



## **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- STORMW ATER 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: 88017**

**DATE VERIFIED: December 7, 2021**

**QUALITY ASSURANCE TECHNICIAN: Charles E. Lovett II**

*Charles E. Lovett II*

**LOCATION: WILLIAMSBURG, VIRGINIA**

**NOTES: CERTIFY & UPLOAD**

# 1. Maintenance Agreement

## 2. Deeds/Easements/ Agreements/Property Records

# 3. Construction Certificate



# Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms

---

## *Standard Forms and Instructions*

---

<u>Contents</u>	<u>Page</u>
<b>Record Drawing and Construction Certification Forms</b>	
Section 1 - Site Information	1
Section 2 - Construction Information	2
Section 3 - Owner/Designer/Contractor Information	2
Section 4 - Professional Certifications	3
Section 4 - Standard Certification Form	4
Section 5 - Certification Requirements and Instructions	4



Issue Date: February 1, 2001  
Revised: July 1, 2014



# Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms

*Note: In accordance with the Subdivision and Zoning ordinances of the County Code, plans of development have requirements to ensure that at the completion of the project and prior to release of surety, certified record drawings (as-builts) and construction certifications by a registered Professional Engineer, must be provided for constructed stormwater conveyance/drainage system and stormwater management/Best Management Practice (BMP) facilities. In addition, Sections 8-25 and 8-26 of Article II of Chapter 8 of the County Code, require the submission of construction record drawings and construction certifications for permanent stormwater management/BMP facilities and permanent stormwater conveyance systems such as inlets, pipes and channels. In addition, for stormwater management/BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a professional engineer who performed inspections during construction of the facility.*

### Section 1 - Site Information:

Project Name: Fire Station No. 4  
Structure/BMP Name: Storm Systems and Underground Storage BMP  
Project Location: 5312 Olde Towne Road  
BMP Location: Parking Lot  
County Plan No.: SP-0026-2013 VAHU6 HUC Code: JL31

Project Type:  Residential  Business  Commercial  Office  Institutional  Industrial  Public  Roadway  Other \_\_\_\_\_  
Tax Map/Parcel No.: 3240100027  
County BMP ID Code (if known): \_\_\_\_\_  
Zoning District: PL Public Lands (Jamestown District)  
Land Use: Fire Station  
Site Area (sf or acres): 2.73 acres

Brief Description of Stormwater Conveyance and/or Stormwater Management/BMP Facility:  
Site consists of storm pipes collecting runoff and an underground storage system. Storm pipes consist of PVC roof drain and RCP storm drain. Underground storage system consists of 42" RCP pipes and and interior manhole outlet structure with interior weir wall.

Nearest Visible Landmark to SWM/BMP Facility: Fire Station #4 Building

Nearest Vertical Ground Control (if known):  
 JCC Geodetic Ground Control  USGS  Temporary  Arbitrary  Other

Station Number or Name: 341, 342  
Datum or Reference Elevation: \_\_\_\_\_  
Control Description: \_\_\_\_\_  
Control Location from Subject Facility: \_\_\_\_\_

**Stormwater Conveyance and Stormwater Management/BMP Facilities  
Record Drawing and Construction Certification Forms**

**Section 2 – Construction Information**

**Section 2A - Stormwater Conveyance System Construction Information (Pipes, Channels, etc.):**

Pre-Construction Meeting Held:  Yes  No  Unknown  
Approx. Construction Start Date for System: 12/2013  
System Milestone Inspection(s) by County Representative during Construction:  Yes  No  Unknown  
Name of Site Work Contractor Who Constructed System: JSG Corporation  
Name of Professional Firm Who Monitored Construction: ECS Mid-Atlantic LLC  
Date of Completion of System: 12/2014  
Date of Record Drawing/Construction Certification Submittal: 8/3/16

**Section 2B - Stormwater Management / BMP Facility Construction Information:**

Pre-Construction Meeting Held for Construction of SWM/BMP Facility:  Yes  No  Unknown  
Approx. Construction Start Date for SWM/BMP Facility: 12/2013  
Facility Monitored by County Representative during Construction:  Yes  No  Unknown  
Name of Site Work Contractor Who Constructed Facility: JSG Corporation  
Name of Professional Firm Who Monitored Construction: ECS Mid-Atlantic LLC  
Date of Completion for SWM/BMP Facility: 1/2014  
Date of Record Drawing/Construction Certification Submittal: 8/3/16

*(Note: Record drawings and construction certifications are required within thirty (30) days of the completion of the stormwater conveyance system and/or stormwater management/ BMP facility construction. Record drawings and construction certifications must be reviewed and approved by the VESCP/VSMC authority prior to final inspection, acceptance, and surety release or reduction.)*

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

Owner/Developer: *(Note: Site owner, operator, applicant or permittee responsible for development of the project.)*  
Name: James City County  
Mailing Address: 113 Tewning Road  
Williamsburg, VA 23188  
Business Phone: 757-259-4117 Fax: 757-258-1528  
Email: Barry.Moses@jamescitycountyva.gov  
Contact Person: Barry F. Moses, P.E. Title: Capital Projects Coordinator

Design Professional: *(Note: Professional Engineer, Certified Land Surveyor or other qualified professional responsible for the design and preparation of plans and specifications for the stormwater conveyance system and/or stormwater management/BMP facility.)*

Firm Name: AES Consulting Engineers  
Mailing Address: 5248 Olde Towne Road, Williamsburg, VA 23188  
Business Phone/Fax: 757-253-0040  
Email: \_\_graham.corson@aesva.com  
Name of Responsible Plan Preparer: Graham Corson, P.E.  
Title: Project Manager  
Plan Name: Site Plan for Fire Station No. 4  
Firm's Project No. W10119-E-10  
Plan/Revision Date: September 16, 2013 (Approval Date  
Plan Sheet No.'s Applicable: R-01 / R-05 / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ /

**Stormwater Conveyance and Stormwater Management / BMP Facilities  
Record Drawing and Construction Certification Forms**

Site/Utility Contractor: *(Note: Contractor directly responsible for construction of the stormwater conveyance system and/or stormwater management/BMP facility.)*

Firm Name: JSG Corporation

Mailing Address: P.O. Box 646  
Lightfoot, Virginia 23090

Business Phone/Fax: 757-645-4870

Email: michael.mullins@jsgcorp.com

Contact Person: Michael Mullins

Site Foreman/Supervisor: Mike Hubbard

Specialty Subcontractors and Purpose: \_\_\_\_\_

**Section 4 - Professional Certifications:**

Certifying Professionals: *(Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a record drawing, sometimes referred to as an as-built drawing, for the stormwater conveyance system for the project including any stormwater management/BMP facilities. A Registered Professional Engineer is responsible for the inspection, monitoring, and certification of stormwater conveyance systems and/or stormwater management / BMP facilities during its construction. See next page for the "simple" County provided certification form that can be used by qualified professionals to provide this information. )*





**STANDARD CERTIFICATION FORM**

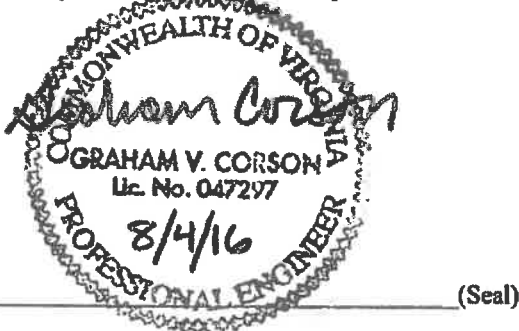
**Record Drawing Certification**

Firm Name: AES Consulting Engineers  
 Mailing Address: 5248 Olde Towne Road  
Williamsburg, VA 23188  
 Business Phone: 757-253-0040  
 Fax: \_\_\_\_\_  
 Name: Graham Corson, P.E.  
 Title: Project Manager  
 Signature: Graham Corson  
 Date: 8/4/16

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the,

- Stormwater conveyance system
- Stormwater management / BMP facility

and the facility appears to conform to the provisions of the approved design plan, specifications, and stormwater management plan, except as specifically noted here.



Virginia Registered Professional Engineer or Certified Land Surveyor

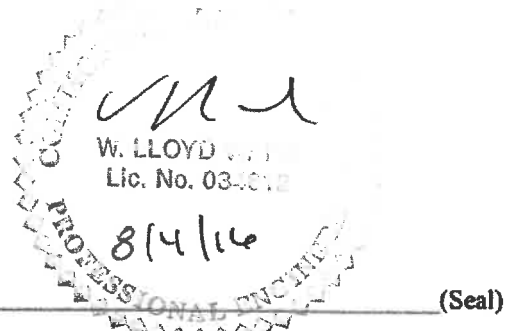
**Construction Certification**

Firm Name: ECS MID-ATLANTIC, LLC  
 Mailing Address: 1643 MEKUMAC TRAIL  
WILLIAMSBURG, VA 23187  
 Business Phone: 757-229-6677  
 Fax: 757-229-9978  
 Name: W. LLOYD WARD, P.E.  
 Title: VP / SURVEY MANAGER  
 Signature: \_\_\_\_\_  
 Date: 08/04/16

I hereby certify to the best of my knowledge and belief that this,

- Stormwater conveyance system
- Stormwater management / BMP facility

was monitored and constructed in accordance with the provisions of the approved plan, specifications, and stormwater management plan, except as specifically noted here.



Virginia Registered Professional Engineer

**Section 5 - Record Drawing and Construction Certification Requirements and Instructions:**

- Pre-Construction Meeting - Provides an opportunity to review SWM/BMP facility construction, maintenance and operation plans and addresses 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 Engineering and Resource Protection Division is requested. Usually, this requirement can be met simultaneously with Erosion and Sediment Control preconstruction meetings held for the project.
- 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, geotextiles, 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 VESCP/VSMP authority 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 VESCP/VSMP authority 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 VESCP/VSMP authority.
- 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 Engineering and Resource Protection Division prior to final inspection, acceptance and bond/surety release.

**Dual Purpose Facilities (Temporary Sediment Basin & BMP)** - 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 Engineering and Resource Protection 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.)

- In accordance with Sections 8-25 and 8-27 of the Chapter 8 of the County Code, an *internal closed-circuit television (CCTV)* post installation inspection, performed by the operator, is required as part of the asbuilt and construction certification process. CCTV inspections shall follow standards and specifications developed by the VSMP authority administrator.
- Record Drawings shall provide, at a minimum, all information as shown within these requirements, in accordance with standard industry practice, and in accordance with applicable **RECORD DRAWING CHECKLISTS** specific to the type of SWM/BMP facility being constructed. Other additional record data may be formally requested by the VESCP/VSMP authority. *(Note: Refer to the Virginia BMP Clearinghouse website and the current edition of the Virginia Stormwater Management Handbook for representative record drawing and construction certification checklists for the specific type of stormwater management/BMP facility being used. If none are available, the VSMP authority can provide this information if specifically requested.)*
- 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's BMP database and GIS system, it is requested that the record drawings also be submitted to the VESCP/VSMP authority on a CD-ROM in an acceptable electronic file format such as \*.pdf, \*.dxf, \*.dwg, etc. or in a standard scanned and readable format. The electronic file requirement can be discussed and coordinated with Engineering and Resource Protection Division staff at the time of final submission.

# 4. Record Drawings (As Built)

# JCC RECORD DRAWINGS FOR FIRE STATION NO. 4

PLANNING DIVISION

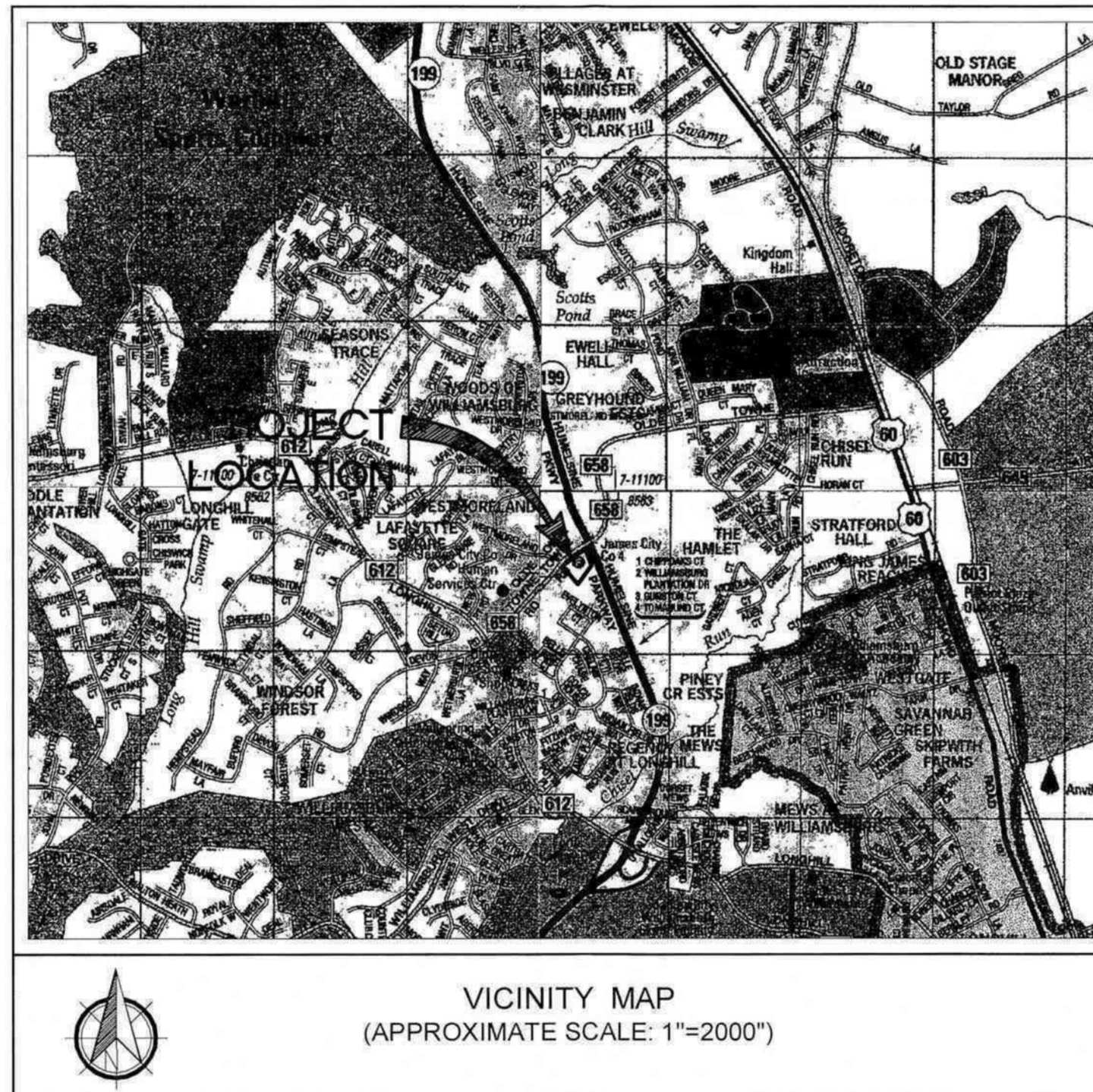
SEP 16 2013

RECEIVED

**GENERAL NOTES:**

- DEVELOPER/OWNER: JAMES CITY COUNTY  
PO BOX 8784  
WILLIAMSBURG, VA 23187 8784
- THIS PROJECT IS LOCATED BETWEEN THE 206 & 207 SUB-WATERSHED OF THE POWHATAN CREEK WATERSHED
- HORIZONTAL DATUM - NAD83 (1986) VIRGINIA STATE PLAIN COORDINATE SYSTEM SOUTH ZONE  
VERTICAL DATUM - NGVD29 VIRGINIA STATE PLAIN COORDINATE SYSTEM SOUTH ZONE  
JAMES CITY COUNTY MONUMENTS USED - 341, 342
- GEOTECHNICAL INVESTIGATIONS AND SOIL BORINGS WERE PERFORMED FOR THIS PROJECT BY EGS MD ATLANTIC.
- CONTOUR INTERVAL IS 1 FOOT
- SITE BOUNDARY IS BASED ON RECORD INFORMATION AND DOES NOT REPRESENT A CURRENT BOUNDARY BY AES CONSULTING ENGINEERS
- ALL UTILITY AND SURVEY DATA SHOWN ON THE DRAWINGS HAVE BEEN PROVIDED BY AES CONSULTING ENGINEERS. INFORMATION HAS BEEN OBTAINED FROM THE BEST AVAILABLE SOURCES AT THE TIME OF THE SURVEY BUT IS NOT REPRESENTED AS BEING COMPLETE AND ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT EXISTING UTILITIES AND UNDERGROUND STRUCTURES. DAMAGE TO EXISTING UTILITIES AND UNDERGROUND STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEVELOPER.
- EXISTING UTILITY LOCATIONS INDICATED ARE APPROXIMATE. GENERAL CONTRACTOR SHALL FIELD VERIFY PRIOR TO COMMENCING THE WORK.
- CONTRACTOR SHALL BE REQUIRED TO REGISTER FOR A VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT AND PREPARE AND COMPLETE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- A LAND DISTURBING PERMIT AND SILTATION AGREEMENT, WITH SURETY ARE REQUIRED FOR THIS PROJECT. THE PROPERTY OWNER SHALL SECURE THIS PERMIT, THE GENERAL CONTRACTOR SHALL SECURE THE SURETY.
- CONTACT MISS UTILITY (1-800-552-7001) FOR EXISTING UTILITY LOCATIONS 48 HOURS PRIOR TO COMMENCING THE WORK.
- ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND AS PER JAMES CITY COUNTY SUBDIVISION ORDINANCE SECTION 24-200.
- THE CONTRACTOR SHALL SATISFY HIMSELF AS TO ALL SITE CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF CONSTRUCTION EFFORTS WITH VIRGINIA NATURAL GAS, DOMINION VIRGINIA POWER, VERIZON TELEPHONE, HAMPTON ROADS SANITATION DISTRICT, APPROPRIATE TELEVISION CABLE COMPANY, AND OTHERS THAT MAY BE REQUIRED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR THE WORK INDICATED, INCLUDING THE VDOT CE-7 LAND USE PERMIT.
- THE CONTRACTOR SHALL REESTABLISH ALL PROPERTY PINS, MONUMENTS, WATER METERS, DRAINAGE CULVERTS, FENCES, UTILITY POLES, DRIVEWAYS, CURBS, GUTTERS, ETC. DISTURBED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE DEVELOPER/OWNER.
- THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT (SECTION 56-205.14 ET. SEQ. CODE OF VIRGINIA, 1950, AS AMENDED) AND HEREBY AGREES TO HOLD THE DEVELOPER AND THE ENGINEER HARMLESS AGAINST ANY LOSS, DAMAGE, OR CLAIMS OF ANY NATURE WHATSOEVER ARISING OUT OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THE REQUIREMENTS OF SAID ACT.
- THE CONTRACTOR IS REQUIRED TO COMPLY WITH THE VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT (SECTIONS 50.1-406 THROUGH 50.1-414; CODE OF VIRGINIA, 1950, AS AMENDED). THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND NOTE THE POSITION OF OVERHEAD CABLES PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE DRAWINGS AND FOR EXCAVATION STOCKPILES, STAGING AREAS, MOBILIZATION SITES, BEDDING/BACKFILL STOCKPILES AND OTHER LAND DISTURBANCES NOT SPECIFICALLY ADDRESSED IN THE DRAWINGS OR CONTRACT DOCUMENTS. EROSION AND SEDIMENT CONTROL MEASURES SHALL MEET OR EXCEED THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST PUBLICATION) AND THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY BODY HAVING JURISDICTION. THE CONTRACTOR SHALL ERRECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY AND PROTECTION.
- THE CONTRACTOR SHALL INSTALL PIPE, FITTINGS, AND VALVES IN DRY TRENCH CONDITIONS AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. THE CONTRACTOR SHALL PROVIDE ALL DEWATERING, WELL POINTING, SHEETING, TRENCH BOXES, AND TRENCH STABILIZATION AS REQUIRED AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL OWNERS AND RESIDENTS OF PROPERTY ADJACENT TO THE PROJECT 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK, UNLESS OTHERWISE DIRECTED BY THE OWNER. CONSTRUCTION WITHIN EASEMENTS OR ON PUBLIC RIGHT-OF-WAY NECESSITATES NOTICE WHETHER ADJACENT TO OR LOCATED ON THE ADJOINING PROPERTY. FAILURE TO PROVIDE THE MINIMUM NOTIFICATION TIME WILL RESULT IN SUSPENSION OF WORK.
- CULVERT INLET PROTECTION (CIP) MAY BE REMOVED PRIOR TO ACHIEVING STABILIZATION AT THE DISCRETION OF THE JAMES CITY COUNTY ENGINEERING AND RESOURCE PROTECTION DIVISION SHOULD PLACEMENT OF THE MEASURE RESULT IN EXCESSIVE FLOODING OR THE REDIRECTION OF DRAINAGE ONTO EXISTING LOTS, DRIVEWAYS, OR PRIMARY ROADWAYS. DECISIONS SHALL BE MADE ON A CASE-BY-CASE BASIS DEPENDING ON THE FIELD SITUATION ENCOUNTERED.
- ALL DISTURBED AREAS, INCLUDING BUT NOT LIMITED TO PAVEMENT SHOULDERS, DITCHES, HEADWALLS, ENDWALLS, CULVERT PIPES, CURB AND GUTTER, UTILITIES, DRIVEWAYS, SIGNS, MAILBOXES, ETC., SHALL BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN THOSE EXISTING PRIOR TO CONSTRUCTION, OR AS SHOWN ON THE DRAWINGS, SIGNS, MAILBOXES, AND GUARDRAIL THAT ARE DISTURBED SHALL BE RETURNED TO THEIR ORIGINAL LOCATIONS DAILY, AND MAINTAINED THROUGHOUT THE PROJECT.
- PRIVATELY OWNED UTILITIES SHOWN ON THIS PLAN ARE REGULATED BY THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE AND ENFORCED BY THE CODE COMPLIANCE DIVISION. THESE PRIVATELY OWNED UTILITIES MUST COMPLY FULLY WITH THE INTERNATIONAL PLUMBING CODE, THE NATIONAL FIRE PREVENTION ASSOCIATION STANDARD 24, AND THE INTERNATIONAL FIRE CODE. CONTRACTORS WORKING FROM THIS SITE PLAN ARE CAUTIONED NOT TO INSTALL OR CONCEAL PRIVATELY OWNED SITE UTILITIES WITHOUT OBTAINING REQUIRED PERMITS AND INSPECTIONS.
- ALL COMPONENTS OF THE WATER DISTRIBUTION AND SANITARY SEWER SYSTEM SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE LATEST EDITION OF THE JAMES CITY SERVICE AUTHORITY DESIGN AND ACCEPTANCE CRITERIA FOR WATER DISTRIBUTION AND SANITARY SEWER SYSTEMS, THE HRPDC REGIONAL STANDARDS, AND THE COMMONWEALTH OF VIRGINIA WATERWORKS AND SEWAGE COLLECTION AND TREATMENT REGULATIONS.
- ALL WATER MAIN PIPE SHALL BE BEDDED IN ACCORDANCE WITH THE FOURTH EDITION OF THE HRPDC REGIONAL CONSTRUCTION STANDARDS DETAIL EW\_01 WITH TYPE III BEDDING OR TYPE IV BEDDING.
- VERIFY ALL DIMENSIONS AND NOTIFY JAMES CITY SERVICE AUTHORITY PRIOR TO ANY EXCAVATION OR DEMOLITION WITHIN UTILITY CORRIDORS.
- ALL NEW SIGNS SHALL BE IN ACCORDANCE WITH ARTICLE 9, DIVISION 3 OF THE JAMES CITY COUNTY ZONING ORDINANCE.
- ANY EXISTING UNUSED WELLS SHALL BE ABANDONED IN ACCORDANCE WITH STATE PRIVATE WELL REGULATIONS AND JAMES CITY COUNTY CODE.
- THE ABSENCE OF THE OWNERS OR THE ENGINEER AT THE JOB SITE DOES NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM THE WORK IN ACCORDANCE WITH THE DRAWINGS, CONTRACT DOCUMENTS, ADDENDA, AND WRITTEN AUTHORIZED PLAN REVISIONS.
- THE PROFESSIONAL WHOSE SEAL IS AFFIXED HEREON SHALL ACT AS THE "RESPONSIBLE LAND DISTURBER" FOR PURPOSES OF PLAN APPROVAL ONLY. PRIOR TO ISSUANCE OF THE LAND DISTURBING PERMIT, THE CONTRACTOR OR DEVELOPER SHALL PROVIDE THE NAME OF A "RESPONSIBLE LAND DISTURBER" WHO SHALL ASSUME RESPONSIBILITY AS THE "RESPONSIBLE LAND DISTURBER" FOR THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION SHOULD THE "RESPONSIBLE LAND DISTURBER" CHANGE DURING CONSTRUCTION.
- FOR SPECIAL USE PERMIT CONDITIONS REFER TO JCC CASE NO. SUP-0005-2012 APPROVED BY THE BOARD OF SUPERVISORS ON JULY 10, 2012.
- SITE IS SERVED BY PUBLIC WATER AND SEWER.
- NO BONDS FOR THIS PROJECT WILL BE RELEASED UNTIL SUCH TIME THAT ALL SEDIMENT HAS BEEN REMOVED FROM WITHIN THE LIMITS OF THE PROPOSED STORMWATER CONVEYANCE AND UNDERGROUND ATTENUATION SYSTEMS AND TO THE SATISFACTION OF THE ENGINEERING AND RESOURCE PROTECTION DIVISION.
- THE STORMWATER MANAGEMENT BMP FACILITY AND ASSOCIATED STORMWATER CONVEYANCE SYSTEMS AS PROPOSED FOR THIS PROJECT WILL REQUIRE SUBMISSION, REVIEW AND APPROVAL OF A RECORD DRAWING (AS-BUILT) AND CONSTRUCTION CERTIFICATION PRIOR TO RELEASE OF THE POSTED BOND/SURETY. THIS ACTIVITY IS ADEQUATELY COORDINATED AND PERFORMED BEFORE, DURING AND FOLLOWING CONSTRUCTION IN ACCORDANCE WITH CURRENT COUNTY GUIDELINES.
- ALL SITE RELATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH: 1) THE PROVISIONS OF THE HAMPTON ROADS REGIONAL PLANNING DISTRICT COMMISSION REGIONAL CONSTRUCTION STANDARDS, FIFTH EDITION, AND AS AMENDED BY THE TECHNICAL PROVISIONS TO THE REGIONAL STANDARD PREPARED BY THE JAMES CITY SERVICE AUTHORITY, AND AS AMENDED OR SUPERCEDED BY THE PROJECT MANUAL AND SPECIFICATIONS CREATED SPECIFICALLY FOR THIS PROJECT; 2) THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION, LATEST EDITION, AND 3) THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REGISTERING FOR COVERAGE UNDER THE GENERAL PERMIT FOR DISCHARGE OF STORMWATER FROM CONSTRUCTION ACTIVITIES, IN ACCORDANCE WITH CURRENT REQUIREMENTS OF THE VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION AND THE VIRGINIA STORMWATER MANAGEMENT PROGRAM.
- A BUILDING PERMIT AND A DEMOLITION PERMIT WILL BE REQUIRED BEFORE CONSTRUCTION. SITE PLAN APPROVAL MUST BE GRANTED BEFORE THE BUILDING PERMIT CAN BE ISSUED.
- CONSTRUCTION OF THIS PROJECT MUST BE COMMENCED WITHIN 36 MONTHS FROM THE ISSUANCE OF THE SPECIAL USE PERMIT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A LAND USE PERMIT PRIOR TO CONSTRUCTION OF ANY WORK WITHIN STATE MANDATED RIGHT OF WAY LIMITS OR EASEMENTS.

JAMESTOWN DISTRICT JAMES CITY COUNTY VIRGINIA



COUNTY PROJECT NO.: SP-0026-2013  
ORIGINAL SUBMITTAL DATE: 03/25/2013  
APPROVAL DATE:

AS-BUILT SURVEY ELEVATIONS SHOWN ARE  
BASED ON JCC MONUMENTATION #312 &  
IS TIED TO NGVD '29 VERTICAL DATIUM

**INDEX OF SHEETS:**

SHEET NO.	SHEET DESCRIPTION
R-01	COVER SHEET
E-02	ENVIRONMENTAL INVENTORY AND E&S
E-03	PHASING & DEMOLITION PLAN
E-04	SITE & UTILITY PLAN
R-05	GRADING & DRAINAGE PLAN
E-06	OFF-SITE BMP IMPROVEMENT PLAN
E-07	E&S NOTES & DETAILS
E-08	NOTES & DETAILS
E-09	NOTES & DETAILS
E-10	LANDSCAPE PLAN
E-11	LIGHTING PLAN
E-12	LANDSCAPE NOTES & DETAILS
E-13	GRINDER PUMP NOTES & DETAILS

**OWNER/DEVELOPER INFORMATION:**

JAMES CITY COUNTY  
CONTACT: MR. BARRY MOSES, P.E. (CAPITAL PROJECT ADMINISTRATOR)  
PO BOX 8784  
WILLIAMSBURG, VIRGINIA 23187  
PHONE NO.: (757) 259-4117  
FAX NO.: (757) 259-1528

**CERTIFIED RESPONSIBLE LAND DISTURBER:**

GRAHAM V. CORSON, P.E.  
AES CONSULTING ENGINEERS  
5248 OLDE TOWNE ROAD, SUITE 1  
WILLIAMSBURG, VIRGINIA 23188  
TELEPHONE: 757-253-0040

**SITE DATA:**

SITE ADDRESS:	5312 OLDE TOWNE ROAD 5316 OLDE TOWNE ROAD WILLIAMSBURG, VIRGINIA 23186
TAX PARCEL NO.:	3340100026D 3340100027
ZONING:	PL (PUBLIC LANDS)
HYDROLOGIC UNIT CODE:	JL31
PROJECT LIMITS:	118,930 S.F. ±, 2.73 AC ±
BUILDING SQUARE FOOTAGE:	12,103 S.F. ±, 0.28 AC ±
BUILDING HEIGHT:	33'-6"
EXISTING IMPERVIOUS AREA:	17,732 S.F. ±, 0.41 AC ± (14.9%)
PROPOSED IMPERVIOUS AREA:	41,850 S.F. ±, 0.96 AC ± (35.2%)
EXISTING OPEN SPACE:	101,198 S.F. ±, 2.32 AC ± (65.1%) (INCLUDES AREAS IN 5312 & 5316 OLDE TOWNE ROAD)
PROPOSED OPEN SPACE:	77,080 S.F. ±, 1.77 AC ± (64.8%) (COMBINED SITE)
TOTAL DISTURBED AREA:	ON-SITE: 81,291 S.F. ±, 1.86 AC ± VDOT RAW: 13,223 S.F. ±, 0.30 AC ± OFF-SITE: 24,474 S.F. ±, 0.56 AC ± WESTMORELAND BMP: 12,860 S.F. ±, 0.29 AC ±
TOTAL:	131,798 S.F. ±, 3.03 AC ±
FLOOD HAZARD MAP:	THIS PROPERTY IS IN FLOOD ZONE "X" AS SHOWN ON MAP NUMBER 8108600140C, PANEL 0140, DATED 02/26/2007 OF THE FLOOD INSURANCE RATE MAPS FOR JAMES CITY COUNTY, VIRGINIA.
PARKING TABULATION:	NUMBER OF STAFF PER SHIFT: 12 (24 HOUR SHIFT) NUMBER OF PARKING SPACES PROVIDED: 26 NUMBER OF TRAILER SPACES PROVIDED: 5 NUMBER OF ADA ACCESSIBLE SPACES REQUIRED: 2 NUMBER OF ADA ACCESSIBLE SPACES PROVIDED: 2 NUMBER OF FUEL EFFICIENT VEHICLE SPACES PROVIDED: 2

COUNTY OF JAMES CITY  
FINAL SITE PLAN  
APPROVALS  
FILED: 5/26/13  
6/13/13  
8/26/13  
9/13/13  
9/16/13  
9/18/13  
9/18/13

REVISED PER COUNTY COMMENTS	DATE	BY
1	8/13/13	...
2	8/13/13	...



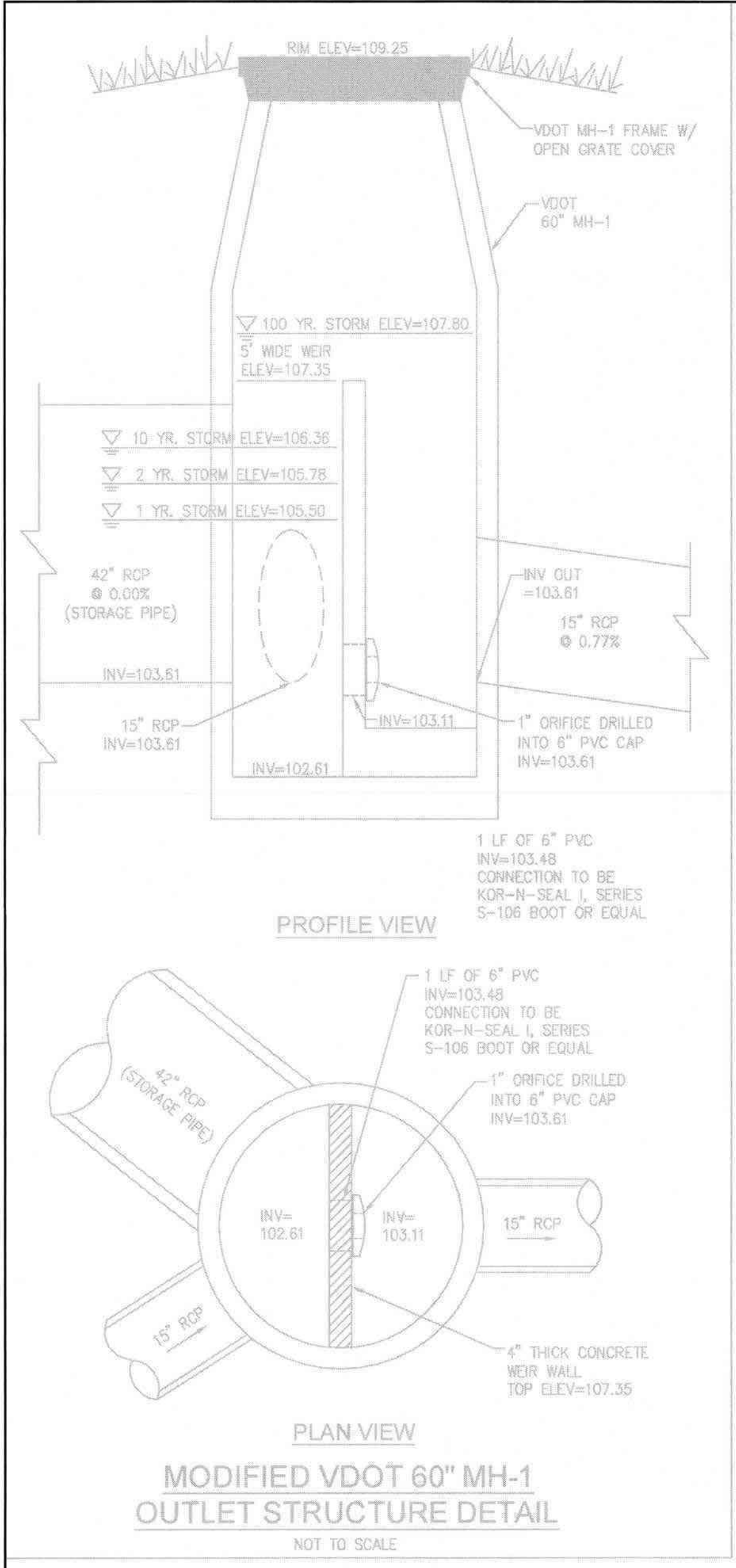
DATE: 9/22/13  
STEPHEN C. LETCHFORD

5248 Old Towne Road, Suite 1  
Williamsburg, Virginia 23188  
(757) 253-0040  
Fax: (757) 253-0040  
www.aesva.com

**AES**  
CONSULTING ENGINEERS  
Hampton Roads | Central Virginia | Middle Peninsula

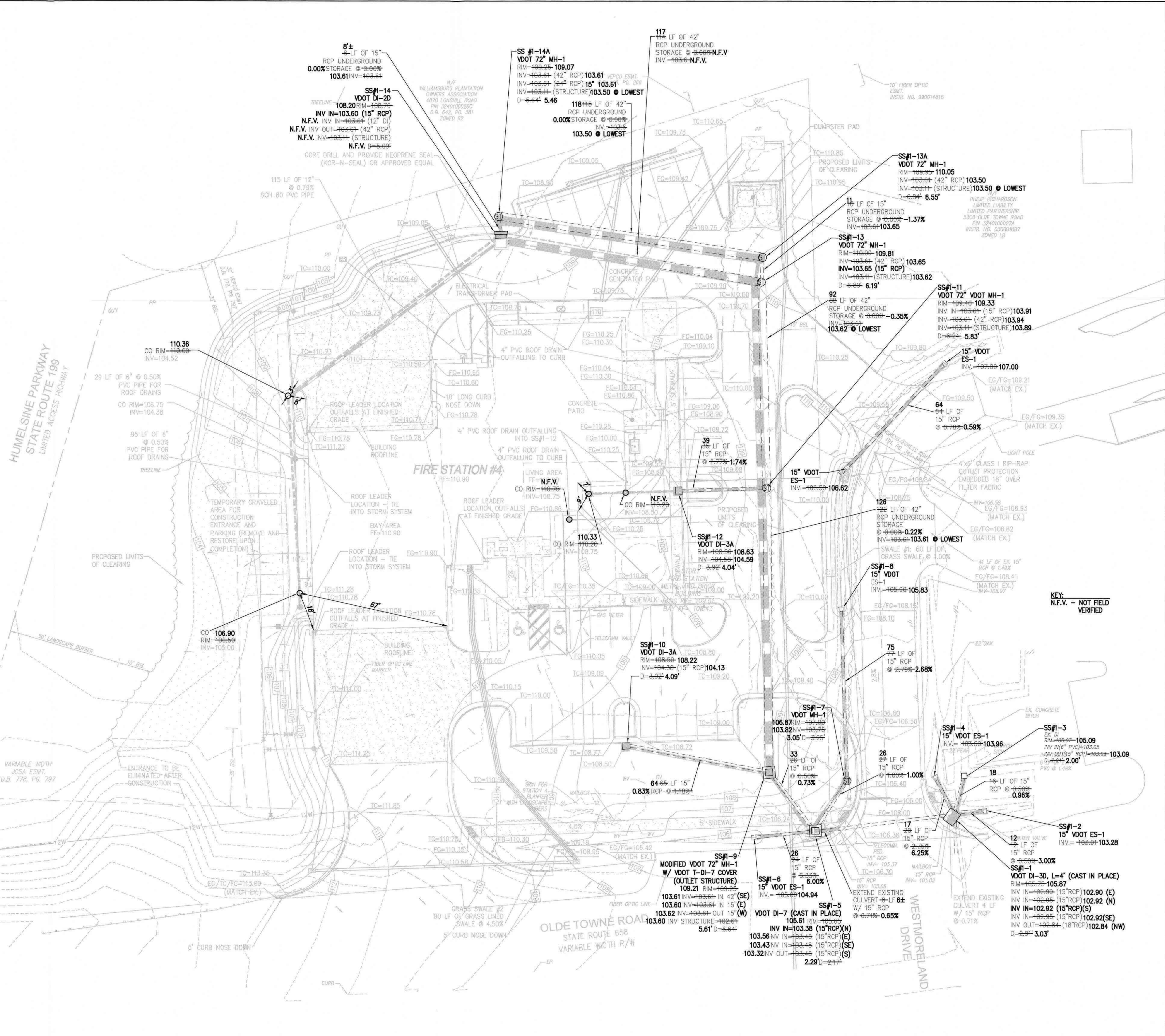
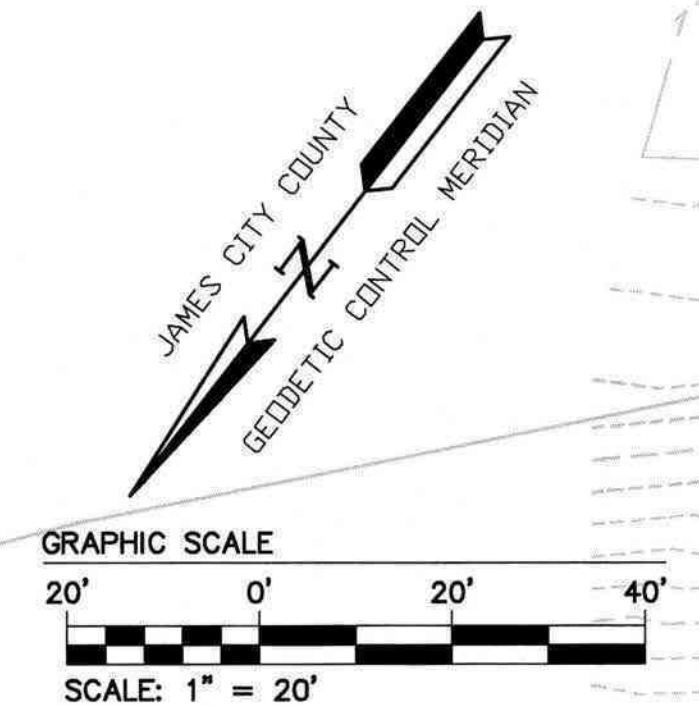
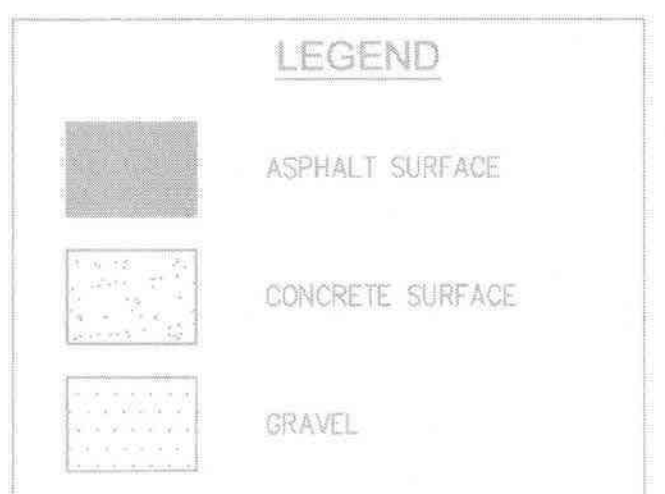
JCC RECORD DRAWING  
STORM SEWER  
FOR  
FIRE STATION NO. 4  
5312 OLDE TOWNE ROAD  
JAMES CITY COUNTY VIRGINIA  
JAMESTOWN DISTRICT

Project Contacts:	GVC
Project Number:	W10119-E-10
Scale:	AS NOTED
Date:	3/25/13
Sheet Title:	COVER SHEET
Sheet Number:	R-01



PROFILE VIEW

PLAN VIEW  
MODIFIED VDOT 60" MH-1  
OUTLET STRUCTURE DETAIL  
NOT TO SCALE



REV	DATE	DESCRIPTION
2	8/13/13	REVISED PER COUNTY COMMENTS
1	6/11/13	REVISED PER COUNTY COMMENTS



THE AS-BUILT LOCATIONS AND GRADES SHOWN ON THESE DRAWINGS ARE FOR INFORMATION ONLY. THE FIELD OR MY AGENT HAVE MADE SUFFICIENT INSPECTION TO ENSURE THE ACCURACY OF THIS STATEMENT.

DATE: 9/22/15

STEPHEN C. LETCHFORD

5248 Olde Towne Road, Suite 1  
Williamsburg, Virginia 23188  
Phone: (757) 220-8600  
Fax: (757) 220-8604  
www.avs.com

CONSULTING ENGINEERS  
Hampton Roads | Central Virginia | Middle Peninsula

JCC RECORD DRAWING  
FOR  
STORM SEWER  
FIRE STATION NO. 4  
5312 OLDE TOWNE ROAD  
JAMESTOWN DISTRICT JAMES CITY COUNTY VIRGINIA

Project Contacts: GVC  
Project Number: W10119-E-10  
Scale: 1"=20'  
Date: 3/28/13

Sheet Title:  
GRADING &  
DRAINAGE PLAN

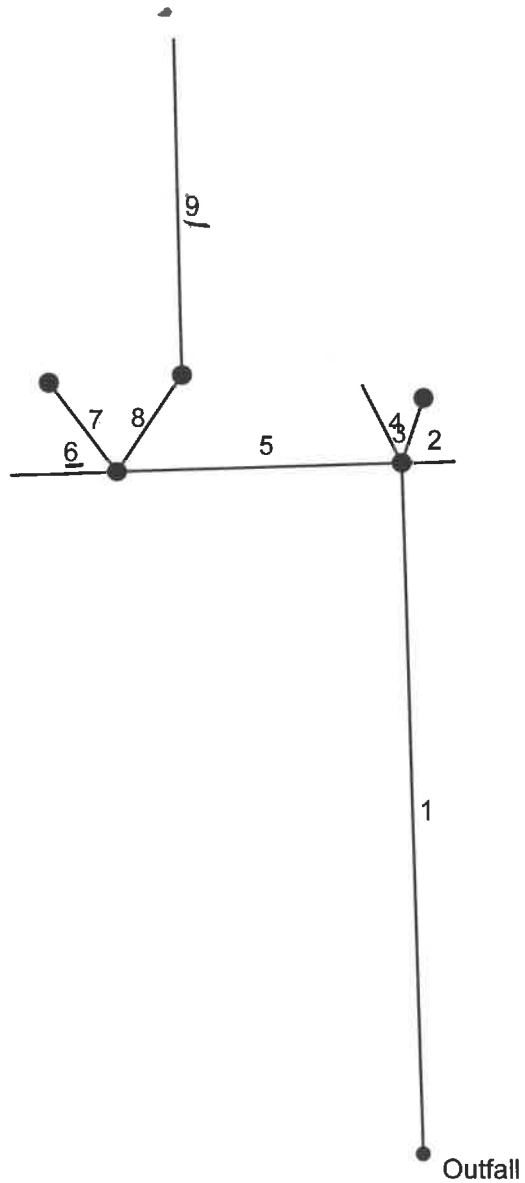
Sheet Number  
R-05

# 5. Construction Drawings



# 6. Design Calculations

# Hydraflow Storm Sewers Extension for AutoCAD® Civil 3D® 2012 Plan



# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	160.000	0.03	1.67	0.85	0.03	1.11	5.0	10.2	6.0	7.01	8.24	5.25	18	0.52	102.00	102.84	103.01	103.96	0.00	105.75	1-1 to Outfall
2	1	12.000	0.54	0.54	0.70	0.38	0.38	10.0	10.0	6.1	2.29	4.95	2.22	15	0.50	102.95	103.01	103.96	103.96	105.75	103.01	1-2 to 1-1
3	1	16.000	0.43	0.43	0.65	0.28	0.28	10.0	10.0	6.1	1.69	4.95	1.67	15	0.50	102.95	103.03	103.96	103.96	105.75	105.07	1-3 to 1-1
4	1	20.000	0.16	0.16	0.65	0.10	0.10	5.0	5.0	7.5	0.78	11.60	1.47	15	2.75	102.95	103.50	103.96	103.91	105.75	103.50	1-4 to 1-1
5	1	65.000	0.00	0.51	0.00	0.00	0.32	0.0	6.8	6.9	2.55	6.07	3.27	15	0.75	102.99	103.48	103.96	104.12	105.75	105.65	1-5 to 1-1
6	5	24.000	0.25	0.25	0.65	0.16	0.16	5.0	5.0	7.5	1.22	17.61	2.53	15	6.33	103.48	105.00	104.12	105.44	105.65	105.00	1-6 to 1-5
7	5	26.000	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.36	4.95	0.67	15	0.50	103.48	103.61	104.12	104.12	105.65	109.25	1-9 to 1-5
8	5	27.000	0.00	0.26	0.00	0.00	0.16	0.0	6.3	7.0	1.10	7.00	2.39	15	1.00	103.48	103.75	104.12	104.17	105.65	107.00	1-7 to 1-5
9	8	77.000	0.26	0.26	0.60	0.16	0.16	5.0	5.0	7.5	1.17	11.69	3.17	15	2.79	103.75	105.90	104.17	106.33	107.00	105.90	1-8 to 1-7

Project File: W10119-E-10\_Storm System #1.stm

Number of lines: 9

Run Date: 8/12/2013

NOTES: Intensity = 55.61 / (Inlet time + 10.00) ^ 0.74; Return period = Yrs. 10 ; c = cir e = ellip b = box

# 7. Reports

# 8. Correspondence

# 9. Inspections

# 10. Permitting

# 11. Miscellaneous

(ex. photos)

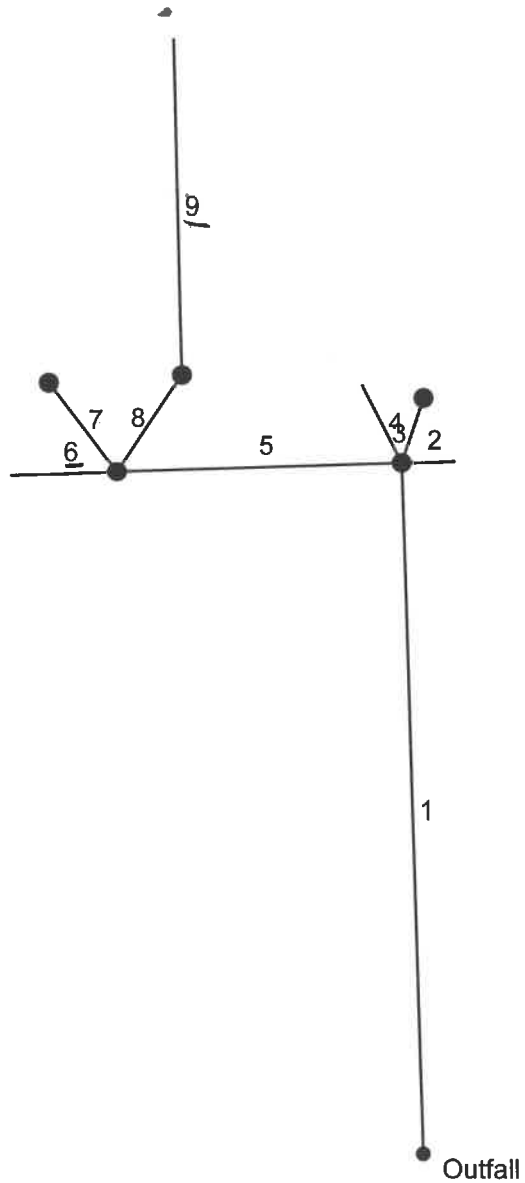


# 12. Project Development Documents

# 5. Construction Drawings

# 6. Design Calculations

# Hydraflow Storm Sewers Extension for AutoCAD® Civil 3D® 2012 Plan



# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	160.000	0.03	1.67	0.85	0.03	1.11	5.0	10.2	6.0	7.01	8.24	5.25	18	0.52	102.00	102.84	103.01	103.96	0.00	105.75	1-1 to Outfall
2	1	12.000	0.54	0.54	0.70	0.38	0.38	10.0	10.0	6.1	2.29	4.95	2.22	15	0.50	102.95	103.01	103.96	103.96	105.75	103.01	1-2 to 1-1
3	1	16.000	0.43	0.43	0.65	0.28	0.28	10.0	10.0	6.1	1.69	4.95	1.67	15	0.50	102.95	103.03	103.96	103.96	105.75	105.07	1-3 to 1-1
4	1	20.000	0.16	0.16	0.65	0.10	0.10	5.0	5.0	7.5	0.78	11.60	1.47	15	2.75	102.95	103.50	103.96	103.91	105.75	103.50	1-4 to 1-1
5	1	65.000	0.00	0.51	0.00	0.00	0.32	0.0	6.8	6.9	2.55	6.07	3.27	15	0.75	102.99	103.48	103.96	104.12	105.75	105.65	1-5 to 1-1
6	5	24.000	0.25	0.25	0.65	0.16	0.16	5.0	5.0	7.5	1.22	17.61	2.53	15	6.33	103.48	105.00	104.12	105.44	105.65	105.00	1-6 to 1-5
7	5	26.000	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.36	4.95	0.67	15	0.50	103.48	103.61	104.12	104.12	105.65	109.25	1-9 to 1-5
8	5	27.000	0.00	0.26	0.00	0.00	0.16	0.0	6.3	7.0	1.10	7.00	2.39	15	1.00	103.48	103.75	104.12	104.17	105.65	107.00	1-7 to 1-5
9	8	77.000	0.26	0.26	0.60	0.16	0.16	5.0	5.0	7.5	1.17	11.69	3.17	15	2.79	103.75	105.90	104.17	106.33	107.00	105.90	1-8 to 1-7

Project File: W10119-E-10\_Storm System #1.stm

Number of lines: 9

Run Date: 8/12/2013

NOTES: Intensity = 55.61 / (Inlet time + 10.00) ^ 0.74; Return period = Yrs. 10 ; c = cir e = ellip b = box

# 7. Reports

# 8. Correspondence

# 9. Inspections



# 10. Permitting

# 11. Miscellaneous

(ex. photos)

# 12. Project Development Documents



## **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- STORMW ATER 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: 88017**

**DATE VERIFIED: December 7, 2021**

**QUALITY ASSURANCE TECHNICIAN: Charles E. Lovett II**

*Charles E. Lovett II*

**LOCATION: WILLIAMSBURG, VIRGINIA**

**NOTES: CERTIFY & UPLOAD**

# 1. Maintenance Agreement

## 2. Deeds/Easements/ Agreements/Property Records

# 3. Construction Certificate



# Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms

---

## *Standard Forms and Instructions*

---

<u>Contents</u>	<u>Page</u>
<b>Record Drawing and Construction Certification Forms</b>	
Section 1 - Site Information	1
Section 2 - Construction Information	2
Section 3 - Owner/Designer/Contractor Information	2
Section 4 - Professional Certifications	3
Section 4 - Standard Certification Form	4
Section 5 - Certification Requirements and Instructions	4



Issue Date: February 1, 2001  
Revised: July 1, 2014





# Stormwater Conveyance and Stormwater Management / BMP Facilities Record Drawing and Construction Certification Forms

*Note: In accordance with the Subdivision and Zoning ordinances of the County Code, plans of development have requirements to ensure that at the completion of the project and prior to release of surety, certified record drawings (as-builts) and construction certifications by a registered Professional Engineer, must be provided for constructed stormwater conveyance/drainage system and stormwater management/Best Management Practice (BMP) facilities. In addition, Sections 8-25 and 8-26 of Article II of Chapter 8 of the County Code, require the submission of construction record drawings and construction certifications for permanent stormwater management/BMP facilities and permanent stormwater conveyance systems such as inlets, pipes and channels. In addition, for stormwater management/BMP facilities involving the construction of an impounding structure or dam embankment, certification is required by a professional engineer who performed inspections during construction of the facility.*

### Section 1 - Site Information:

Project Name: Fire Station No. 4  
Structure/BMP Name: Storm Systems and Underground Storage BMP  
Project Location: 5312 Olde Towne Road  
BMP Location: Parking Lot  
County Plan No.: SP-0026-2013 VAHU6 HUC Code: JL31

Project Type:  Residential  Business  Commercial  Office  Institutional  Industrial  Public  Roadway  Other \_\_\_\_\_  
Tax Map/Parcel No.: 3240100027  
County BMP ID Code (if known): \_\_\_\_\_  
Zoning District: PL Public Lands (Jamestown District)  
Land Use: Fire Station  
Site Area (sf or acres): 2.73 acres

Brief Description of Stormwater Conveyance and/or Stormwater Management/BMP Facility:  
Site consists of storm pipes collecting runoff and an underground storage system. Storm pipes consist of PVC roof drain and RCP storm drain. Underground storage system consists of 42" RCP pipes and and interior manhole outlet structure with interior weir wall.

Nearest Visible Landmark to SWM/BMP Facility: Fire Station #4 Building

Nearest Vertical Ground Control (if known):  
 JCC Geodetic Ground Control  USGS  Temporary  Arbitrary  Other

Station Number or Name: 341, 342  
Datum or Reference Elevation: \_\_\_\_\_  
Control Description: \_\_\_\_\_  
Control Location from Subject Facility: \_\_\_\_\_

**Stormwater Conveyance and Stormwater Management/BMP Facilities  
Record Drawing and Construction Certification Forms**

**Section 2 – Construction Information**

**Section 2A - Stormwater Conveyance System Construction Information (Pipes, Channels, etc.):**

Pre-Construction Meeting Held:  Yes  No  Unknown  
Approx. Construction Start Date for System: 12/2013  
System Milestone Inspection(s) by County Representative during Construction:  Yes  No  Unknown  
Name of Site Work Contractor Who Constructed System: JSG Corporation  
Name of Professional Firm Who Monitored Construction: ECS Mid-Atlantic LLC  
Date of Completion of System: 12/2014  
Date of Record Drawing/Construction Certification Submittal: 8/3/16

**Section 2B - Stormwater Management / BMP Facility Construction Information:**

Pre-Construction Meeting Held for Construction of SWM/BMP Facility:  Yes  No  Unknown  
Approx. Construction Start Date for SWM/BMP Facility: 12/2013  
Facility Monitored by County Representative during Construction:  Yes  No  Unknown  
Name of Site Work Contractor Who Constructed Facility: JSG Corporation  
Name of Professional Firm Who Monitored Construction: ECS Mid-Atlantic LLC  
Date of Completion for SWM/BMP Facility: 1/2014  
Date of Record Drawing/Construction Certification Submittal: 8/3/16

*(Note: Record drawings and construction certifications are required within thirty (30) days of the completion of the stormwater conveyance system and/or stormwater management/ BMP facility construction. Record drawings and construction certifications must be reviewed and approved by the VESCP/VSMMP authority prior to final inspection, acceptance, and surety release or reduction.)*

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

Owner/Developer: *(Note: Site owner, operator, applicant or permittee responsible for development of the project.)*  
Name: James City County  
Mailing Address: 113 Tewning Road  
Williamsburg, VA 23188  
Business Phone: 757-259-4117 Fax: 757-258-1528  
Email: Barry.Moses@jamescitycountyva.gov  
Contact Person: Barry F. Moses, P.E. Title: Capital Projects Coordinator

Design Professional: *(Note: Professional Engineer, Certified Land Surveyor or other qualified professional responsible for the design and preparation of plans and specifications for the stormwater conveyance system and/or stormwater management/BMP facility.)*

Firm Name: AES Consulting Engineers  
Mailing Address: 5248 Olde Towne Road, Williamsburg, VA 23188  
Business Phone/Fax: 757-253-0040  
Email: \_\_graham.corson@aesva.com  
Name of Responsible Plan Preparer: Graham Corson, P.E.  
Title: Project Manager  
Plan Name: Site Plan for Fire Station No. 4  
Firm's Project No. W10119-E-10  
Plan/Revision Date: September 16, 2013 (Approval Date  
Plan Sheet No.'s Applicable: R-01 / R-05 / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ /

**Stormwater Conveyance and Stormwater Management / BMP Facilities  
Record Drawing and Construction Certification Forms**

Site/Utility Contractor: *(Note: Contractor directly responsible for construction of the stormwater conveyance system and/or stormwater management/BMP facility.)*

Firm Name: JSG Corporation

Mailing Address: P.O. Box 646  
Lightfoot, Virginia 23090

Business Phone/Fax: 757-645-4870

Email: michael.mullins@jsgcorp.com

Contact Person: Michael Mullins

Site Foreman/Supervisor: Mike Hubbard

Specialty Subcontractors and Purpose: \_\_\_\_\_

**Section 4 - Professional Certifications:**

Certifying Professionals: *(Note: A Registered Professional Engineer or Certified Land Surveyor is responsible for preparation of a record drawing, sometimes referred to as an as-built drawing, for the stormwater conveyance system for the project including any stormwater management/BMP facilities. A Registered Professional Engineer is responsible for the inspection, monitoring, and certification of stormwater conveyance systems and/or stormwater management / BMP facilities during its construction. See next page for the "simple" County provided certification form that can be used by qualified professionals to provide this information. )*



**STANDARD CERTIFICATION FORM**

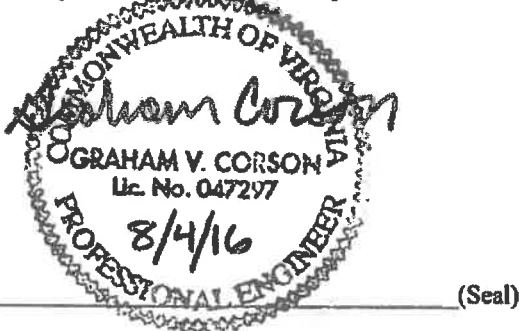
**Record Drawing Certification**

Firm Name: AES Consulting Engineers  
 Mailing Address: 5248 Olde Towne Road  
Williamsburg, VA 23188  
 Business Phone: 757-253-0040  
 Fax: \_\_\_\_\_  
 Name: Graham Corson, P.E.  
 Title: Project Manager  
 Signature: Graham Corson  
 Date: 8/4/16

I hereby certify to the best of my knowledge and belief that this record drawing represents the actual condition of the,

- Stormwater conveyance system
- Stormwater management / BMP facility

and the facility appears to conform to the provisions of the approved design plan, specifications, and stormwater management plan, except as specifically noted here.



Virginia Registered Professional Engineer or Certified Land Surveyor

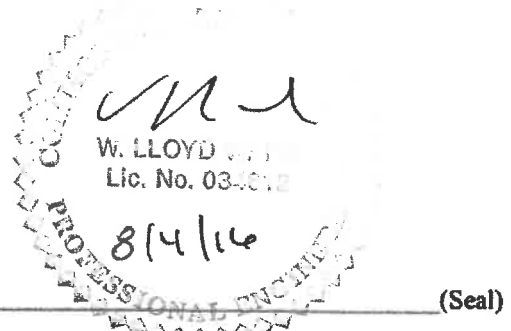
**Construction Certification**

Firm Name: ECS MID-ATLANTIC, LLC  
 Mailing Address: 1643 MERRIMAC TRAIL  
WILLIAMSBURG, VA 23187  
 Business Phone: 757-229-6677  
 Fax: 757-229-9978  
 Name: W. LLOYD WARD, P.E.  
 Title: VP / SURVEY MANAGER  
 Signature: \_\_\_\_\_  
 Date: 08/04/16

I hereby certify to the best of my knowledge and belief that this,

- Stormwater conveyance system
- Stormwater management / BMP facility

was monitored and constructed in accordance with the provisions of the approved plan, specifications, and stormwater management plan, except as specifically noted here.



Virginia Registered Professional Engineer

**Section 5 - Record Drawing and Construction Certification Requirements and Instructions:**

- Pre-Construction Meeting - Provides an opportunity to review SWM/BMP facility construction, maintenance and operation plans and addresses 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 Engineering and Resource Protection Division is requested. Usually, this requirement can be met simultaneously with Erosion and Sediment Control preconstruction meetings held for the project.
- 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, geotextiles, 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 VESCP/VSMP authority 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 VESCP/VSMP authority 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 VESCP/VSMP authority.
- 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 Engineering and Resource Protection Division prior to final inspection, acceptance and bond/surety release.

***Dual Purpose Facilities (Temporary Sediment Basin & BMP)*** - 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 Engineering and Resource Protection 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.)

- In accordance with Sections 8-25 and 8-27 of the Chapter 8 of the County Code, an *internal closed-circuit television (CCTV)* post installation inspection, performed by the operator, is required as part of the asbuilt and construction certification process. CCTV inspections shall follow standards and specifications developed by the VSMP authority administrator.
- Record Drawings shall provide, at a minimum, all information as shown within these requirements, in accordance with standard industry practice, and in accordance with applicable **RECORD DRAWING CHECKLISTS** specific to the type of SWM/BMP facility being constructed. Other additional record data may be formally requested by the VESCP/VSMP authority. *(Note: Refer to the Virginia BMP Clearinghouse website and the current edition of the Virginia Stormwater Management Handbook for representative record drawing and construction certification checklists for the specific type of stormwater management/BMP facility being used. If none are available, the VSMP authority can provide this information if specifically requested.)*
- 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's BMP database and GIS system, it is requested that the record drawings also be submitted to the VESCP/VSMP authority on a CD-ROM in an acceptable electronic file format such as \*.pdf, \*.dxf, \*.dwg, etc. or in a standard scanned and readable format. The electronic file requirement can be discussed and coordinated with Engineering and Resource Protection Division staff at the time of final submission.

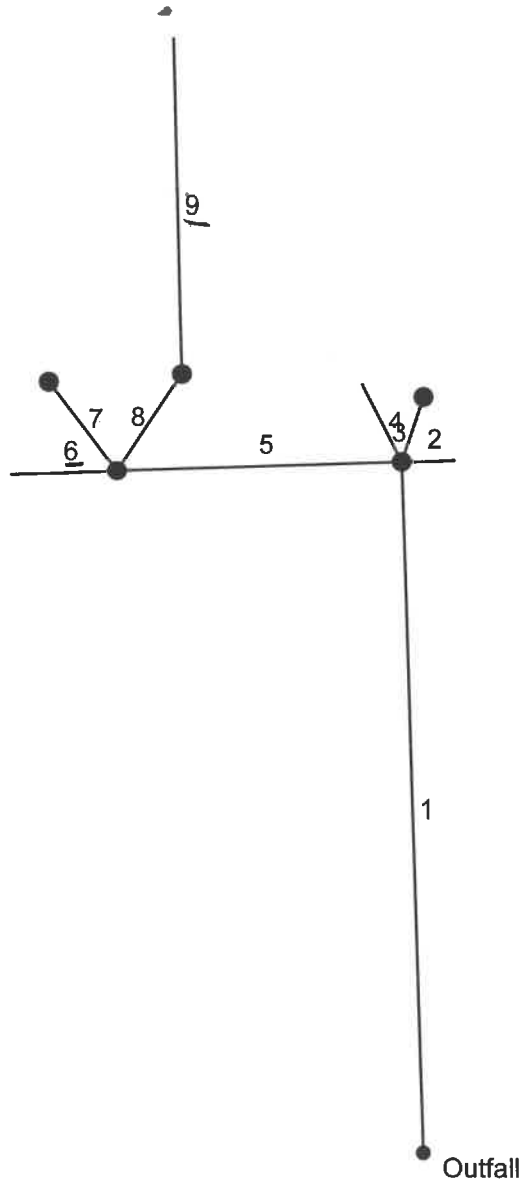
# 4. Record Drawings (As Builts)



# 5. Construction Drawings

# 6. Design Calculations

# Hydraflow Storm Sewers Extension for AutoCAD® Civil 3D® 2012 Plan



# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	160.000	0.03	1.67	0.85	0.03	1.11	5.0	10.2	6.0	7.01	8.24	5.25	18	0.52	102.00	102.84	103.01	103.96	0.00	105.75	1-1 to Outfall
2	1	12.000	0.54	0.54	0.70	0.38	0.38	10.0	10.0	6.1	2.29	4.95	2.22	15	0.50	102.95	103.01	103.96	103.96	105.75	103.01	1-2 to 1-1
3	1	16.000	0.43	0.43	0.65	0.28	0.28	10.0	10.0	6.1	1.69	4.95	1.67	15	0.50	102.95	103.03	103.96	103.96	105.75	105.07	1-3 to 1-1
4	1	20.000	0.16	0.16	0.65	0.10	0.10	5.0	5.0	7.5	0.78	11.60	1.47	15	2.75	102.95	103.50	103.96	103.91	105.75	103.50	1-4 to 1-1
5	1	65.000	0.00	0.51	0.00	0.00	0.32	0.0	6.8	6.9	2.55	6.07	3.27	15	0.75	102.99	103.48	103.96	104.12	105.75	105.65	1-5 to 1-1
6	5	24.000	0.25	0.25	0.65	0.16	0.16	5.0	5.0	7.5	1.22	17.61	2.53	15	6.33	103.48	105.00	104.12	105.44	105.65	105.00	1-6 to 1-5
7	5	26.000	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.36	4.95	0.67	15	0.50	103.48	103.61	104.12	104.12	105.65	109.25	1-9 to 1-5
8	5	27.000	0.00	0.26	0.00	0.00	0.16	0.0	6.3	7.0	1.10	7.00	2.39	15	1.00	103.48	103.75	104.12	104.17	105.65	107.00	1-7 to 1-5
9	8	77.000	0.26	0.26	0.60	0.16	0.16	5.0	5.0	7.5	1.17	11.69	3.17	15	2.79	103.75	105.90	104.17	106.33	107.00	105.90	1-8 to 1-7

Project File: W10119-E-10\_Storm System #1.stm

Number of lines: 9

Run Date: 8/12/2013

NOTES: Intensity = 55.61 / (Inlet time + 10.00) ^ 0.74; Return period = Yrs. 10 ; c = cir e = ellip b = box

# 7. Reports

# 8. Correspondence

# 9. Inspections

# 10. Permitting



# 11. Miscellaneous

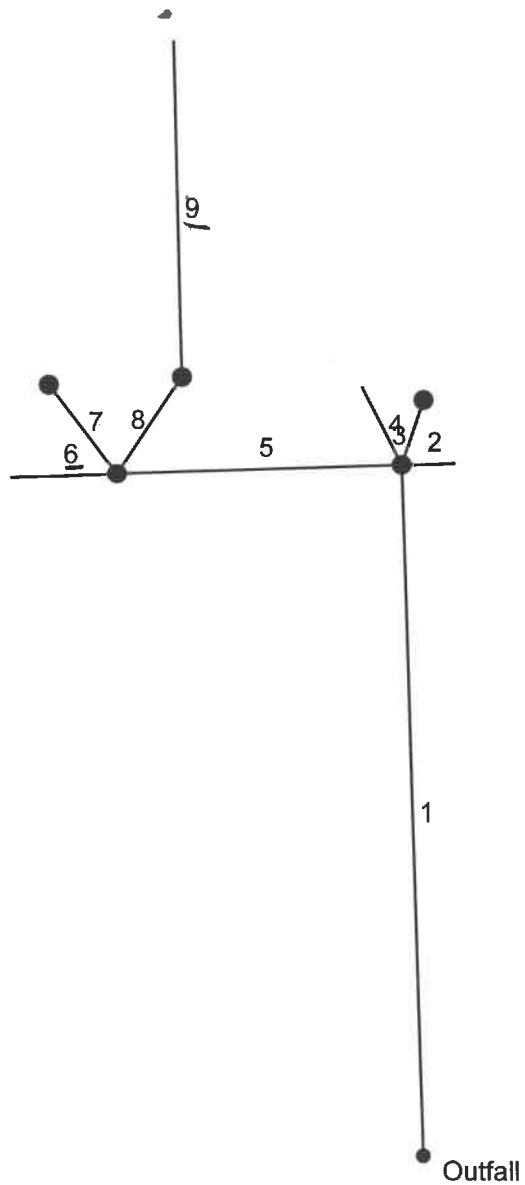
(ex. photos)

# 12. Project Development Documents

# 5. Construction Drawings

# 6. Design Calculations

# Hydraflow Storm Sewers Extension for AutoCAD® Civil 3D® 2012 Plan



# Storm Sewer Tabulation

Station		Len (ft)	Drng Area		Rnoff coeff (C)	Area x C		Tc		Rain (l) (in/hr)	Total flow (cfs)	Cap full (cfs)	Vel (ft/s)	Pipe		Invert Elev		HGL Elev		Grnd / Rim Elev		Line ID
Line	To Line		Incr (ac)	Total (ac)		Incr	Total	Inlet (min)	Syst (min)					Size (in)	Slope (%)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	Dn (ft)	Up (ft)	
1	End	160.000	0.03	1.67	0.85	0.03	1.11	5.0	10.2	6.0	7.01	8.24	5.25	18	0.52	102.00	102.84	103.01	103.96	0.00	105.75	1-1 to Outfall
2	1	12.000	0.54	0.54	0.70	0.38	0.38	10.0	10.0	6.1	2.29	4.95	2.22	15	0.50	102.95	103.01	103.96	103.96	105.75	103.01	1-2 to 1-1
3	1	16.000	0.43	0.43	0.65	0.28	0.28	10.0	10.0	6.1	1.69	4.95	1.67	15	0.50	102.95	103.03	103.96	103.96	105.75	105.07	1-3 to 1-1
4	1	20.000	0.16	0.16	0.65	0.10	0.10	5.0	5.0	7.5	0.78	11.60	1.47	15	2.75	102.95	103.50	103.96	103.91	105.75	103.50	1-4 to 1-1
5	1	65.000	0.00	0.51	0.00	0.00	0.32	0.0	6.8	6.9	2.55	6.07	3.27	15	0.75	102.99	103.48	103.96	104.12	105.75	105.65	1-5 to 1-1
6	5	24.000	0.25	0.25	0.65	0.16	0.16	5.0	5.0	7.5	1.22	17.61	2.53	15	6.33	103.48	105.00	104.12	105.44	105.65	105.00	1-6 to 1-5
7	5	26.000	0.00	0.00	0.00	0.00	0.00	5.0	5.0	0.0	0.36	4.95	0.67	15	0.50	103.48	103.61	104.12	104.12	105.65	109.25	1-9 to 1-5
8	5	27.000	0.00	0.26	0.00	0.00	0.16	0.0	6.3	7.0	1.10	7.00	2.39	15	1.00	103.48	103.75	104.12	104.17	105.65	107.00	1-7 to 1-5
9	8	77.000	0.26	0.26	0.60	0.16	0.16	5.0	5.0	7.5	1.17	11.69	3.17	15	2.79	103.75	105.90	104.17	106.33	107.00	105.90	1-8 to 1-7

Project File: W10119-E-10\_Storm System #1.stm

Number of lines: 9

Run Date: 8/12/2013

NOTES: Intensity = 55.61 / (Inlet time + 10.00) ^ 0.74; Return period = Yrs. 10 ; c = cir e = ellip b = box

# 7. Reports

# 8. Correspondence





**Development Management**  
101-A Mounts Bay Road  
P.O. Box 8784  
Williamsburg, VA 23187-8784  
P: 757-253-6671  
F: 757-253-6822  
Development.management@jamescity  
countyva.gov  
[jamescitycountyva.gov](http://jamescitycountyva.gov)

**Building Safety and Permits**  
757-253-6620

**Engineering and Resource Protection**  
757-253-6670

**Planning**  
757-253-6685

**Zoning Enforcement**  
757-253-6671

September 17, 2013

Mr. Graham Corson  
5248 Olde Towne Road  
Suite 1  
Williamsburg, VA  
23188

**RE: SP-0026-2013, James City County Fire Station No. 4**

Dear Mr. Corson,

I am pleased to inform you that your site plan amendment received final approval on September 17, 2013. Enclosed are two copies of the stamped final approval drawing for your files.

**Final approval of the site plan shall expire five years after the date of approval. During that period all permits shall be obtained or the development shall be put into use. When the permits have been issued, the site plan approval shall run concurrently with the permits term of validity for only those uses and improvements covered by the permits. All work shall be completed in the manner and location indicated upon the approved plan. Modifications shall be approved in advance by the Zoning Administrator.**

Sincerely,

Christopher Johnson  
Principal Planner

# 9. Inspections

# 10. Permitting

# 11. Miscellaneous

(ex. photos)

# 12. Project Development Documents