



**Beaufort County Public Works
Stormwater Infrastructure
Project Summary**

Project Summary: Bruce K. Smalls Drive Outfall - Smith Road, Smalls Hill Road, Gamecock Way, Mulrain Road and Webb Road

Project #: 2004-103

Completed: Feb-10

Narrative Description of Project:

Project improved 3,001 L.F. of drainage system. Bush hogged 1,584 L.F. of outfall ditch. Cleaned out 2,216 L.F. of outfall ditch and 146 L.F. of roadside ditch. Installed (2) bleeder pipes and (1) access pipe. Extended (1) driveway pipe. Repaired washouts. Cleaned out (10) catch basins and (2) manholes. Jetted (7) crossline pipes, 8 L.F. of outfall pipe, 378 L.F. of under pavement pipes and 253 L.F. of roadside pipe. Installed rip rap and hydroseeded for erosion control.

Material Cost, Rental Equipment Summary, and Labor

Material	Unit	Cost/Unit	Qty	Cost
12" HDPE Pipe	linear feet	\$4.86	40.0	\$194.40
18" HDPE Pipe	linear feet	\$8.71	20.0	\$174.20
36" RCP Pipe	linear feet	\$38.52	16.0	\$616.32
Fill Dirt	ton	\$1.00	87.5	\$87.49
Rip Rap	ton	\$47.08	18.6	\$877.57
Filter Blanket Woven	sy	\$0.63	90.3	\$56.88
Silt Fence	sy	\$0.78	7.8	\$6.08
Turf Staples	each	\$0.03	90.0	\$2.70
10-10-10 Fertilizer	bag	\$11.72	2.0	\$23.44
Hydromulch	bale	\$12.22	4.0	\$48.88
Hydrogel	cup	\$2.82	2.0	\$5.64
Hydromax Liquid Fertilizer	cup	\$2.54	2.0	\$5.08
Annual Rye Grass Seed	bag	\$19.21	2.0	\$38.42
Pin Flag	each	\$0.06	27.0	\$1.62
Water	gallon	\$0.01	10,005	\$100.05
Gas	gallon	\$2.43	75.0	\$182.25
Diesel	gallon	\$2.44	382.1	\$932.32
Labor	hours		616.5	\$20,805.73
Total Cost of Materials, Rental Equip., and Labor				\$24,159.08

Note: Labor cost includes the employee's salary plus fringe benefits.

Site Photographs

Before



During



After



Bruce K. Smalls Drive Outfall Project Summary Con't

Project #: 2004-103

Equipment Cost

Item	Asset No.	Cost/Hou	Hrs.	Cost
Komatsu Mini Excavator	23000	\$18.65	44.0	\$820.60
Bobcat T300	22847	\$20.10	1.0	\$20.10
Bobcat T320	23388	\$21.00	2.0	\$42.00
Bush Hog	21300	\$35.00	6.0	\$210.00
Vacuum Truck	23118	\$20.30	37.0	\$751.10
Hydroseeder	18909	\$7.35	3.0	\$22.05
Dump Trucks		\$16.68	114.0	\$1,901.52
Pickup Trucks		\$4.17	148.5	\$619.25
Total Equipment Cost				\$4,386.62

Cost/hour excludes fuel cost.

Total Cost: \$28,545.69

Site Photographs

Before



During



After



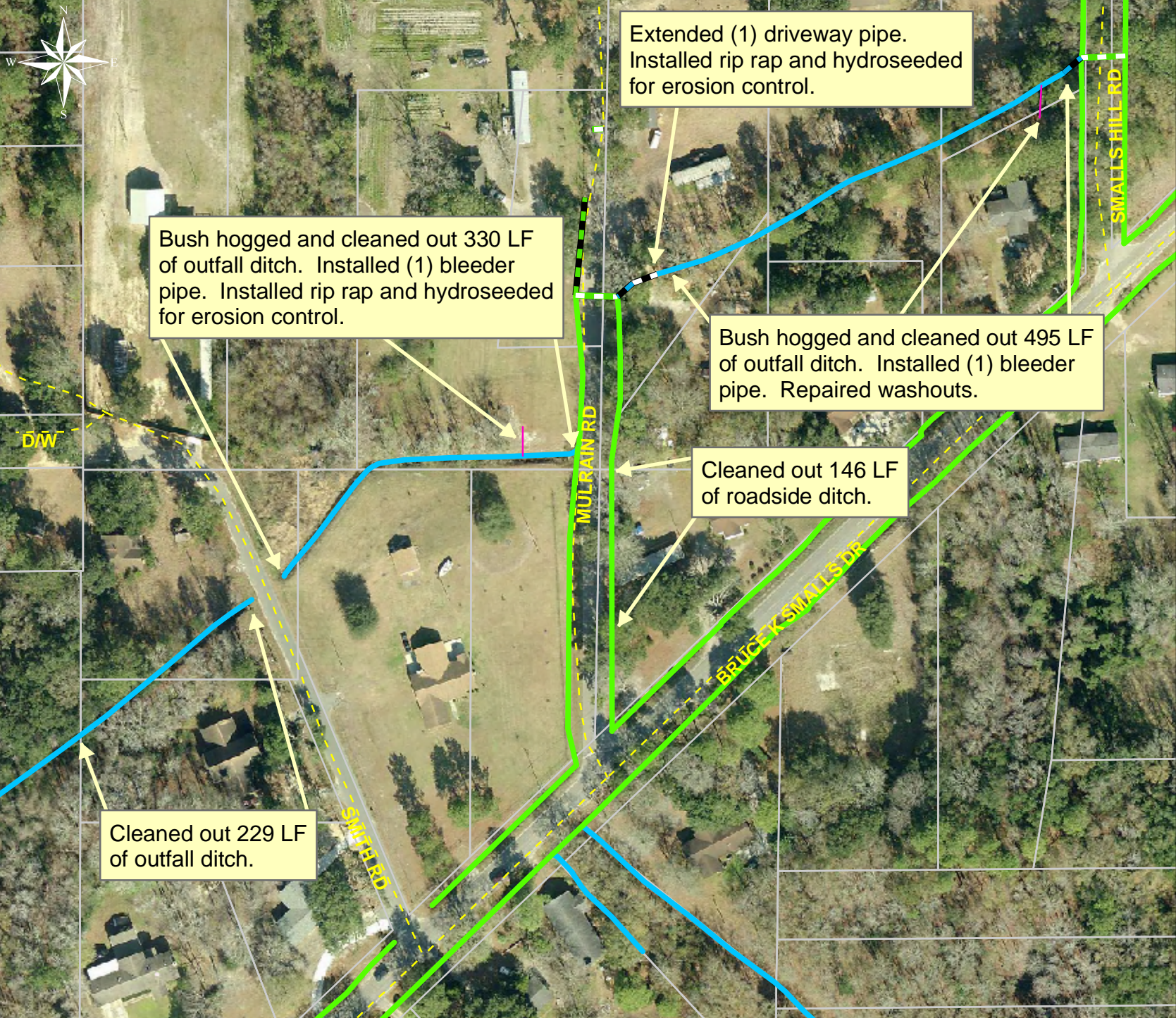
Project: Bruce K. Smalls Drive Outfall
Map 1

Activity: Drainage Maintenance

Project #: 2004-103

Township: Port Royal Island

Completed: February 2010



Legend

Drainage Type

- River
- Stream
- Outfall
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Crossline
- D/W
- Access
- Piped
- Bleeder
- Parcels



1 inch equals 130 feet

Project: Bruce K. Smalls Drive Outfall
 Game Cock Way, Smith, Smalls Hill, and Webb Roads
 Map 2

Activity: Drainage
 Maintenance

Project #:
 2004-103

Township: Port
 Royal Island

Completed:
 February 2010



Legend	
Drainage Type	
	River
	Stream
	Outfall
	Lateral
	Lateral Pipe
	Roadside
	Roadside Pipe
	Crossline
	D/W
	Access
	Piped
	Bleeder
	Parcels



1 inch equals 130 feet



Project: Bruce K. Smalls Drive Outfall
Smalls Hill Road
Map 3

Activity: Vacuum Truck

Project #: 2004-103

Township: Port Royal Island

Completed: February 2010

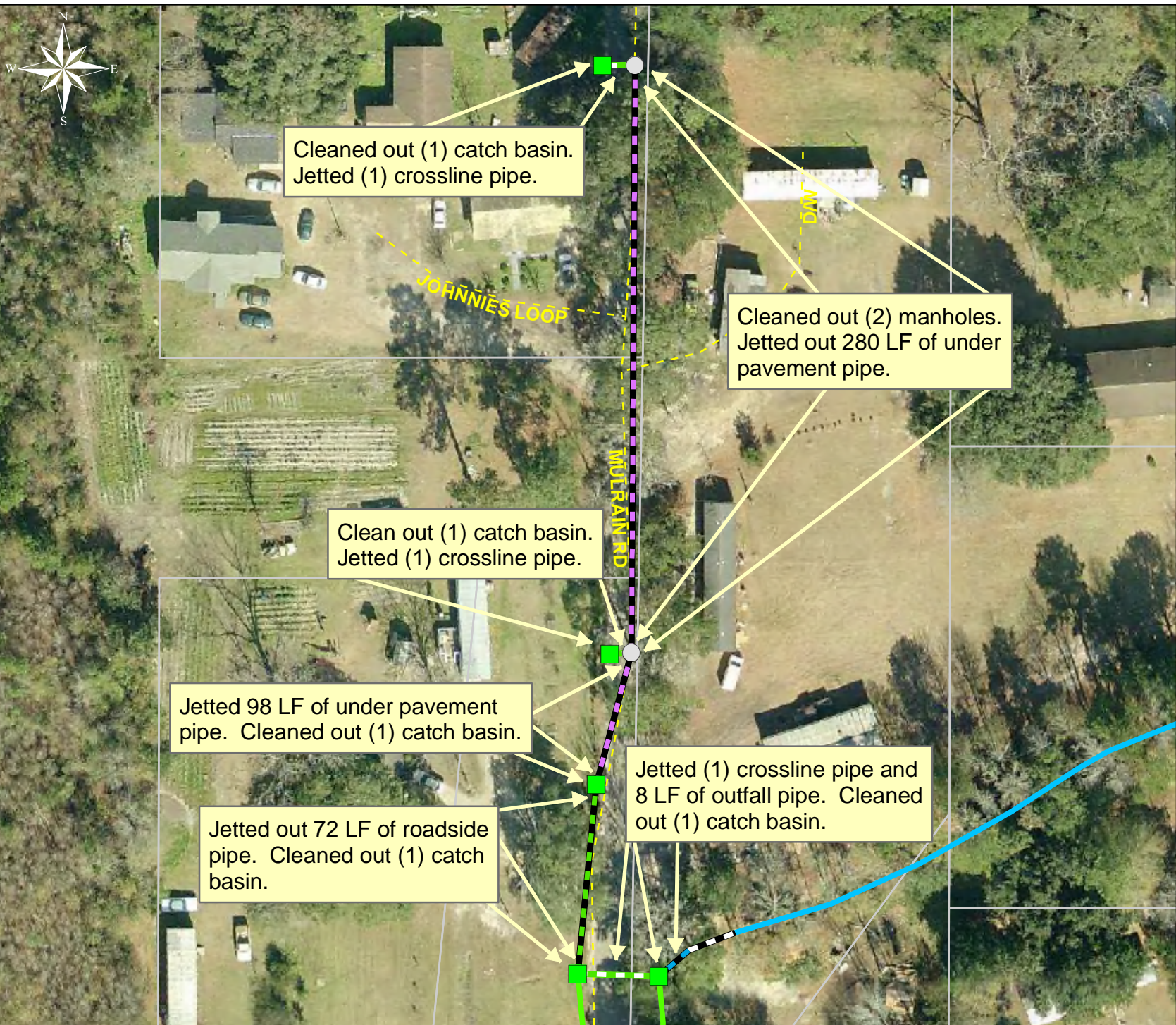
Legend

Drainage Type

- River
- Stream
- Outfall
- Lateral
- Lateral Pipe
- Roadside
- Roadside Pipe
- Crossline
- D/W
- Access
- Piped
- Bleeder
- Parcels



1 inch equals 130 feet



Project: Bruce K. Smalls Drive Outfall
Mulrain Road
Map 4

Activity: Vacuum Truck

Project #: 2004-103

Township: Port Royal Island

Completed: February 2010

Legend

Drainage Type

- River
- Stream
- Outfall
- Lateral
- Lateral Pipe
- Roadside
- Under Pavement Pipe
- Roadside Pipe
- Crossline
- D/W
- Access
- Piped
- Bleeder
- Parcels



1 inch equals 68 feet