

Clean Water 2020 Program

Transmission System Operations and Maintenance Program (TSOMP)

Appendix A: Pump Station Technical Specifications

May 2015



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030	East Bluff
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045	Galaxy
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Table 1. City of Columbia Wastewater Pump Stations

Pump Station Number	Pump Station name
175	Piney Grove
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195	Saluda River
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330	Bookert Heights
335	Broad River
340	Hawkins Creek
345	The Palms
350	Owens Field Park

Pump Station Technical Specifications Glossary

Name	Name of the pump station.
Station ID#	City of Columbia station identification number.
Location/Address	Street address, if available, City, State and Zip Code of pump station. Near or approximate is noted if the exact address is not available.
Coordinates	Latitude and Longitude of the pump station given in Degrees and Minutes.
Pump Station Location Map	Vicinity image of the pump station with major streets labeled, the pump station noted by a symbol, a legend and a scale bar. Pump Station Location Map image is taken from GIS.
Force Main Location Map	Vicinity image of the pump station and discharge force main with major streets labeled, the pump station noted by a symbol, the force main shown in a contrasting color to other existing system force mains in the vicinity, a legend and a scale bar. The Force Main map image is taken from GIS and the Force main route shown in the GIS system is based on record force main drawings.
Firm Pumping Capacity (GPM)	Pump station pumping capacity with the largest pump out of service. This value is generally taken directly from the design documents (e.g., design plans). When unavailable via design documents, the firm pump capacity was derived from vendor submittals/data, pumps curves, maintenance records, or O&M manuals.
Number of Pumps Installed	Number of pumps installed in the pump station.
TDH @ Firm Pumping Capacity (FT)	Total Dynamic Head (System Head) with the pump station pumping at Firm Pumping Capacity. This value is generally taken directly from the design documents (e.g., design plans). When unavailable via design documents, the TDH was derived from vendor submittals/data, pumps curves, maintenance records, or O&M manuals.
Type of Pump Station	Describes the configuration of the pump station. Types include Submersible, Centrifugal, Suction Lift, Dry Pit Submersible and Submersible/Dry Pit Submersible. Value is based on record pump station drawings.
VFD Present	Describes if the pump station is equipped with a Variable Frequency Drive which allows the pumps to be run at various speeds as dictated by the pump station control system. Information based on record pump station drawings and record information.

Discharge Force Main Diameter (IN)	Diameter of the force main extending from the pump station to the discharge point. Dimension is based on record force main drawings and or record pump station drawings when available.
Discharge Force Main Approximate Length (FT)	Approximate length of the force main extending from the pump station to the discharge point. Dimension is based on record force main drawings when available.
Discharge Force Main Material of Construction	Pipe material of the force main exiting the pump station. Material description is based on record force main drawings and or record pump station drawings when available. DIP - Ductile Iron Pipe PVC - Polyvinyl Chloride Pipe CCFRPM - Centrifugally Cast, Fiberglass Reinforced, Polymer Mortar HDPE - High-Density Polyethylene Pipe
Discharge Force Main Manhole/End Asset ID	The point at which the force main connects to the City's collection system. Connection is based on record force main drawings when available. End Asset ID is the identification number assigned to the receiving structure at the end of the force main.
Force Main Drawings	Record force main drawings on file. Information includes the City File Number (CF#) or the project number recorded by the City.
Pump Station Drawings	Record pump station drawings on file. Information includes the City File Number (CF#) or the project number recorded by the City.
Additional Drawings	Additional, historical or superseded record drawings on file. Information includes the City File Number (CF#) or the project number recorded by the City.
Installed Pump	Pump installed and in service at the pump station.
Reserve Pump	Inventory pump designated for use at a specific pump station in the event of an installed pump failure, or removal for extended maintenance. This field does not include general purpose pumps, bypass pumps, or other pumping equipment not specific to this station.
Pump Number	Corresponding number assigned to the pump installed in the pump station.
Pump Curves (Yes/No)	The manufacturers pump curves on-file.
Make	Brand of pump. Based on record information.
Model	Pump model number. Based on record information and information provided by Pump Vendors.
Serial Number	Pump Serial Number. Based on pump name plate information, pump curves, pump order forms, pump operation and maintenance manuals and Pump Vendor information.

Voltage (Pump Information Section)	Pump Motor Voltage. Based on pump name plate information, pump curves, pump order forms, pump operation and maintenance manuals and Pump Vendor information.
Horsepower	Pump Horsepower. Based on pump name plate information, pump curves, pump order forms, pump operation and maintenance manuals and Pump Vendor information.
On-site Generator/Back-up Power Source	Availability of on-site generator or back-up power source in the event of loss of primary power. Information is from record information and drawings when available.
Voltage (Backup Power Information)	Voltage of on-site generator or back-up power source. Information is from record information and drawings when available.
Wattage	Wattage of on-site generator or back-up power source. Information is from record information and drawings when available.
Fuel Capacity	Fuel capacity of on-site generator or back-up power source. Diesel fuel is recorded in gallons and LPG is recorded in pounds. Information is from record information and drawings when available.
City Asset ID#	City inventory asset identification number assigned to the back-up power device.
Portable Generator Receptacle On-site (Yes/No)?	Availability of a generator receptacle as a means for connecting a portable generator to the pump station electrical system in the event of loss of primary power. Typically installed in place of permanent On-site Generator/Back-up Power Sources.
Portable Generator Receptacle Type	Brand, Model and Serial Number of the portable generator receptacle. Based on best available record information.
Bypass pumping connection available?	Identification of the installation of piping and connections to provide a means of using a portable pump to pump wastewater into the force main system while bypassing the pump station wet well and/or the pump station permanent pumps. Information is based on the record pump station drawings.
Latest Drawdown Date	Date that the most recent drawdown test was performed for a specific pump station. Based on the best available record information.
Drawdown Flow (GPM)	Observed and calculated effluent flow (pump flow) witnessed at the most recent drawdown test for a specific pump station. Based on the best available record information.
Drawdown TDH (FT)	System pressure witnessed at the most recent drawdown test for a specific pump station. Based on the best available record information.
Drawdown Inflow (GPM)	Observed and calculated influent flow witnessed at the most recent drawdown test for a specific pump station. Based on the best available record information.

Conducted By	Entity (e.g., company, City maintenance staff) that performed the most recent drawdown test for a specific pump station. Based on the best available record information.
SCADA Recorded/Reported Info	Pump station alarms/notifications recorded or reported by an electronic monitoring system installed at a specific pump station facility. (Supervisory <u>C</u> ontrol <u>A</u> nd <u>D</u> ata <u>A</u> cquisition). Based on available record information.
Pump Station History	Previous modifications or upgrades associated with a specific pump station facility. Based on the best available record information.
Other/Notes	Any additional notes not documented in other fields.
Last Modified By	Name of the last person to modify the Pump Station Technical Specification records and the date that the records were modified.
Not Applicable (N/A)	This field is not applicable to the referenced information.
Unavailable	This information is not available through existing data sources.

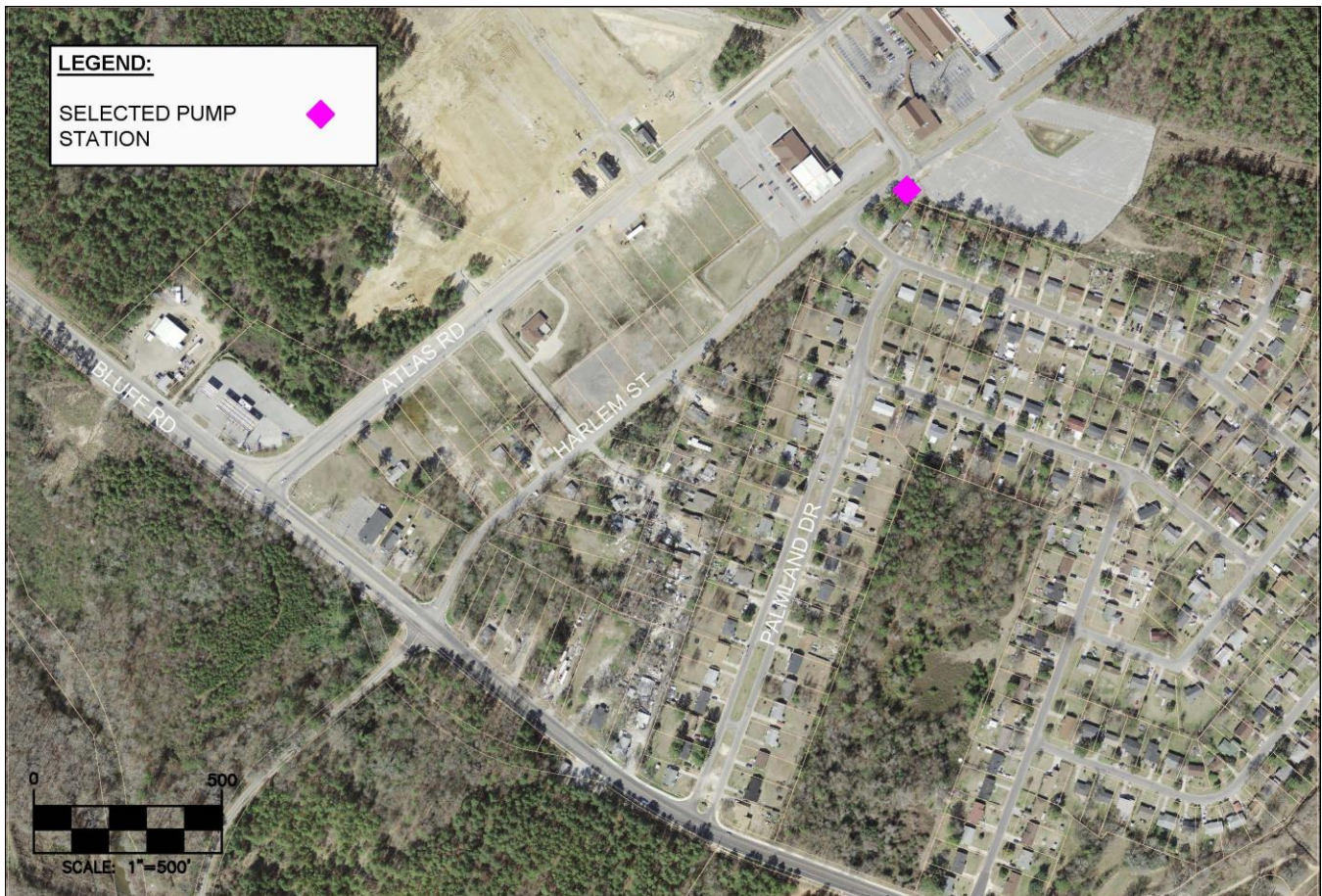
Pump Station Technical Specifications

Atlas Road Pump Station

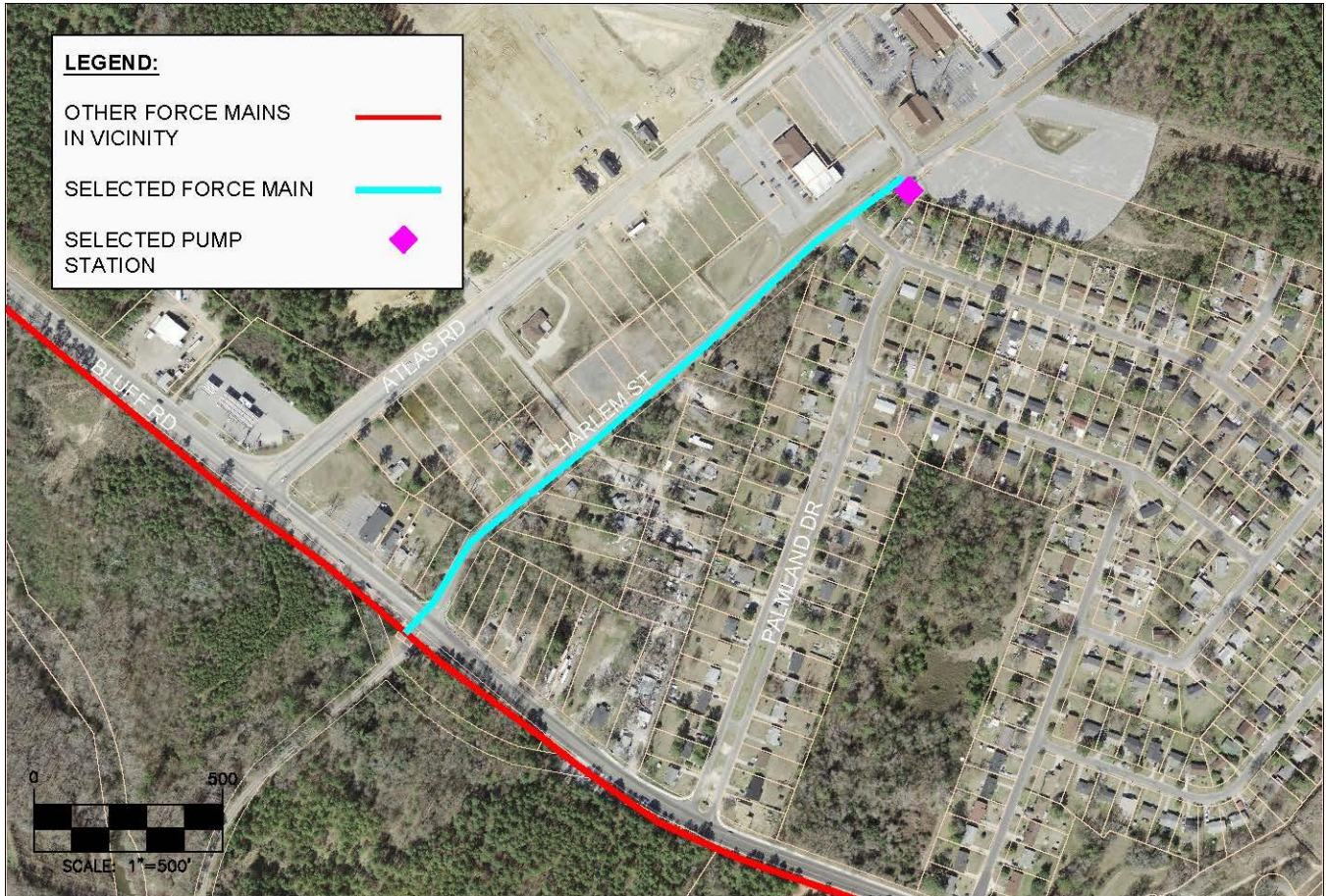
Location/Address: N Harlem St
(Near 2506 Harlem St)
Columbia, SC 29209

Station ID #: 005

Coordinates: 33° 56.420' N, 080° 58.463' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	300	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	238-06(R-2)D 238-06 E	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	40	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	238-06(R-2)D 238-06 E	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	238-06(R-2)C	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1814	238-06(R-2)C	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	238-06(R-2)C	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Mill Creek PS FM	238-06(R-2)C	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	238-06(R-2)C	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	238-06(R-2)D 238-06 E	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	238-06D, L	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-433	9920907	460	7.5	CLICK HERE FOR DOCUMENTS
2	R	YES	Flygt	CP-3127 4" IMP-433	9920908	460	7.5	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	CP-3127 4" IMP-433	9920909	460	7.5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 13, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	52.85	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	179.68	
Drawdown TDH Pump 1 (FT)	18.48	
Pump 1 Amperage (AMPS)	8.4, 7.6, 8.6	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	211.38	
Drawdown TDH Pump 2 (FT)	18.48	
Pump 2 Amperage (AMPS)	6.4, 6.8, 6.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1999	Initial Construction	Unavailable	Approximate Date of Construction See Pump Station Plans	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

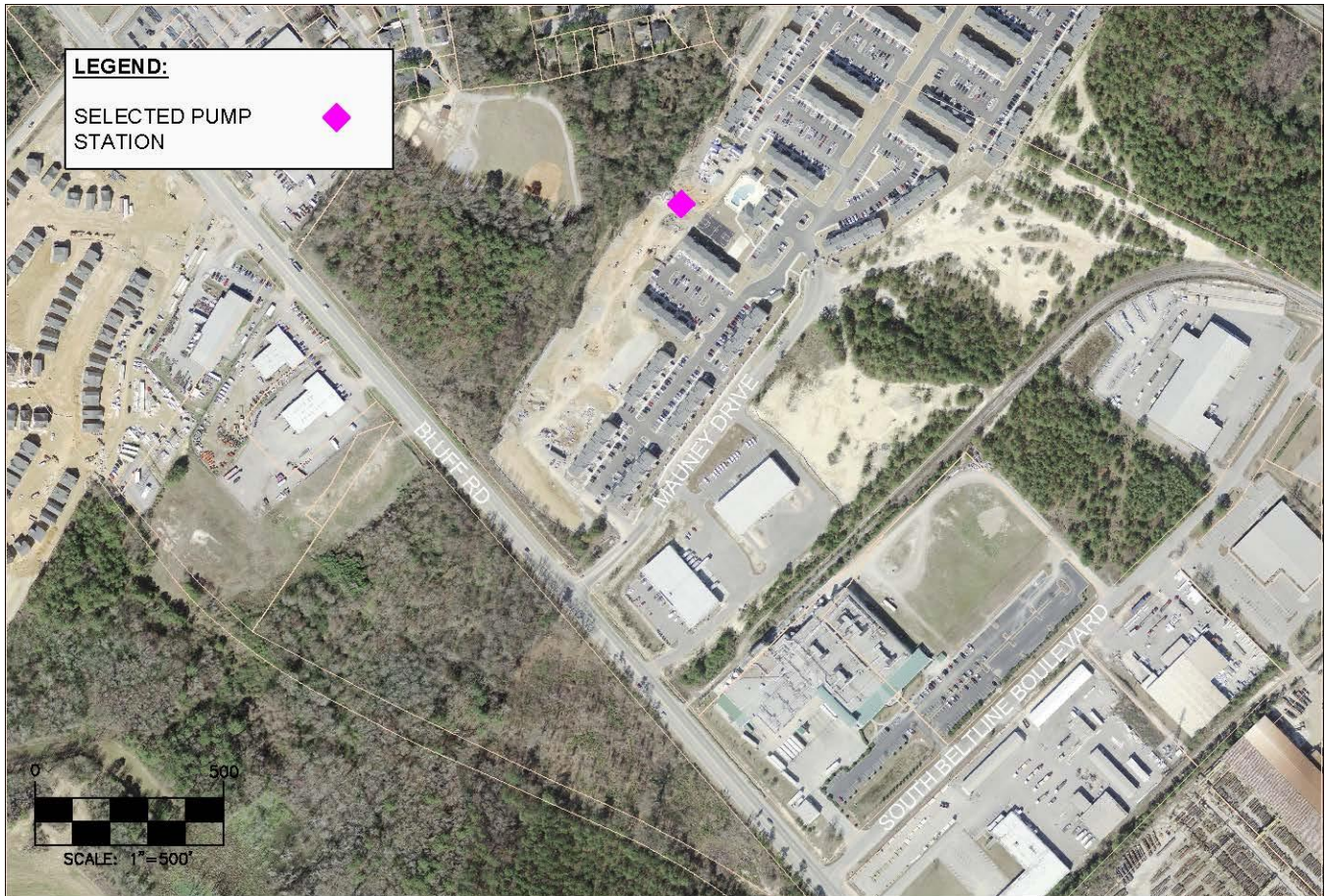
Pump Station Technical Specifications

Woodlands Pump Station

Location/Address: 1051 Southern Dr
(N/S Bluff Rd)
Columbia, SC 29201

Station ID #: 010

Coordinates: 33° 57.618' N, 080° 59.693' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	525	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	309-15	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	48	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	309-15	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	24-48A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2430	24-48A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Cast Iron	24-48A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC17-00142-MH	24-48A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	24-48A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	309-15	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	297-18	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3153 8" IMP-414	0902496	230	20	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3153 8" IMP-414	0902497	230	20	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3153 8" IMP-414	0902498	230	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	May 8,2009	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	736.31	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	38.0, 40.0, 40.0	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	657.98	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	36.0, 40.0, 37.0	
Conducted By	P. Dieckmann BP Barber	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Instantaneous Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1975	Original Pump Station Construction	Unavailable	No Documents Available for Original Pump Station	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2009	Pump Station Replacement	Unavailable	Constructed New Pump Stations and Demolished Original Pump Station. See Pump Station Plans.	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Dog Pound Pump Station

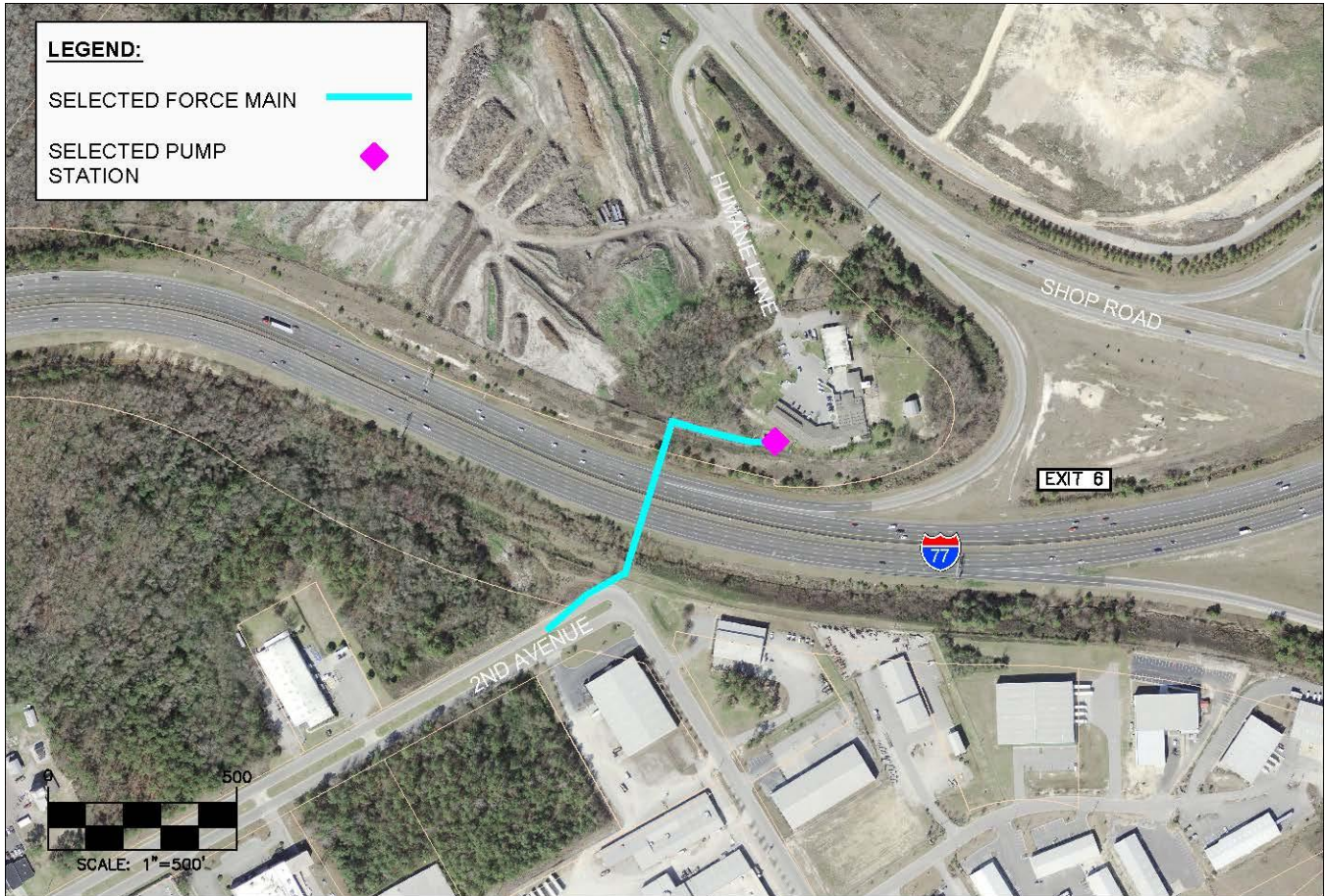
Location/Address: Humane Ln
(Behind 127 Humane Ln)
Columbia, SC 29209

Station ID #: 025

Coordinates: 33° 57.014' N, 080° 58.701' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	144	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	160-40 Electrical Schematic	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	27	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	160-40 Electrical Schematic	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	160-40	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	960	160-40	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	160-40	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC17-00315-MH	160-40	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	160-40	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	160-40 Electrical Schematic	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	160-40	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Gorman Rupp	T4A3-B/F	1531085	230	5	CLICK HERE FOR DOCUMENTS
2	I	YES	Gorman Rupp	T 4A3-B/F	1531086	230	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Teledyne Wisconsin LPG Motor Drive
Voltage (Volts)	230 Volt
Wattage (Watts)	16.8 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	90
City Asset ID#	AO017-18458
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 24, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	21.14	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	190.25	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	12.8, 10.8, 12.8	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	211.38	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	9.4, 7.6, 8.9	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1988	Initial Construction	Unavailable	See Pump Station Plans 160-40	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: SELF PRIMING PUMPS, PIPING AND BACK UP MOTOR

Pump Station Technical Specifications

East Bluff Pump Station

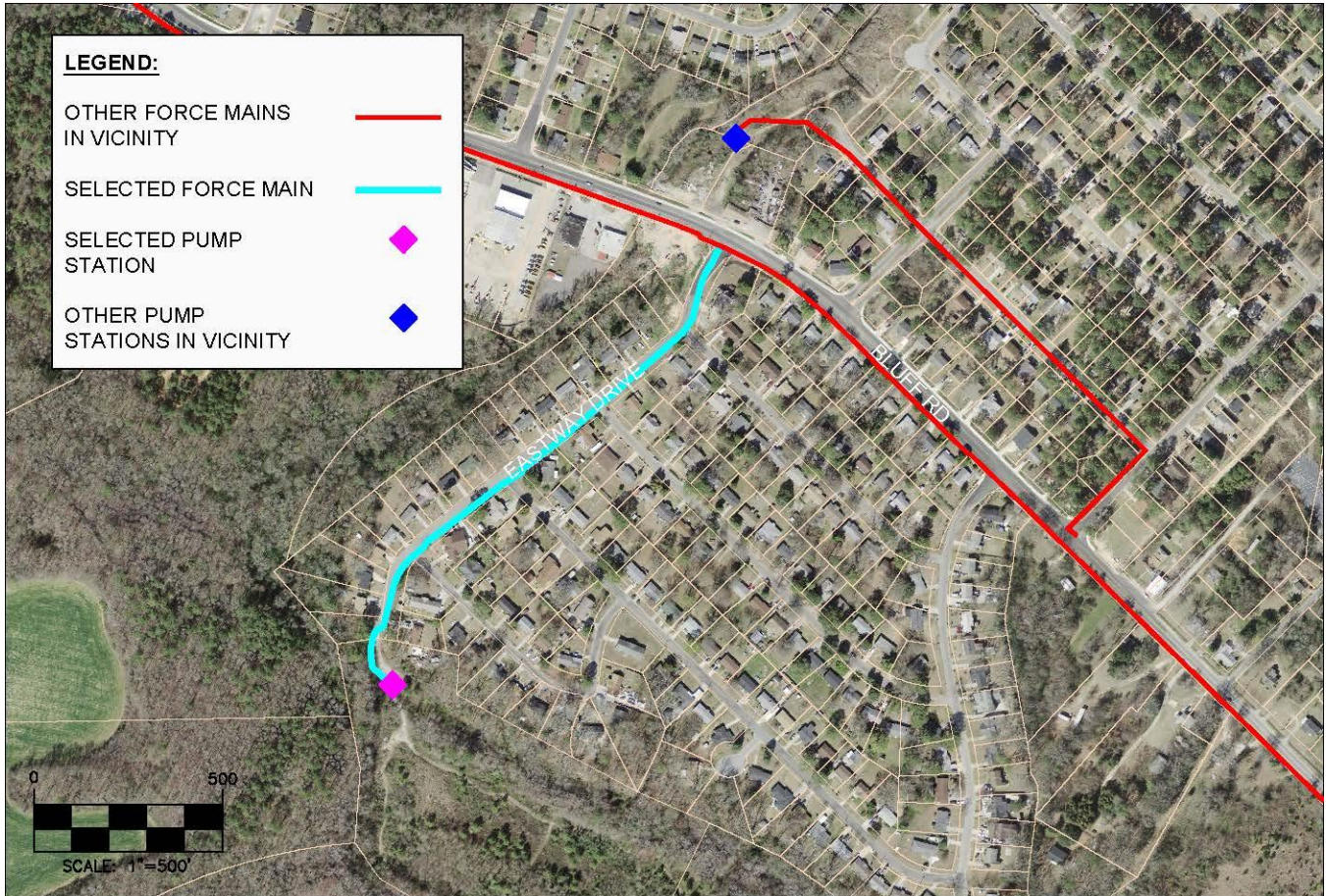
Location/Address: Eastway Dr
(Approx 3046 Eastway Dr)
Columbia, SC 29209

Station ID #: 030

Coordinates: 33° 55.866' N, 080° 58.497' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	443	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	186-23	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	92	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	186-23	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	186-23	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1584	186-23	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	186-23	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Mill Creek PS FM	186-23	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	186-23	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	186-23	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	186-230CS CSA 186-23007W/CMNT	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3171 4" IMP- 453	1340037	230	25	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3171 4" IMP- 453	1240123	230	25	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3171 4" IMP- 453	1240124	230	25	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	June 19, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	97.24	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	770.44	
Drawdown TDH Pump 1 (FT)	53	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	695.64	
Drawdown TDH Pump 2 (FT)	53	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1991	Initial Construction	Unavailable	See Pump Station Plans 186-24	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

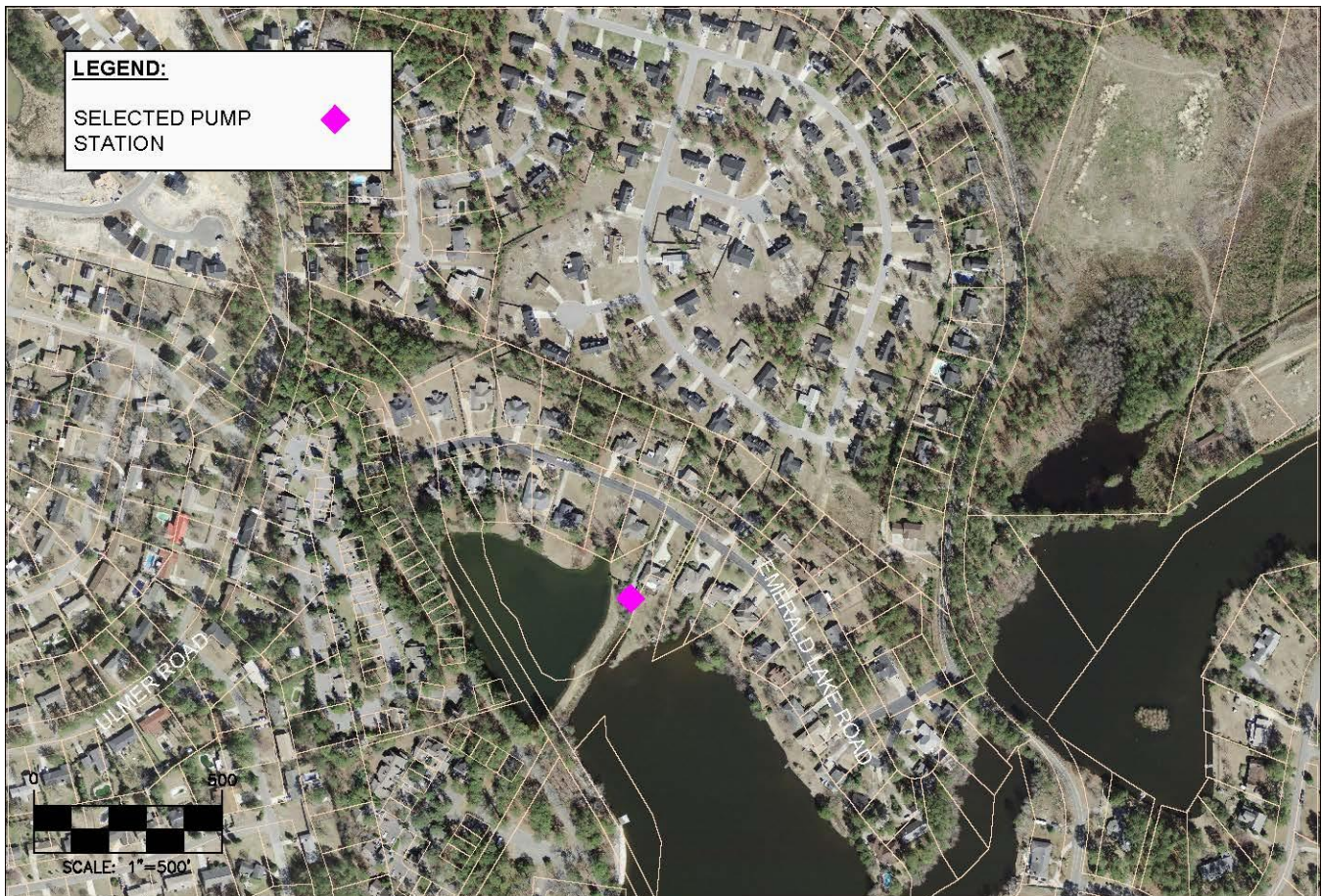
Pump Station Technical Specifications

Emerald Lakes Pump Station

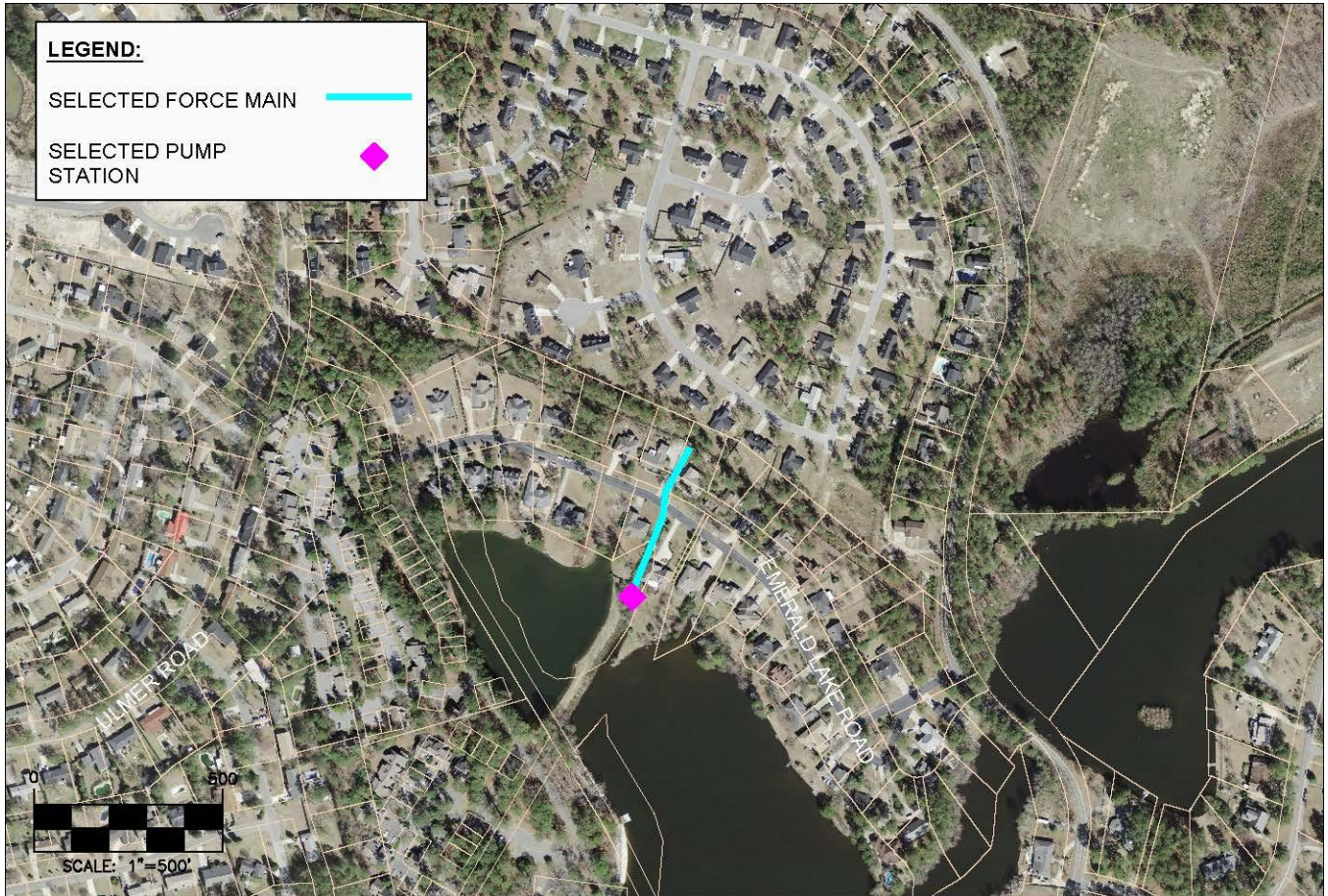
Location/Address: 139 Emerald Lake Rd
(133 Emerald Lake Rd)
Columbia, SC 29209

Station ID #: 035

Coordinates: 33° 58.249' N, 080° 53.811' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	125	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	SS6987 Division II	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	44	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	SS6987 Division II	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	129-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	427	129-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	129-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC03-00136-MH	129-07	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	129-07	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS6987 Division II	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	129-07A 129-07A(R-1) 129-07(R-1) GVTY INF MAP	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3102 4" IMP-432	0830145	230	5	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3102 4" IMP-432	0820325	230	5	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3102 4" IMP 462	0820154	230	5	CLICK HERE FOR DOCUMENTS
4	R	NO	Flygt	CP-3102 4" IMP 462	0680478	230	5	CLICK HERE FOR DOCUMENTS
5	R	NO	Flygt	CP-3102 4" IMP 462	0830146	230	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 25, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	2.2	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	68.26	
Drawdown TDH Pump 1 (FT)	23.1	
Pump 1 Amperage (AMPS)	17.2, 16.6, 16.8	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	104.96	
Drawdown TDH Pump 2 (FT)	30.03	
Pump 2 Amperage (AMPS)	14.1, 13.9, 13.6	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1984	Initial Construction	Unavailable	See Original Pump Station	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2008	Pump Station Replacement	SS6987 Division II	See SS6987 DIVISION II	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: WETWELL

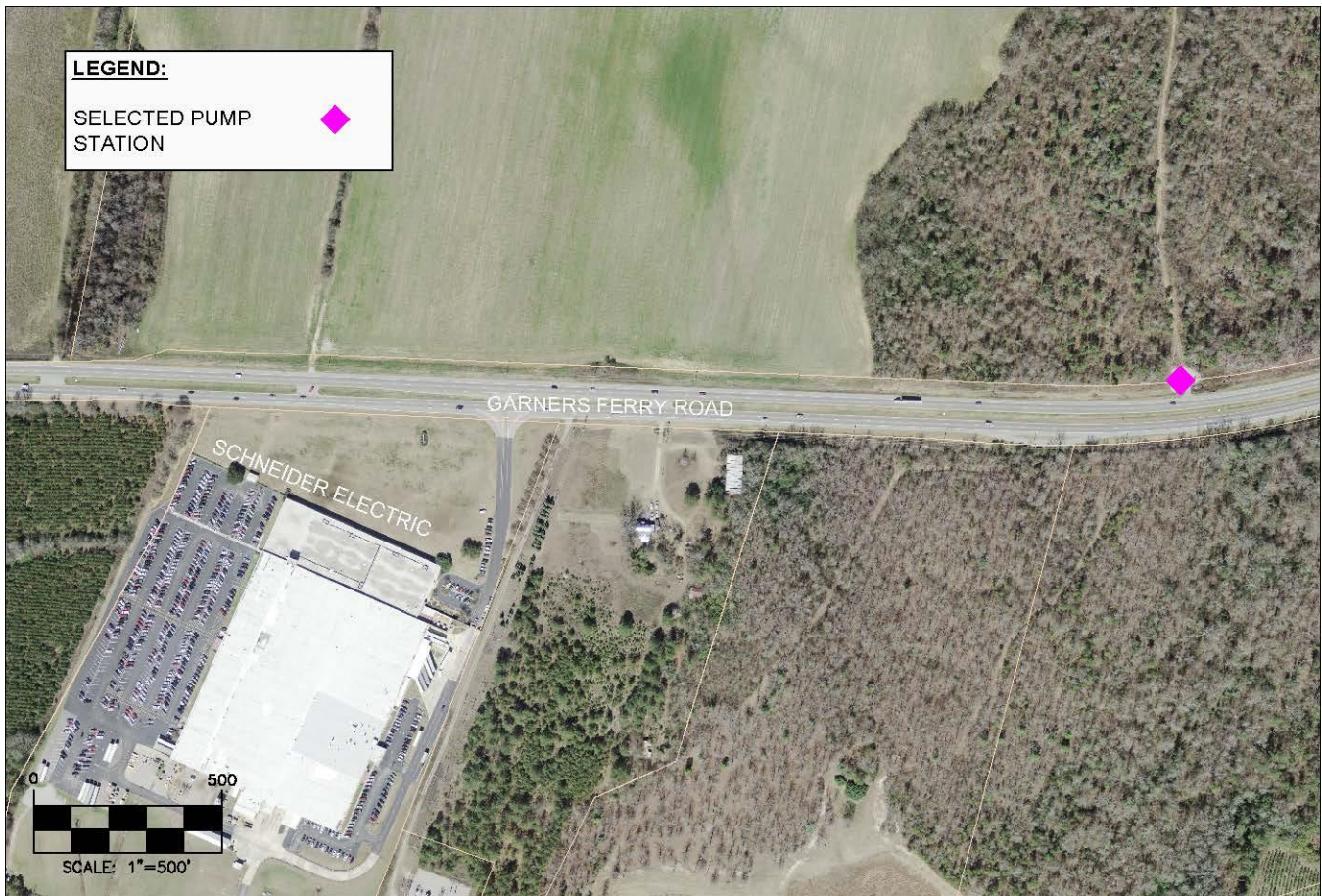
Pump Station Technical Specifications

Garners Ferry Rd Pump Station

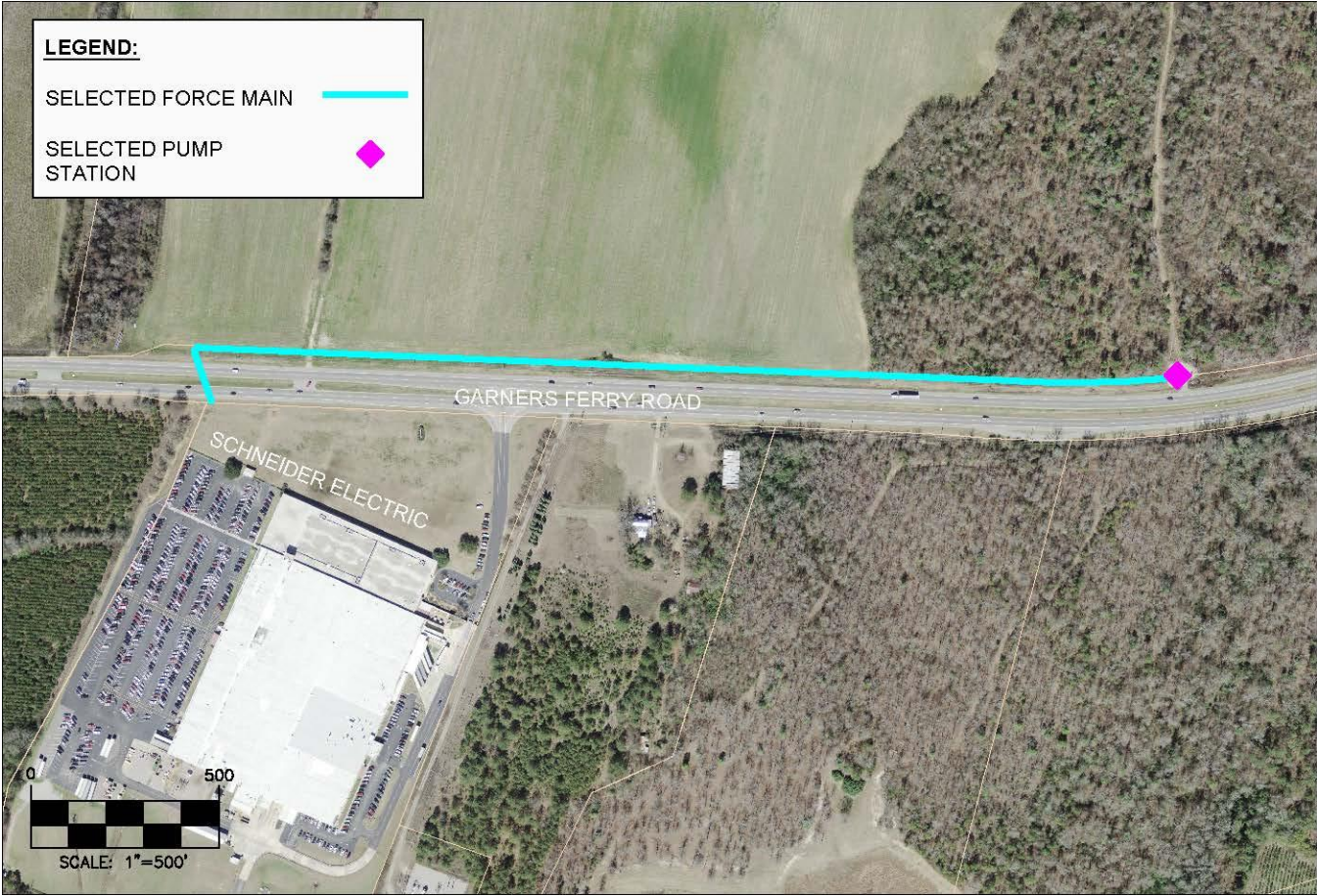
Location/Address: Garners Ferry Rd
(Approx. 8930 Garners Ferry Rd)
Columbia, SC 29209

Station ID #: 040

Coordinates: 33° 56.675' N, 080° 52.531' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	184	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	271-08	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	73	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	271-08	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	271-08	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2770	271-08	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/HDPE	271-08	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Square D PS Force Main (Private PS)	271-08	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	271-08	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	271-08	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	SQUARE D PS (257-20A 257-20 271-08 277-13A 277-13B 277-13 300-13(R-4) C.F. 60-28 C.F. 300-13)	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-483	0350362	460	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127, 4" IMP-483	00350363	460	10	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3127, 4" IMP-483	00350361	460	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	July 25, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	73.4	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	88.08	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	8.4, 8.2, 8.3	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	102.76	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	9.0, 8.8, 8.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2003	Initial Construction	Unavailable	See Combined Plans 271-08	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: WETWELL INTERIOR

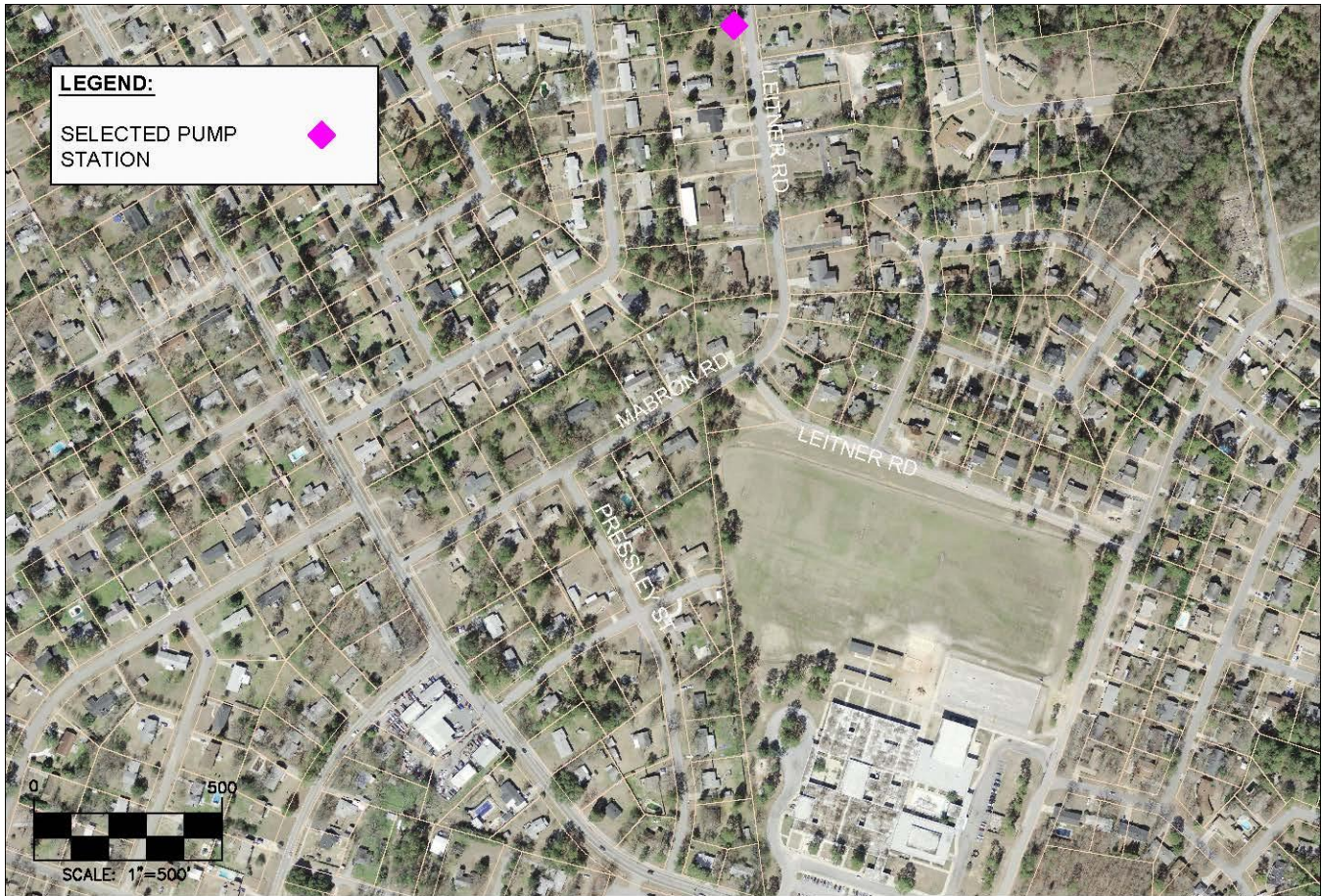
Pump Station Technical Specifications

Galaxy Pump Station

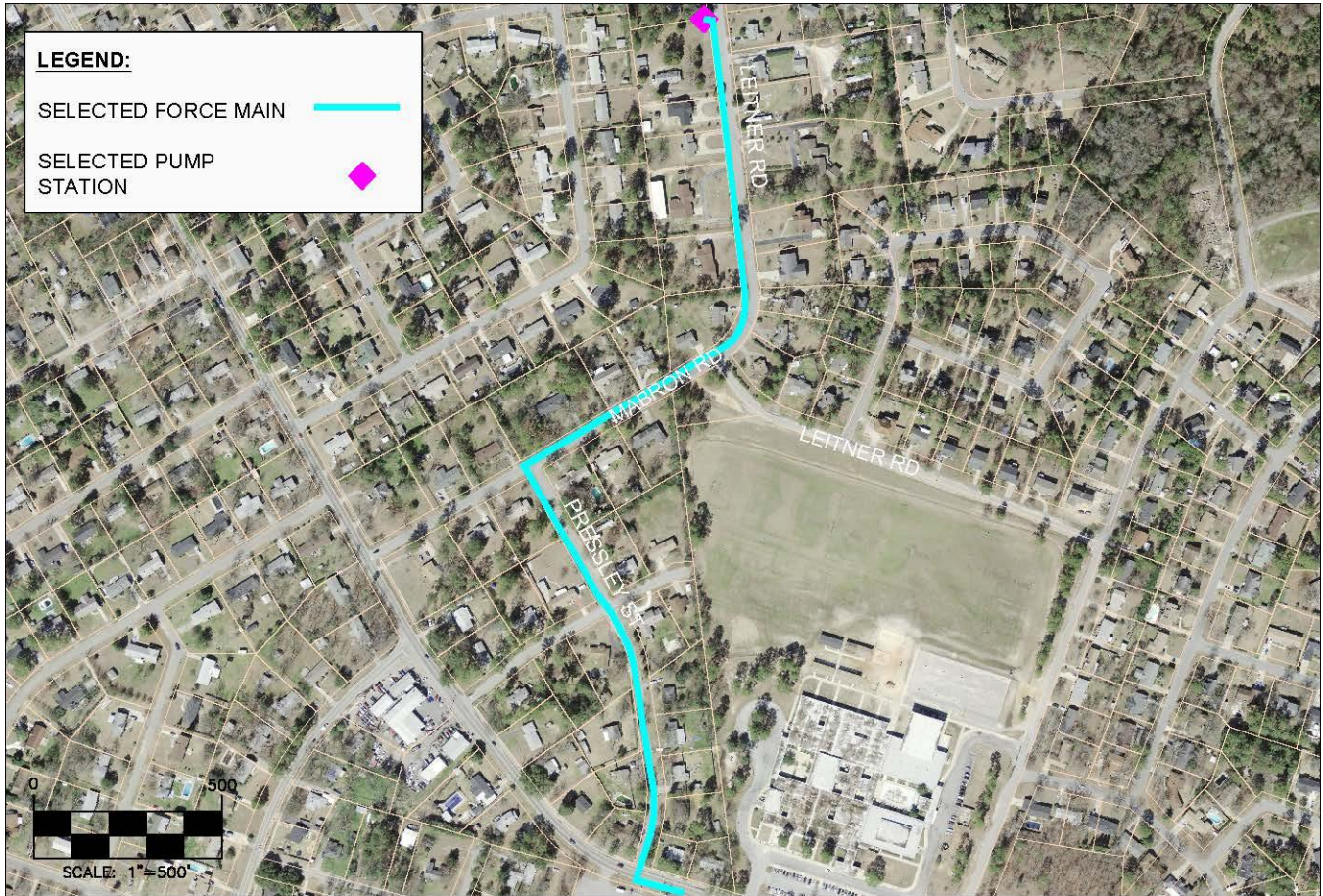
Location/Address: 7313 Leitner Rd
(7311 Leitner Rd)
Columbia, SC 29209

Station ID #: 045

Coordinates: 33° 58.491' N, 080° 55.284' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	250	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	167-11	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	95	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	167-11	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	167-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2853	167-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	167-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC02-00138-MH	167-11	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	167-11	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	167-11	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	167-11	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	ABS	AFP 20 -4"	J92319	230	20	CLICK HERE FOR DOCUMENTS
2	R	YES	ABS	AFP 20 -4"	J92312	230	20	CLICK HERE FOR DOCUMENTS
3	I	YES	ABS	AFP 20 -4"	J92318	230	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 24, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	187.9	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	413.37	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	47.6, 43.5, 46.6	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	300.64	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	33.3, 30.9, 33.9	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1990	Initial Construction	Unavailable	See Combined Plans 167-11	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Green Lakes Pump Station

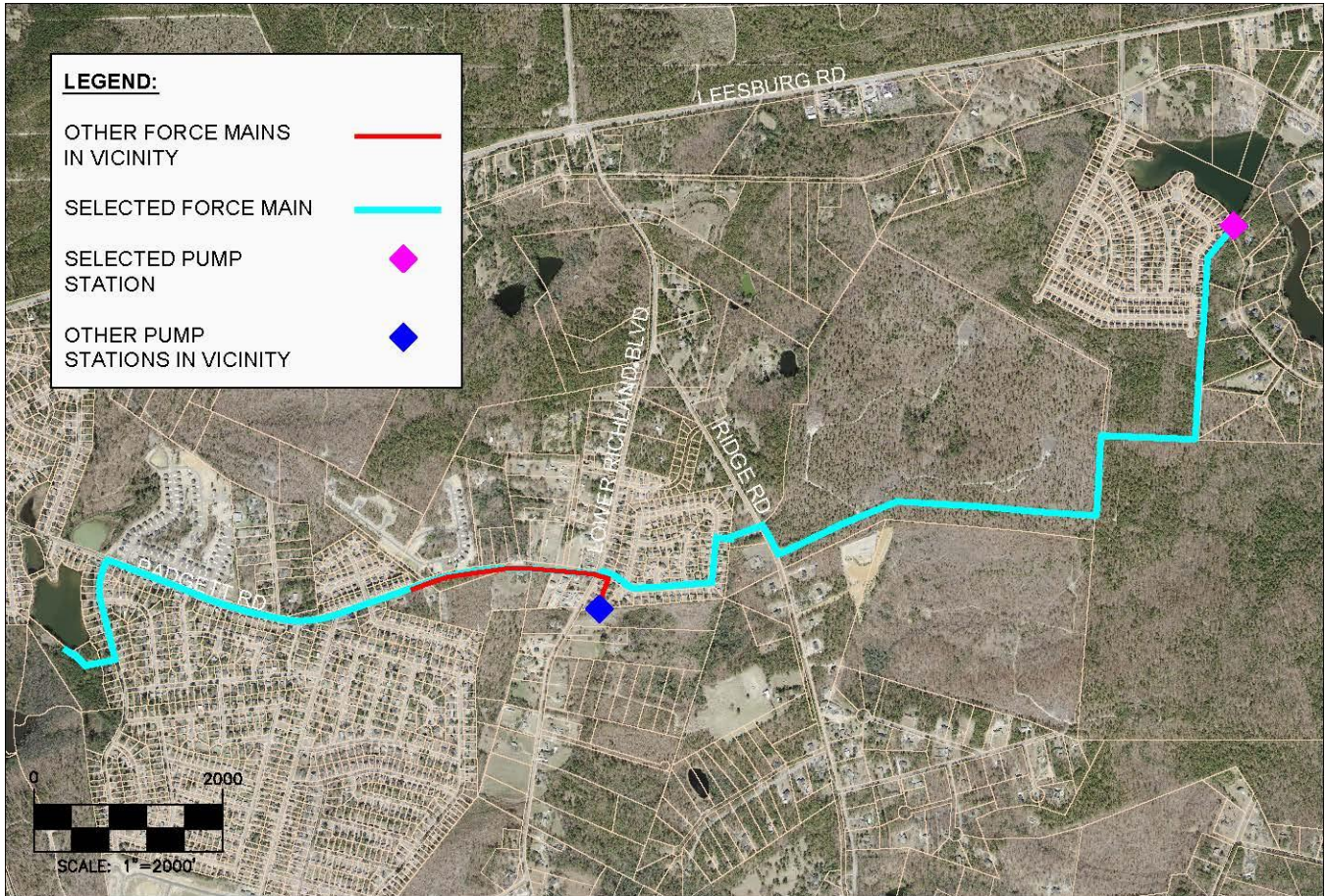
Location/Address: 230 Jadetree Dr
(232 Jadetree Dr)
Hopkins, SC 29061

Station ID #: 050

Coordinates: 33° 59.338' N, 080° 50.655' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	550	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	SS6987 Division I	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	261	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	SS6987 Division I	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	10/8	28-09A SS711_6-7	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	7726/9796	28-09A SS711_6-7	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron/PVC	28-09A SS711_6-7	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC01-00143-MH	28-09A SS711_6-7	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	28-09A SS711_6-7	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS6987 Division I	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	142-03	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3301 6" IMP-460	0830001	460	105	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3301 6" IMP-460	0830002	460	105	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3301 6" IMP-460	0960008	460	105	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Ellison Diesel Generator
Voltage (Volts)	460 Volt
Wattage (Watts)	150 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	300
City Asset ID#	AO077-18066
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
---	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 24, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	359.04	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	682.18	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	80.5, 78.3, 77	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	574.46	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	85.7, 83, 82.4	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
Transfer Breaker Status Instantaneous Level RTU Loss of Power Control Panel Power Problem Wetwell High Wetwell Low Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Generator Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1983	Initial Construction	Unavailable	See Pump Station Plans 28-9	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1999	Proposed 10" Force Main Replacement	SS711-6/7	See Force Main Drawings for current force main. See FORCE MAIN 28-09A for original force main.	
2008	Pump Station Replacement	2SS6987 Division I	See SS6987 Division I	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: DISCHARGE HEADER PRESSURE GAUGE

Pump Station Technical Specifications

Heathwood Hall Pump Station

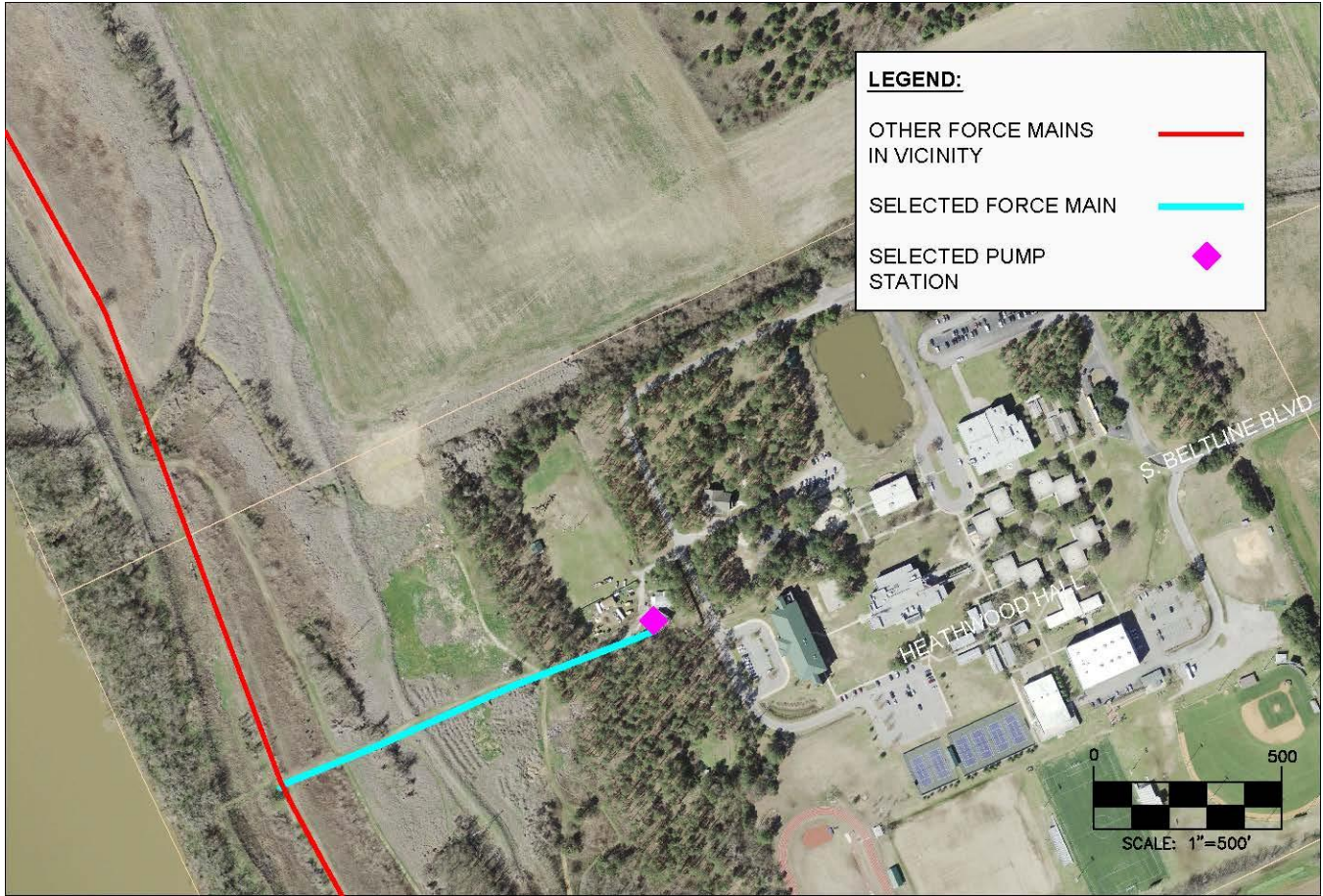
Location/Address: 3000 S Beltline Blvd
Columbia, SC 29201

Station ID #: 055

Coordinates: 33° 56.932' N, 081° 01.284' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	288	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	C.F.193-12	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	22	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	C.F.193-12	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	C.F.193-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1112	C.F.193-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/Ductile Iron	C.F.193-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB08-00317-MH	C.F.193-12	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	C.F.193-12	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	C.F.193-12	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	193-12	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3085 4" IMP-434	1320588	230	3	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3085 4" IMP-434	1240336	230	3	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3085 4" IMP-434	1240335	230	3	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	October 10, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	14.68	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	124.78	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	7.2, 6.9, 7.0	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	117.44	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	6.9, 6.9, 6.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1994	Initial Construction	Unavailable	See Original Pump Station Plans 193-12	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2013	Pump Station Rehabilitation	Unavailable	. Current Pump Station Plans are Unavailable.	

Other/Notes

Entry Date	Notes	Notation By
June 20, 2014	Pump station 2013 Rehab plans are unavailable. Original pump station plans are referenced.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

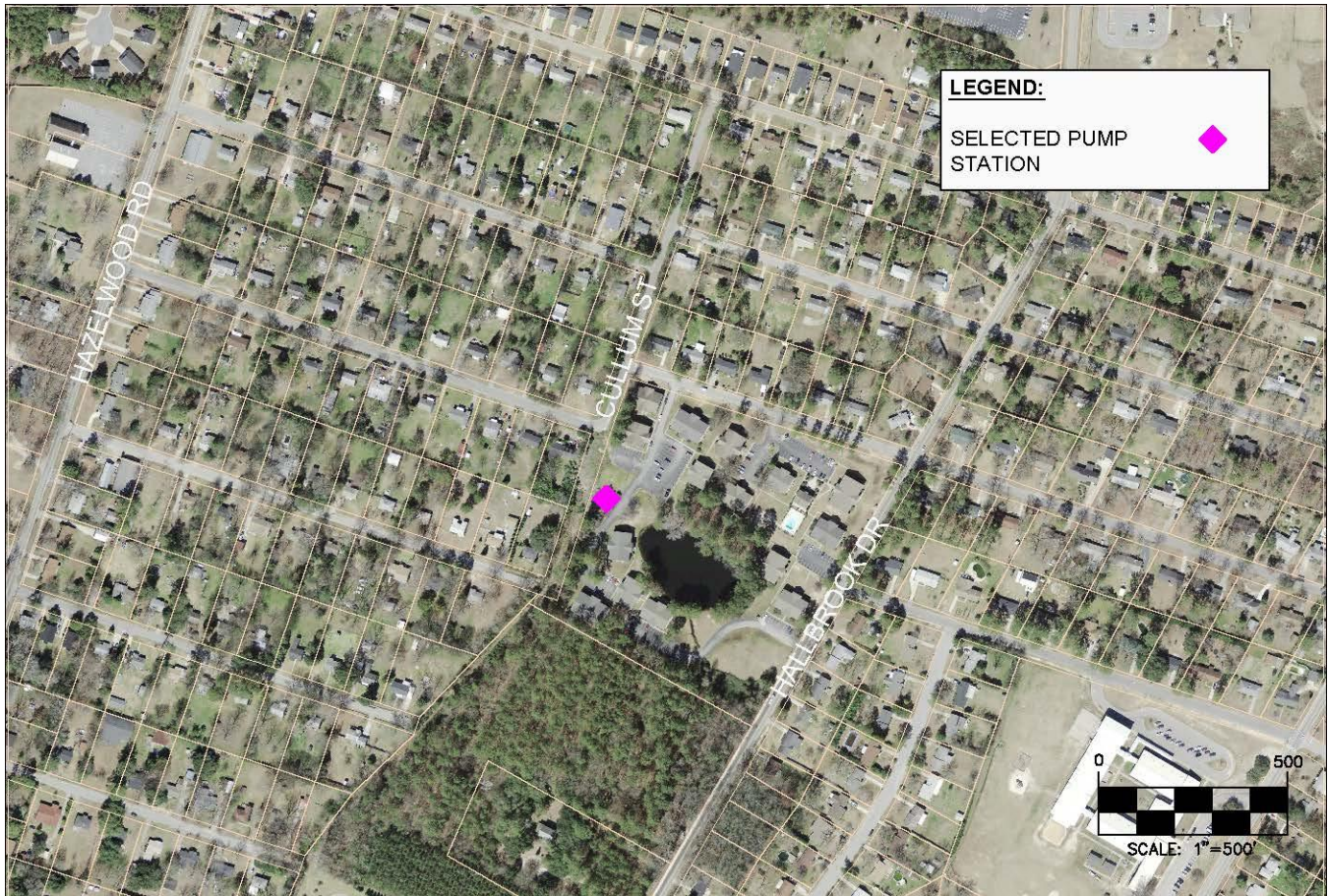
Pump Station Technical Specifications

Mallard Pointe Pump Station

Location/Address: 1101 Hallbrook Dr
Columbia, SC 29209

Station ID #: 060

Coordinates: 33° 57.636' N, 080° 55.419' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	50	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	41-38	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	76	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	41-38	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	41-38	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2063	41-38	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	41-38	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC02-00137-MH	41-38	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	41-38	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	41-38	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	41-38(R-1) 41-38A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 6" IMP- 483	1230382	230	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 6" IMP- 483	1450141	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 24, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	21.14	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	116.26	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16.3, 16.3, 16.4	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	116.26	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	22.4, 23, 23.4	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1974	Initial Plat	Unavailable	Hallbrook Apt.'s	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1982	Improvements To Sanitary Sewer System	Unavailable	See Drawings 41-38	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGE

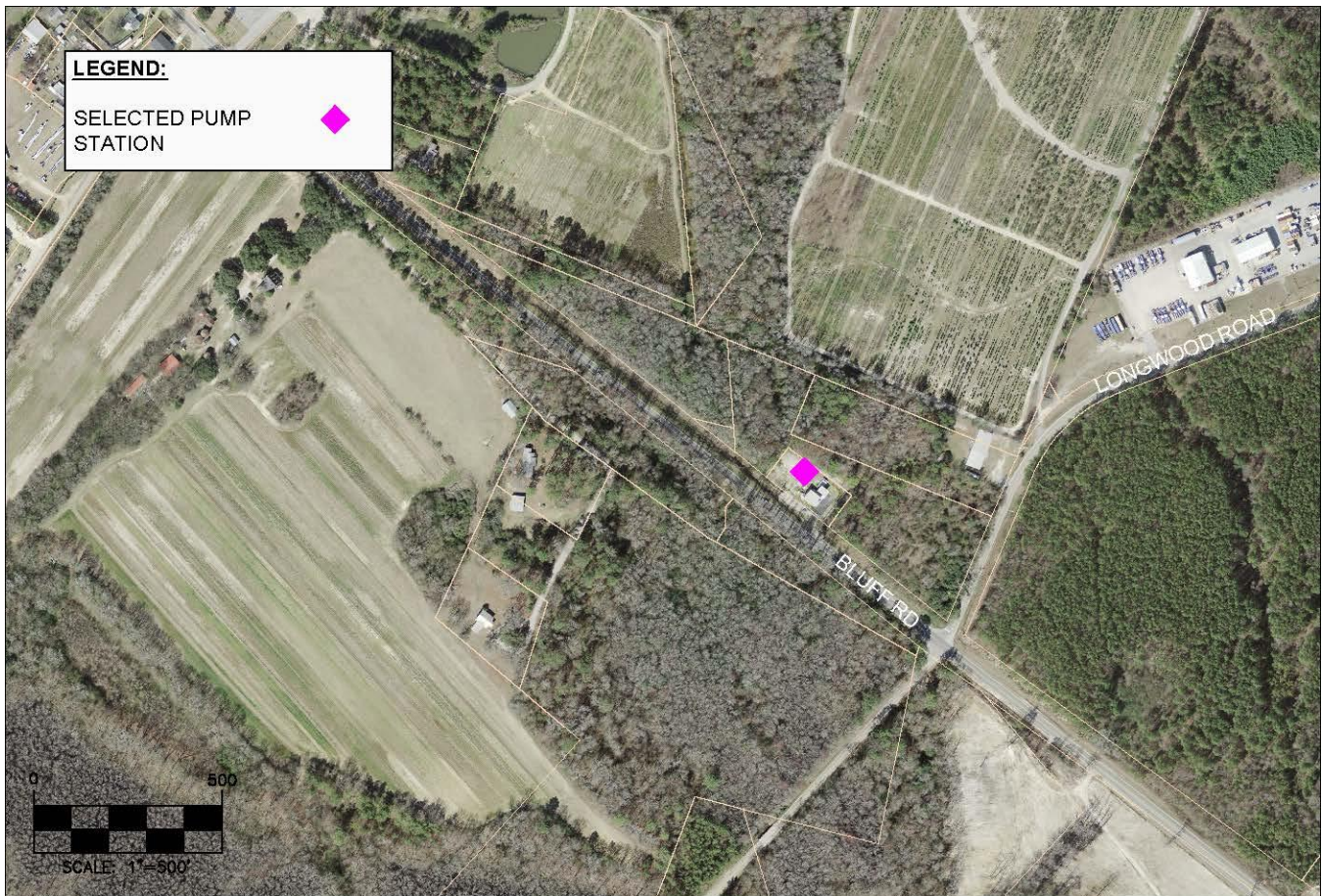
Pump Station Technical Specifications

Mill Creek Pump Station

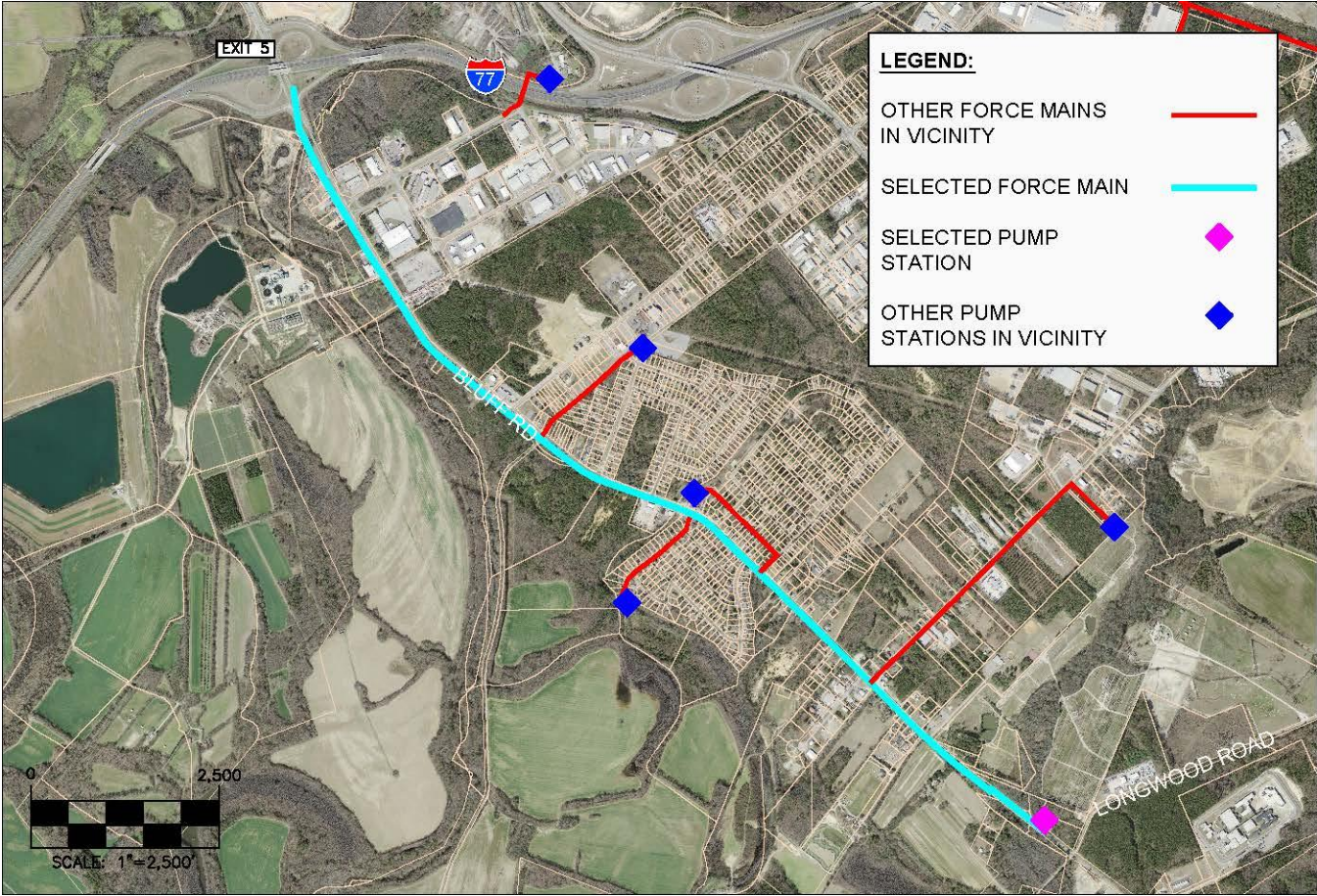
Location/Address: 5200 Bluff Rd
(Approx 5260 Bluff Rd)
Hopkins, SC 29061

Station ID #: 065

Coordinates: 33° 55.388' N, 080° 57.399' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	12000	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	4	220-287	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	90	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Dry Pit Submersible	220-287	CLICK HERE FOR DOCUMENTS
VFD Present	YES	08541E9910 E99	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	24	60-28 SS764	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	14581	60-28 SS764	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PCCP	60-28 SS764	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC17-24059-MH	60-28 SS764	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	60-28 SS764	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	220-287	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	250-70 220-112 (SS709-6/7)	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Morris	NC10X10-21 2V	9810708-A	460	125	CLICK HERE FOR DOCUMENTS
2	I	YES	Morris	NC10X10-21 2V	9810708-B	460	125	CLICK HERE FOR DOCUMENTS
3	I	YES	Morris	NC10X10-21 2V	9810708-C	460	125	CLICK HERE FOR DOCUMENTS
4	I	YES	Morris	NC10X10-21 2V	9810708-D	460	125	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	480 Volt
Wattage (Watts)	400 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	750
City Asset ID#	AG001-21739
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
System Pressure Pump #1 Motor Bearing Vibration Pump #2 Motor Bearing Vibration Pump #3 Motor Bearing Vibration Pump #4 Motor Bearing Vibration Instantaneous Level Pump 1 Flow Pump 2 Flow Pump 3 Flow Pump 4 Flow Lead Pump Register First Lag Pump Register Second Lag Pump Register Standby Pump Register Pump #1 VFD Speed Pump #2 VFD Speed Pump #3 VFD Speed Pump #4 VFD Speed Bottom Floor Methane Gas Level Bottom Floor Hydrogen Sulfide Gas Level Bottom Floor Oxygen Gas Level Bottom Floor Carbon Monoxide Gas Level Top Floor Methane Gas Level Top Floor Hydrogen Sulfide Gas Level Top Floor Oxygen Gas Level Top Floor Carbon Monoxide Gas Level Pump #1 Motor High Temperature Alarm Pump #1 Moisture Alarm Pump #2 Motor High Temperature Alarm Pump #2 Moisture Alarm Pump #3 Motor High Temperature Alarm Pump #3 Moisture Alarm	

SCADA Information

Recorded/Reported Info	Notes
Pump #4 Motor High Temperature Alarm	
Pump #4 Moisture Alarm	
Pump 1 Failure	
Pump 2 Failure	
Pump 3 Failure	
Pump 4 Failure	
Pump #1 Fail To Start Alarm	
Pump #2 Fail To Start Alarm	
Pump #3 Fail To Start Alarm	
Pump #4 Fail To Start Alarm	
Pump #1 Motor Bearing High Vibration Warning	
Pump #1 Motor Bearing High Vibration Shutdown	
Pump #2 Motor Bearing High Vibration Warning	
Pump #2 Motor Bearing High Vibration Shutdown	
Pump #3 Motor Bearing High Vibration Warning	
Pump #3 Motor Bearing High Vibration Shutdown	
Pump #4 Motor Bearing High Vibration Warning	
Pump #4 Motor Bearing High Vibration Shutdown	
Pump #1 Upper Motor Bearing High Temperature Warning	
Pump #1 Upper Motor Bearing High Temperature Shutdown	
Pump #1 Lower Motor Bearing High Temperature Warning	
Pump #1 Lower Motor Bearing High Temperature Shutdown	
Pump #2 Upper Motor Bearing High Temperature Warning	
Pump #2 Upper Motor Bearing High Temperature Shutdown	
Pump #2 Lower Motor Bearing High Temperature Warning	
Pump #2 Lower Motor Bearing High Temperature Shutdown	
Pump #3 Upper Motor Bearing High Temperature Warning	
Pump #3 Upper Motor Bearing High Temperature Shutdown	
Pump #3 Lower Motor Bearing High Temperature Warning	
Pump #3 Lower Motor Bearing High Temperature Shutdown	
Pump #4 Upper Motor Bearing High Temperature Warning	
Pump #4 Upper Motor Bearing High Temperature Shutdown	

SCADA Information

Recorded/Reported Info	Notes
Pump #4 Lower Motor Bearing High Temperature Warning Pump #4 Lower Motor Bearing High Temperature Shutdown Rtu Loss Of Power Wetwell #1 Level High Wetwell #1 Level Low Wetwell #2 Level High Wetwell #2 Level Low Surge Valve #1 Operated Alarm Surge Valve #2 Operated Alarm Air Compressor Low Pressure Alarm Pump Control Panel Power Problem Low Level Alarm Grinder 1 Failure Grinder 2 Failure Bottom Floor Methane Gas High Level Alarm Bottom Floor Hydrogen Sulfide Gas High Level Alarm Bottom Floor Oxygen Gas Low Level Alarm Bottom Floor Carbon Monoxide Gas High Level Alarm Top Floor Methane Gas High Level Alarm Top Floor Hydrogen Sulfide Gas High Level Alarm Top Floor Oxygen Gas Low Level Alarm Top Floor Carbon Monoxide Gas High Level Alarm Generator Failure Water On Floor Alarm Personnel Emergency Pump #1 Hand Mode Pump 1 HOA Switch In Auto Generator Running Pump #2 Hand Mode Pump 2 HOA Switch In Auto Pump #3 Hand Mode Pump 3 HOA Switch In Auto	

SCADA Information

Recorded/Reported Info	Notes
Transfer Breaker Status Pump #4 Hand Mode Pump 4 HOA Switch In Auto Air Compressor #1 Auto Mode Air Compressor #1 Running Air Compressor #2 Running Grinder 1 Run Sluice Gate #1 Open L/S Sluice Gate #1 Close L/S Sluice Gate #2 Open L/S Sluice Gate #2 Close L/S Pump 1 Run Pump 2 Run Pump 3 Run Pump 4 Run Pump Control Panel Common Alarm Grinder 2 Run Flow Total (NR) - Lo Flow Total (NR) - Hi Pump 1 Runtime (NR) Pump 2 Runtime (NR) Pump 3 Runtime (NR) Pump 4 Runtime (NR) Generator Runtime (NR) Plc Status Word Grinder 1 Runtime (NR) Methane Gas Alarm Setpoint Hydrogen Sulfide Alarm Setpoint Oxygen Gas Alarm Setpoint Carbon Monoxide Alarm Setpoint Pump 1 Runtime (Today) Pump 1 Runtime (Yesterday)	

SCADA Information

Recorded/Reported Info	Notes
Pump 2 Runtime (Today)	
Pump 2 Runtime (Yesterday)	
Pump 3 Runtime (Today)	
Pump 3 Runtime (Yesterday)	
Flow Total (Today) - Lo	
Flow Total (Today) - Hi	
Flow Total (Yesterday) - Lo	
Flow Total (Yesterday) - Hi	
Pump 4 Runtime (Today)	
Pump 4 Runtime (Yesterday)	
Grinder 1 Runtime (Today)	
Grinder 1 Runtime (Yesterday)	
Grinder 2 Runtime (Today)	
Grinder 2 Runtime (Yesterday)	
Generator Runtime (Today)	
Generator Runtime (Yesterday)	
Communication Good	
Communication Bad	
Communication Error	
Last Poll (Hr)	
Last Poll (Min)	
Last Poll (Sec)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1974	Sanitary Sewage System Improvements	Unavailable	See Improvements 1973	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2000	12" Sanitary Sewer	SS709-6/7	Connects Starlite System to Mill Creek Pump Station - See Improvements 1999	
2004	Force Main Improvements	SS764	1000' Along Bluff Road - See Improvements 2003	
2009	Mill Creek Pump Station Improvements	SS6761	See Improvements 2006	
2013	Additions and Hoist System for the Broad River and Mill Creek Pump Station	SS7101	See Improvements 2010	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: DISCHARGE HEADER PIPING

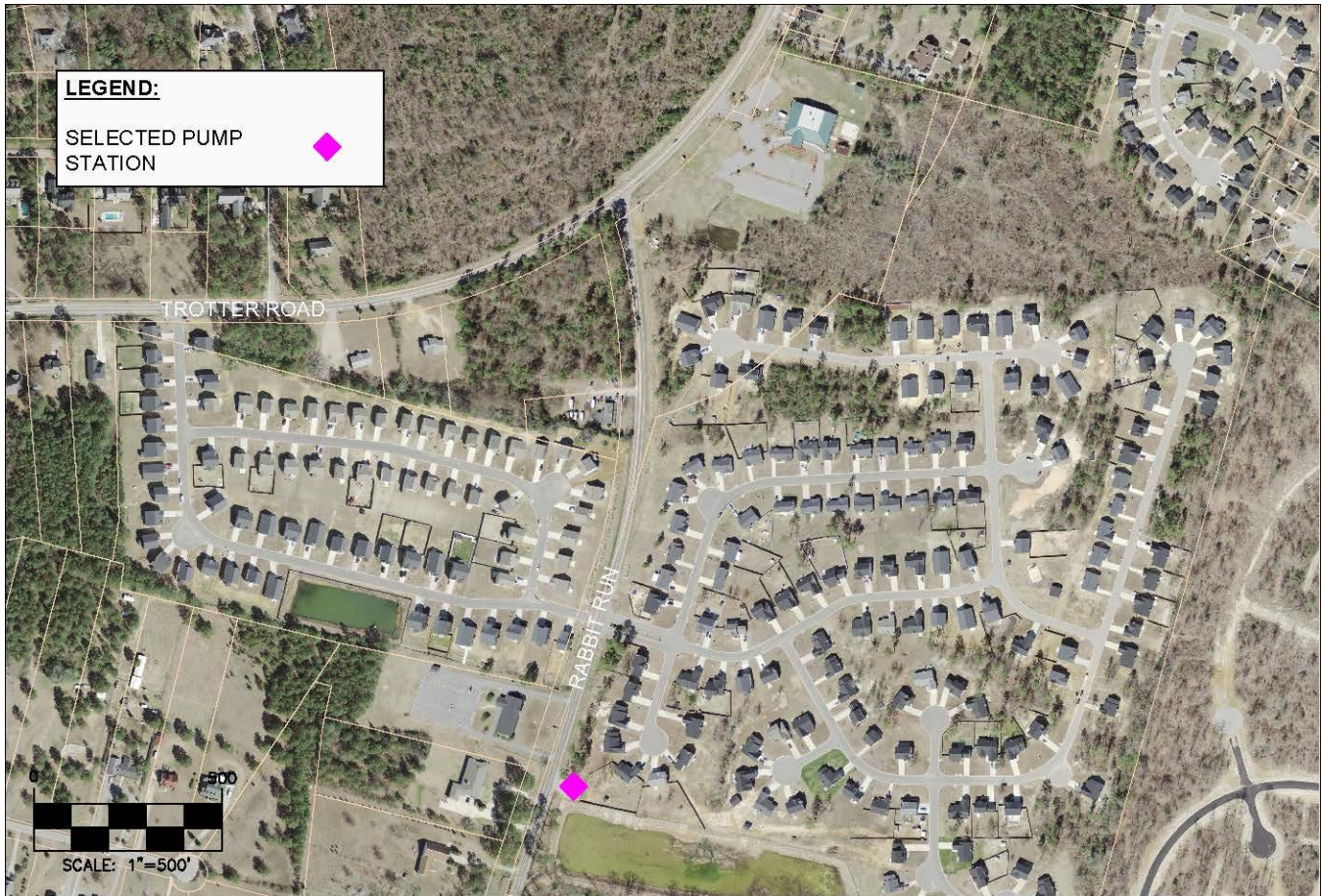
Pump Station Technical Specifications

Myers Creek Pump Station

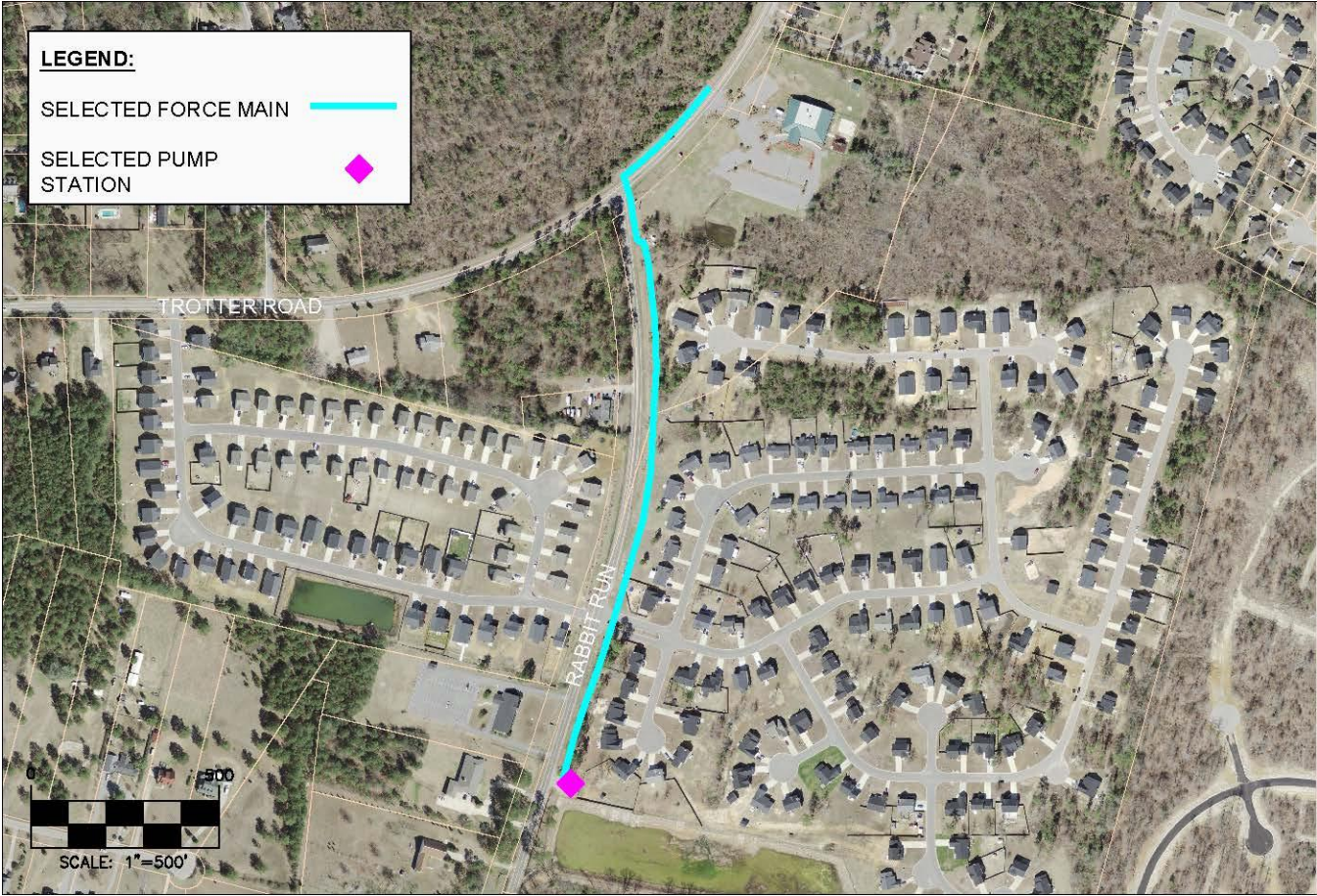
Location/Address: Rabbit Run
(Approx 1113 Rabbit Run)
Hopkins, SC 29061

Station ID #: 070

Coordinates: 33° 57.390' N, 080° 53.140' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	185	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	269-20	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	110	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	269-20	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	269-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2010	269-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	269-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC04-25741-MH	269-20	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	269-20	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	269-20	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	269-20A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3152 4" IMP- 454	0330171	460	20	CLICK HERE FOR DOCUMENTS
2	R	YES	Flygt	CP-3152 4" IMP- 454	0330172	460	20	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	CP-3152 4" IMP- 454	0330173	460	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Gillette Diesel Generator
Voltage (Volts)	460 Volt
Wattage (Watts)	30 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	85
City Asset ID#	AG003-21819
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	October 29, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	211.38	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	401.63	
Drawdown TDH Pump 1 (FT)	8.5	
Pump 1 Amperage (AMPS)	24.9, 24.5, 23.1	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	412.2	
Drawdown TDH Pump 2 (FT)	8.5	
Pump 2 Amperage (AMPS)	21, 20.1, 19.3	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
NO SCADA	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2003	Initial Construction	Unavailable	See Pump Station Plan 269-20	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: DISCHARGE HEADER PRESSURE GAUGE

Pump Station Technical Specifications

Owens Field Pump Station

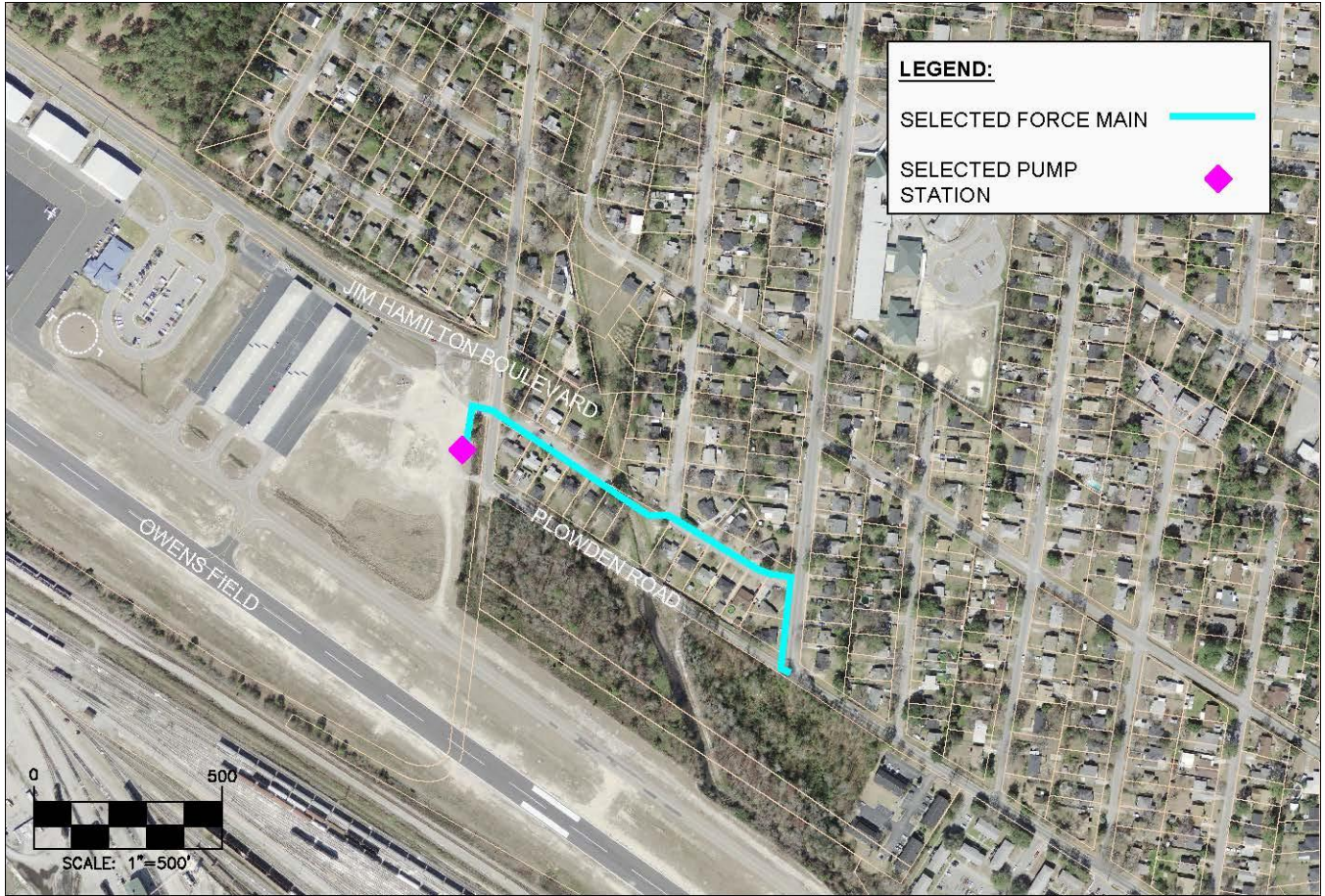
Location/Address: Approx 1475 S Ott Rd
Columbia, SC 29205

Station ID #: 075

Coordinates: 33° 58.291' N, 080° 59.597' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	152	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	161-09	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	41	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	161-09	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	161-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1360	161-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/Ductile Iron	161-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC12-00141-MH	161-09	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	161-09	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	161-09	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	161-09	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3102	1250074	230	5	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3102	1330081	230	5	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3102	1330033	230	5	CLICK HERE FOR DOCUMENTS
4	R	YES	Flygt	CP-3102	0820152	230	5	CLICK HERE FOR DOCUMENTS
5	R	NO	ABS	AF40-4	F04355	230	5.4	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
--------------------------------------	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 2, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	63.42	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	177.56	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	10.7,10.8,10.6	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	211.38	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	11.2,11.0,10.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1990	Initial Construction	Unavailable	See Pump Station Plan 161-09	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: DISCHARGE HEADER

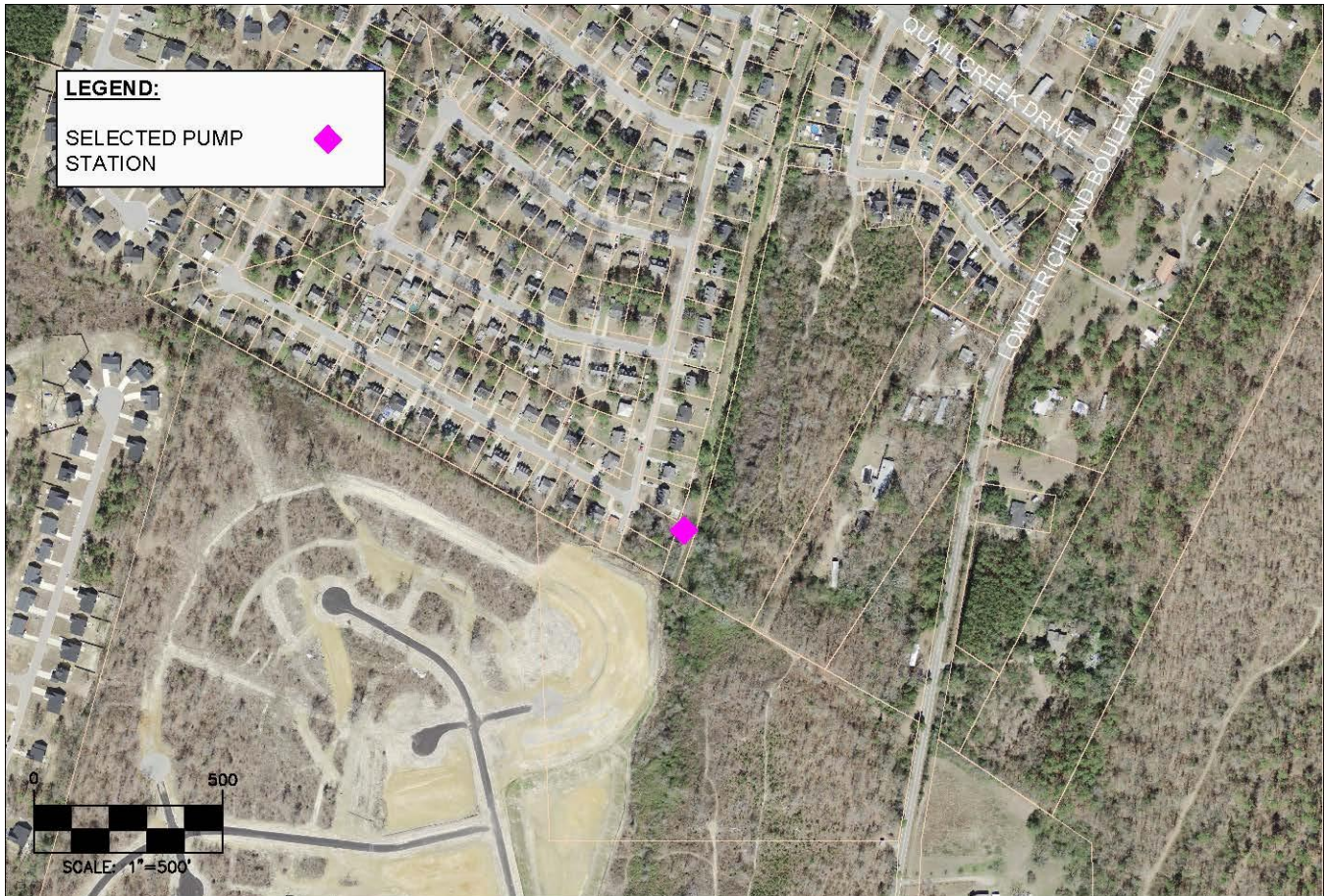
Pump Station Technical Specifications

Quail Creek Pump Station

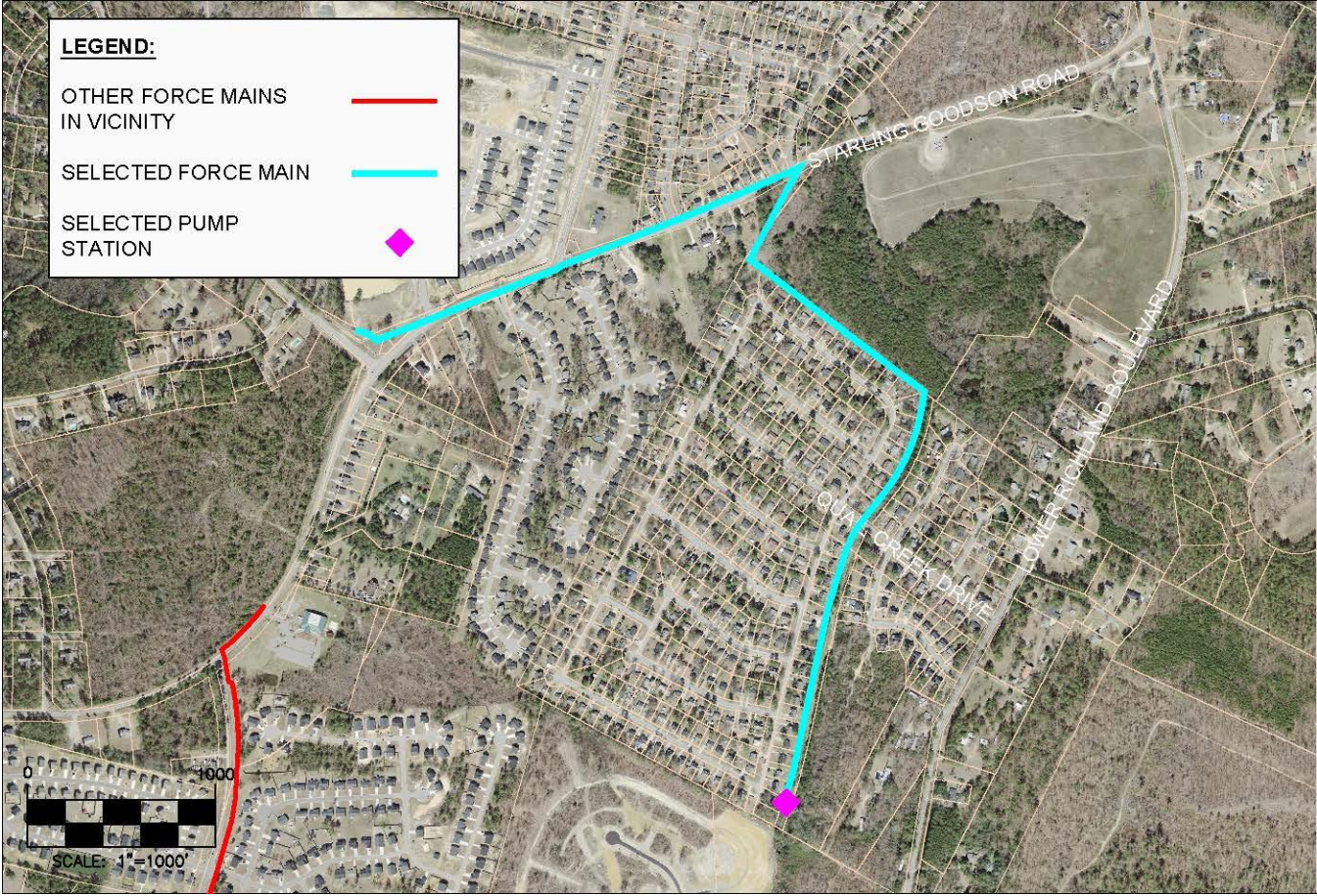
Location/Address: 2904 Partridge Dr S
Hopkins, SC 29061

Station ID #: 080

Coordinates: 33° 57.523' N, 080° 52.517' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	240	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	20-33B(R-6)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	82	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	20-33B(R-6)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	110-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	6607	110-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	110-20	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC04-28801-MH	110-20	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	110-20	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	20-33B(R-6)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	110-19 20-33BSEWER	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Gorman Rupp	T3A3S - B /F	1427669	230	15	CLICK HERE FOR DOCUMENTS
2	I	YES	Gorman Rupp	T3A3S - B /F	Unavailable	230	15	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	July 15, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	187.9	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	225.48	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	26.7, 20.7, 22.4	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	281.85	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	36.2, 23.3, 30.6	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1979	Initial Construction	Unavailable	See Pump Station Plan 20-33B(R-6)007	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE ENTRANCE



PHOTO 2: PUMP ASSEMBLY

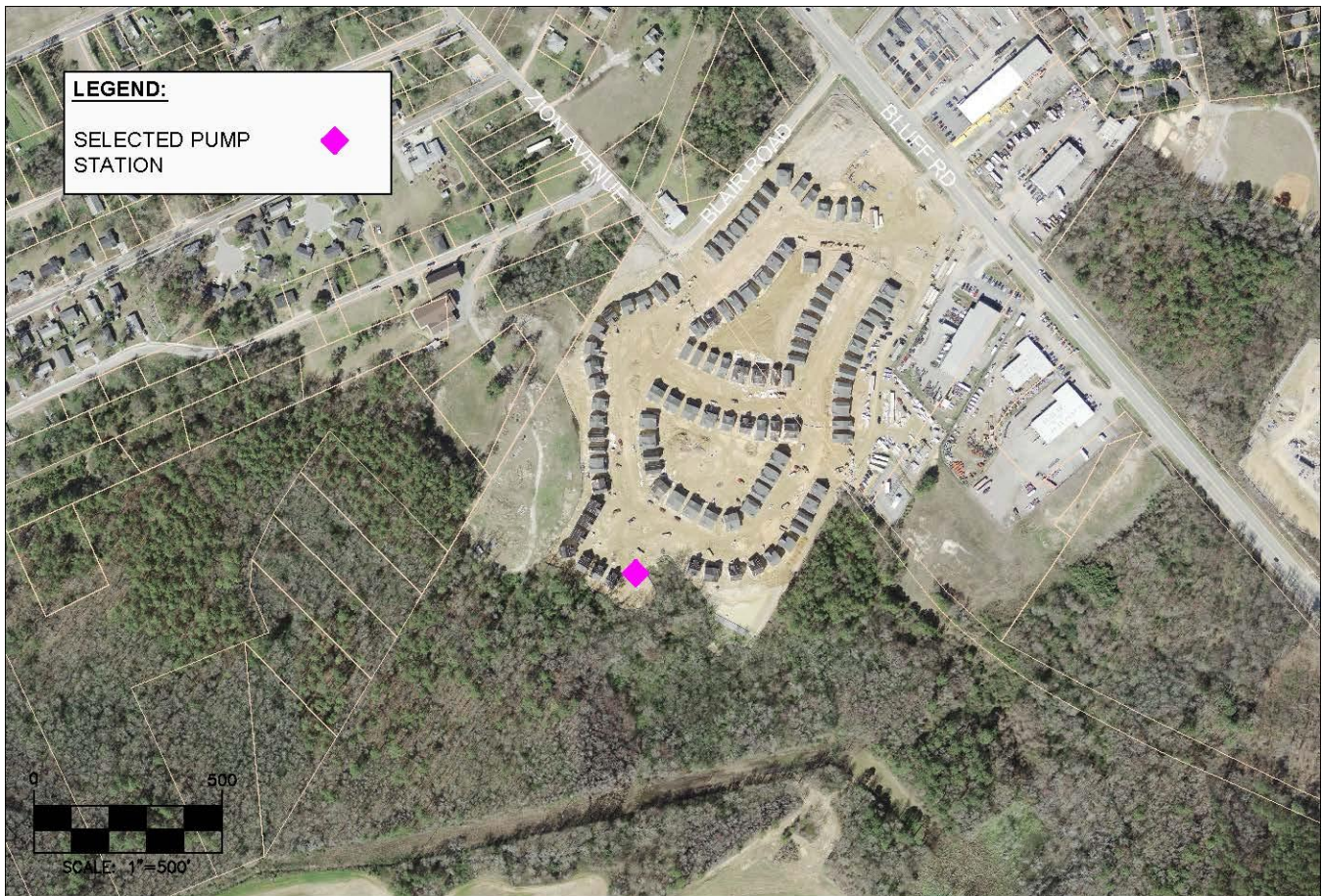
Pump Station Technical Specifications

The Retreat Pump Station

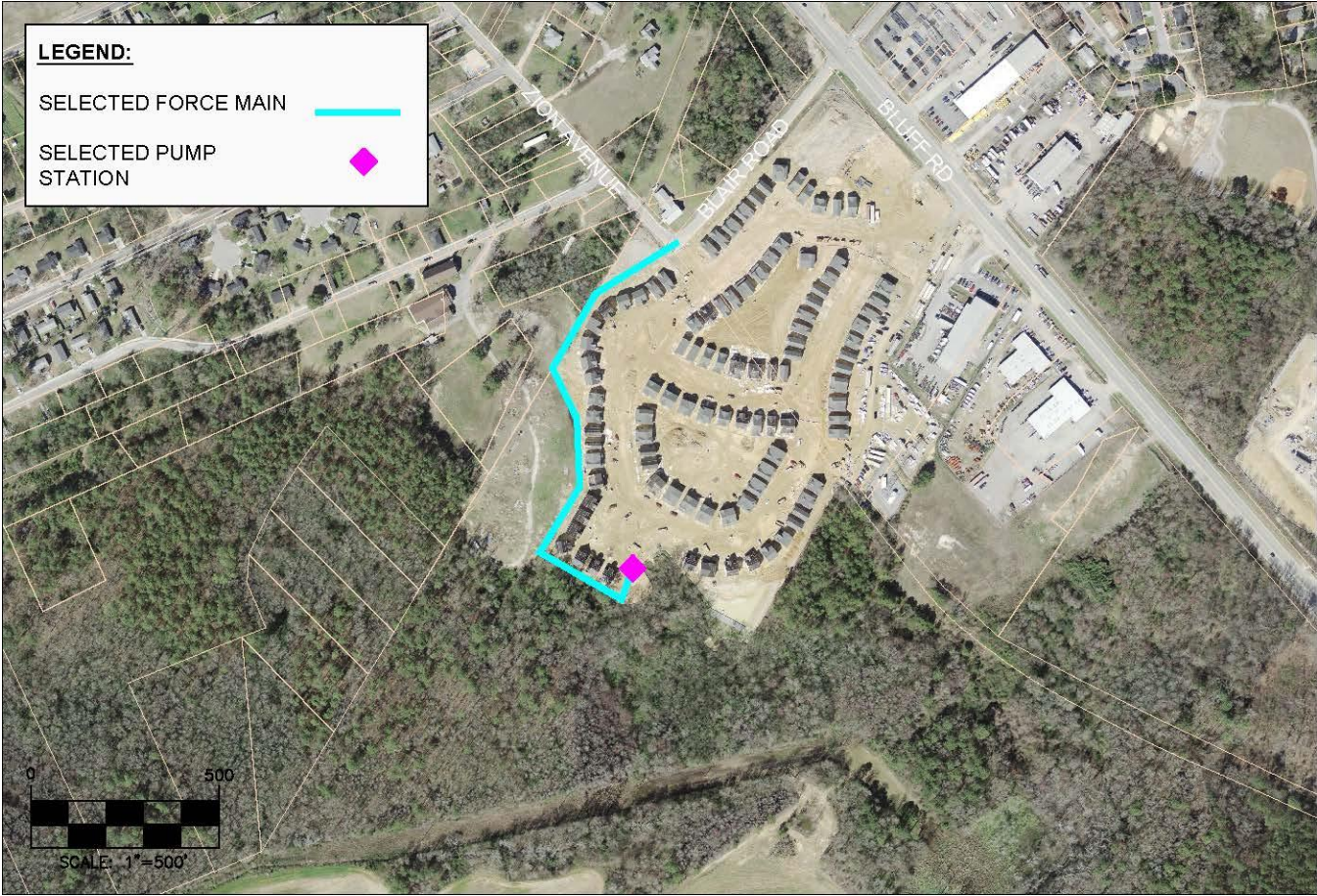
Location/Address: Old Bluff Rd
(1929 Bluff Rd)
Columbia, SC 29209

Station ID #: 085

Coordinates: 33° 57.459' N, 081° 00.112' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	120	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	304-11 304-11(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	44	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	304-11 304-11(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	304-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1342	304-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	304-11	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB08-03659-MH	304-11	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	304-11	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	304-11 304-11(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	304-11	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3127 6" IMP-488	1020095	230	10	CLICK HERE FOR DOCUMENTS
2	R	YES	Flygt	NP-3127 6" IMP-488	1020096	230	10	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	NP-3127 6" IMP-488	1020097	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
--------------------------------------	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	March 27, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	21.14	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	183.9	
Drawdown TDH Pump 1 (FT)	69.3	
Pump 1 Amperage (AMPS)	18	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	158.54	
Drawdown TDH Pump 2 (FT)	69.3	
Pump 2 Amperage (AMPS)	18	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2008	Initial Construction	Unavailable	See Pump Station Plan 304-11(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2010	Pump Upgrade	Unavailable	Pump Upgrade. Details Unavailable.	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Starlite Pump Station

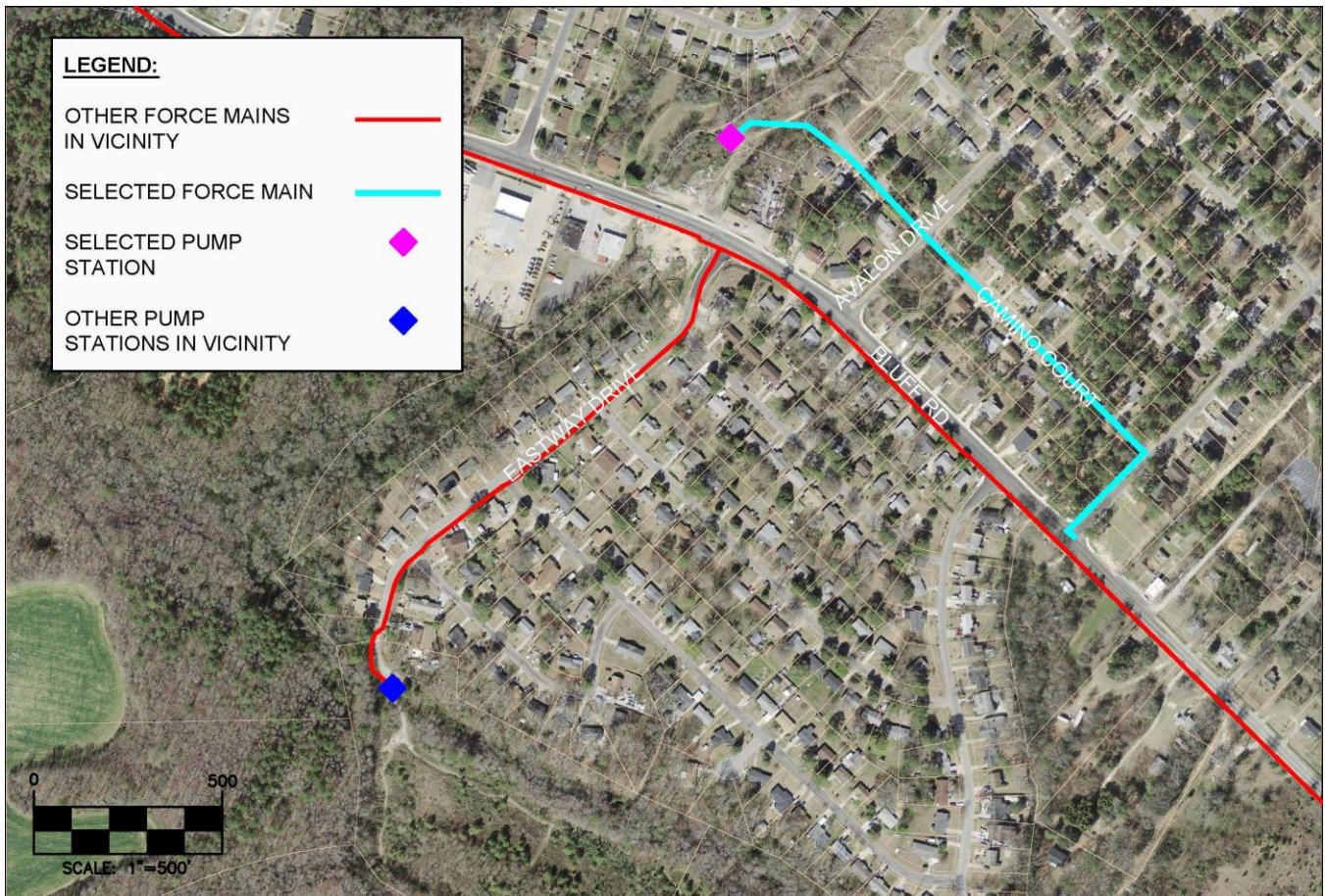
Location/Address: 4500 Bluff Rd
(4440 Bluff Rd)
Columbia, SC 29209

Station ID #: 090

Coordinates: 33° 56.107' N, 080° 58.319' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	420	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	54-43	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	26	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Centrifugal	54-43	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	54-43	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1788	54-43	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	54-43	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC18-30034-MH	54-43	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	54-43	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	54-43	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	220-112	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Fairbanks Morse	4"5413 (A)	0040091710-9960F	240	7.5	CLICK HERE FOR DOCUMENTS
2	I	YES	Fairbanks Morse	4"5413 (A)	0040091710-9906F	240	7.5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
--------------------------------------	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 31, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	75.16	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	300.64	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16.5, 17.4, 17.2	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	375.8	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	20.9, 20.2, 20.2	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High, Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run, Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Instantaneous Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1972	Initial Construction	Unavailable	See Pump Station Plan 54-43	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2000	12" Sanitary Sewer	SS709-6/7	Connects Starlite System to Mill Creek Pump Station - See Gravity Sewer Extension To Conn Starlite To Mill Creek	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: DISCHARGE HEADER

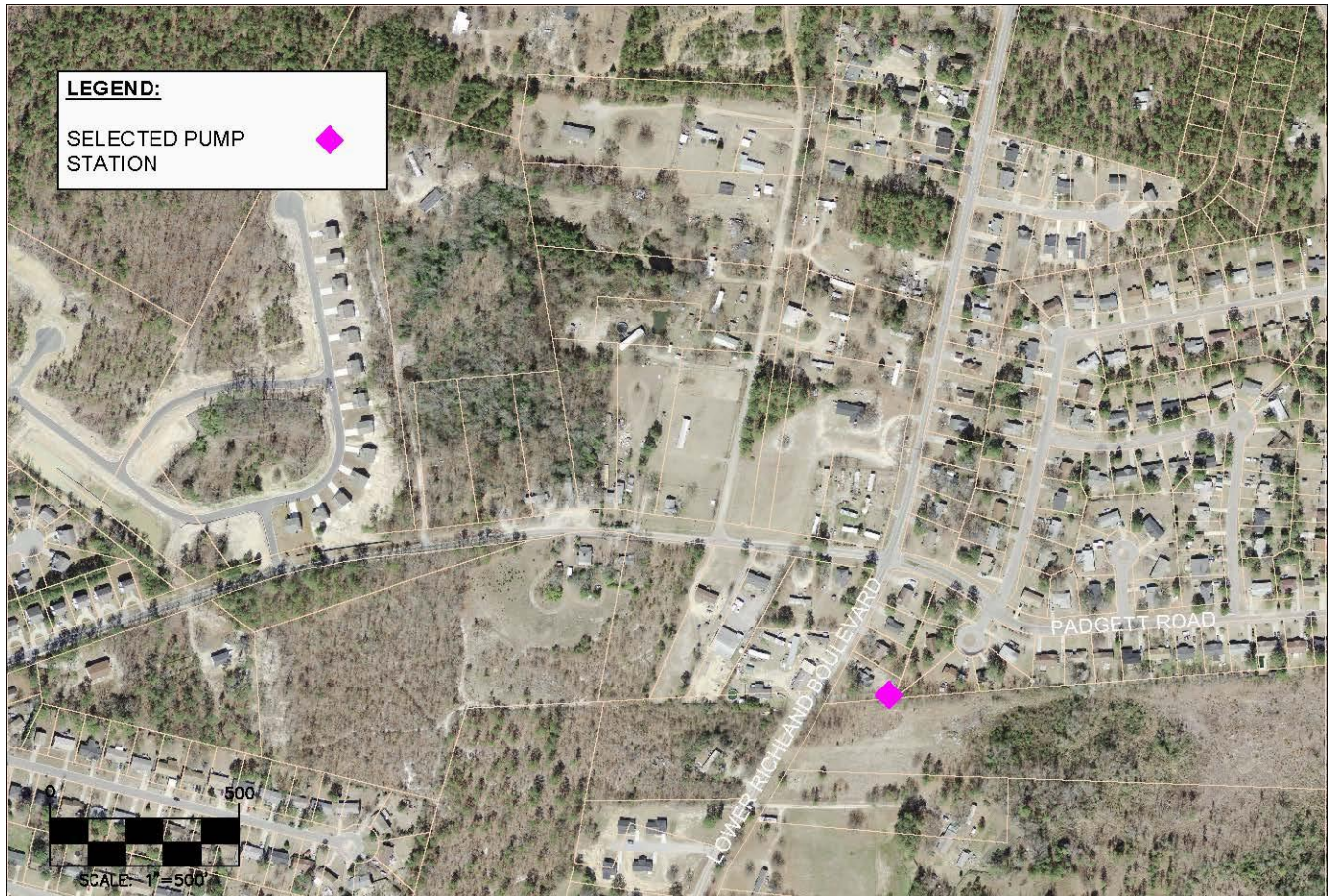
Pump Station Technical Specifications

Swandale Pump Station

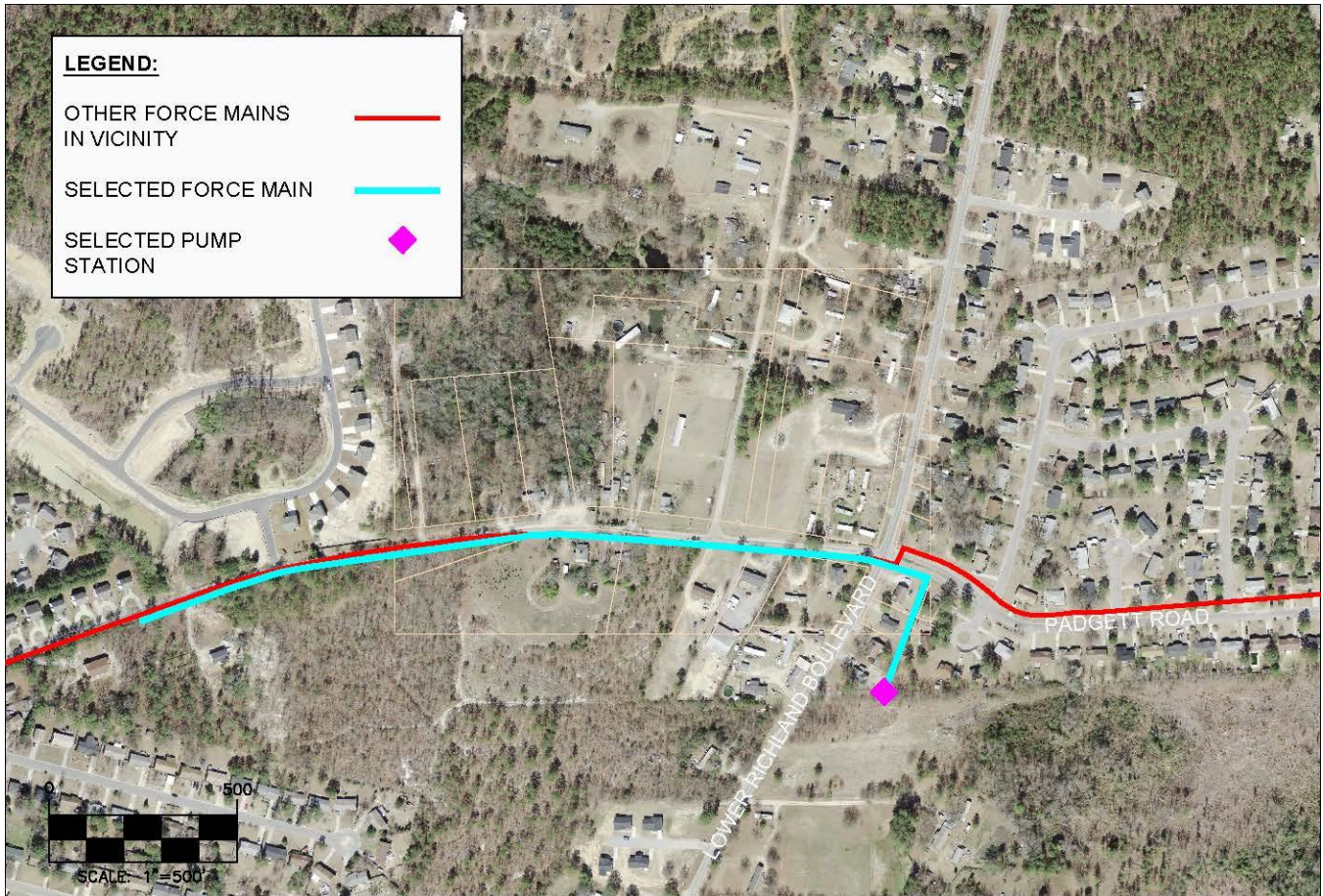
Location/Address: 1613 Lower Richland Blvd
Hopkins, SC 29061

Station ID #: 095

Coordinates: 33° 58.672' N, 080° 51.986' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	300	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	40-42	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	80	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Centrifugal	40-42	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	40-42	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2467	40-42	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	40-42	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-MC01-03612-MH	40-42	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	40-42	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	40-42	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	40-42	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Smith & Loveless	4B2	110534	208	15	CLICK HERE FOR DOCUMENTS
2	I	YES	Smith & Loveless	4B2	101278	208	15	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	July 19, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	14.39	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	215.79	
Drawdown TDH Pump 1 (FT)	83.16	
Pump 1 Amperage (AMPS)	30.9, 26.1, 28.2	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	215.79	
Drawdown TDH Pump 2 (FT)	64.68	
Pump 2 Amperage (AMPS)	25.1, 23, 21.9	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Control Panel Common Alarm Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Instantaneous Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1977	Initial Construction	Unavailable	See Pump Station Plan 40-42	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: BYPASS PUMPING CONNECTION

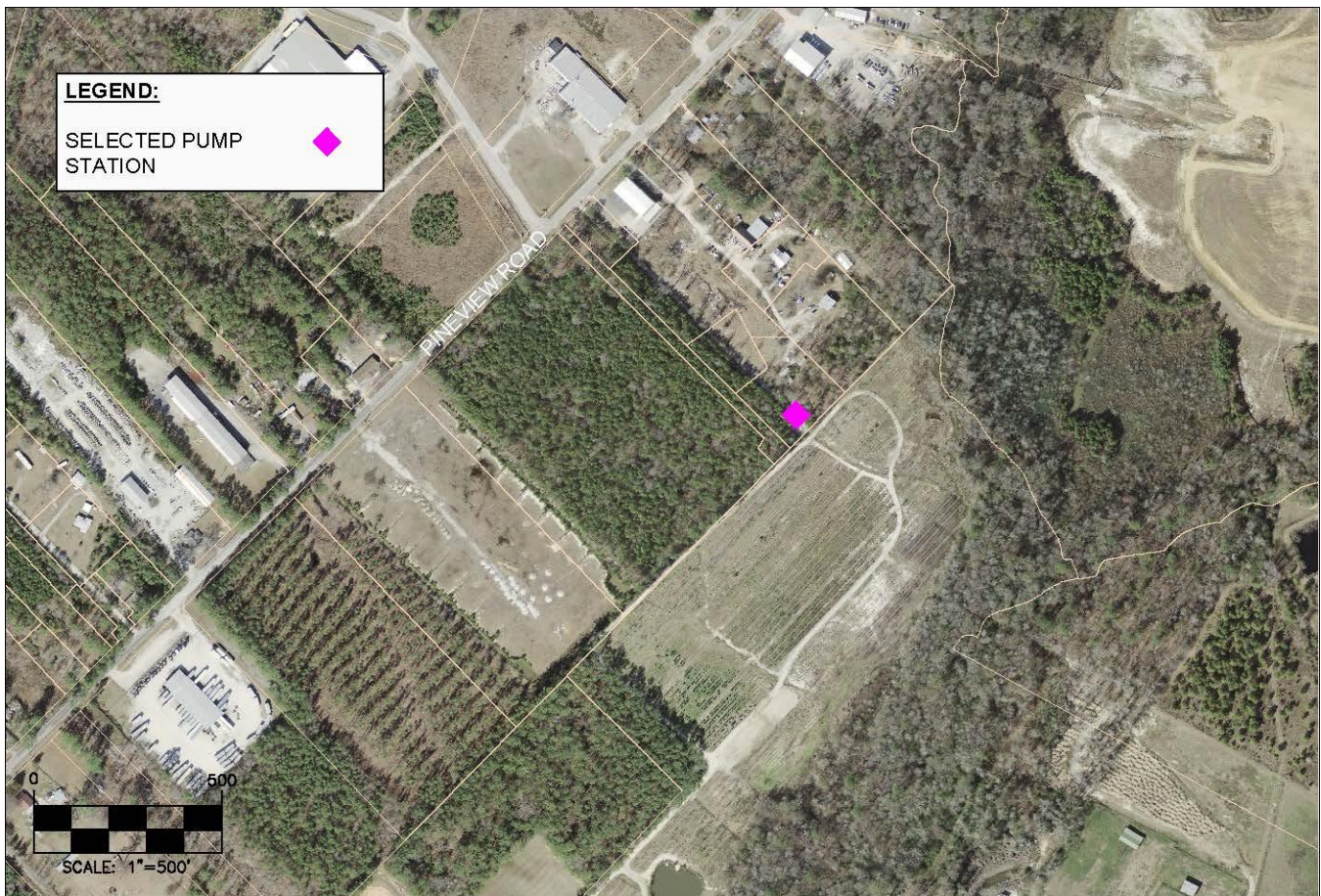
Pump Station Technical Specifications

Versch Lock Pump Station

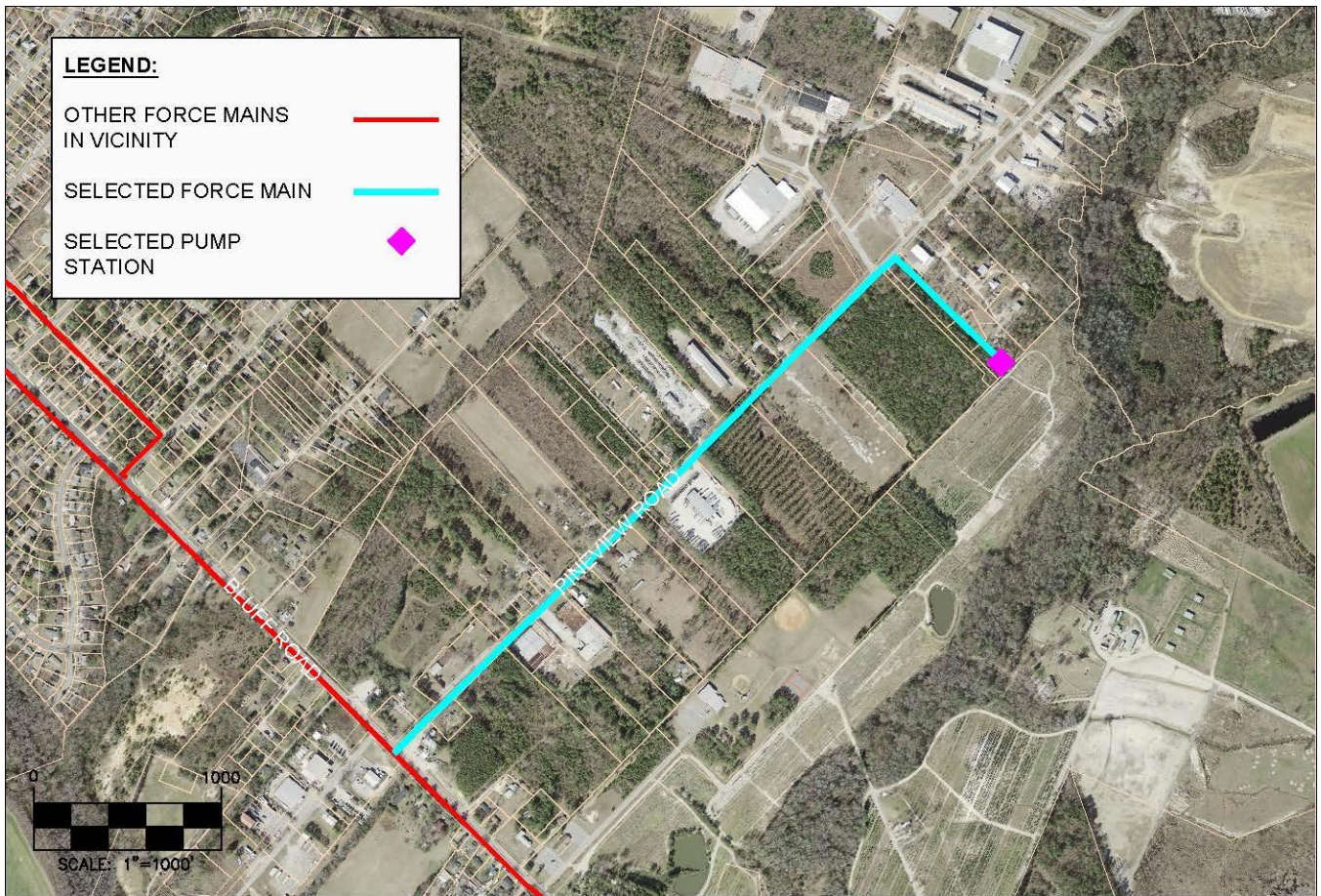
Location/Address: 1400 Pineview Dr
(Between 1332 and 1400
Pineview Dr.)
Columbia, SC 29209

Station ID #: 100

Coordinates: 33° 56.032' N, 080° 57.215' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	190	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	214-19	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	94	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	214-19	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	214-19	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	4555	214-19	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	214-19	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Mill Creek PS FM	214-19	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	214-19	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	214-19	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	214-19	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Ebara	100DLM6 15	PT763650	230	20	CLICK HERE FOR DOCUMENTS
2	I	YES	Ebara	100DLM6 15	PT763650	230	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	October 22, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	1.44	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	246	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	34, 33.2, 31.2	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	303.54	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	33, 31.1, 29.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1996	Initial Construction	Unavailable	See Pump Station Plans 214-19	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION AND SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING

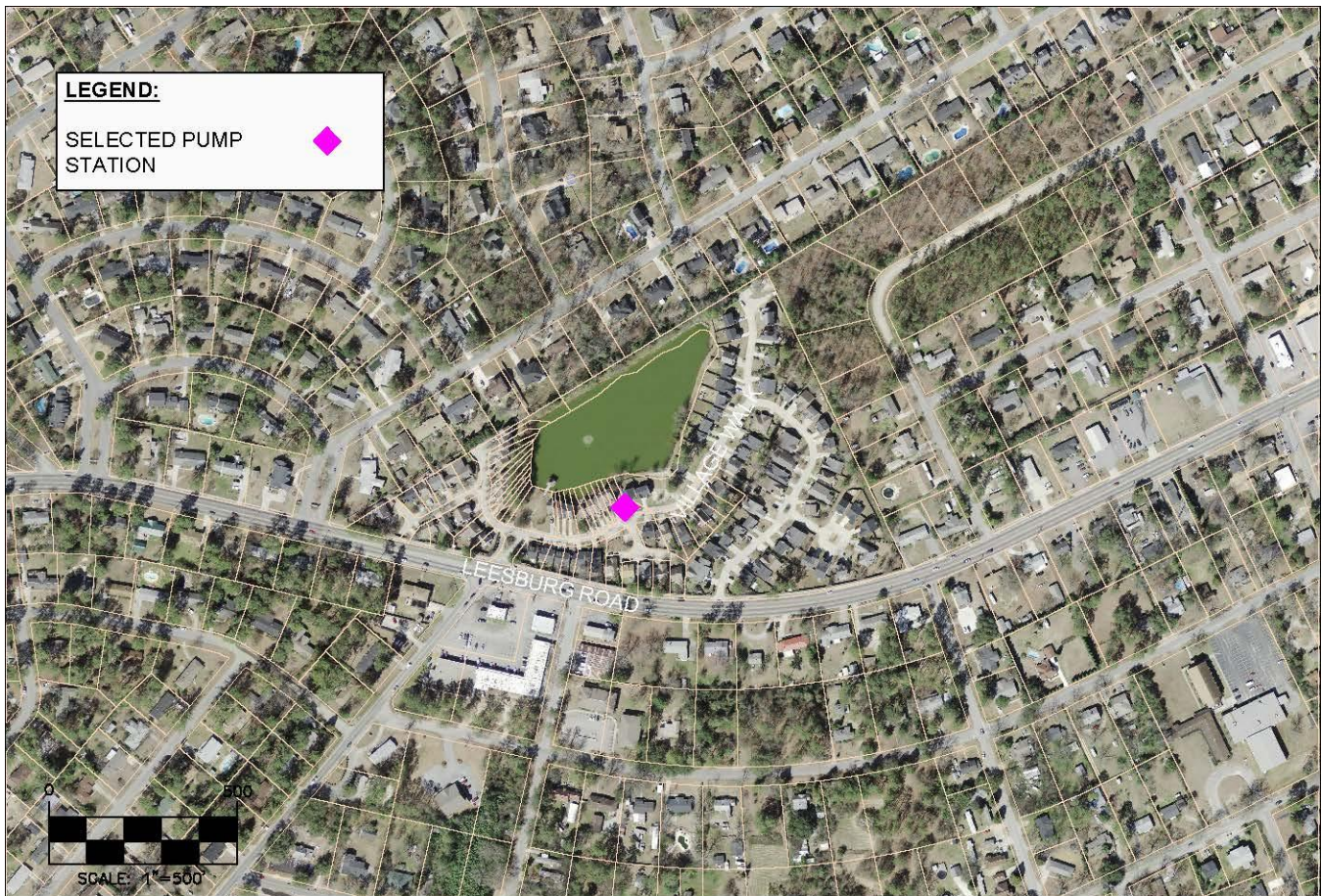
Pump Station Technical Specifications

Village Pond Pump Station

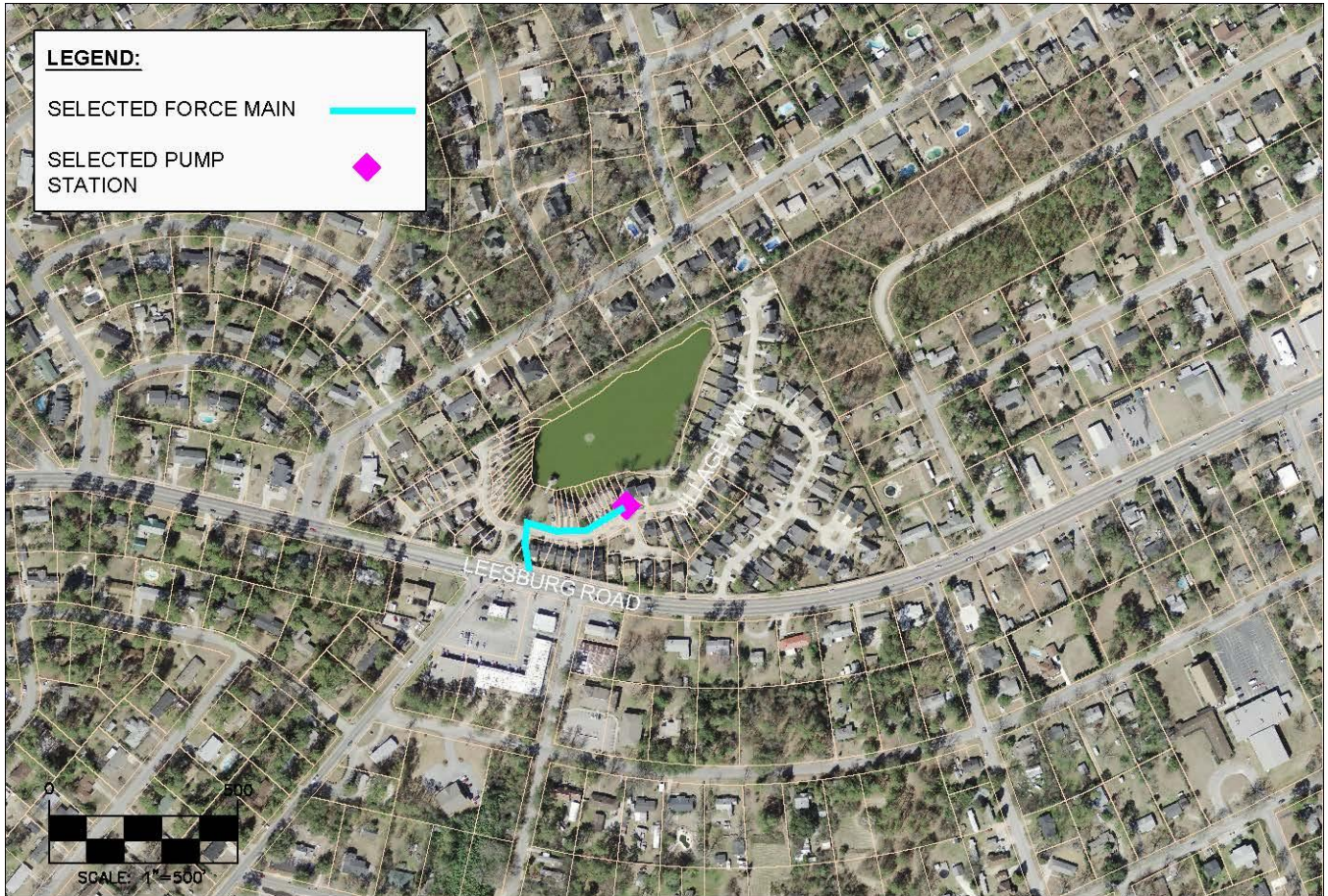
Location/Address: Between 139 and 201 Village Walk
Columbia, SC 29209

Station ID #: 105

Coordinates: 33° 58.564' N, 080° 56.336' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	161	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	127-15(R1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	21	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	127-15(R1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	127-15(R1) 127-15(R-2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	404	127-15(R1) 127-15(R-2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	127-15(R1) 127-15(R-2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC15-00144-MH	127-15(R1) 127-15(R-2)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	127-15(R1) 127-15(R-2)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	127-15(R1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	127-15	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP 3085	Unavailable	230	2.4	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP 3085	Unavailable	230	2.4	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP 3085	1460866	230	2.4	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	July 10, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	10.57	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	63.42	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	8.4,7.1	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	73.98	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	2.5,7.3	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1986	Initial Construction	Unavailable	See Pump Station Plans 127-15	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: PUMP STATION EXTERIOR



PHOTO 2: DISCHARGE PIPING HEADER

Pump Station Technical Specifications

West Columbia Pump Station

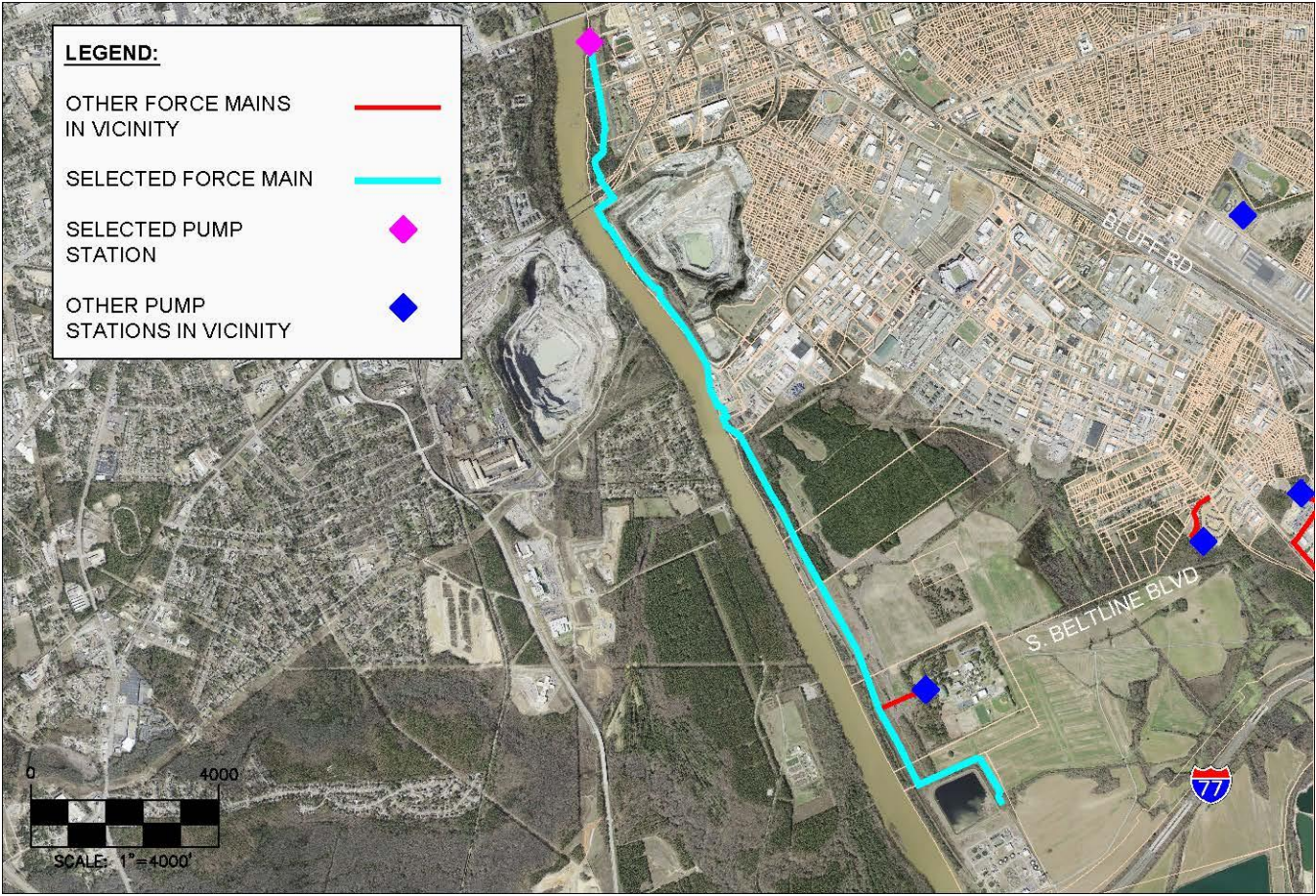
Location/Address: 100 Wheat St
Columbia, SC 29201

Station ID #: 110

Coordinates: 33° 59.201' N, 081° 02.708' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	16666	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	4	SS7115-01 64-75	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	85	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	SS7115-01 64-75	CLICK HERE FOR DOCUMENTS
VFD Present	YES	SS7115-01-57	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	42	SS7115-02	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	20968	SS7115-02	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	SS7115-02	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	METRO WWTP	SS7115-02	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	SS7115-02	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS7115-01 64-75	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	13-E-53	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP3312.7 45	1171105	460	185	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP3312.7 45	1171106	460	185	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	CP3312.7 45	1171107	460	185	CLICK HERE FOR DOCUMENTS
4	I	YES	Flygt	CP3312.7 45	1171108	460	185	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Natural Gas Generator
Voltage (Volts)	277/480 Volt
Wattage (Watts)	570 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	AG010-23332
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
---	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power	
Pump Control Panel Power Problem	
Pump Control Panel Common Alarm	
Wetwell Level High	
Pump 1 Run	
Pump 1 Fail	
Pump 1 HOA Switch in Auto	
Pump 1 Runtime	
Pump 2 Run	
Pump 2 Fail	
Pump 2 HOA Switch in Auto	
Pump 2 Runtime	
Pump 3 Run	
Pump 3 Fail	
Pump 3 HOA Switch in Auto	
Pump 3 Runtime	
Pump 4 run	
Pump 4 fail	
Pump 4 runtime	
Wetwell Level	
Generator Run	
Generator Fail	
Generator Runtime	
ATS Status	
Intrusion	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1976	Initial Construction	Unavailable	See Plan Set 1974	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2011	Pump Station Improvements	SS7115-01	See Improvements 2010	
2013	Force Main Improvements	SS7115-02	See Force Main Plans SS7115-02	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: DISCHARGE PIPING HEADER AND PRESSURE GAUGES

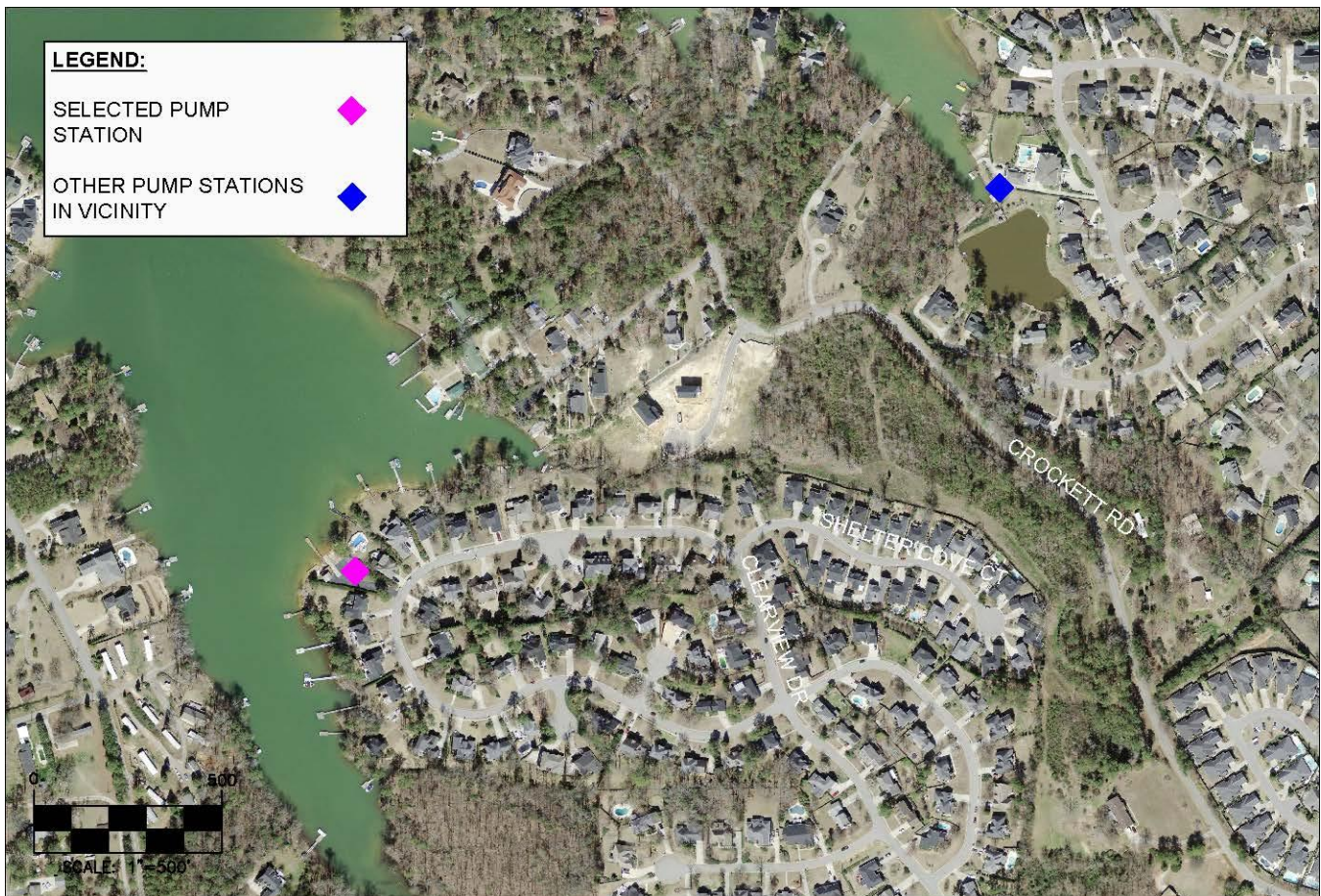
Pump Station Technical Specifications

Clearwater Pump Station

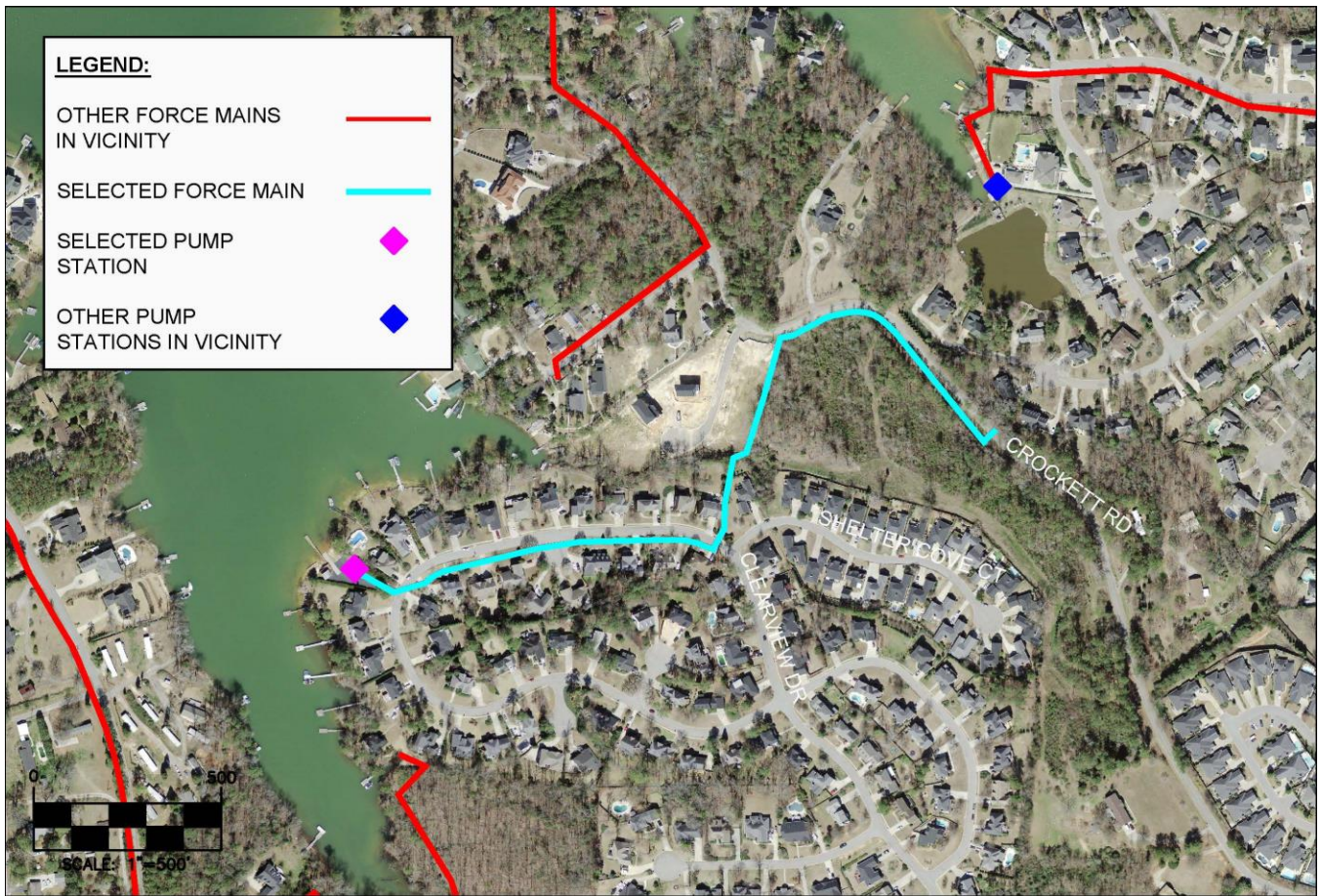
Location/Address: Between 414 and 422 Clearview Dr
Dr
(418 Clearview Dr)
Columbia, SC 29212

Station ID #: 115

Coordinates: 34° 05.267' N, 081° 14.080' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	264	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	155-06 155-06D	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	55	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	155-06 155-06D	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	155-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2377	155-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	155-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-00573-MH	155-06	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	155-06	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	155-06 155-06D	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127	1220691	230	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127	1220692	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
--------------------------------------	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	March 26, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	37.58	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	206.69	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16, 17.5, 18	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	150.32	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	15.5, 17.7, 18	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Water on Floor Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1989	Initial Construction	Unavailable	See Pump Station Plans 155-06	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

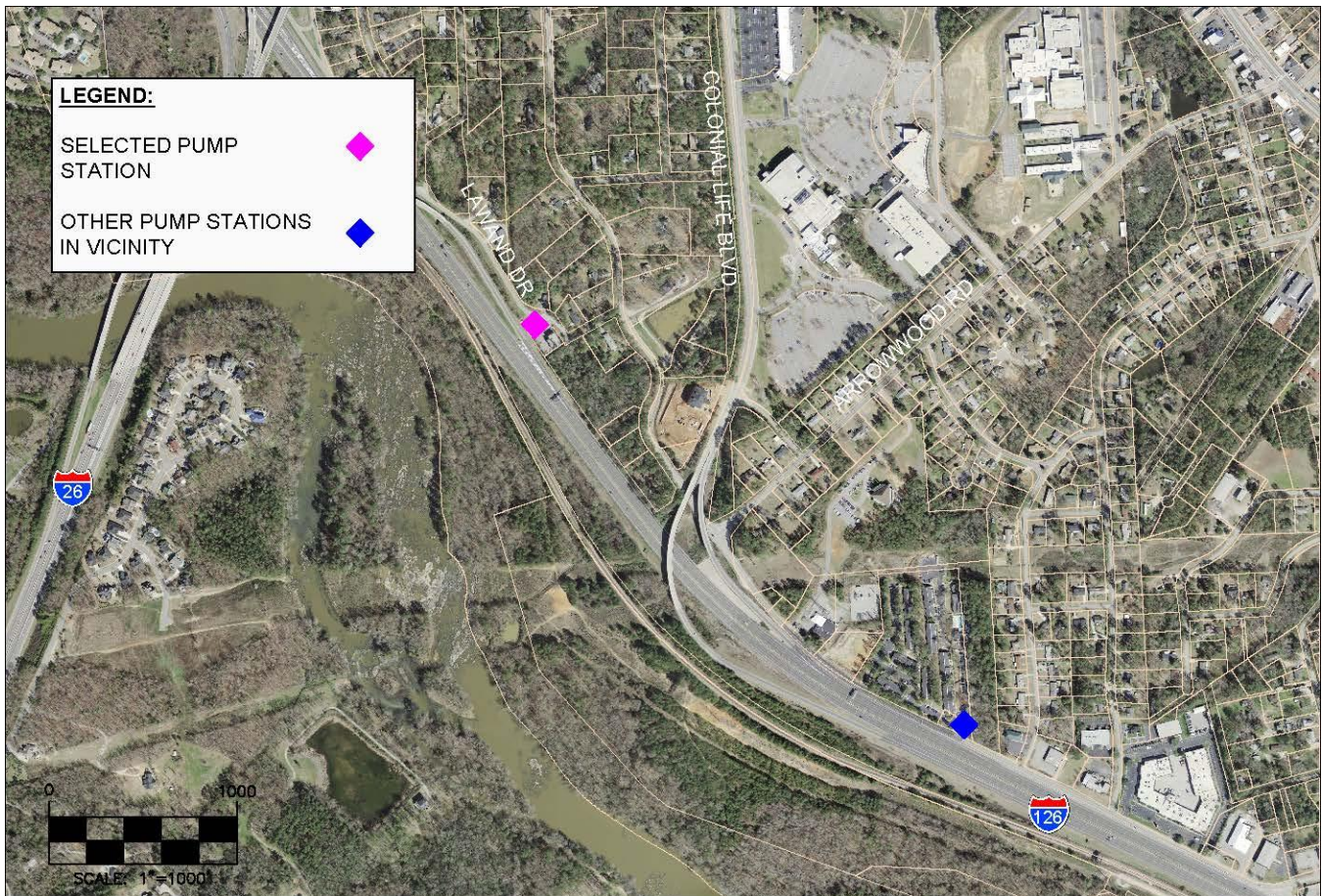
Pump Station Technical Specifications

Colonial Life Pump Station

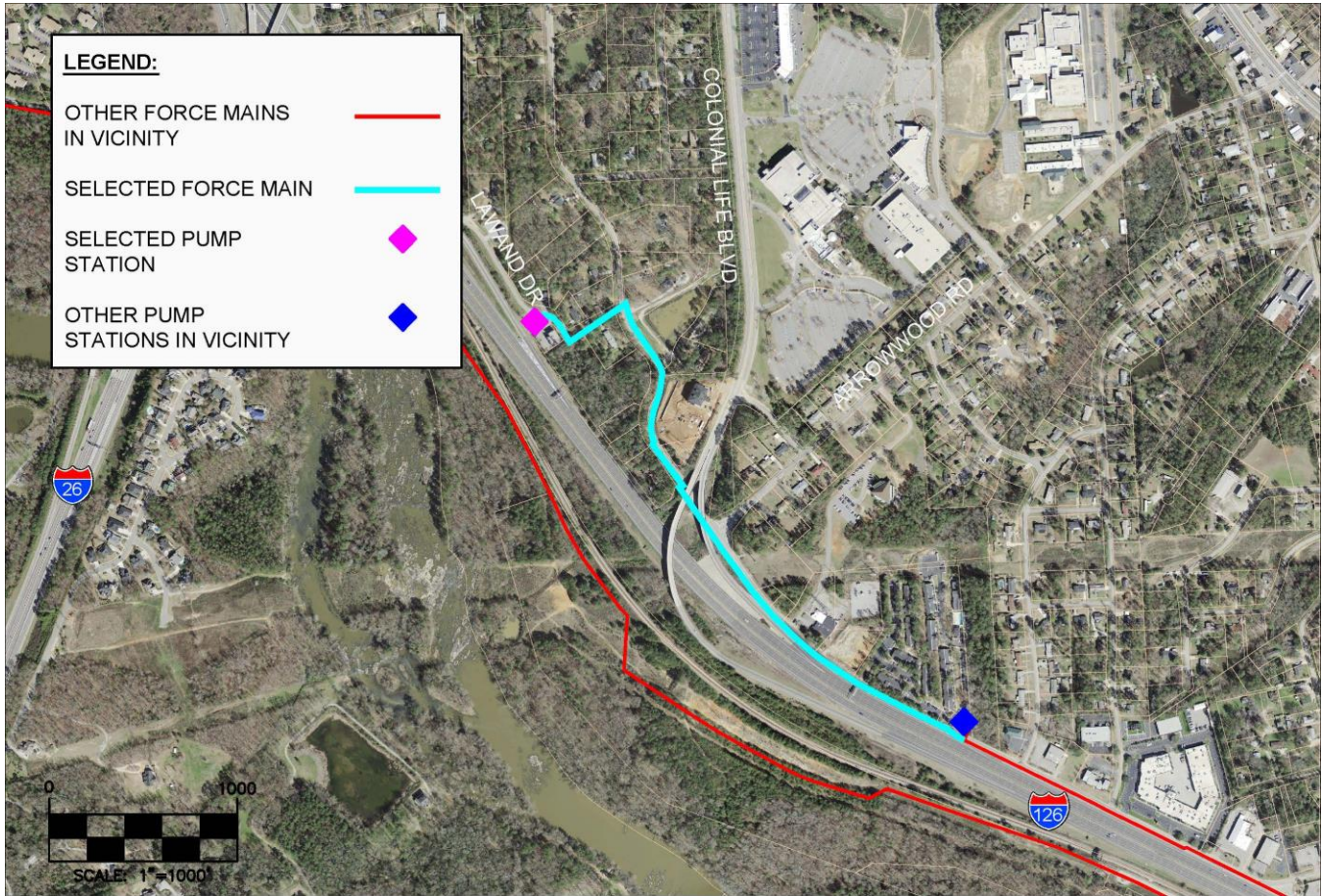
Location/Address: 498 Lawand Dr
(Near 500 Lawand Dr)
Columbia, SC 29212

Station ID #: 120

Coordinates: 34° 01.415' N, 081° 05.805' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	225	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	60-32	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	88	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	60-32	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	60-32	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3845	60-32	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	60-32	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Three Rivers PS FM	60-32	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	60-32	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	60-32	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Gorman Rupp	T4A3-B /F	1525074	230	20	CLICK HERE FOR DOCUMENTS
2	I	YES	Gorman Rupp	T4A3-B /F	1535100	230	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Wisconsin LPG Motor Drive
Voltage (Volts)	230 Volt
Wattage (Watts)	16.8 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	90
City Asset ID#	AO016-18457
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	April 4, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	40.16	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	240.98	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	45, 47, 44	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	247.32	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	39, 41, 43	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1986	Initial Construction	Unavailable	See Pump Station Plans 60-32	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE AND ENTRANCE



PHOTO 2: PUMPS AND PIPING

Pump Station Technical Specifications

Crockett Road Pump Station

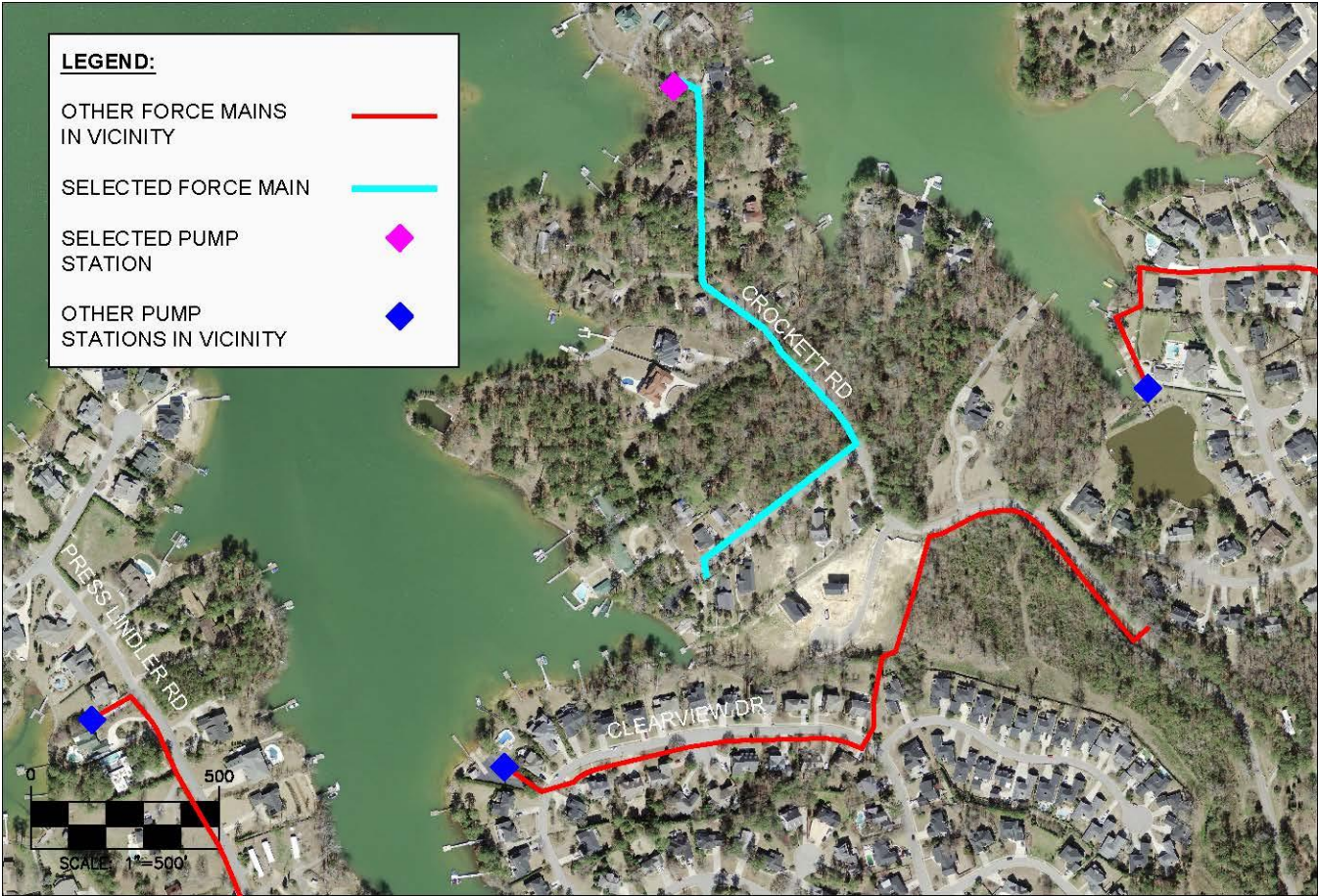
Location/Address: 344 Crockett Rd
Columbia, SC 29212

Station ID #: 125

Coordinates: 34° 05.565' N, 081° 13.991' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	57	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	193-10(R-3)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	60	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	193-10(R-3)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	3	193-10	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1750	193-10	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	193-10	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-00577-MH	193-10	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	193-10	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	193-10(R-3)	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Myers	AG30-21-25	600792181	230	3	CLICK HERE FOR DOCUMENTS
2	I	YES	Myers	WG50-21-25	600139137	230	3	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH360R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	March 3, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	1.47	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	48.44	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	49.91	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	17	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1993	Initial Construction	Unavailable	See Pump Station Plans 193-10(R-3)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE VAULT PIPING, BYPASS AND PRESSURE GAUGE

Pump Station Technical Specifications

Edventure Pump Station

Location/Address: 1700 Gist St
Columbia, SC 29201

Station ID #: 130

Coordinates: 34° 00.163' N, 081° 03.203' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	50	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	SS734	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	50	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	SS734	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	3	SS734	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1302	SS734	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	SS734	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB06-24169-MH	SS734	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	SS734	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS734	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	MP-3068 2" IMP- 218	1061533	230	2.7	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	MP-3068 2" IMP- 218	1130686	230	3.8	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 17, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	63.42	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	90.9	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	5.1, 4.7, 4.8	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	95.12	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	6.4, 5.9, 5.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2002	Initial Construction	SS734-7/8	See Pump Station Plans SS734-7/8	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE VAULT PIPING

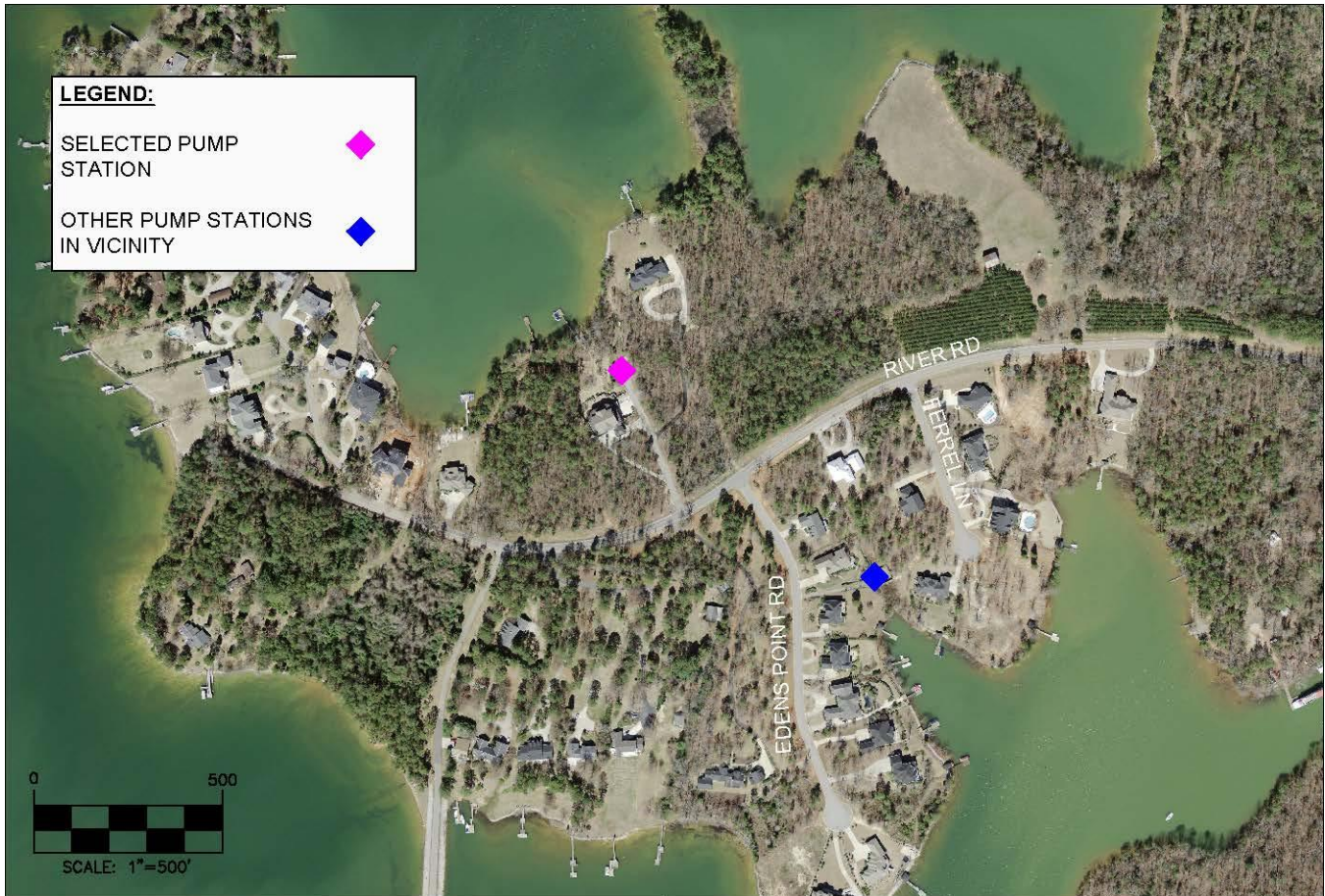
Pump Station Technical Specifications

Georgetown Pump Station

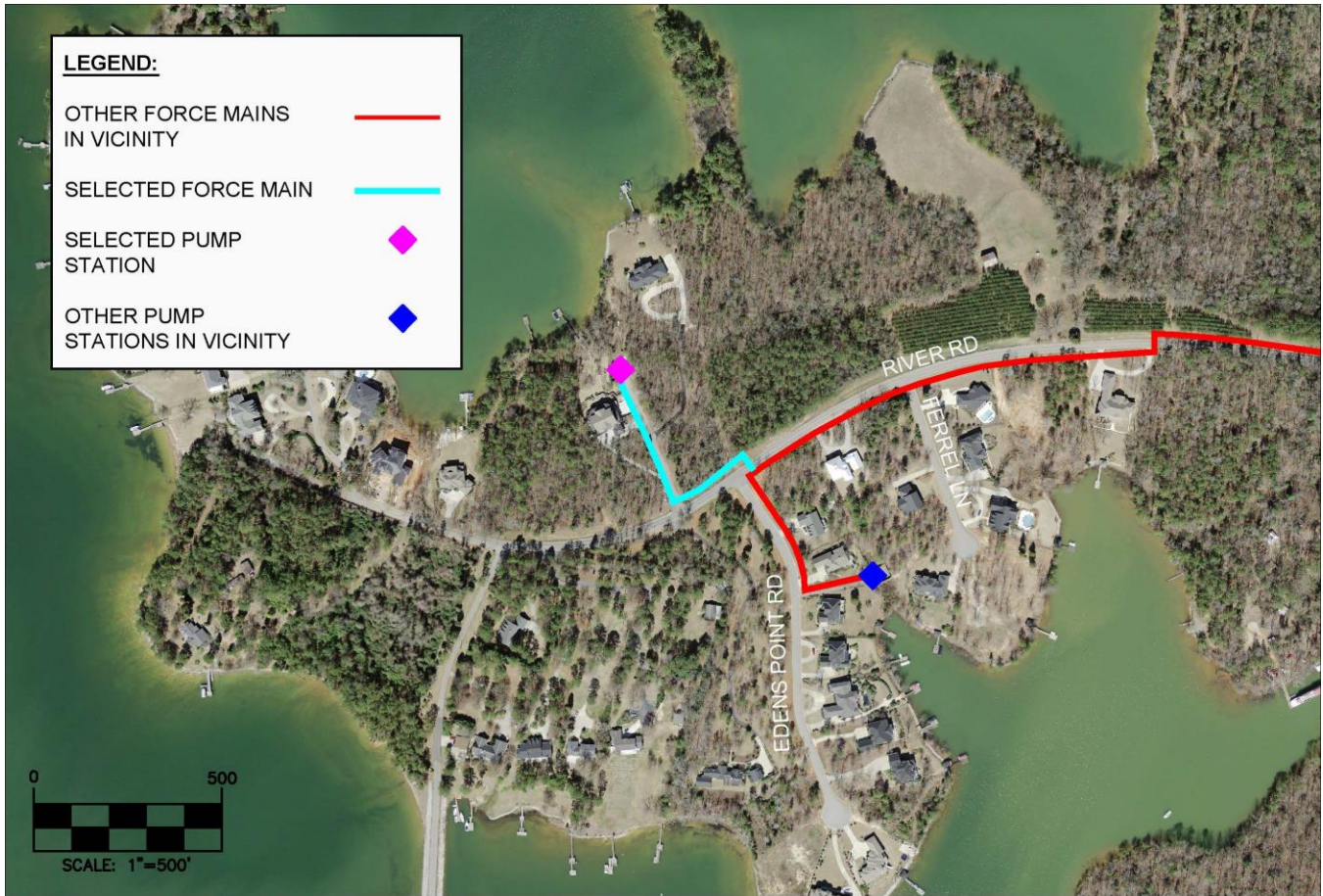
Location/Address: Near 664 River Road
Columbia, SC 29212

Station ID #: 135

Coordinates: 34° 04.471' N, 081° 15.264' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	80	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	262-25	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	126	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	262-25	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	262-25	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	672	262-25	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	262-25	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Harbour Pointe PS FM	262-25	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	262-25	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	262-25	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	262-25	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	MP-3127 2" IMP- 262	0180055	460	7.5	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	MP-3127 2" IMP- 262	1230019	460	11	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	MP-3127 2" IMP- 262	0180053	460	7.5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Olympian Diesel Generator
Voltage (Volts)	480 Volt
Wattage (Watts)	40 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	150
City Asset ID#	AO081-18637
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 11, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	1.47	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	60.19	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	10,11,10	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	82.21	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	12,10,12	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Control Panel Common Problem Wetwell High Pump 1 Run, Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run, Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2002	Initial Construction	Unavailable	See Pump Station Plans 262-25	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By
June 24, 2014	The provided pump curve is for both the 11 HP and the 7.5 HP pumps. The 11 HP pump has a nominal (nameplate) HP rating of 7.5 HP but a service factor of 1.47. In otherwords the 7.5 HP nameplate rating is actually 11 HP (7.5 x 1.47 service rating).	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE AND ENTRANCE



PHOTO 2: VALVE VAULT PIPING

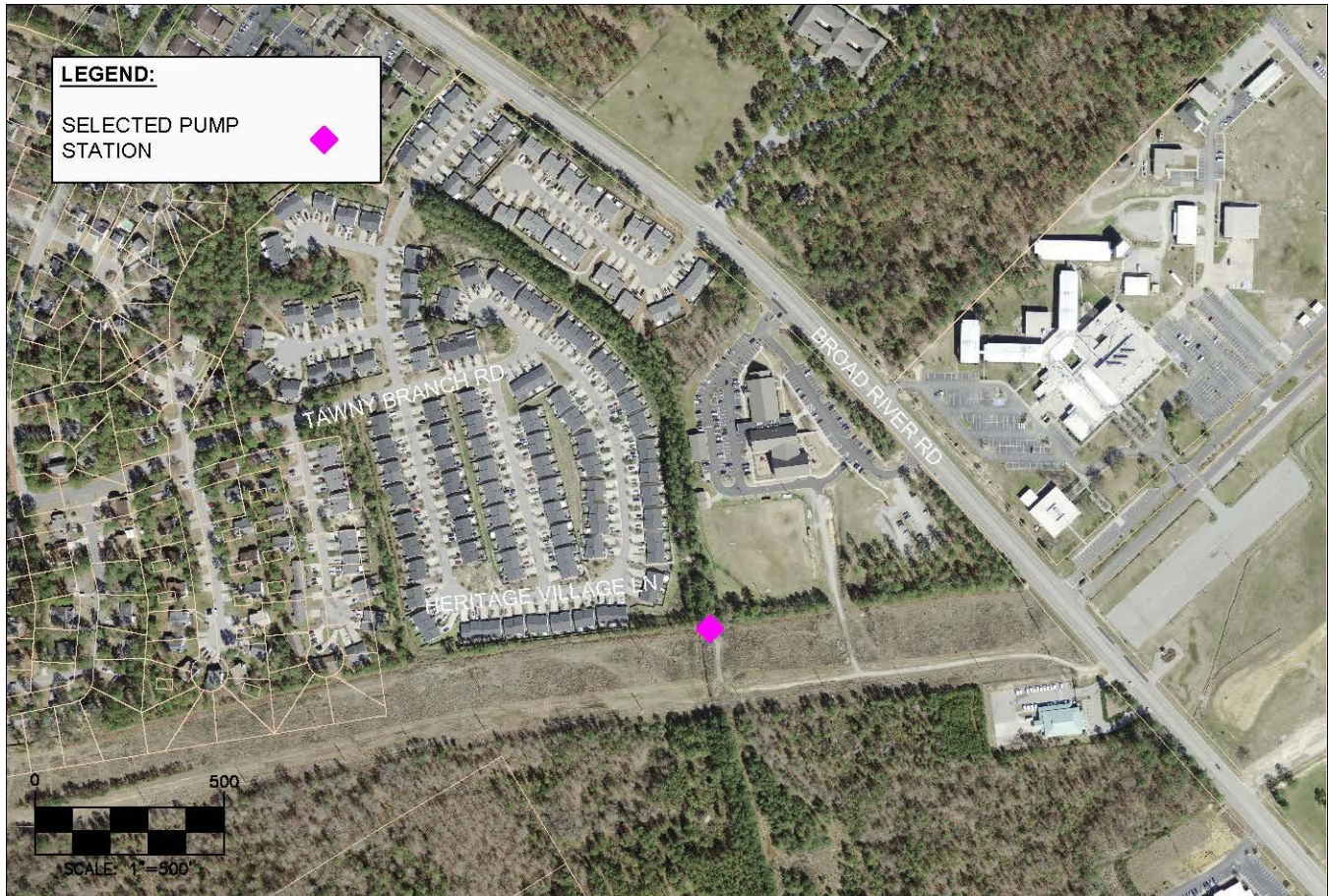
Pump Station Technical Specifications

Harbison #2 Pump Station

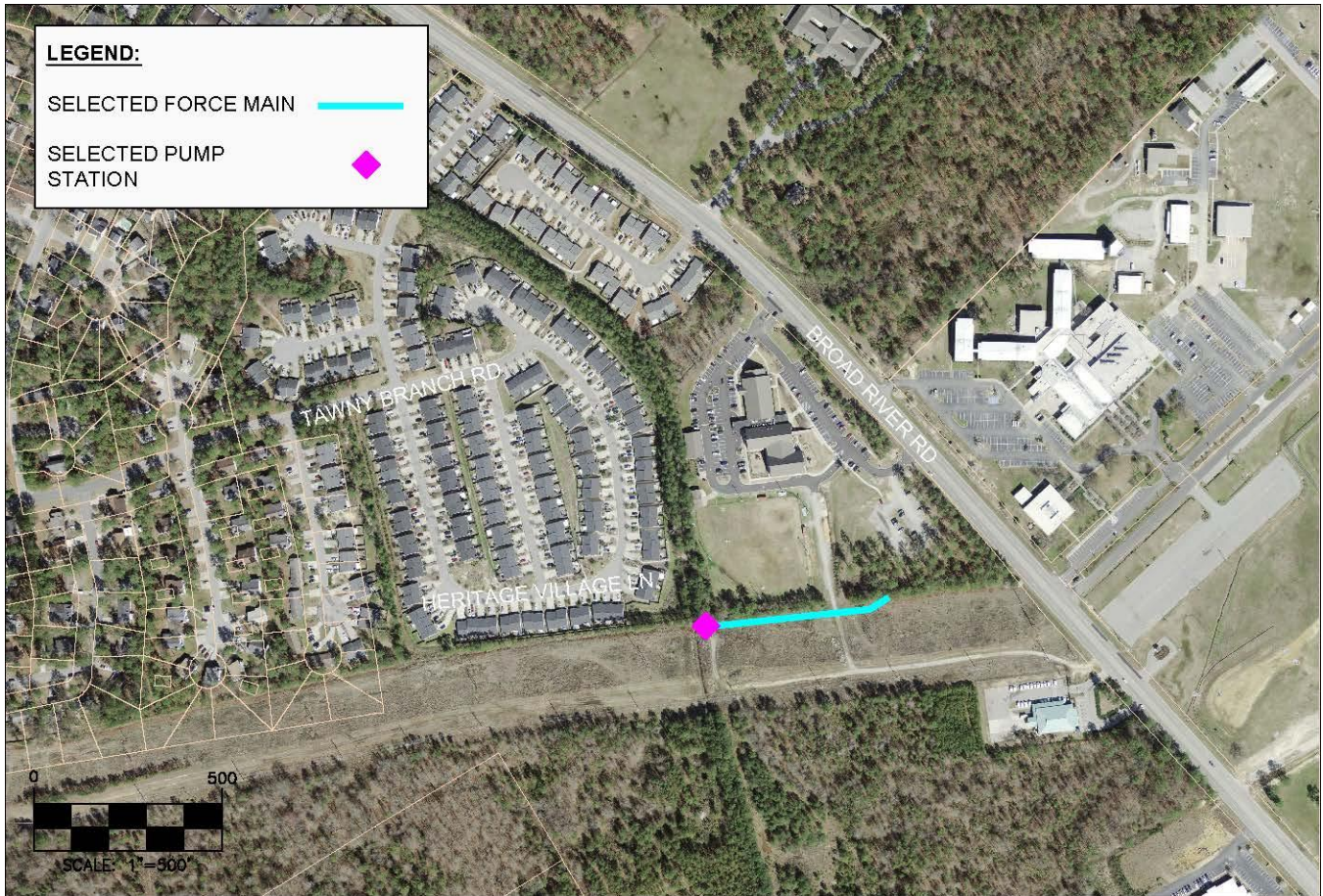
Location/Address: Behind 5501 Broad River Rd
Columbia, SC 29212

Station ID #: 140

Coordinates: 34° 04.545' N, 081° 07.740' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	150	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	102-21	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	32	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	102-21	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	102-21	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	497	102-21	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	102-21	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-BR04-19409-MH	102-21	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	102-21	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	102-21	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	Harbison PS #2 VIC MAP	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Smith & Loveless	4B2B	970457	240	5	CLICK HERE FOR DOCUMENTS
2	I	YES	Smith & Loveless	4B2B	970456	240	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH360R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1979	Initial Construction	Unavailable	See Pump Station Plans 1977	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1997	Pump Replacement	Unavailable	See 1997	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE AND ENTRANCE



PHOTO 2: PUMPS

Pump Station Technical Specifications

Harbison #4 Pump Station

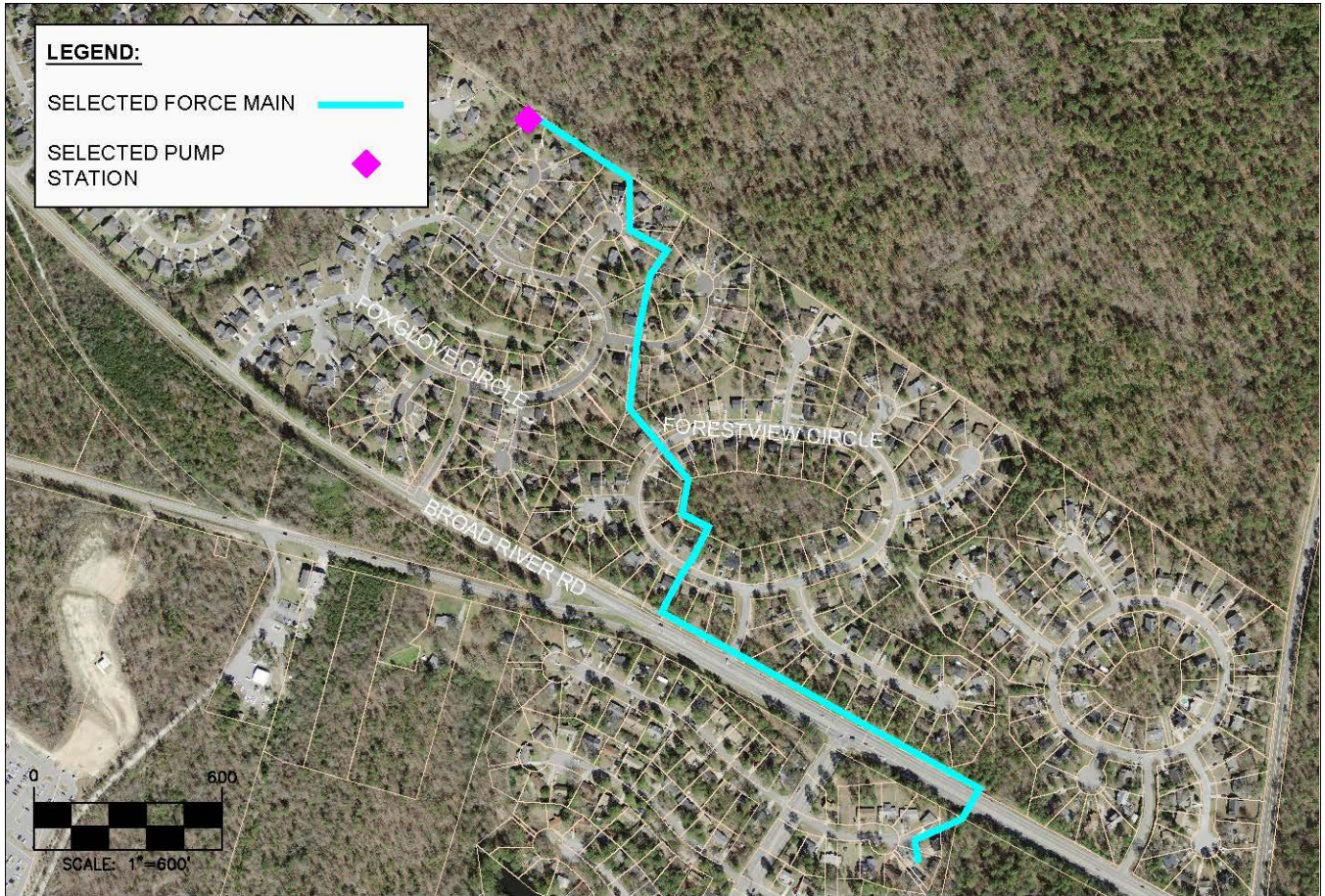
Location/Address: 34 Thistle Ct
(Behind 26 Thistle Ct)
Irmo, SC 29063

Station ID #: 145

Coordinates: 34° 05.458' N, 081° 08.751' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	370	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	106-12 SS7083	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	110	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	106-12 SS7083	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	106-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3526	106-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/Ductile Iron	106-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-BR04-24616-MH	106-12	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	106-12	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	106-12 SS7083	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	106-12C 106-12A(R-2) 106-12A(R-4) 106-12A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3171 4" IMP-454	1160078	230	30	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3171 4" IMP-454	1160079	230	30	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3171 4" IMP-454	1220161	230	30	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	230 Volt
Wattage (Watts)	60 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	250
City Asset ID#	AG012-23363
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 31, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	42.28	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	195.53	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	221.95	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Pump Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA Switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA Switch in Auto Water on Floor Alarm Generator Running Generator Trouble Transfer Breaker Status Personnel Emergency Wetwell Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1982	Initial Construction	Unavailable	See 1981	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2012	Pump Station Modifications and Improvements	SS7083	Pump Station Replacement - See Improvements 2011	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Harbour Pointe Pump Station

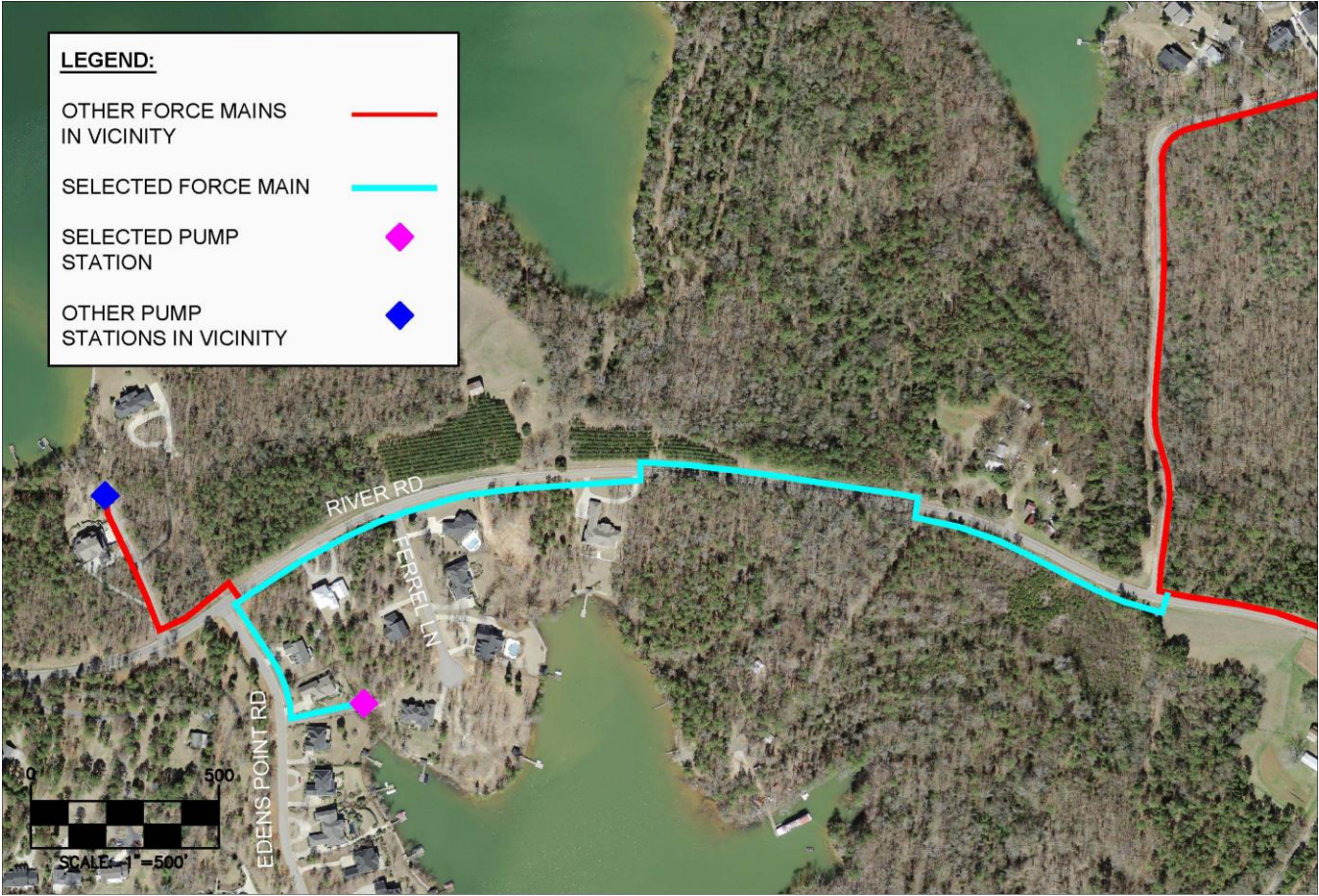
Location/Address: W/S Edens Point Rd
(Access is 11 Edens Point Rd.)
Columbia, SC 29212

Station ID #: 150

Coordinates: 34° 04.381' N, 081° 15.130' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	81	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	249-09	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	145	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	249-09	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	249-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3291	249-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	249-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	Regatta Point #1 PS FM	249-09	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	249-09	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	249-09	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	ABS	AFP 1034.8	2890	230	30	CLICK HERE FOR DOCUMENTS
2	I	YES	ABS	AFP 1034.8	2889	230	30	CLICK HERE FOR DOCUMENTS
3	R	YES	ABS	AFP 1034.8	2891	230	30	CLICK HERE FOR DOCUMENTS
4	R	NO	ABS	ME230/2	0032710	230	30	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH360R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 7, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	23.25	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	150.08	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	54, 58, 25	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	160.65	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	64, 67, 7	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2001	Initial Construction	Unavailable	See Pump Station Plan 249-09	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE VAULT PIPING

Pump Station Technical Specifications

Hillcreek #1 Pump Station

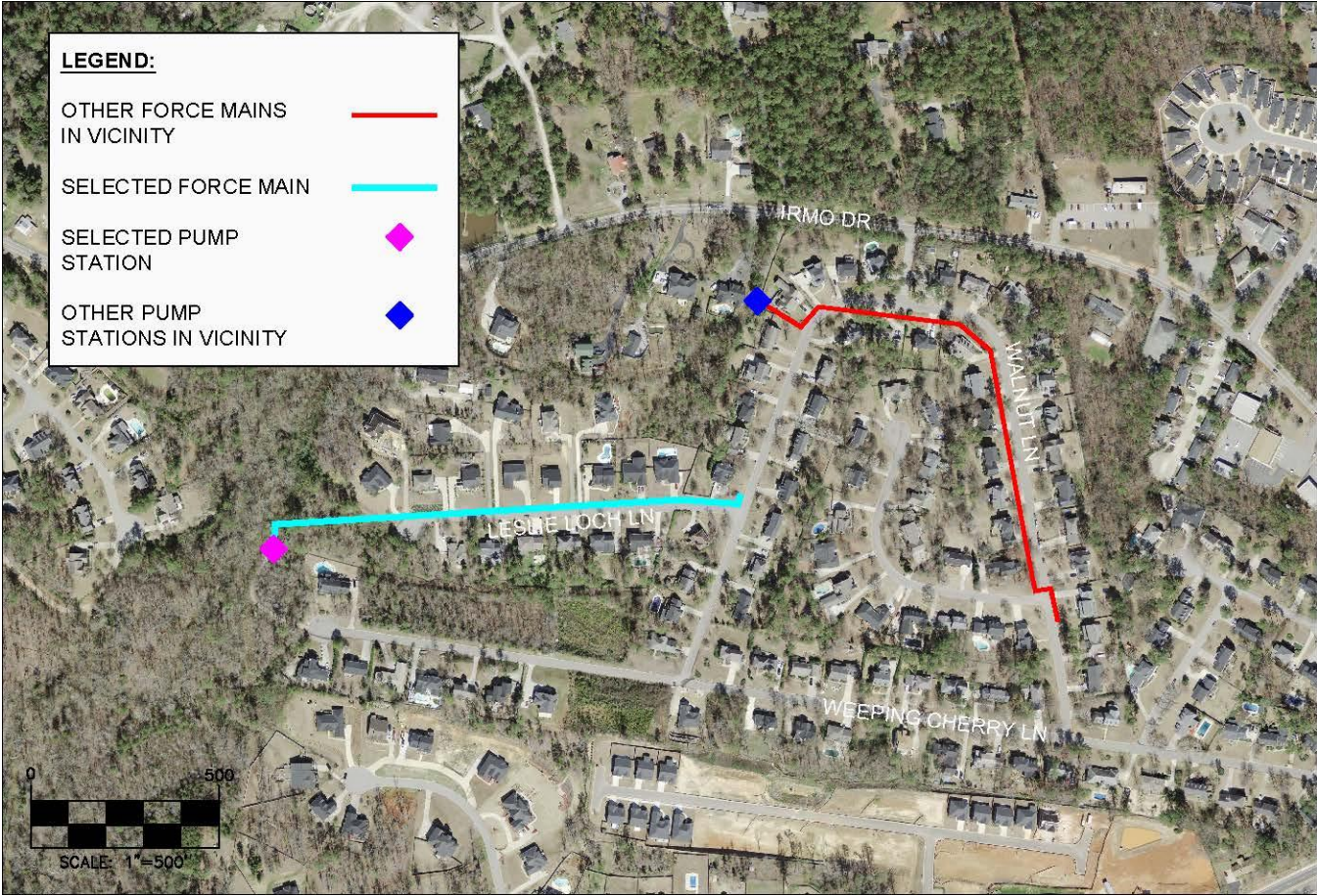
Location/Address: NW/S Weeping Cherry Ln
(Behind 334 Weeping Cherry Ln)
Columbia, SC 29212

Station ID #: 155

Coordinates: 34° 05.169' N, 081° 11.894' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	100	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	129-20B	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	103	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	129-20B	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1327	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR02-24617-MH	129-20B	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	129-20B	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	129-20B	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	129-20C(R-2) 129-20C Hill Creek PS#1 & #2 VIC MAP 241-05 241-05B	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Ebara	100DLMF 6182	03104/1/3	230	25	CLICK HERE FOR DOCUMENTS
2	I	YES	Ebara	100DLMF 6182	311751111	230	25	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 16, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	8.46	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	114.15	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	38,40,38	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	145.86	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	39, 41, 39	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
Control Panel Power Problem Control Panel Common Alarm Wetwell High Pump 1 Run Pump 1 Fail Pump 2 Run Pump 2 Fail Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1988	Initial Construction	Unavailable	See Pump Station Plan 129-20B	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Hillcreek #2 Pump Station

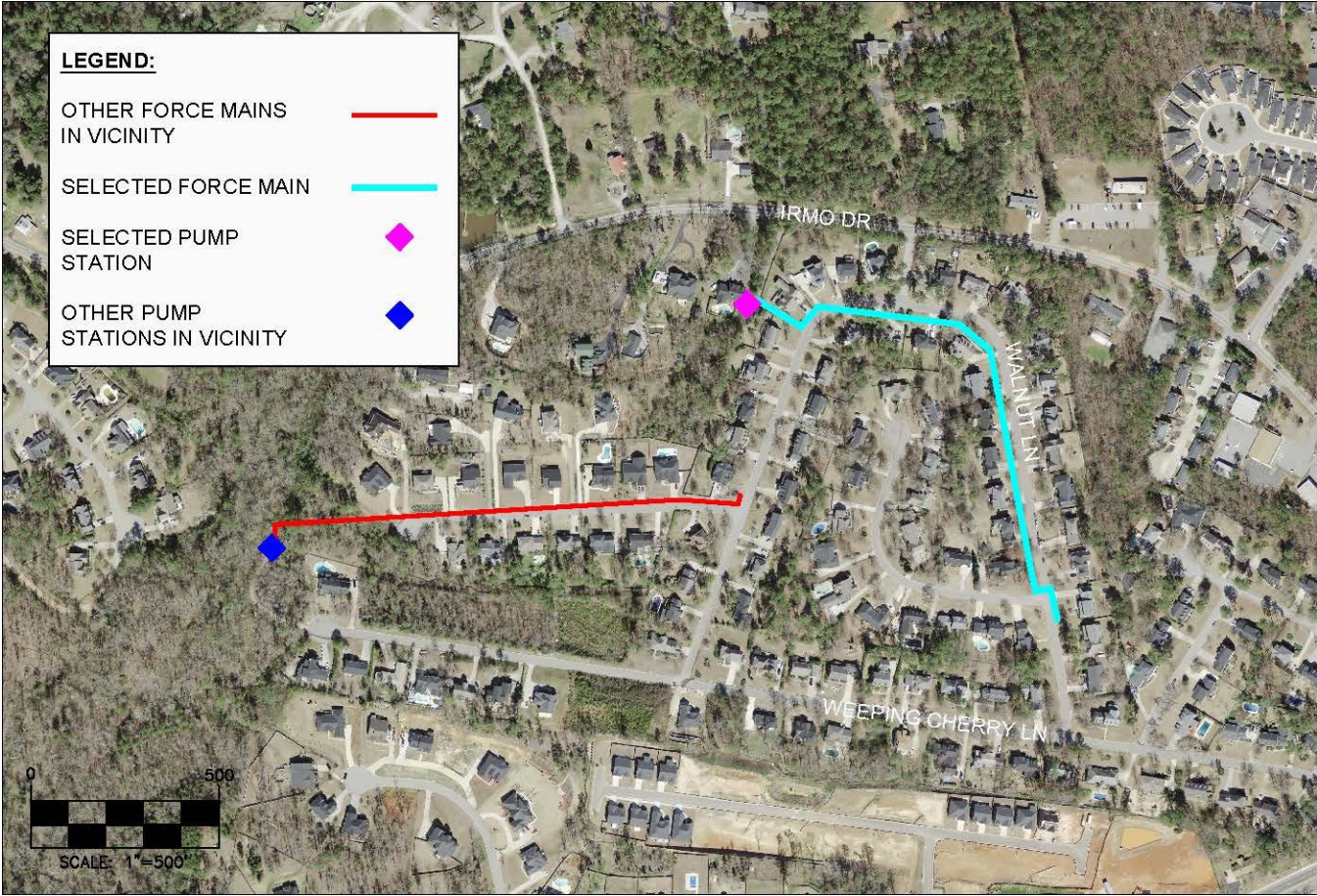
Location/Address: Behind 212 Walnut Ln
(7581 Irmo Dr)
Columbia, SC 29212

Station ID #: 160

Coordinates: 34° 05.278' N, 081° 11.639' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	162	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	2013-02-12_12-05-31_896 129-20B	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	88	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	2013-02-12_12-05-31_896 129-20B	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1473	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	129-20B	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR02-24618-MH	129-20B	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	129-20B	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	2013-02-12_12-05-31_896 129-20B	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	129-20B, 129-20C(R-2) 129-20C Hill Creek PS#1 & #2 VIC MAP	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3127 4" IMP- 249	1250210	230	11	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3127 4" IMP- 249	1250211	230	11	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3127 4" IMP- 249	1330042	230	11	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 9, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	23.25	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	150.08	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16, 16, 17	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	150.08	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	19, 19, 20	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Common Alarm Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1987	Initial Construction	Unavailable	See Pump Station Plan 129-20B	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE VAULT PIPING

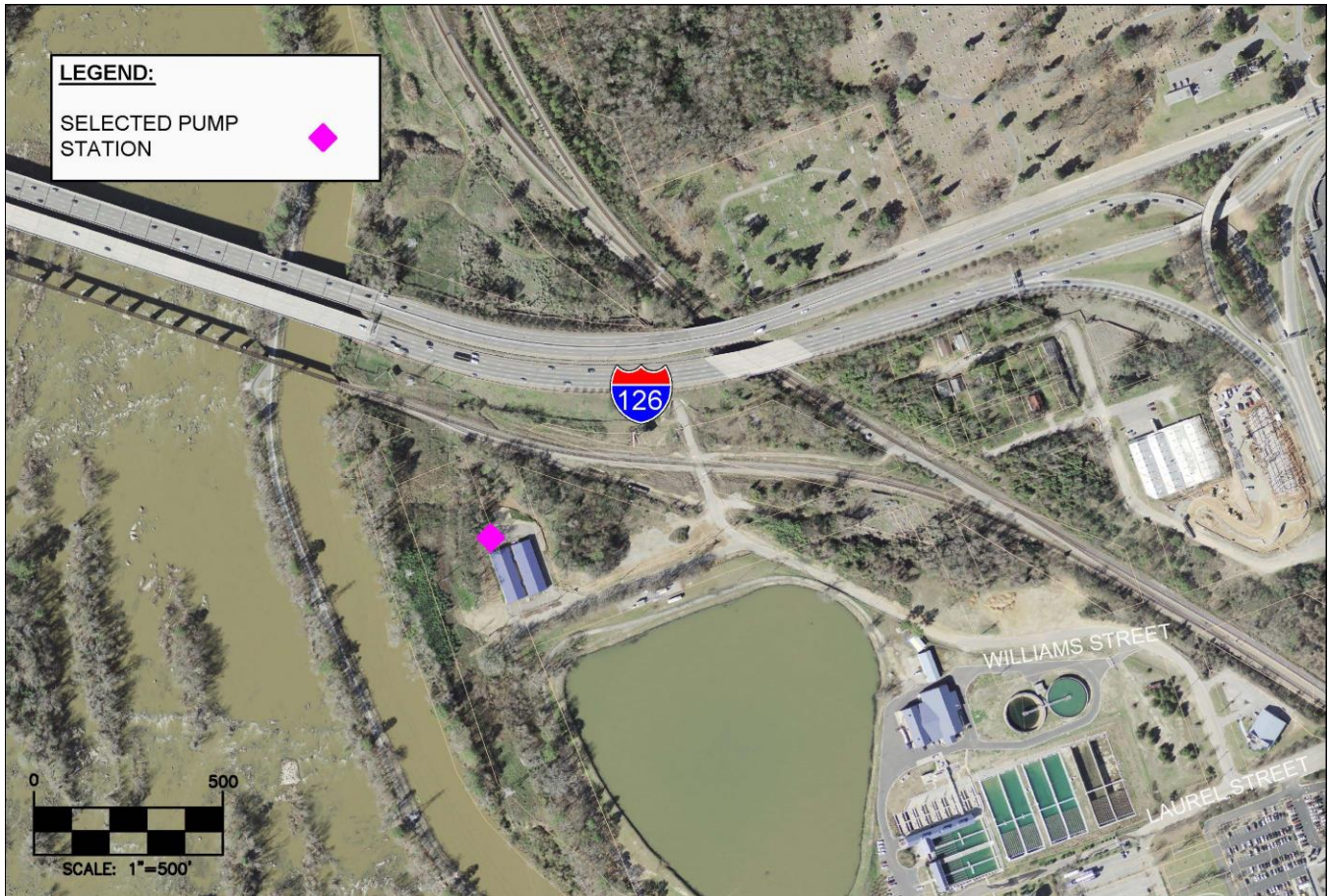
Pump Station Technical Specifications

Homeless Shelter Pump Station

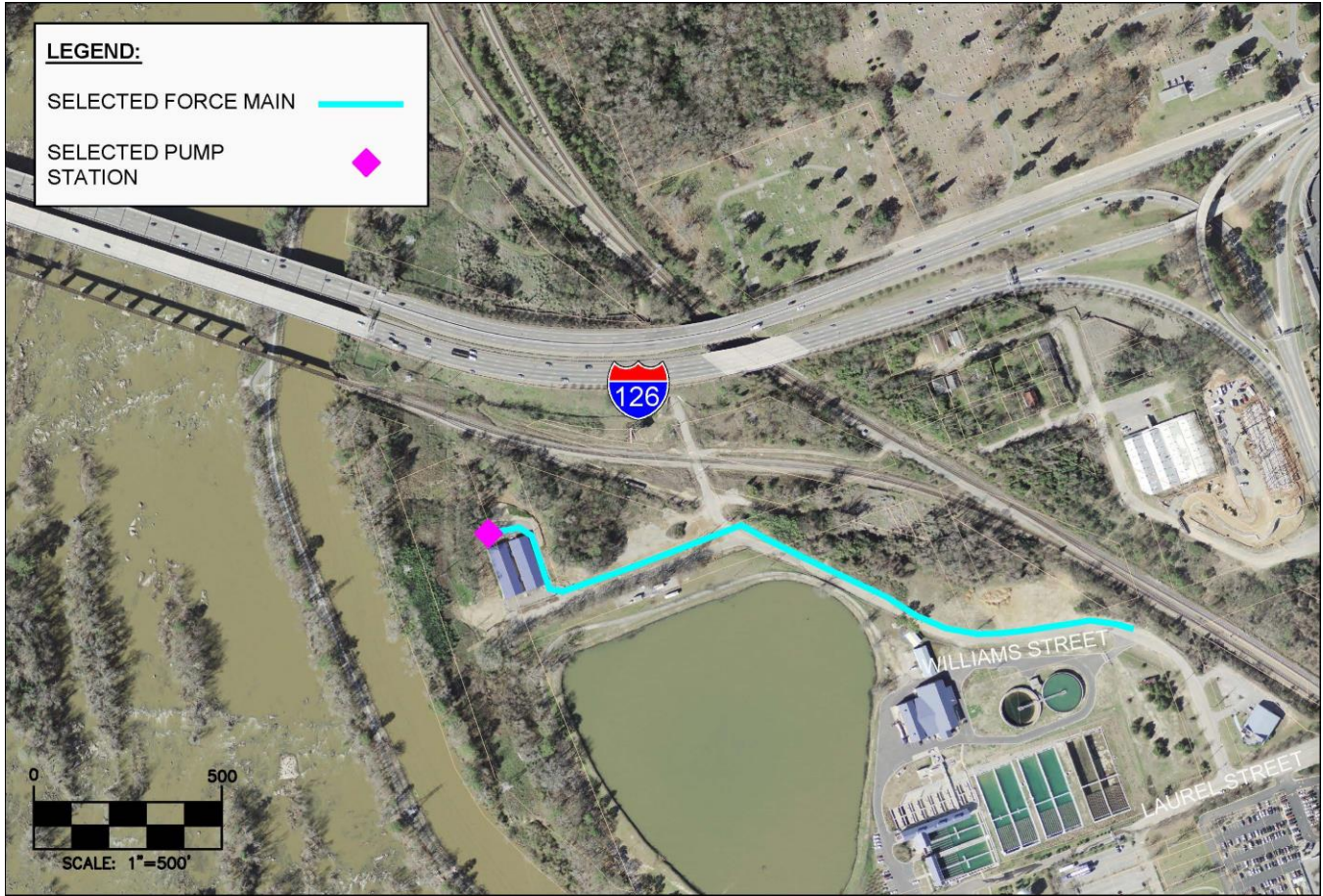
Location/Address: 191 Calhoun St
Columbia, SC 29201

Station ID #: 165

Coordinates: 34° 00.396' N, 081° 03.378' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	80	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	220-274	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	60	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	220-274	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	220-274	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1928	220-274	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	220-274	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB06-24159-MH	220-274	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	220-274	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	220-274	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	Homeless Shelter Proposed SS Pump Station	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-485	0770844	240	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP-485	0770845	240	10	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3127 4" IMP-485	0720662	240	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 17, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	42.28	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	194.47	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16.7, 16.7, 15.5	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	207.16	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	16.2, 16.2, 14.9	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Water on Floor Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2008	Initial Construction	SS7041	See Pump Station Plan 220-274	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

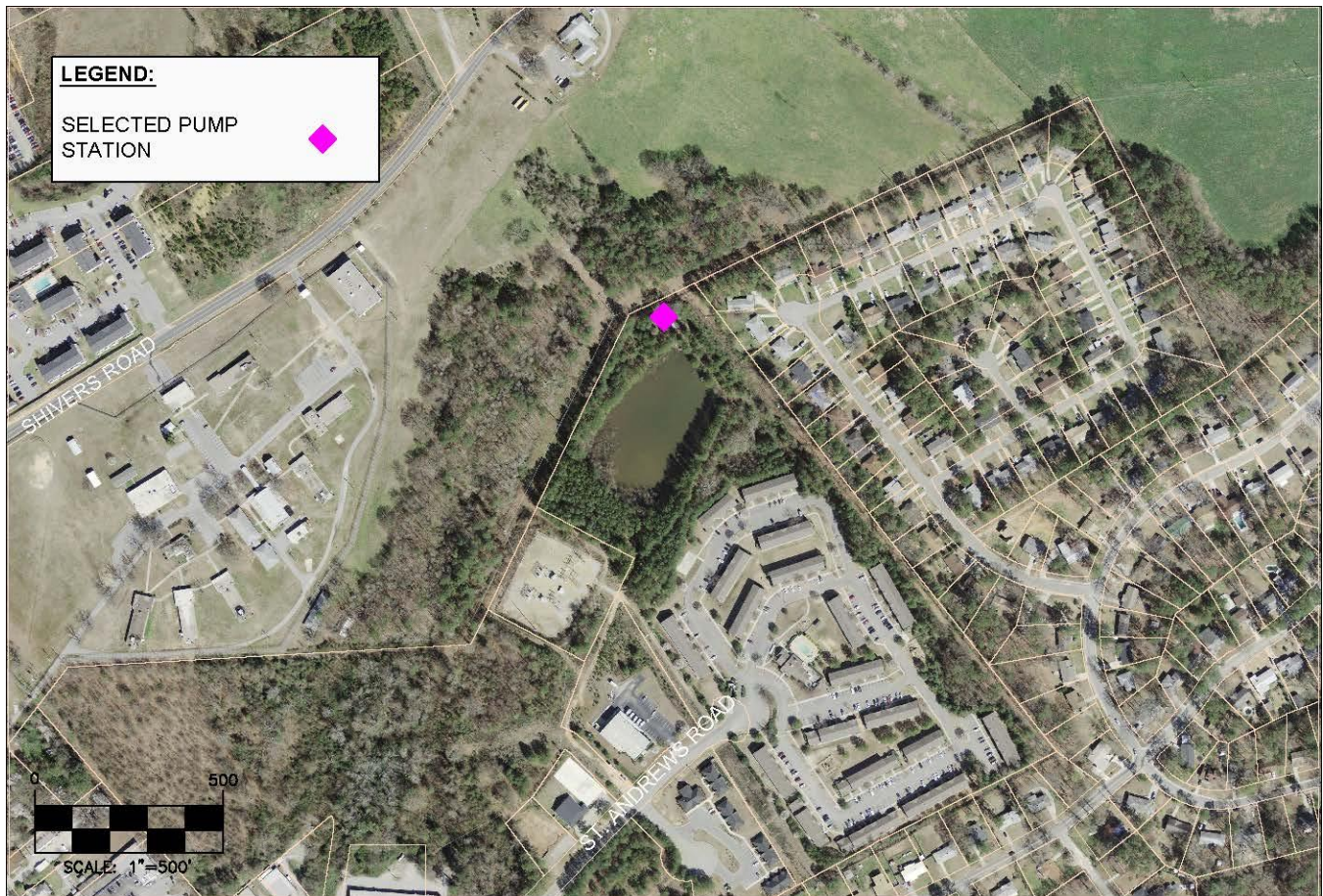
Pump Station Technical Specifications

Meadowlands Pump Station

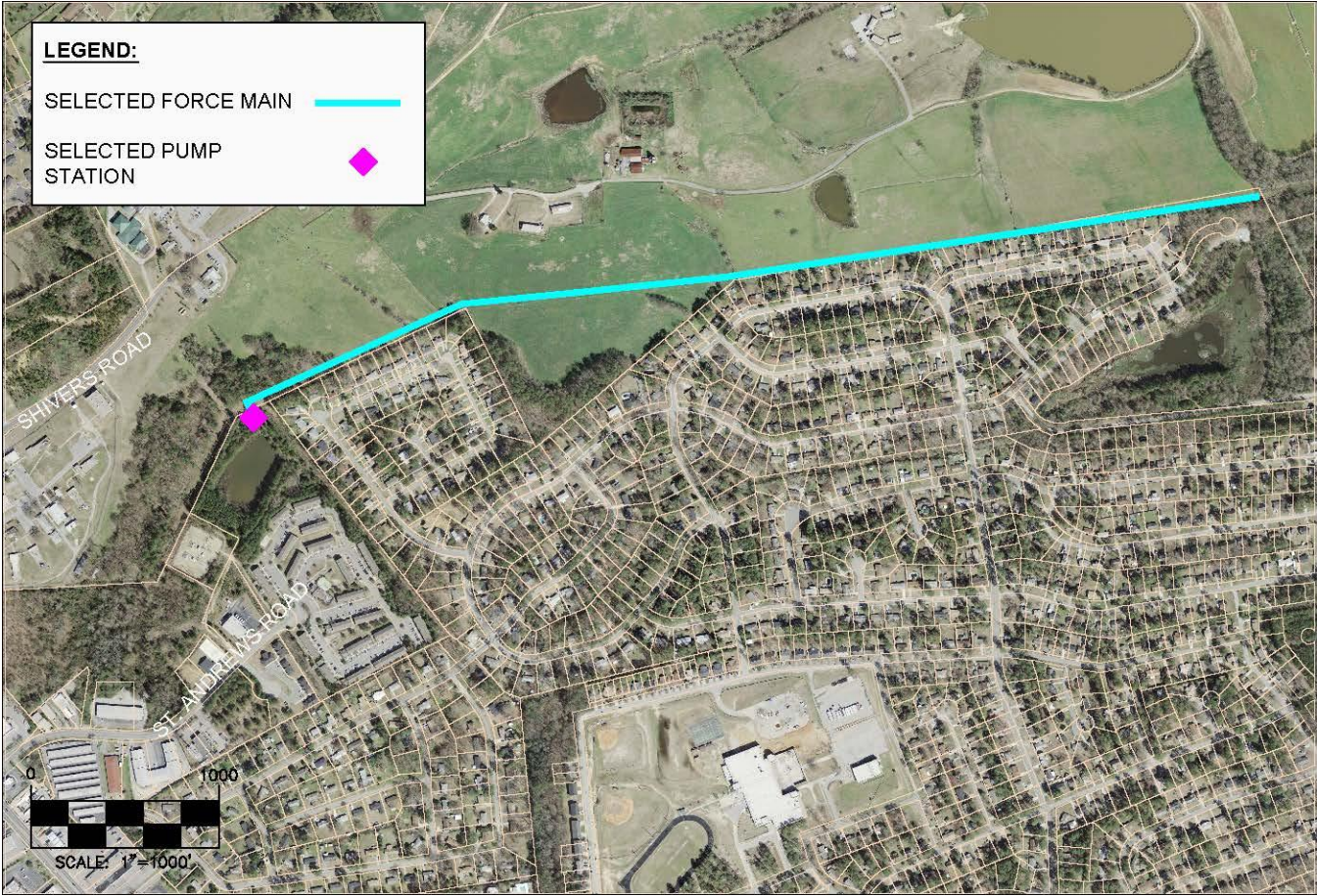
Location/Address: Broad River Rd
(Saint Andrews Rd)
Columbia, SC 29210

Station ID #: 170

Coordinates: 34° 03.312' N, 081° 06.044' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	700	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	62-260(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	62.5	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	62-260(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	5611	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-BR02-24615-MH	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	62-260(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	62-260(R-1)	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	ABS	AFP-20	G61970	240	20	CLICK HERE FOR DOCUMENTS
2	I	YES	ABS	AFP-20	G61968	240	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
--------------------------------------	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 2, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	82.67	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	533.63	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	37.6,37.8,36.5	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	646.37	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	46.8,48.4,48.8	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1980	Initial Construction	Unavailable	See Plans 62-260(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1987	Pump Modification	Unavailable	See Meadowlands PS Scan 1	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE AND ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

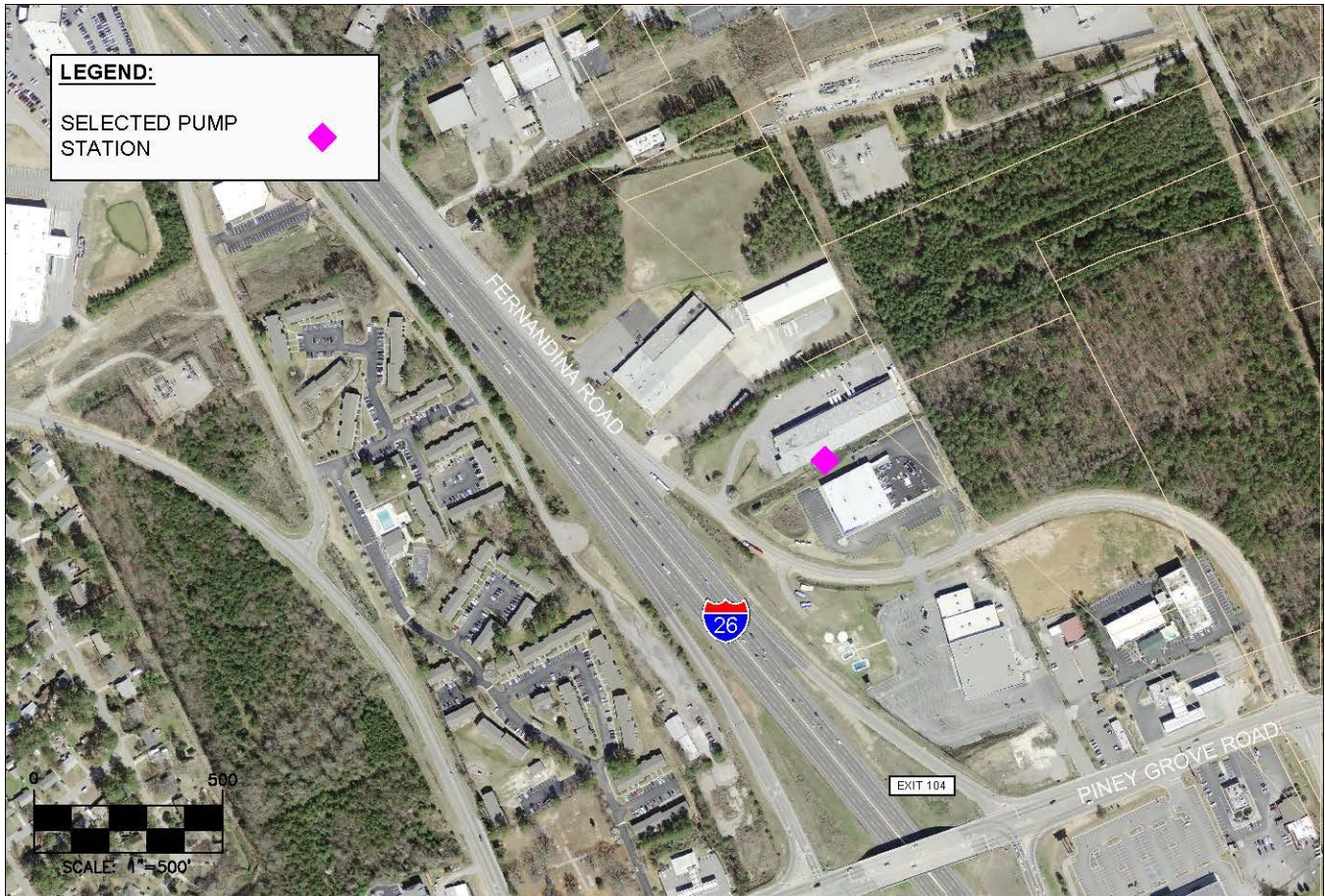
Pump Station Technical Specifications

Piney Grove Pump Station

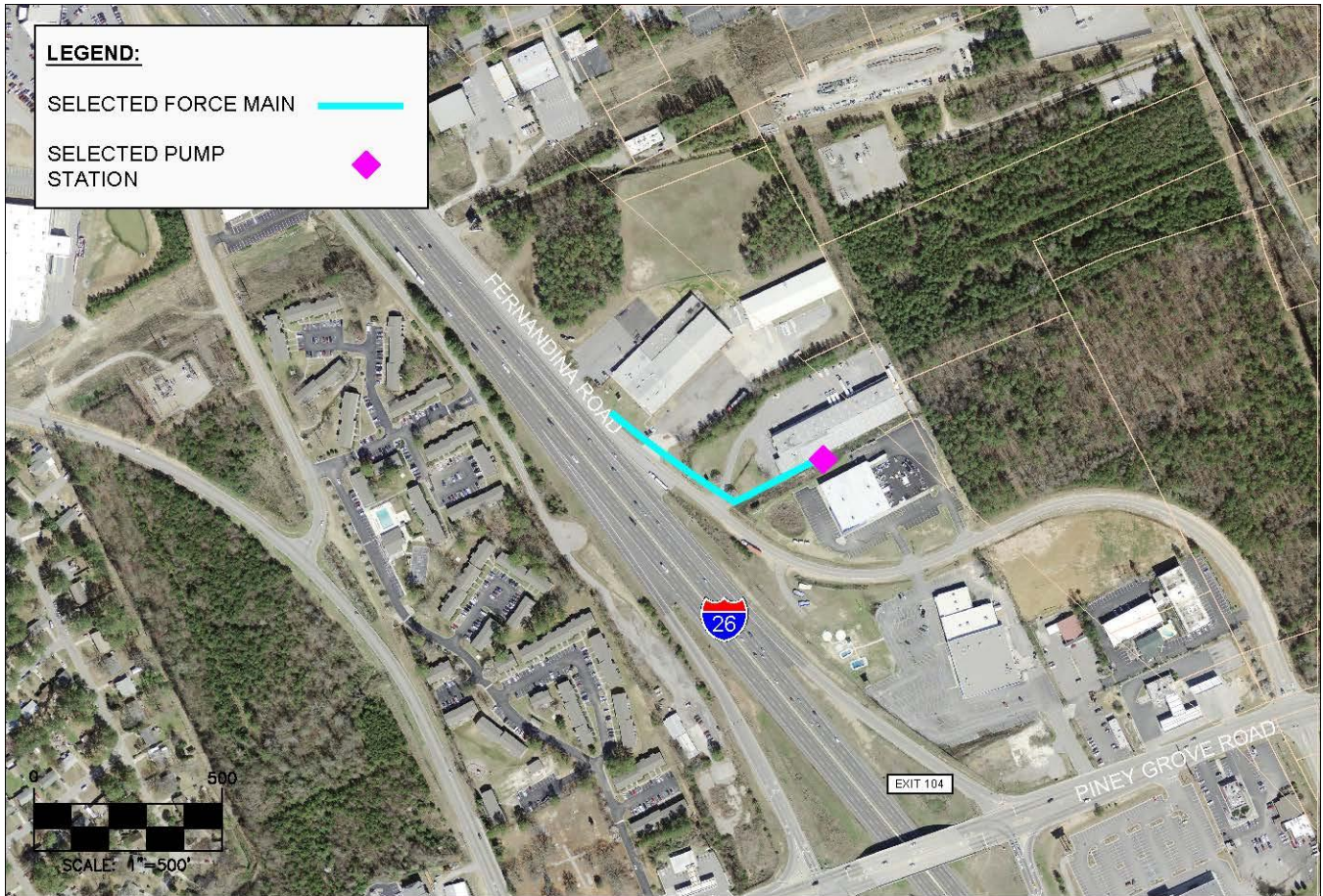
Location/Address: 4040 Fernandina Rd
Columbia, SC 29212

Station ID #: 175

Coordinates: 34° 04.217' N, 081° 08.581' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	225	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	63-35	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	32	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	63-35	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	63-35	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	664	63-35	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	63-35	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR10-00484-MH	63-35	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	63-35	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	63-35	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	63-35 63-35B	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	NO	Metropolitan Pump Company	40MPC50 OMT-6	20243-2	230	5	CLICK HERE FOR DOCUMENTS
2	I	NO	Metropolitan Pump Company	40MPC50 OMT-6	20243-1	230	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 15, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	21.14	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	179.68	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	10.1,10.9,10	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	177.56	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	10.2,10.5,10	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1979	Initial Construction	Unavailable	See Plan Set 63-35	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2009	Pump Station Upgrade	Unavailable	See Piney Grove PS Upgrade	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: PUMP ASSEMBLY

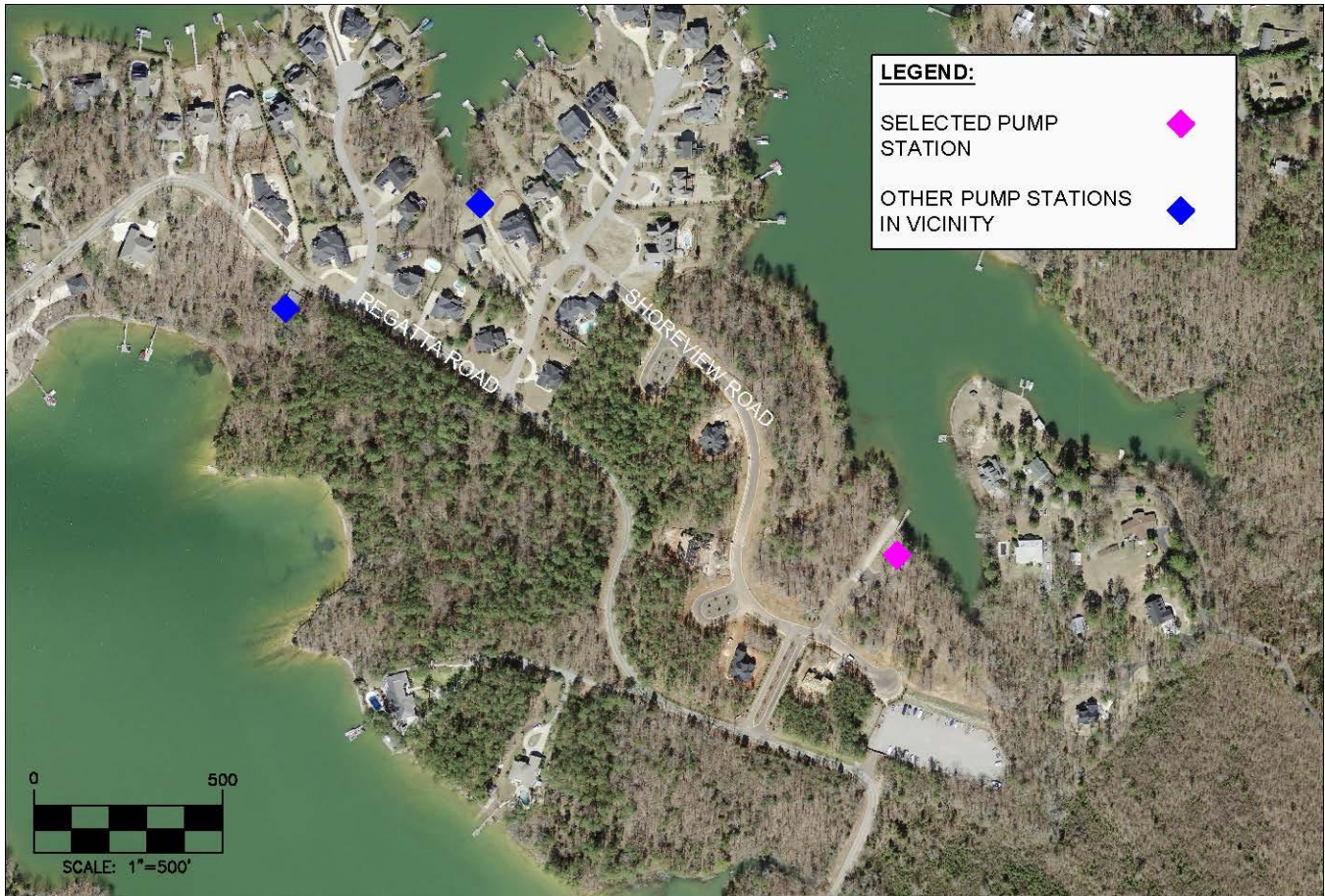
Pump Station Technical Specifications

Regatta Point #1 Pump Station

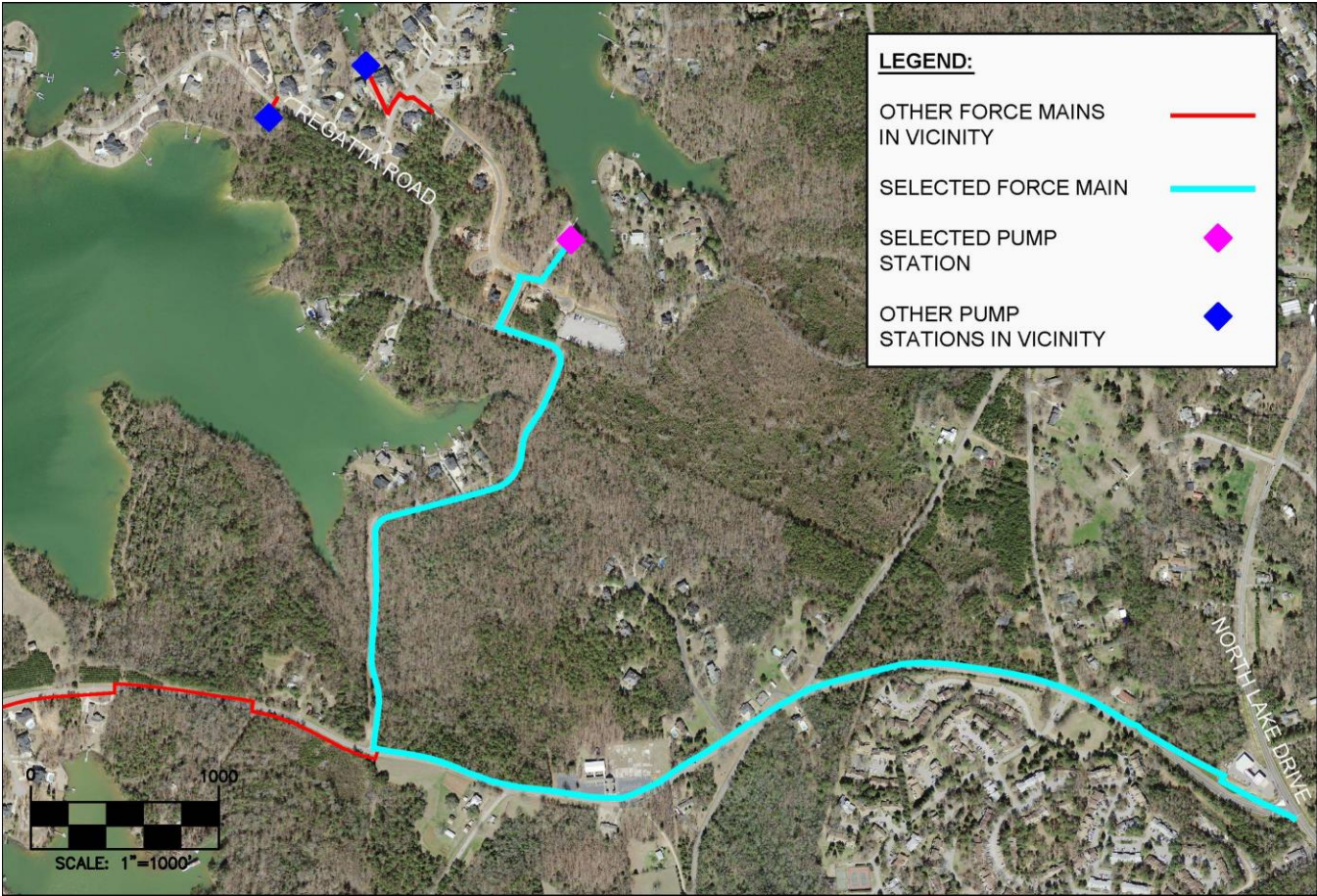
Location/Address: Across from 854 Shoreview Dr.
Columbia, SC 29212

Station ID #: 180

Coordinates: 34° 05.030' N, 081° 14.720' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	180	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	232-14(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	123	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	232-14(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	232-14R-1001 232-14003 232-14004	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	9079	232-14R-1001 232-14003 232-14004	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	232-14R-1001 232-14003 232-14004	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR05-30509-MH	232-14R-1001 232-14003 232-14004	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	232-14R-1001 232-14003 232-14004	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	232-14R 232-14 232-14B 232-14C	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Ebara	80DLFU62 2	301-15197- 2	460	30	CLICK HERE FOR DOCUMENTS
2	I	YES	Ebara	80DLFU62 2	301-16497- 3	460	30	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 5, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	12.68	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	158.54	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	13, 13, 15	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	139.51	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	12, 13, 12	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1997	Initial Construction	Unavailable	See Plan Set 232-14(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By
October 6, 2014	These design plans include two pump stations. For this pump station, refer to drawing and design information designated for Pump Station #2.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: WETWELL INTERIOR

Pump Station Technical Specifications

Regatta Point #2 Pump Station

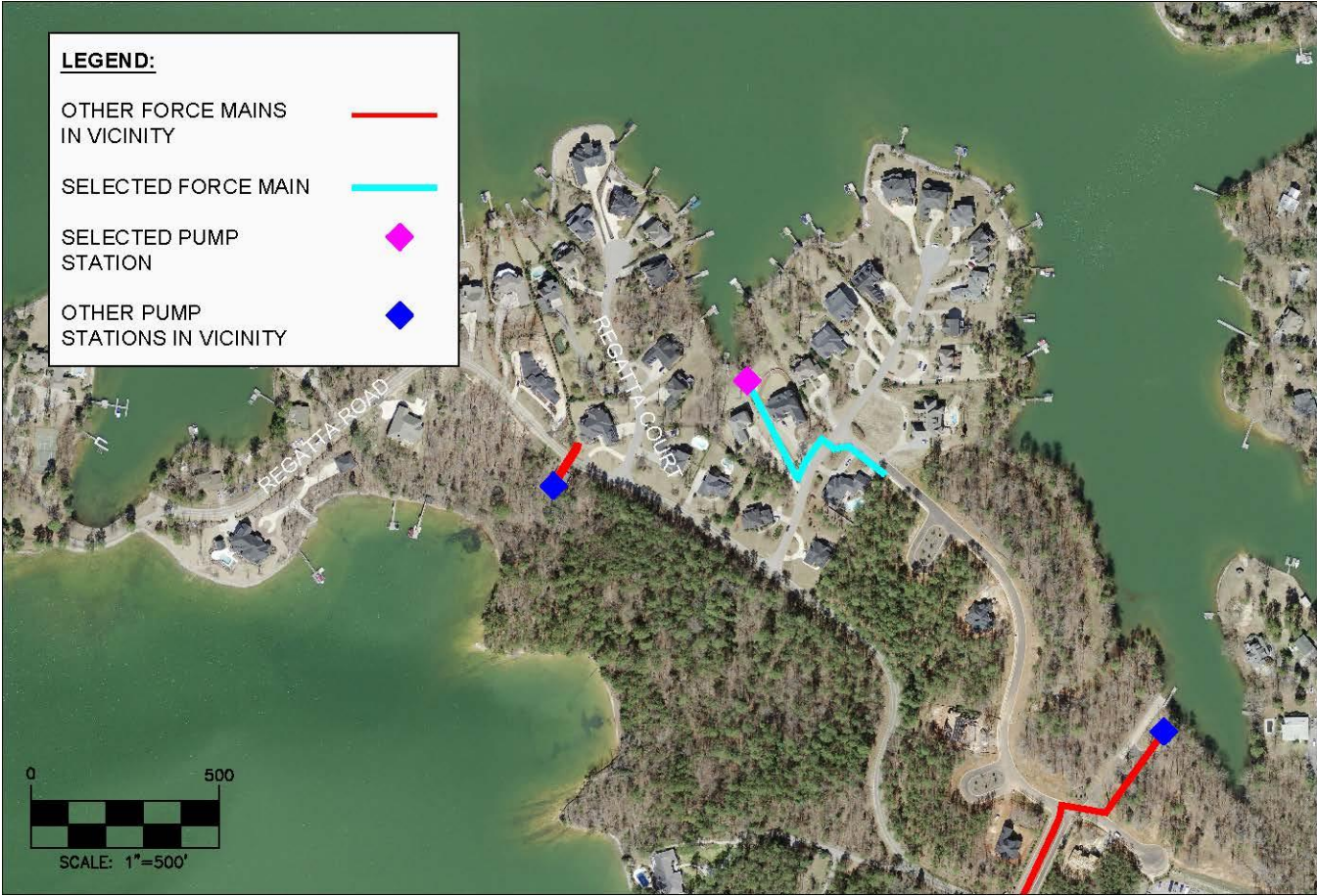
Location/Address: Behind 5 Lake Front Ct
(107 W J Lowman Rd)
Columbia, SC 29212

Station ID #: 185

Coordinates: 34° 04.877' N, 081° 14.501' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	80	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	232-14(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	41.5	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	232-14(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	625	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-22832-MH	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	232-14(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	232-14C 232-14R-1000 Phase 3 Site Plans	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Ebara	100DLMF U63.7	301-16497-4	460	5	CLICK HERE FOR DOCUMENTS
2	I	YES	Ebara	100DLM6 3.7	301-16497-5	460	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
--------------------------------------	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 5, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	4.23	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	131.06	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	19, 17, 19	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	133.17	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	18, 20, 20	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1998	Initial Construction	Unavailable	See Plan Set 232-14(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By
October 6, 2014	These design plans include two pump stations. For this pump station, refer to drawing and design information designated for Pump Station #1.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING

Pump Station Technical Specifications

Regatta Point #3 Pump Station

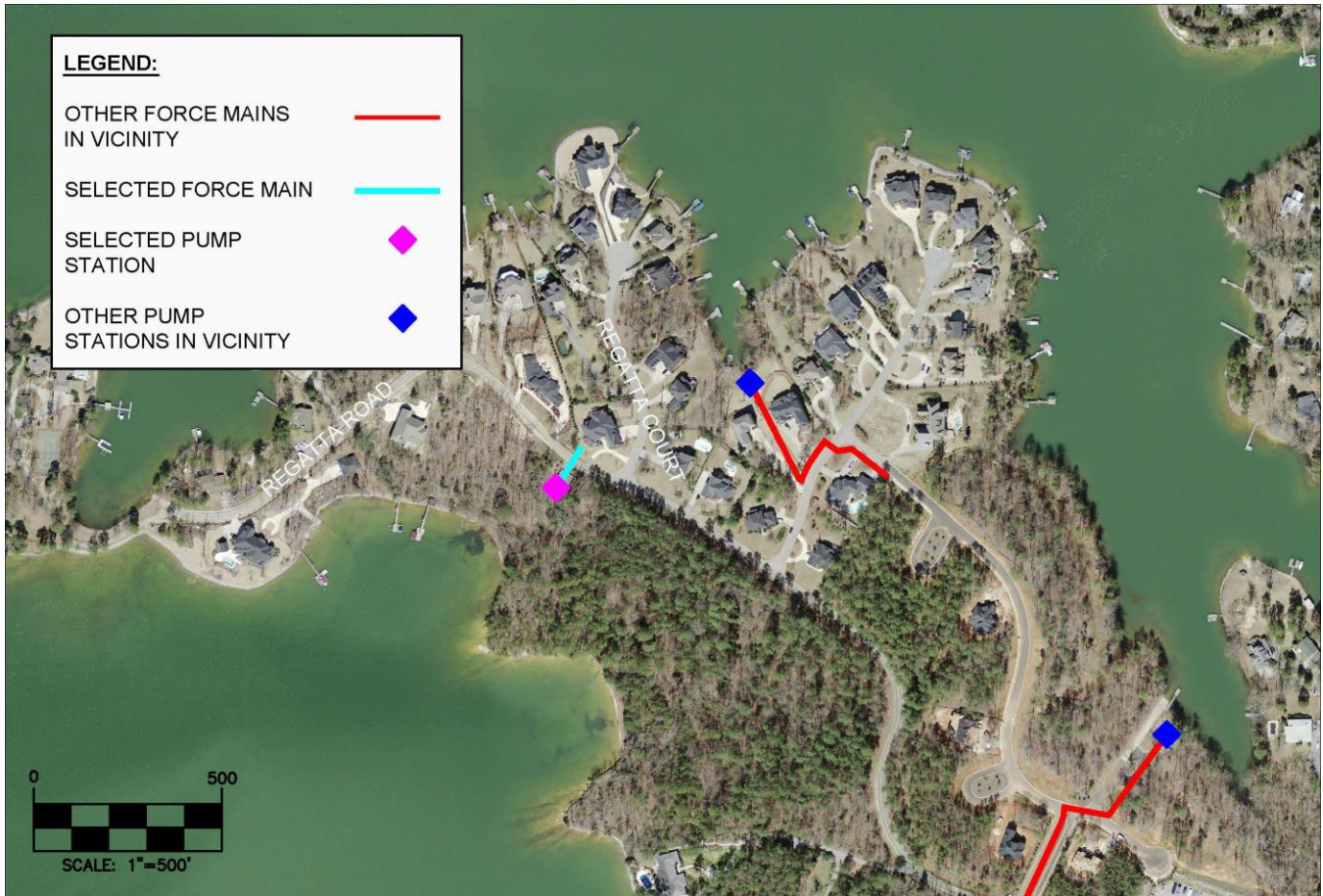
Location/Address: 549 Regatta Rd
Columbia, SC 29212

Station ID #: 190

Coordinates: 34° 04.983' N, 081° 14.823' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	80	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	232-14A	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	22	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	232-14A	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	232-14A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	118	232-14A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/Ductile Iron	232-14A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-22892-MH	232-14A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	232-14A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	232-14A	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	232-14AB 232-14AC 232-14A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3085 4" IMP-438	0571255	230	3	CLICK HERE FOR DOCUMENTS
2	R	YES	Flygt	CP-3085 4" IMP-438	0571256	230	3	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	CP-3085 4" IMP-438	0571257	230	3	CLICK HERE FOR DOCUMENTS
4	R	YES	Flygt	CP-3085 4" IMP-438	1230565	230	3	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	December 5, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	7.52	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	172.87	
Drawdown TDH Pump 1 (FT)	34.65	
Pump 1 Amperage (AMPS)	6, 5, 6	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	176.62	
Drawdown TDH Pump 2 (FT)	36.96	
Pump 2 Amperage (AMPS)	5, 6, 6	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Control Panel Common Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2006	Initial Construction	Unavailable	See Plan Set 232-14A	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE VAULT PIPING, BYPASS AND PRESSURE GAUGE

Pump Station Technical Specifications

Saluda River Pump Station

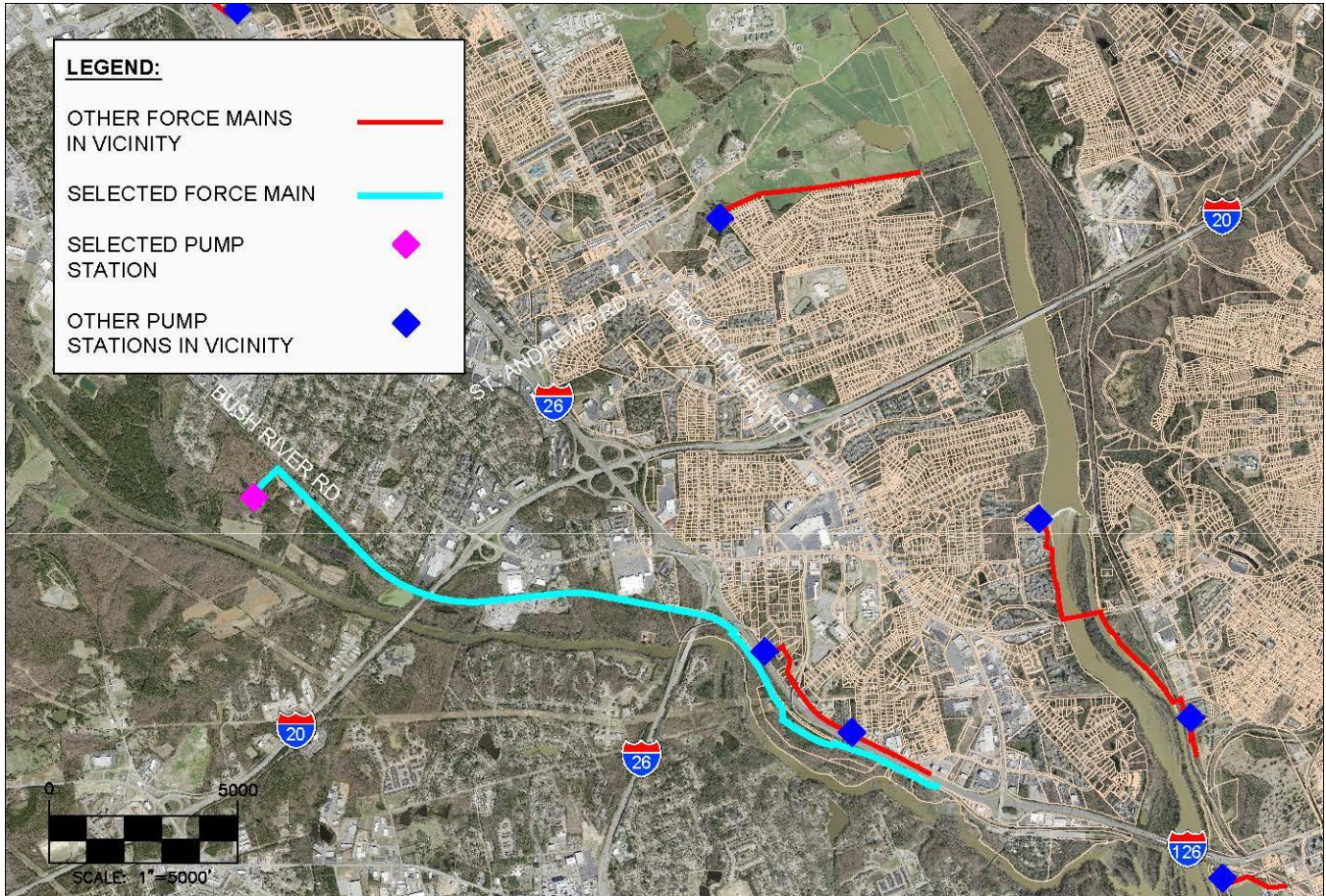
Location/Address: 1035 Garden Valley Ln
(Approximate)
Columbia, SC 29210

Station ID #: 195

Coordinates: 34° 02.086' N, 081° 08.478' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	10417	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	8	SS7116	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	129	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible / Dry Pit Submersible	SS7116	CLICK HERE FOR DOCUMENTS
VFD Present	YES	SS7116-0E001	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	30	60-32DIV.I SS7116	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	21591/110	60-32DIV.I SS7116	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	DIP/CCFRPM/PCCP/ PCCP with HDPE Liner	60-32DIV.I SS7116	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-WC02-25109-MH	60-32DIV.I SS7116	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	60-32DIV.I SS7116	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS7116	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	60-32DIV.II	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	3312.745	1311106	460	235	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	3312.745	1311107	460	235	CLICK HERE FOR DOCUMENTS
3	I	YES	Flygt	3312.745	1311109	460	235	CLICK HERE FOR DOCUMENTS
4	I	YES	Flygt	3312.745	1311110	460	235	CLICK HERE FOR DOCUMENTS
5	I	YES	Flygt	3400.765	1311092	460	230	CLICK HERE FOR DOCUMENTS
6	I	YES	Flygt	3400.765	1311093	460	230	CLICK HERE FOR DOCUMENTS
7	I	YES	Flygt	3400.765	1311094	460	230	CLICK HERE FOR DOCUMENTS
8	I	YES	Flygt	3400.765	1311095	460	230	CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	480 Volt
Wattage (Watts)	1500 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	2000
City Asset ID#	AG009-23331
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power	
Control Panel Power Problem	
Control Panel Common Alarm	
Wetwell Level High	
Pump 1 Run	
Pump 1 Fail	
Pump 1 HOA switch in Auto	
Pump 2 Run	
Pump 2 Fail	
Pump 2 HOA switch in Auto	
Pump 3 Run	
Pump 3 Fail	
Pump 3 HOA switch in Auto	
Pump 4 Run	
Pump 4 Fail	
Pump 4 HOA switch in Auto	
Personnel Emergency	
Pump 1 Runtime	
Pump 2 Runtime	
Pump 3 Runtime	
Pump 4 Runtime	
Generator Run	
Generator Fail	
ATS Status	
Wetwell Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1978	Original Pump Station and Force Main	Unavailable	See Improvements 1977	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2013	Facility Upgrade	SS7116	Increased Capacity, Added Storage/Flow Equalization, Added Two Storage Tanks - See Improvements 2012	

Other/Notes

Entry Date	Notes	Notation By
March 27, 2014	This facility has a storage/flow equalization facility. See pump station drawings for information and details.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: PUMP STATION



PHOTO 2: DISCHARGE HEADER WITH GAUGES AND ARV'S

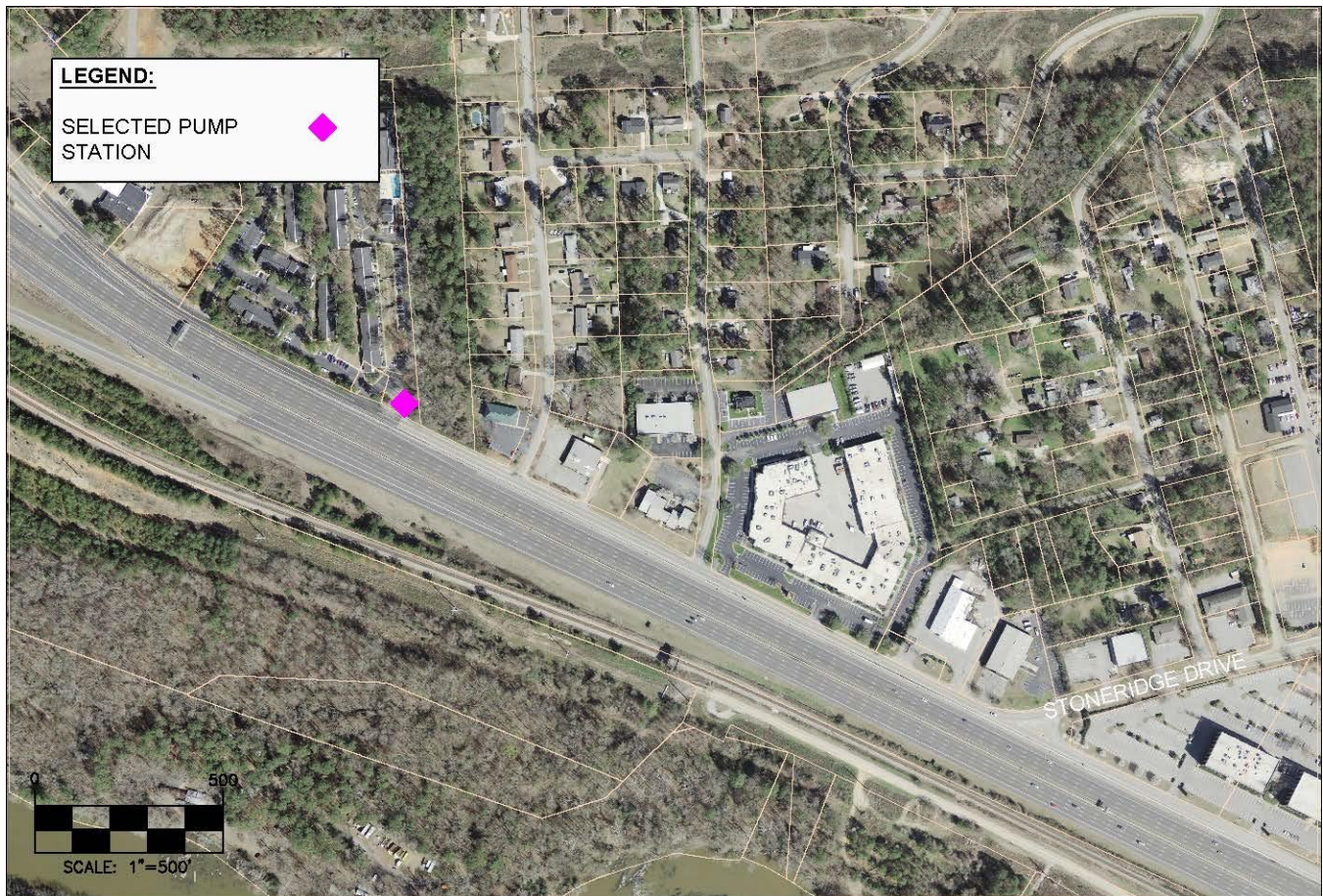
Pump Station Technical Specifications

Three Rivers Pump Station

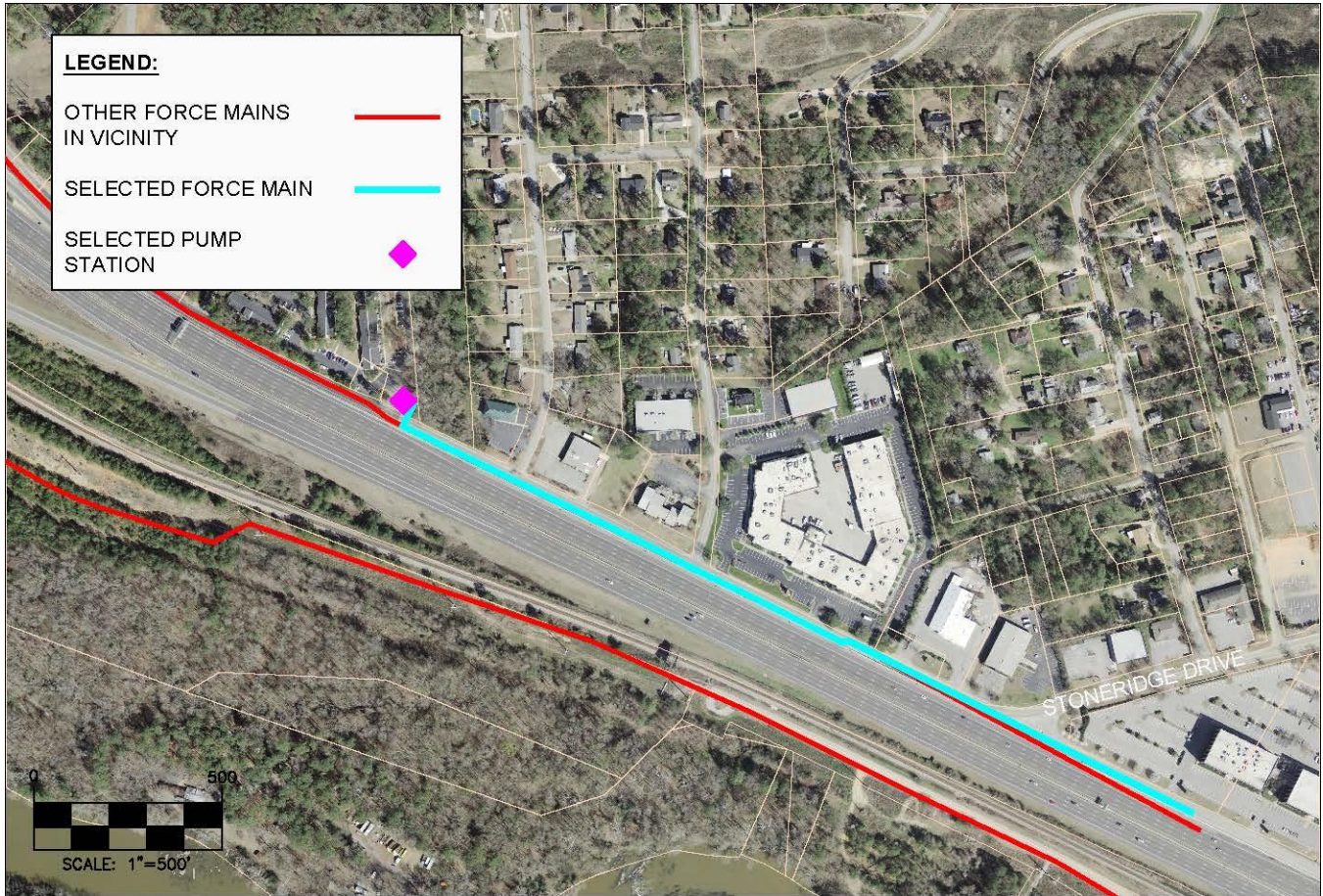
Location/Address: 850 Gracern Rd
(900 Gracern Rd)
Columbia, SC 29210

Station ID #: 200

Coordinates: 34° 01.061' N, 081° 05.348' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	300	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	60-32	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	32	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Suction Lift	60-32	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4/8	60-32DIV.1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	93/2375	60-32DIV.1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	60-32DIV.1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-WC02-00480-MH	60-32DIV.1	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	60-32DIV.1	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	60-32	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Gorman Rupp	T4A3-B / F	1531084	240	7.5	CLICK HERE FOR DOCUMENTS
2	I	YES	Gorman Rupp	T4A3-B / F	1525072	240	7.5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Wisconsin LPG Motor Drive
Voltage (Volts)	230 Volt
Wattage (Watts)	16.8 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	90
City Asset ID#	AO018-18459
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	April 4, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	10.57	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	137.4	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	20, 20, 19	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	128.94	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	13, 14, 14	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1984	Initial Construction	Unavailable	See Plan Set 60-32	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL PUMP STATION SITE



PHOTO 2: PUMP ASSEMBLY

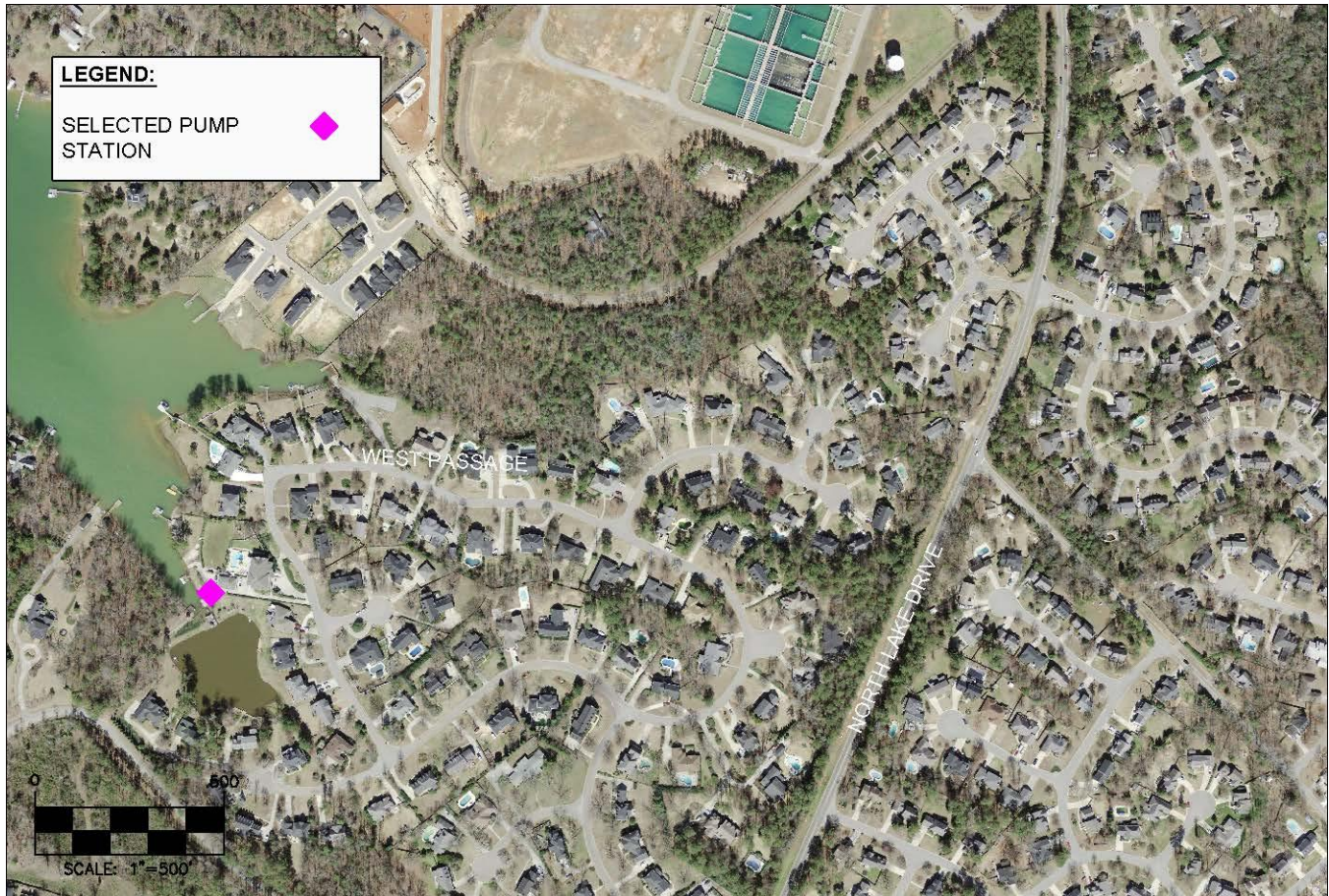
Pump Station Technical Specifications

Wexford Pump Station

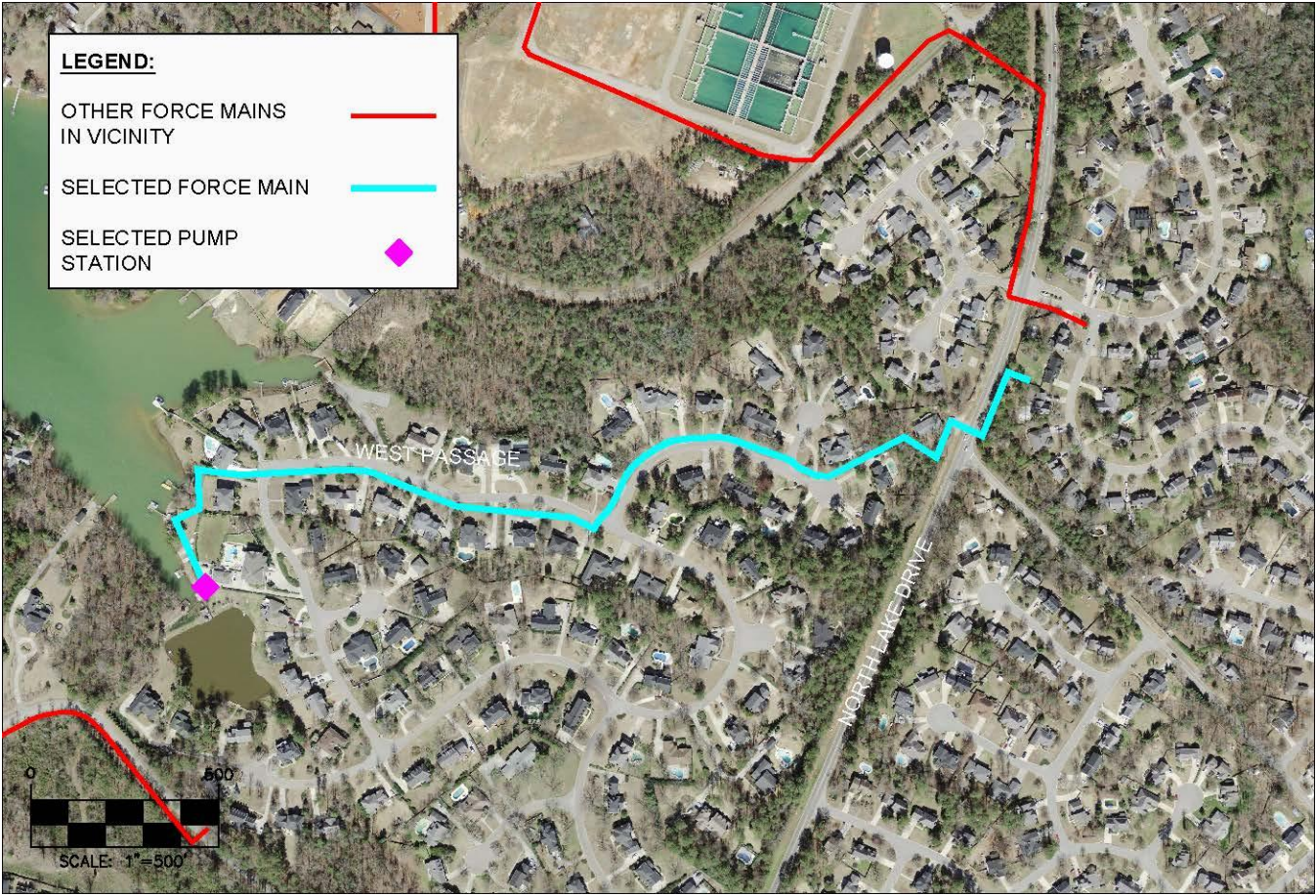
Location/Address: 520 Sail Point Way
Columbia, SC 29212

Station ID #: 205

Coordinates: 34° 05.434' N, 081° 13.741' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	425	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	155-09E 155-09(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	90	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	155-09E 155-09(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	155-09(R-1) 155-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3000	155-09(R-1) 155-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	155-09(R-1) 155-09	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-00575-MH	155-09(R-1) 155-09	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	155-09(R-1) 155-09	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	155-09E 155-09(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	155-09E 155-09 Wexford PS Plat	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	ABS	AFP-20 - 4"	K72139	460	20	CLICK HERE FOR DOCUMENTS
2	I	YES	ABS	AFP-20 - 4"	K72147	460	20	CLICK HERE FOR DOCUMENTS
3	R	YES	ABS	AFP-20 - 4"	Unavailable	460	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Elliott Diesel Generator
Voltage (Volts)	240 Volt
Wattage (Watts)	100 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	200
City Asset ID#	AO076-18065
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	November 18, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	142.8	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	387.07	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16, 14, 15	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	481.02	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	14, 16, 15	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1989	Initial Construction	Unavailable	See Plan Set 155-09(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: WETWELL INTERIOR

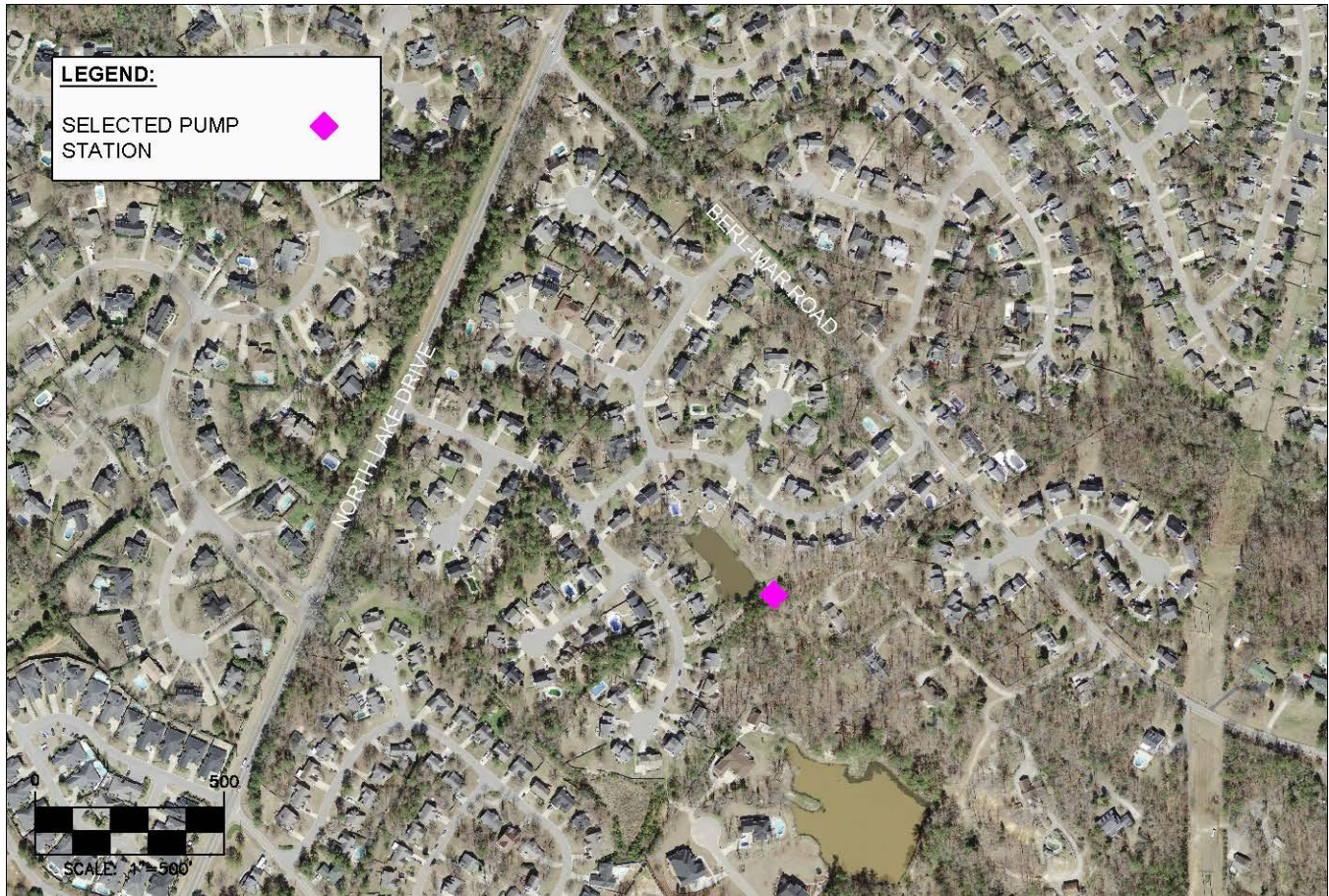
Pump Station Technical Specifications

Wexhurst Pump Station

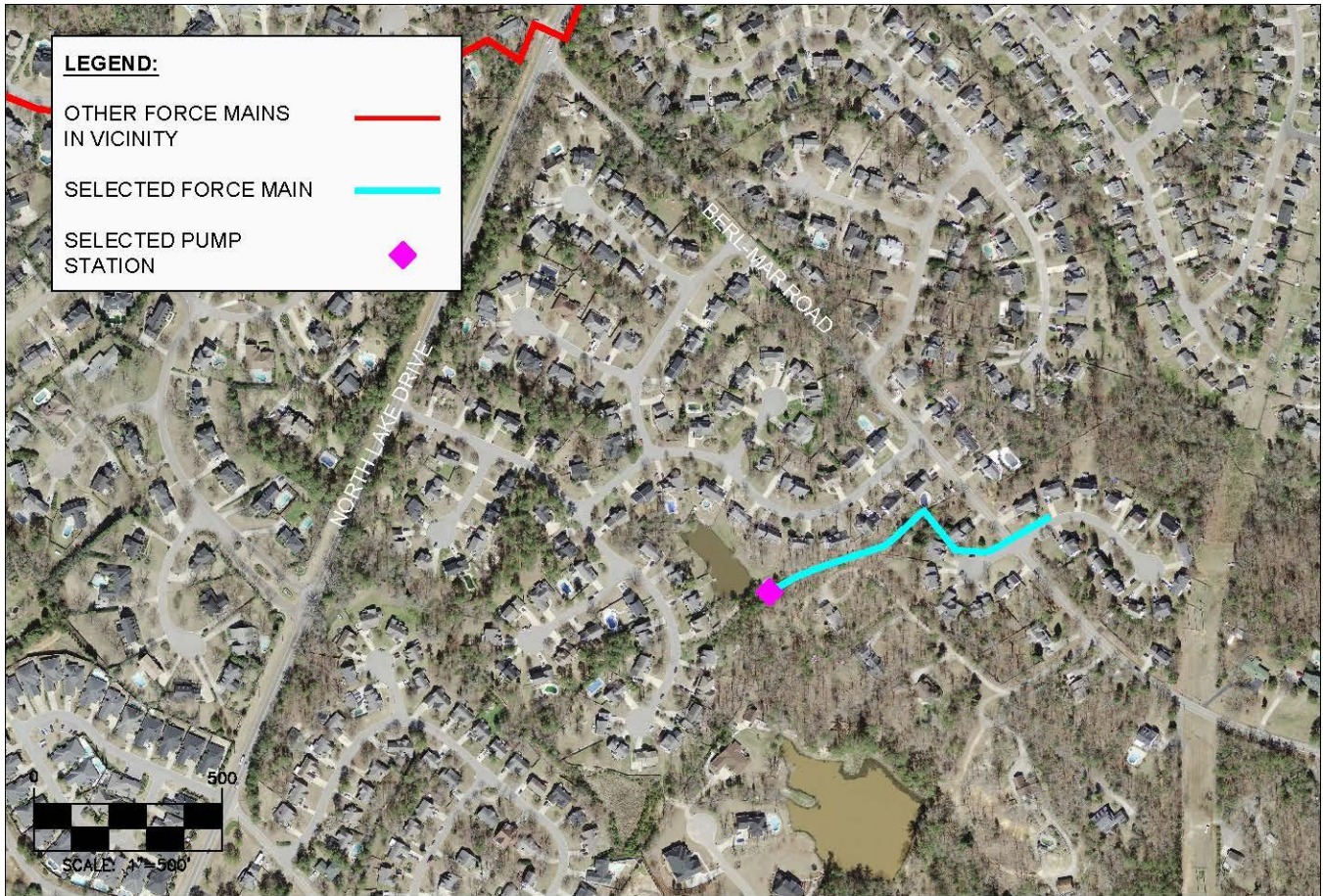
Location/Address: 124 Newbond Way
Columbia, SC 29212

Station ID #: 210

Coordinates: 34° 05.260' N, 081° 13.221' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	150	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	SS6987 Division III	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	68	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	SS6987 Division III	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	154-09B(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	863	154-09B(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	154-09B(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-00574-MH	154-09B(R-1)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	154-09B(R-1)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS6987 Division III	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	154-09B(R-1)	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP- 483	0830308	230	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP- 483	0830309	230	10	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3127 4" IMP- 483	0970009	230	10	CLICK HERE FOR DOCUMENTS
4	R	NO	Flygt	CP-3127 4" IMP- 483	1358504	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Katolight Diesel Generator
Voltage (Volts)	230 Volt
Wattage (Watts)	35 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	115
City Asset ID#	AO078-18122
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 3, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	1.06	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	159.60	
Drawdown TDH Pump 1 (FT)	53.13	
Pump 1 Amperage (AMPS)	16,15,15	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	149.03	
Drawdown TDH Pump 2 (FT)	50.82	
Pump 2 Amperage (AMPS)	17,17,16	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Control Panel Common Alarm Wetwell High Wetwell Low Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1992	Initial Construction	Unavailable	See Original Pump Station	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2008	Pump Station Replacement	SS6987 Division III	See Plans SS6987	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: SITE ENTRANCE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

Pump Station Technical Specifications

Windsong Pump Station

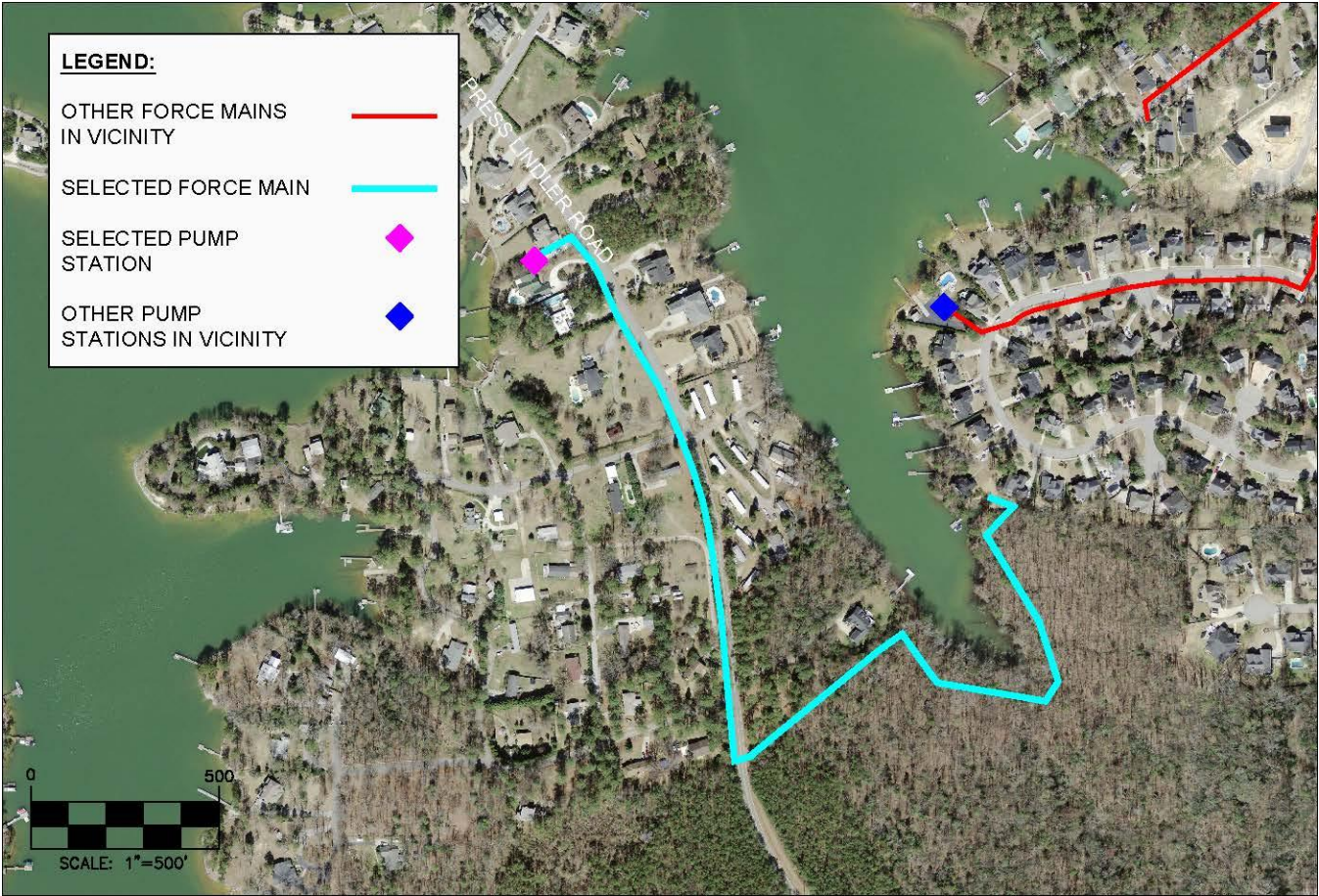
Location/Address: 429 Press Lindler Rd
Columbia, SC 29212

Station ID #: 215

Coordinates: 34° 05.288' N, 081° 14.299' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	175	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	157-04A	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	85	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	157-04A	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	157-04A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3307	157-04A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	157-04A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-24620-MH	157-04A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	157-04A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	157-04A	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	157-04A 157-04F	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-481	87060201	230	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP-481	87060217	230	10	CLICK HERE FOR DOCUMENTS
3	R	NO	Flygt	CP-3127 4" IMP-485	1230380	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	November 18, 2013	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	9.51	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	189.19	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	20, 21, 20	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	193.42	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	21, 20, 20	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 HOA switch in Auto Pump 2 Run Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1989	Initial Construction	Unavailable	See Plan Set 157-04A	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING

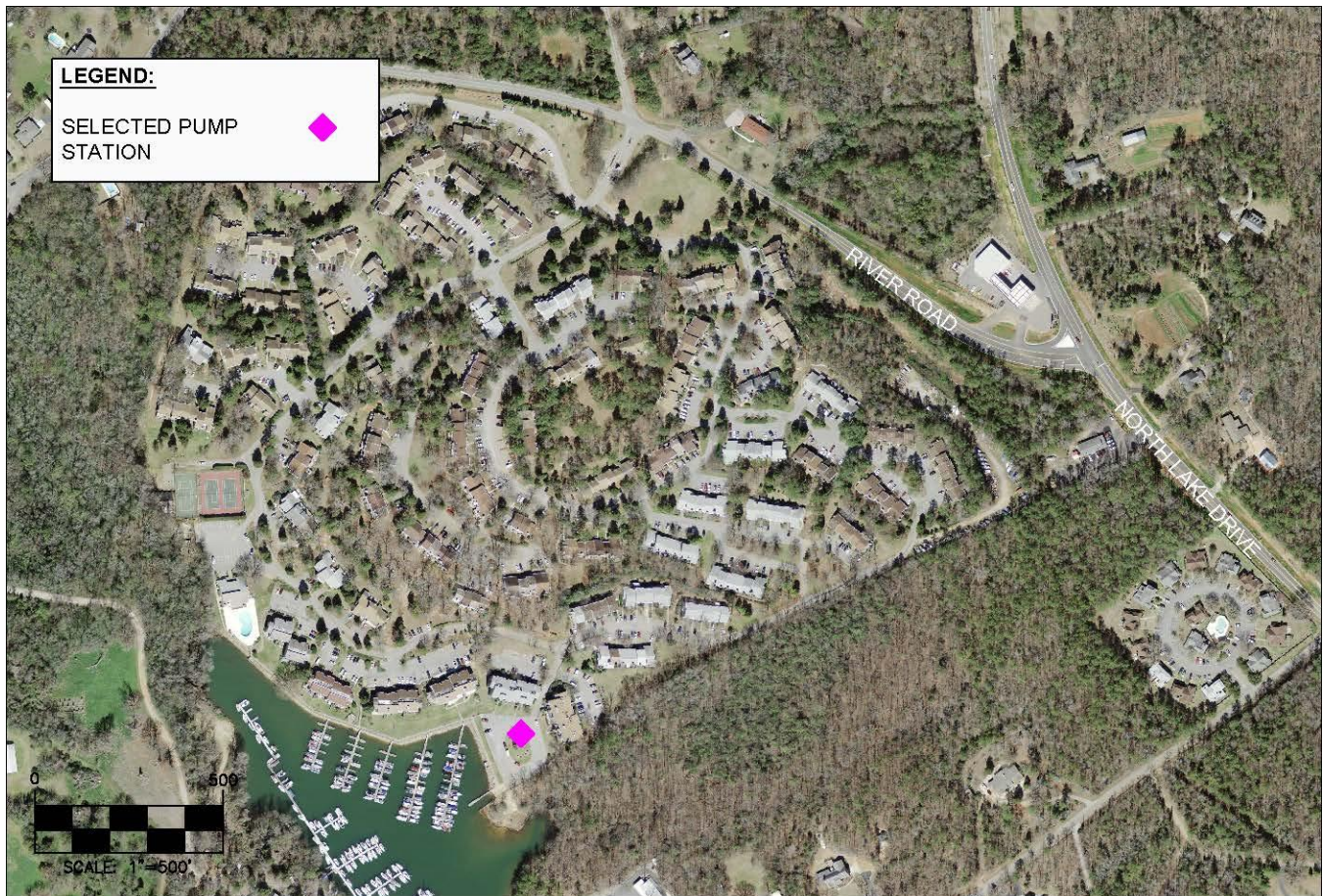
Pump Station Technical Specifications

Yacht Cove Pump Station

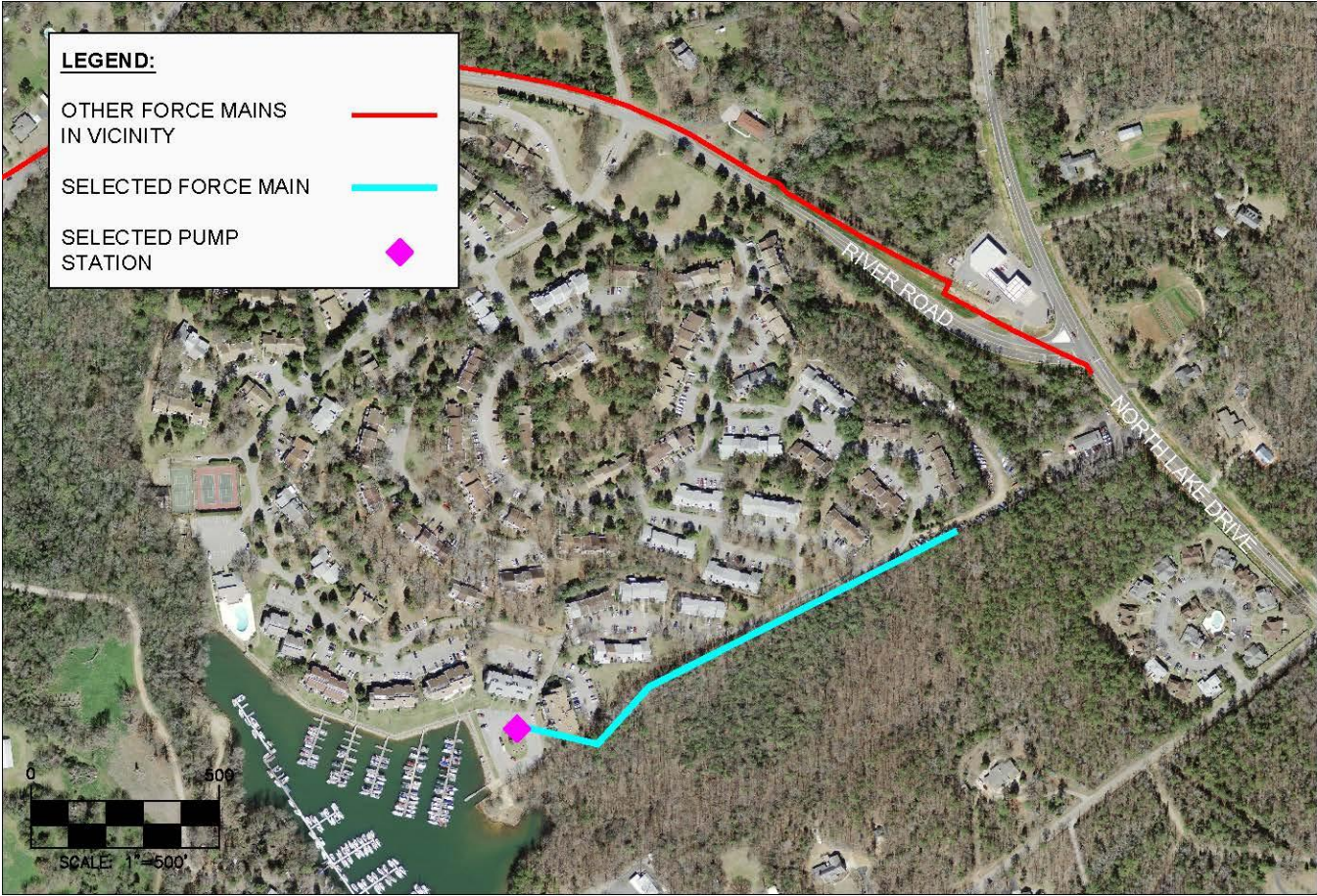
Location/Address: Adjacent To 340 AND 113 Cove Ct.
Columbia, SC 29212

Station ID #: 220

Coordinates: 34° 04.213' N, 081° 14.039' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	300	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	40-47	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	90	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Centrifugal	40-47	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	40-74A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1343	40-74A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Cast Iron	40-74A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR05-00486-MH	40-74A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	40-74A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	40-47	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	40-47A 38-46A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Fairbanks Morse	D5432WD	84231	240	20	CLICK HERE FOR DOCUMENTS
2	I	YES	Fairbanks Morse	D5432WD	1821004	240	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 3, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	33.82	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	259.30	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	25,29,25	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	240.51	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	30,35,30	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Instantaneous Level	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1974	Initial Construction	Unavailable	See Plan Set 40-47	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2004	Pump Replacement	Unavailable	See Combined Pump Data	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: PUMP AND PRESSURE GAUGE

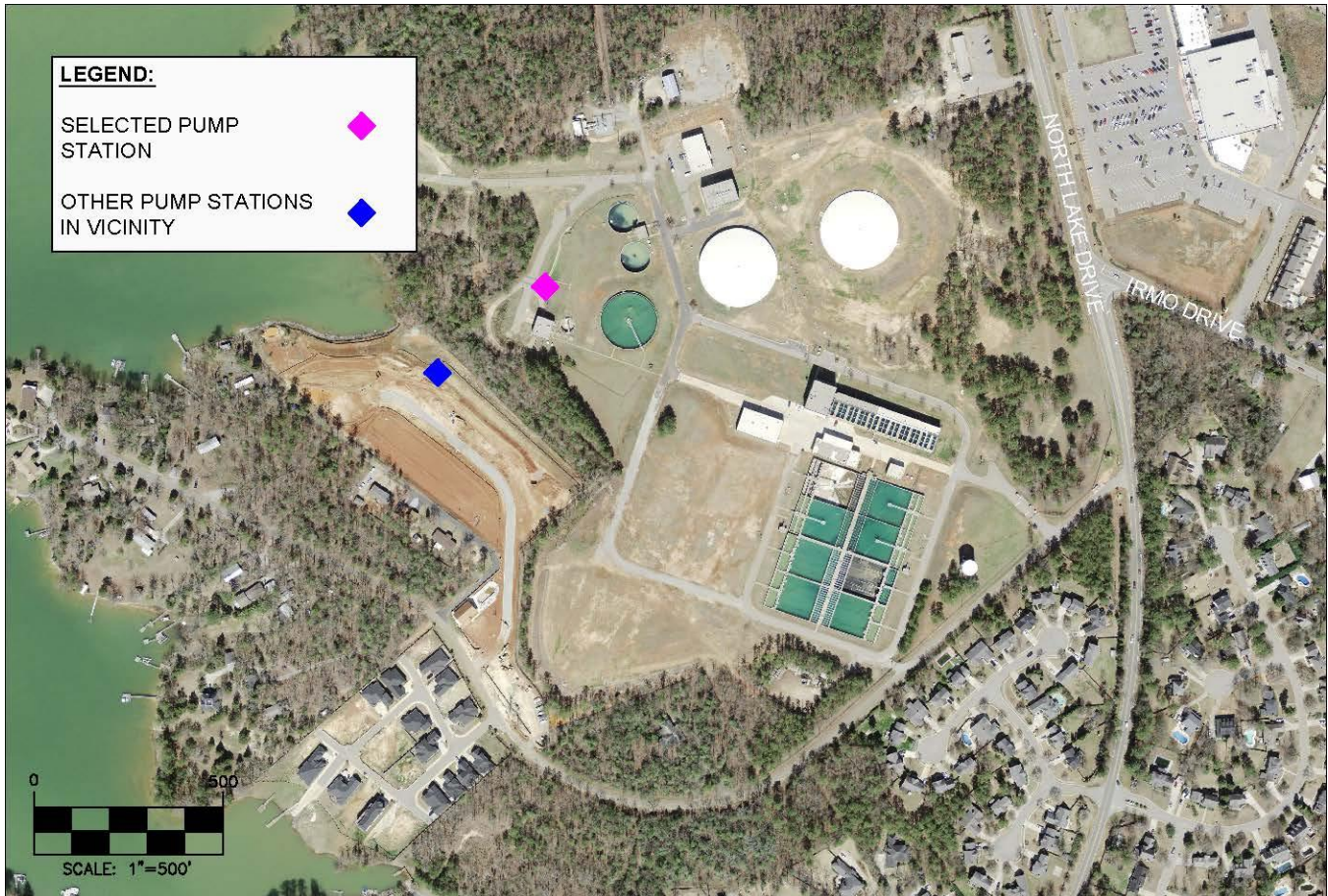
Pump Station Technical Specifications

Lake Murray WTP Pump Station

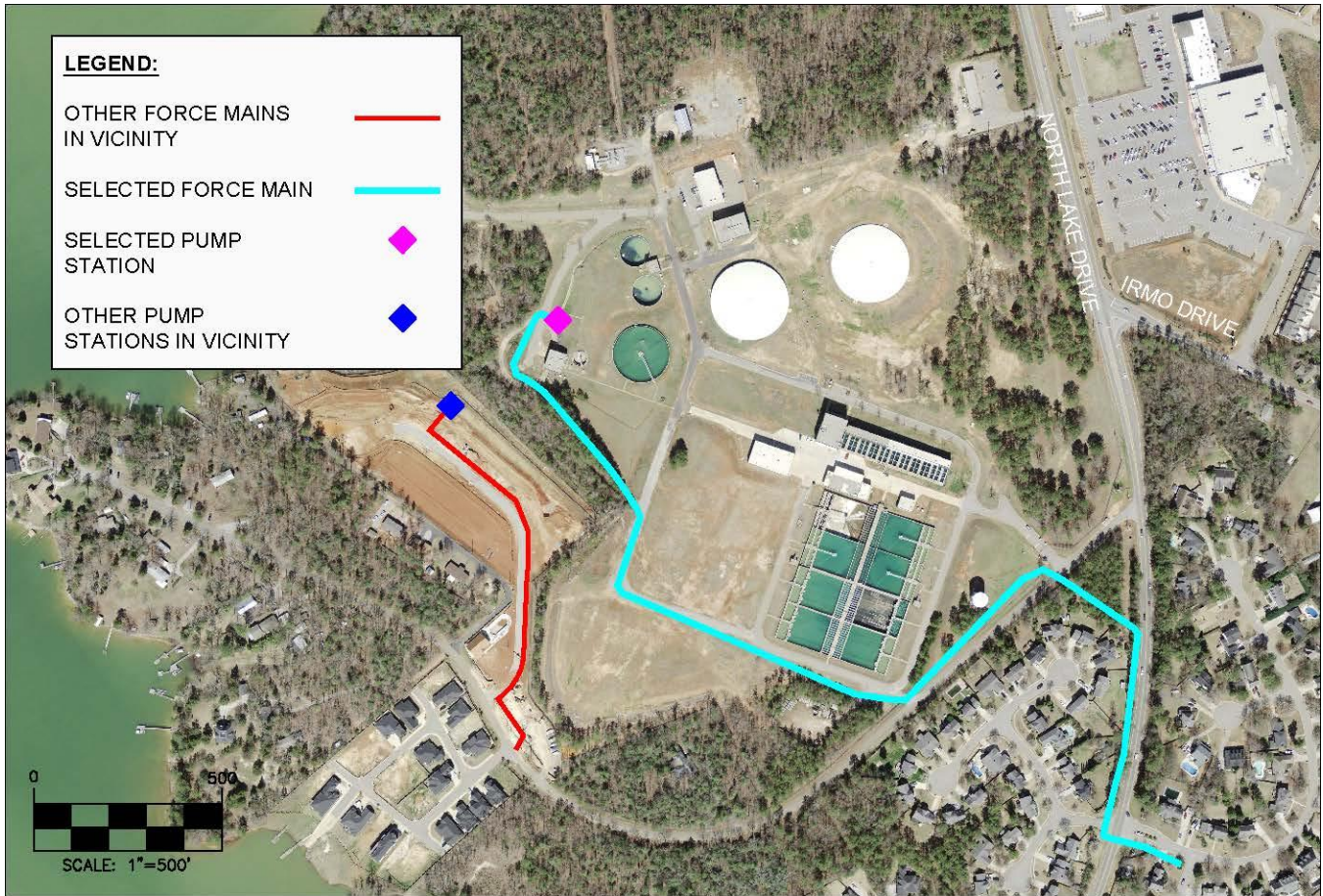
Location/Address: 102 Rocky Point Drive
Columbia, SC 29212

Station ID #: 225

Coordinates: 34° 05.788' N, 081° 13.606' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	220-293	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	220-293	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	SS749	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3344	SS749	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	SS749	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-24621-MH	SS749	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	SS749	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	220-293	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	155-09D 181-348 250-78	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	3153.185	1040019	460	15	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	3153.185	1040018	460	15	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	SEE NOTES
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	
City Asset ID#	
Portable Generator Receptacle On-site (Yes/No)	Unavailable
If Yes, Portable Generator Receptacle Type	

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 3, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	112.74	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	150.32	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	13	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	150.32	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	13	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
Wetwell High Level Pump 1 Run Pump 2 Run Flow Flow CV Open/Close	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1993	Initial Construction	W328-6/7-D4	Plans are unavailable	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2000	Force Main Improvements	SS749-8/9	4" Force Main Lake Murray WTP to East Passage Drive. See Force Main Plans SS749-8/9	
2004	Improvements To Lake Murray Water Treatment Plant	W838	New Thickened Sludge Pump Station, Demolition of Original Pump Station	

Other/Notes

Entry Date	Notes	Notation By
October 31, 2014	Back up power is supplied by the Emergency Power source for the Water Treatment Plant. There is not a dedicated back up power source.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE

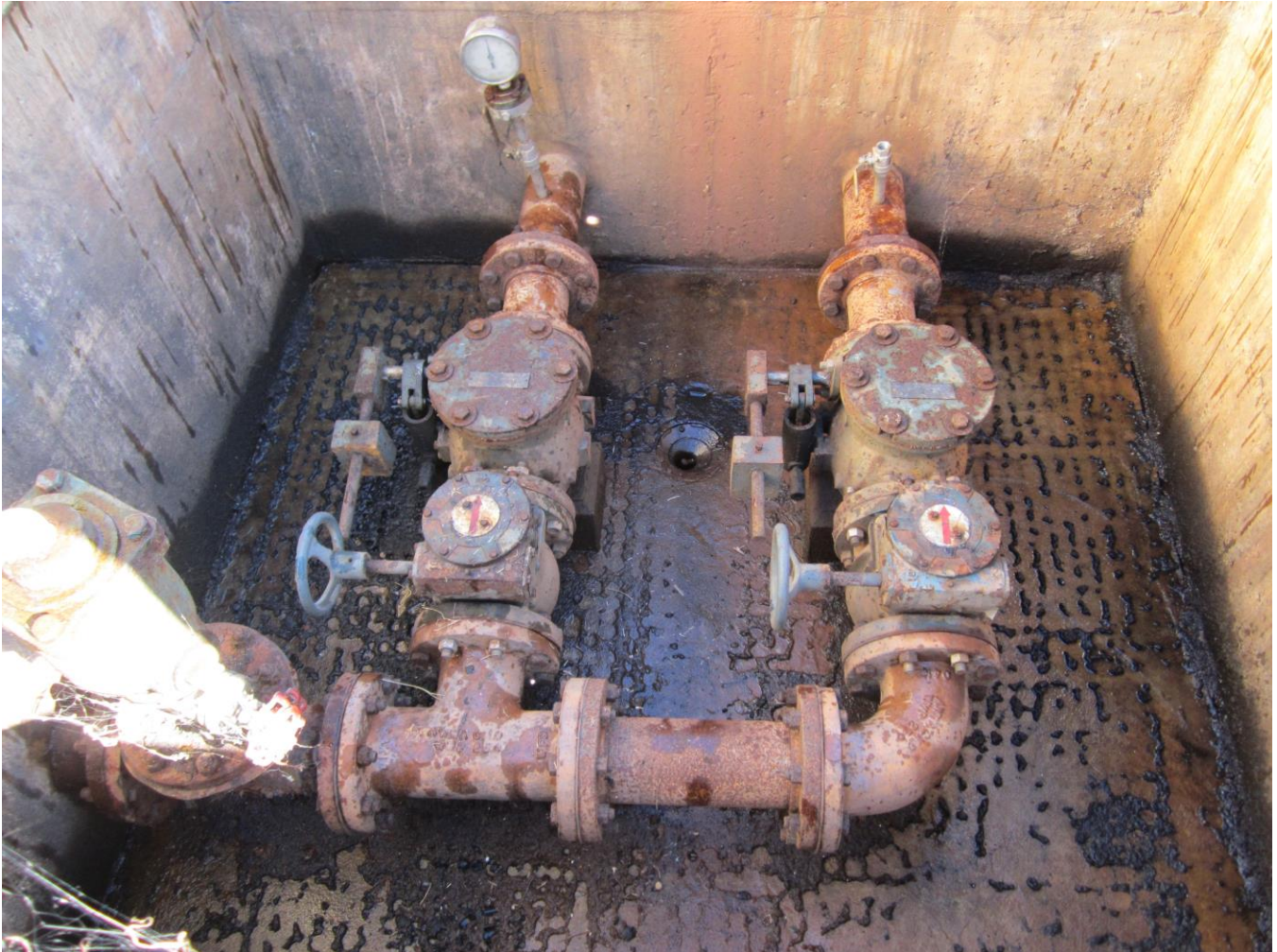


PHOTO 2: VALVE VAULT PIPING AND PRESSURE GAUGE

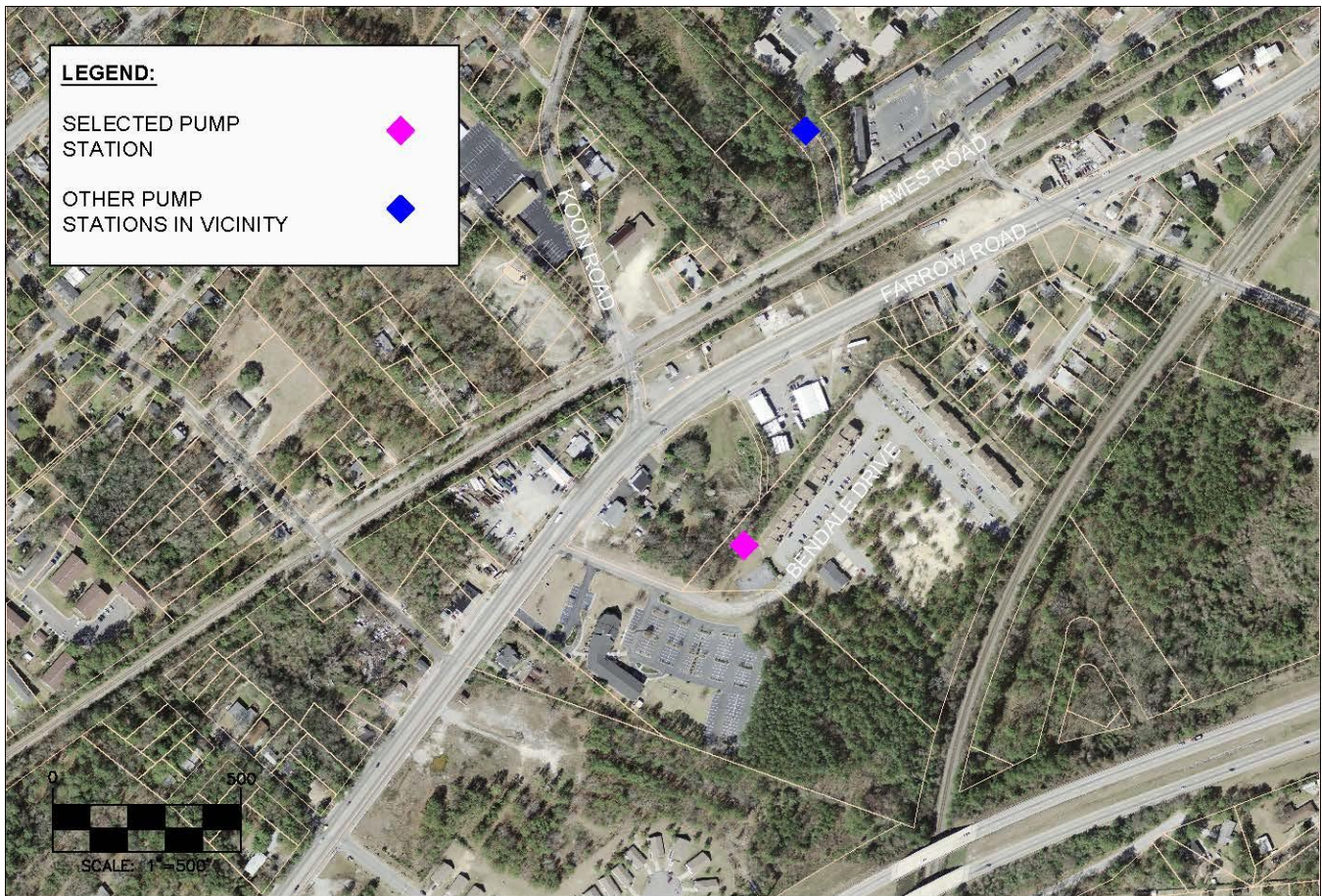
Pump Station Technical Specifications

Bendale Pump Station

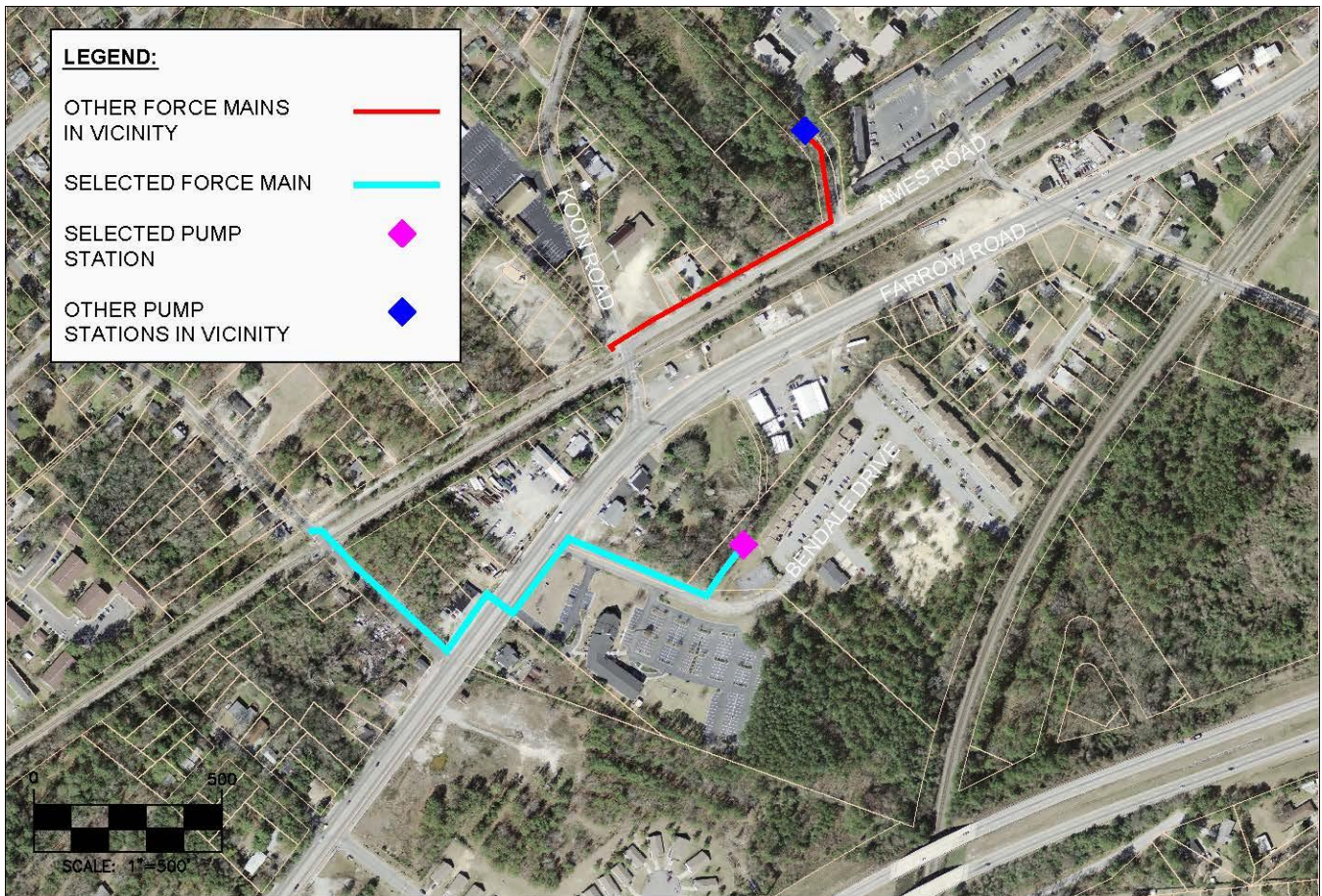
Location/Address: Approx 31 Bendale Dr
(Behind 5610 Farrow Rd)
Columbia, SC 29203

Station ID #: 230

Coordinates: 34° 03.000' N, 081° 00.575' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	139.5	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	74-07	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	75	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	74-07	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	74-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1581	74-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Cast Iron	74-07	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SB01-28307-MH	74-07	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	74-07	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	74-07	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	74-07	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-483	0780710	460	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP-483	0780709	460	10	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3127 4" IMP-483	1230381	460	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 24, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	60.42	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	132.35	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	15.9, 15.8, 15.8	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	146.74	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	15.8, 15, 15.3	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1974	Initial Construction	Unavailable	See Plan Set 74-7	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By
June 26, 2014	No data available to verify or identify design flow or TDH. Flow and TDH estimated from drawdown information.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: WETWELL INTERIOR

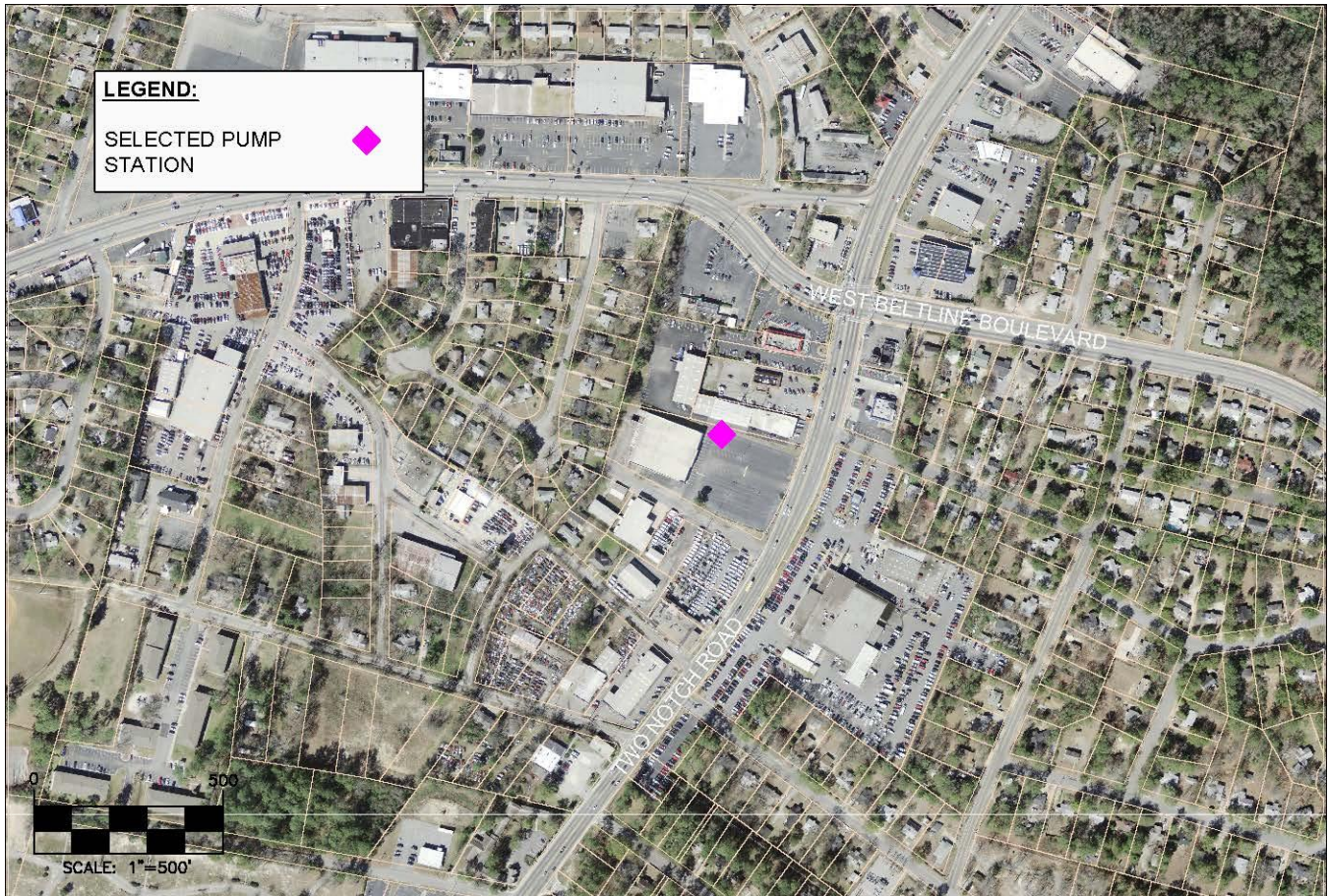
Pump Station Technical Specifications

Food Lion at Two Notch Pump Station

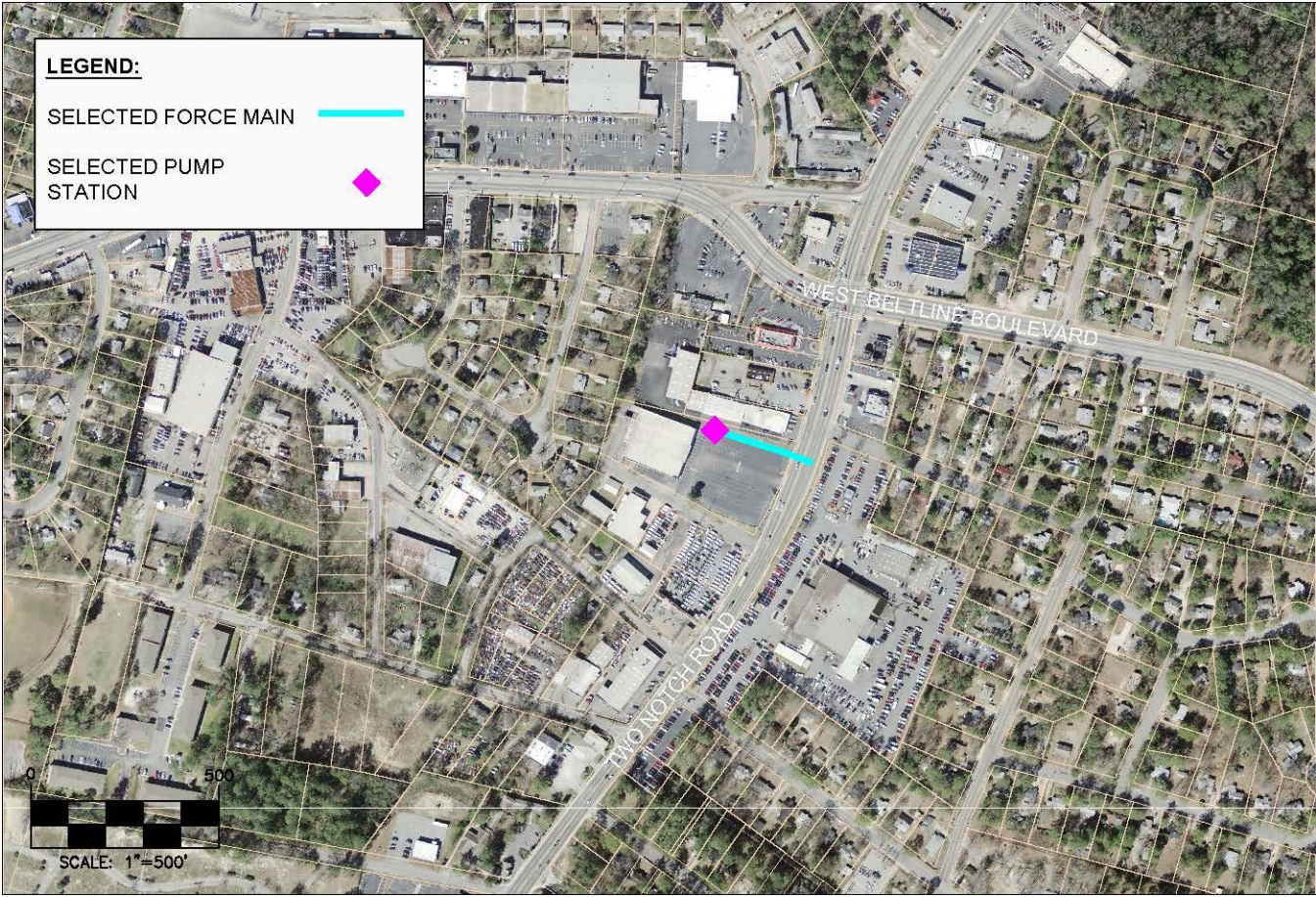
Location/Address: 2901 Two Notch Rd
Columbia, SC 29204

Station ID #: 250

Coordinates: 34° 02.093' N, 081° 00.299' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	152	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	62-280(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	41.1	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	62-280(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	1.5	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	273	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC01-24475-MH	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	62-280(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	62-280 124-10	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Ebara	32DGUII6 1.5S2	764865-99	208	2	CLICK HERE FOR DOCUMENTS
2	I	YES	Ebara	32DGUII6 1.5S2	12951/1/1	208	2	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH360R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 21, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	0.53	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	29.59	
Drawdown TDH Pump 1 (FT)	69.3	
Pump 1 Amperage (AMPS)	13.5, 13.4	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	40.16	
Drawdown TDH Pump 2 (FT)	69.3	
Pump 2 Amperage (AMPS)	12.2, 12.3	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1978	Initial Construction	Unavailable	See Plan 62-280(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: WETWELL INTERIOR AND PRESSURE GAUGE

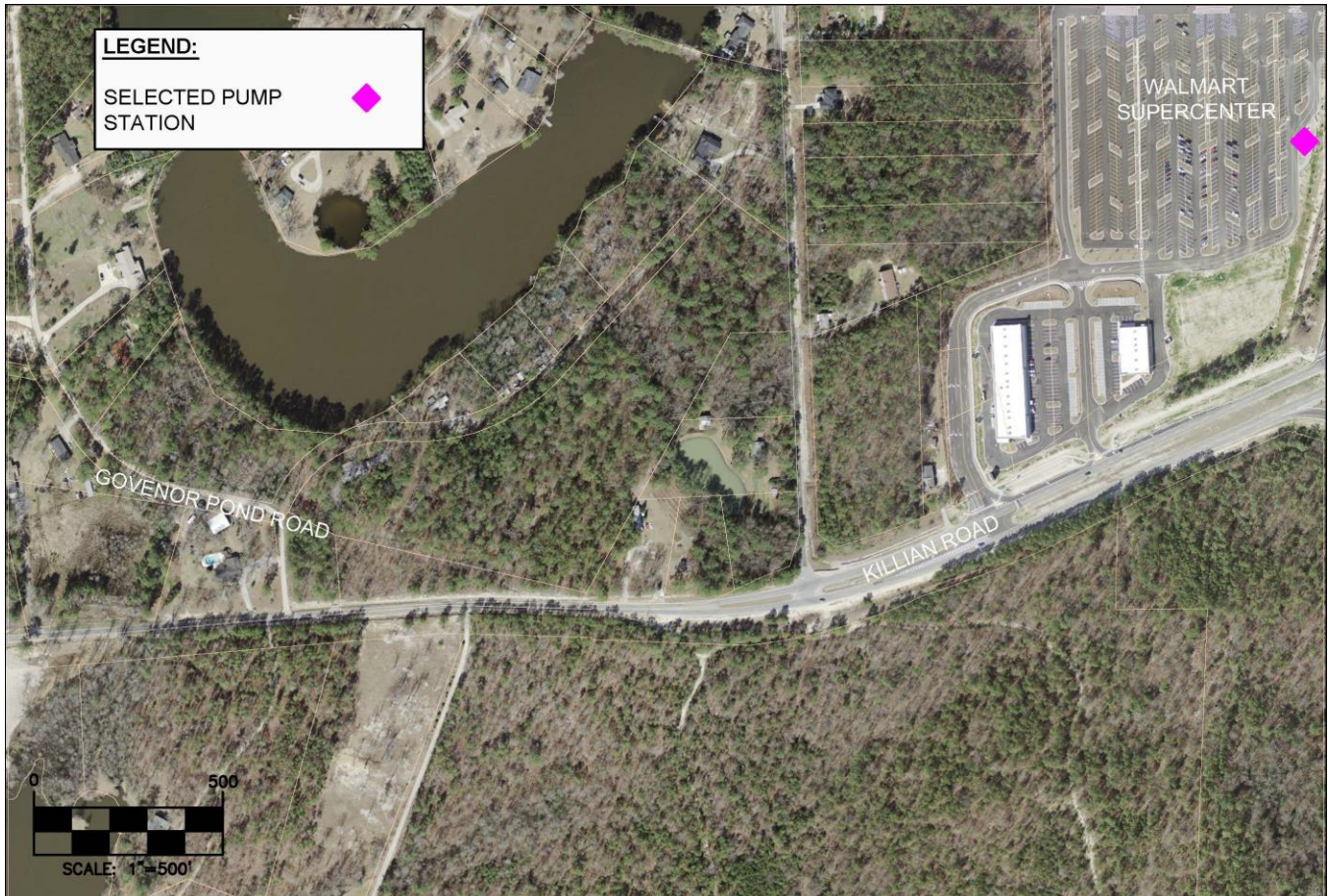
Pump Station Technical Specifications

Killian Crossing Pump Station

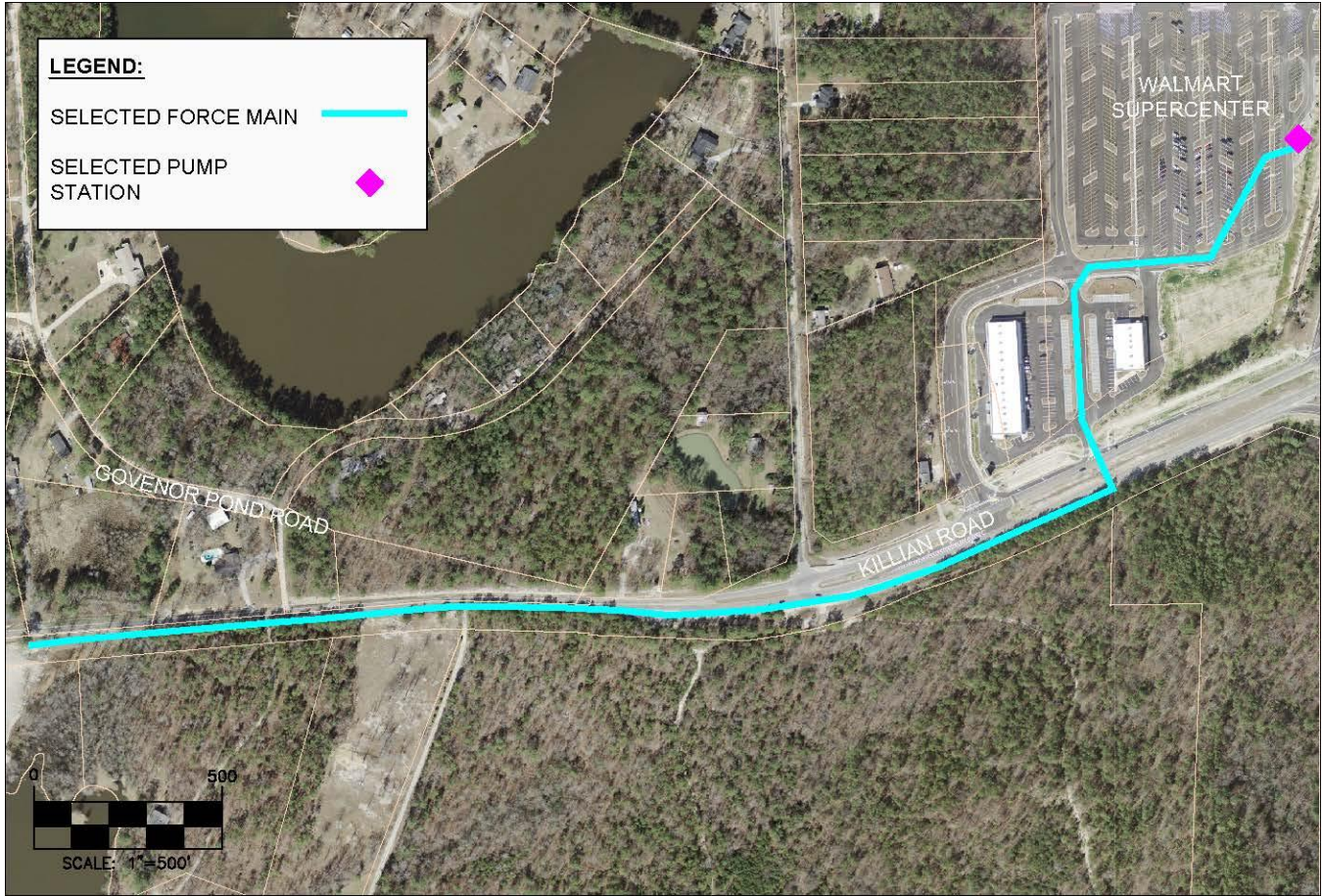
Location/Address: Near 321 Killian Rd
Columbia, SC 29203

Station ID #: 275

Coordinates: 34° 08.188' N, 080° 57.918' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	296-0300RD	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	296-0300RD	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	296-0300RD	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	4305	296-0300RD	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	296-0300RD	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-CC09-30714-MH	296-0300RD	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY	296-0300RD	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	296-0300RD	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	296-03	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP- 484	0730882	460	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP- 484	0730881	460	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	August 8, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	3.17	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	172.28	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	8.0,7.8,8.2	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	182.25	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	8.0,8.2,8.1	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Water on Floor Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2009	Initial Construction	Unavailable	See Plan 296-03	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

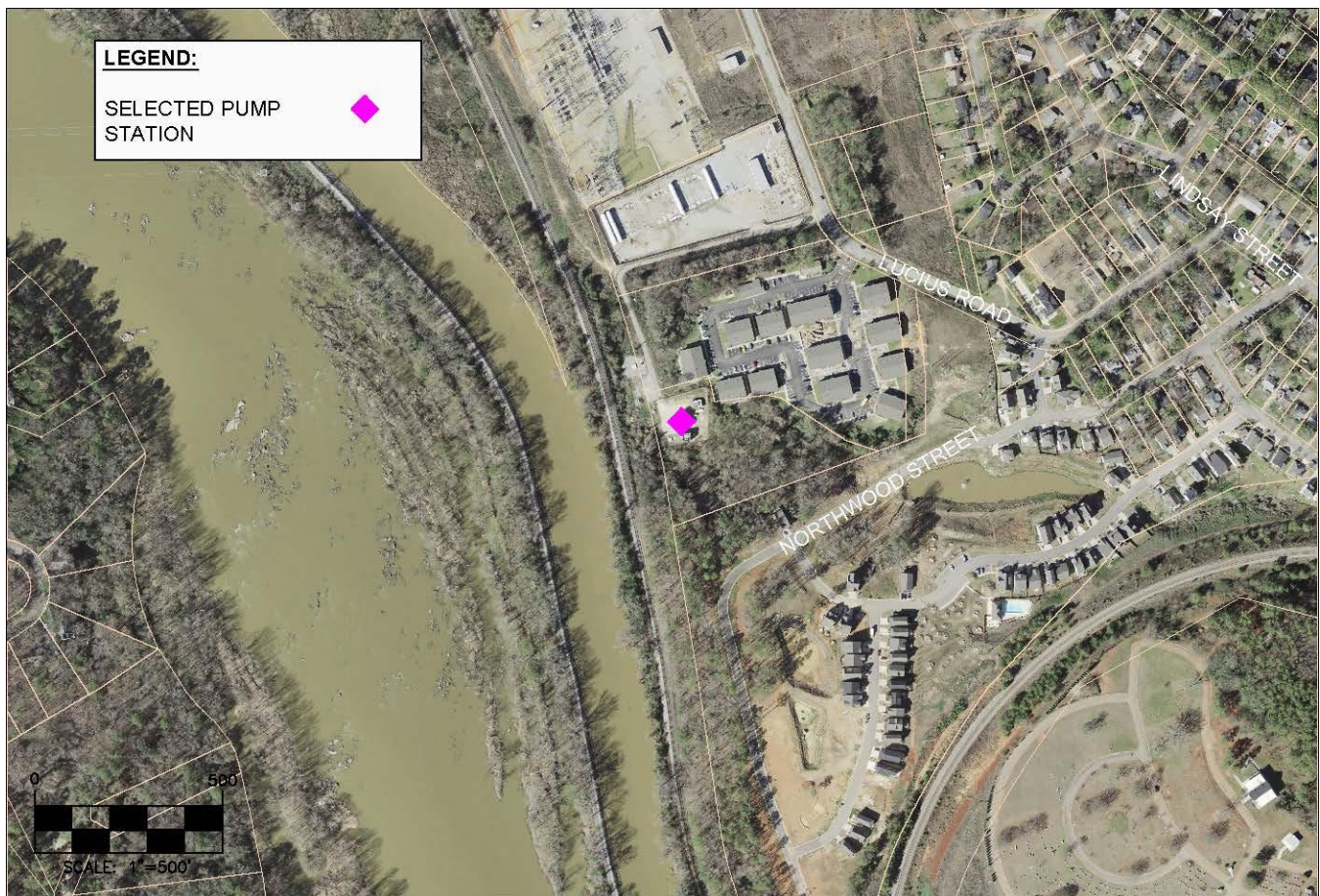
Pump Station Technical Specifications

North Columbia Pump Station

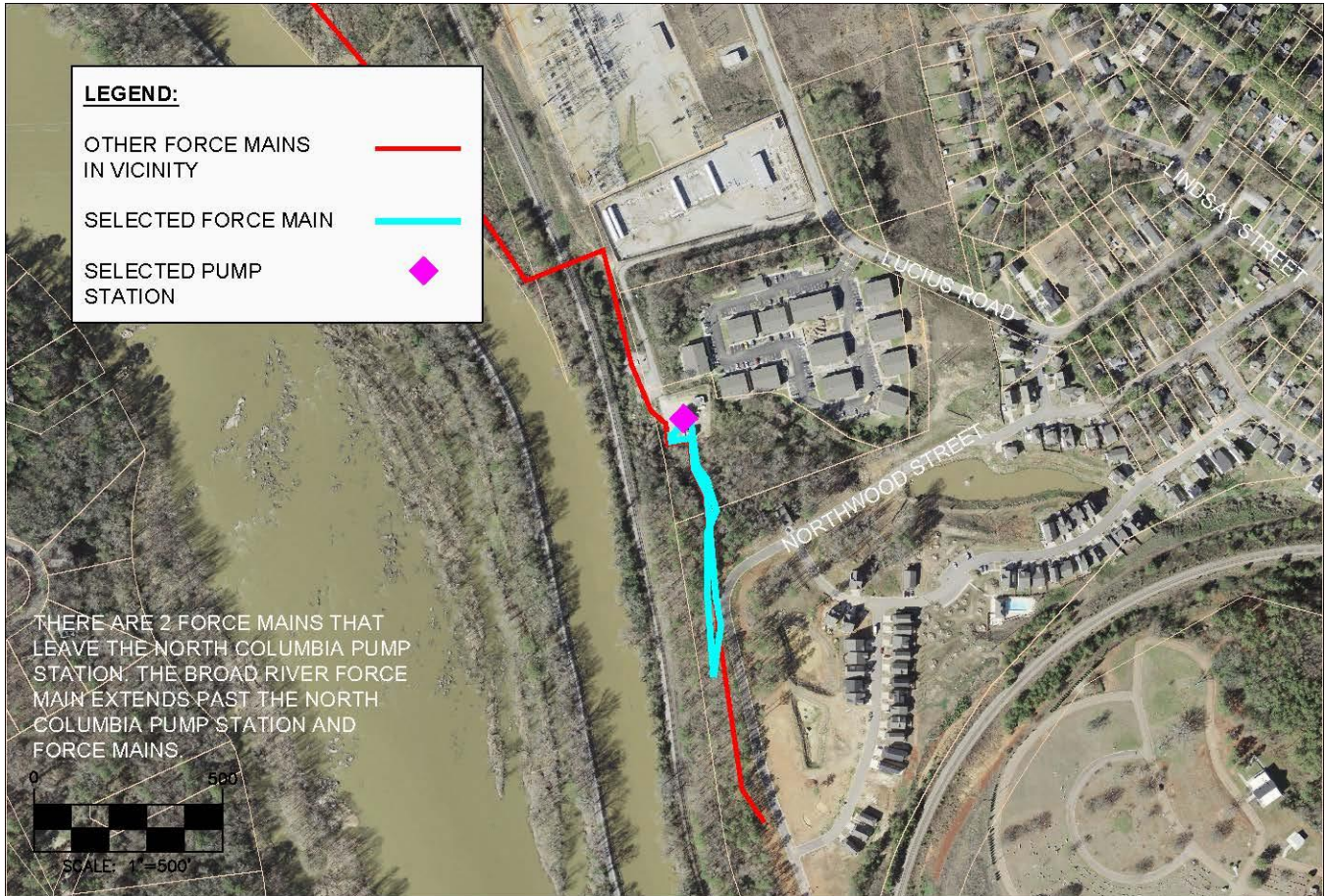
Location/Address: 3247 Lucius Rd
(3245 Lucius Rd)
Columbia, SC 29201

Station ID #: 295

Coordinates: 34° 01.130' N, 081° 03.571' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	22569	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	6	SS7102 RECORD DRAWINGS	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	109	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Dry Pit Submersible	SS7102 RECORD DRAWINGS	CLICK HERE FOR DOCUMENTS
VFD Present	YES	SS7102 E99.3	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	24	64-75 132-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1488	64-75 132-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	DIP/Cast Iron	64-75 132-12	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB06-24111-MH	64-75 132-12	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	64-75 132-12	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	SS7102 RECORD DRAWINGS	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	220-225 64-75 60-35NORTHCOLA PUMPSTA 132-12 YARD PIPING - 2005 CONSOLIDATED PLANS	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Morris	NC121425 3V	9035397	460	150	CLICK HERE FOR DOCUMENTS
2	I	YES	Morris	NC121425 3V	9809938-B	460	150	CLICK HERE FOR DOCUMENTS
3	I	YES	Morris	NC121425 3V	9809938-D	460	150	CLICK HERE FOR DOCUMENTS
4	I	YES	Morris	NC121425 3V	9043235	460	150	CLICK HERE FOR DOCUMENTS
5	I	YES	Morris	NC121425 3V	24041	460	250	CLICK HERE FOR DOCUMENTS
6	I	YES	Morris	NC121425 3V	24042	460	250	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	480 Volt
Wattage (Watts)	720 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	2000
City Asset ID#	AO073-12435
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
Pump #1 Speed (RPM)	
Pump #2 Speed (RPM)	
Pump #3 Speed (RPM)	
Pump #4 Speed (RPM)	
Pump #5 Speed (RPM)	
Pump #6 Speed (RPM)	
Effluent Flow #1 (GPM)	
Effluent Flow #2 (GPM)	
H2s Gas Level - Pump Building (X0.1PPM)	
CO Gas Level - Pump Building (Xo.1PPM)	
O2 Gas Level - Pump Building (X0.1%)	
Combustible Gas Level - Pump Building (X0.1%)	
H2s Gas Level - Wet Well Building (X0.1PPM)	
Co Gas Level - Wet Well Building (X0.1PPM)	
O2 Gas Level - Wet Well Building (X0.1%)	
Combustible Gas Level - Wet Well Building (X0.1%)	
Wet Well #1 Level (X0.01 Feet)	
Wet Well #2 Level (X0.01 Feet)	
Pump #1 Vibration (X0.001IPS)	
Pump #2 Vibration (X0.001IPS)	
Pump #3 Vibration (X0.001IPS)	
Pump #4 Vibration (X0.001IPS)	
Pump #5 Vibration (X0.001IPS)	
Pump #6 Vibration (X0.001IPS)	
Pump #1 Etm Lsd (X0.1hour)	
Pump #1 Etm Msd (X1000 Hour)	
Pump #2 Etm Lsd (X0.1hour)	
Pump #2 Etm Msd (X1000 Hour)	
Pump #3 Etm Lsd (X0.1hour)	
Pump #3 Etm Msd (X1000 Hour)	
Pump #4 Etm Lsd (X0.1hour)	
Pump #4 Etm Msd (X1000 Hour)	

SCADA Information

Recorded/Reported Info	Notes
Pump #5 Etm Lsd (X0.1hour)	
Pump #5 Etm Msd (X1000 Hour)	
Pump #6 Etm Lsd (X0.1hour)	
Pump #6 Etm Msd (X1000 Hour)	
Grinder #1 Etm Lsd (X0.1hour)	
Grinder #1 Etm Msd (X1000 Hour)	
Grinder #2 Etm Lsd (X0.1hour)	
Grinder #2 Etm Msd (X1000 Hour)	
Generator Etm Lsd (X0.1hour)	
Generator Etm Msd (X1000 Hour)	
Sump Pump Etm Lsd (X0.1hour)	
Sump Pump Etm Msd (X1000 Hour)	
Ups Battery Alarm	
Wet Well #1 High-High Level Alarm	
Pump #6 Fail To Start Alarm	
Pump #1 Seal Failure Alarm	
Pump #2 Seal Failure Alarm	
Pump #3 Seal Failure Alarm	
Pump #4 Seal Failure Alarm	
Pump #5 Seal Failure Alarm	
Wet Well #1 Low-Low Level Alarm	
Wet Well #2 High-High Level Alarm	
Wet Well #2 Low-Low Level Alarm	
Pump #1 Fail To Start Alarm	
Pump #2 Fail To Start Alarm	
Pump #3 Fail To Start Alarm	
Pump #4 Fail To Start Alarm	
Pump #5 Fail To Start Alarm	
Pump #6 Seal Failure Alarm	
Pump #1 VFD Fault	
Pump #5 Motor High Temperature Alarm	
Pump #6 VFD Fault	

SCADA Information

Recorded/Reported Info	Notes
Pump #6 Motor High Temperature Alarm Water On The Floor Alarm Grinder #1 Alarm Grinder #2 Alarm Pump #1 Motor High Temperature Alarm Pump #2 VFD Fault Pump #2 Motor High Temperature Alarm Pump #3 VFD Fault Pump #3 Motor High Temperature Alarm Pump #4 VFD Fault Pump #4 Motor High Temperature Alarm Pump #5 VFD Fault Generator Alarm Pump Station Inlet Gate Fail To Open Alarm Wet Well #2 Inlet Gate Fail To Close Alarm Sump High Level Alarm Ref-4 Fail To Start Alarm Ref-5 Fail To Start Alarm H2S Gas High Level Alarm - Pump Building CO Gas High Level Alarm - Pump Building Pump Station Inlet Gate Fail To Close Alarm Grinder #1 Inlet Gate Fail To Open Alarm Grinder #1 Inlet Gate Fail To Close Alarm Grinder #2 Inlet Gate Fail To Open Alarm Grinder #2 Inlet Gate Fail To Close Alarm Wet Well #1 Inlet Gate Fail To Open Alarm Wet Well #2 Inlet Gate Fail To Open Alarm Wet Well #2 Inlet Gate Fail To Open Alarm O2 Gas Low Level Alarm - Pump Building Combustible Gas High Level Alarm - Pump Building Pump #1 High Vibration Alarm Pump #1 High Vibration Shutdown	

SCADA Information

Recorded/Reported Info	Notes
Pump #2 High Vibration Alarm	
Pump #2 High Vibration Shutdown	
Pump #3 High Vibration Alarm	
Pump #3 High Vibration Shutdown	
H2S Gas High Level Alarm - Wet Well Building	
CO Gas High Level Alarm - Wet Well Building	
O2 Gas Low Level Alarm - Wet Well Building	
Combustible Gas High Level Alarm - Wet Well Building	
Wet Well #1 High Level Alarm	
Wet Well #1 Low Level Alarm	
Wet Well #2 High Level Alarm	
Wet Well #2 Low Level Alarm	
Pump #4 High Vibration Alarm	
Pump #4 High Vibration Shutdown	
Pump #5 High Vibration Alarm	
Pump #5 High Vibration Shutdown Timer	
Pump #6 High Vibration Alarm	
Pump #6 High Vibration Shutdown Timer	
Effluent Flow #1 Total Lsd (X1000 Gallons)	
Effluent Flow #1 Total Msd (X1 Million Gallons)	
Effluent Flow #2 Total Lsd (X1000 Gallons)	
Effluent Flow #2 Total Msd (X1 Million Gallons)	
Cross Over Valve Close L/S	
Pump #1 VFD Running	
Pump #2 Auto Mode	
Pump #2 Hand Mode	
Pump #2 VFD Auto Mode	
Pump #3 Auto Mode	
Pump #3 Hand Mode	
Pump #3 VFD Auto Mode	
Pump #2 VFD Running	
Pump #3 VFD Running	

SCADA Information

Recorded/Reported Info	Notes
Pump #4 VFD Running Pump #5 VFD Running Pump #6 VFD Running Pump #1 Aut0 Mode Pump #1 Hand Mode Pump #1 VFD Auto Mode Pump #4 Aut0 Mode Pump #4 Hand Mode Grinder #1 Running Grinder #2 Running Generator Running Transfer Switch In Normal Position Transfer Switch In Emergency Position Pump Station Inlet Gate Open L/S Pump #4 VFD Auto Mode Pump #5 Aut0 Mode Pump #5 Hand Mode Pump #5 VFD Auto Mode Pump #6 Aut0 Mode Pump #6 Hand Mode Pump #6 VFD Auto Mode Level Transmitter Select (0=#1 Xmtr,1=#2 Xmtr) Pump Station Inlet Gate Close L/S Grinder #1 Inlet Gate Open L/S Grinder #1 Inlet Gate Close L/S Grinder #2 Inlet Gate Open L/S Grinder #2 Inlet Gate Close L/S Wet Well #1 Inlet Gate Open L/S Wet Well #1 Inlet Gate Close L/S Wet Well #2 Inlet Gate Open L/S Wet Well #2 Inlet Gate Close L/S Sump Pump Running	
H2S Gas High Level Alarm Setpoint (X0.1PPM) CO Gas High Level Alarm Setpoint (Xo.1PPM) O2 Gas High Level Alarm Setpoint (X0.1%) Combustible Gas High Level Alarm Setpoint (X0.1%) Effluent Flow #1 Daily Total Lsd (X1000 Gallons)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1975	Initial Construction	Unavailable	See 1973	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1985	Pump Station Improvements	Unavailable	See 1985	
2007	Pump Station Replacement	SS6872	See Improvements 2005	
2011	Pump Station Improvements	SS7102	See SS7081 NCPSTA-Consolidated Plans	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: 150 Hp PUMPS AND PIPING

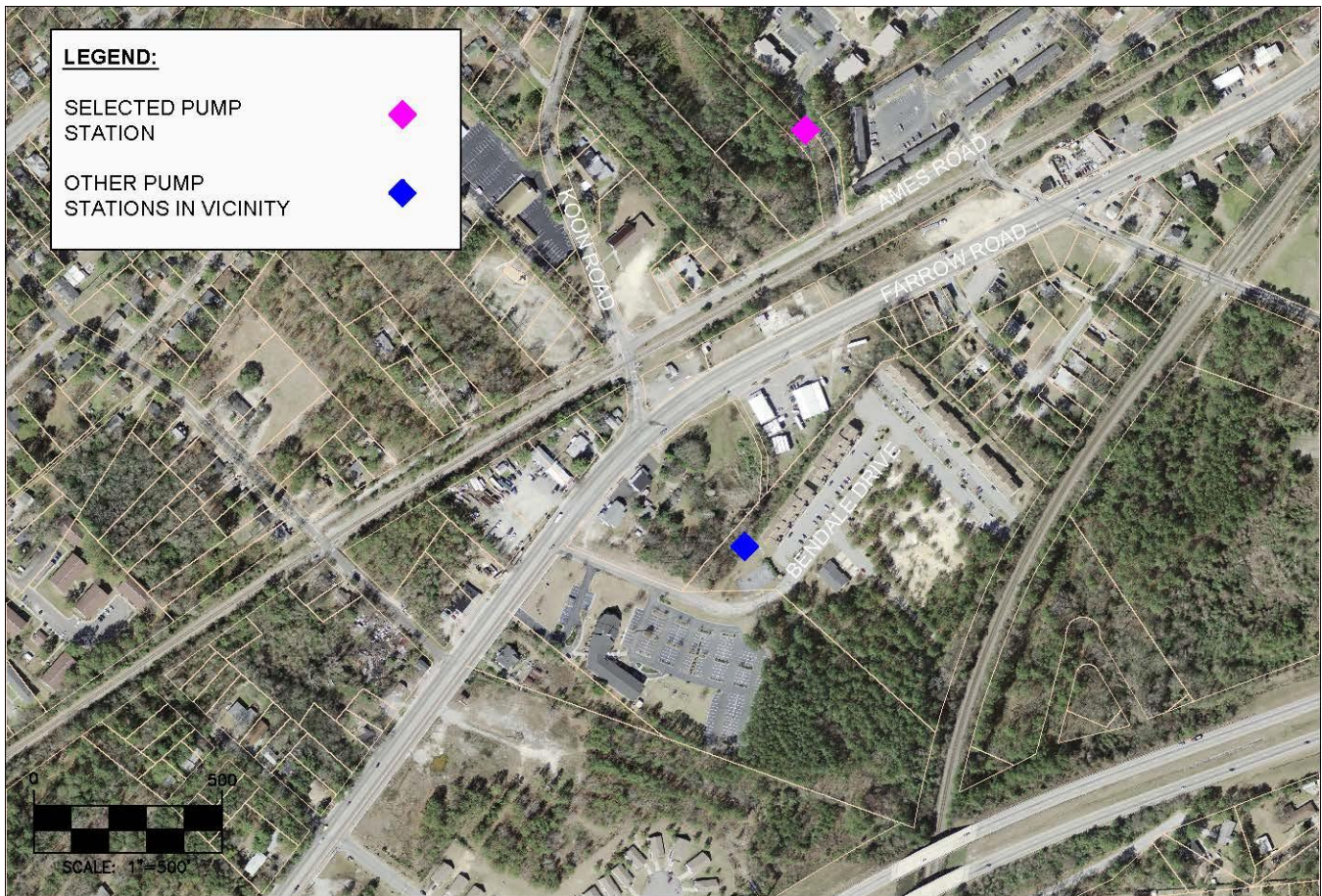
Pump Station Technical Specifications

Prescott Manor Pump Station

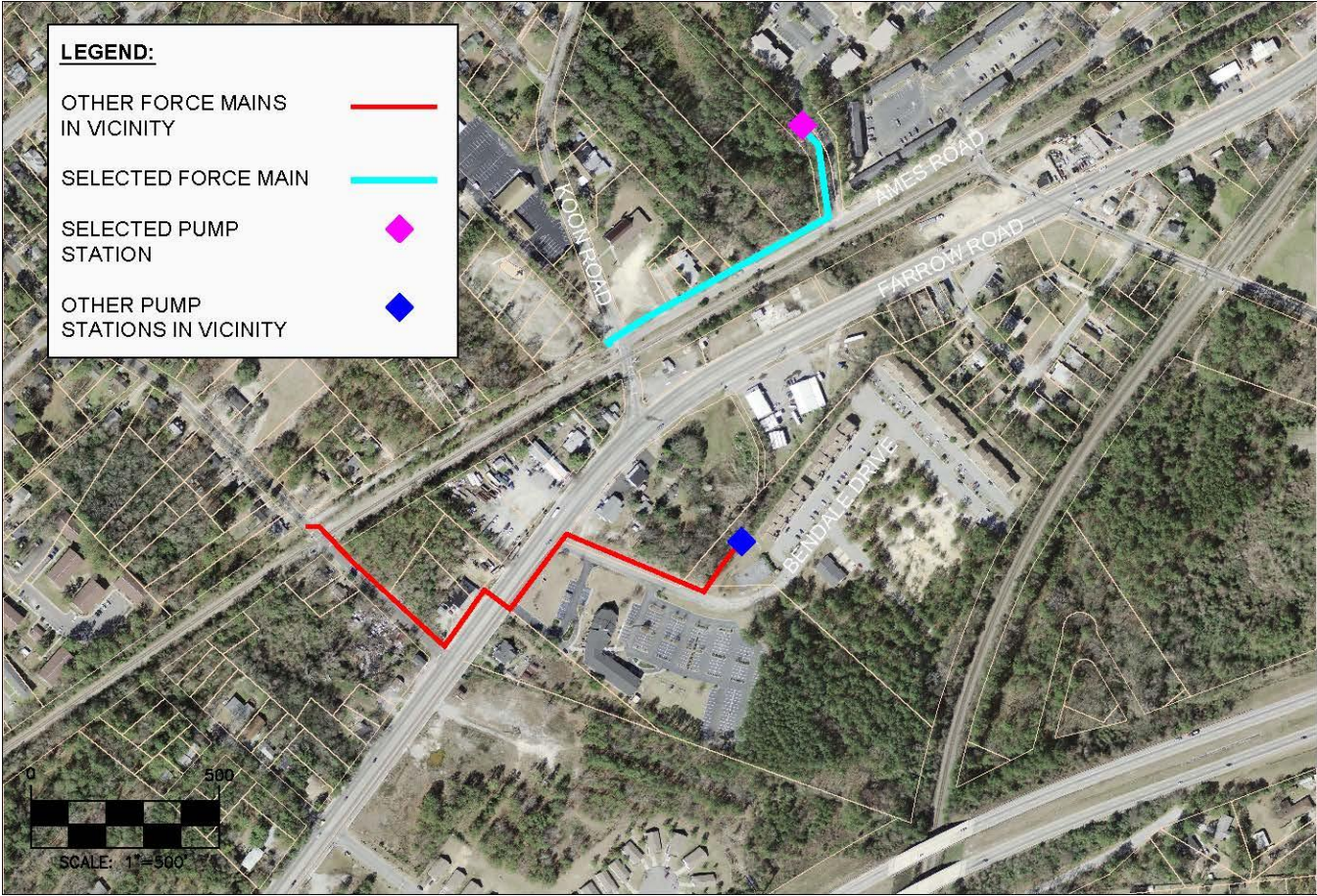
Location/Address: 5739 Ames Rd
(Approximate)
Columbia, SC 29203

Station ID #: 305

Coordinates: 34° 03.182' N, 081° 00.543' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	172	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	114-17(R-1)	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	35	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	114-17(R-1)	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	114-17(R-3) 114-17(R-1) C.F. 114-17	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	951	114-17(R-3) 114-17(R-1) C.F. 114-17	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	114-17(R-3) 114-17(R-1) C.F. 114-17	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SB01-28310-MH	114-17(R-3) 114-17(R-1) C.F. 114-17	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	114-17(R-3) 114-17(R-1) C.F. 114-17	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	114-17(R-1)	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	114-17	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Hydromatic	S300M3-4	S73270	230	3	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP3102	1220783	230	5	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP3102	1340142	230	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	February 6, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	16.15	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	140.92	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	16.3, 16.3, 16.4	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	162.94	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	22.4, 23, 23.4	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1982	Initial Construction	Unavailable	See Plan 114-17(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

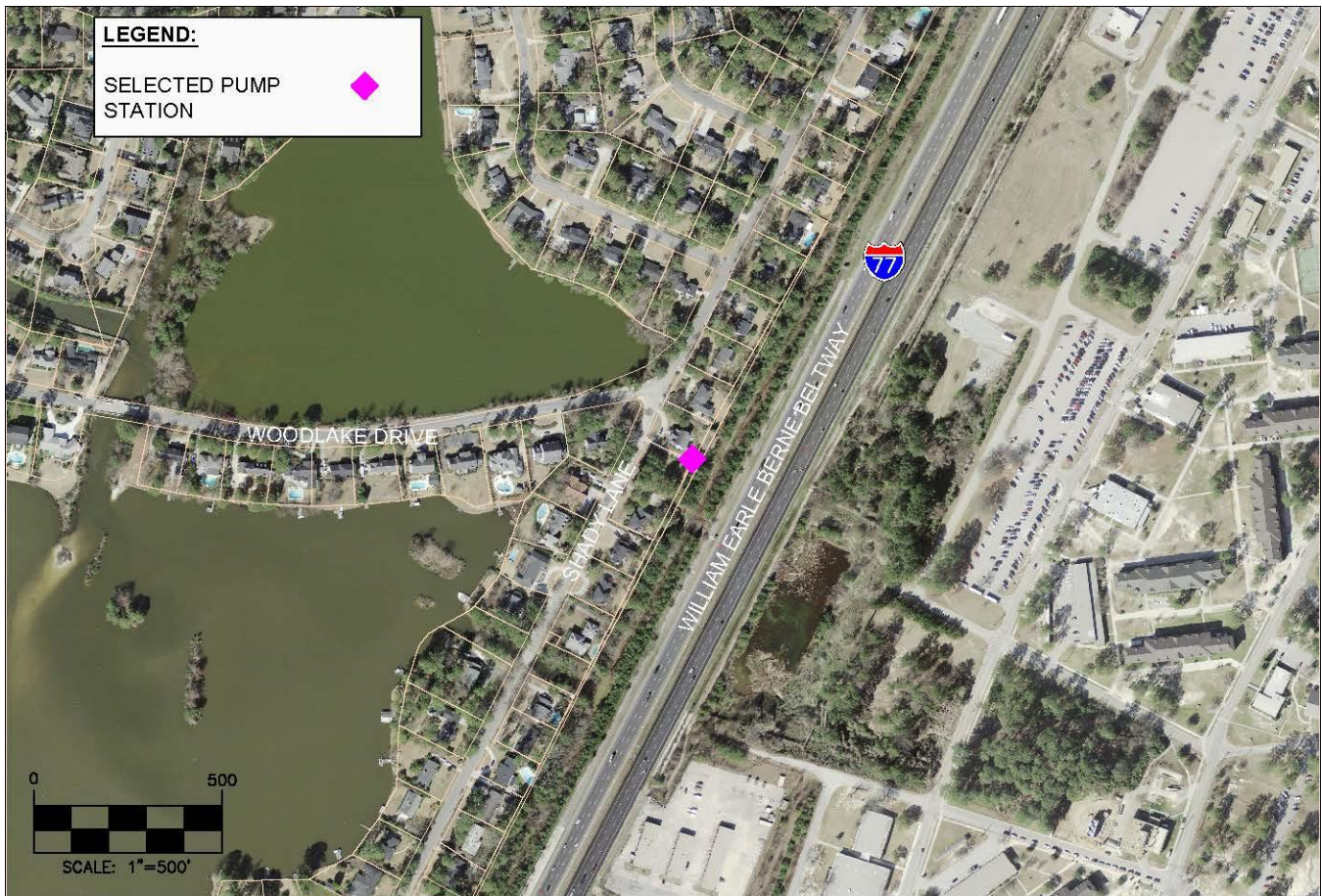
Pump Station Technical Specifications

Shady Lane Pump Station

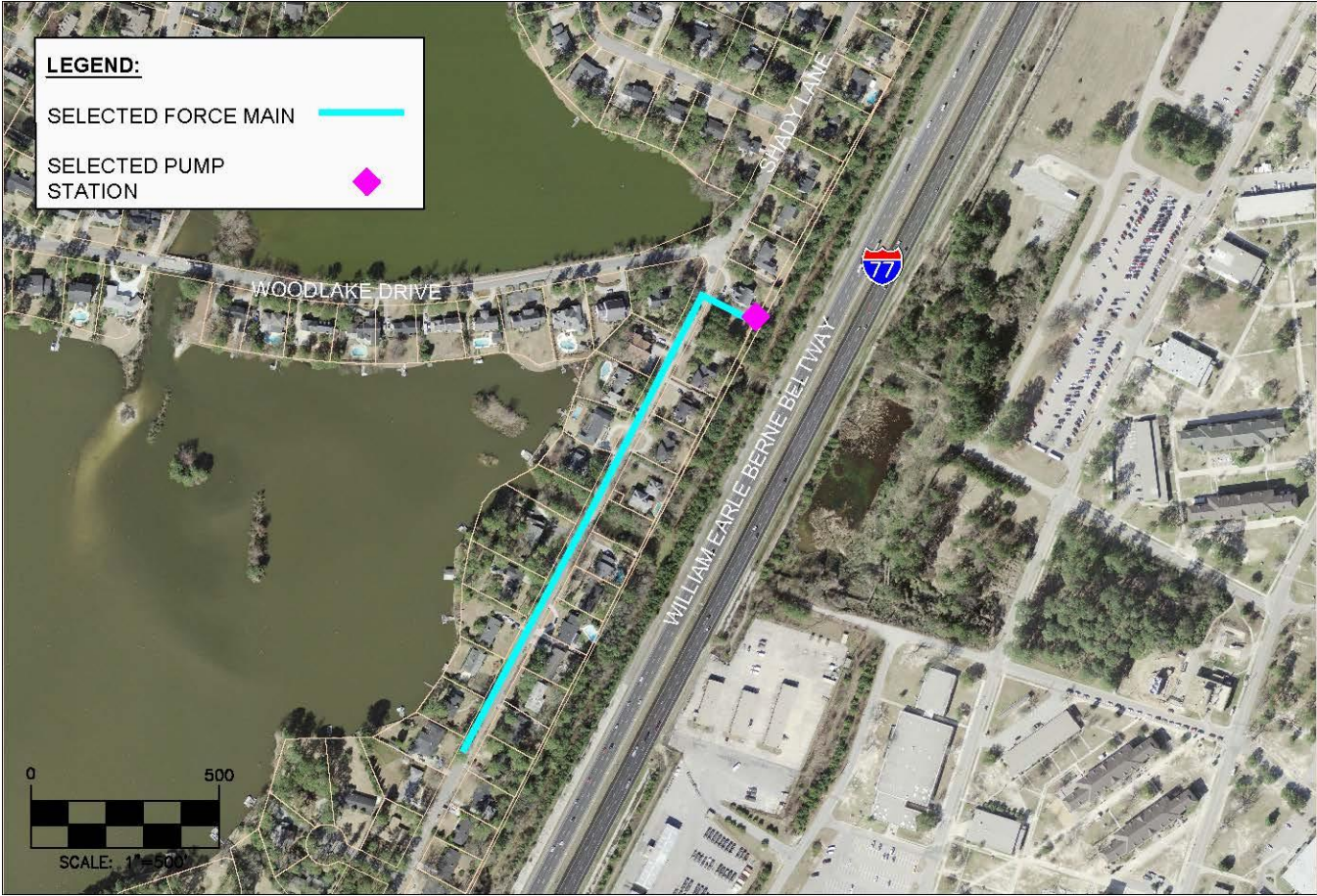
Location/Address: 1796 Shady Ln
(1790 Shady Ln)
Cayce, SC 29033

Station ID #: 310

Coordinates: 34° 00.437' N, 080° 57.365' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	301	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	160-36A	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	51.5	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	160-36A	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	160-117	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1535	160-117	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	160-117	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC05-24239-MH	160-117	CLICK HERE FOR DOCUMENTS
Force Main Drawings	PLAN ONLY (PARTIAL)	160-117	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	SKETCH PLAN ONLY	160-36A	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	89-345	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Hydromatic	S4M1000 M4-4	S00146752 U	460	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP3127	0730880	460	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 27, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	116.26	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	264.23	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	14.4, 14.4, 14.5	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	249.43	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	9.5, 9, 9.6	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1961	Initial Construction	Unavailable	See 1961 PS PLANS	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
1988	Pump Station Replacement	Unavailable	See 1988 PS PLANS	
1991	Force Main Improvements	SS131-0/1-J6	See Plan 160-117	

Other/Notes

Entry Date	Notes	Notation By
June 26, 2014	Design plans for the 1988 PS replacement are unavailable; sketch plan provided is the best available information.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING

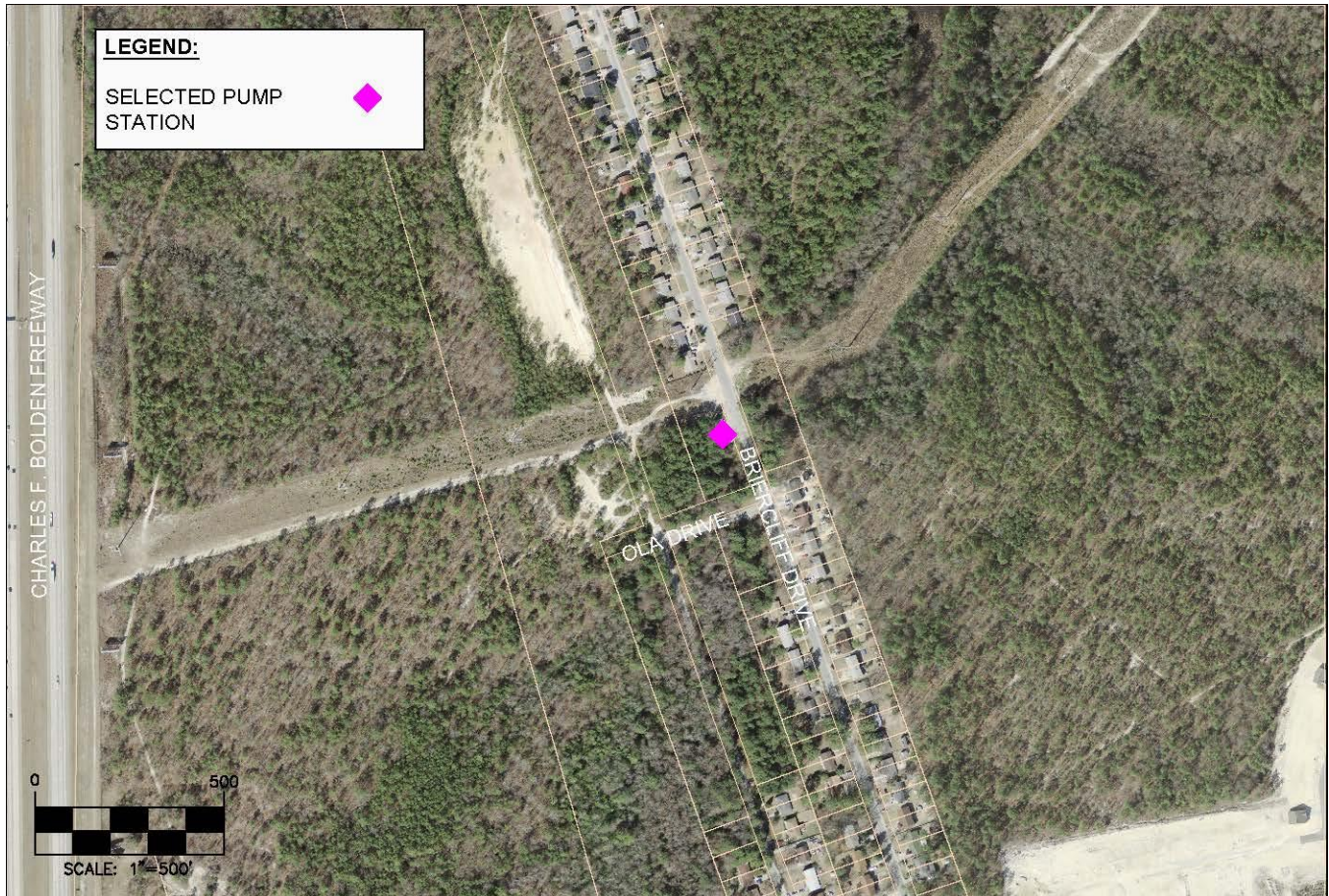
Pump Station Technical Specifications

Farrow Pointe Pump Station

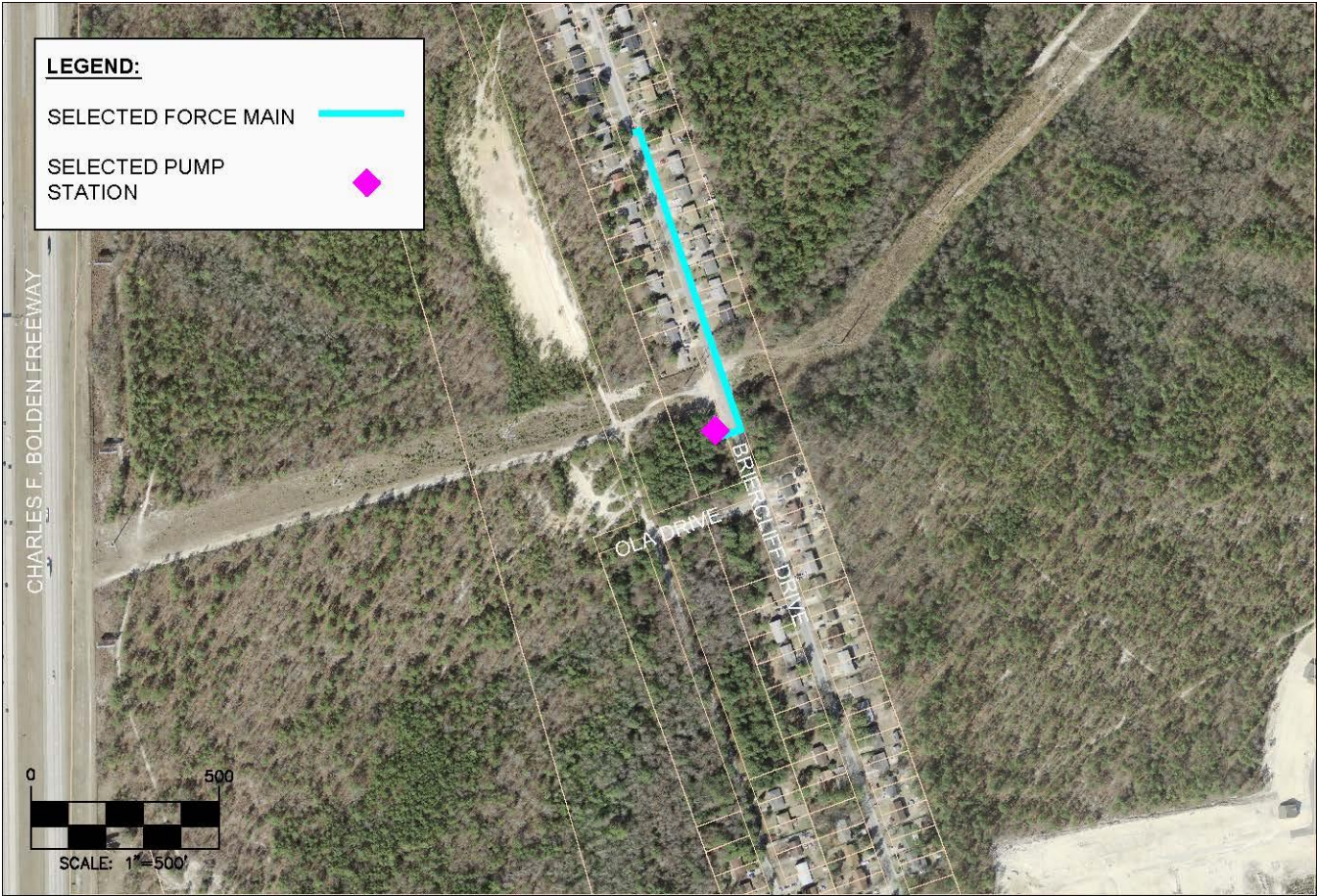
Location/Address: 417A Briercliff Dr
Columbia, SC 29203

Station ID #: 320

Coordinates: 34° 07.158' N, 080° 57.375' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	360	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	288-11	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	45	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	288-11	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	8	288-11002(2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	958	288-11002(2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	288-11002(2)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-CC10-29484-MH	288-11002(2)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	288-11002(2)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	288-11	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	19-28 160-176 288-11	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3153 6" IMP-437	0640619	460	20	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3153 6" IMP-437	0640620	460	20	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3153 6" IMP-437	0640621	460	20	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	January 14, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	37.58	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	187.9	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	12.9	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	349.49	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	12.7	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto General Alarm Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2008	Initial Construction	Unavailable	See Plan 288-11	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING

Pump Station Technical Specifications

Blythewood Crossing Pump Station

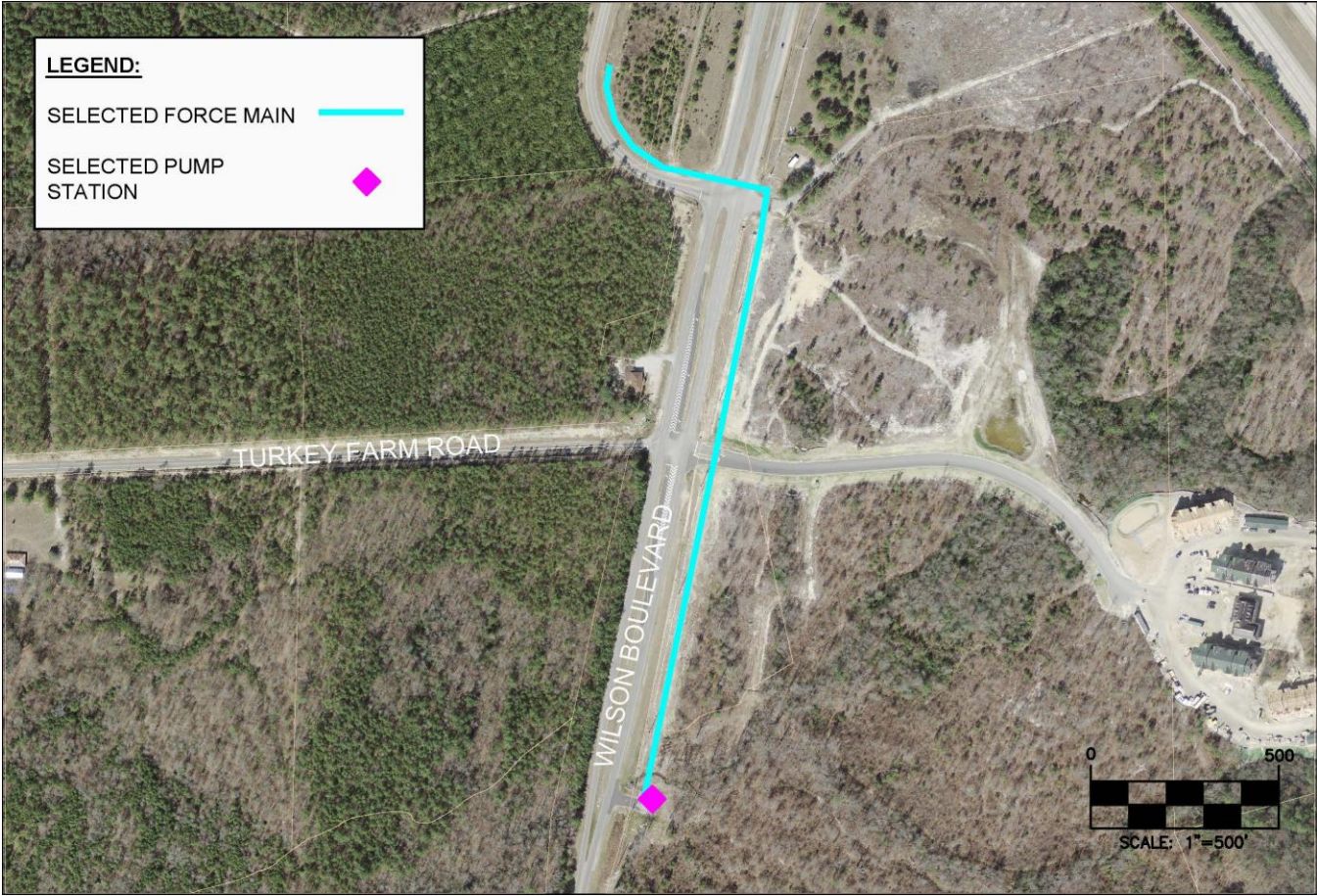
Location/Address: 10172 Wilson Blvd
(10152 Wilson Blvd)
Blythewood, SC 29016

Station ID #: 325

Coordinates: 34° 09.733' N, 080° 58.420' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	735	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	295-06 BLYTHWOOD CROSSING PLANS	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	85	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	295-06 BLYTHWOOD CROSSING PLANS	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	10	295-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	2307	295-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC/Ductile Iron	295-06	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-CC12-28205-MH	295-06	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	295-06	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	295-06 BLYTHWOOD CROSSING PLANS	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	295-06	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3170 6" IMP-442	5067007	460	30	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3170 6" IMP-442	5067006	460	30	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3171 6" IMP-434	1230089	460	30	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	460 Volt
Wattage (Watts)	60 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	150
City Asset ID#	AG002-21764
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
---	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	April 22, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	26.31	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	871.84	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	31.1, 30.1, 30.9	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	890.63	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	32.1, 31.1, 31.3	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Power Problem Wetwell High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto General Generator Failure Generator Running Pump 1 Runtime (NR) Pump 2 Runtime (NR)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2007	Initial Construction	Unavailable	See Plan 295-06	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By	
Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

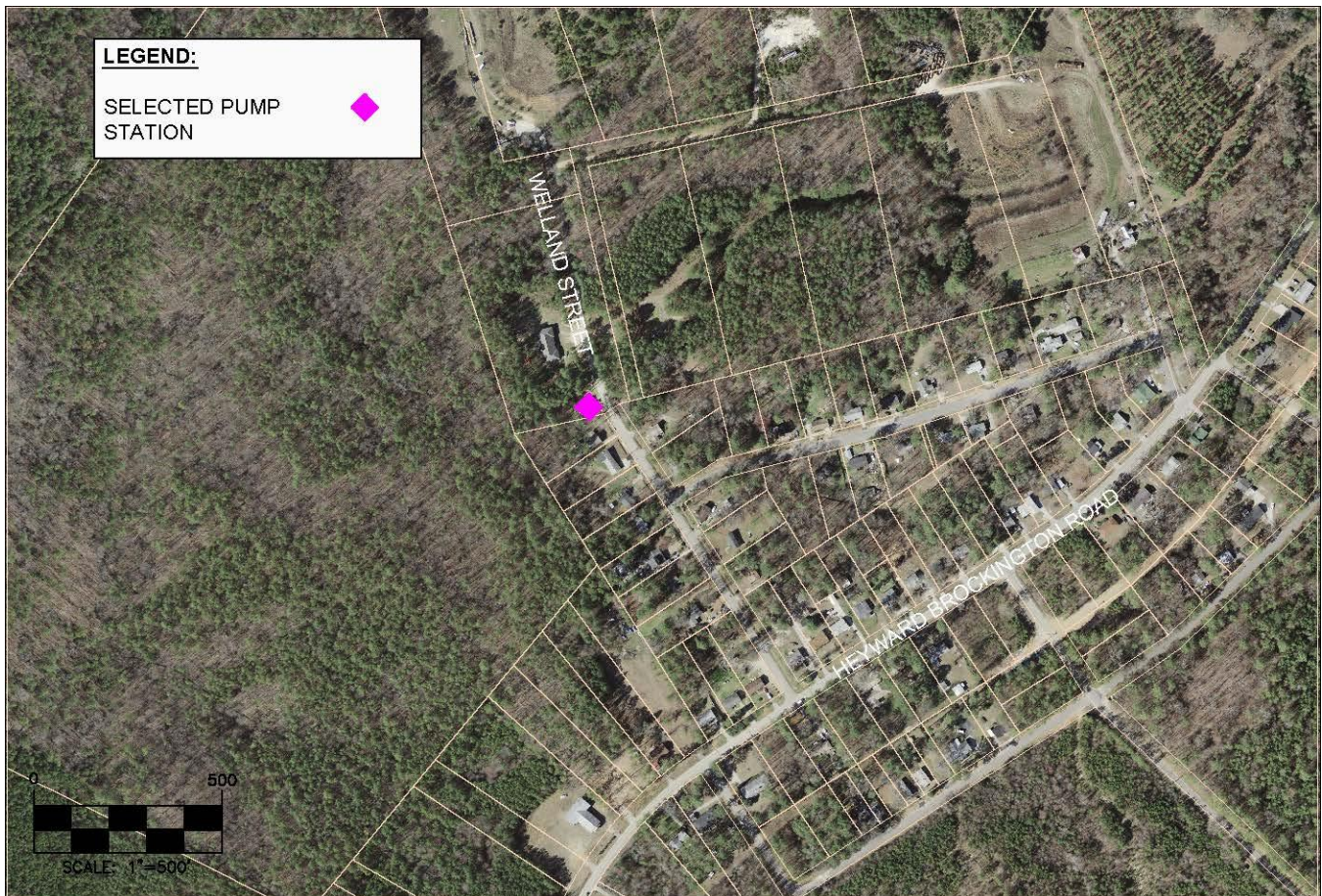
Pump Station Technical Specifications

Bookert Heights Pump Station

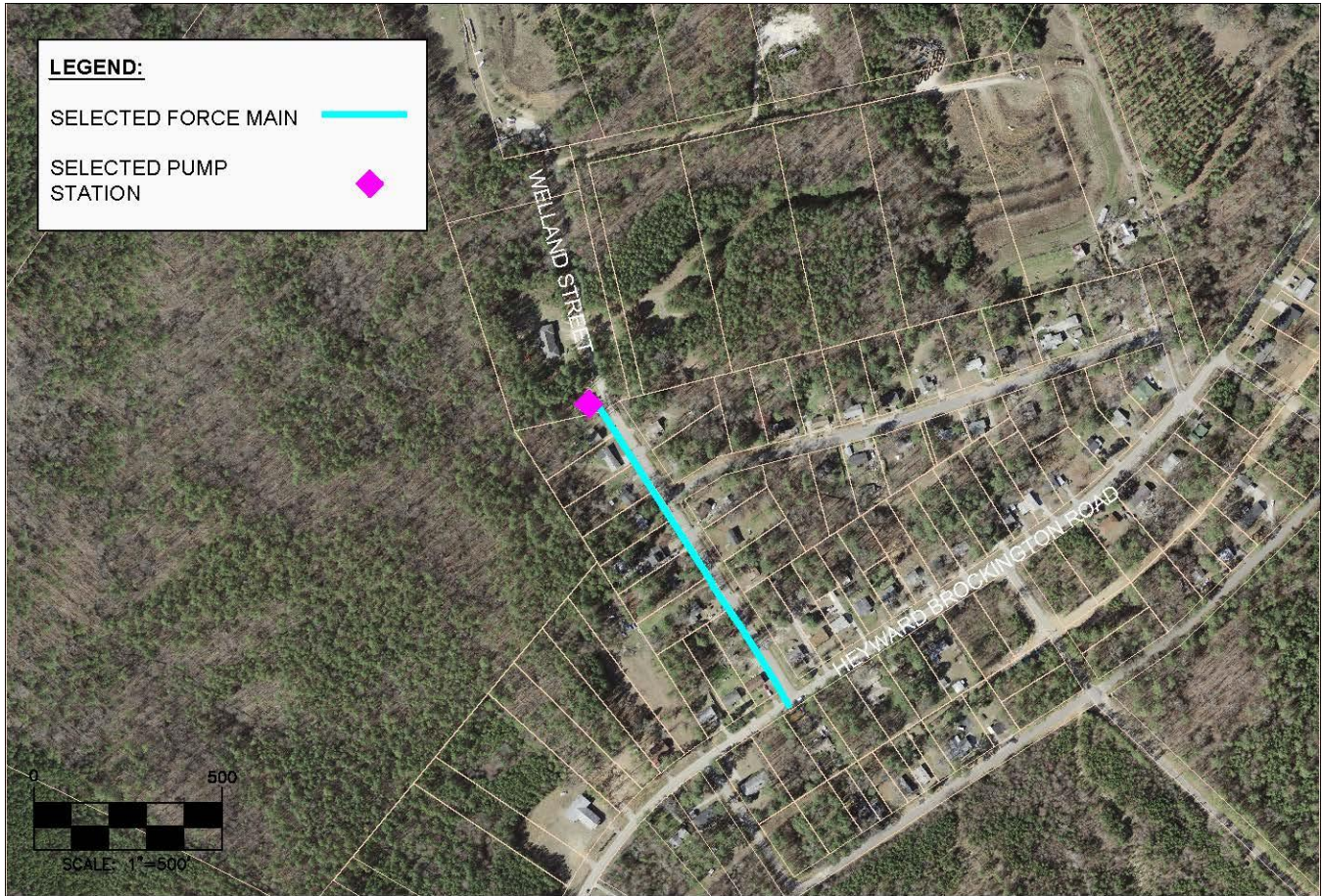
Location/Address: Welland St
(Near 2719 Welland St)
Columbia, SC 29203

Station ID #: 330

Coordinates: 34° 05.925' N, 081° 03.747' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	85	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	68	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	979	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-CC03-28046-MH	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	295-19 MYLAR	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	Bookert Heights Plans	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	CP-3127 4" IMP-484	0760053	230	10	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	CP-3127 4" IMP-484	0760052	230	10	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	CP-3127 4" IMP-484	0760054	230	10	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH360R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
--------------------------------------	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	September 2, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	31.71	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	131.06	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	31.2,31	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	137.4	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	32.2,32.4	
Conducted By	City Staff	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Wetwell Level High Pump 1 Run Pump 1 Fail Pump 1 HOA Switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA Switch in Auto Both Pumps Running Pump 1 Runtime Pump 2 Runtime	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2008	Initial Construction	Unavailable	See Plan 295-19	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGE

Pump Station Technical Specifications

Broad River Pump Station

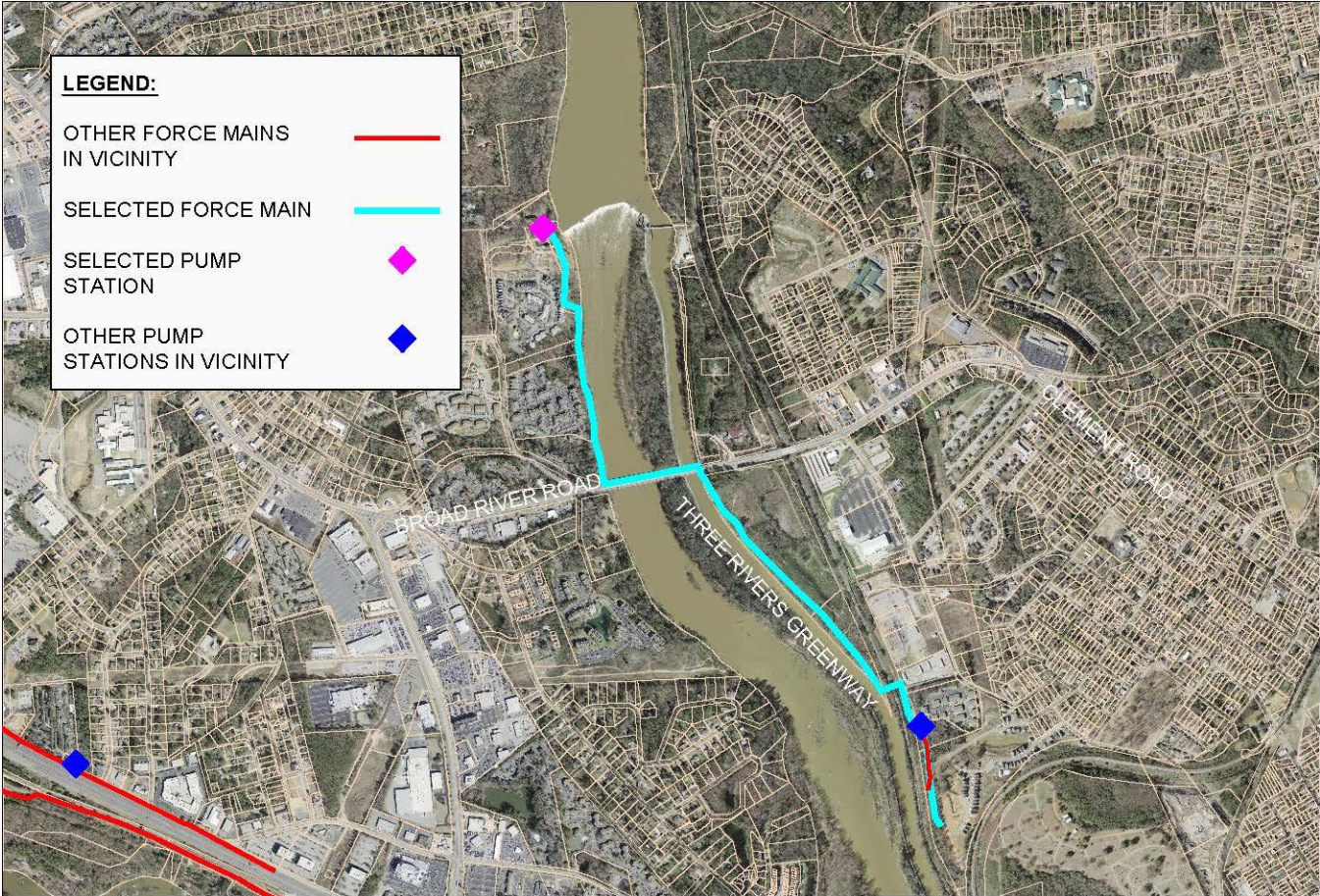
Location/Address: Atlantic Dr
(Approx 1875 Bentley Dr)
Columbia, SC 29210

Station ID #: 335

Coordinates: 34° 01.998' N, 081° 04.368' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	9600	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	4	60-35	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	170	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Centrifugal	60-35	CLICK HERE FOR DOCUMENTS
VFD Present	YES	08541E9910 E99	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	20	132-12 SHEETS 17A-C FOR BRPS FM CHANGES 1984 315-11 60-35 60-35(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	8982	132-12 SHEETS 17A-C FOR BRPS FM CHANGES 1984 315-11 60-35 60-35(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	Ductile Iron	132-12 SHEETS 17A-C FOR BRPS FM CHANGES 1984 315-11 60-35 60-35(R-1)	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-RB06-24136-MH	132-12 SHEETS 17A-C FOR BRPS FM CHANGES 1984 315-11 60-35 60-35(R-1)	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	132-12 SHEETS 17A-C FOR BRPS FM CHANGES 1984 315-11 60-35 60-35(R-1)	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	60-35	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	SS7101, 60-35(R-1) 60-35A C.F. 60-35	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Morris	NC88152V-2	9813244-1	460	200	CLICK HERE FOR DOCUMENTS
2	I	YES	Morris	NC88152V-2	9813244-2	460	200	CLICK HERE FOR DOCUMENTS
3	I	YES	Morris	NC88152V-2	9813244-3	460	200	CLICK HERE FOR DOCUMENTS
4	I	YES	Morris	NC88152V-2	9813244-4	460	200	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Caterpillar Diesel Generator
Voltage (Volts)	480 Volt
Wattage (Watts)	600 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	1250
City Asset ID#	AG008-23330
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
---	----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
Instantaneous Level Pump 1 VFD Speed Pump 2 VFD Speed Pump 3 VFD Speed Pump 4 VFD Speed Pump 1 VFD Vibration Pump 2 VFD Vibration Pump 3 VFD Vibration Pump 4 VFD Vibration Station Discharge Pressure Room Temperature Instantaneous Flow Top Floor Methane Gas Level Top Floor Hydrogen Sulfide Gas Level Top Floor Oxygen Gas Level Top Floor Carbon Monoxide Gas Level RTU Loss Of Utility Power Pump Control Panel Power Problem Pump #2 Discharge Valve Fail To Open Alarm Pump #2 High Temperature Alarm Pump #2 No Seal Water Flow Alarm Pump 3 Fail To Run Pump #3 Discharge Valve Fail To Open Alarm Pump #3 High Temperature Alarm Wetwell 1 Level High High Wetwell 1 Level Low Low Panel Door Open Pump 1 Fail To Run Pump #1 Discharge Valve Fail To Open Alarm Pump #1 High Temperature Alarm Pump #1 No Seal Water Flow Alarm Pump 2 Fail To Run	

SCADA Information

Recorded/Reported Info	Notes
Pump #3 No Seal Water Flow Alarm	
Pump 4 Fail To Run	
Sump Pump Alarm	
Pump #1 Discharge Valve Fail To Close Alarm	
Pump #1 Fail To Build Pressure On Startup Alarm	
Pump #1 Loss Of Pressure During Running	
Pump #1 Discharge Valve Closed W/O Command Alarm	
Pump #2 Discharge Valve Fail To Close Alarm	
Pump #4 Discharge Valve Fail To Open Alarm	
Pump #4 High Temperature Alarm	
Pump #3 Discharge Valve Fail To Close Alarm	
Pump #4 No Seal Water Flow Alarm	
Seal Water Pump #1 Fail To Run	
Seal Water Pump #2 Fail To Run	
Low Seal Water Pressure	
Pump #4 Discharge Valve Fail To Close Alarm	
Generator Failure	
Water On Floor Alarm	
Pump #2 Fail To Build Pressure On Startup Alarm	
Pump #2 Loss Of Pressure During Running	
Pump #4 Discharge Valve Closed W/O Command Alarm	
Pump #1 VFD Fault	
Pump #2 VFD Fault	
Pump #3 VFD Fault	
Pump #4 VFD Fault	
Surge Valve #1 Open	
Pump #2 Discharge Valve Closed W/O Command Alarm	
Pump #3 Fail To Build Pressure On Startup Alarm	
Pump #3 Loss Of Pressure During Running	
Pump #3 Discharge Valve Closed W/O Command Alarm	
Pump #4 Fail To Build Pressure On Startup Alarm	
Pump #4 Loss Of Pressure During Running	

SCADA Information

Recorded/Reported Info	Notes
Surge Valve #2 Open Grinder 1 Failure Pump #3 High Vibration Shutdown Pump #4 High Vibration Warning Pump #4 High Vibration Shutdown Top Floor Methane Gas High Level Alarm Top Floor Hydrogen Sulfide Gas High Level Alarm Top Floor Oxygen Gas Low Level Alarm Grinder 2 Failure Wetwell 2 Level High High Wetwell 2 Level Low Low Pump #1 High Vibration Warning Pump #1 High Vibration Shutdown Pump #2 High Vibration Warning Pump #2 High Vibration Shutdown Pump #3 High Vibration Warning Top Floor Carbon Monoxide Gas High Level Alarm Wetwell Level High Wetwell Level Low Bottom Floor Methane Gas High Level Alarm Bottom Floor Hydrogen Sulfide Gas High Level Alarm Bottom Floor Oxygen Gas Low Level Alarm Bottom Floor Carbon Monoxide Gas High Level Alarm Pump 1 Run Pump #1 Valve Open Generator Running Sump Pump Running Grinder 1 Run Grinder 2 Run Pump 2 Run Pump #2 Valve Open Pump 3 Run	

SCADA Information

Recorded/Reported Info	Notes
Pump #3 Valve Open Pump 4 Run Pump #4 Valve Open Seal Water Pump #1 Running Seal Water Pump #2 Running Transfer On Generator Power Transfer On Utilitypower Sluice Gate #1 Open L/S Sluice Gate #1 Close L/S Pump 2 HOA Switch In Auto Pump 3 HOA Switch In Auto Pump 4 HOA Switch In Auto Sluice Gate #2 Open L/S Sluice Gate #2 Close L/S Sluice Gate #3 Open L/S Sluice Gate #3 Close L/S Sluice Gate #4 Open L/S Sluice Gate #4 Close L/S Pump Control Panel Common Alarm Pump 1 HOA Switch In Auto Pump 1 Runtime (NR) Pump 2 Runtime (NR) Pump 3 Runtime (NR) Pump 4 Runtime (NR) Generator Runtime (NR) Grinder 1 Runtime (NR) Grinder 2 Runtime (NR) PLC Fault Word PLC Status Word Bottom Floor Methane Gas Level Bottom Floor Hydrogen Sulfide Gas Level Bottom Floor Oxygen Gas Level	

SCADA Information

Recorded/Reported Info	Notes
Bottom Floor Carbon Monoxide Gas Level Flow Total (NR) - Lo Flow Total (NR) - Hi Methane Gas High Alarm Setpoint Hydrogen Sulfide Gas Alarm Setpoint Broad Reiver Oxygen Gas Alarm Setpoint Carbon Monoxide Alarm Setpoint Pump 1 Runtime (Today) Pump 1 Runtime (Yesterday) Pump 2 Runtime (Today) Pump 2 Runtime (Yesterday) Pump 3 Runtime (Today) Pump 3 Runtime (Yesterday) Flow Total (Today) - Lo Flow Total (Today) - Hi Flow Total (Yesterday) - Lo Flow Total (Yesterday) - Hi Pump 4 Runtime (Today) Pump 4 Runtime (Yesterday) Generator Runtime (Today) Generator Runtime (Yesterday) Grinder 1 Runtime (Today) Grinder 1 Runtime (Yesterday) Grinder 2 Runtime (Today) Grinder 2 Runtime (Yesterday)	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
1983	Initial Construction	Unavailable	See Improvements 1982	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS
2013	Additions and Hoist System for the Broad River and Mill Creek Pump Station	SS7101	See Improvements 2010	
2013	Force Main Improvements	SS980	See Improvements 2013	

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: PUMPS ASSEMBLIES

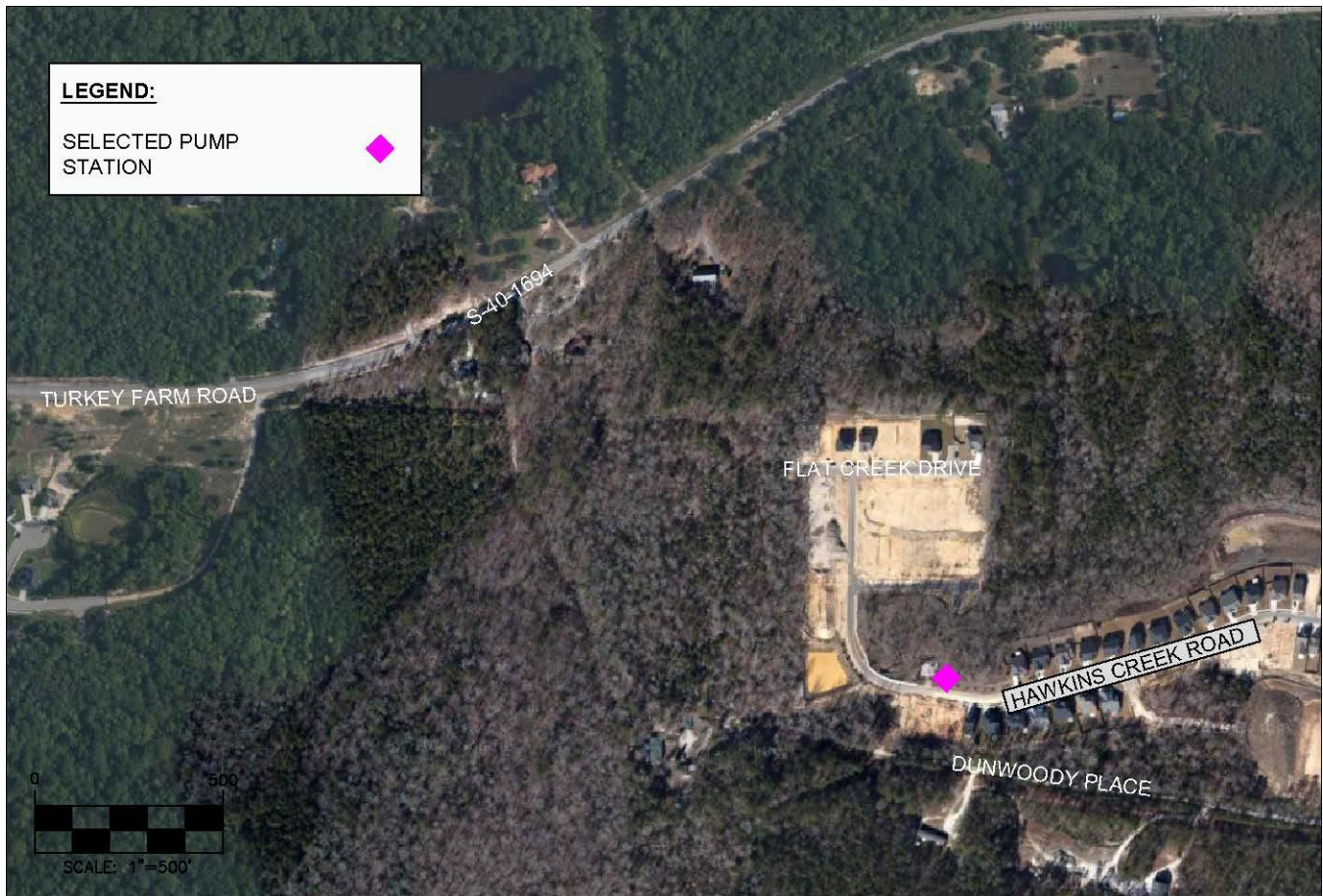
Pump Station Technical Specifications

Hawkins Creek Pump Station

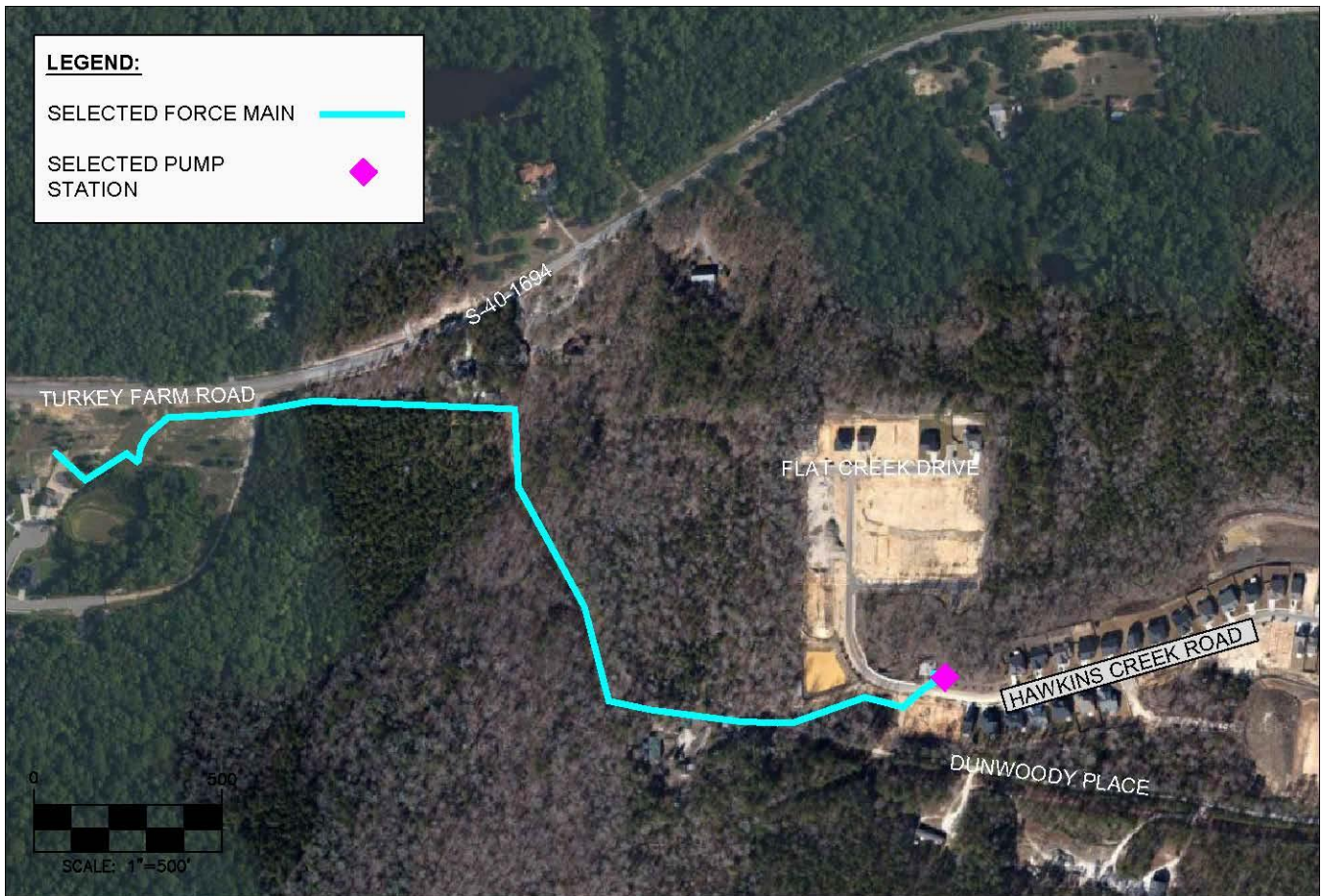
Location/Address: 286 Hawkins Creek Rd
(296 Hawkins Creek Rd)
Blythewood, SC 29016

Station ID #: 340

Coordinates: 34° 09.586' N, 080° 58.857' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	202	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	78.5	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	6	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	3124	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-CC12-28077-MH	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	303-21A(R-3) 303-21A(R-1)_DIGITAL MYLAR_HAWKINS CREEK ABSS PH1	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	YES	Flygt	NP-3153 4" IMP-465	1040125	460	12	CLICK HERE FOR DOCUMENTS
2	I	YES	Flygt	NP-3153 4" IMP-465	1040126	460	12	CLICK HERE FOR DOCUMENTS
3	R	YES	Flygt	NP-3153 4" IMP-465	1040124	460	12	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	Energy Diesel Generator
Voltage (Volts)	460 Volt
Wattage (Watts)	60 -kW
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	120
City Asset ID#	AG011-23333
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	YES
---	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	August 6, 2010	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	237.93	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	13.5, 13.8, 13	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	237.93	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	13.4, 13.7, 13.2	
Conducted By	M. PAYNE - ITT WATER & WASTEWATER USA INC.	

SCADA Information

Recorded/Reported Info	Notes
NO SCADA	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2012	Initial Construction	Unavailable	See Plan 303-21A(R-1)	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: VALVE PIT PIPING AND PRESSURE GAUGES

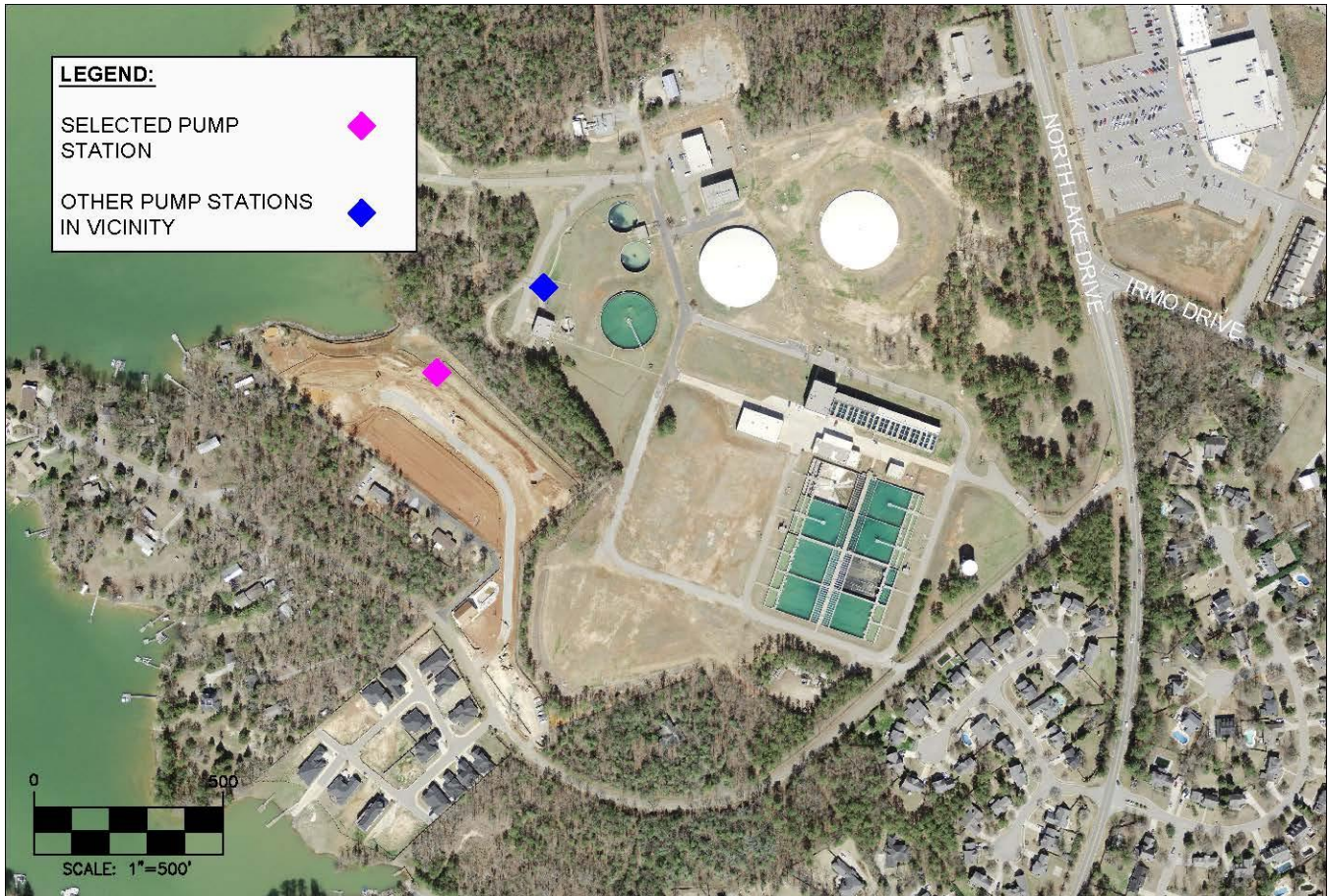
Pump Station Technical Specifications

The Palms Pump Station

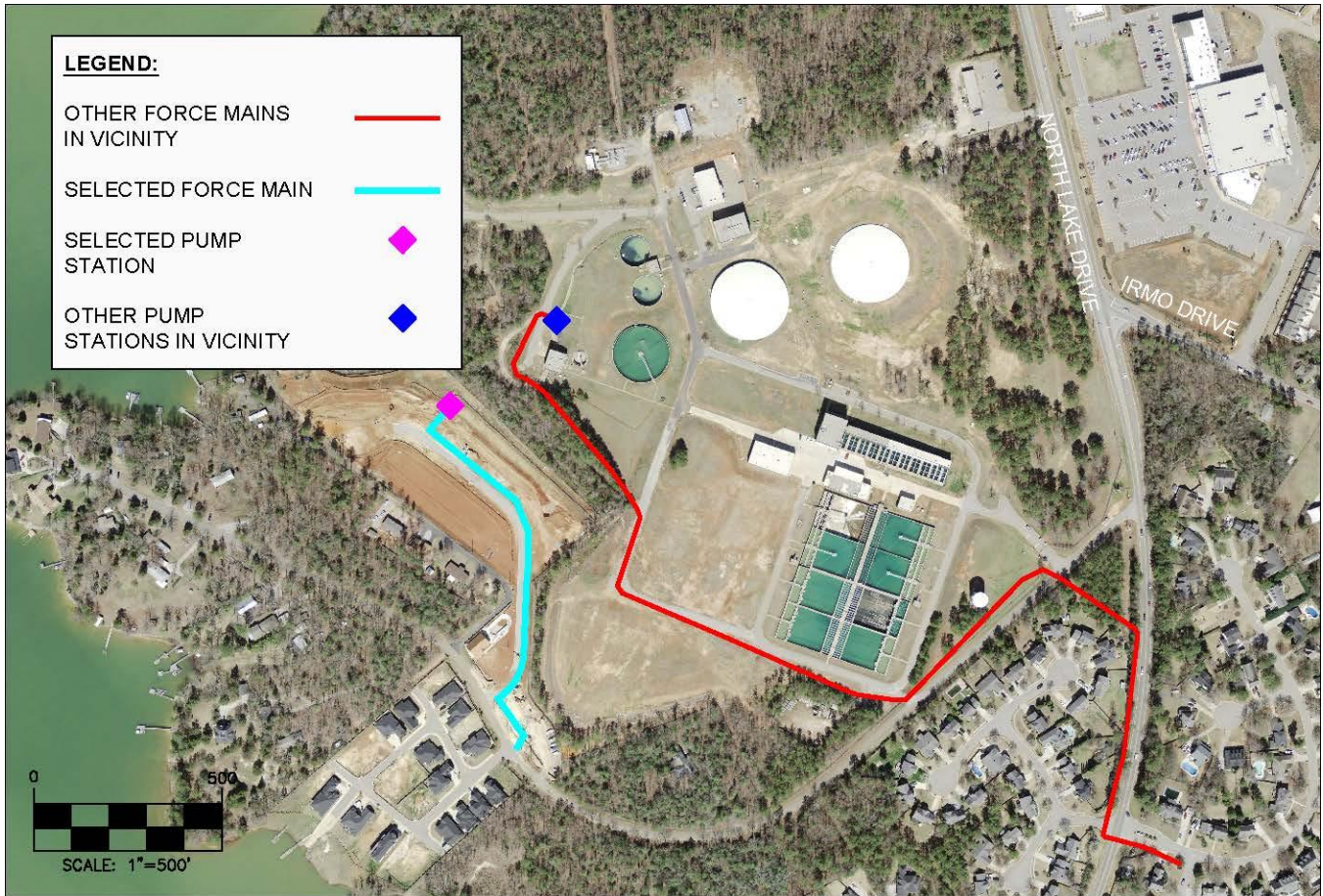
Location/Address: 160 Palm Point Dr.
Columbia, SC 29212

Station ID #: 345

Coordinates: 34° 05.749' N, 081° 15.360' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	269-95A	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	Unavailable	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	269-95A	CLICK HERE FOR DOCUMENTS
VFD Present	YES		CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	4	269-95A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	1098	269-95A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	269-95A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-SR01-23072-MH	269-95A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	YES	269-95A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	YES	269-95A	CLICK HERE FOR DOCUMENTS
Additional Drawings	YES	269-95A RTU Drawings	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	NO	Flygt	CP3102 4" IMP- 434	0810741	240	5	CLICK HERE FOR DOCUMENTS
2	I	NO	Flygt	CP3102 4" IMP- 434	0810742	240	5	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	YES
If Yes, Portable Generator Receptacle Type	Hubbell AH460R7W

Bypass Pumping Connection

Bypass Pumping connection available?	YES
--------------------------------------	-----

Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	April 30, 2014	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	0	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	167.43	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	13.2, 12.8, 12.8	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	140.99	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	13.2, 12.8, 12.8	
Conducted By	M. PAYNE - Xylem Water Solutions USA, Inc.	

SCADA Information

Recorded/Reported Info	Notes
RTU Loss of Power Control Panel Common Problem Wetwell Level High Pump 1 Run Pump 1 Fail Pump 1 HOA switch in Auto Pump 2 Run Pump 2 Fail Pump 2 HOA switch in Auto	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
2014	Initial Construction	Unavailable	See Plan 269-25A	CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE

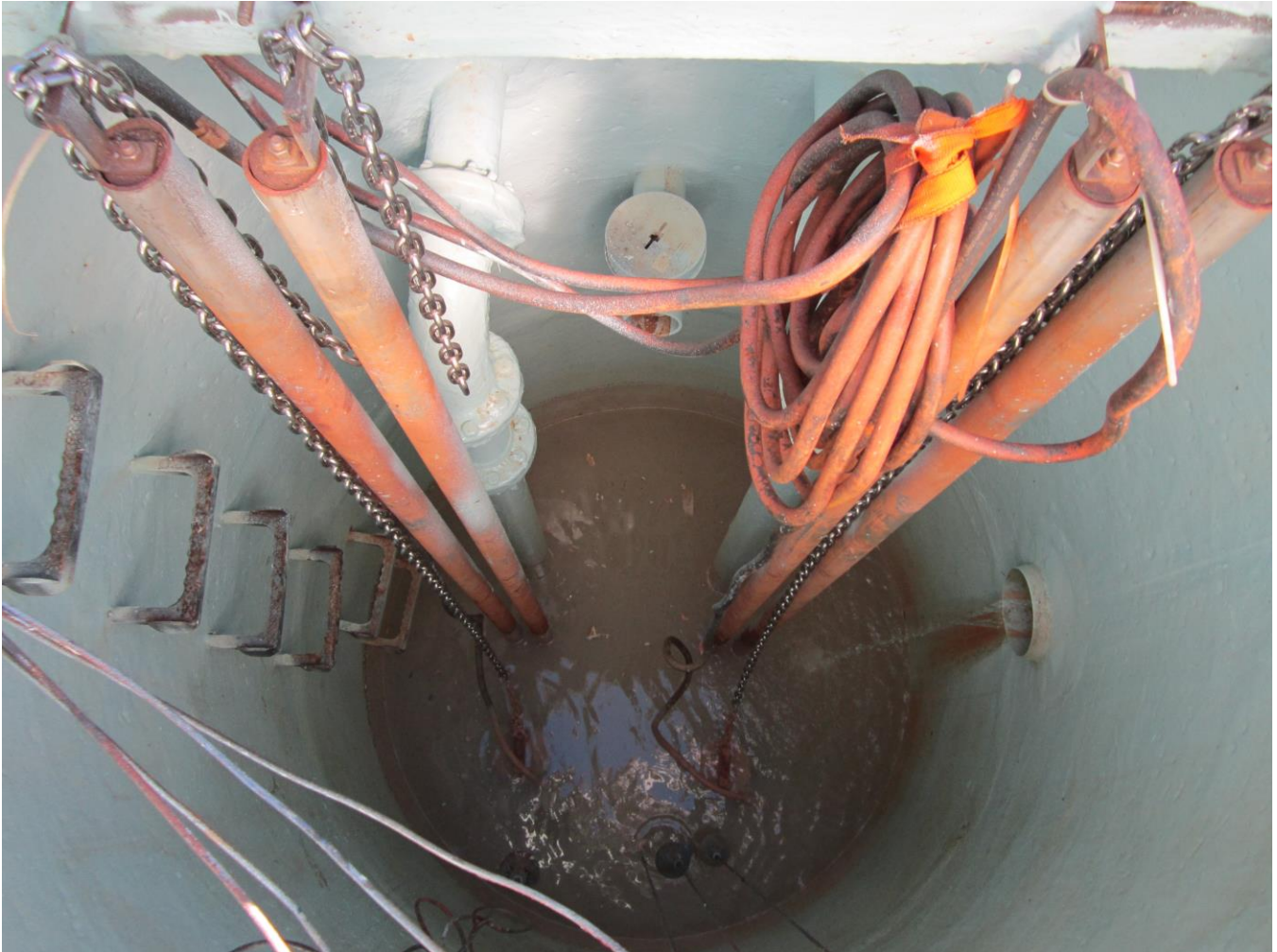


PHOTO 2: WETWELL INTERIOR

Pump Station Technical Specifications

Owens Field Park Pump Station

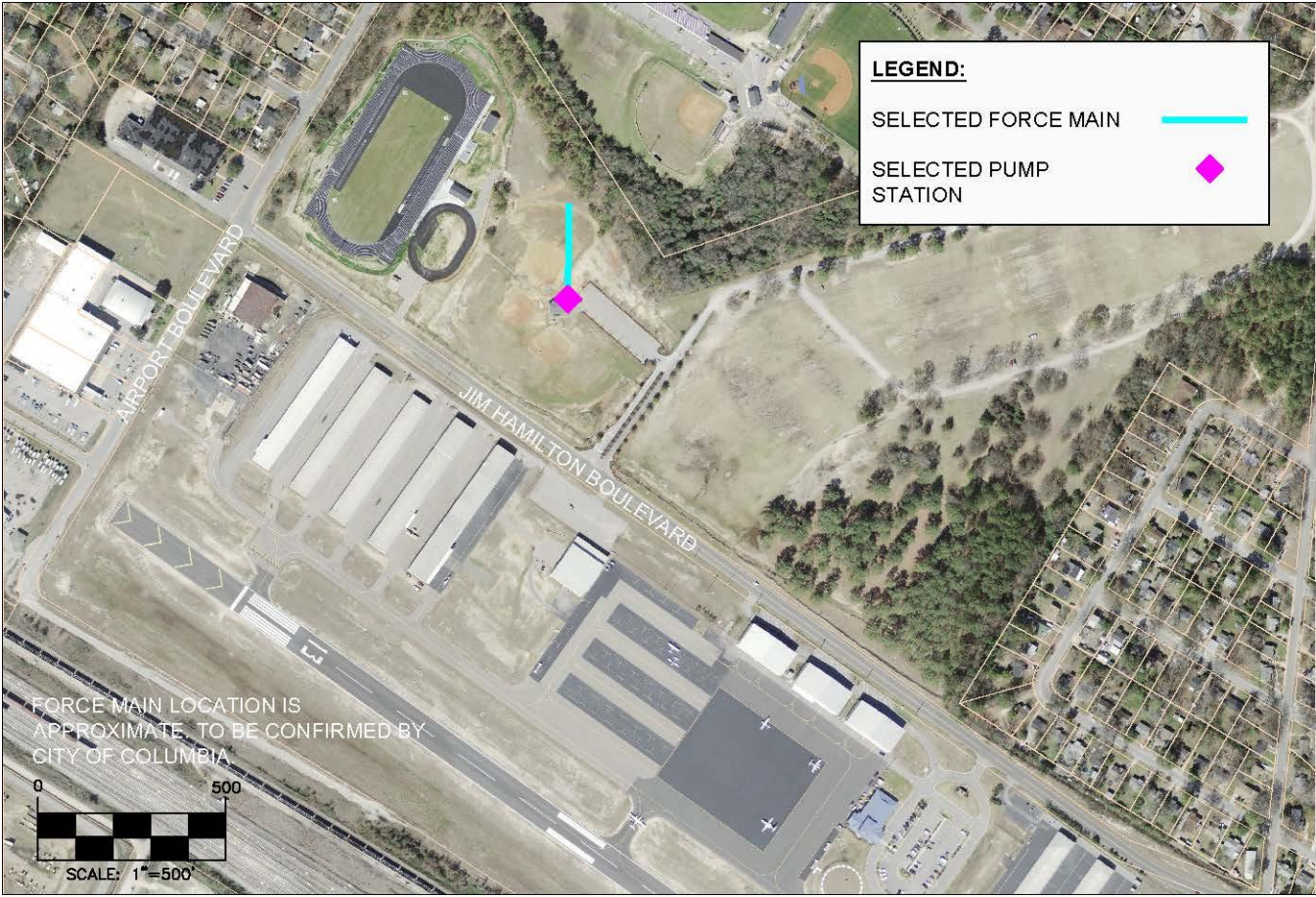
Location/Address: 1351 Jim Hamilton Boulevard
Columbia, SC 29205

Station ID #: 350

Coordinates: 33° 58.599' N, 080° 59.944' W



Pump Station Location Map



Force Main Location Map

Pump Station Design Data

	Data or Yes/No	DRAWING CF#	Links to Supporting Documents
Firm Pumping Capacity (GPM)	42	N/A	CLICK HERE FOR DOCUMENTS
Number of Pumps Installed	2	N/A	CLICK HERE FOR DOCUMENTS
TDH @ Firm Pumping Capacity (FT)	105	N/A	CLICK HERE FOR DOCUMENTS
Type of Pump Station	Submersible	N/A	CLICK HERE FOR DOCUMENTS
VFD Present	NO	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Diameter (IN)	1.5	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Approximate Length (FT)	255	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Material of Construction	PVC	N/A	CLICK HERE FOR DOCUMENTS
Discharge Force Main Manhole/End Asset ID	SS-GC12-04997-MH	N/A	CLICK HERE FOR DOCUMENTS
Force Main Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS
Pump Station Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS
Additional Drawings	NO	N/A	CLICK HERE FOR DOCUMENTS

Pump Information

Pump Number	Installed/Reserve (I / R)	Pump Curves Yes/No	Make	Model	Serial Number	Voltage (Volts)	Horsepower (Hp)	Links to Supporting Documents
1	I	NO	ABS	S18/2	0125847	230	2.4	CLICK HERE FOR DOCUMENTS
2	I	NO	ABS	S18/2	Unavailable	230	2.4	CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS
N/A								CLICK HERE FOR DOCUMENTS

Back-up Power Information

On-site Generator/Back-up Power Source	NO
Voltage (Volts)	N/A
Wattage (Watts)	N/A
Fuel Capacity (Diesel: Gallons, LPG: Pounds)	N/A
City Asset ID#	N/A
Portable Generator Receptacle On-site (Yes/No)	NO
If Yes, Portable Generator Receptacle Type	N/A

Bypass Pumping Connection

Bypass Pumping connection available?	NO
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Pump Station Drawdown Information

		Links to Supporting Documents
Latest Drawdown Date	Unavailable	CLICK HERE FOR DOCUMENTS
Drawdown Inflow (GPM)	Unavailable	
Drawdown Flow Pump 1 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 1 (FT)	Unavailable	
Pump 1 Amperage (AMPS)	Unavailable	
Drawdown Flow Pump 2 Including Influent Flow (GPM)	Unavailable	
Drawdown TDH Pump 2 (FT)	Unavailable	
Pump 2 Amperage (AMPS)	Unavailable	
Conducted By	Unavailable	

SCADA Information

Recorded/Reported Info	Notes
NO SCADA	

Pump Station History

Year	Project Description	CIP NUMBER	Details	Links to Supporting Documents
				CLICK HERE FOR PUMP STATION HISTORY DOCUMENTS

Other/Notes

Entry Date	Notes	Notation By
October 31, 2014	Pump station has recently been acquired and pump station and force main plans are unavailable.	David Rankin

Last Modified By

Name	David Rankin
Date	November 4, 2014

Pump Station Photos:



PHOTO 1: OVERALL SITE



PHOTO 2: DISCHARGE MANHOLE AND PUMP STATION IN BACKGROUND