

Project Narrative:

Town of South Boston

South Boston Stormwater Improvement Project

Background:

The Town of South Boston, Virginia is situated on the Dan River 12 miles upstream of the confluence of the Staunton River and the U.S. Army Corps of Engineers Kerr Reservoir. As a developed urban area, South Boston collects and channels storm water runoff through a storm water collection system that covers a densely populated area of 3,245 acres (5 square miles) within its 12 square mile corporate boundary. The storm water collection system consists of 2,096 structures that include inlets, pipes, manholes and detention/retention structures that collect and channel storm water to the Dan River.

Under current rules and regulations, South Boston is not required to have an MS4 Permit (Municipal Separate Storm Sewer System) due to its rural location. Town Council has been forward-thinking and progressive in fulfilling the spirit and intent of the Clean Water Act as it addresses storm water runoff into the Dan River, and South Boston has been aggressive in upgrading and modernizing its expansive storm collection system since 2010. The Town self-funded an extensive storm sewer mapping and inventory study, which led to the development of a CAD computer program. By evaluating and prioritizing the existing storm sewer components, corrective actions have been consistently funded and completed using local general fund tax revenues and VDOT Revenue Sharing Funds. South Boston has invested \$6,409,608 (50% of the revenue sharing project totals) in General Fund revenues in the repair and upgrade of storm sewer pipe and structures.

The Town of South Boston has been adversely impacted by the downturn in the economy since the early 2000's when the local textile industries and furniture industries closed throughout Southside Virginia. The Town has struggled to maintain municipal services at the level it would like to maintain them. However, it has met its Clean Water Act responsibilities as best as local fiscal reality will permit. An increase in the property tax burden on town residents at this time would be debilitating, especially as the people are still recovering from the social and economic impacts of the COVID 19 pandemic and inflation. Federal assistance is needed and justified to meet the critical, yet unfunded, mandates of the Clean Water Act.

Additional improvements to the South Boston storm sewer system will further enhance the treatment and reduction of non-point source pollutants entering the Dan River water shed surrounding South Boston and thereby contribute to the improved quality of water flowing into the Kerr Reservoir. The Dan River, the Staunton River and the Banister River all come together in the eastern point of Halifax County as they flow into the Kerr Reservoir, and then through Lake Gaston in North Carolina which provides drinking water to the City of Virginia Beach. The recreational facilities of Buggs Island Lake (Kerr Reservoir) demand the cleanest water possible as they provide substantial support to the local economy with its attendant state and local taxes.

The Halifax County Service Authority maintains the water and sewer system and is located in parallel with most of the South Boston storm sewer collection system. Quality maintenance of areas common to the two systems is critical.

Needs and Solutions:

N Main Street (Wilkerson to Moore Street)

North Main Street is prone to flooding during rain events. The section of road between Moore St and Wilkerson is the low point and there are very few inlets. The inlets that are there are severely undersized and easily clog as you will see in the attached photos.

Halifax Road (Parcel 7170 to Parcel 22611)

The grated inlet alongside Halifax Rd in front of Halifax Insurance has a large sinkhole adjacent to the structure. Visual inspection confirms that the pipe has collapsed, and it needs to be replaced. The sinkhole will continue to get worse until this has been resolved. The attached photos show the area surrounded by caution fencing.

Intersection of Jefferson and College Street

The intersection of Jefferson & College Street suffer from a lack of inlets upstream of the low point. During rain events a large volume of water comes down Jefferson and flood the low areas on College St. Additional pipe and inlets on Jefferson are needed to reduce flooding. An exhibit and photos are attached.

Westside Mobile Home Redevelopment Project

The Westside Mobile Home Park is a 42-acre blighted mobile home park in town. In May 2022, the Town used ARPA funding to acquire the mobile home park and redevelop it. The park used to have 199 tenants, but over the years only 26 active tenants remained in the park when the Town acquired it. The Town will use their ARPA funding and CDBG grant to redevelop the mobile home park into a new cul-de-sac style subdivision with 40 residential lots for low- and moderate-income renters and first-time homebuyers. The project is fully engineered and designed and bids were accepted on December 3, 2024.

The project consists of combining portions of three (3) parcels and associated rights-of-ways into one parcel totaling 34.36 acres. The parcels will then be subdivided into 42 separate parcels as well as a new right-of-way. 40 of the parcels (Lots 1-13, 15-21, & 23-42 / 11.16 acres) will be developed as residential parcels. Those parcels will have a maximum impervious area of 3,600 square feet each. One of the parcels (Lot 22 / 16.78 acres) will be developed for the stormwater management basin as well as a portion of it will be placed into a Forest/Open Space Agreement (12.29 acres). One of the parcels (Lot 14 / 2.87 acres) will remain as a grassy area. The remaining 3.55 acres will be developed as the new 75' right-of-way.

The development includes, but is not limited to, the construction of an asphalt cul-de-sac with concrete curb and gutter and sidewalk, a waterline, a sanitary sewer system, a storm sewer system, a Level 1 Wet Pond, and the mass grading of the 40 residential parcels.

In the predevelopment condition, the project area generally drains from the northeast to the southwest via sheetflow and shallow concentrated flow to an existing natural channel. In the post development condition, the project area has been subdivided into three separate areas to try and replicate the predevelopment drainage areas / flow characteristics. For P.O.A 1 – Pond, the area drains from the northeast to the southwest via sheetflow, channel flow, and pipe flow to a Level 1 Wet Pond which discharges to a level spreader. For P.O.A. 1 – Bypass, the area drains from the northeast to the southwest via sheetflow, shallow concentrated flow, channel flow, and pipe flow. For P.O.A. 1 – Combined, P.O.A. 1 – Pond & P.O.A. 1 – Bypass were combined to analyze/confirm that the sheetflow discharge from the level spreader will not adversely impact any downgradient properties. For P.O.A 2, the area drains from the northeast to the southwest via sheetflow, channel flow, and pipe flow which discharges to a level spreader. The discharge from the level spreader will not adversely impact any downgradient properties. For P.O.A. 3, the area drains from the northeast to the southwest via sheetflow, shallow concentrated flow, channel flow, and pipe flow which discharges to a level spreader. The discharge from the level spreader will not adversely impact any downgradient properties.

The water quality requirements will be satisfied through a combination of a Level 1 Wet Pond, by placing a portion of the site into a Forest/Open Space Agreement, and by purchasing off-site nutrient credits.

Scope of Work:

In spite of its long-range planning and aggressive approach to complying with clean water regulations, the Town of South Boston needs additional federal assistance to fully comply with the federal Clean Water Act and the Commonwealth of Virginia Stormwater Management Act. Specifically with this application, South Boston was awarded \$2,000,000 in STAG Grant assistance in order to complete the repair/replacement of storm sewer lines and associated appurtenances as follows:

- Install additional inlets and address undersized inlets on North Main Street between Moore St and Wilkerson Street.
- Replace a collapsed inlet and address the associated sinkhole along Halifax Road between Parcel 7170 and Parcel 22611.
- Install additional pipe and inlets on Jefferson Street at the intersection of College Street.
- Install curb & gutter, inlets, storm sewer system, a Level 1 Wet Pond, and associated appurtenances needed at the Westside Mobile Home Park Redevelopment Project.

Budget Narrative:

The Town originally requested 80% (\$3,200,000) of a project estimated to cost \$4,000,000 in April 2022 as follows:

- \$256,000.00 – Preliminary Engineering Phase
- \$60,000.00 – Right of Way and Utilities Phase (easements and acquisition of easements)

- \$3,684,000.00 – Construction Phase (construction, contingencies, VDOT oversight fees, project administration and inspection)
- \$4,000,000.00 – Total Project Cost

The Town was awarded \$2,000,000. The proposed scope of work now entails the following:

N Main Street (Wilkerson to Moore Street)

Budget:

- \$20,474.00 – Contractual: Engineering/Design and Survey
- \$168,750.00 – Construction
 - 1 Mobilization - \$20,000.00
 - 2 Erosion and Sediment Control - \$5,000.00
 - 3 VDOT DI-2 Curb Inlet EA 6 - \$72,000.00
 - 4 Remove and Properly Dispose of Existing Inlets EA 6 - \$18,000.00
 - 5 18" HDPE Pipe Replacement - \$10,000.00
 - 6 Curb and Gutter Replacement - \$3,000.00
 - 7 Sidewalk Repair - \$4,000.00
 - 8 Pavement Aggregate Base/Backfill (57 Stone Backfill) - \$3,750.00
 - 9 Asphalt Paving 6" Min - \$18,000.00
 - 10 Site Restoration - \$15,000.00
- \$16,875.00 – Construction: Contingency (10%)
- \$14,000 – Contractual: Construction Admin/Inspection
- \$3,500.00 – Subaward: Other: Southside PDC (Grant Admin)
- **\$223,599.00**

Halifax Road (Parcel 7170 to Parcel 22611)

Budget:

- \$6,600.00 – Contractual: Engineering/Design and Survey
- \$55,000.00 – Construction
 - Mobilization - \$10,000.00
 - 2 Erosion and Sediment Control - \$5,000.00
 - 3 VDOT DI-2 Curb Inlet - \$12,000.00
 - 4 Remove and Properly Dispose of Existing Inlets - \$3,000.00
 - 6 24" HDPE Pipe Replacement - \$15,000.00
 - 10 Site Restoration - \$10,000.00
- \$5,500.00 – Construction: Contingency (10%)
- \$4,018.50 – Contractual: Construction Admin/Inspection
- \$3,000.00 – Subaward: Other: Southside PDC (Grant Admin)
- **\$74,118.50**

Intersection of Jefferson and College Street

Budget:

- \$37,380.00 – Contractual: Engineering/Design and Survey

- \$311,500.00 – Construction
 - and Sediment Control - \$5,000.00
 - 3 VDOT DI-2 Curb Inlet - \$96,000.00
 - 4 Remove and Properly Dispose of Existing Inlets - \$9,000.00
 - 5 18" HDPE Pipe Replacement - \$20,000.00
 - 6 24" HDPE Pipe Replacement - \$60,000.00
 - 7 Curb and Gutter Replacement - \$4,000.00
 - 8 Pavement Aggregate Base/Backfill (57 Stone Backfill) - \$22,500.00
 - 9 Asphalt Paving 6" Min - \$60,000.00
 - 10 Site Restoration - \$15,000.00
- \$31,150.00 – Construction: Contingency (10%)
- \$26,500.00 – Contractual: Construction Admin/Inspection
- \$3,500.00 – Subaward: Other: Southside PDC (Grant Admin)
- **\$410,030.00**

Westside Mobile Home Redevelopment Project

Budget:

- PE Phase complete
- ROW phase complete
- Bids obtained 12/3/24
- \$1,174,775.00 – Construction: Storm sewer improvements
- \$117,477.50 – Construction: Contingencies (10%)
- **\$1,292,252.50 – EPA Request**

LEVERAGE:

- \$2,205,811.20 – Construction: Street improvements
- \$410,012.30 – Construction: Water improvements
- \$473,046.70 – Construction: Sewer improvements
- **\$3,088,870.19 – Total Leverage (CDBG and Town’s ARPA)**

The Town is requesting pre-award costs for these improvements, as a construction agreement was executed on March 20, 2025 and Notice to Proceed was issued April 21, 2025.

Timeline:

Westside Mobile Home Redevelopment Project	
Issue Notice to Proceed	04/21/25
Substantial Completion	12/17/25
Final Completion	01/17/26
N Main Street (Wilkerson to Moore Street) Halifax Road (Parcel 7170 to Parcel 22611) Intersection of Jefferson and College Street	
Issue RFP for Engineering Services	04/22/25

Accept Proposals	05/06/25
Select Firm	05/30/25
Execute Grant Agreement with EPA	05/30/25
Initiate Engineering/Design and Survey	06/02/25
Finalize Engineering/Design and Survey	09/15/25
Submit Plans/Specs to EPA for Approval	09/22/25
Receive EPA approval of Plans/Specs	10/20/25
Advertise for Bids	10/29/25
Bid Opening	11/25/25
Award Contract	12/08/25
Execute Construction Agreement and/or Pre-Construction Meeting	12/19/25
Issue Notice to Proceed	01/05/26
Construction Completion	07/05/26
Project Close-Out	08/05/26