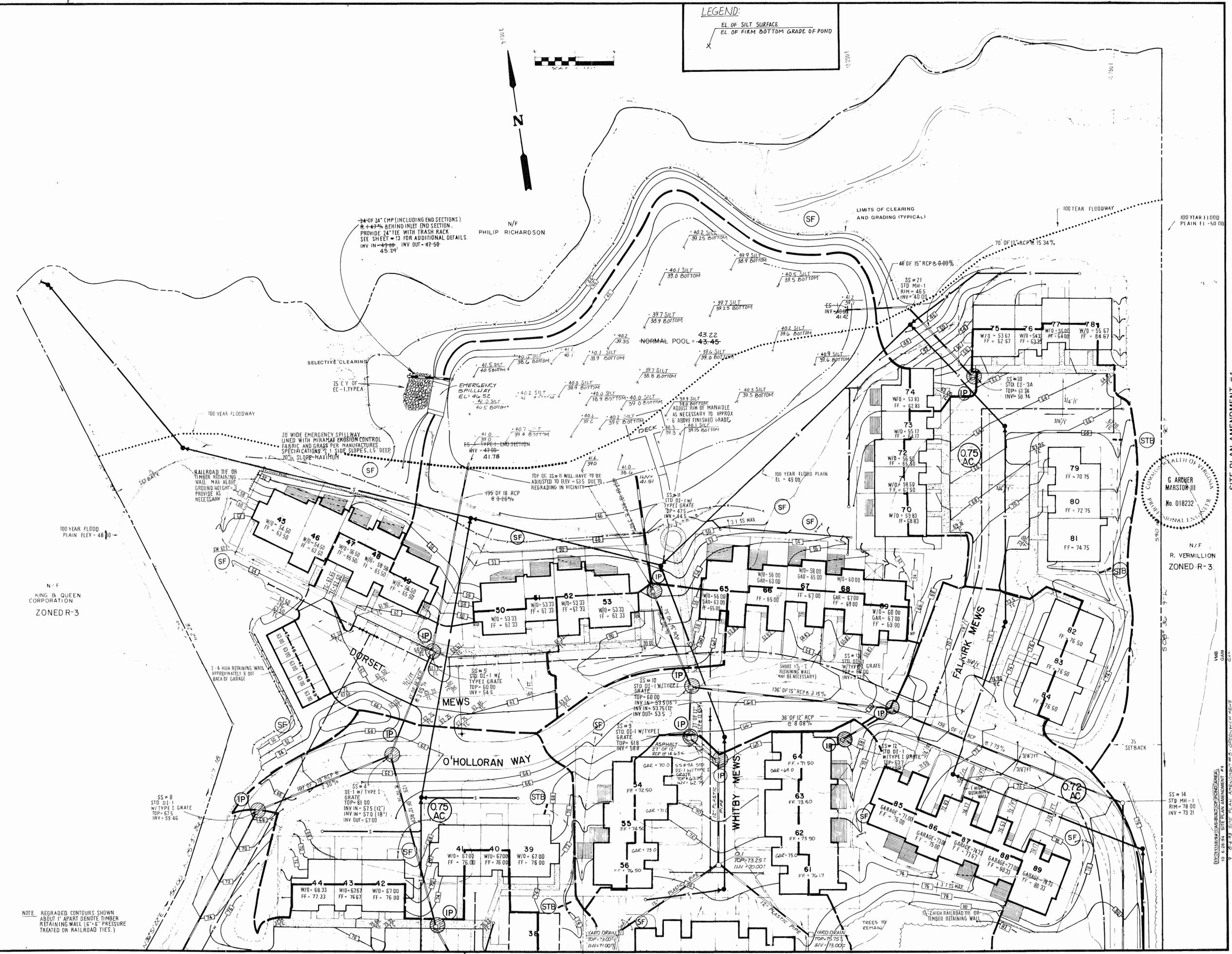
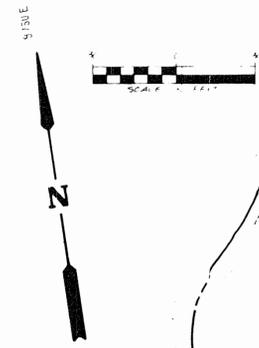
**SITE PLAN AMENDMENT #4**  
**GRADING, DRAINAGE, & EROSION CONTROL PLAN**  
**THE MEWS AT WILLIAMSBURG**  
**SITE PLAN AMENDMENT**

OWNER: REV. JOE & SUE WALLACE  
 BERKELEY DISTRICT  
 COMMUNITY HEALTH OF VIRGINIA  
 PROFESSIONAL LICENSE # 11111  
 No. 018232  
 N/F  
 R. VERMILLION  
 ZONED R-3

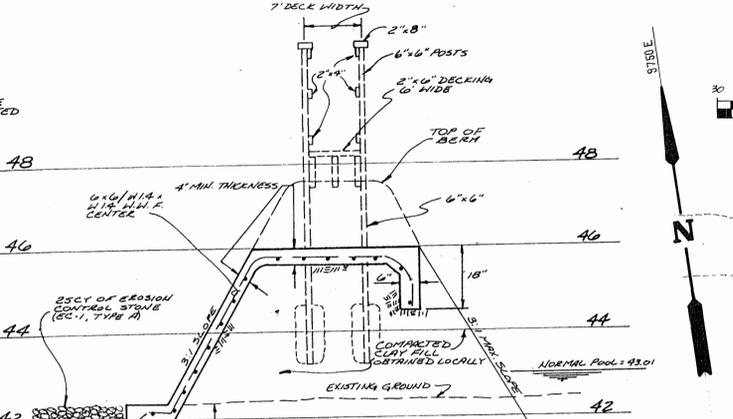
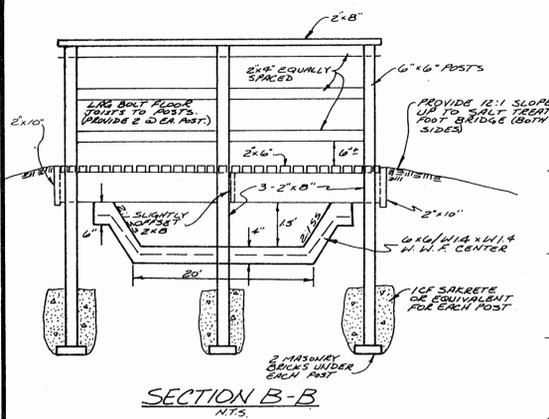
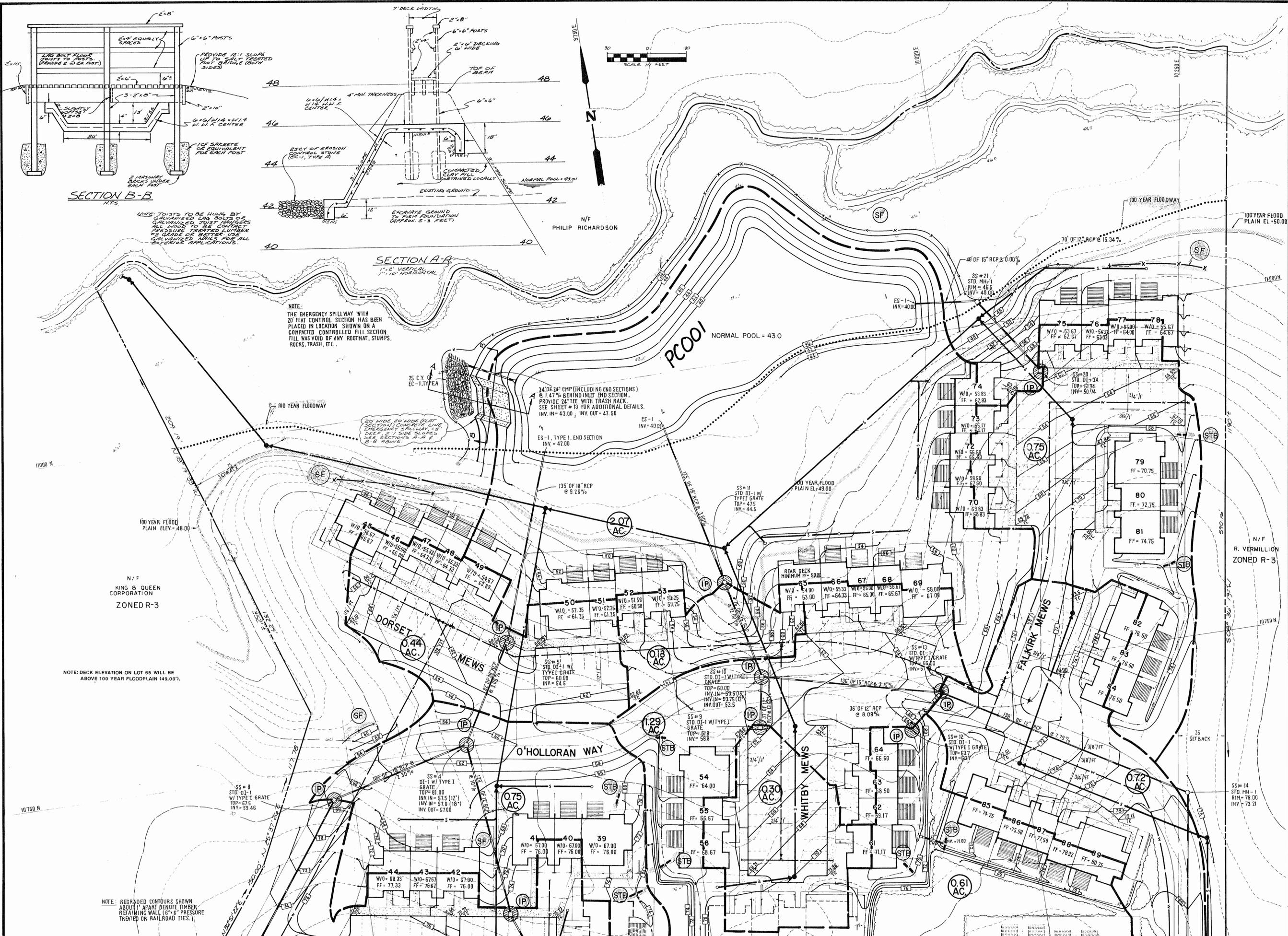
No.	DATE	REVISION / COMMENT / NOTE	BY
1	10/10/84	ISSUED FOR PERMITS	JHB
2	10/10/84	ISSUED FOR PERMITS	JHB
3	10/10/84	ISSUED FOR PERMITS	JHB
4	10/10/84	ISSUED FOR PERMITS	JHB
5	10/10/84	ISSUED FOR PERMITS	JHB
6	10/10/84	ISSUED FOR PERMITS	JHB
7	10/10/84	ISSUED FOR PERMITS	JHB
8	10/10/84	ISSUED FOR PERMITS	JHB
9	10/10/84	ISSUED FOR PERMITS	JHB
10	10/10/84	ISSUED FOR PERMITS	JHB

Designed	JHB	Drawn	BB
Scale	1"=30'	Date	JULY, 1984
Project No.	5656		
Drawing No.	4		

**LEGEND:**  
 EL. OF SILT SURFACE  
 EL. OF FIRM BOTTOM GRADE OF POND



NOTE: REGRADED CONTOURS SHOWN ABOUT 1' APART DENOTE TIMBER RETAINING WALL (5'-6\"/>



NOTE: JOISTS TO BE HUNG BY GALVANIZED LAG BOLTS OR GALVANIZED JOIST BRACKETS. ALL WOOD TO BE CONTIGUOUS PRESSURE TREATED LUMBER #2 GRADE OR BETTER. USE GALVANIZED BRACES FOR ALL EXTERIOR APPLICATIONS.

NOTE: THE EMERGENCY SPILLWAY WITH 20' FLAT CONTROL SECTION HAS BEEN PLACED IN LOCATION SHOWN ON A COMPACTED CONTROLLED FILL SECTION. FILL WAS VOID OF ANY ROOTS, STUMPS, ROCKS, TRASH, ETC.

NOTE: DECK ELEVATION ON LOT 65 WILL BE ABOVE 100 YEAR FLOODPLAIN (49.00').

NOTE: REGRADED CONTOURS SHOWN ABOUT 1' APART DENOTE TIMBER RETAINING WALL (6" x 6" PRESSURE TREATED OR RAILROAD TIES.)



AES, a professional corporation  
 1761 Jamestown Road, Williamsburg, Va. 23185  
 804-253-0040  
 Architecture, Engineering, Surveying, Planning

GRADING, DRAINAGE, & EROSION CONTROL PLAN  
**THE MEWS AT WILLIAMSBURG**  
 OWNER/DEVELOPER:  
 A JOINT VENTURE OF  
 FIRST AMERICAN DEVELOPMENT GROUP, INC., AND TRIAD DEVELOPMENT CORP.  
 JAMES CITY COUNTY, VIRGINIA  
 BERKELEY DISTRICT



NO.	DATE	REVISION / COMMENT / NOTE	BY
1	7/15/84	DESIGNED PER J.C.C. COMMENTS	JHB
2	7/15/84	REVISED PER J.C.C. COMMENTS	JHB
3	7/23/84	REVISED PER J.C.C. COMMENTS	JHB
4	7/23/84	SUBMITTED TO J.C.C. COMMENTS	JHB
5	7/23/84	REWORKED & REDESIGNED	JHB

Designed JHB	Drawn BB
Scale 1"=30'	Date JULY, 1984
Project No. 5656	
Drawing No. 8	



12/1/94

# MEWS DETENTION BASIN

## 1. Avg Elev of Silt in Pond

41.5	70.2
42.0	40.5
41.0	41.2
40.6	<u>40.9</u>
40.2	1170.2
40.7	
41.1	$\frac{1170.2}{29 \text{ Pts}} = 40.35$
40.0	
40.3	
40.1	
40.0	
40.2	
40.0	
39.7	
40.2	
39.7	
40.1	
40.2	
39.9	
39.7	
39.6	
39.9	
40.3	
40.1	
40.3	

2. Normal Pool = 43.22

3. ∴ DEPTH = 43.22

- 40.35

2.87 feet

4. PLAN REQUIRES 43.0

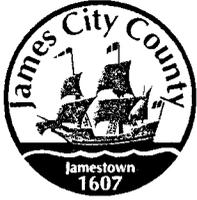
- 39.2

3.8 feet

( 43.0  
- 39.5  
3.5 feet )

∴ POND NEEDS TO BE DEEPER

NORMAL POOL  
FILLED 75%+



## DEVELOPMENT MANAGEMENT

101-E MOUNTS BAY ROAD, P.O. BOX 8784, WILLIAMSBURG, VIRGINIA 23187-8784  
(757) 253-6671 Fax: (757) 253-6850 E-MAIL: devtman@james-city.va.us

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codecomp@james-city.va.us

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environ@james-city.va.us

PLANNING  
(757) 253-6685  
planning@james-city.va.us

COUNTY ENGINEER  
(757) 253-6678  
INTEGRATED PEST MANAGEMENT  
(757) 259-4116

October 3, 2000

Mr. Stan Gorrell  
Mews HOA  
5105 Dorset Mews  
Williamsburg, Va. 23188

Re: Mews Subdivision  
Stormwater Management Facility (PC 001)

Dear Mr. Gorrell:

At your request, the Environmental Division is forwarding information relative to a meeting and general inspection held on Wednesday September 13<sup>th</sup> 2000 for the above referenced wet pond facility. In addition to specific comments as outlined below, the following additional information is also attached for your group's review and use:

- A 1 inch = 300 ft. scale map showing the General Location of the facility.
- A current Inspection Report for the Wet Pond as performed on September 13<sup>th</sup> 2000.
- A Typical Maintenance Plan for the Wet Pond.
- General Landscaping Guidance (Tips).
- Two (2) Informative Brochures published by the Association of State Dam Safety Officials - *Dam Ownership: Responsibility and Liability* and *Dam Ownership: Procuring the Services of a Professional Engineer*.

Currently there are 3 sheets of plan and detail drawings related to design and construction of the onsite drainage system and wet pond for the Mews in our records file. These plans were prepared by AES Consulting Engineers (Project No. 5656) and revised for as-built status on November 18, 1994. These drawings are available for sign out and reproduction by your group if desired.

Since the stormwater management facility is a wet pond with a small-size embankment (fill) encompassing over 50 percent of the pond perimeter, a general Maintenance Plan was prepared and provided as a courtesy. The plan was prepared based on our general knowledge of maintenance required for these types of facilities and our site specific inspection. It is provided for information and guidance purposes when no other specifically approved maintenance plans are available for use. The plan is not meant to replace or supersede any specific recommendations offered by a qualified professional.

The maintenance plan only addresses normal structural, stormwater runoff control and aesthetic activities related to safe function of the facility. Landscaping, cosmetic or ornamental features associated with the facility are usually left to the discretion of the owner, or its designated representative, unless these features deter from the structural integrity or the performance of water quality/quantity controls as designed and constructed for the facility.

### **Specific Comments about the Wet Pond**

Based on field observations, the facility appears to be in satisfactory condition for its age. Adequate maintenance mowing and landscaping activities are being performed routinely on the south (townhouse) side of the pond. However, the facility is in need of regular (routine) maintenance typical of most wet pond facilities. From our perspective, main concerns were the presence of trees on and along the downstream toe of the engineered fill embankment; extensive root growth through the embankment; yard trash, dumped debris and fallen trees at several locations surrounding the pond; and the depth of sediment observed within the pond.

The pond embankment is basically located along the entire north perimeter adjacent to the existing stream. Large trees, heavy ground cover and vegetation are present on most of the downstream embankment, especially at the emergency spillway location. The trees appear as old as the facility, are well-established and roots have penetrated through the embankment zone and are migrating toward the pond's normal pool. This is clearly evident by damage to the surface of the asphalt walkway around the pond.

Usually trees, shrubs and woody vegetation are not permitted to grow on any part of pond embankments constructed using engineered (compacted) fills. Saturated roots mats combined with high wind can cause trees to overtop and accelerate soil erosion and embankment failure. In addition, higher flood flows from along the adjacent stream could erode and wash unstable trees and roots systems from along the downstream embankment. Usually for this type of condition, we recommend that the subject trees be cut to or below ground level and be maintained in that fashion as to not disturb root systems that may already be extensive and efforts be made to replace the tree growth with an established low maintenance grass covering.

However, due to the relatively small height of the embankment, the presence of adjacent environmentally sensitive areas including wetlands, floodplain and resource protection area, an overview of downstream impact areas and due to an obvious long-standing, established presence of trees (buffer) along the downstream embankment toe, it is recommended that in lieu of full tree removal operations, the northern portion of the embankment be continuously and closely monitored on a regular basis from this point forward for tree growth, slope and channel erosion, root growth and signs of seepage aspects. A qualified professional should be consulted to monitor and provide a simple assessment of this situation on a long-term basis. (*Note: It is suggested at this time that the assessment be performed every other year at a minimum*).

Any dead, dying or diseased trees on the downstream toe which may pose a hazard or threat to the embankment should be selectively removed in accordance with the provisions of the Chapter 23 Chesapeake Bay Preservation ordinance Section 23-9(c)(1). However, on the west side of the pond near the principal and emergency spillway discharge locations, it is recommended that all detrimental tree and woody plant vegetation be removed on and along the downstream embankment and an acceptable grass covering be established. This should only be performed within the limits of the site property immediately downstream of and within an area 15 feet from both sides of the emergency spillway (wood bridge).

Perimeter vegetation was of sufficient height and character around the normal pool and appeared adequate to prevent shoreline erosion, deter unauthorized access and adequately filter adjacent runoff. Yard debris consisting of grass clipping, tree prunings/branches and trash were observed at the emergency spillway and in the back portion of the pond embankment. All debris and trash piles should be removed.

The pond has three (3) primary inflow locations. One is an 18 inch storm drain at the west side of the pond (between Units 49 and 50), the second is an 18 inch storm drain located at the central portion of the pond (between Units 53 and 65) and the last is a 15 inch storm drain located at the east (back) side of the pond. Sediment and vegetation at the outfall end of each of the inflow pipes needs removed as to not restrict inflow of stormwater into the pond. Clearing and sediment removal is only needed in the immediate vicinity of the pipe outfalls.

Future consideration should be given to incorporating half-moon shaped submerged riprap forebays at each of the three pipe ends to trap and limit sediment deposition to easily accessible areas and to prevent continued sediment build-up in the main pond bottom (storage) areas. *Note: If pursued, review and approval of sediment forebay plans and details at these locations may be necessary by the Environmental Division.*

The primary flow control structure for the pond is a 24 inch corrugated metal pipe with a tee riser section. The exterior bituminous coating of this pipe appeared worn, flaked and deteriorated. The coating should be repaired as required using commercially available pipe coatings applied by hand methods. In addition, a fallen 12 inch diameter tree section which is was blocking the pipe on the downstream side and will need removed. An erosion (scour) hole was formed at the outfall end of the pipe due to lack of riprap outlet protection. The rock riprap outlet protection needs re-established in accordance with the design plan (EC-1, Type A, 25 cubic yards).

Sediment depth was measured at various locations within the facility. On average, sediment depth was about 1.5 feet deep. Some deeper areas were measured at the pipe outfalls and near the gazebo. Although cleaning of sediment from the bottom of the pond is not immediately necessary, it does appear that the facility very near to its established design cleanout depth (elevation). Sediment removal may be required in the near future; therefore implementation of preventative measures as previously suggested along with stabilization of bare shoreline areas and any upland disturbed areas with seed and mulch (as they occur) are strongly encouraged.

No distinct maintenance & access path was observed from O'Hollaran Way between the townhome units to the pond area. Most areas between the building units had steps, steep slopes and/or extensive landscaping and would make access by maintenance vehicles and equipment difficult. This issue will need addressed prior to performing prescribed routine maintenance activities as suggested.

Hopefully, this material is helpful to your group to understand maintenance associated with the wet pond. Please review the attached information and contact us at 757-253-6639 or 757-253-6673, if you have any further questions or comments.

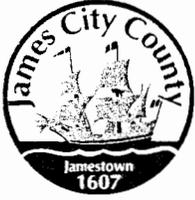
Sincerely,

A handwritten signature in black ink, appearing to read "Scott J. Thomas". The signature is fluid and cursive, with the first name "Scott" being the most prominent.

Scott J. Thomas, P.E.  
Civil Engineer  
Environmental Division

SJT/sjt  
Enclosures

Shared\SWMProg\Education\Subdivisions\Mews.let2



## DEVELOPMENT MANAGEMENT

101-E MOUNTS BAY ROAD, P.O. BOX 8784, WILLIAMSBURG, VIRGINIA 23187-8784  
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planning@james-city.va.us

COUNTY ENGINEER  
(757) 253-6678  
INTEGRATED PEST MANAGEMENT  
(757) 253-2620

July 28, 2000

Mr. Stan Gorrell  
The Mews at Williamsburg HOA

Re: Stormwater Management/Best Management Practice (BMP) Facility

Dear Mr. Gorrell:

As discussed, the Environmental Division is willing to meet with you about maintenance concerns relative to the wet pond located within the Mews Subdivision.

I have attached some "first contact" information for your use. The information includes general landscaping guidance for stormwater management BMP's (Best Management Practices) and a sample maintenance plan for a wet (retention) pond facility. The maintenance plan can be expanded upon once we perform an inspection on September 13<sup>th</sup> and review record plans, if available, for the facility.

If you have any questions or comments in the meantime, please contact me at 757-253-6639.

Sincerely,

Scott J. Thomas, P.E.  
Civil Engineer  
Environmental Division

SWMPProg\Education\Subdivisions\Mews.let1

10 YEARS



October 21, 2002

Civil Engineers  
Land Surveyors  
Land Planners  
Landscape Architects

242 Mustang Trail Suite #8  
Virginia Beach, Virginia 23452  
757.431.1041 Voice  
757.463.1412 Fax

Principals:  
Lance C. Large, PE  
Brian C. Large  
William R. Pritchard, LS  
William D. Almond, ASLA

Mr. Ben Thompson, Planner  
Planning Division  
James City County  
101-E Mounts Bay Road  
Williamsburg, Virginia 23187-8784

**RE: Monticello at Powhatan  
Phases 1 & 2, Old News Rd.  
& News Rd., James City County, VA  
Wpl Project No.: 202-1813**

Dear Mr. Thompson:

On behalf of the developer and owner of the above-referenced project we are requesting an approval to modify the normal water surface elevation of the stormwater management pond designed for this project. The proposal is to raise the normal water surface elevation by 1.00', from 60.04' to 61.04'. This can be accomplished by replacing the existing 20-inch outlet pipe, invert = 60.04', with an 8-inch outlet pipe with an invert equal to 61.04'.

We have enclosed computation booklets that illustrate both the existing, originally designed, storm drain system operating conditions, and the operating conditions of the storm drain system with the modified outfall. These computation booklets are labeled "Original Computation", and "Modified Computations" respectively.

A summary of the computations results are outlined as follows:

Description	Original	Modified
Normal Water Surface Elev.:	60.04'	61.04'
2-Yr. Storm Elev.:	63.02'	64.41'
10-Yr. Storm Elev.:	64.28'	65.35'
100-Yr. Storm Elev.:	65.45'	66.49'
SWMF Top of Bank Elev.:	69.00'	69.00'
2-Yr. Storm "Q":	15.45 CFS	2.96 CFS
Allowable 2-Yr. Storm "Q":	19 CFS	19 CFS
10-Yr. Storm "Q":	19.46 CFS	24.52 CFS
Allowable 2-Yr. Storm "Q":	27 CFS	27 CFS
Critical/Control HGL @ "E-1", Rim=67.00':	65.15'	66.22'

Mr. Ben Thompson  
October 21, 2002  
Monticello at Powhatan  
Page 2

<b>Description</b>	<b>Original</b>	<b>Modified</b>
Permanent Pool Volume:	2.0 Ac-Ft	2.7 Ac-Ft
2-Yr. Storm Storage:	2.3 Ac-Ft	2.7 Ac-Ft
2-Yr. Storm Storage Release Time:	5 Hrs.	16 Hrs.
HGL @ "A1-4" to Offsite:	75.21'	75.21'
HGL @ "F1" Outlet Control:	62.79'	62.81'

As you can see from the computation results, the modification to outfall raising the WSE to 61.04' will not affect the proper functioning of the storm drain system, and will actually enhance the stormwater quality by increasing the permanent pool by 0.7 acre-feet, and extending the release of the 2-year storm.

We are sending you this information, since you were the planning POC for the phase 2 development. Please forward this information to the appropriate individuals in the Environmental Division so that the necessary approval can be issued. Please call me at (757) 431-1041 after you have received this package so that we can discuss it further. Thank you for your cooperation in this matter.

Wpl



Lance C. Large, PE  
Principal-in-Charge

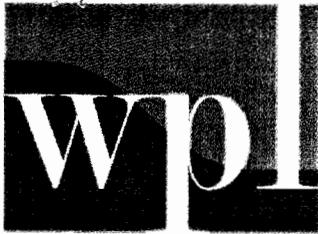
LCL/ll

Enclosures

cc: Bradley Waitzer, MOPOW  
w/ enclosures



Civil Engineers • Land Surveyors • Land Planners • Landscape Architects



October 21, 2002

SJT REVIEW  
12-3-02

Civil Engineers  
Land Surveyors  
Land Planners  
Landscape Architects

242 Mustang Trail Suite #8  
Virginia Beach, Virginia 23452  
757.431.1041 Voice  
757.463.1412 Fax

Principals:  
Lance C. Large, PE  
Brian C. Large  
William R. Pritchard, LS  
William D. Almond, ASLA

Mr. Ben Thompson, Planner  
Planning Division  
James City County  
101-E Mounts Bay Road  
Williamsburg, Virginia 23187-8784

RE: **Monticello at Powhatan  
Phases 1 & 2, Old News Rd.  
& News Rd., James City County, VA**  
Wpl Project No.: 202-1813

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We have enclosed computation booklets that illustrate both the existing, originally designed, storm drain system operating conditions, and the operating conditions of the storm drain system with the modified outfall. These computation booklets are labeled "Original Computation", and "Modified Computations" respectively.

A summary of the computations results are outlined as follows:

DESIGN	Description	CURRENT AB MODEL Original	Modified
60.50	Normal Water Surface Elev.:	60.04' ✓	61.04' ✓
64.54	2-Yr. Storm Elev.:	63.02'	64.41'
66.94	10-Yr. Storm Elev.:	64.28'	65.35'
69.37	100-Yr. Storm Elev.:	65.45'	66.49'
69.50	SWMF Top of Bank Elev.:	69.00'	69.00'
15.73 CFS	2-Yr. Storm "Q":	15.45 CFS	2.96 CFS
15.7	Allowable 2-Yr. Storm "Q":	19 CFS	19 CFS
74.57 CFS	10-Yr. Storm "Q":	19.46 CFS	24.52 CFS
49.1 CFS	Allowable 10-Yr. Storm "Q":	27 CFS	27 CFS
	Critical/Control HGL @ "E-1", Rim=67.00':	65.15'	66.22'

SP-78-99  
PC 128

- MODIFIED RATIONAL WAS USED. NEED 24 HR SCS APPROVED. 24 HR SCS APPROVED OUT 8/2001
- AB DATED MODIFIED WILL NEED MODIFIED ONCE LOW FLOW ORIF IS MODIFIED FROM 20" TO 8" SIZE WITH AB DATA
- AB NEEDS TO REFLECT "MODIFIED" 2, 10, 100-YR USEL AND TOP OF BANK ELEV.
- PROVIDES SCS BY MOVING LOW FLOW ORIFLE SIZE.

Powhatan  
V 7.5  
MODIFIED RATIONAL METHOD

CHANGE ALL DATA AS APPROPRIATE ON SHEET BMD-1 INCLUDING PLAN SECTION A-A

• OUTLET STRUCTURE DETAIL

24 HR SCS HYDROGRAPH METHOD WAS USED BY ORIGINAL DESIGN.

Mr. Ben Thompson  
October 21, 2002  
Monticello at Powhatan  
Page 2

<b>Description</b>	<b>Original</b>	<b>Modified</b>
Permanent Pool Volume:	2.0 Ac-Ft	2.7 Ac-Ft
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Wpl



Lance C. Large, PE  
Principal-in-Charge

LCL/II

Enclosures

cc: Bradley Waitzer, MOPOW  
w/ enclosures

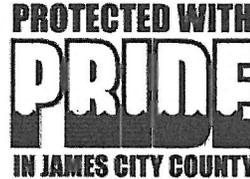


Civil Engineers • Land Surveyors • Land Planners • Landscape Architects

August 31, 2005

Ms. Julie Pieretti  
The Mews HOA  
5144 O'Holloran Way  
Williamsburg, Va. 23188

Re: The Mews  
Stormwater Management Facility  
County BMP ID Code: PC 001



Dear Ms. Pieretti:

It was a pleasure to talk with you recently about the stormwater management facility at the Mews Subdivision. As discussed, I am providing you with some of our "*first contact*" information for your community association to use relative to maintenance issues. The subject stormwater management facility (PC 001) is a larger wet pond situated in the northwest corner of the site.

Information as attached includes: a watershed education brochure from our PRIDE program ([www.protectedwithpride.org](http://www.protectedwithpride.org)); landscaping tips for stormwater management BMP's; watershed awareness tips, a sample maintenance plan for a wet pond stormwater management facility; and three brochures related to liability and maintenance. One of these brochures is a good informational handout entitled *A Guide for Maintaining and Operating BMP's*. This publication is distributed through our office in response to a cooperative effort from the Hampton Roads Regional Stormwater Management Committee and HR STORM, a regional stormwater education program offered by the Hampton Roads Planning District Commission.

I have also attached copies of information as forwarded previously to Mr. Stan Gorrell when I worked with him back in 2000. I suggest that you review all this information, check out our PRIDE website (and mini-grant application criteria) then call me back and we can meet again at the BMP to check it's current condition and discuss any specific issues that particularly concern you.

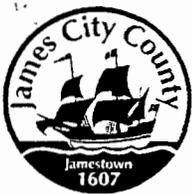
Our division is always readily available to assist owners and HOA representatives with guidance related to stormwater management facilities and drainage and we sincerely look forward working with you in the future. If you have any additional questions or comments, call me at 757-253-6639.

Sincerely,

Scott J. Thomas, P.E.  
Civil Engineer  
Environmental Division

Attachments  
SJT/sjt

SWMPProg\Education\Subdivisions\Mews2.fc



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

Database Inventory No. (if known): PC 001  
 Name of Facility: Mews at Williamsburg BMP No.: 1 of 1 Date: 9/13/00  
 Location: Longhill Road just east of US 199 (NW corner of site near O'HOLLARAN Wa.  
 Name of Owner: Mews HOA  
 Inspector: SJ Thomas  
 Type of Facility: Wet (Retention) Pond  
 Weather Conditions: Sunny, HOT 80's HOA members present  
ES e West side of Pond.  
TRIB TO CHISEL RUN

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.
- Routine - The item checked requires attention, but does not present an immediate threat to the function of the BMP.
- Urgent - The item checked requires immediate attention to keep the BMP operational and 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> <u>SMALL FILL 2'-6' North Side 60% of Pond Perimeter</u>				
Grass Height	X			
Vegetated Condition		X	X	<u>Trees along north fill embankment fill. Wetland, Floodplain area.</u>
Weed Growth	X			<u>Tree Removal at ES LOCATION (15' EACH SIDE)</u>
Erosion	X			
Trash & Debris		X		<u>YARD Trash at Toe Leaves, Grass, Twigs.</u>
Seepage		X		<u>None Observed. Roots (See Note)</u>
Fencing or Benches	X			<u>None.</u>
<b>Constructed Wetlands (Interior Landscaped &amp; Planted) Areas:</b> <u>Normal Pool 1.5' deep @ Em. Spill</u>				
Vegetated Conditions				
Trash & Debris				
Floatables				
Erosion				
Sediment				
Dead Plant				
Aesthetics				
Other	X			<u>Treated Timber Gazebo Mid Portion of Pond</u>

SITE: 8.839 AC.  
ZONED: RS  
PIN: 3240800001A

Facility Item	O.K.	Routine	Urgent	Comments
Water Pools	<input checked="" type="checkbox"/> Permanent Pool (Retention Basin) <input type="checkbox"/> Shallow Marsh (Detention Basin)			1.5' deep at edge / 2.5' at GAZEBO
Shoreline Erosion	X			Good Vegetation. 2-4 inch UNMOWED.
Algae	X			None. 1350gpm Aerator BACK OF POND
Trash & Debris	X			
Sediment	X			1.5' deep typ. across pond.
Aesthetics	X			Good Groomed LOOK.
Other	X			Interior Willows.
Inflow Structures (Describe Locations): 3 INFLOW STORM DRAINS (see NOTE)				
Condition of Structure	X			Pipe #1 Cracked at end.
Erosion	X			
Trash and Debris	X			
Sediment		X		1.5 - 4' deep measured.
Aesthetics	X			
Other				Possible Flared-end sections & half-moon rock forebays at pipe end to trap sediment.
Principal Flow Control Structure - Intake, Riser, etc. (Describe Location):				
Condition of Structure		X		older, 24" CMP Culvert w/ 20" Riser? 6" rebar grate.
Corrosion		X		Signs of Pipe Corrosion & Ext Pipe Coat wear
Trash and Debris	X			
Sediment	X			
Aesthetics	X			
Other	X			
Principal Outlet Structure - Barrel, Conduit, etc.: 24" DIA CMP. Bituminous Coated Exterior				
Condition of Structure		X		Exterior Coating Needs Repair.
Settlement	X			
Trash & Debris	X			
Sediment	X			
Erosion		X		RIPRAP OP MISSING. SCOUR HOLE FORM
Other		X	X	LARGE DIA. FALLEN TREE BLOCKING OUTLET END OF PIPE. REMOVE.
Emergency Spillway (Overflow): 15'-20' CONCRETE, TRAPEZOIDAL SHAPE ID. FOOT BRIDGE 2' ABOVE INVERT ELEV.				
Vegetation	X			
Lining	X			Concrete Lining OK.
Erosion	X			
Trash & Debris		X		Leaves, Wood, debris, trash D/S.
Other	X			Upstream Riprap ok.

Facility Item	O.K.	Routine	Urgent	Comments
<b>Nuisance Type Conditions:</b>				
Mosquito Breeding	X			None.
Animal Burrows	X			None.
Graffiti	X			None
Other	X			Small fish population bass, carp turtles
<b>Surrounding Perimeter Conditions:</b>				
Land Uses	X			Wooded-North. Townhomes (12)-South.
Vegetation	X			Wetland/Floodplain-North Well Groomed Lawns-South
Trash & Debris		X		Perimeter Lawn Debris Dump Piles.
Aesthetics	X			Well Groomed Condition.
Access/Maintenance Roads or Paths		X		None observed, difficult Access to pond area.
Other				

**Remarks:**

Roots

Fill embankment covers over 50% of pond perimeter on north side. Trees are well established along DS embankment and roots are migrating toward the pond's normal pool. Due to environmentally sensitive areas and long-standing presence of the trees, recommend continued monitoring of situation for tree growth, root growth and seepage (potential failure modes). Also remove trees and vegetation on D/S embankment with 15 feet of the ES (bridge) on both sides.

INFLOW STORM DRAINS

- #1 West 18" AT NP Level; Sediment; Pipe cracked.
  - #2 CENTRAL 18" Submerged; Sediment 1.5' deep
  - #3 EAST (BACK) 15" Not Found; Submerged; Sediment 1-2' deep, cattails & weeds.
- Sediment Depths - Measured 1-4' around facility, 1.5' Average

FACILITY Built 15+ years Ago; Hurricane Floyd did not overtop & less than 1' deep at emerg. spillway.

Overall Environmental Division Internal Rating: 3

Signature: Scott J. Thorne, P.E.  
 Title: Civil Engineer Environmental Division

Date: 10/03/00



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

Database Inventory No. (if known): PC 001  
 Name of Facility: Mews At Williamsburg BMP No.: \_\_\_\_\_ Date: 8/10/09  
 Location: \_\_\_\_\_  
 Name of Owner: \_\_\_\_\_  
 Inspector: Rick Hall  
 Type of Facility: Retention BASIN  
 Weather Conditions: Sunny

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.
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- Urgent - The item checked requires immediate attention to keep the BMP operational and 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		✓		
Vegetated Condition	✓			
Weed Growth	✓			
Erosion	✓			
Trash & Debris	✓			
Seepage	✓			
Fencing or Benches				
<b>Constructed Wetlands (Interior Landscaped &amp; Planted) Areas:</b>				
Vegetated Conditions	✓			
Trash & Debris	✓			
Floatables	✓			
Erosion	✓			
Sediment	✓			
Dead Plant	✓			
Aesthetics	✓			
Other				

Facility Item	O.K.	Routine	Urgent	Comments
<b>Water Pools</b> <input checked="" type="checkbox"/> Permanent Pool (Retention Basin) <input type="checkbox"/> Shallow Marsh (Detention Basin)				
Shoreline Erosion	✓			
Algae	✓			
Trash & Debris	✓			
Sediment		✓		Build-up at REP inlet
Aesthetics	✓			
Other				
<b>Inflow Structures (Describe Locations):</b> 1- GAZEBO bridge - 1- <del>1st</del> <sup>NORTH</sup> CORNER				
Condition of Structure	✓			
Erosion	✓			
Trash and Debris	✓			
Sediment		✓		
Aesthetics	✓			
Other				
<b>Principal Flow Control Structure - Intake, Riser, etc. (Describe Location):</b> North side				
Condition of Structure	✓			open top w/ REBAR GRATE
Corrosion		✓		
Trash and Debris	✓			
Sediment	✓			
Aesthetics	✓			
Other				
<b>Principal Outlet Structure - Barrel, Conduit, etc. :</b>				
Condition of Structure	✓			
Settlement	✓			
Trash & Debris		✓		outfall side
Sediment	✓			
Erosion	✓			
Other				
<b>Emergency Spillway (Overflow):</b> concrete -				
Vegetation	✓			
Lining	✓			
Erosion	✓			
Trash & Debris	✓			
Other				

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> <p>Has pump aerator  <del>Asphalt walk</del>  Asphalt was on top of embankments.  Outer side of embankments supporting  dense growth of maturing trees.</p>				
Overall Environmental Division Internal Rating: <u>4</u>				
Signature: <u>U. Rick Hall</u>			Date: <u>8/10/00</u>	
Title: <u>Environmental Specialist</u>				

SWMProg\BMP\CoInspProg\DetRet.wpd

Date Record Created: [REDACTED]

WS\_BMPNO:  
PC001

Created By: [REDACTED]

WATERSHED PC  
 BMP ID NO 237  
 PLAN NO  
 TAX PARCEL (32-4)(8-1A)  
 PIN NO 3240800001A  
 CONSTRUCTION DATE 1/1/1987  
 PROJECT NAME The Mews  
 FACILITY LOCATION NW Corner of Site  
 CITY-STATE Williamsburg, VA  
 CURRENT OWNER MEWS HOA (c/o Stan Gorrell)  
 OWNER ADDRESS 5105 Dorset Mews  
 OWNER ADDRESS 2  
 CITY-STATE-ZIP CODE Williamsburg, Va. 23188  
 OWNER PHONE 757-258-9442  
 MAINT AGREEMENT No  
 EMERG ACTION PLAN No

Thursday, March 04  
11:02:07 AM

MAINTENANCE PLAN No  
 SITE AREA acre 8.839  
 LAND USE MF RES  
 old BMP TYP Wet Pond  
 JCC BMP CODE A2 Wet Pond  
 POINT VALUE NA

CTRL STRUC DESC Orifice  
 CTRL STRUC SIZE inches 24  
 OTLT BARRL DESC CMP  
 OTLT BARRL SIZE inch 24

SVC DRAIN AREA acres 8.19

EMERG SPILLWAY Yes  
 DESIGN HW ELEV 46.9  
 PERM POOL ELEV 43.22  
 2-YR OUTFLOW cfs  
 10-YR OUTFLOW cfs  
 REC DRAWING Yes

SERVICE AREA DESCRI Townhomes, Roads & Parking  
 IMPERV AREA acres  
 RECV STREAM Chisel Run

CONSTR CERTIF No

EXT DET-WQ-CTRL No  
 WTR QUAL VOL acre-ft  
 CHAN PROT CTRL No  
 CHAN PROT VOL acre-ft  
 SW/FLOOD CONTROL Yes  
 GEOTECH REPORT No

LAST INSP DATE 9/13/2000 Inspected by: [REDACTED]

INTERNAL RATING 3

MISC/COMMENTS  
See Letter Report to HOA dated Oct 3 2000.

Get Last BMP No

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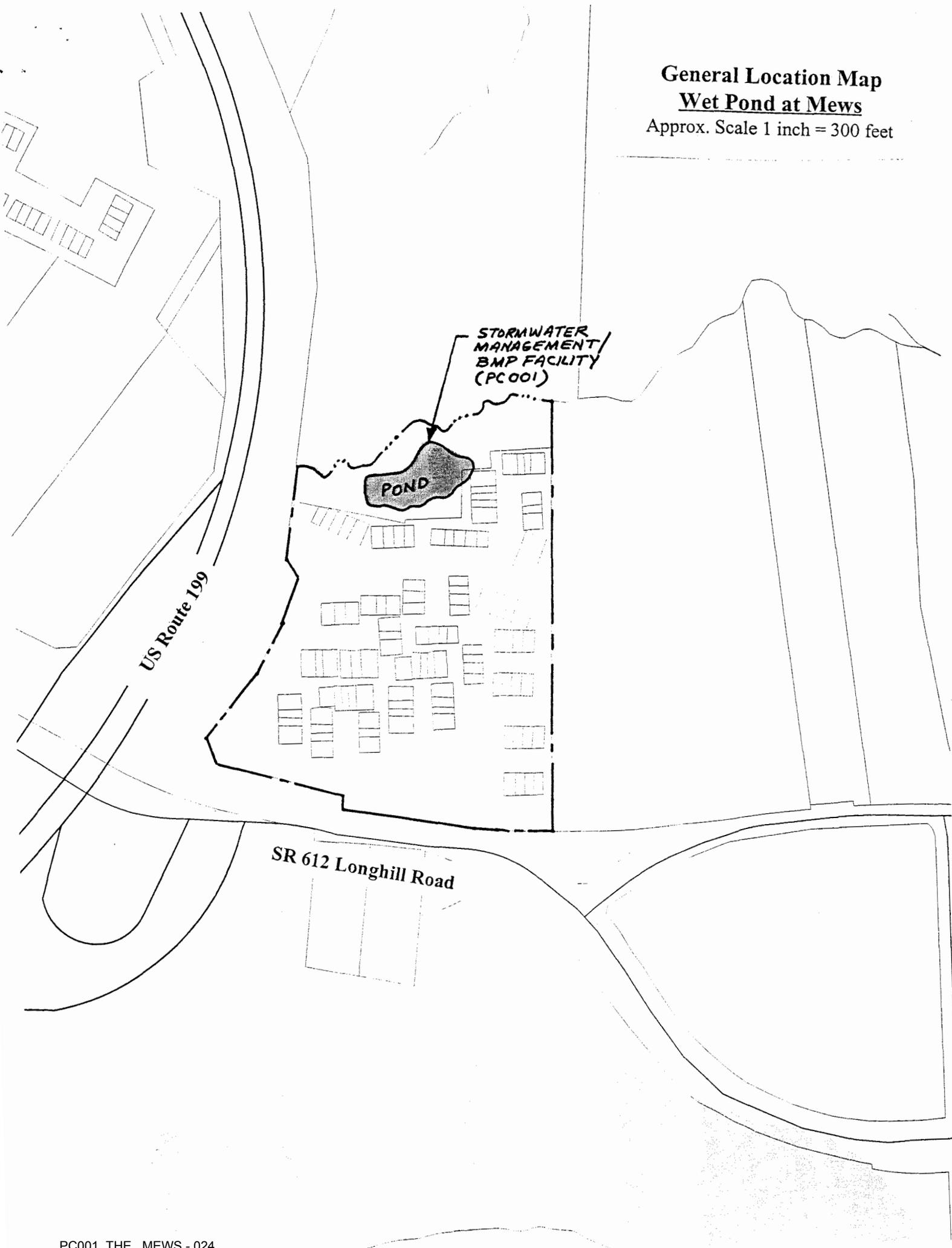
Print Record

Additional Comments:

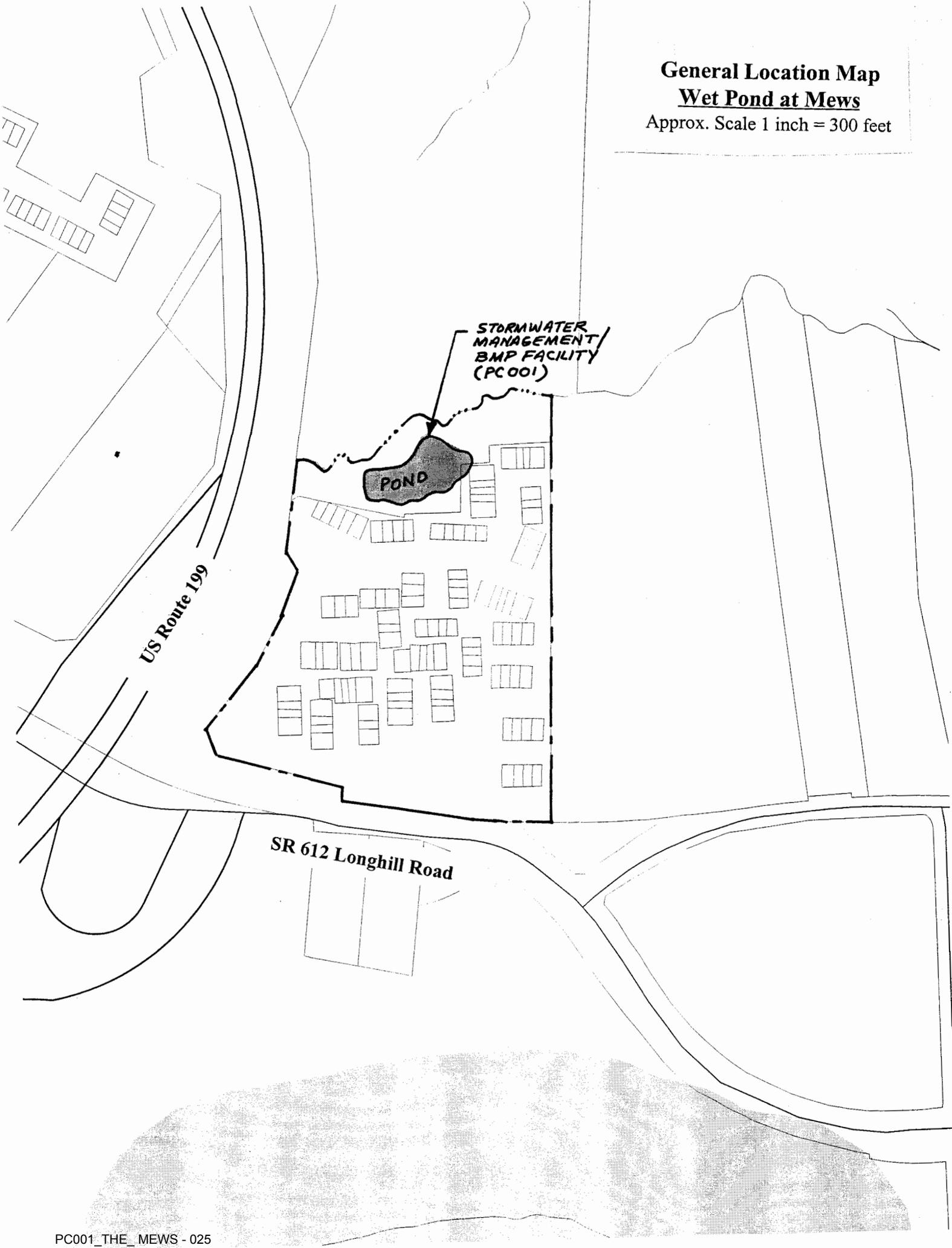


**General Location Map**  
**Wet Pond at Mews**

Approx. Scale 1 inch = 300 feet



**General Location Map**  
**Wet Pond at Mews**  
Approx. Scale 1 inch = 300 feet





Civil Engineers  
Land Surveyors  
Land Planners  
Landscape Architects

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### MEWS at Williamsburg Pond Maintenance Plan

*( Note: This is a Typical Maintenance Plan for a Detention or Retention Pond facility. For general use by HOA's, or other designated parties which are responsible for operation, maintenance and inspection of BMP facilities when no other specifically approved plans are available. This is provided as a courtesy by the Environmental Division of James City County for informational purposes only. This plan addresses normal structural and stormwater runoff control aspects of the facility. It does not address landscaping, cosmetic, or ornamental features associated with the facility nor does it replace any specific recommendations offered by a registered professional. )*

#### Maintenance Plan (Detention or Retention Pond BMP's)

A maintenance program is required to ensure the Stormwater Management (SWM) / Best Management Practice (BMP) pond facility functions as designed and to provide for reasonable aesthetic conditions. Proper maintenance is encouraged to prevent the introduction of debris and sediment into pretreatment areas (if applicable), the SWM/BMP itself, its principal inflow and outflow control structures and downstream waterways. Following facility installation, acceptance and establishment of vegetation in disturbed areas, inspections for sediment buildups should be performed at least quarterly. It is anticipated that under normal conditions, sediment removal will be required once every 5 to 10 years. If other construction or related land-disturbing activities are performed upland of the facility, adequate protection measures should be implemented and inspection frequencies increased to at least once weekly.

The designated party will inspect the SWM/BMP structure after each significant rainfall event or the following working day if a weekend or holiday occurs. A significant rainfall for this structure is defined as one (1) inch or more of gauged rainfall within a 24 hour period. Once per year (more or less) a representative of the County may jointly inspect the structure. Appropriate action will be taken to ensure appropriate maintenance. Where structures are to be maintained jointly, allocation of maintenance costs will be in accordance with terms established in maintenance agreements. Keys to locked access points or structures shall be made available to the County upon request.

#### Inspection and Maintenance of the Facility should consist of the following Additional Measures:

1. Inspect for sediment buildup by visual observation and a physical determination of sediment depth within pond's storage area. If sediment has accumulated significantly within the pond bottom, removal is required. At the same time, or at least once per year, clean pretreatment devices, the riser bottom and outlet pipes of accumulated sediments. Dispose of sediments removed from the facility at an acceptable disposal area. (Note: Typically the cleanout elevation is 10 to 25 percent of the design Water Quality Volume.)
2. Perform maintenance mowing of pond grasses at least twice each year. Grasses such as tall fescue should be mowed in early summer after emergence of the heads on cool season grasses and in late fall to prevent seeds of annual weeds from maturing. Mowing of legumes can be less frequent. Trees, shrubs and woody vegetation are not be permitted to grow on any part of pond embankment that was constructed using engineered (compacted) fills.
3. Perform soil sampling on stabilized pond soil areas at least once every 4 years. Soil sampling and testing should be performed a qualified independent soil testing laboratory such as VPI&SU. Apply additional lime and fertilizer in accordance with test recommendations.

4. In stabilized pond areas, if vegetation covers less than 40 % of soil surfaces, lime, fertilize and seed in accordance with recommendations for new seedlings. If vegetation covers more than 40 % but less than 70 % of soil surfaces, lime, fertilize and over seed in accordance with current seeding recommendations of the Virginia Erosion and Sediment Control Handbook (VESCH).
5. Perform quarterly inspections of the riser section and crest spillway for the observance of collected trash and debris. Immediately remove any trash or debris that prevents the movement of water. Remove any trash and litter downstream and at storm drain or channel inflow locations to maintain the integrity of the structure and provide an attractive appearance.
6. Perform yearly structural inspections of the facility for damage. Structural inspection shall be performed on the concrete riser, anti-vortex and trash rack cap, trash rack, orifices/weirs, outlet barrel and pond embankment. Exposed metal surfaces shall be painted to minimize rust damage or replaced if rust damage is irreversible. If damage is evident, further investigation by a registered professional engineer may be required to assess the integrity of the structure.
7. Perform quarterly inspections of graded side slopes of the facility for signs of animal/rodent borrows or slope erosion. Immediately perform necessary repairs, refilling or reseedling.
8. Perform yearly observations of perimeter areas surrounding the facility to ensure changes in land use, topography or access have not occurred and do not affect the operation, maintenance, access or safety features as provided for the facility. Appropriate action is required to ensure adequacy and to provide a clear, safe passage for maintenance vehicles to the embankment and principal flow control structures.
9. Inspect and exercise pond drain valves, if provided, on a regular basis.
10. Record Keeping. Keep reasonable, accurate written records of inspections and maintenance activities performed for the facility at all times. Records shall document routine maintenance and/or repairs performed. Copies shall be provided to the County upon request.
11. The facility shall not accept additional drainage or be modified in any way without prior consent or approval by the Environmental Division of James City County.

*( End )*

## **General Landscaping Guidance for All Stormwater Management BMP's**

- Trees, shrubs and/or any type of woody vegetation are not allowed on the embankment.*
- Keep trees and shrubs at least 15 feet away from the toe of constructed fill slopes.*
- Keep trees or shrubs having long taproot systems away from earthen dams or subsurface drains.*
- Keep trees and shrubs at least 25 feet away from perforated pipes.*
- Keep trees and shrubs at least 25 feet away from principal flow control structures.*
- Keep vegetation at least 15 feet from low flow orifice openings.*
- Clean trash and debris as necessary from the facility and principal control structures. Only trained or authorized personnel should enter confined spaces or structural components of the facility.*
- Keep herbaceous (not woody) embankment plantings limited to ten (10) inches in height.*
- Maintain erosion control mats, blankets and fabrics in channels to reduce erosion potential.*
- Sod channels that are not stabilized with erosion control mats.*
- Keep emergency spillways stabilized with plant material that can withstand strong flows. Root material should be fibrous and substantial but lacking a taproot.*
- Seed and mulch bare, exposed or formed erosion gullies. Divert surface runoff from any reseeded and mulched areas until stabilized.*
- Check water tolerances of existing native plant materials prior to inundation of pond areas.*
- Stabilize aquatic and safety benches with emergent wetland plant species and wet-seed mixes.*
- Keep access to embankments or flow control structures free of trees or shrubs. Ensure areas that are planted adjacent to access routes can withstand compaction, damage or vibration that may occur due to passing vehicles or heavy equipment.*
- To reduce thermal warming effects, shade inflow and outflow channels as well as southern exposures to the greatest extent possible.*
- Avoid plantings that require routine or intensive chemical applications such as turf, etc.*
- Use salt tolerant plants if excessive amounts of deicing salt are anticipated in inflow runoff.*
- Soil test perimeter areas periodically to determine if soil amendments are necessary. Contact the local Virginia Cooperative Extension for assistance.*
- Use native plant species which adapt to local soil and weather conditions over exotic or foreign species.*
- Decrease or minimize areas where turf is used. Use low maintenance ground cover to absorb runoff where possible.*
- Plant stream and normal pool buffers with trees, shrubs, ornamental grasses and herbaceous material where possible to stabilize banks, provide shade and provide for water quality enhancement.*
- Use selective or strategic plantings to minimize access to deeper pools or steeper slopes.*
- If warranted, provide educational signs around the perimeter of the facility to indicate that it is a Stormwater Management Area or to designate planting, maintenance or mowing zones.*
- Avoid the overuse of any one type of plant material and material with weeds or invasive components.*
- Preserve existing, native vegetation to the greatest extent possible unless it deters from structural aspects of the facility.*
- Aesthetics and cosmetic characteristics should be a prime consideration. Strive to maintain a natural, scenic character for the BMP that blends well with the community theme, physical location and surrounding land uses and provides for screening, but yet maintains the structural aspects of the facility such as riser pipes, outlet barrels, spillways, trash racks, inlets, inflow channels, etc. Be certain original or enhanced landscaping does not encroach upon public or private roadways, sidewalks, trails or emergency vehicle access routes.*
- Refer to the approved design or construction plan for the BMP. Some approved plans provide site specific information related to operation, inspection and maintenance. Please note, however, this is a current requirement of the Environmental Division for stormwater management plans and this information may not necessarily be found on all plans, especially for older facilities. Contact the Environmental Division at 757-253-6670 for additional information.*