

Beaufort County Stormwater Management Utility Board (SWMU Board)
Meeting Minutes

February 4, 2015 at 2:00 p.m. in Beaufort Industrial Village Building #3 Conference Room

Board Members

Present

Allyn Schneider
Don Smith
William Bruggeman
Marc Feinberg
Larry Meisner
Patrick Mitchell

Absent

James Fargher

Ex-Officio Members

Present

Andy Kinghorn
Jeremy Ritchie

Absent

Scott Liggett
Van Willis

Beaufort County Staff

Eric Larson
Carolyn Wallace
Danny Polk
Kevin Pitts

Visitors

Cynthia Bensch, Beaufort County Council
Bryan McIlwee, Town of Hilton Head Island
Reed Armstrong, Coastal Conservation League

1. Meeting called to order – Don Smith

- A. Agenda – Approved.
- B. December 3, 2014 Minutes – Approved.
January 7, 2015 Minutes – Approved.

2. Introductions – Completed.

3. Public Comment(s) – None.

4. Reports – (Mr. Larson submitted his written report in advance. [Please see attachment.](#))

- A. **Utility Update** – Eric Larson
Staff Vacancy – We are reviewing 48 applications for an Administrative Technician for the Stormwater Management staff.
- B. **MS4 Update** – Eric Larson
MS4 Permit Application – DHEC has not issued the permit. They have 90 days to respond which will be by the end of February.
- C. **Monitoring Update** – Eric Larson
Field Monitoring Equipment – With the help of the USCB lab, staff has researched and ordered a field parameter multi probe meter and three flow meters.
- D. **Stormwater Implementation Committee (SWIC) Report** – Eric Larson
The Neighbors for Clean Water MOA – The Town of Bluffton has approved the use of the NCW branding for countywide use. The other Towns and County are working through the MOA approval process. The SWIC will be working with their educational partners to expand the website to make it suitable for all of the jurisdictions.
Storm Drain Markers – This is part of the public outreach effort and will bear the NCW logo. The Boy Scout Eagle Project will be installing these in the downtown Beaufort area.
- E. **Stormwater Related Projects** – Eric Larson

County Administration Complex Parking Lot Retrofit – This project is completed.

Graves Property – After receiving a proposal of the conceptual design work, administration determined the cost was too high for the benefit offered by stormwater cost sharing on the property purchase. The idea of doing a stormwater pond is still being considered but the study to determine a fair cost share will not be pursued at this time. The utility may still participate in the purchase of the land if the county decides to purchase.

Turtle Lane Paving – This is a dirt road paving project. The utility supplemented the design and construction budget to extend the outfall pipe and upsize the crossline pipe to address localized flooding in the backyards of some of the residences.

US 278 Retrofit Ponds – Clearing has been delayed due to the permitting needs at the Buckwalter Soccer field spoil site. Permits are required from SCDHEC and the Town of Bluffton.

F. Professional Contracts Report – Eric Larson

Stormwater Management Plan (Master Plan) Update – Staff has requested a proposal from ATM for a scope of services and fee for an update to be performed in FY 16.

G. Regional Coordination - Eric Larson

Battery Creek Pond Funded by an EPA 319 Grant – On going. The easement is in the hands of Dr. Gray’s attorney. Mr. Larson and Mr. Andy Kinghorn plan to attend DHEC’s 319 grant site visit next week.

Salinity Study - On going. The advisory committee met earlier this month. Grant funding will be ending in June, but the study may continue in to the fall with other funding.

Stoney Creek Watershed Plan – Mr. Jeremy Ritchie provided an update. The town of Bluffton has gotten the wetlands delineation report and preliminary surveying information. It is still in the data gathering phase.

Drainage Issue on H.E. McCracken Circle in Bluffton – This issue has been studied time and time again. Mr. Larson opinion is the most viable solution was provided by Thomas & Hutton to raise the road elevation. He will be removing this item from his report.

Drainage Issue in Plantation Park in Bluffton – This private system is confined to development runoff and has no contribution from County right of way. The system failure is internal to the system. Mr. Larson provided a one-page report to Mr. Kubic with his findings. The solution is to replace 700 linear feet of pipe and install additional inlets. Mr. Kubic will probably share the report with the Town of Bluffton and the development to determine who will pay for the remedial action.

Buckingham Plantation Drive Innovation District Conceptual Design Study – This project was initiated by the Planning Department as an economic development project to redevelop the area. The stormwater sewer system is only one component of the improvements proposed. The SWU is funding 50% of the cost of the study. The study has not been started pending funding of the other half from the Planning Department.

H. Financial Report

Copies of the December financials were provided. From the report Mr. Larson pointed out that the utility is six months in to the fiscal year but because of vacancies we have only spent 43% of the personnel budget. Mrs. Carolyn Wallace mentioned that Mr. Alan Eisenman will be reporting on the January financials at the next board meeting and we will have a better idea of this year’s financials.

I. Maintenance Projects Report – The written report was provided in advance ([please see attachment](#)) on two major and eighteen minor or routine projects.

5. Unfinished Business – Eric Larson

Review of January 22nd Stormwater Workshop - Mr. Larson provided a written report in advance ([please see attachment](#)) and discussed the highlights of the report. The MS4 program will be countywide for the unincorporated county. Currently portions of the unincorporated Beaufort County

south of the Broad River, Town of Hilton Head Island and Town of Bluffton have been designated as a MS4. SCDHEC has indicated that eventually the City of Beaufort, Town of Port Royal, and portions of Jasper County may be identified as a MS4 before the next census in 2020.

Mr. Kinghorn will be giving a briefing to City of Beaufort's City Council on February 15th.

6. New Business

Rate Study – The draft of the consultant's task order #4 was provided in advance. This is a continuation of task order #3 which was a preliminary review of the utility's revenue, expenditures, and 5-year plan for the January 22nd workshop. Task order #4 will continue on this process with five items of work and provide six alternatives of mechanisms to increase revenue ([please see attachment](#)). If the rate study is approved by County Council next week then the rate study should be completed by the end of April. The board recommended County Council approve. Mr. Kinghorn expressed interest in the City of Beaufort participating in the rate study.

Consideration of a Revision to the 2015 SWMU Board Meeting Schedule – With several items that will need to be vetted through the SWMU Board, the Natural Resources Committee and SWIC, Mr. Larson asked the board members if they would consider changing the SWMU board schedule so that each month the board would meet one to two weeks before County Council's Natural Resources Committee meeting ([please see attachment](#)). The proposed schedule was adopted. Mr. Smith would like in the future to be able to set the meeting on the same Wednesday of each month. Mrs. Wallace reminded the board that they will get a chance to discuss this issue in the fall when the 2016 schedule is on the agenda.

River Buffer – While attending the Salinity Study Advisory Committee meeting, Mr. Al Seagars with SCDNR mentioned to Mr. Don Smith that he is receiving complaints from citizens that when they approach the county's Planning Department about making improvements to their river buffers, the process for approval is onerous. Mr. Larson will talk with the Planning Department and report back to the board.

7. Public Comment(s) – None.

8. Next Meeting Agenda – Approved with the change to the date and adding the river buffer to the agenda ([please see attachment](#)).

9. Meeting Adjourned.



BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
Voice (843) 255-2801 Facsimile (843) 255-9478



February 4, 2015

Stormwater Manager's Report for the Stormwater Utility Board Meeting

Utility Update

1. Eric Larson met with Josh Gruber and Alicia Holland to determine the % allocation of SWU fees and General Fund for the Director of Environmental Engineering position for FY 16. Given the new duties providing management of Planning, Zoning, and Public Works, 20% of the salary will be funded by the General Fund in FY 16. The remaining 80% will continue to be funded by the Stormwater Utility Management fee.
2. We are reviewing applications for an Administrative Technician for the Stormwater Management staff. This was budgeted to be filled mid-year.
3. Looking at the adopted calendars for the Utility Board and the Natural Resources Committee for 2015, there is a potential problem. The Board will be meeting just days after the Committee most months of the year. As projects move forward from staff to the Board to the NRC and ultimately to County Council, this schedule could unnecessarily delay project a whole month. The Board should consider a schedule change.

MS4 Update

1. MS4 Permit Application – DHEC is still reviewing the application. We have not received feedback on the progress.
2. Stormwater Workshop for County Council – The half day workshop for the County Council was held January 22, 2015. The agenda included a summary of the background of the MS4 program regulations, a presentation of the current activities the Utility is performing, a look at needs in future years, and a review of the stormwater department's funding needs. [See Larson's report on the workshop attached.](#) As a result of the meeting, staff is soliciting proposals from our stormwater consultant, ATM, for a rate study (for implementation in FY 16) and a countywide master plan (management plan) update. Meetings with the SWIC members will be held in the near future to explore partnering options on both projects.

Monitoring Update

1. USCB Lab – Dr. Warren and staff have provided us with the following update:
As an update from last month, the Lab has submitted their application for certification for microbiology (E.coli and enterococci) and they will be submitting their application to SCDHEC the last week of January for the "in-situ" (field) parameters to include pH, Specific Conductivity, Salinity, Temperature, Dissolved Oxygen, and Turbidity. Once SCDHEC receives the application, the certification officer has 30 days to respond.

2. Field Equipment – With the help of the USCB lab, staff has researched and ordered a field parameter multi probe meter and three flow meters. These will assist us with determining volume released during storm event and to take field data that cannot be done in the lab. This equipment does not replace the use of USCB lab but gives us flexibility in our monitoring program and gives us the resources to respond to IDDE complaints in the event the lab is unavailable. Two of the flow meters are specifically designed to measure the stream profile and calculate volume, which will aid in many of our studies to determine volume reduction benefits.

Stormwater Implementation Committee (SWIC) Report

1. Storm Drain Markers – The SWIC has conceptually approved a storm drain marker design for use throughout the community. It will use the Neighbors for Clean Water slogan and provide hot line contact information for the applicable jurisdiction. Their first use will likely be a Boy Scout Eagle Project in the downtown Beaufort area.
2. The Neighbors for Clean Water MOA – The Town of Bluffton has approved the use of the NCW branding for countywide use. The other Towns and County are working through the MOA approval process.
3. The SWIC meets again on February 11th. Topics of discussion will include the master plan, Neighbors for Clean Water MOAs, and a presentation of the FY 16 management fee.

Stormwater Related Projects

1. US 278 Retrofit Ponds (\$356,000 budget) – Clearing has been delayed due to the permitting needs at the Buckwalter Soccer field spoil site. The Stormwater Infrastructure crews continue to construct the site entrances. Permitting for the spoil site at Buckwalter Park has been submitted and expected to be approved in February.
2. County Admin. Complex Retrofit Project (\$327,768 budget) – The project has substantial completion.
3. Turtle Lane Paving on Lady's Island (stormwater add-on) (\$8,940 budget) – We are waiting on the construction document (CD) deliverable.
4. Okatie West / SC 170 Widening Retrofit Land Purchase (\$160,415 budget) – Closing has been delayed due to the paperwork and approvals needed to remove the Town of Bluffton Development agreement terms on the property. Eric Larson has met with the SC 170 widening project team to discuss a design modification to direct some runoff into the New Leaf site as part of the overall plan.
5. Graves Property Stormwater Project Feasibility Study – After receiving a proposal of the conceptual design work, administration determined the cost was too high for the benefit offered by stormwater cost sharing on the property purchase. The idea of doing a stormwater pond is still being considered but the study to determine a fair cost share will not be pursued at this time.
6. Middleton Place Subdivision on Hilton Head Island – The County and Town of Hilton Head Island continue to negotiate with the POA for the dedication of an easement for the detention basin.

Professional Contracts Report

1. Financial Analysis of the Stormwater Utility (\$28,791 budget) – Findings were presented to the County Council in the January workshop. (See MS4 report above.)
2. Utility Rate Study – ATM has submitted a Task Order in the amount of \$48,521 to conduct a rate study and lead the County into a decision on a new rate structure and amount(s). Utility Board recommendation to the Natural Resources Committee is needed. (See MS4 report above.)
3. Stormwater Management Plan (master plan) Update – Staff has requested a proposal from ATM for a scope of services and fee for an update to be performed in FY 16. (See MS4 report above.)

Regional Coordination

1. Battery Creek Pond Funded by an EPA 319 Grant (\$132,609 budget – county portion) – On going. County and City staff are continuing to work with the property owner to negotiate an easement. DHEC and USACE permitting has been submitted. (Lamar Taylor may also report)
2. May River Watershed Action Plan – The Pine Grove volume reduction project using CWA Section 319 grant dollars is on-going. The Stoney Creek watershed plan is on-going. (Jeremy Ritchie may also report).
3. Salinity Study (\$25,000 budget – county portion) - On going. The Watershed Advisory Committee met February 2nd to review the data analysis and recommend action items. A final report is expected in the upcoming months.
4. Sea Level Rise and Future Planning – On going. The Sea Grant staff will report to the Planning Commission and Natural Resources Committee at a future date.
5. Buckingham Plantation Drive Innovation District Conceptual Design Study (\$25,000 budget – SWU portion) – The SWU is funding 50% of the cost of the study. The study has not been started pending funding of the other half from the Planning Department. Planning is considering CDBG funding or general fund funding.
6. Drainage Issue on H.E. McCracken Circle in Bluffton – After months of field investigations and data review, the staff has concluded the best option to alleviate flooding of the roadway is to raise the pavement elevation via patching. However, investigation also determined the flooding events are infrequent and of short duration. Therefore, we have recommended to administration and Town of Bluffton staff to continue to monitor the problem and budget for the asphalt paving in future fiscal years if the problem continues to be a serious concern.
7. Drainage Issue in Plantation Park in Bluffton – Staff conducted a site visit and prepared a report of findings to the administration. In summary, the private system is confined to development runoff and has no contribution from County right of way. The system failure is internal to the system. Staff is awaiting direction on the next step from County Administration.
8. Old Woodland Plantation Stormsewer System Repairs – (\$65,997) Equipment repairs have delayed completion of the work.



MEMORANDUM

Date: February 4, 2015

To: Stormwater Management Utility Board

From: Eddie Bellamy, Public Works Director

Re: **Maintenance Project Report for February 2015**

1. This report will cover two major and 18 minor or routine projects. The Project Summary Reports are attached.

2. Major Projects:

- A. **Eastern Road Channel**, completed in December in Burton area of District 6; we replaced 60 feet of channel pipe that had failed and installed rip rap and hydroseeded for erosion control. Total cost of the project was **\$21,828**.
- B. **Big Estate Circle/Gray Road**, completed in November in the Big Estate area of District 5; we reconstructed 900 feet of channel and workshelf, repaired two washouts, installed two access pipes and two bleeder pipes, and installed rip-rap and hydroseeded for erosion control. Total cost of the project was **\$25,839**.

3. Minor or Routine Projects:

- A. **Port Royal Island Washout Repairs – Huron Drive and Pine Grove Road**, completed in August in District 6; we repaired two washouts.
- B. **Bluffton Township Vacuum Truck Work**, completed in October in District 9; we cleaned out two catch basins, jetted out a crossline pipe and 28 feet of channel pipe, and removed blockages from the flowline on three roads.
- C. **Sams Point Road Channel #1**, completed in November in District 7; we cleaned out 1,204 feet of channel.
- D. **Bluffton Center Channel #1**, completed in November in District 9, 341 feet of channel and 360 feet of roadside ditch.
- E. **Allendale Street and Martha Lane**, completed in November in District 9; we cleaned out 467 feet of roadside ditch and jetted out one crossline pipe and six driveway pipes.
- F. **Robert Smalls Parkway Channel #1**, completed in November in District 6; we removed blockages from the flowline and cleaned out 250 feet of channel.
- G. **Providence Road Channel #1**, completed in November in District 6; we repaired a washout and cleaned out 215 feet of channel.
- H. **Poppy Hill Road Channel #1**, completed in December in District 6; we cleaned out 2,553 feet of channel.

- I. **Jennings Road**, completed in December in District 6; we cleaned out 920 feet of roadside ditch, jetted out one crossline and one driveway pipe, and hydroseeded for erosion control.
- J. **Oakhurst Road**, completed in December in District 5; we cleaned out 1,435 feet of channel and jetted two access pipes and two crossline pipes.
- K. **Clydesdale Circle**, completed in December in District 6; we jetted out a driveway pipe.
- L. **Forrest Field Subdivision Channel #1**, completed in December in District 6; we removed fallen trees from the workshelf and cleaned out 2,923 feet of channel.
- M. **Warsaw Island Road**, completed in December in District 8; we repaired a washout and installed rip rap for erosion control.
- N. **Burton Wells Road**, completed in January in District 6; we removed blockages from the flowline.
- O. **Parkside Drive**, completed in January in District 9; we repaired a sinkhole and resealed a catch basin lid.
- P. **Powell Drive**, completed in January in District 6; we removed a fallen tree from the workshelf and cleaned out 579 feet of channel.
- Q. **Wimbee Landing Road Channel #1**, completed in January in District 5; we cleaned out 5,990 feet of channel.
- R. **Trask Parkway Channel #2**, completed in January in District 5; removed three blockages from the flowline and repaired a washout.



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Eastern Road Channel

Activity: Drainage Improvement

Narrative Description of Project:

Project improved 60 L.F. of drainage system. Installed 60 L.F. of channel pipe, rip rap and hydroseeded for erosion control.

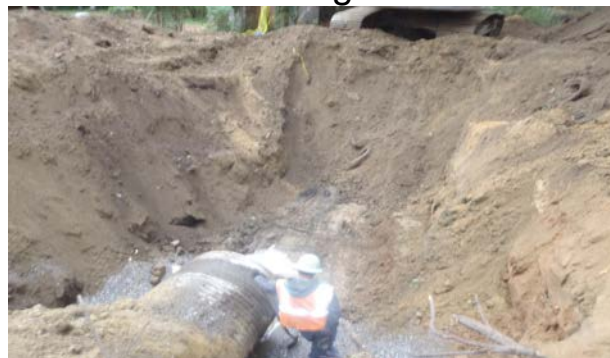
Completion: Dec-14

2015-011 / Eastern Road Outfall	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
ASBUILT / Asbuilt - Project	1.0	\$44.27	\$3.62	\$5.82	\$0.00	\$33.96	\$87.67
AUDIT / Audit Project	1.0	\$20.46	\$0.00	\$0.00	\$0.00	\$13.23	\$33.69
AW / Administrative Work	2.0	\$88.54	\$0.00	\$0.00	\$0.00	\$67.92	\$156.46
BKFILL / Back Fill	20.0	\$409.20	\$226.40	\$61.28	\$0.00	\$264.60	\$961.48
DEBREM / Debris Removal - Jobsite	20.0	\$397.40	\$58.20	\$50.16	\$0.00	\$254.40	\$760.16
HAUL / Hauling	70.0	\$1,529.76	\$663.40	\$1,215.56	\$0.00	\$1,022.96	\$4,431.68
HYDR / Hydroseeding	39.0	\$835.74	\$128.84	\$103.87	\$0.00	\$550.47	\$1,618.92
ODGRB / Channel - grubbed	28.0	\$638.28	\$235.00	\$49.88	\$0.00	\$400.14	\$1,323.30
OFPI / Channel Pipe - Installation	38.0	\$819.28	\$155.48	\$2,323.07	\$0.00	\$512.04	\$3,809.87
ONJV / Onsite Job Visit	52.0	\$1,663.08	\$188.64	\$51.66	\$0.00	\$1,073.80	\$2,977.18
PI / Project Inspection	1.0	\$44.27	\$3.62	\$2.46	\$0.00	\$33.96	\$84.31
PL / Project Layout	5.0	\$221.35	\$18.10	\$12.30	\$0.00	\$169.80	\$421.55
PP / Project Preparation	1.0	\$44.27	\$3.62	\$4.92	\$0.00	\$33.96	\$86.77
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$752.00	\$0.00	\$752.00
PRRECON / Project Reconnaissance	60.0	\$1,389.34	\$126.64	\$44.13	\$0.00	\$894.74	\$2,454.85
RRI / Rip Rap - Installed	30.0	\$674.22	\$299.16	\$116.47	\$0.00	\$422.67	\$1,512.52
SR / Sinkhole repair	8.0	\$181.80	\$44.12	\$15.93	\$0.00	\$113.37	\$355.22
2015-011 / Eastern Road Outfall Sub Total	376.0	\$9,001.26	\$2,154.84	\$4,057.49	\$752.00	\$5,862.02	\$21,827.62
Grand Total	376.0	\$9,001.26	\$2,154.84	\$4,057.49	\$752.00	\$5,862.02	\$21,827.62

Before



During



After



Project: Eastern Road

Activity: Drainage Improvement

**Project #:
2015-011**















**Township: Port
Royal Island**

**Completed:
December 2014**

Installed 60 LF of channel pipe, rip rap and hydroseeded for erosion control.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 131 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/7/15

File:C:/sethdata/projects/projectmaps/Eastern Rd 2015-011



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Big Estate Circle/Gray Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 900 L.F. of drainage system. Installed (2) access pipes. Grubbed, cleared and reconstructed 900 L.F. of channel and workshelf. Repaired washouts. Installed (2) bleeder pipes, rip rap and hydroseeded for erosion control.

Completion: Jan-15

2011-031 / Big Estate Circle/Gray Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
APINS / Access pipe - installed	50.0	\$1,104.08	\$194.89	\$890.56	\$0.00	\$780.13	\$2,969.65
ASBUILT / Asbuilt - Project	9.0	\$213.06	\$10.86	\$13.15	\$0.00	\$145.26	\$382.33
AUDIT / Audit Project	2.0	\$40.92	\$0.00	\$0.00	\$0.00	\$26.46	\$67.38
BPINST / Bleeder pipe - Installed	20.0	\$467.10	\$239.60	\$259.48	\$0.00	\$317.40	\$1,283.58
HAUL / Hauling	130.5	\$2,851.76	\$1,310.75	\$2,142.91	\$0.00	\$1,913.59	\$8,219.01
HYDR / Hydroseeding	12.0	\$283.06	\$39.36	\$99.94	\$0.00	\$180.72	\$603.08
LM / Loading Materials	8.0	\$182.34	\$81.78	\$30.66	\$0.00	\$138.50	\$433.28
ODCO / Channel - cleaned out	26.0	\$624.50	\$197.80	\$35.79	\$0.00	\$398.88	\$1,256.97
ONJV / Onsite Job Visit	51.0	\$1,435.27	\$199.42	\$101.15	\$0.00	\$1,036.59	\$2,772.43
PAM / Preparing Ariel Maps	2.0	\$59.68	\$7.24	\$4.36	\$0.00	\$36.46	\$107.74
PP / Project Preparation	3.0	\$107.18	\$6.03	\$4.36	\$0.00	\$87.65	\$205.21
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$1,075.00	\$0.00	\$1,075.00
PRRECON / Project Reconnaissance	9.0	\$245.47	\$20.10	\$10.90	\$0.00	\$196.09	\$472.56
RMTRW / Remove trees - Workshelf	20.0	\$467.10	\$158.40	\$31.42	\$0.00	\$317.40	\$974.32
RPWO / Repaired Washout	21.0	\$482.16	\$89.26	\$82.64	\$0.00	\$303.45	\$957.51
SURVSVC / Surveying Services	1.0	\$40.23	\$4.02	\$2.18	\$0.00	\$33.96	\$80.39
WSDR / Workshelf - Dressed	67.0	\$1,551.63	\$198.18	\$110.54	\$0.00	\$1,000.65	\$2,861.00
WSGRB / Workshelf - Grubbed	20.0	\$467.10	\$276.60	\$56.35	\$0.00	\$317.40	\$1,117.45
2011-031 / Big Estate Circle/Gray Road Sub Total	451.5	\$10,622.63	\$3,034.29	\$3,876.39	\$1,075.00	\$7,230.57	\$25,838.88
Grand Total	451.5	\$10,622.63	\$3,034.29	\$3,876.39	\$1,075.00	\$7,230.57	\$25,838.88

Before



During



After



Project: Big Estate Circle-Gray Road

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2011-031**

**Township:
Sheldon**

**Completed:
January 2015**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 297 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/27/15

File: C:/sethdata/projects/projectmaps/Big Estate 2011-031



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Port Royal Island Repaired Washouts - Huron Drive and Pine Grove Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired washouts.

Completion: Aug-14

2015-518 / Port Royal Island Repaired Washouts	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	7.0	\$156.11	\$74.90	\$46.83	\$0.00	\$105.03	\$382.87
PRRECON / Project Reconnaissance	2.0	\$88.54	\$7.24	\$6.06	\$0.00	\$67.92	\$169.76
RPWO / Repaired Washout	36.0	\$728.28	\$113.06	\$135.57	\$0.00	\$479.85	\$1,456.76
2015-518 / Port Royal Island Repaired Washouts	45.5	\$983.16	\$195.20	\$188.46	\$0.00	\$659.42	\$2,026.23
Sub Total							
Grand Total	45.5	\$983.16	\$195.20	\$188.46	\$0.00	\$659.42	\$2,026.23

(Pictures Not Available)

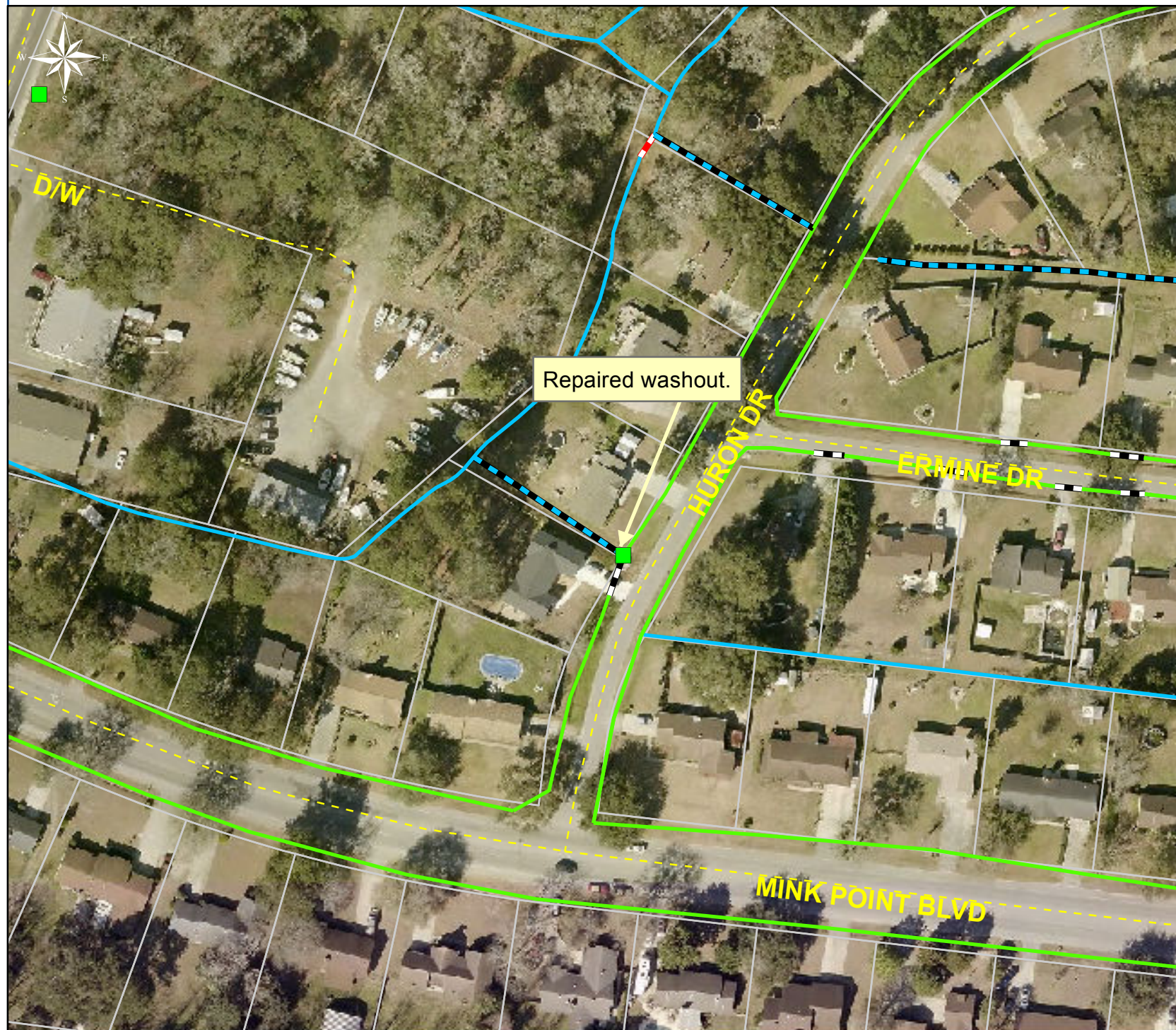
Project: Huron Drive

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-518**















**Township: Port
Royal Island**

**Completed:
August 2014**



Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 113 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/23/15

File: C:/sethdata/projects/projectmaps/Huron Dr 2015-518

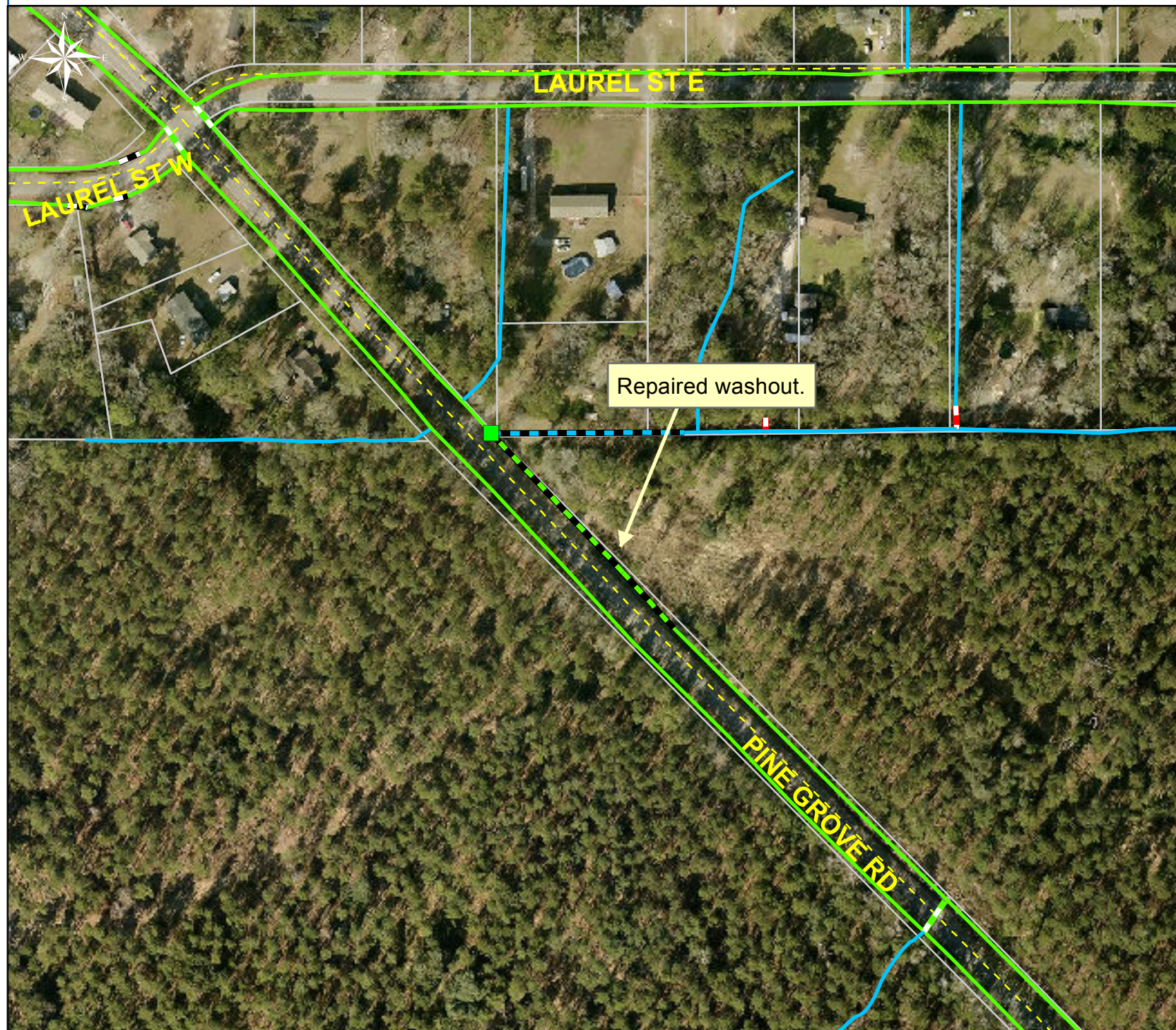
Project: Pine Grove Road

Activity: Routine/ Preventive Maintenance

Project #: 2015-518















Township: Port Royal Island

Completed: August 2014



Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 180 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/23/15

File: C:/sethdata/projects/projectmaps/Pine Grove Rd 2015-518



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Bluffton Vacuum Truck - Ashepoo Drive, Lotus Court and East Morningside Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Remove blockage from flowline. Cleaned out (2) catch basins. Jetted (1) crossline pipe and 28 L.F. of channel pipe.

Completion: Oct-14

2015-310 / Bluffton Vacuum Truck	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CBCO / Catch basin - clean out	16.0	\$357.41	\$177.28	\$104.73	\$0.00	\$239.28	\$878.69
PRRECON / Project Reconnaissance	10.0	\$223.38	\$18.10	\$32.89	\$0.00	\$149.55	\$423.92
RB / Remove blockage from flowline	10.0	\$223.38	\$110.80	\$42.70	\$0.00	\$149.55	\$526.43
2015-310 / Bluffton Vacuum Truck Sub Total	36.5	\$814.40	\$306.18	\$180.32	\$0.00	\$545.00	\$1,845.89
Grand Total	36.5	\$814.40	\$306.18	\$180.32	\$0.00	\$545.00	\$1,845.89

Before



After



Project: Ashepool Drive

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-310**

**Township:
Bluffton**

**Completed:
October 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



Removed blockage from flowline.



1 inch = 78 feet

Project: Lotus Court

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-310**

**Township:
Bluffton**

**Completed:
October 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 83 feet

Project: East Morningside Drive

Activity: Vacuum Truck















Project #: 2015-310

Township: Bluffton

Completed: October 2014

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Cleaned out (2) catch basins and jetted (1) crossline pipe.

Jetted 28 LF of channel pipe.



1 inch = 50 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Sams Point Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Nov-14

Project improved 1,204 L.F. of drainage system. Cleand out 1,204 L.F. of channel.

2015-547 / Sams Point Road Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	28.0	\$605.64	\$299.60	\$183.00	\$0.00	\$403.76	\$1,492.00
ODCO / Channel - cleaned out	58.0	\$1,242.84	\$270.79	\$72.88	\$0.00	\$819.18	\$2,405.69
ONJV / Onsite Job Visit	12.0	\$420.34	\$43.44	\$38.87	\$0.00	\$312.62	\$815.27
TRAIN / Training	10.0	\$192.80	\$0.00	\$0.00	\$0.00	\$0.00	\$192.80
2015-547 / Sams Point Road Channel #1 Sub Total	108.5	\$2,471.85	\$613.83	\$294.75	\$0.00	\$1,542.18	\$4,922.60
Grand Total	108.5	\$2,471.85	\$613.83	\$294.75	\$0.00	\$1,542.18	\$4,922.60

(Pictures Not Available)

**Project: Sams
Point Road
Channel #1**

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-547**

**Township: Lady's
Island**

**Completed:
November 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Cleaned out 479
LF of channel.

Cleaned out 725
LF of channel.



1 inch = 148 feet

Prepared By: BC Stormwater Management Utility

Date Print: 12/1/14

File: C:/sethdata/projects/projectmaps/Sams Pt Rd Ch#1 2015-547



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Bluffton Center Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Completion: Nov-14

Project improved 968 L.F. of drainage system. Cleaned out 341 L.F. of channel and 360 L.F. of roadside ditch. Jetted 267 L.F. of channel pipe.

2015-550 / Bluffton Center Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
DLO / Ditch Layout	30.0	\$648.90	\$36.20	\$19.53	\$0.00	\$429.30	\$1,133.93
HAUL / Hauling	31.5	\$681.35	\$337.05	\$171.00	\$0.00	\$454.23	\$1,643.63
ODCO / Channel - cleaned out	100.0	\$2,144.40	\$388.08	\$110.12	\$0.00	\$1,415.80	\$4,058.40
OPFJ / Channel Pipe - Jetted	16.0	\$369.59	\$531.84	\$129.08	\$0.00	\$250.56	\$1,281.06
ONJV / Onsite Job Visit	18.0	\$597.24	\$65.16	\$39.36	\$0.00	\$440.46	\$1,142.22
PI / Project Inspection	1.0	\$44.27	\$3.62	\$7.38	\$0.00	\$33.96	\$89.23
UB / Underbrush	28.0	\$597.45	\$25.34	\$10.58	\$0.00	\$393.12	\$1,026.49
UTLOC / Utility locates	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
2015-550 / Bluffton Center Ch #1 Sub Total	225.5	\$5,103.65	\$1,387.29	\$487.04	\$0.00	\$3,430.66	\$10,408.64
Grand Total	225.5	\$5,103.65	\$1,387.29	\$487.04	\$0.00	\$3,430.66	\$10,408.64

Before



After



Project: Bluffton Center

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-550**

**Township:
Bluffton**

**Completed:
November 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 163 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Allendale Street and Martha Lane

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 467 L.F. of drainage system. Cleaned out 467 L.F. of roadside ditch. Jetted (1) crossline pipe and (6) driveway pipes.

Completion: Nov-14

2015-551 / Allendale Street	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
DPJT / Driveway Pipe - Jetted	12.0	\$266.62	\$132.96	\$37.08	\$0.00	\$178.20	\$614.85
HAUL / Hauling	25.0	\$540.75	\$267.50	\$51.30	\$0.00	\$360.50	\$1,220.05
ONJV / Onsite Job Visit	10.0	\$342.89	\$36.20	\$27.06	\$0.00	\$254.19	\$660.34
RSDCL / Roadside Ditch - Cleanout	80.0	\$1,707.00	\$359.12	\$90.32	\$0.00	\$1,125.26	\$3,281.70
2015-551 / Allendale Street Sub Total	127.5	\$2,867.49	\$795.78	\$205.76	\$0.00	\$1,924.76	\$5,793.79
Grand Total	127.5	\$2,867.49	\$795.78	\$205.76	\$0.00	\$1,924.76	\$5,793.79

Before



During



After



Project: Allendale Street & Martha Lane Map 1

Activity: Routine/ Preventive Maintenance

Project #: 2015-551

Township: Bluffton

Completed: November 2014

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 100 feet

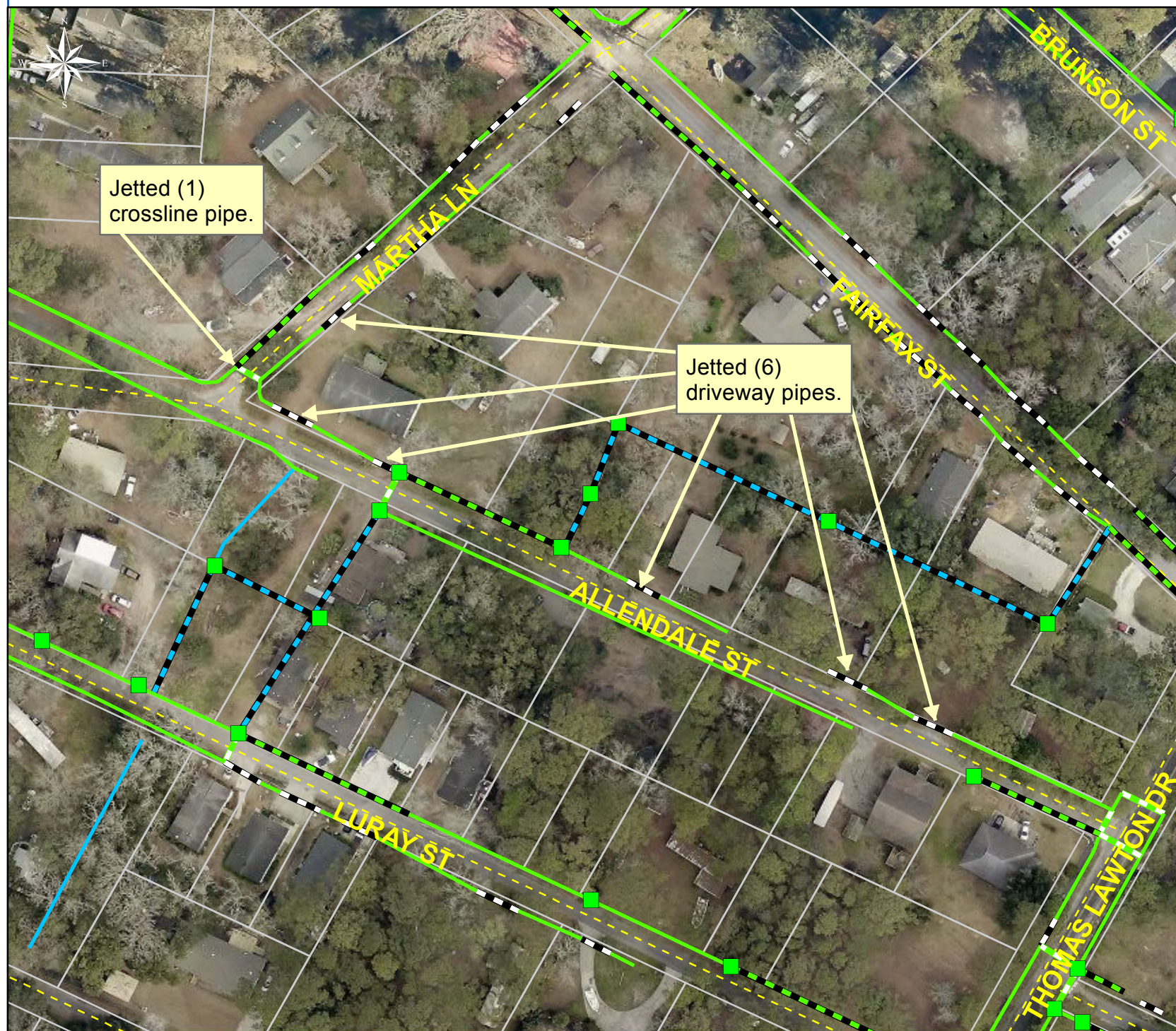
Project: Allendale Street & Martha Lane Map 2

Activity: Vacuum Truck

Project #: 2015-551

Township: Bluffton

Completed: November 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 100 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/9/15

File: C:/sethdata/projects/projectmaps/Vac/Allendale&Martha 2015-551



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Robert Smalls Parkway Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 250 L.F. of drainage system. Removed blockages from flowline. Cleaned out 250 L.F. of channel.

Completion: Nov-14

2015-557 / Robert Smalls Pkwy Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	17.0	\$372.41	\$181.90	\$62.70	\$0.00	\$249.24	\$866.25
ODCO / Channel - cleaned out	60.0	\$1,372.22	\$292.86	\$37.96	\$0.00	\$924.75	\$2,627.79
ONJV / Onsite Job Visit	8.0	\$252.08	\$28.96	\$19.68	\$0.00	\$170.80	\$471.52
2015-557 / Robert Smalls Parkway Ch #1 Sub Total	85.5	\$2,006.94	\$503.72	\$120.34	\$0.00	\$1,351.40	\$3,982.41
Grand Total	85.5	\$2,006.94	\$503.72	\$120.34	\$0.00	\$1,351.40	\$3,982.41

Before



During



After



**Project: Robert
Smalls Pkwy
Channel # 1**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-557**

**Township: Port
Royal Island**

**Completed:
November 2014**



Legend

TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 288 feet



Beaufort County Public Works Stormwater Infrastructure *Project Summary*

Project Summary: Providence Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 215 L.F. of drainage system. Cleaned out 215 L.F. of channel. Repaired washout.

Completion: Nov-14

2015-558 / Providence Road Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	4.0	\$86.52	\$42.80	\$25.26	\$0.00	\$57.68	\$212.26
RB / Remove blockage from flowline	20.0	\$458.60	\$137.38	\$52.73	\$0.00	\$309.30	\$958.00
2015-558 / Providence Road Ch #1 Sub Total	24.5	\$555.35	\$180.18	\$77.99	\$0.00	\$373.59	\$1,187.11
Grand Total	24.5	\$555.35	\$180.18	\$77.99	\$0.00	\$373.59	\$1,187.11

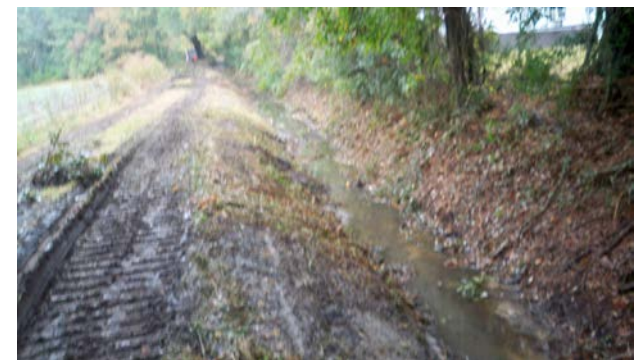
Before



During



After



Project: Providence Road Channel #1

Activity: Routine/
Preventive
Maintenance

Project #:
2015-558

Township: Port
Royal Island

Completed:
November 2014



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 167 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/20/15

File: C:/sethdata/projects/projectmaps/Providence Rd 2015-558



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Poppy Hill Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 2,553 L.F. of drainage system. Cleaned out 2,553 L.F. of channel.

Completion: Dec-14

2015-531 / Poppy Hill Road Channel #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
RB / Remove blockage from flowline	30.0	\$675.00	\$158.80	\$105.45	\$0.00	\$451.80	\$1,391.05
2015-531 / Poppy Hill Road Channel #1	30.5	\$685.23	\$158.80	\$105.45	\$0.00	\$458.42	\$1,407.90
Sub Total							
Grand Total	30.5	\$685.23	\$158.80	\$105.45	\$0.00	\$458.42	\$1,407.90

Before



During



After



**Project: Poppy Hill
Road Channel # 1**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-531**

**Township: Port
Royal Island**

**Completed:
December 2014**



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 301 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/16/15

File: C:/sethdata/projects/projectmaps/Poppy Hill Rd 2015-531



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Jennings Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 920 L.F. of drainage system. Cleaned out 920 L.F. of roadside ditch. Jetted (1) crossline pipe and (1) driveway pipe. Hydroseeded for erosion control.

Completion: Dec-14

2015-536 / Jennings Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
DPJT / Driveway Pipe - Jetted	10.0	\$223.38	\$110.80	\$33.15	\$0.00	\$149.55	\$516.88
HAUL / Hauling	30.0	\$648.90	\$321.00	\$94.73	\$0.00	\$432.60	\$1,497.23
ODCO / Channel - cleaned out	64.0	\$1,434.78	\$281.50	\$131.66	\$0.00	\$960.21	\$2,808.15
ONJV / Onsite Job Visit	18.0	\$577.20	\$65.16	\$32.70	\$0.00	\$403.02	\$1,078.08
RSDCL / Roadside Ditch - Cleanout	35.0	\$783.58	\$195.98	\$48.62	\$0.00	\$524.16	\$1,552.34
2015-536 / Jennings Road Sub Total	157.5	\$3,678.07	\$974.44	\$340.86	\$0.00	\$2,476.15	\$7,469.53
Grand Total	157.5	\$3,678.07	\$974.44	\$340.86	\$0.00	\$2,476.15	\$7,469.53

Before



During



After



**Project: Jennings
Road Map 1**

**Activity: Routine/
Preventive
Maintenance**















**Project #:
2015-536**

**Township: Port
Royal Island**

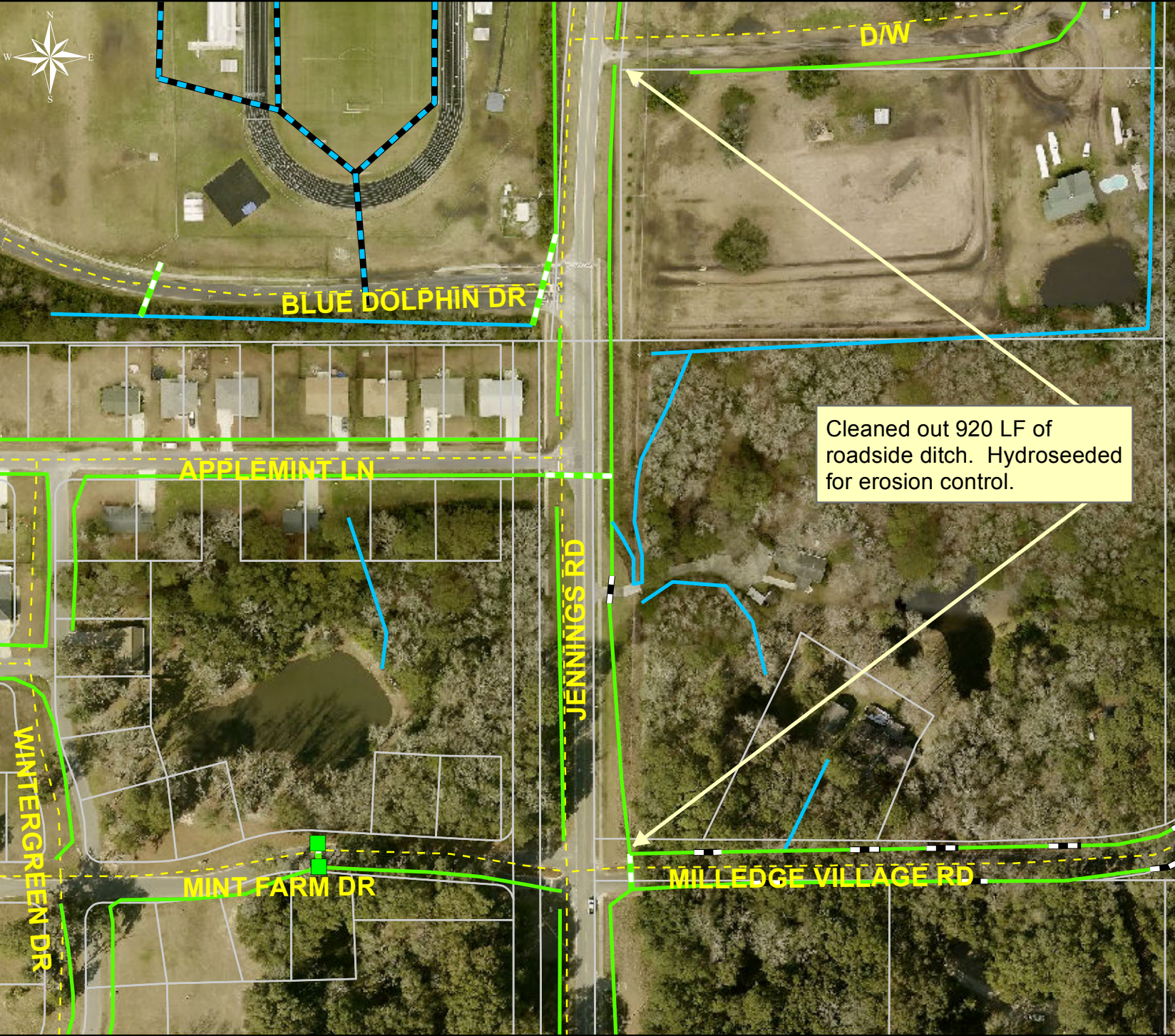
**Completed:
December 2014**

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe

Cleaned out 920 LF of roadside ditch. Hydroseeded for erosion control.



1 inch = 167 feet

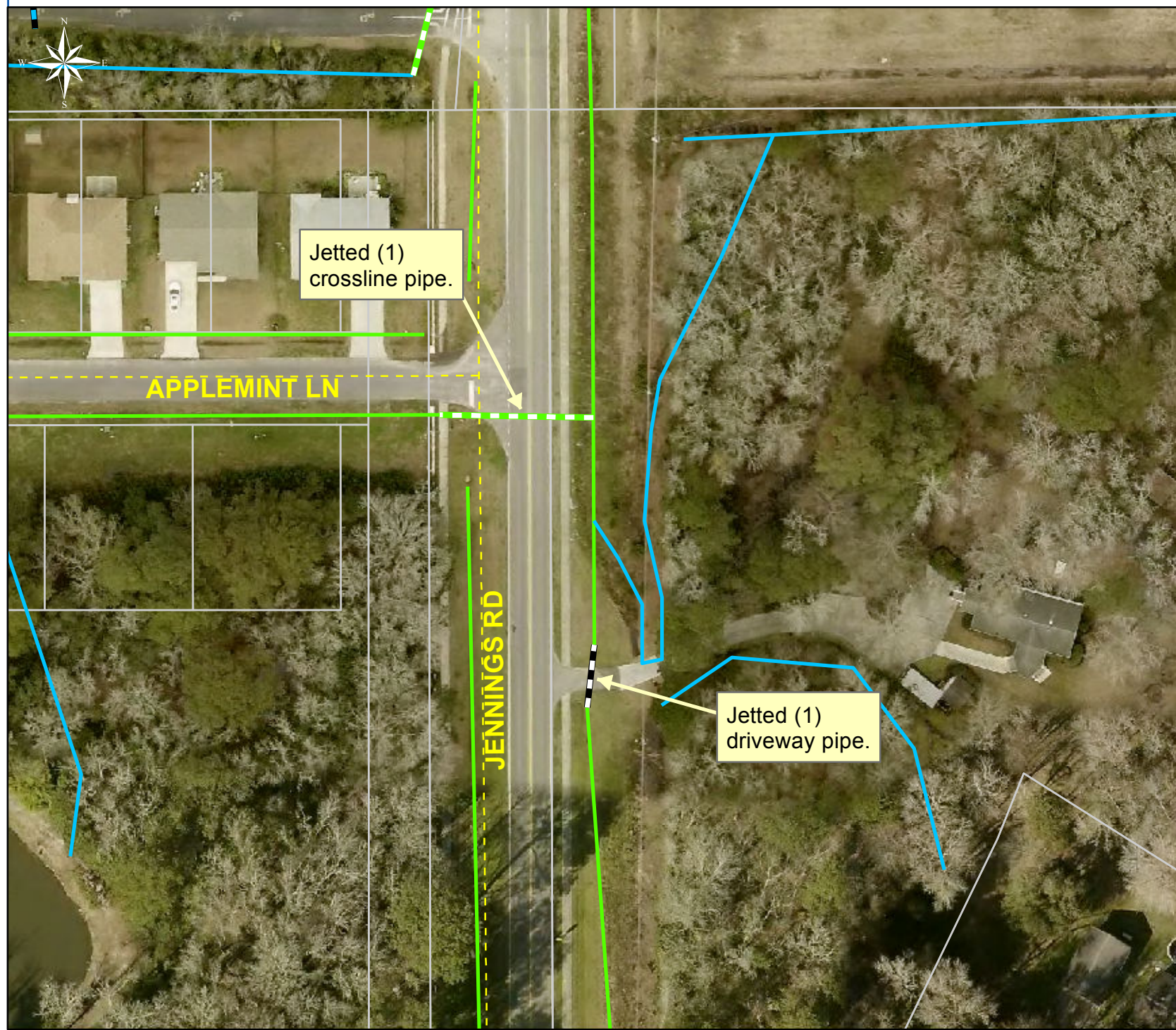
**Project: Jennings
Road Map 2**

**Activity: Vacuum
Truck**

**Project #:
2015-536**

**Township: Port
Royal Island**

**Completed:
December 2014**



Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



1 inch = 72 feet



Beaufort County Public Works

Stormwater Infrastructure

Project Summary

Project Summary: Oakhurst Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 1,435 L.F. of drainage system. Cleaned out 1,435 L.F. of channel. Jetted (2) access pipes and (2) crossline pipes.

Completion: Dec-14

2015-560 / Oakhurst Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CLPJT / Crossline Pipe - Jetted	17.5	\$386.82	\$166.20	\$57.05	\$0.00	\$257.93	\$868.00
HAUL / Hauling	43.0	\$930.09	\$389.30	\$119.70	\$0.00	\$620.06	\$2,059.15
LM / Loading Materials	50.0	\$1,058.00	\$97.02	\$28.96	\$0.00	\$695.60	\$1,879.58
ODCO / Channel - cleaned out	80.0	\$1,683.40	\$315.68	\$63.12	\$0.00	\$1,102.80	\$3,165.00
ONJV / Onsite Job Visit	9.0	\$285.26	\$32.58	\$31.98	\$0.00	\$195.27	\$545.09
2015-560 / Oakhurst Road Sub Total	200.0	\$4,353.80	\$1,000.78	\$300.80	\$0.00	\$2,878.27	\$8,533.65
Grand Total	200.0	\$4,353.80	\$1,000.78	\$300.80	\$0.00	\$2,878.27	\$8,533.65

Before



During



After



Project: Oakhurst Road

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-560**

**Township:
Sheldon**

**Completed:
December 2014**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe



0 30 60 120 180 240
Feet

1 inch = 128 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/9/15

File:C:/sethdata/projects/projectmaps/Oakhurst Rd 2015-560



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Clydesdale Circle

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Jetted (1) driveway pipe.

Completion: Dec-14

2015-561 / Clydesdale Circle	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
DPJT / Driveway Pipe - Jetted	4.0	\$89.35	\$44.32	\$20.65	\$0.00	\$59.82	\$214.14
2015-561 / Clydesdale Circle Sub Total	4.5	\$99.58	\$44.32	\$20.65	\$0.00	\$66.44	\$230.99
Grand Total	4.5	\$99.58	\$44.32	\$20.65	\$0.00	\$66.44	\$230.99

Before



During



After



Project: Clydesdale Circle

Activity: Vacuum Truck

Project #: 2015-561















Township: Port Royal Island

Completed: December 2014



Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 229 feet

Prepared By: BC Stormwater Management Utility

Date Print: 1/16/15

File: C:\sethdata\projects\projectmaps\Vac\Clydesdale Cir 2015-561



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Forest Field Subdivision Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 2,923 L.F. of drainage system. Removed fallen trees from workshelf. Cleaned out 2,923 L.F. of channel.

Completion: Dec-14

2015-562 / Forest Field Sub Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	2.0	\$43.26	\$21.40	\$5.70	\$0.00	\$28.84	\$99.20
ODCO / Channel - cleaned out	40.0	\$914.80	\$102.72	\$39.90	\$0.00	\$616.50	\$1,673.92
2015-562 / Forest Field Sub Ch #1 Sub Total	42.5	\$968.29	\$124.12	\$45.60	\$0.00	\$651.96	\$1,789.97
Grand Total	42.5	\$968.29	\$124.12	\$45.60	\$0.00	\$651.96	\$1,789.97

Before



During



After



Project: Forest Field Subdivision Channel # 1

Activity: Routine/ Preventive Maintenance

Project #: 2015-562

Township: Port Royal Island

Completed: December 2014



Legend	
TYPE	
	River
	Creek/Stream
	River/Creek/Marsh BANK
	Channel (fka Outfall)
	Channel Pipe
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Road Pipe
	Crossline Pipe
	Driveway Pipe
	Access Pipe
	Bleeder Pipe



1 inch = 354 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Warsaw Island Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired washout. Installed rip rap for erosion control.

Completion: Dec-14

2015-563 / Warsaw Island Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	5.5	\$118.97	\$64.07	\$229.13	\$0.00	\$50.47	\$462.63
RPWO / Repaired Washout	22.0	\$503.14	\$53.17	\$51.61	\$0.00	\$339.08	\$947.00
2015-563 / Warsaw Island Road Sub Total	28.0	\$632.34	\$117.24	\$280.74	\$0.00	\$396.16	\$1,426.47
Grand Total	28.0	\$632.34	\$117.24	\$280.74	\$0.00	\$396.16	\$1,426.47

Before



After





Project: Warsaw Island Road

Activity: Routine/ Preventive Maintenance

Project #: 2015-563

Township: St. Helena

Completed: December 2014

Legend

- TYPE**
- River
 - Creek/Stream
 - River/Creek/Marsh BANK
 - Channel (fka Outfall)
 - Channel Pipe
 - Lateral
 - Lateral Pipe
 - Roadside
 - Roadside Pipe
 - Road Pipe
 - Crossline Pipe
 - Driveway Pipe
 - Access Pipe
 - Bleeder Pipe



1 inch = 79 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Burton Wells Road

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed blockages from flowline.

Completion: Jan-15

2015-529 / Burton Wells Road	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	3.0	\$64.89	\$32.10	\$5.70	\$0.00	\$43.26	\$145.95
RB / Remove blockage from flowline	12.0	\$274.44	\$27.49	\$19.95	\$0.00	\$184.95	\$506.83
2015-529 / Burton Wells Road Sub Total	15.5	\$349.56	\$59.59	\$25.65	\$0.00	\$234.83	\$669.63
Grand Total	15.5	\$349.56	\$59.59	\$25.65	\$0.00	\$234.83	\$669.63

Before



During



After





Project: Burton Wells Road

Activity: Routine/ Preventive Maintenance

Project #: 2015-529















Township: Port Royal Island

Completed: January 2015

Removed blockage from flowline.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 200 feet



Beaufort County Public Works Stormwater Infrastructure Project Summary

Project Summary: Parkside Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Repaired sinkhole and resealed catch basin lid.

Completion: Jan-15

2015-564 / Parkside Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
CBCO / Catch basin - clean out	4.0	\$89.35	\$44.32	\$13.15	\$0.00	\$59.82	\$206.64
CBREP / Catch basin - repaired	60.0	\$1,337.08	\$108.60	\$624.20	\$0.00	\$848.70	\$2,918.57
HAUL / Hauling	46.3	\$1,047.39	\$288.90	\$193.40	\$0.00	\$707.93	\$2,237.61
LM / Loading Materials	4.0	\$81.84	\$29.24	\$10.52	\$0.00	\$52.92	\$174.52
ONJV / Onsite Job Visit	27.0	\$805.68	\$97.74	\$63.22	\$0.00	\$492.21	\$1,458.85
PROFS / Professional Services	0.0	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$1,500.00
PRRECON / Project Reconnaissance	2.0	\$59.68	\$7.24	\$6.54	\$0.00	\$36.46	\$109.92
SR / Sinkhole repair	43.0	\$1,024.21	\$47.06	\$35.02	\$0.00	\$667.68	\$1,773.97
2015-564 / Parkside Drive Sub Total	186.8	\$4,455.46	\$623.10	\$946.04	\$1,500.00	\$2,872.33	\$10,396.93
Grand Total	186.8	\$4,455.46	\$623.10	\$946.04	\$1,500.00	\$2,872.33	\$10,396.93

Before



During



After





Project: Parkside Drive

Activity: Routine/ Preventive Maintenance

Project #: 2015-564

Township: Bluffton















Completed: January 2014

PARKSIDE DR

Repaired sinkhole.
Resealed catch basin lid.

Legend

TYPE

-  River
-  Creek/Stream
-  River/Creek/Marsh BANK
-  Channel (fka Outfall)
-  Channel Pipe
-  Lateral
-  Lateral Pipe
-  Roadside
-  Roadside Pipe
-  Road Pipe
-  Crossline Pipe
-  Driveway Pipe
-  Access Pipe
-  Bleeder Pipe



1 inch = 64 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Powell Drive

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 579 L.F. of drainage system. Removed fallen tree from workshelf. Cleaned out 579 L.F. of channel.

Completion: Jan-15

2015-566 / Powell Drive	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	2.0	\$43.26	\$21.40	\$5.26	\$0.00	\$28.84	\$98.76
RB / Remove blockage from flowline	20.0	\$457.40	\$71.74	\$28.93	\$0.00	\$308.25	\$866.32
2015-566 / Powell Drive Sub Total	22.5	\$510.89	\$93.14	\$34.19	\$0.00	\$343.70	\$981.92
Grand Total	22.5	\$510.89	\$93.14	\$34.19	\$0.00	\$343.70	\$981.92

Before



During



After



Project: Powell Drive

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-566**

**Township: Port
Royal Island**

**Completed:
January 2015**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- ▬ Channel Pipe
- Lateral
- ▬ Lateral Pipe
- Roadside
- ▬ Roadside Pipe
- ▬ Road Pipe
- ▬ Crossline Pipe
- ▬ Driveway Pipe
- ▬ Access Pipe
- ▬ Bleeder Pipe



Removed fallen tree from workshelf.

Cleaned out 579 LF of channel.



1 inch = 122 feet

Prepared By: BC Stormwater Management Utility
Date Print: 1/16/15

File: C:/sethdata/projects/projectmaps/Powell Dr 2015-566



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Wimbee Landing Road Channel #1

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Project improved 5,990 L.F. of drainage system. Cleaned out 5,990 L.F. of channel.

Completion: Jan-15

2015-567 / Wimbee Landing Rd Ch #1	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	10.0	\$216.30	\$107.00	\$42.08	\$0.00	\$144.20	\$509.58
ODCO / Channel - cleaned out	20.0	\$457.40	\$84.62	\$28.93	\$0.00	\$308.25	\$879.20
2015-567 / Wimbee Landing Rd Ch #1	30.5	\$683.93	\$191.62	\$71.01	\$0.00	\$459.06	\$1,405.62
Sub Total							
Grand Total	30.5	\$683.93	\$191.62	\$71.01	\$0.00	\$459.06	\$1,405.62

Before



During



After



Project: Wimbee Landing Road Channel 1

Activity: Routine/ Preventive Maintenance

Project #: 2015-567

Township: Sheldon

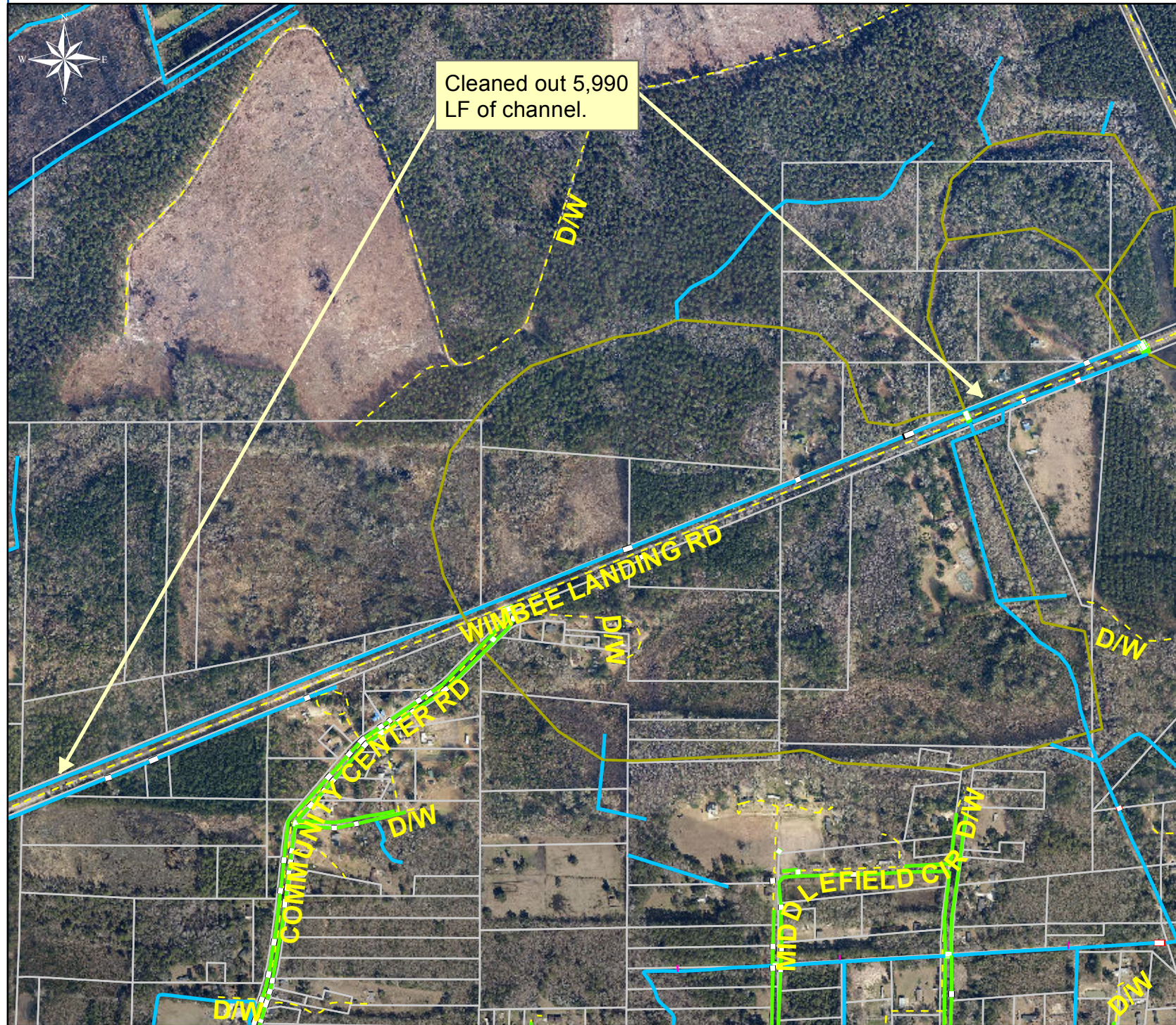
Completed: January 2015

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

Cleaned out 5,990 LF of channel.



1 inch = 770 feet



Beaufort County
Public Works
Stormwater Infrastructure
Project Summary

Project Summary: Trask Parkway Channel #2

Activity: Routine/Preventive Maintenance

Narrative Description of Project:

Removed blockages and repaired washout.

Completion: Jan-15

2015-568 / Trask Parkway Channel #2	Labor Hours	Labor Cost	Equipment Cost	Material Cost	Contractor Cost	Indirect Labor	Total Cost
AUDIT / Audit Project	0.5	\$10.23	\$0.00	\$0.00	\$0.00	\$6.62	\$16.85
HAUL / Hauling	8.0	\$173.04	\$85.60	\$39.54	\$0.00	\$115.36	\$413.54
RB / Remove blockage from flowline	12.0	\$274.44	\$44.12	\$13.15	\$0.00	\$184.95	\$516.66
2015-568 / Trask Parkway Channel #2	20.5	\$457.71	\$129.72	\$52.69	\$0.00	\$306.93	\$947.05
Sub Total							
Grand Total	20.5	\$457.71	\$129.72	\$52.69	\$0.00	\$306.93	\$947.05

Before



During



After



**Project: Trask
Parkway Ch #2**

**Activity: Routine/
Preventive
Maintenance**

**Project #:
2015-568**

**Township:
Sheldon**

**Completed:
January 2015**

Legend

TYPE

- River
- Creek/Stream
- River/Creek/Marsh BANK
- Channel (fka Outfall)
- Channel Pipe
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Road Pipe
- Crossline Pipe
- Driveway Pipe
- Access Pipe
- Bleeder Pipe

Removed blockages from
flowline. Repaired washout.



1 inch = 230 feet



BEAUFORT COUNTY STORMWATER UTILITY
120 Shanklin Road
Beaufort, South Carolina 29906
Voice (843) 255-2801 Facsimile (843) 255-9478



MEMORANDUM

TO: Beaufort County Stormwater Utility Board *Eric W. Larson*
FROM: **Eric W. Larson, Stormwater Manager**
SUBJECT: **Summary of the January 22, 2015 Stormwater Workshop**
DATE: **February 4, 2015**

The half day workshop for the County Council was held January 22, 2015. Attendees included 9 of the 11 County Council members, a majority of the Utility Board, County Stormwater management and technical staff, representatives from all three Towns and the City of Beaufort, and several members of the environmental community. The goal of the workshop was to convey a detailed summary of the activities of the stormwater program, including the management of the utility fee administration, operations and maintenance, capital project needs, and the newly implemented Municipal Separate Stormsewer System (MS4) permit program. The agenda included a summary of the background of the MS4 program regulations, a presentation of the current activities the Utility is performing, a look at needs in future years, a review of the stormwater department's expenditures and revenue needs, and an timely discussion of operational issues that are contributed to increased costs and decreased revenue. The day ended with a detailed look at various funding options for operations and maintenance and capital projects.

The five year plan looked at the impact of the MS4 permit on how the Utility will function in the future. Since the Utility's inception in 2001, the community has voluntarily made progressive strides towards improving the water quality in our rivers and coastal waters. It is no surprise that the County closely ties the water to economic growth and a way of life that draws thousands of people to come here on vacation and to choose to live here. The MS4 permit, in summary, makes what was voluntarily now mandatory under the framework of the Clean Water Act. Our permit requires us to implement a series of minimum control measures to educate the public, monitor our stormsewer system and receiving waters, and implement water quality best management practices to improve water quality over time. A proactive operations and maintenance program along with a robust capital project plan are needed if we truly want to see an improvement in our water and maintain compliance with the federally unfunded mandate of the MS4 program.

This effort does not come without a cost. Due to factors such as annexations by municipal neighbors, the County is seeing a decline in revenue. Yet are projected costs for program implementation will continue to rise. There are things that can be done to trim costs. There is a large portion of the County system within the municipal boundaries of the Towns and City in which the cost to maintain lies with the County, yet the Utility fees of the residents receiving direct benefit from that expense go to the Towns and City. It is fair to assume that all County residents should contribute to the cost of our program, not just those within the un-incorporated areas of the County. Also, the development of multiple MS4 programs among the government bodies designated as MS4s creates duplication of effort and therefore costs that could be reduced with a unified program, or at a minimum, shared program elements. The workshop participants were encouraged to consider ways to reduce costs at the same time as we determined how best to increase revenue.

As a result of the meeting, staff is soliciting proposals from our stormwater consultant, ATM, for a rate study (for implementation in FY 16) and a countywide master plan (management plan) update. Meetings with the SWIC members will be held in the near future to explore partnering options on both projects.

**TASK ORDER NUMBER 4
BEAUFORT COUNTY, SC
STORMWATER SERVICES CONTRACT**



**Issued To: Applied Technology & Management, Inc.
P.O. BOX 20336
CHARLESTON, SC 29401
(843) 414-1040**

Beaufort County PO Number: _____ Date Issued: January 26, 2015

Maximum Cost Not to Exceed: \$48,521.00 Date Accepted: February __, 2015

**Accepted by: _____ Issued by: AM
Eric Larson, SW Manager Anthony Maglione, VP**

Task Title: Stormwater Utility Rate Study

Description of Task: The ATM team will assist Beaufort County Stormwater (County) with a detailed stormwater utility rate study as a supplemental task to the financial planning services provided under Task 3. Under Task 3, the team conducted a full accounting of planned stormwater program costs over the next five years, which are expected to increase driven by the combination of existing operations and maintenance activities, a significant capital project backlog, and emerging NPDES compliance needs. The financial planning task resulted in the development and consideration of a number of funding options, all of which included a rate adjustment, which were described in the County Council stormwater workshop meeting January 22, 2015.

The ATM team will conduct detailed cost of service and rate studies concurrent with the budgeting process for the fiscal year that will begin July 1, 2015. The rate study will begin with a thorough assessment of the County's rate base and the data development necessary to standardize the underlying rate base data. The County has been performing ongoing stormwater fee adjustments for individual parcels since utility implementation years ago. A rate study performed in 2005 summarized parcels into their current billing categories. However, the data have not been maintained in a systematic way such that the entire rate base is easily discernable. The ATM team will use available GIS and tax data to characterize the distribution of properties between bill classes both within the unincorporated County and in each underlying jurisdiction in order to more clearly understand the existing stormwater fees and the impact of a rate or rate structure adjustment. This assessment will be supportive of modeling potential minor changes to the rate structure with regard to gross parcel area and lightly developed parcels. It is anticipated that rate base assessment and data development will take place in February and March 2015.

Based on the established rate base, the team will refine and populate the model developed under the financial planning task to analyze different strategies for the County to meet its stormwater program revenue requirements. The strategies may include:

- tax funding
- rate adjustments
- debt issuance
- a change in rate structure to include a gross area fee component
- adjustments to administrative charges charged to incorporated jurisdiction customers (informed by the cost of service study)
- a surcharge to incorporated jurisdiction customers for County-wide system costs (informed by the cost of service study)

Modeling will also accommodate analysis of jurisdictional revenue adjustments should the incorporated areas choose to adopt the refined rate structure (if applicable).

With the County's guidance, the team will develop a number of options that meet revenue requirements and select up to six that meet the County's needs for revenue sufficiency, appropriate allocation of costs to utility customers in underlying jurisdictions, defensibility, and reasonable equity for complete analysis and documentation. Once the ATM team has fully documented the alternatives, which is expected by the end of April, the team and County staff will determine a recommended alternative based on all available considerations. A final report will document all six alternatives and the recommended approach (of the six), including the associated rate adjustment. If debt issuance is included as part of the recommended approach, this report will include next steps to achieve that end but debt issuance support is specifically not a part of this scope. Finally, the ATM team will assist the County with adopting the recommended rate adjustment and instating other financial policy changes in support of the recommendation in time for adoption of the FY 2015-2016 budget.

The outcomes and deliverables from this task order will include documentation of up to six alternatives for meeting revenue requirements over the five-year planning period. The ATM team will provide a summary for each that includes necessary rate increases and projected revenue over time, and highlights the advantages or disadvantages of each approach. To support alternative assessment, the ATM team will participate in or facilitate up to three meetings with the Stormwater Advisory Board, Natural Resources Committee or the County Council, and County staff. Once a preferred alternative is determined, the ATM team will develop and deliver a report in support of that option. The team will provide rate adjustment assistance during the budgeting process in the form of Council meeting attendance and participation during the June 2015 budget adoption process. The team will also provide digital copies (tables, databases, and queries) of revised billing data and work with staff to incorporate those data into the County environment to the greatest extent possible.

Cost Estimate (Maximum not to Exceed):

- Time: Program Manager – 28 hours @ \$165/hr.=\$4,620
Project Manager – 70 hours @\$165/hr = \$11,550
Senior Manager – 16 hours @\$165/hr = \$2,640
Senior Finance Manager – 12 hours @\$165/hr = \$1,980
Senior Consultant – 108 hours @165/hr = \$17,820
GIS Specialist – 23 hours @\$85/h =\$1,955
- Travel, lodging, and meals: \$3,520 (estimated)

Subtotal: \$44,085

- Contingency: \$4,436

Total: \$48,521

It is understood that the exact effort needed to complete this Task may vary depending upon the results of various meetings and County input. The County and ATM agree that ATM will track the overall task cost and will advise the County in writing PRIOR TO exceeding the maximum cost not to exceed noted above. This task order may be modified in the future by mutual agreement of the parties if needed to adjust the maximum cost not to exceed.

CONTRACT

THIS CONTRACT is made this Aug. 19, 2014, by and between Beaufort County, a political subdivision of the State of South Carolina (hereinafter referred to as "County") and Applied Technology & Management, Inc. (hereinafter referred to as "Contractor"). This Contract shall consist, by reference of all the terms, conditions, scope of work, specifications and provisions contained in RFP Number 07112014 dated July 11, 2014 (advertised in The Island Packet/Beaufort Gazette on June 9, 2014, Addendum dated July 2, 2014 and Contractor's Proposal dated July 11, 2014.

WITNESSETH:

WHEREAS, the Contractor and the County desire to enter into this contract relating Engineering and Consulting Services for Stormwater Management subject to the terms, specifications, conditions and provisions of the request for proposal as heretofore mentioned.

NOW, THEREFORE, the Contractor and the County agree to all of these terms, conditions, specifications, provisions and the special provisions as listed below:

- A. This Contract is deemed to be under and shall be governed by and construed according to the laws of the State of South Carolina.
- B. Any litigation arising out of this Contract shall be held only in a circuit court of Beaufort County, Beaufort, South Carolina in the Fourteenth Judicial Circuit.
- C. The Contractor shall not sublet, assign, nor by means of a stock transfer sale of its business, assign or transfer this Contract without the written consent of the County.
- D. This Contract, including the terms, conditions, specifications and provisions listed herein makes up the entire contract between the Contractor and County. No other Contract, oral or otherwise, regarding the subject matter of this Contract shall be deemed to exist or bind either party hereto.
- E. It is understood that this Contract shall be considered exclusive between the parties.
- F. Any provisions of this Contract found to be prohibited by law shall be ineffective, to the extent of such prohibition, without invalidating the remainder of this Contract.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree as follows:

**ARTICLE 1
BACKGROUND/SCOPE OF WORK**

Background

The Contractor does hereby offer to the County services for the purpose of providing engineering and consulting services for assisting the County Stormwater Utility with various regulatory and engineering projects as may be requested by the Stormwater Utility Manager as contained and described in future the Scopes of Work as may be mutually agreed to by the parties.

Scope of Work – As this Contract is and Indefinite Delivery Indefinite Quantity (ID/IQ) type contract work will be assigned by individual Task Orders as requested by the Stormwater Utility Manager over the term of this Contract. Each Task Order will contain a specific Scope of Work as well as Professional Services Fees for each Task Order. All County approved Task Orders will be incorporated into this Contract by Amendment.

**ARTICLE 2
LIABILITY**

The County and Contractor shall not be responsible to each other for any incidental, indirect or consequential damages incurred by either Contractor or County or for which either party may be liable to any third party which damages have been or are occasioned by services performed or reports prepared or other work performed hereunder.

**ARTICLE 3
INDEMNIFICATION AND HOLD HARMLESS**

The Contractor does hereby agree to indemnify and save harmless the County, its officers, agents and employees from and against any and all liability, claims, demands, damages, fines, fees, expenses, penalties, suits, proceedings, actions and cost of actions, including attorney's fees for trial and on appeal of any kind and nature to the extent arising or growing out of or in any way connected with the negligent performance of the Contract, by Contractor, its agents, servants or employees.

**ARTICLE 4
ASSIGNMENT**

Contractor shall not assign any rights or duties of the professional services contract without the expressed written consent of the County. Any assignment or subletting without the written consent of County shall be void and this Contract shall terminate at the option of the County. It is agreed and understood by the County that the Contractor has partnered with Raftelis Financial Consultants to provide certain sub-contracted professional services to the Contractor for the life of this Contract.

**ARTICLE 5
PERFORMANCE PERIOD/TERM**

The term of this Contract shall be for a period of one (1) year starting on September, 2014 and ending on August 31, 2015. At the County's option, this contract may be renewed for four (4) additional one-year terms.

**ARTICLE 6
COMPENSATION**

Each Task Order will include the agreed upon compensation for the Contractor for the Scope of Work to be performed under each Task Order. Hourly rates for Professional staff and reimbursement for expenses and sub-consultant costs will be as stated in the fee structure provided in the Contractor's Proposal dated July 11, 2014. Work performed on each Task Order will be accounted for separately by the Contractor and the County will be invoiced on a monthly basis for work performed under each County approved Task Order. Payments will be made as outlined in Article 17.

**ARTICLE 7
INSURANCE/**

Insurance

Contractor does hereby covenant, agree and hereby represent to the County that it has obtained workmen's compensation insurance, general liability and automobile liability insurance, as well as providing coverage against potential liability arising from and in any manner relating to the Contractor's performance of the Scope of Work contained in any and all Task Orders. Additionally, the Contractor agrees to list the County as 'additional insured' on Certificates of Insurance related to the execution of this Contract.

**ARTICLE 8
DEFAULT/TERMINATION**

Default

In the event of default or breach of any condition of this Contract resulting in litigation, the prevailing party would be entitled to reasonable attorneys' fees fixed by the Court. The remedies herein given to County under Default shall be cumulative, and the exercise of any one remedy by the County shall not be to the exclusion of any other remedy.

Termination

This contract may be terminated by the County, 'for convenience' 'for cause,' or by 'by mutual consent' as described in RFP Section V Paragraph 6.0.

1. Termination for Convenience

The County may, without cause, terminate this contract in whole or in part at any time for its convenience. In such instance, an adjustment shall be made to the Contractor, for the reasonable costs of the work performed through the date of termination. Termination costs do not include lost profits, consequential damages, delay damages, unabsorbed or under absorbed overhead of the Contractor or its subcontractors, and/or failure of Contractor to include termination for convenience clause into its subcontracts shall not expose the County to liability for lost profits in conjunction with a termination for convenience settlement or equitable adjustment. Contractor

Beaufort Co. ATM Stormwater Contract

expressly waives any damages, delay damages, or indirect costs which may arise from County's election to terminate this contract in whole or in part for its convenience.

2. Termination For Cause

Termination by the County for cause, default, or negligence on the part of the Contractor shall be excluded from the foregoing provisions. Termination costs, if any, shall not apply. The thirty (30) days advance notice requirement is waived, and the default provision in this bid shall apply.

Reasons for Termination for Cause shall include but not limited to:

- a) Default as defined above,
- b) failing to make satisfactory progress in the prosecution of the contract
- c) endangering the performance of this contract
- d) criminal activity or misconduct,
- e) work that is deemed sub-standard by the County Representative.

3. Termination by Mutual Consent

Either party may terminate this Contract by mutual consent with written notice attesting and agreeing to a termination by mutual consent by either party. Upon such termination, the County shall pay the Contractor for all services performed hereunder up through the date of such termination. Termination by mutual consent may entitle the Contractor to reasonable costs allocable to the contract for work or costs incurred by the Contractor up to the date of termination. The Contractor must not be paid compensation as a result of a termination by mutual consent that exceeds the amount encumbered to pay for the cumulative value of all approved Task Orders to be performed under the contract.

ARTICLE 9 RESPONSIBILITY

The County will be responsible to provide the Contractor reasonable access to County locations when necessary, ensure cooperation of County employees in activities reasonable and appropriate under the project, and obtain authorization for access to third party sites, if required.

ARTICLE 10 FORCE MAJEURE

Should performance of Contractor services be materially affected by causes beyond its reasonable control, a *Force Majeure* results. *Force Majeure* includes, but is not restricted to:

- a) acts of God,
- b) acts of a legislative,
- c) administrative or judicial entity,
- d) acts of Contractors (other than subcontractors of Contractor),
- e) fires,
- f) floods,
- g) labor disturbances,

- h) civil unrest
- i) incorrect/inferior parts or materials
- j) terrorism
- k) unusually severe weather.

Contractor will be granted a time extension and the parties will negotiate an adjustment to the fee, where appropriate, based upon the effect of the Force Majeure upon Contractor's performance.

ARTICLE 11 SEVERABILITY

Every term or provision of this Contract is severable from others. Notwithstanding any possible future finding by a duly constituted authority that a particular term or provision is invalid, void, or unenforceable, this Contract has been made with the clear intention that the validity and enforceability of the remaining parts, terms and provisions shall not be affected thereby.

ARTICLE 12 INDEPENDENT CONTRACTOR

The Contractor shall be fully independent in performing the services and shall not act as an agent or employee of the County. As such, the Contractor shall be solely responsible for its employees, subcontractors, and agents and for their compensation, benefits, contributions and taxes, if any.

ARTICLE 13 NOTICE

The Contractor and the County shall notify each other of service of any notice of violation of any law, regulation, permit or license relating to the services; initiation of any proceedings to revoke any permits or licenses which relate to such services; revocation of any permits, licenses or other governmental authorizations relating to such services; or commencement of any litigation that could affect such services. Such notice shall be delivered by U.S. mail with proper postage affixed thereto and addressed as follows:

County:	Beaufort County Administrator P. O. Drawer 1228 Beaufort, SC 29901-1228
	Attn: Beaufort County Purchasing Director P. O. Drawer 1228 Beaufort, SC 29901-1228
Contractor:	Applied Technology & Management, Inc. Anthony C. Maglione, Vice President P.O. Box 20366 Charleston, SC 29401

ARTICLE 14 CHANGE ORDERS

Should the Scope of Professional Service for any specific approved Task Order as noted in Article 6 of this Contract change as a result of:

- a) County requested changes to approved Task Orders Scope of Professional Services, or
- b) Increase in work needed to complete any approved Task Order as a result of unexpected occurrence outside of the control of the Contractor, or
- c) The County requests additional Task Orders from the Contractor

Then the Contractor will prepare and submit to the County an amendment to the applicable Task Order, or where no Task Order is in place of such additional services, the Contractor will prepare a Task Order for the County's review. No additional services will be undertaken by the Contractor without the approval of a Task Order or Task Order Amendment by the County.

ARTICLE 15 AUDITING

The Contractor shall make available to the County if requested, true and complete records, which support billing statements, reports, performance indices, and all other related documentation. The County's authorized representatives shall have access during reasonable hours to all records, which are deemed appropriate to auditing billing statements, reports, performance indices, and all other related documentation. The Contractor agrees that it will keep and preserve for at least seven years all documents related to the Contract, which are routinely prepared, collected or compiled by the Contractor during the performance of this contract.

The County's Auditor and the Auditor's authorized representatives shall have the right at any time to audit all of the related documentation. The Contractor shall make all documentation available for examination at the Auditor's request at either the Auditor or Contractor's office and without expense to the County.

ARTICLE 16 GRATUITIES

The right of the Contractor to proceed or otherwise perform this Contract, and this Contract may be terminated if the County Manager and/or the County Contracting Manager determine, in their sole discretion, that the Contractor or any officer, employee, agent, or other representative whatsoever, of the Contractor offered or gave a gift or hospitality to a County officer, employee, agent or Contractor for the purpose of influencing any decision to grant a County Contract or to obtain favorable treatment under any County Contract.

The terms "hospitality" and "gift" include, but are not limited to, any payment, subscription, advance, forbearance, acceptance, rendering or deposit of money, services, or items of value given or offered, including but not limited to food, lodging, transportation, recreation or entertainment, token or award.

ARTICLE 17
INVOICES

All invoices for work done under this contract should be directed to the County Representative, Eric Larson, PE Stormwater Manager
Located at:

Beaufort County Stormwater Utility
120 Shanklin Road
Beaufort, S.C. 29906

Invoices should include:

- a) Period of time covered by the invoice
- b) Summary of work performed for the billing period
- c) Purchase order and Contract Number
- d) Tax Identification Number

Unless otherwise indicated, all invoices must be timely and accurate. The Contractor will make periodic requests for payment for approved Task Orders. Invoices will be itemized by Task Order.

ARTICLE 18
Purchase Orders

The County will issue Purchase Orders from properly executed requisitions for each Task Order. The County shall not be responsible for invoices of \$500 or more that do not have a purchase order covering them.

ARTICLE 19
ORDER OF DOCUMENTS

The following are incorporated into and made a part of this contract by reference:

- a) Request for Proposal Number 07112014
- b) Addendum #1 dated July 2, 2014
- c) Fee Structure dated August 14, 2014
- d) Applied Technology & Management, Inc. Proposal Submission to RFP Number 07112014
- e) Recommendation Memo to County Council dated August 18, 2014

SIGNATURE PAGE

This Contract with the above Articles constitutes the entire contract between the parties hereto. No representations, warranties or promises pertaining to this Contract have been made or shall be binding upon any of the parties, except as expressly stated herein.

This Contract shall be construed in accordance and governed by the laws of the State of South Carolina.

IN WITNESS WHEREOF, the parties hereto have executed this Contract on the day and year first above written.

WITNESSES:

Cheryl Harris
Sherry Barrett

WITNESSES:

Monica Harvey
Kathy Marshall

BEAUFORT COUNTY, a political sub-division of the State of South Carolina

By: Gary Kubic
Name: Gary Kubic
Title: County Administrator
Address: P.O. Drawer 1228
Beaufort, SC 29901-1228
Phone: (843) 255-2026
Fax: (843) 255-9403
Date: 8/21/14

CONTRACTOR NAME

By: CAH
Name: Anthony C. Maglione
Title: Vice President
Address: P.O. Box 20336
Charleston, SC 29401
Phone: (843) 414-1040
Fax: (843) 414-0155
Tax ID Number: 592413268
Date: August 18, 2014



Engineering and Consulting Services for Stormwater Management

8 | FEES AS OF August 12, 2014

The following fees will apply to all work performed by the ATM Team and will not be subject to change until September 1, 2015.

LABOR CATEGORY	HOURLY RATE
Principal Engineer/Scientist	\$165.00/hr
Senior Modeler/Scientist (PhD)	\$185.00/hr
Senior Engineer(PE)/Finance	\$165.00/hr
Staff Modeler	\$100.00/hr
Staff Engineer(PE)	\$110.00/hr
Associate Engineer(EIT)	\$100.00/hr
Biologist	\$100.00/hr
GIS Specialist	\$100.00/hr
Draft/CADD	\$85.00/hr
Construction Inspector	\$85.00/hr
Graphic Designer	\$70.00/hr
Document Coordinator/Technical Editor	\$80.00/hr
Administrative	\$65.00/hr

In addition to the hourly fees, other direct expenses associated with travel, subsistence, materials and overnight delivery will be invoiced at cost plus an administrative management fee of 10 percent. Sub consultants cost will be billed at invoice cost plus 5 percent administrative fee. These fees are valid until August 31, 2015 at which time they are subject to change.



Civil, Coastal, Environmental, Marine and Water Resources Engineers

Stormwater Management Utility Board					
SWIC Schedule	Current Schedule	Proposed Schedule		Location	NRC Schedule
January 14, 2015	January 7, 2015	January 7, 2015	1st Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	Cancelled
	February 4, 2015	February 4, 2015	1st Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	February 9, 2015*
February 11, 2015	March 4, 2015	February 25, 2015	4th Wed	Admin Bldg, ECR 104 Industrial Village Rd Beaufort, SC	March 2, 2015
March 11, 2015	April 1, 2015	March 18, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	April 6, 2015
April 8, 2015	May 6, 2015	April 29, 2015	4th Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	May 4, 2015
May 13, 2015	June 3, 2015	May 20, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	June 1, 2015
June 10, 2015	July 1, 2015	Cancelled			
July 8, 2015	August 5, 2015	July 22, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	July 28, 2015**
August 12, 2015	September 2, 2015	August 26, 2015	4th Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	August 31, 2015
September 9, 2015	October 7, 2015	September 30, 2015	4th Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	October 5, 2015
October 14, 2015	November 4, 2015	October 21, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	November 2, 2015
November 11, 2015	December 2, 2015	November 18, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	December 7, 2015
December 9, 2015	January 6, 2016	December 16, 2015	3rd Wed	BIV, Bldg 3 Conf Rm 104 Industrial Village Rd Beaufort, SC	TBD

* Rescheduled date for February 2, 2015

** Tuesday in lieu of Monday