

A G E N D A

JAMES CITY COUNTY BOARD OF SUPERVISORS

READING FILE

April 22, 2014

FOR YOUR INFORMATION

1. Materials for Capital Improvement Projects Report and Presentation

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MEMORANDUM COVER

Subject: Capital Project Report

Action Requested: No action requested

Summary: This report is to provide the Board of Supervisors with up-to-date information on the status of various capital construction projects now underway.

Fiscal Impact: None

FMS Approval, if Applicable: Yes ☐ No ☐

Acting Assistant County Administrator

Adam R. Kinsman



Acting County Administrator

M. Douglas Powell



Attachments:

1. Memorandum
2. Jolly Pond Convenience Center
3. Fire Station 1
4. Mid County Park
5. James Terrace Drainage
6. Clara Byrd Baker Water Quality
7. Fernbrook Drainage
8. Fire Station 4
9. Forest Glen Drainage
10. Freedom Park Trail
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12. Freedom Park Expansion
13. Recreation Center Roof
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16. Canal Street Location Map
17. Jamestown Beach Shoreline - Phase 3
18. Jamestown Beach Site Improvements
19. Kingspoint Drainage
20. Mirror Lakes Best Management Practice (BMP)
21. Stonehouse Elementary School Best Management Practice (BMP) Repair
22. Kristiansand Drainage/Water Quality
23. Kristiansand Tributaries Stream Restoration Map

READING FILE

Date: April 22, 2014

M E M O R A N D U M

DATE: April 22, 2014

TO: The Board of Supervisors

FROM: John T. P. Horne, General Services Director

SUBJECT: Capital Projects Report

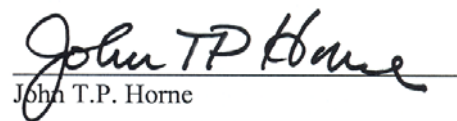
The intent of this Memorandum is to provide the Board an update on the status of a number of capital improvement projects now being managed by the Department of General Services. Attached are project report sheets on the following projects:

- Jolly Pond Convenience Center
- Fire Station 1
- Mid County Park
- James Terrace Drainage
- Clara Byrd Baker Water Quality
- Fernbrook Drainage
- Fire Station 4
- Forest Glen Drainage
- Freedom Park Trail
- Freedom Park Expansion
- Recreation Center Roof
- Brookhaven Drainage
- Chickahominy Haven - Canal Street
- Jamestown Beach Shoreline - Phase 3
- Jamestown Beach Site Improvements
- Kingspoint Drainage
- Mirror Lakes Best Management Practice (BMP)
- Stonehouse Elementary School Best Management Practice (BMP) Repair
- Kristiansand Drainage/Water Quality

The form of these sheets matches the information that would be seen by the public on the County web site at the following location www.jamescitycountyva.gov/government/projects. General Services has been posting these updates for several years in an effort to make timely project information available to any member of the public. The project information is generally updated monthly for those projects under active construction and quarterly for projects in the design phases. If the Board or public has questions about any particular project, they can always contact the Department at 259-4080 and they will be connected with the Capital Project Coordinator managing the project.

In any given year the projects underway are driven by the Capital Improvements Plan approved by the Board in the budget. The mix of projects listed shows two major building construction projects at Fire Stations 1 and 4, a number of stormwater projects, a site improvement at Jolly Pond Road, and Parks and Recreation projects. In recent year we have completed other types of projects such as road projects at Old News Road and two locations on Centerville Road, a major renovation for the Fire Administration Building, and the historic renovation of the Norge Depot. In the next few years we anticipate more concentration on stormwater-related projects in support of the State Municipal Separate Storm Sewer System (MS4) requirements.

Finally, what is not shown is a long list of capital maintenance type projects at existing facilities. Examples are new roofs at the Recreation Center, HVAC and electrical change outs, and building envelope improvements. Capital maintenance, while not normally as visible as new projects, is critical to the long-term effectiveness and efficiency at the approximately 483,000 square feet of existing buildings and hundreds of acres of parklands in the County.



John T.P. Horne

JTPH/gb
CapProRpt-mem

Attachments

Project: Jolly Pond Convenience Center Improvements
March 31, 2014
Status Report

Scope of Work

The Jolly Pond Convenience Center Improvements projects is composed of several site improvements. The improvements include correcting drainage issues in the current vegetative debris drop-off area as it is prone to flooding. Landscaping along the Center's road frontage will be installed for screening. The existing chain link fence along the road frontage will be extended and/or repaired, preventing unauthorized access and illegal dumping. The existing oil, antifreeze, and battery storage area will be relocated adjacent to the transfer station access drive and a covered storage shelter installed. A retaining wall is proposed for an overflow vegetative debris area permitting customers to drop off debris directly into metal containers. (Future Phase). In addition, since a majority of the access drive area to these improvements has eroded and is partially gravel, a hard surface areas will be included with these improvements. Upgrades and creation of a BMP downstream utilizing existing site features is proposed as part of the construction phase to comply with new DEQ stormwater pollutant reduction mandates. These improvements will provide water quality benefits and contribute to meeting the County's permit obligations for the Chesapeake Bay Total Maximum Daily Loads (CBTMDL).

Schedule

Civil Engineering Design:	Underway
Bidding Phase	Spring 2014

Budget

Site	\$130,000
BMP (Stormwater Local Assistance Fund, \$75,000)	\$150,000
AES Consulting Engineers – Contract Amount:	\$16,217.00
Current payout and percent completed:	\$15, 538.65 – 95.8%
ECS Mid Atlantic – Contract Amount:	\$3,870.50
Current payout and percent completed:	\$3,870.50 – 100.0%
Additional Services:	\$14,032.75 BMP

(Note: The site improvements are for the Convenience Center: debris pad, recycling center for used oil/antifreeze and batteries, paving improvements and landscaping)

Milestones

- ✓ BOS approved the SUP request on July 23, 2013 for 100 ft buffer reduction
- ✓ Grant awarded for stormwater best management practices to meet the new Department of Environmental Quality mandates regarding pollution reduction
- ✓ Geotechnical borings of existing dam embankment completed

Next Steps

- Engineering and Resource Protection approval of stormwater/drainage improvements plans and calculations
- DEQ authorization to bid the grant funded BMP improvements
- Bidding phase
- Purchase new double wall storage tank for recycled oil containment

PROJECT PHOTOS:

	
<p style="text-align: center;">Existing Embankment Area for BMP Improvements</p>	<p style="text-align: center;">Existing Debris Pad Area</p>

Project: James City County Fire Station No.1
“James City - Bruton Volunteer Fire Department & Rescue Squad”
March 31, 2014
Status Report

Scope of Work

The James City - Bruton Volunteer Fire Department & Rescue Squad in Toano was originally built on the former Toano High School site. The existing fire station will be replaced with a new 21,791 SF station consisting of five, pull-through, double loaded apparatus bays for emergency vehicles, an adjacent tower for training and hose drying, a large training room and an adjacent commercial kitchen to serve the public during community meetings . Site improvements include an emergency vehicle return drive aisle, relocated fueling station, relocated metal storage building, additional parking and an improved on-site storm-water management system. In addition, training elements will be built-in throughout the facility to provide on-site training opportunities, minimizing the need for costly off-site training. New administrative offices will be included for the volunteer firefighters, career firefighters and rescue squad. The bunk space will accommodate up to 20 individuals on a typical night. Upon completion of the new facility, the existing station will be demolished. This project is intended to be designed and constructed for LEED Silver certification.

Schedule

Architectural Design:	Underway - 95% Progress
Civil Engineering Design:	Underway – 98% Progress
Commissioning Agent	On-going
Bidding Phase	Spring 2014

Budget

	\$6.3M Approved
Guernsey-Tingle/SCN Architects:	\$439,700.00
Contract amount and percent completed:	\$242,462.10 – 55.1%
AES Consulting Engineers:	\$96,462.00
Contract amount and percent completed:	\$75,786.30 – 78.6%
Additional Services:	\$28,970.50

Land Acquisition

Crawford Parcel	\$390,000
Additional Services	\$1,519.00

(Note: Land acquisition is not include in the \$6.3M project budget)

Milestones

- ✓ Existing building evaluation completed, design teams selected
- ✓ Crawford Property land acquisition completed
- ✓ Planning Commission recommendation and BOS SUP and rezoning approval on October 8, 2013 for the former Crawford Parcel and the JCSA Well Facility
- ✓ Pre-qualification process of Contractors completed

Next Steps

- Complete Construction Documents and Bidding Documents
- Incorporate value engineering measures as applicable
- Achieve site plan approval and code compliance acceptance to issue a Building Permit once a Contractor has been selected and contract award approved.

PROJECT PHOTOS:



**The existing James City – Bruton Volunteer Fire Department & Rescue Squad
3135 Forge Road in Toano**

Project: *Mid County Park Phase I Improvements*
March 31, 2014
Status Report

Scope of Work

This project includes the razing of the existing office building and timber framed Kidsburg. Kidsburg will be replaced, but its design and theme will be retained in the new playground structures. The new playground will include a general play area, a ship replica and a swing area. In addition there will be a separate gated area for children ages 2-5. The new playground will also be ADA compliant. The new office and restroom facility will include office space for County staff, and meeting room, public restrooms, including a family restroom and a vending area. In addition the two existing shelters will have improvements which include metal roofs to match the new office building.

Schedule

Date of Completion

Opened August 29, 2013

(Note: Building was completed ahead of schedule, Kidsburg completion was delayed due to unsuitable soil conditions and excessive rain events.)

Budget – Phase I Improvements

\$1.5M Approved

Budget – Office and Restroom Facility

David Nice Builders, Inc. Contract Amount:

\$668,061.25

Total Change Orders:

2

Total Amount of Change Orders:

\$23,461.25

Current payout and percent:

\$659,061.25 – 98.7%

(Note: Parks and Recreation added items to the project during the construction phase originally omitted from the contract ensuring the project was completed within budget. In addition, remediation of unforeseen site conditions was required.)

Milestones

- ✓ Site Plan Approval, JCC Case No. SP-0085-2012
- ✓ Final Certificate of Occupancy issued for the Office and Restroom Building
- ✓ Installed rain garden for educational exhibit
- ✓ BMP Record drawings and Construction Certification completed

Next Steps

- BOS approval to dedicate a Utility Easement for the on-site water main to the James City Service Authority.

Budget – Kidsburg Playground

Cunningham Recreation Contract Amount:	\$865,448.91
Total Change Orders:	2
Total Amount of Change Orders:	\$13,662.50
Contract amount and percent completed:	\$865,448.91 – 100%

(Note: Parks and Recreation added items to the project during the construction phase for improved operation and maintenance.)

Milestones

- ✓ Site Plan Approval, JCC Case No. SP-0085-2012
- ✓ Demolition of existing timber playground equipment
- ✓ Piers and slab for ship cast in place concrete completed
- ✓ Installation of elevated walks and slides completed
- ✓ Zip line feature installed
- ✓ Ribbon cutting August 29, 2013 – Kidsburg officially opened

Project: *James Terrace Stormwater Improvements*
March 31, 2014
Status Report

Scope of Work

The James Terrace Subdivision storm water and drainage improvements will provide improved routing in combination with additional stabilization measures to prevent erodible areas from forming and mitigate pockets of flooding in the future. The upper reach of this drainage area has proposed improvements at Grace Baptist Church, allowing longer retention times during rainfall events and on-site pollutant reduction. These improvements will provide water quality benefits and contribute to meeting the County's permit obligations for the Chesapeake Bay Total Maximum Daily Loads (CBTMDL).

Schedule

Civil Engineering Design: Fall 2014

Budget **\$300,000 Estimated**

Kerr Environmental – Contract Amount: \$79,738.00

Current payout and percent completed: \$56,108.50 – 70.4%

AES Consulting Engineers – Contract Amount: \$10,480.00

Current payout and percent completed: \$6,520.00 – 62.2%

GET Solutions – Contract Amount: \$4,500.00

Current payout and percent completed: \$0.00 - 0%

Additional Services: \$8,322.50

Milestones

- ✓ Preliminary surveying completed.
- ✓ Collaborative acceptance of on-site improvements with Grace Baptist Church
- ✓ Incorporation of regenerative stormwater channels
- ✓ Grant awarded for stormwater best management practices to meet the new Department of Environmental Quality mandates regarding pollution reduction

Next Steps

- Completion of the stormwater/drainage improvements plans and calculations
- Approval from residential property owners directly affected by the proposed stormwater improvements
- Plan review and approval by all applicable regulatory agencies
- Obtain all applicable regulatory permits prior to construction
- Design retaining wall for 799 Tyler Drive
- DEQ authorization to bid of the grant funded BMP improvements
- Bidding phase

Project: Clara Byrd Baker Stormwater Retrofits
April 2014
Status Report

Scope of Work

This project consists of the renovation and retrofit of the stormwater treatment facilities at the Clara Byrd Baker Elementary School. The primary stormwater detention BMP collects runoff from a portion of the entrance drive and the entire school parking lot. In observing the BMP, it is evident that the BMP has become less effective functionally with significant sediment accumulations, trees on the embankment, evidence of 'piping' or burrowing animals on the embankment, sinkholes around stormwater structures and poorly implemented riser structure configuration. This project will correct the deficiencies in the current condition of the facility and make retrofits to enhance the efficiency of the BMP. Additionally three infiltration BMP's were installed around the school to collect bus loop and roof runoff. The infiltration BMP's have failed and may be backing up roof runoff. For replacement of these failed BMP's, other LID retrofits, such as bioretention/rain gardens or dry swales will be considered to maximize stormwater treatment credits. The project design will focus on providing improved water quality benefits and contribute to meeting the County's permit obligations for the Chesapeake Bay Total Maximum Daily Load (CBTMDL) reductions.

Status of Project

AES Consulting Engineers completed an options analysis for repair of the existing BMP and overall stormwater management for the school. Whitman Requardt and Associates has been retained to take the next step to provide a final retrofit plan.

Schedule

Civil Engineering Design:	Underway
Bidding Phase	Summer 2014

Budget

\$190K Approved

Whitman Requardt and Associates:	\$16,653
Contract Amount and percent completed:	\$ 0 – 0%
AES Consulting Engineers:	\$5,592
Contract Amount and percent completed:	\$5,592 – 100%

Milestone

✓ None to date.

Next Steps

- Complete engineering design and construction plans.

Project Issues

- The necessary work will need to be performed in an environmentally sensitive area.
- Coordination with planned 2016 parking lot renovation



Clara Byrd Elementary School Site with Existing BMP's

Project: *Fernbrook Pipe Repairs*
April 2014
Status Report

Scope of Work

This project primarily consists of the replacement of an approximately 300 ft long, 30-inch diameter segment of storm sewer from Governor Yeardey Lane to General Gookin Court in the Fernbrook Subdivision between lots 85 and 86, and lots 74 and 75. The high density polyethylene (HDPE) pipe is revealing visual signs of failure along its length and at the connection with the reinforced concrete pipe (RCP) at either end of the pipe run. The County is also assisting with a manhole repair on Capt. Wynne Dr. and obtaining permits and inspecting a pipe replacement on Jonas Profit Trail.

Status of Project

An investigation of the 30-inch was performed in late 2011 by URS Corporation which confirmed the failing condition of the pipe. The report compared several options but, made a final recommendation of removal and replacement of the existing pipe to provide the best long-term solution at the lowest cost. AES Consulting Engineers has completed the plans for pipe replacement. The plans have been reviewed by the appropriate agencies and have been provided to Purchasing in preparation for bidding. The HOA approved a memo of understanding (MOU) in late March 2014 which will allow James City County's contractor to work in the HOA's easements. Additional easements were required to perform the work and are pending property owner approval. When the easements are signed, the project can be bid and the work executed.

Schedule

Civil Engineering Design:	Complete
Pre- and Post-Construction Conditions Assessment	Pending
Bidding Phase	Spring 2014

Budget

\$150K Approved

AES Consulting Engineers:	\$21,867
Contract Amount and percent completed:	\$15,070 – 68.9%
ECS Mid-Atlantic:	\$2,491
Contract Amount and percent completed:	\$0 – 0%

Milestone

- ✓ Camera inspection completed.

- ✓ Engineering design completed and reviewed
- ✓ Easement plats prepared and awaiting signature
- ✓ MOU for County to access easements complete

Next Steps

- HOA to obtain final easements.
- Obtain bids for pipe replacement.

Project Issues

- Obtaining easements and right-of-way.
- Depth of pipe and proximity to structures.
- Anticipated poor soil conditions and groundwater.
- Limited access and staging area.
- Work around existing private and public utilities.



Camera View at location of large sinkhole on General Gookin Court. HDPE pipe at the end of the concrete section in the foreground has separated, deformed and displaced.

Project: *James City County Fire Station No. 4*
April 4, 2014
Status Report

Scope of Work

James City County Fire Station 4 was originally built around 1980 and is in need of replacement. The new building will be approximately 14,400 square feet with a 3 vehicle bay facility, living quarters for up to 12 individuals, offices and space for training and storage. It was determined that an expansion of the site with fire operations taking place in the existing building while the new building is constructed on an expanded site footprint would provide the most cost effective solution. This subsequently required purchase of an adjoining property to accommodate the larger building and site restraints necessitated plans for retrofit of an offsite stormwater BMP to treat stormwater from the expanded fire station impervious area. This project is intended to be constructed for LEED Silver certification.

Status of Project

The project is currently under construction. Work started in November 2013 with the retrofit of the offsite BMP in the Westmoreland Subdivision. The offsite work was completed in December 2013 despite frequent rains and poor drying conditions. Site work began with clearing of the fire station site in December 2013 with site improvements beginning in January 2014. Site work has been hampered by poor weather but, the contractor has made progress with the stormwater piping, utility relocation and preparation of the building pad. Footings were poured in March and the foundation walls will start rising out of the ground in April.

Schedule

Construction Phase: 11.7% Complete

Budget **\$4.1M Approved**

HVC Chennault Architectural Corp: \$295,847

Contract Amount and percent completed: \$237,755 – 80.3%

AES Consulting Engineers: \$58,181

Contract Amount and percent completed: \$54,633 – 93.9%

AR Chesson Construction Contract \$3,279,000

Contract amount and percent completed: \$384,546 – 11.7%

Additional Services \$226,544

Milestone

- ✓ Property acquisition.
- ✓ Site plan approval
- ✓ Bids complete
- ✓ Construction underway
- ✓ Offsite BMP work complete
- ✓ Footings complete

Next Steps

- Finish utility relocation
- Complete storm sewer installation
- Complete foundation concrete masonry unit (CMU) installation
- Underslab rough-in of plumbing and electrical

Project Issues

- Rainy weather and poor winter drying conditions.



Future Fire Station No. 4 Building Pad - March 14, 2004

Project: *Forest Glen Drainage Improvements*
April 2014
Status Report

Scope of Work

This project consists of repairs to the storm sewer system in portions of the Forest Glen Neighborhood. This project along with neighborhood education and coordination with VDOT to maintain their portions of the system should help mitigate flooding issues in portions of the neighborhood.

Status of Project

Final design recommendations have been provided to JCC staff. Two of four recommendations are being finalized into plans for request for quotes and construction.

Schedule

Civil Engineering Design: Complete

Bidding Phase Summer 2014

Budget

\$50K Approved

AES Consulting Engineers: \$19,560

Contract Amount and percent completed: \$19,560 – 100%

Milestone

- ✓ Field investigation completed.
- ✓ Engineering report completed.

Next Steps

- Finalize plans for request for quotes.
- Obtain quotes for construction
- Execute drainage projects.

Project Issues

- Obtaining easements and right-of-way.

Project: *Freedom Park Phase 4 - Freedom Park Trail*

April 2014

Status Report

Scope of Work

As part of the approved James City County Parks and Recreation Bond Referendum, and in implementation of the Board Adopted 2002 Greenways Master Plan, improvements were planned and designed for the trails system to include a connection from Freedom Park Entrance Road to the existing trail on Jolly Pond Road which currently terminates at the Jolly Pond School Complex property line. This segment will utilize several previously constructed trail segments for interconnection and is partially funded by a matching grant through the Virginia Department of Conservation and Recreation (DCR), Recreational Trails Program. The trail will cross the Colby Swamp using an existing logging road and will replace deteriorated metal pipe culverts with concrete culverts and re-use the 70 foot span steel bridge previously spanning the Lake Powell spillway to cross the concrete high flow spillway. The overall project is approximately 1.2 miles in length and will be asphalt paved sections with the 70 foot wooden decked steel bridge. This segment of trail implements a portion of the Freedom Park Master Plan by connecting Freedom Park with Hornsby Middle and Blayton Elementary Schools, a planned connection to facilitate multipurpose trail access to the schools. Additionally it implements one of the highest priority elements of the Gordon's Creek Watershed Management Plan through improvements to the existing impoundment where the trail crosses Colby Swamp.

Status of Project

Trail construction in Phase 1 (50% of trail) from Jolly Pond Rd to the Colby Swamp low water crossing was completed in September 2013 despite the frequent rains this summer. The concrete culverts have been installed replacing the deteriorated metal culverts at the Colby Swamp crossing. The concrete bridge abutments and spillway were completed and the bridge set in place. The Phase 1 trail is entirely paved with asphalt.

The Phase 2 (50% of trail) portion of trail from the swamp crossing to the Ellipse Garden was put on hold as a Phase 2 project due to impacts to endangered and threatened species. After the main trail contract was awarded, the grant money accepted and the contractor mobilized to the site, the Department of Conservation and US Fish and Wildlife Service expressed concerns that the Small Whorled Pogonia colony shown on the plans was too close to the proposed trail. After a field visit with all concerned parties, it was decided that the impacts to the threatened species would be too great and that there were other options to relocate the trail. AES Consulting Engineers completed the new design of the realigned trail in October 2013. Henderson Inc provided a change order to complete the realigned trail which was 700 ft longer than the previously proposed alignment. JCC Parks and Recreation has received additional grant funding to cover most of the costs of realignment.

Phase 2 is well under way with 90% of the realigned trail graded with aggregate base installed. December 2013 and January - March 2014 have been rainy and progress has stopped pending dry weather. Weather permitting; paving should be complete in April 2013.

Schedule

Construction Phase:

80.8% Complete

Budget

\$497K Approved
\$395K Funded by Recreational
Trails Grant through the VA DCR

Henderson :	\$401,762
Number of Change Orders	2
Amount of Change Orders	\$63,487
Contract Amount and percent completed:	\$107,764 – 80.8%
AES Consulting Engineers:	\$28,448
Number of Change Orders	2
Amount of Change Orders	\$2,120
Contract Amount and percent completed:	\$30,568 – 100%
Additional Services	\$30,781

Milestone

- ✓ Phase 1 (50% of trail) - Project graded, aggregate base and asphalt paving placed on entire Phase 1 trail.
- ✓ Bridge abutment, spillway and bridge installation 100% complete
- ✓ Deteriorated corrugated metal culverts replaced with reinforced concrete pipe.
- ✓ Phase 2 (remaining 50%) - Project graded and aggregate base placed on 90% of Phase 2 trail.

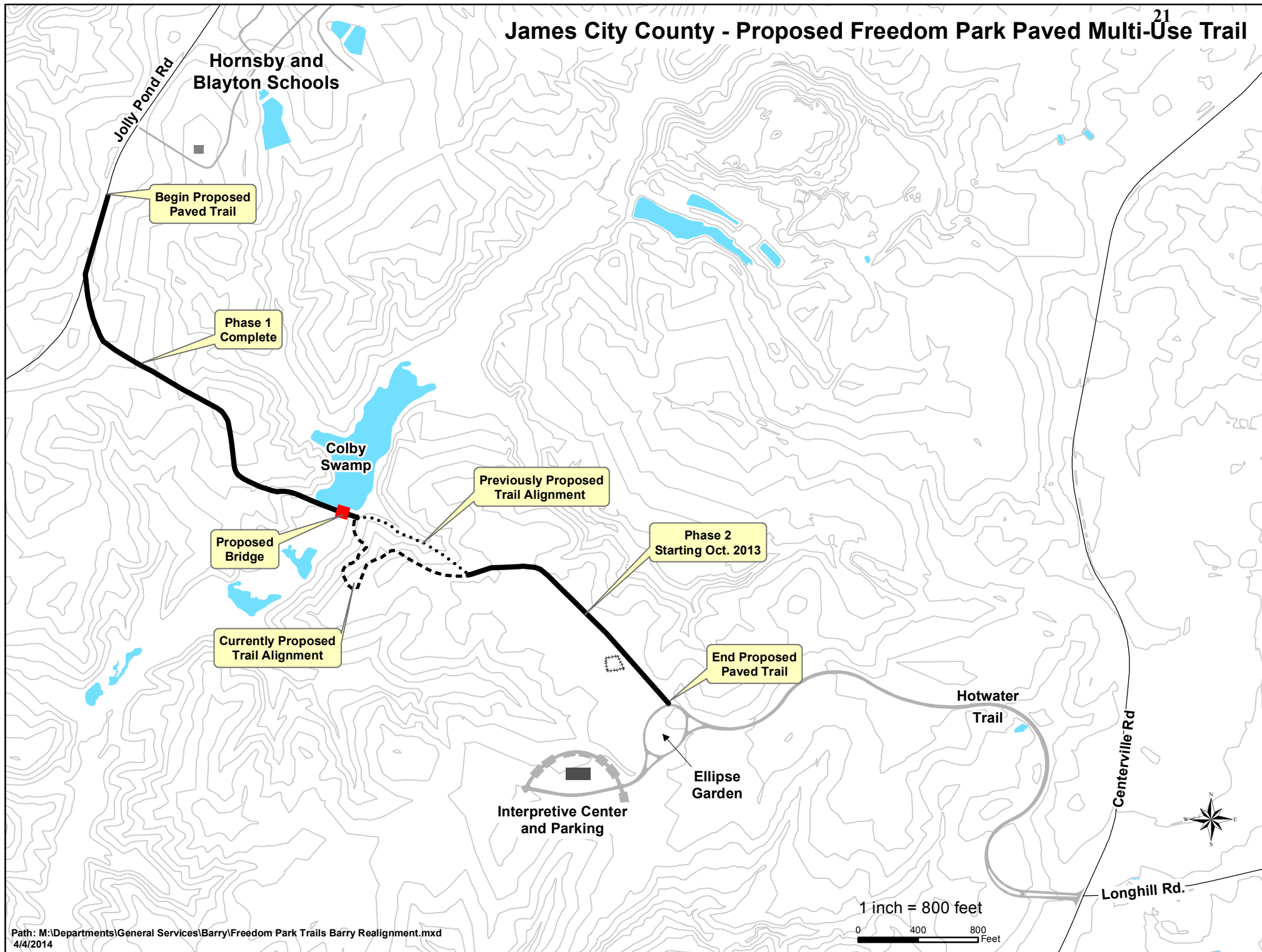
Next Steps

- Finish grading and aggregate base placement on Phase 2 trail.
- Pave Phase 2 trail with asphalt.

Project Issues

- Threatened species impacts cause project to be realigned.
- Work in environmentally sensitive areas along Colby Swamp.
- Rainy weather and poor winter drying conditions.

James City County - Proposed Freedom Park Paved Multi-Use Trail



**Project: *Freedom Park 4 –
Freedom Park Shelters and Parking***
April 2014
Status Report

Scope of Work

This project consists of the construction of a pervious paver parking lot adding 30 parking spaces, 2 picnic shelters (one medium/one small), some additional sidewalks, accommodations for a playground and a 30 ft by 40 ft patio on the rear of the Freedom Park Interpretive Center.

Status of Project

The project is architectural and civil engineering plans are nearly complete. Expect to go out to bid in early Summer 2014. Final issues center on archaeological investigation, selection of playground and Dominion Virginia Power design resolution.

Schedule

Civil Engineering Design: 90% Progress

Architectural Design: 90% Progress

Bidding Phase Summer 2014

Budget

\$385K Approved

AES Consulting Engineers: \$13,250

Contract Amount and percent completed: \$5,338 – 40.2%

Hopke and Associates: \$3,990

Contract Amount and percent completed: \$3,495 – 87.5%

Archaeological and Cultural Solutions \$11,708

Contract Amount and percent completed: \$ 0 – 0%

Milestone

- ✓ Design of site and architecture 90% complete.
- ✓ First site plan review complete.

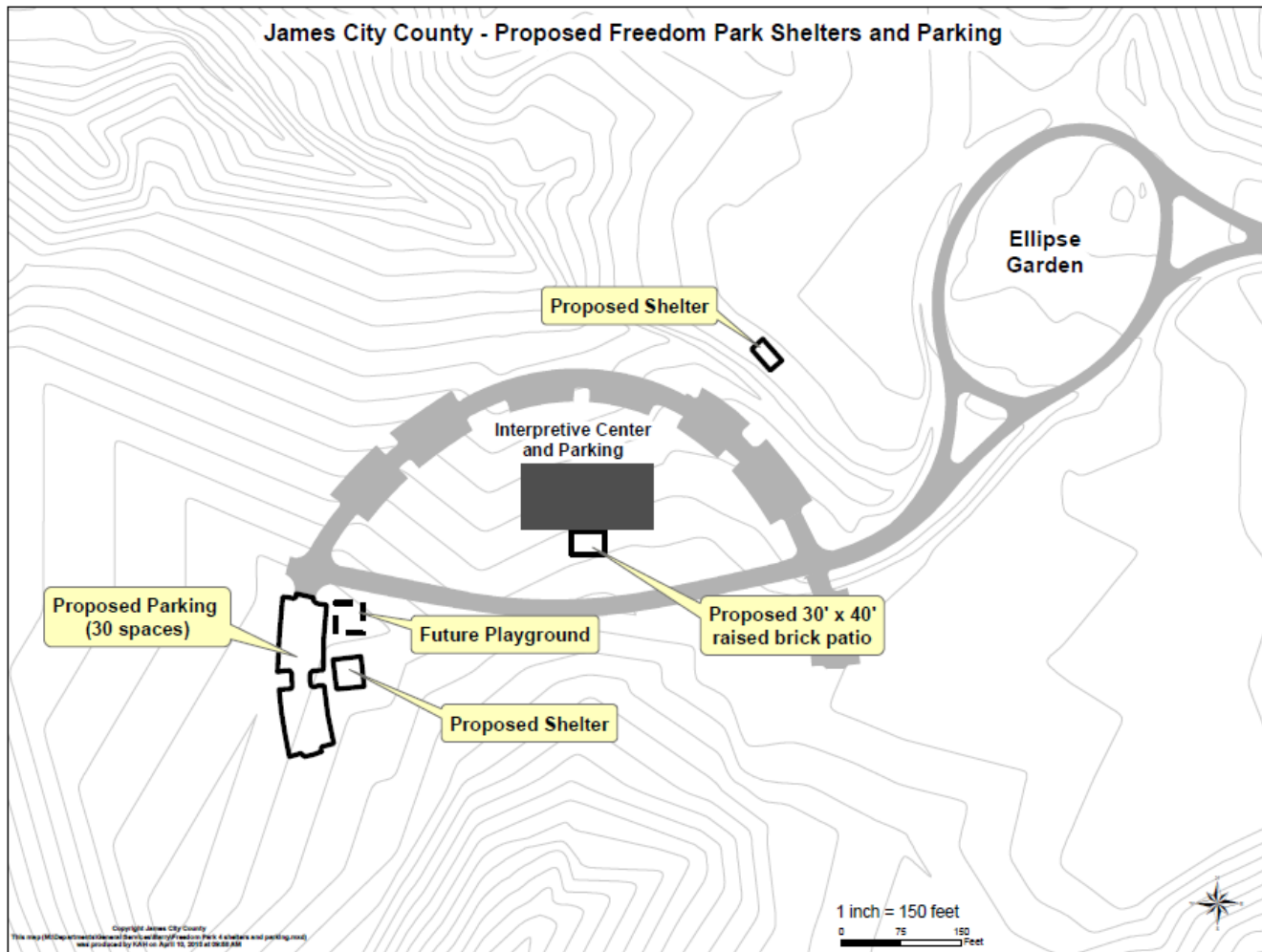
Next Steps

- Complete archaeological investigation report and state review

- Finalize electrical service plans
- Bid the project

Project Issues

- Work in areas of historical significance and in between existing infrastructure.



Project: *James City County Recreation Center*
April 2014
Status Report

Scope of Work

This project consists of replacing approximately 37,000 square feet of the existing flat roof system over the James City County Recreation Center expansion. The flat roof system over the original building was replaced in 2008. The existing EPDM roof system and insulation will be removed and replaced with an 80 mil PVC roof system and insulation. As part of this project, the roof system will be brought up to current code requirements for overflow systems and insulation.

Status of Project

Hudson and Associates Architects has been selected to design the demolition and replacement of the existing roofing system. Plans are currently being developed..

Schedule

Architectural/Engineering Design:	Underway
Bidding Phase	Summer 2014

Budget

\$500K Estimated

Hudson and Associates Architects:	\$20,360
Contract Amount and percent completed:	\$0 – 0.0%

Milestone

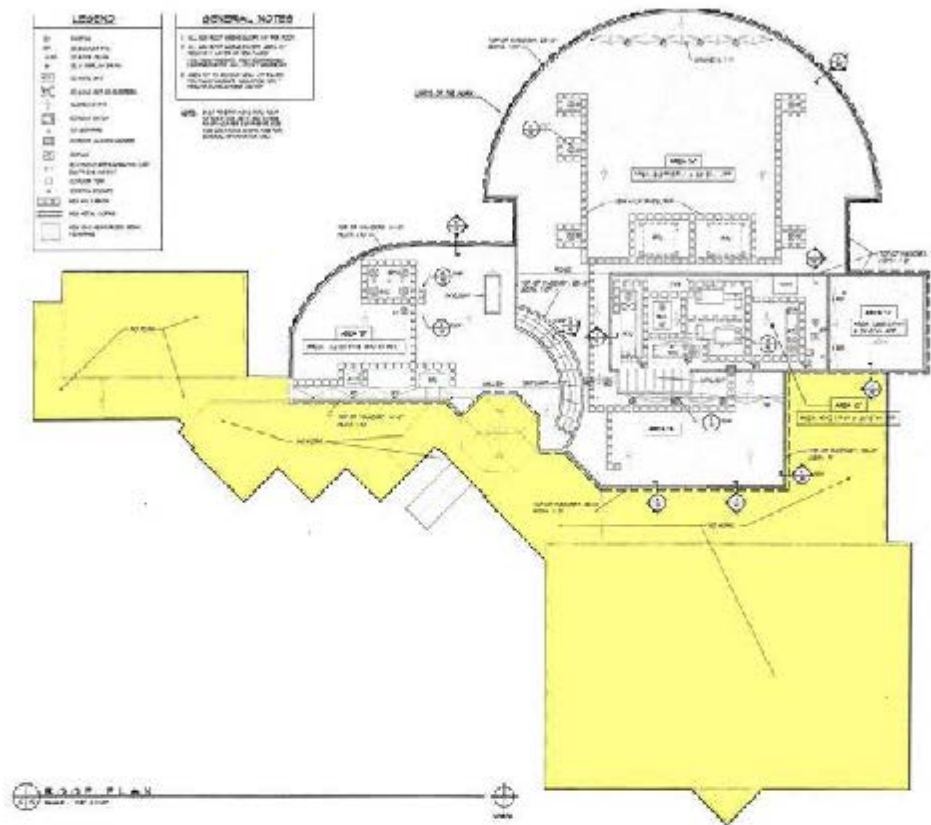
- ✓ Architect/Engineer contract awarded.

Next Steps

- Complete preparation of design drawings.
- Solicit bids for the necessary work.
- Begin construction.

Project Issues

- None to date.



**James City County Recreation Center Roof Replacement
(area to be replaced shaded in yellow or gray)**

**Project: Brookhaven Subdivision
Drainage Improvements and Stormwater Retrofit
April 2, 2014
Status Report**

Scope of Work

This project consists of the correction of drainage problems that result in flooding of property and structures in an older residential subdivision. The project includes drainage improvements and stormwater management facilities to treat runoff before discharge into receiving streams.

Schedule

Civil Engineering Design: Underway – 25% progress

Budget

Kerr Environmental Services:	Estimated Budget: \$720,000 \$54,744
Contract amount and percent completed:	\$13,814 – 25.2%
Additional services:	\$14,779

Milestones

- ✓ Drainage study completed for neighborhood
- ✓ Preliminary design plans submitted for review to county staff
- ✓ Neighborhood meeting to present preliminary design

Next Steps

- Coordinate with Virginia Department of Transportation (VDOT) concerning work within their Right-of-Way (ROW)
- Proceed with final design based on input from the neighborhood
- Acquire easements from affected property owners

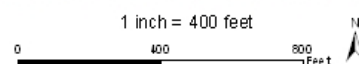
Project Issues

- Permission has not been granted from an adjacent property owner to Brookhaven to allow construction of a stormwater management facility. Therefore, additional water quality benefits for the project will be explored within the Brookhaven subdivision and the VDOT ROW.

Brookhaven Drainage Improvements and Stormwater Retrofit



Vicinity Map showing streets and surface waters



**Project: Chickahominy Haven – Canal Street
Stormwater Replacement/Improvements
December 9, 2013
Status Report**

Scope of Work

This project consists of the replacement of a failed stormwater drainage pipe from Canal Street to a man-made canal that is tributary to the Chickahominy River. The project will replace an existing failed 18” metal pipe with a polypropylene pipe. The existing pipe is not located within a drainage easement so a public drainage easement is required to be obtained from both property owners involved. The project will help alleviate a flooding problem that impacts several properties and septic drainfields in this portion of Chickahominy Haven.

Schedule

Date of Completion June 21, 2013

Note: Construction activities were completed on time.

Budget

Estimated Budget: \$5000

AES Consulting Engineers:	\$7,313.80
Contract amount and percent completed:	\$7,313.80 – 100%

Toano Contractors:	\$25,479
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Total change orders:	1
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Total amount of change orders:	\$1460*
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** Funds were expended to restore a driveway used as a construction entrance.*

(Note: It was originally anticipated that this pipe could have been repaired/extended but complications with a bulkhead and greater deterioration of the metal pipe required replacement of the pipe.)

Milestones

- ✓ Design plan approved for pipe installation
- ✓ Easements obtained from the two property owners
- ✓ Selected contractor and awarded contract
- ✓ Obtained all necessary permits
- ✓ Construction completed

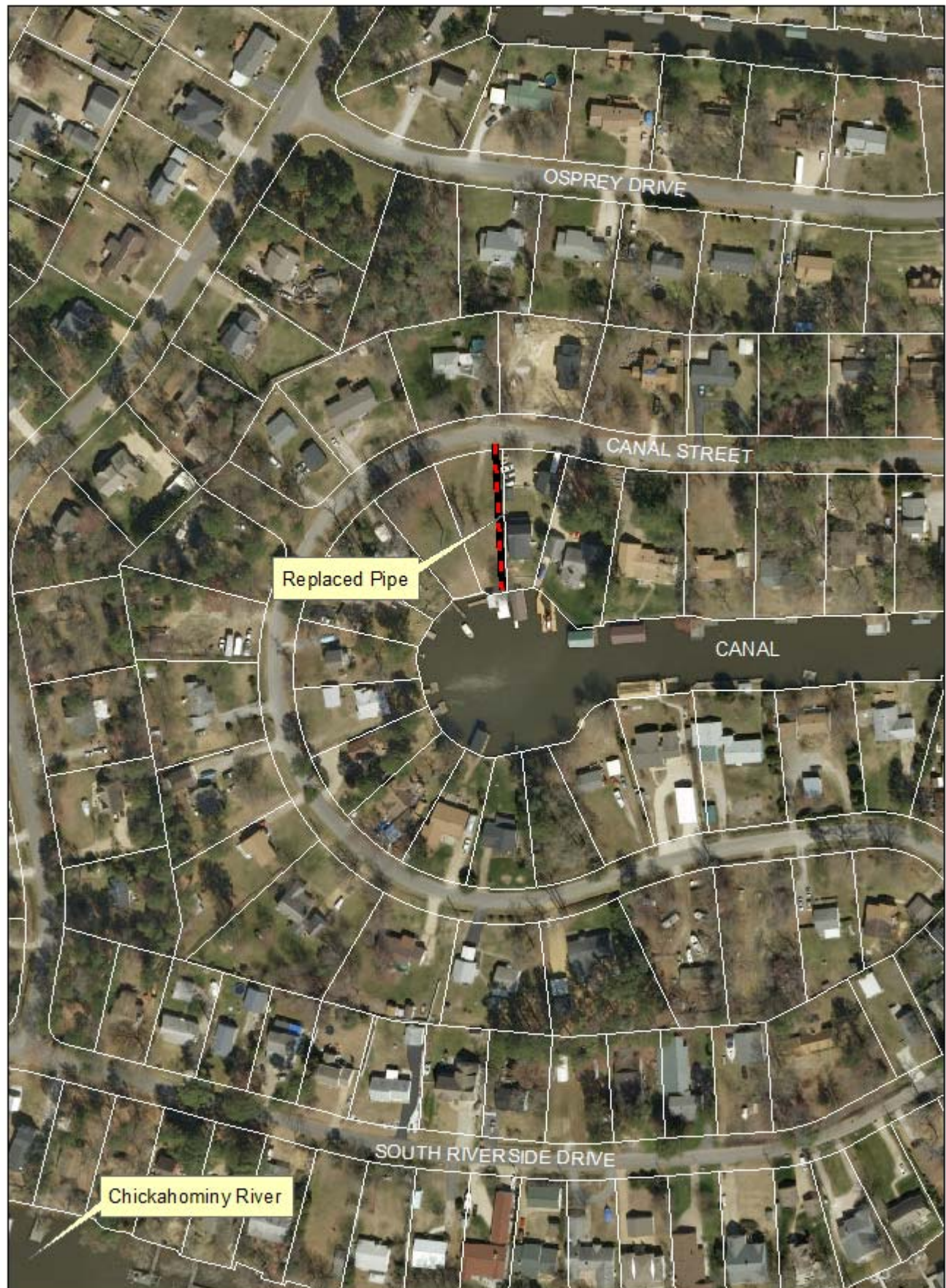
Next Steps

- N/A

Project Issues

- N/A

Chickahominy Haven - Canal Street Drainage Improvement²⁹



Location of replaced storm drain pipe
extending from Canal Street to canal

200 100 0 200 Feet



**Project: Jamestown Beach Restoration
Shoreline Stabilization and Restoration, Phase 3
April 2, 2014
Status Report**

Scope of Work

This project consists of 500 linear feet of shoreline stabilization and creation of a paddle craft launch area. The work includes the removal of existing concrete rubble along much of the shoreline, the installation of an offshore stone breakwater, a stone spur, sand fill beach nourishment, the installation of wetlands plants in designated areas landward of the breakwater, and a drop off area for paddle craft. The project also involves the creation of a tidal wetlands mitigation site and stabilization of the existing eroded bank behind the shoreline. This project is the final phase of the Jamestown Beach shoreline restoration and is adjacent to the 4-H Club property.

Schedule

Civil Engineering Design: Underway – 95% Progress

Budget

Vanasse Hangen Brustlin, Inc:	Estimated Budget: \$375,000 \$23,835
Contract amount and percent completed:	\$18,657.55 – 78.3%
Additional services:	\$3530

Milestones

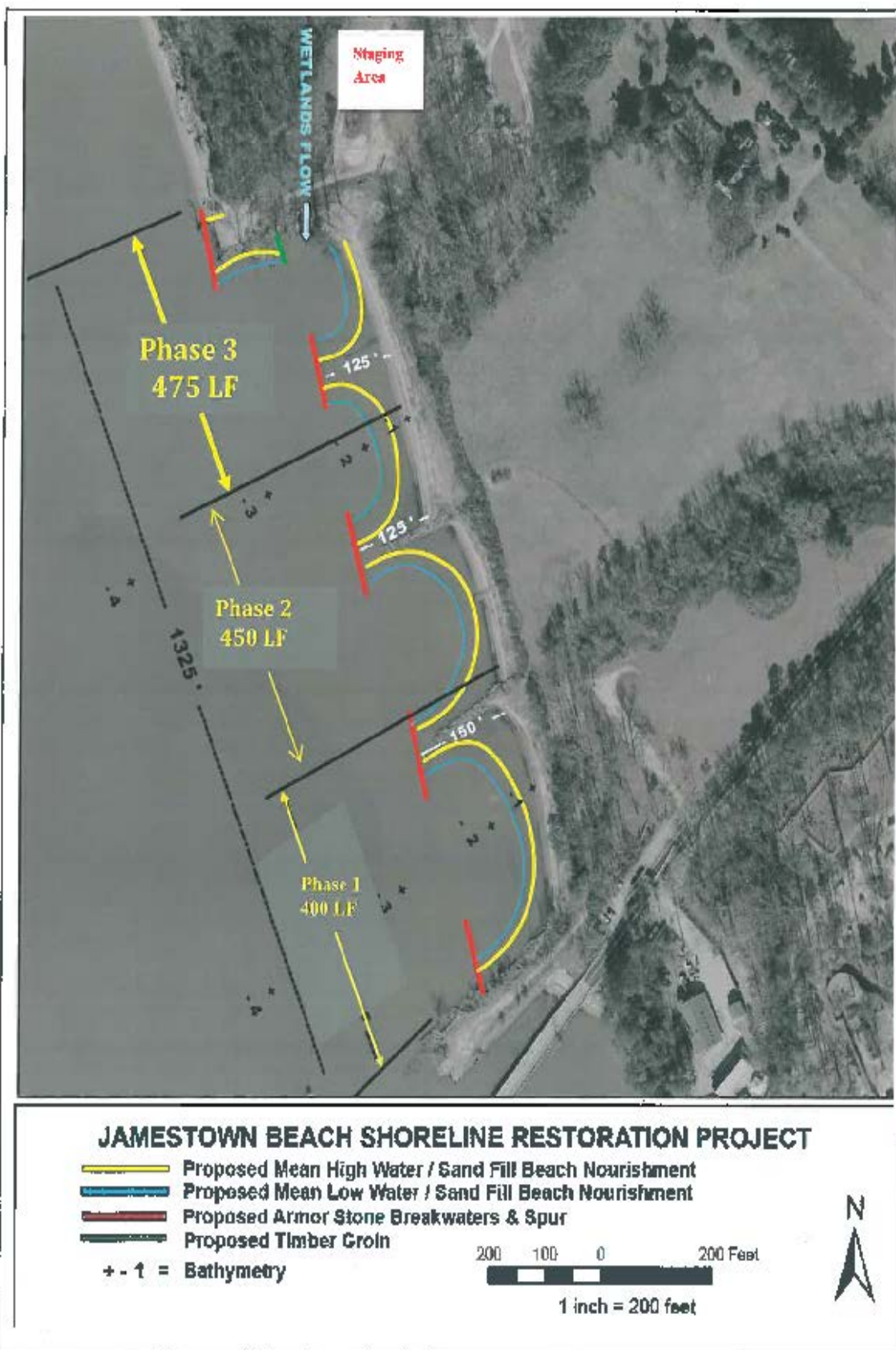
- Preliminary design completed
- Submitted wetlands permit application to regulatory agencies

Next Steps

- Finalize project design
- Acquire environmental permits

Project Issues

- N/A



Project: Jamestown Beach Site Improvements
Access Road and Trails, Parking and Bathroom Facilities
April 2, 2014
Status Report

Scope of Work

This project consists of the installation of facility improvements to support the increased usage of the Jamestown Beach as a result of the beach restoration activities undertaken in 2011 and 2012. The improvements consist of improved access roads, increased parking facilities, handicap accessible beach access paths, gate facilities, signage, and a restroom/concession building with associated water and sewer lines. The improvements are necessitated by the increased popularity of the beach area due to beach restoration/nourishment activities.

Schedule

Civil Engineering Design: Underway - 90% progress
 Architectural Design: Underway – 85% progress

Budget

Estimated Budget: \$261,590

Williamsburg Environmental Group:	\$67,510
Contract amount and percent completed:	\$19,416 – 71.2%
Guernsey-Tingle Architects	\$28,255
Contract amount and percent completed:	\$10,630 – 37.6%

Milestones

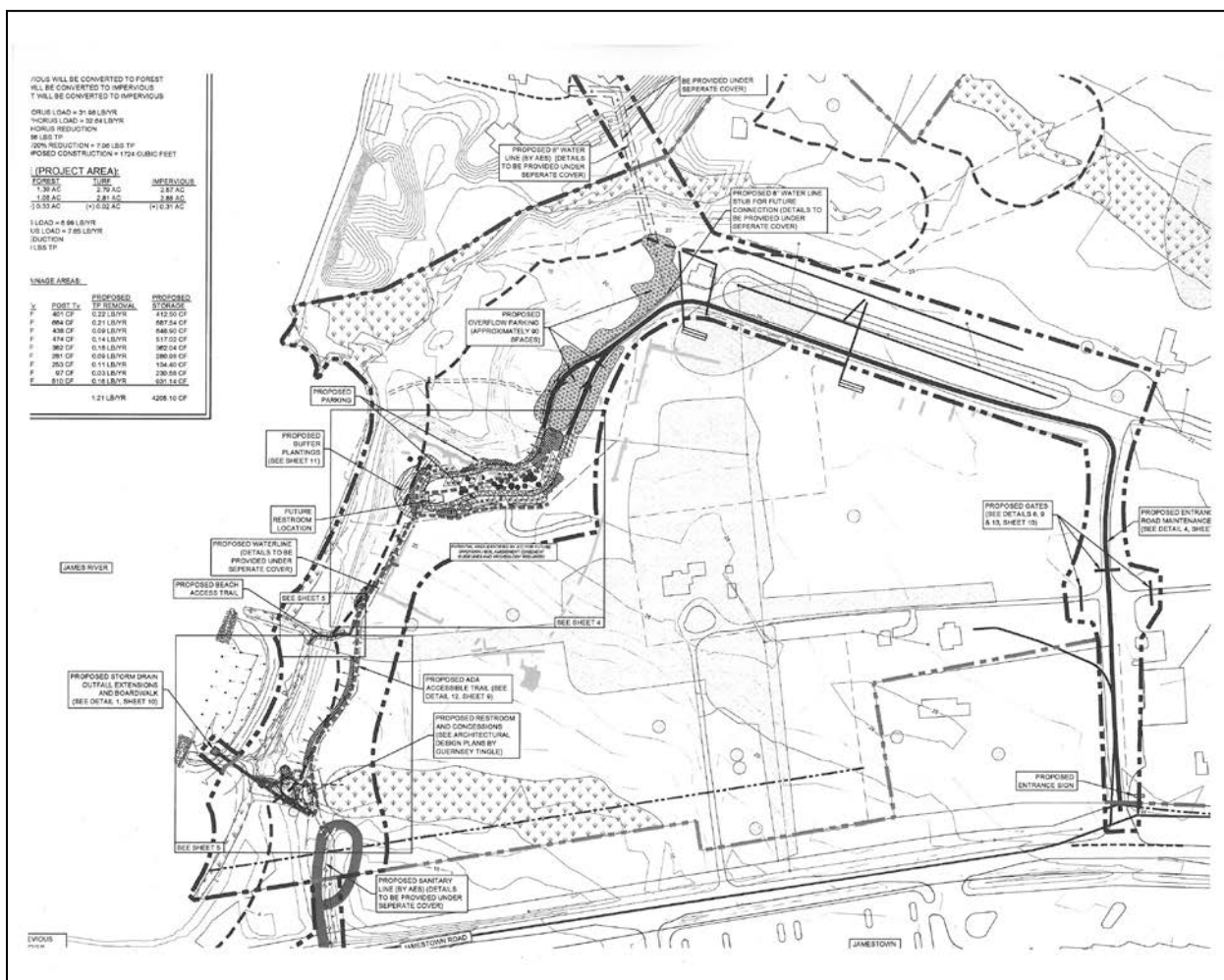
- ✓ Site plan design submitted for review and comments have been received
- ✓ Submitted wetlands permits application to regulatory agencies

Next Steps

- Complete archaeology study requested by the VA Department of Historic Resources
- Second site plan submission to Planning including the water and sewer plans
- Completion of architectural design for the bathroom facility
- Acquisition of easement for waterline installation from adjacent property owner

Project Issues

- Need to get approval from the state and federal agencies for project's impacts on historic and cultural resources



**Project: Kingspoint Subdivision
Southpoint Drainage Channel Stabilization
April 2, 2014
Status Report**

Scope of Work

This project consists of the correction of an erosion problem caused primarily by drainage from Southpoint Drive. The erosion is in a steep channel adjacent to environmentally sensitive areas with the potential to damage a residential structure. The correction of the problem will be through the use of a regenerative stormwater conveyance system that will not only stabilize the channel but will also treat the stormwater runoff.

Schedule

Civil Engineering Design: Complete – 100%

Budget

Williamsburg Environmental Group:
Contract amount and percent completed:
Additional services:

Estimated Budget: \$150,000

\$43,903
\$36,991 – 84.3%
\$6933.50

Milestones

- ✓ Preliminary design completed
- ✓ Final design completed and approved

Next Steps

- Obtain easements from all property owners involved to allow construction
- Prepare bid documents and solicit bids for the project
- Select contractor for project

Project Issues

- Very small construction site with steep slopes and close proximity to a residential structure



**Project: Mirror Lakes Stormwater Facility
Stormwater BMP Repair and Retrofit
April 2, 2014
Status Report**

Scope of Work

This project consists of the repair of a failed stormwater management facility that has no viable owner as the homeowners' association that owns it has dissolved. The facility will also be retrofit so that it provides a higher level of water quality treatment and stream channel protection for the downstream receiving channel. The facility treats over 100 acres of residential development.

Schedule

Civil Engineering Design: Complete – 100%

Budget

Estimated Budget: \$195,000

AES Consulting Engineers:	\$16,896
Contract amount and percent complete:	\$16,896 – 100%

Milestones

- ✓ Design submitted for site plan review, first review complete
- ✓ All easements have been acquired to allow for construction activities and long-term maintenance

Next Steps

- Acquisition of the BMP parcel land purchase
- Approval of site plan

Project Issues

- Acquisition of the BMP parcel



**Project: Stonehouse Elementary School Stormwater Facility
Stormwater BMP Repair and Retrofit
April 2, 2014
Status Report**

Scope of Work

This project consists of the repair of a failed stormwater management facility and the eroded outfall channel that receives the discharge from the facility. The project will also retrofit the facility with a constructed wetland to improve the water quality treatment of the stormwater discharged from the school site.

Schedule

Civil Engineering Design: Completed – 100%
Construction phase completed: November 9, 2013
Wetlands Plants Installation: to be completed in April, 2014

Budget

Estimated Budget: \$107,000

AES Consulting Engineers:	\$18,649
Contract amount and percent complete:	\$18,214 – 97.8%
Additional services:	\$14,291
JSG Corporation:	\$93,034.52
Total change orders:	1
Total amount of changed orders:	\$14,139.16*
Current payout and percent:	\$24,460.58 – 73.7%

**for removal of unsuitable soil material from the dam embankment and the basin floor, import of additional suitable material, install of an additional gate for maintenance access, and additional erosion control matting*

Milestone

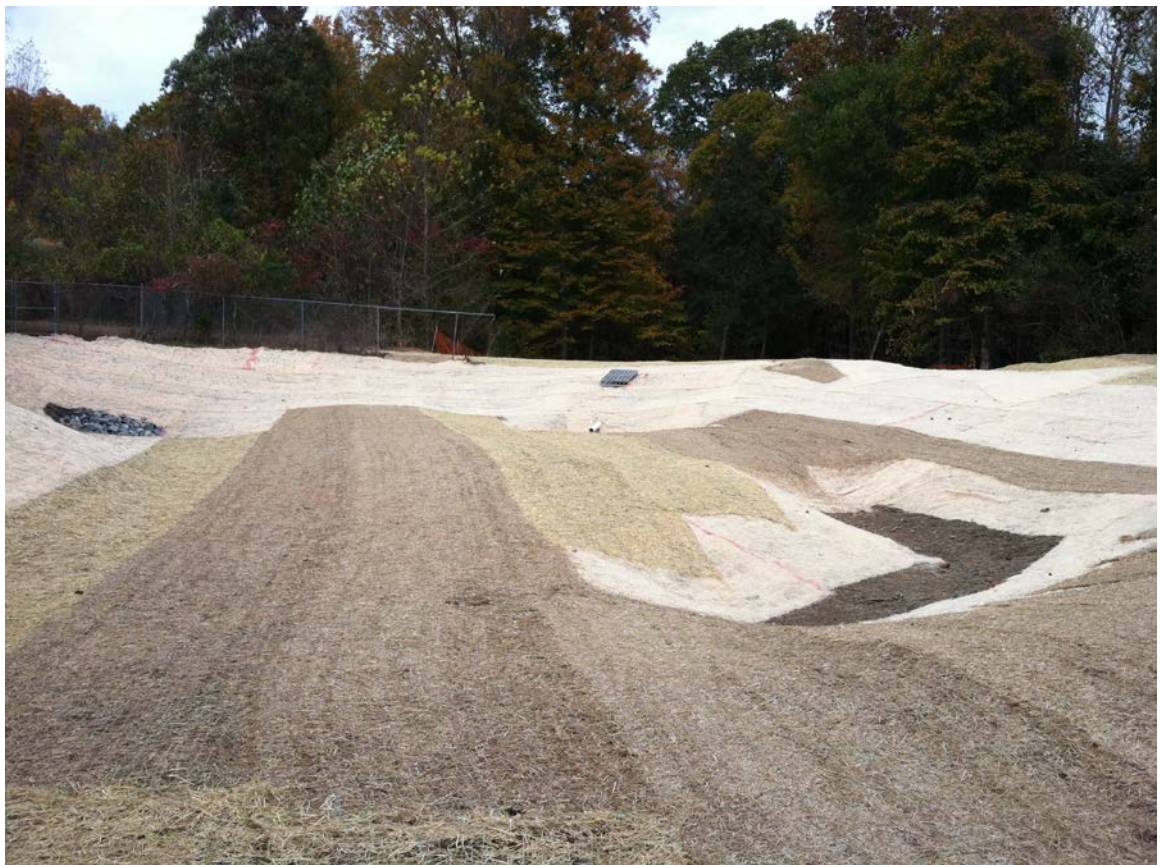
- ✓ Design complete and site plan has been approved
- ✓ Obtained all necessary permits
- ✓ Contractor has been selected
- ✓ Construction started on October 1st and completed November 9th

Next Steps

- Receipt of as-built drawings to verify items were addresses correctly
- Installation of wetlands plants in April

Project Issues

- N/A



Project: *Kristiansand Tributaries Stream Restoration*
April 2014
Status Report

Scope of Work

This project consists of the stabilization of outfalls and stream banks to reduce erosion caused by uncontrolled runoff from Richmond Road and adjacent commercial developments in the Lightfoot area. This project will provide stabilization to the eroding headwater streams in Yarmouth Creek and protect adjacent utilities and properties from undermining due to erosion. Additionally, this stream restoration will provide significant water quality benefits and contribute to meeting the County's permit obligations for the Chesapeake Bay Total Maximum Daily Load (CBTMDL) requirements.

Status of Project

A preliminary environmental investigation and engineering design has been completed by Stantec/Williamsburg Environmental Group. From the preliminary design, easement drawings have been prepared and a meeting with the property owners will determine whether easements can be obtained. Once easements are assured, a detailed design will be executed to prepare for bidding of the work.

Schedule

Civil Engineering Design:	26.6% Complete
Bidding Phase	Summer 2014

Budget

\$200K Approved

Stantec/Williamsburg Environmental Group:	\$64,250
Contract Amount and percent completed:	\$17,067 – 26.6%

Milestone

- ✓ Preliminary design is complete.

Next Steps

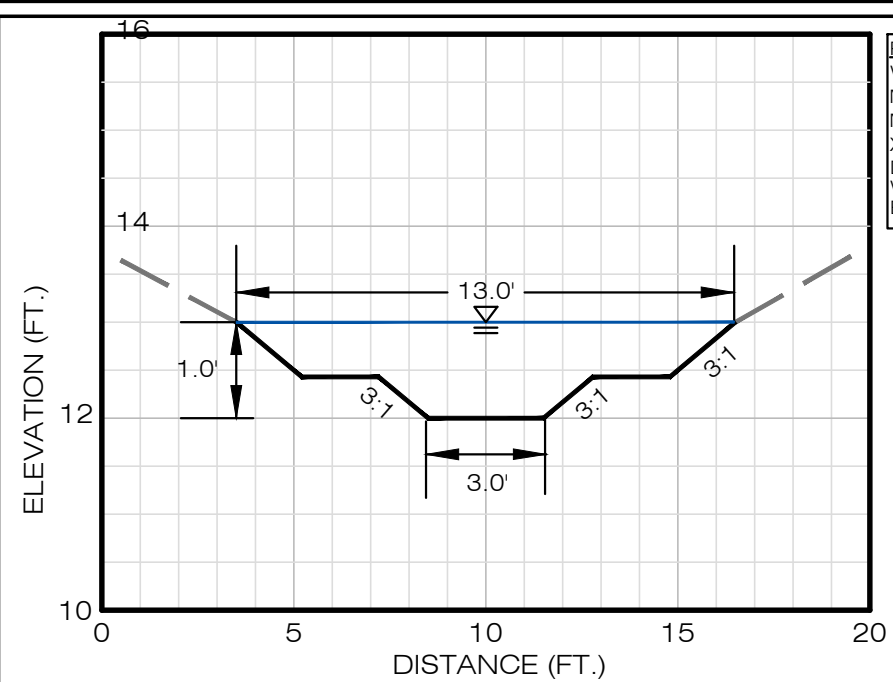
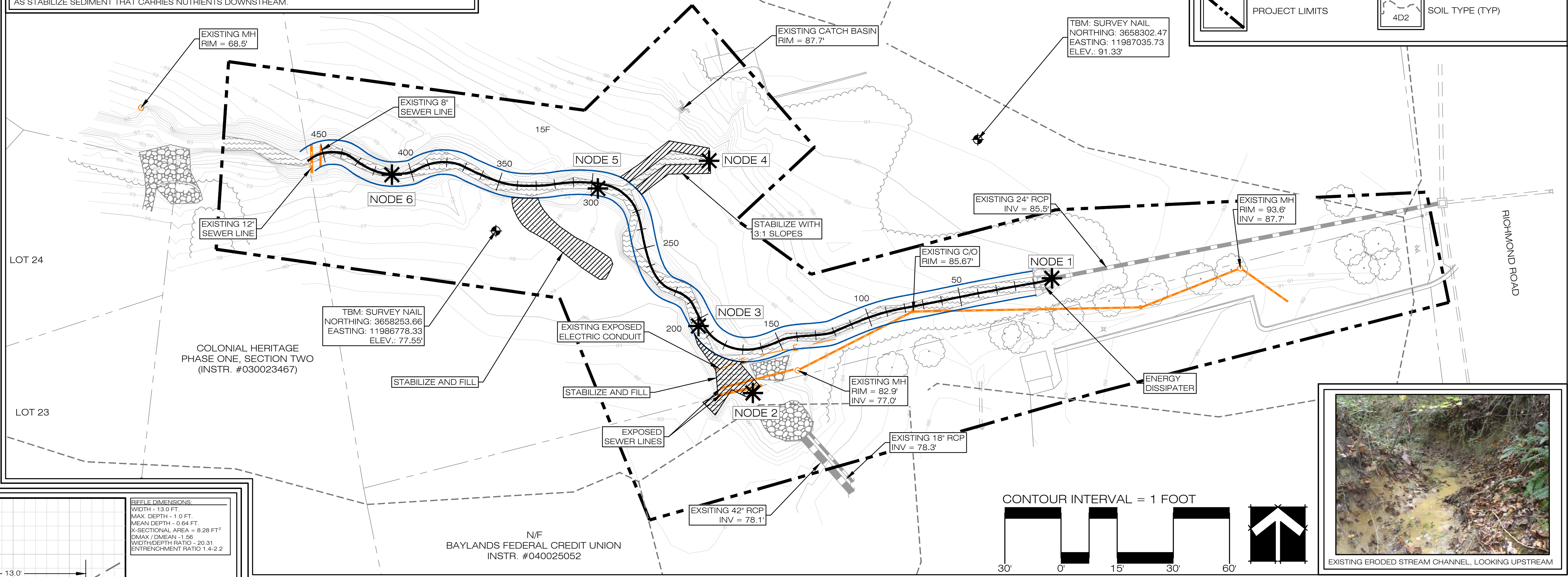
- Meet with stakeholders concerning drainage, construction and access easements.

Project Issues

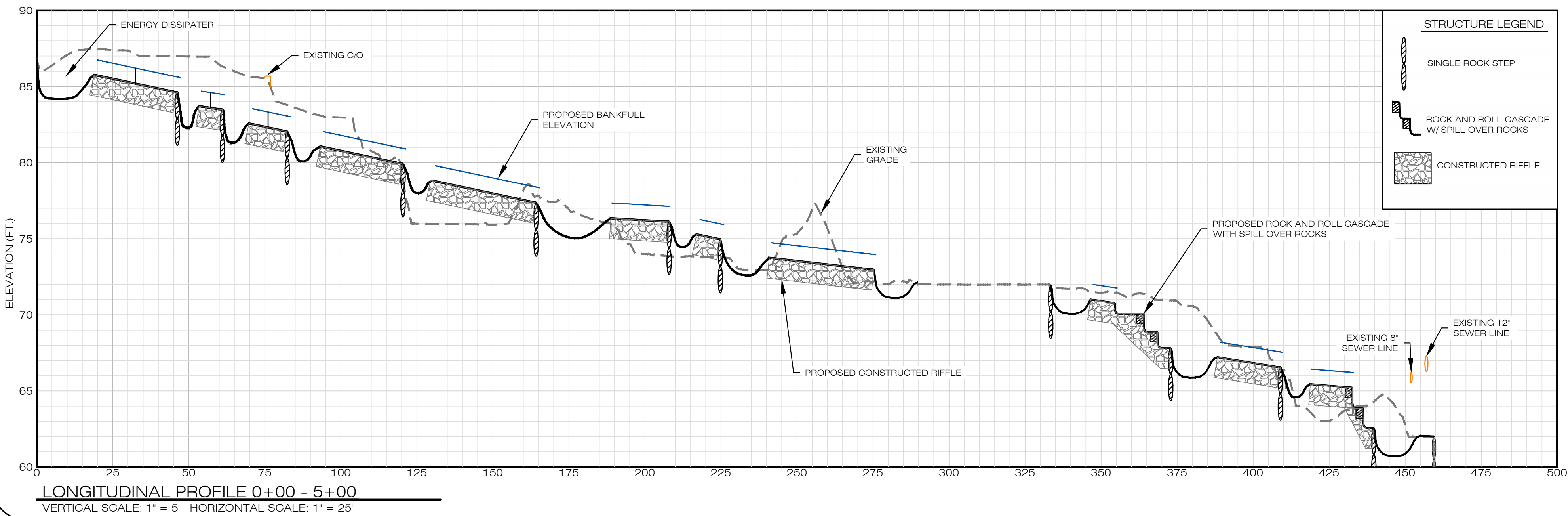
- The necessary work will need to be performed in an environmentally sensitive area.
- Easements from private property owners will need to be acquired.

DESIGN SUMMARY

PROPOSED STREAM RESTORATION ACTIVITIES ASSOCIATED WITH THE KRISTIANSAND RESTORATION, LOCATED IN JAMES CITY COUNTY, VIRGINIA, UTILIZES NATURAL CHANNEL DESIGN PRINCIPLES TO IMPROVE CHANNEL GEOMETRY, PATTERN AND PROFILE, AND TO RECONNECT THE CHANNEL HYDRAULICALLY WITH ITS HISTORICAL FLOODPLAIN. CURRENTLY, THE CHANNEL IS EXPERIENCING MASS-WASTING, ACTIVE HEADCUTTING, AND UNSTABLE PLAN-FORM GEOMETRY. IT CLASSIFIES AS AN UNSTABLE ROSGEN "G" SYSTEM AND SHOULD THE CHANNEL CONTINUE TO DEGRADE, IT COULD POSE A SAFETY CONCERN AND DAMAGE TO INFRASTRUCTURES AND PROPERTY. THE CHANNEL WILL BE DESIGNED AS A B-TYPE STREAM UNDER THE ROSGEN STREAM CLASSIFICATION SYSTEM, AND WILL UTILIZE PRIORITY III RESTORATION TECHNIQUES. THIS DESIGN CONSIDERS THE NARROW VALLEY AND OTHER CONSTRAINTS ONSITE TO RESTORE APPROXIMATELY 460 LINEAR FEET OF STREAM. ROCK DROP STRUCTURES WILL BE INSTALLED AS GRADE CONTROL AT THE HEAD OF EACH POOL AND ROCK AND ROLL CASCADES WILL BE INSTALLED WITHIN THE LOWER PORTION OF THE RESTORATION IN AREAS REQUIRING STEEP ELEVATION CHANGES. ADDITIONALLY, THE STABILIZATION OF THE HEAVILY ERODING CHANNEL WILL IMPROVE AESTHETICS AS WELL AS STABILIZE SEDIMENT THAT CARRIES NUTRIENTS DOWNSTREAM.



TIFFLE DIMENSIONS
WIDTH = 13.0 FT.
MEAN DEPTH = 0.64 FT.
CROSS-SECTIONAL AREA = 8.28 FT²
D_{MAX} / D_{MEAN} = 1.56
WIDTH/DEPTH RATIO = 20.31
ENTRENCHMENT RATIO = 1.4-2.2



NODAL PEAK DISCHARGE SUMMARY

NODE	Q1 (CFS)	Q2 (CFS)	Q10 (CFS)	Q100 (CFS)
1	14.17	20.03	39.59	78.72
2	14.92	21.13	41.98	84.12
3	30.78	45.07	95.52	202.66
4	3.17	3.97	6.41	11.03
5	31.24	45.66	96.53	204.61
6	31.47	45.99	97.18	206.05
OUTFALL 1	31.77	46.42	98.05	207.99

NOTES:

- ADDITIONAL DATA AND/OR FIELD INVESTIGATION REQUIRED TO CONFIRM UPSTREAM DRAINAGE AREA ASSUMPTIONS. EXISTING STORM DRAIN NETWORK LOCATION AND DATA ABOVE SURVEY LIMITS WILL BE NEEDED TO FINALIZE HYDROLOGY ANALYSIS
- ADDITIONAL AS-BUILT OR FIELD INVESTIGATION NEEDED FOR ANY UPSTREAM BMPs NEEDED TO CONFIRM UPSTREAM DRAINAGE AREA ASSUMPTIONS

SOIL SERIES SUMMARY

MAP SYMBOL	SOIL NAME	SLOPE (%)	DRAINAGE	SOIL PROFILE DEPTHS	WATER TABLE / FLOODING FREQUENCY	HYDRIC	PERMEABILITY	HYDROLOGIC SOIL GROUP	DEPTH TO BEDROCK
11B	CRAVEN-URHEE COMPLEX	2-6	MODERATELY WELL DRAINED	0 - 80 INCHES	NONE	Y	MODERATELY LOW OR MODERATELY HIGH	C	> 60 INCHES
11C	CRAVEN-UCHEE	6-10	WELL DRAINED	0 - 72 INCHES	24-36 INCHES / NONE	Y	MODERATELY LOW OR MODERATELY HIGH	C	> 60 INCHES
14B	EMPORIA FINE SANDY LOAM	2-6	WELL DRAINED	0 - 75 INCHES	36-54 INCHES / NONE	Y	MODERATELY LOW OR HIGH	C	> 60 INCHES
15F	EMPORIA COMPLEX	25-50	WELL DRAINED	0 - 75 INCHES	36-54 INCHES / NONE	Y	MODERATELY LOW OR HIGH	C	> 60 INCHES
20B	KENANSVILLE LOAMY FINE SAND	2-6	WELL DRAINED	0 - 78 INCHES	NONE	Y	MODERATELY HIGH OR HIGH	A	> 60 INCHES
29A	SLAGLE FINE SANDY LOAM	0-2	MODERATELY WELL DRAINED	0 - 60 INCHES	18-36 INCHES / NONE	Y	MODERATELY SLOW TO SLOW	C	> 60 INCHES

NOTE: SOIL DATA PROVIDED FOR SOILS LOCATED WITHIN THE PROJECT LIMITS

SOURCE: U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY FOR JAMES CITY COUNTY, VIRGINIA, ACCESSED NOVEMBER 5, 2008.

DATE: JANUARY 2014

JOB NUMBER: 3935

SCALE: 1 INCH = 30 FEET

SOURCE: BASE MAP PROVIDED BY LANDTECH RESOURCES INC.

CONCEPTUAL PLAN YARMOUTH TRIBUTARY JAMES CITY COUNTY, VIRGINIA



5209 Center Street
Williamsburg, Virginia 23188
(757) 220-6869
1011 Boulder Springs Drive, Suite 225
Richmond, Virginia 23225
(804) 267-3474
150 Riverside Parkway, Suite 301
Fredericksburg, Virginia 22406
(540) 786-5544
Environmental Consultants