ENGINEERING SERVICES FOR VARIOUS PROJECTS AND ON CALL SERVICES

for Municipal Association of South Carolina

Prepared By

CRANSTON

Contact:

Project Manager
Thomas Parrott, PE

452 Ellis Street
Augusta, GA 30901
(706) 722-1588

TParrott@cranstonengineering.com

Submitted: October 17, 2022

CRANSTON
CranstonEngineering.com

452 Ellis Street Augusta, Georgia 30901
PO Box 2546 Augusta, Georgia 30903
706.722.1588

October 17, 2022

Jake Broom, Chief Operating Officer
Municipal Association of South Carolina
PO Box 12109
Columbia, SC 29211

Re: Engineering Services for Various Projects and On Call Services

Dear Mr. Broom:

In response to your request for qualifications for Engineering Services for Various Projects and On Call Services, we are pleased to submit the accompanying response for your consideration in the selection of civil engineers for various local governments in South Carolina. As a small business we are dedicated to providing quality services while maintaining an intimate client relationship. At Cranston, we value the development of long-term relationships with clients based on trust.

We are proposing a team of exceptionally qualified professionals that have extensive experience and familiarity with comparable projects, as well as a wide variety of experience in locations throughout both South Carolina and neighboring areas in Georgia. These projects not only represent our ability to complete similar work, but also that we can provide innovative solutions which are sensitive to our client's needs. Our team is differentiated by our direct, relevant experience and our understanding of such design within these environments and is committed to performing all work within the project scope. Additionally, quality assurance oversight will be provided by myself and should Mr. Parrott, the project manager, be unavailable for any reason, I will step in to fill his role in order to keep the project moving and be 100% responsive to the Municipal Association of South Carolina.

Cranston appreciates the opportunity to provide this response and we are excited to work with the Municipal Association of South Carolina. If you have any questions or require any additional information regarding this submittal, please do not hesitate to contact Thomas Parrott or myself at (706) 722-1588 or via email at TParrott@cranstonengineering.com or mmurchison@cranstonengineering.com. I thank you for your time and consideration, and we look forward to your favorable response.

Sincerely,

CRANSTON LLC

Mitchell Murchison, PE, MBA
Principal in Charge

TABLE OF CONTENTS

Technical Approach and Understanding

Every water and sewer project are unique but there are general tasks that must be completed for all projects. These tasks can be broken down into the general categories listed below:

1. Project identification
2. Funding
3. Data gathering
4. Design
5. Permitting
6. Bidding
7. Construction

Project Identification

Identifying a utility project usually occurs because of need or a long-range plan for expansion or maintenance. During the project identification phase, you should review feasibility, alternatives, impacts, and estimated costs. Our role in this phase typically includes completing Preliminary Engineering Reports (PER) and feasibility studies.
This step helps ensure that a project is not only viable but meets the goals that the municipality or stakeholders have for the project.

Funding

Acquiring and recognizing the appropriate funding sources can be a challenge. There are currently many different types that are available and navigating the requirements can be difficult. We have experience with completing grants with many different state and federal sources. Each type of funding comes with specific restrictions and their own requirements. We can help not only in identifying but helping secure financial funding, as well.

Data Gathering

The data gathering phase typically consists of any environmental impact assessments, geotechnical review, and survey. Depending on how much work was completed during the project identification stage, most of the initial design aspects for the utility work should have been identified in the PER or feasibility study.
This phase typically includes any additional discovery or existing data about the project that may be available. This could include any as-builts or other pertinent utility data. If the project has any known permitting challenges with railroads, gas, corps, SCDOT, or other entity we may engage them at this point to ensure that we get enough information in this stage to be able to submit in later stages.

Design

Our experience in design phase of a project is to complete tasks based on the client's desires and milestones. We typical complete a 30% design review with the client after the data gathering is complete to go over any complex or conflicting issues. Next, depending on your needs, we will address any issues and move to a 60% or 90% design stage. At this point we can provide cost estimates, initial specifications, and any other

If any easements are required for a project, we typically complete this during the later stages of the design process unless there are major concerns about obtaining an easement from an owner. We can complete these services to the level that is required by you, the client. We have worked with property acquisition companies on previous projects to obtain easements and with the local right-of-way agents within the municipal staff. We typically provide easement platting services for our clients.

Permitting
Once the final design is near the final stage, we will engage with any permitting authorities to ensure that reviews are completed in a timely manner. These typically include SCDOT, SCDHEC, and local issuing authorities. Additional permitting or regulations may need to be engaged, and depending on the funding source, obtain other regulatory reviews. We prefer to get all known regulatory reviews underway as soon as possible to start the dialogue and ensure that potential delays are minimized.

Bidding
After the permitting is complete and all design changes have been made, we will finalize plans and create the bid documents. We can provide the level of service required for your bidding to include advertisement and award. At the conclusion of bidding, we can provide award letters and execute the contract documents with the lowest stet responsible bidder.

Construction
The final phase of any project is the construction and start-up. Cranston typical approach to construction is to have open and complete accountability during the process. Depending on the complexity of the project, it may require weekly or monthly progress meetings. Our services we have provided in the past have included full daily construction inspections and progress reports to minimal site oversight.

We will work with you to the level that you want us to ensure that proper documentation for change orders, submittals, any funding requirements, and other documentation is completed and provided as required. At the conclusion of the project, we will ensure that all the closeout items are complete, including any required permitting finalization for regulatory agencies.

All projects and clients are different, but we strive to deliver on all our projects with fresh ideas, a desire to improve our communities, and to meet our clients' expectations. The Cranston team is equipped and ready to help the Municipal Association of South Carolina with this project.

WORK MANAGEMENT PLAN/EXPERIENCE OF PROPOSED PERSONNEL

MASC
Municipal Association of South Carolina℠

Matt Randall, PE* ●
Coastal Project Manager

Thomas Parrott, PE* ●
SC Midlands Project Manager

Mitchell B. Murchison, PE, MBA* ●
Principal in Charge

Megan Smith, PE* ●
Coastal Assistant
Project Manager

Ryan Sheridan, PE* ●
SC Midlands Assistant
Project Manager

Augusta Office ●

Charleston Office ●

*Please find relevant project resumes of key staff on the following pages.

CIVIL ENGINEERING SERVICES

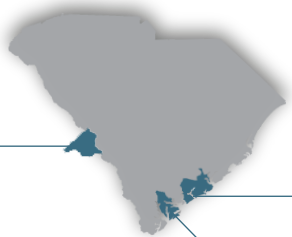
Mitchell O'Neal, PE ●
Hydrology/Hydraulics Lead
Penland Mayson, EIT ●
Engineering Support
Andrew Deltac, EIT ●
Engineering Support
Alyssa Knight, EIT ●
Engineering Support

SURVEY SERVICES

John Attaway, RLS ●
Survey Manager
Goran Peric, RLS ●
Senior Survey Crew

3 *office locations*

AUGUSTA OFFICE



CHARLESTON OFFICE

HILTON HEAD OFFICE

THOMAS PARROTT, PE

SC Midlands Project Manager

EDUCATION
Bachelor of Science in Civil and Enviromental Engineering
University of South Carolina, 2013

PROFESSIONAL REGISTRATIONS
Professional Engineer:
Georgia No. 044285
South Carolina No. 35276

PROFESSIONAL AFFILIATIONS
Southeast Stormwater Association (SESWA)
Association of State Dam Safety Officials (ASDSO)
American Society of Civil Engineers (ASCE)

Mr. Parrott is a Regional Project Manager assigned to the South Carolina midlands region. His engineering and design experience has focused on utility planning and design for municpalities with additional work experience on large stormwater drainage rehabilitation projects and construction management with a working knowledge of GIS database creation, modeling, and design software.

Selected projects that represent his experience include the following:

Aiken Northside Interchanges - Land Use and Utility Plan, Aiken, SC. Project Manager for development of a land use and utility plan to provide the City Engineering and Utilities Manager and the City's Administrator with a scenario of future land use of two interchanges on Interstate 20 in Aiken County at Edgefield Highway and Highway 1. This plan included a review of the utility infrastructure needs for the City's water and utility service area in the study area and then to extend additional services by a developing a phased utility plan based on the land use scenario that will be used in the short and long term development of the utility infrastructure around these interstate interchanges.

Augusta Corporate Park Water and Sewer Design, Augusta, GA. Project Engineer for design of a new 12" waterline to extend approximately 11,000 linear feet parallel to a new access road and 11,500 linear feet of 4" and 6" sanitary force main in the Augusta Corporate Park. Compiled the required data, wrote and submitted a U.S. EDA grant application to the Department of Commerce to supplement AUD funding of the construction of the utilities. The grant application included extensive coordination between local and federal agencies to comply with the requirements of the grant.

Highway 1 Parrallel Sewer, Aiken, SC. Project Manager for 12,000 linear feet gravity sewer project that was developed as part of the City of Aiken Northside Interchange study. Work completed included a preliminary engineering report (PER) and successful application of a grant from SC Rural Infrastructure Authority, design and construction of sewer line along a utility congested corridor and major highway crossing.

John De La Howe Site Improvements, McCormick County, SC. Civil Engineer for fire service line improvements of an outdated fire hydrant system for the John De La Howe School campus in McCormick County, South Carolina. The work included completing the preliminary engineering of the existing system and inventory then provide recommendations and design for a new 4,000 feet fire service line that include hydrants and new building connections to meet current fire code requirements.

South Carolina 19 Water Line Extension, Aiken, SC. Project Manager for 2,400 linear feet of water line extension project to provide service to a new service area. Work included application and supporting documents for the extension of the water district in Aiken County and design of water line along and under Interstate 20 at SC 19 that will serve a large regional development.

Wynngate Tributary Sanitary Sewer Relocation Study, Columbia County, GA. Project Engineer for a project that provided surveying and engineering services for Wynngate Tributary Sewer, including a field investigation, preliminary mapping, plan and GIS review, and feasibility study for the potential sanitary sewer stabilization and/or relocation of the approximately 6,500 LF of adjacent 8" and 10" sewer trunk main.

MATTHEW RANDALL
Coastal Project Manager

EDUCATION
Bachelor of Science in Civil Engineering
Roger Williams University, 2000

PROFESSIONAL REGISTRATIONS
Professional Engineer
South Carolina No. 24749

PROFESSIONAL AFFILIATIONS
American Society of Civil Engineers
Charleston Metro Chamber of Commerce
Urban Land Institute

Matthew Randall is a Charleston Office Manager and Project Manager for Cranston LLC for the Civil Engineering Department. He joined the firm in 2017 as a project manager responsible for the design and delivery of civil engineering projects from the Charleston, South Carolina Regional Office. Mr. Randall has over 20 years of management and design experience in residential, commercial and industrial planning and site design. He has experience working directly with clients in the public and private sectors, as well as agencies on the local, state and federal levels.

Selected projects that represent his relevant experience include the following:

Beaufort County Indefinite Delivery Contract (IDC), Beaufort County, SC. Project Manager for an IDC with work to include professional engineering services associated with feasibility studies, research, comprehensive planning, surveying and mapping, site, roadway and utility design and specifications, permitting, program management, value engineering, bidding assistance and construction administration. Served as client manager and quality control for the Shell Point Drainage Improvement Study to evaluate the current condition and capacity of the stormwater drainage facilities associated within the Shell Point Park area in Port Royal, SC. The study investigated the causes of localized flooding and provided recommendations for the improvement thereof. Worked closely with county staff to compile GIS data, design, and as-built surveys of the existing system, and supplemented missing data with field evaluation and survey.

Mount Pleasant Facilities Assessment, Mount Pleasant, SC. Project Manager for a project that conducted a Facility Condition Assessment of 151 facility assets (buildings and site-related features) owned and managed by the town of Mount Pleasant. The buildings which are the subject of the assessment have a combined gross floor area of 203,320 square feet. Cost estimates were calculated for maintenance, repair, and replacement of inventoried facility and site infrastructure components over a thirty (30) year study period.

Town of Bluffton IDC - Bluffton, SC. Served as Client Manager and civil engineering quality control for our contract including Posey Court, Old Town Phases 1 & 2, Bridge, Pritchard, Colcock, Lawrence, Green and Water Street sewer extensions, Wright Family Park, Simmonsville Road sidewalk extension, Bluffton Law Enforcement Center Parking, AME Church, Prichard & Bridge Street Streetscape and drainage projects. Project scopes include surveying, site planning, tree preservation, erosion control, traffic control, stormwater treatment and detention, new utility design, grading, paving, hardscaping, cost estimating, and landscape coordination.

Sea Pines Roadway and Drainage, Hilton Head, SC. Project Manager for the Greenwood Drive, North Sea Pines Drive, & Lighthouse Roadway, drainage and multi-use trail reconstruction and resurfacing project. Planning and design included infrastructure evaluation, intersection analysis, phased traffic control options, public involvement with multiple property owner associations and businesses, resiliency, pavement design analysis, stormwater conveyance, treatment and retention improvements, bidding assistance and construction management. Evaluations and cost estimates for infrastructure improvements were calculated for the next 25

MITCHELL B. MURCHISON, PE, MBA
Principal in Charge

CRANSTON

EDUCATION
Bachelor of Science in Engineering with Specialization in Environmental Engineering
Mercer University, 2006

Masters of Business Administration
University of South Carolina, 2013

PROFESSIONAL REGISTRATIONS
Professional Engineer:
Georgia No. 35685
South Carolina No. 31403

Georgia Environmental Protection Division
Certified Erosion Control Designer, Level II Certification ID 46296

PROFESSIONAL AFFILIATIONS
Water Environment Federation
Georgia Association of Water Professionals
Exchange Club of Augusta
Southeast Stormwater Association
Leadership Columbia County Class of 2015
National Society of Professional Engineers
Georgia Society of Professional Engineers
Association of State Dam Safety Officials

Mitchell Murchison is Manager of the firm's Municipal and Transportation Design Groups. His engineering experience with Cranston LLC has been comprehensive, including projects such as storm drainage, road improvements, site developments, land subdivisions, levee certifications, recreational park complexes, lake marina, railroads, golf courses, pumping stations, water works and wastewater systems. Mr. Murchison is experienced at working with multi-disciplined design teams comprised of consultants such as architects, environmental experts, surveyors, structural engineers, traffic engineers and other outside specialists for major municipal and transportation projects.

Selected projects that represent his experience include the following:

Pole Branch Remediation, North Augusta, SC. Principal in Charge for initial design and engineering services to include approximately 5,100 feet of open channel improvements, including horizontal separation from existing sanitary sewer main.

Fort Gordon Raw Water System, Augusta, GA. Project Engineer for the design and permitting for approximately 32,000 linear feet of 18", 12", and 10" raw water main to establish a dedicated base wide irrigation system. This new system allowed the Fort to utilize raw water instead of potable for irrigation purposes.

Alternate Downtown Water Feed, Augusta, GA. Project Manager for the design and surveying services for an alternate water feed to downtown Augusta, GA. The line is redundant to the 1898 24" cast iron pipe in Wrightsboro Road, and the alternate feed is approximately 12,600 linear feet of 24" pipe. This project is part of the 2014 CIP Bond Projects.

Reed Creek & Wynngate Tributary Sanitary Sewer Relocation Studies, Columbia County, GA. Project Manager for a project that provided surveying and engineering services for Reed Creek Sewer, including a field investigation, preliminary survey, plan and GIS review, and concept report services for the sanitary sewer relocation of the two adjacent 18" and 24" trunk mains. Provided surveying and engineering services for Wynngate Tributary Sewer, including a field investigation, preliminary mapping, plan and GIS review, and feasibility study for the potential sanitary sewer stabilization and/or relocation of the approximately 6,500 LF of adjacent 8" and 10" sewer trunk main.

Augusta Corporate Park – Water & Sanitary Sewer Extension, Augusta, GA
Principal in Charge for water and sanitary sewer extensions into the Augusta Corporate Park. Service areas and capacities were established through hydraulic modeling using forecasted water and sewer demands of the proposed industries. Approximately 11,000 linear feet of 12-inch diameter water main will extend along Valencia Way to provide water service and fire protection. Given the limited access to gravity sewer in the project vicinity, a sanitary sewer lift station is required to pump effluent from the lower elevations of the development to existing public gravity sewer. Design specifics include pumping systems that can serve a range of flow conditions given the varied timing of build-outs and growth in the Corporate Park. Approximately 11,250-linear feet of force main is required to convey effluent to the receiving gravity sewer system. Cranston provided detailed engineering support and cost estimating services to the Augusta Utilities Department and the Augusta Economic Development Authority as part of a grant application for infrastructure funding.

RYAN SHERIDAN, PE

SC Midlands Assistant Project Manager

CRANSTON

EDUCATION

Bachelor of Science in Civil Engineering -
The University of New Hampshire, 2016
Certificate in Project Management
The University of New Hampshire, 2016

PROFESSIONAL REGISTRATIONS

Professional Engineer:
Georgia No. 047592
South Carolina No. 39320

Georgia Soil and Water Conservation Commission
Certified Design Professional, Level II, No. 0000081532

PROFESSIONAL AFFILIATIONS

Southeast Stormwater Association

Mr. Sheridan is a Project Manager assigned to the company's Municipal Design Group. His design experience covers six years and includes work for Cranston beginning in 2017. His experience with Cranston includes work for local municipalities and architects in projects such as water and sanitary sewer utilities, stormwater and roadway improvements, and site plans for municipalities. Prior engineering experience includes land surveying and private development.

Selected projects that are representative of his experience include:

Augusta Corporate Park Industrial Lead Track, Augusta, GA. Project Engineer for the design and permitting of an Industrial Lead Track to service tenants of the Augusta Corporate Park. This 2-mile track switches off Norfolk Southern's (NS) Main Line and runs uphill approximately 2 miles to a small rail yard to service the park's tenants. A USACE Nationwide permit will be required for the rail's impacts associated with a wetland crossing.

John De La Howe Site Improvements, McCormick County, SC. Civil Engineer for fire service line improvements of an outdated fire hydrant system for the John De La Howe School campus in McCormick County, South Carolina. The work includes completing the preliminary engineering of the existing system and inventory then provide a recommendation and design for a new 4,000 LF fire service line to include hydrants and new building connections that meet current fire code requirements.

Saluda County Road Improvements 2021, Saluda County, SC. Project Engineer providing design and bidding services along with dirt to pave and pavement rehabilitation plans and specifications for the improvements on Gwen Road, Melvin Road, Alamo Circle, Old Chappell Ferry Road, South Windood Acres Road, and Adams Acres Road. Improvements included dirt to pave, roadway widening, asphalt overlay, full depth asphalt pavement patching and cement modified recycled base (CMRB). Engineering services also included geotechnical engineering, pavement evaluation and design, drainage end treatments and maintenance, bidding assistance, construction engineering and inspections, data gathering, preliminary design, and final engineering design.

Edgefield County Roadway Improvements 2017, Edgefield County, SC. Project Engineer conducting construction administration as part of the team serving as Engineers of Record for the Edgefield County Transportation Committee under a two-year on-call contract for any and all of the County's transportation design needs. Contract projects provided pavement rehabilitation plans and specifications for the improvements in Stephens Mill neighborhood (Stephens Mill Drive, Stephens Mill Court, Bakers Branch, and Long Drive), Ridge Road, Pin Oak Drive, and Murrah Road Extension. Improvements included asphalt overlay, full depth asphalt pavement patching and cement modified recycled base (CMRB). Engineering services also included geotechnical engineering, pavement evaluation and design, drainage end treatments and maintenance, bidding assistance, construction engineering and inspections, topographic surveying, data gathering, permitting, preliminary design, and final engineering design.

MEGAN E. SMITH, PE, MSPM

Coastal Assistant Project Manager

Megan Smith is a Project Manager in the Civil Engineering Department for Cranston LLC. She joined the firm in August 2021 and is responsible for the design and delivery of civil engineering projects from the Charleston, South Carolina Regional Office. Mrs. Smith has over 12 years of management, design, and construction experience in residential, commercial, municipal, and industrial projects in South Carolina. She has experience working directly with clients in the public, and private sectors, as well as agencies on the local, state, and federal levels. During her time with Charleston County Public Works, Ms. Smith gained extensive knowledge of public and private funding sources, grant contracts, applications, and requirements.

Selected projects that represent her experience include the following:

Mount Pleasant Facilities Assessment, Mount Pleasant, SC. Civil Engineer for a project that conducted a Facility Condition Assessment of 151 facility assets (buildings and site-related features) owned and managed by the town of Mount Pleasant. The buildings which are the subject of the assessment have a combined gross floor area of 203,320 square feet. Cost estimates were calculated for maintenance, repair, and replacement of inventoried facility and site infrastructure components over a thirty (30) year study period. (2021)

Spring Gully Community Drainage Improvement Study, Georgetown County, SC. Served as Transportation Engineer for the Spring Gully Community Drainage Improvement Study to evaluate the current condition and capacity of the stormwater drainage facilities associated within the Spring Gully/Lincolnshire area in Georgetown County, SC. The study investigates the causes of localized flooding and provides recommendations for the improvement of the existing stormwater infrastructure.

Pritchard Street Drainage Improvements, Bluffton, SC. Project Manager for the design and permitting of improvements to alleviate nuisance flooding for residential properties along Pritchard Street, and for controlling offsite drainage from M.C. Riley Elementary.

Pole Branch Remediation, North Augusta, SC. Project Manager for initial design and engineering services to include approximately 5,100 feet of open channel improvements, including horizontal separation from existing sanitary sewer main.

North Sea Pines Drive Improvements, Hilton Head, SC. Project Manager for the construction of 1.25 miles of roadway and leisure trails, reconstruction, and resurfacing project. Design included infrastructure evaluation, intersection analysis, phased traffic control, construction administration, public involvement, cost and schedule management, pavement design analysis, and stormwater improvements.

Bridge Street Streetscape, Bluffton, SC. Project Manager for the redesign of an SCDOT roadway including on-street parking, pedestrian accommodations, and resurfacing. In addition, stormwater improvements for Bridge Street and surrounding areas are proposed as part of the master drainage plan for the Town of Bluffton, and to serve as an example for implementation of the Southern Lowcountry Stormwater Design Manual (SoLoCo).

EDUCATION

Bachelor of Science in Civil Engineering
The University of South Carolina, December 2010

Masters of Science in Project Management
The Citadel, May 2018

Graduate Certificate in Technical Project Management
The Citadel, May 2018

Graduate Certificate, Leadership
The Citadel, August 2018

PROFESSIONAL REGISTRATIONS

Professional Engineer:
South Carolina No. 38607
Georgia No. 047705

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
Project Management Institute
Institute of Transportation Engineers
The Honor Society of Phi Kappa Phi
American Public Works Association

EXPERIENCE OF THE FIRM

CRANSTON

CIVIL ENGINEERING
- Site Design
- Water Works
- Wastewater Systems
- Storm Drainage
- Transportation
- Roadway Design
- Land Development
- Residential Communities
- Dams & Reservoirs
- Levees
- Flood Plain Studies
- Waterfront Development
- Parks & Recreation Facilities
- Sports Facilities
- Streetscape Beautification
- Downtown Revitalization
- Historic Rehabilitation
- NPDES Inspections
- Geographic Information Systems

STRUCTURAL ENGINEERING
- Higher Educational Facilities
- Churches
- Medical Facilities
- Athletic & Recreational Facilities
- Telecommunications Towers
- Military Facilities
- Residential Structures
- Dams
- Marine Structures
- Historic Rehabilitation
- Retaining Walls
- Government Buildings
- Industrial & Manufacturing Facilities
- Vehicular Bridges
- Pedestrian Bridges
- Building Assessments
- Underwater Investigations

PLANNING
- Public Participation
- Regional Plans
- Land Use Plans
- Facility Plans
- Feasibility Studies

LANDSCAPE ARCHITECTURE

LAND SURVEYING
- Boundary Surveys
- ALTA/ACSM Surveys
- Topographic Maps
- Cadastral Surveys
- Subdivision Surveys
- Volume Measurements
- Hydrographic Charting
- Wetlands Mapping
- Global Position (GPS) Surveys
- GIS Data Collection
- 3D Point Cloud Creation
- Monitoring Well Surveys
- Property Research

CRANSTON, headquartered in Augusta, GA, has been leveraging its diverse civil and structural engineering, landscape architecture, planning, and surveying expertise for more than half a century in communities across the heart of the Southeast.

Over the years, the firm has built a successful legacy as a trusted partner in leading collaborative, transformative change, and guiding its project partners and communities through even the most complex infrastructure challenges.

The CRANSTON team shares a wealth of experience—from planning new residential communities, maintaining historic canal systems and dams, and designing sustainable parks and other recreational infrastructure, to serving municipalities, improving educational systems, expanding hospital facilities, and upgrading roads and bridges.

It's a collective experience that allows the team to collaborate confidently with the firm's long-term project partners—partners who share CRANSTON's community-driven mission—to design infrastructure solutions with a level of collaborative excellence that combines creativity, innovation, sustainability, and integrity.

CRANSTON grew out of a merger in 1967 between Baldwin Engineering Company and Cranston Associates. The combined firm, headed by CRANSTON founder Craig Cranston, became Baldwin & Cranston Associates and, eventually, CRANSTON.

The fast-expanding CRANSTON team, currently at more than 70 professionals, now serves its project partners and communities throughout the heart of the Southeast from its offices in Augusta, GA, Charleston, SC, and Hilton Head, SC.

Augusta Office
452 Ellis Street
Augusta, GA 30901
706.722.1588

Charleston Office
2000 Daniel Island Drive,
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Charleston, SC 29492
843.352.7770

Hilton Head Office
14 Westbury Park Way,
#202
Bluffton, SC 29910
843.815.3191

CranstonEngineering.com

CRANSTON

SC-19 WATERLINE EXTENSION

AIKEN, SOUTH CAROLINA

DESIGNED
2021

CONSTRUCTED
2022

CLIENT
The City of Aiken, SC

CONTACT
Michael C. Przybylowicz
Director of Engineering and Utilities
803-642-7610

KEY PERSONNEL
Thomas Parrott, PE
Penland Mayson, EIT

PROJECT COST
$1.5 million

The City of Aiken Engineering and Utilities selected Cranston to design, permit, and provide construction management services for a 12-inch water line extension along SC-19 in Aiken County. The project includes an extension under Interstate 20 from a 200-foot bore to Edgefield Highway (SC-19). The water line is part of a larger growth plan to extend water and sewer services to the north of the City of Aiken.

This waterline along with some additional infrastructure that is being put in place, will provide opportunities to develop the Interstate Exit 18 and the larger region for future growth. This extension includes a loop system along Shiloh Church Road that will provide redundancy and opportunities for continued expansion of the service area for the city. The overall utility improvement plans that included this project were developed as a part of the Northside Interchange Land Use and Utility Study that Cranston developed for the City of Aiken.

Cranston's services included all planning, permitting, design, bidding, and construction services. We also completed the easement plats and coordination with the developer and land owner to ensure that the water services expansion would continue within the development to maximize the City's investment.

CRANSTON

JOHN DE LA HOWE WATERMAIN IMPROVEMENTS

MCCORMICK, SOUTH CAROLINA

DESIGNED
2019

CONSTRUCTED
2020

CLIENT
John de la Howe School

CONTACT
Ken Durham
John de la Howe School
864-391-2131

KEY PERSONNEL
Thomas Parrott, PE
Ryan Sheridan, PE
Mitchell Murchison, PE

PROJECT COST
$200,000

This project for the John de la Howe School for Agriculture in McCormick, South Carolina consisted of assessing the campus' existing fire protection system and determining whether to repair the existing system or construct a new system. The campus stopped taking students years ago with the intent to upgrade facilities. The completion of this project was necessary for re-opening to a class of students this fall. Construction concluded in July and we are proud to have met that deadline.

The existing system consisted of 6" asbestos cement pipes and was pressurized by a water tower fed from the campus' potable water supply. Since the potable water supply is metered, the cost to fill the tower is very expensive. We met with McCormick County Water and Sewer to discuss the possibility of making a new separate tap off the County's 6" water main strictly for fire service. We tested hydrants on both sides of the new tap location to ensure adequate pressure and flow. We then determined that a new separate tap and entirely new system was the best option due to the high cost of repairing the water tower and the unknown condition of the existing fire hydrants and lines.

The new system consisted of a new 6" tap that was installed by McCormick County, a 6" double detector check valve assembly installed in a concrete vault, approximately 4,000 LF of 6" restrained joint PVC pipe, six fire hydrant assemblies and 6" service connections to provide fire protection for three buildings.

Design services included preparing plans, specifications and contract documents. Bidding services included conducting a pre-bid meeting, bid opening and advising the owner on selecting a contractor. Construction services including conducting a pre-construction meeting, submittal reviews, weekly status meetings, construction inspections and pay application review. This project was overseen by the South Carolina Office of State Engineer.

CRANSTON

AUGUSTA CORPORATE PARK UTILITY EXTENSION

AUGUSTA, GEORGIA

DESIGNED
Currently In Design

CONSTRUCTED
Targeted Start in Fall 2022

CLIENT
Augusta Economic Development Authority (EDA)

Augusta Utilities Department (AUD)

CONTACT
Cal Wray (EDA)
706-204-5610
cwray@augustaeda.org

Wes Byne, PE (AUD)
706-312-4154
wbyne@augustaga.gov

KEY PERSONNEL
Tom Dunaway, PE
Mitchell Murchison, PE
Thomas Parrott, PE
Penland Mayson, EIT

The Augusta Corporate Park Utility Extension project involves the design of new water and sanitary sewer systems to serve the Augusta Corporate Park, which is located along Valencia Way on Highway 56 South in Augusta, Georgia. Initial planning efforts included forecasting water and sewer demands for the proposed industries to establish service areas and capacities. Cranston also led the planning effort to establish utility corridors within the new right-of-way so that all public and private utilities were allocated space for future access.

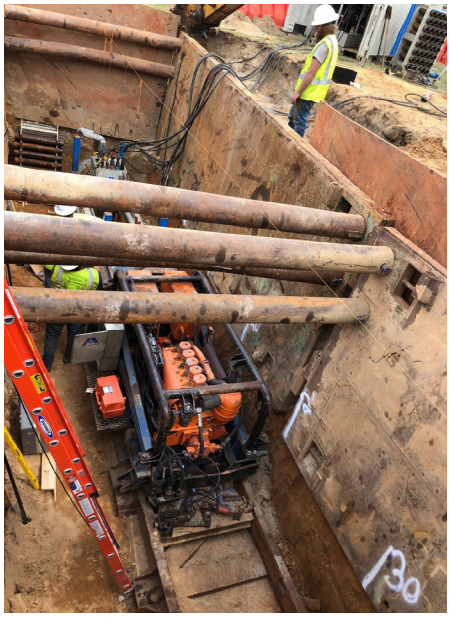
Cranston design a new sanitary sewer lift station to convey effluent from Augusta Corporate Park to the closest existing gravity sewer system along Horseshoe Road. The contributing gravity sewer system will collect and convey flow from future developments to the lift station. Force main will extend north from the lift station to the existing gravity sewer main on Horseshoe Road. Hydraulic calculations established the operating conditions for the proposed pump station. Specific attention was directed to the timing of the proposed developments and wastewater contributions as pump components may need to be changed as Augusta Corporate Park expands.

In addition to the utility design services, Cranston is providing grant administration support, field surveying and mapping, and roadway design.

CRANSTON

HWY 1 PARALLEL SEWER

AIKEN, SOUTH CAROLINA



DESIGNED
2020

CONSTRUCTED
2020-2021

CLIENT
City of Aiken Engineering and Utilities

CONTACT
Michael C. Przybylowicz
Director of Engineering and Utilities
803-642-7610

KEY PERSONNEL
Thomas Parrott, PE
Ryan Sheridan, PE

PROJECT COST
$800,000

Highway 1 Parallel Sewer was one of the initial projects completed as part of the Northside Interchange Land Use and Utility Plan for City of Aiken Economic Development. The City of Aiken has a large industrial park adjacent to the municipal airport that has seen continued growth and needed additional capacity to meet its growing demands to process water.

This project addressed the needs of the growing plant and expanded the city's service north of I-20 that. This project along with several other large sewer and water projects positions the City of Aiken to handle growth at both intersection interchanges with some exciting projects on the horizon.

Cranston completed a preliminary engineering report and work to help secure a SC RIA grant for the project.

Design services included preparing, plans, specifications and contract documents. Bidding services included completing a pre-bid meeting, bid opening and advising the owner on selecting a contractor.

Cranston oversaw the construction of the work in a crowded utility corridor adjacent to the airport. We completed bi-weeekly construction meetings and regular field visits. The project was completed on time and within budget during the middle of the COVID-19 pandemic.

CRANSTON

NORTHSIDE SANITARY SEWER TRUNK MAIN

AIKEN, SOUTH CAROLINA

DESIGNED
Currently In Design

CONSTRUCTED
Targeting Summer 2022 start

CLIENT
City of Aiken, SC

CONTACT
Michael C. Przybylowicz
Director of Engineering and Utilities
803-642-7610

KEY PERSONNEL
Thomas Parrott, PE
Tom Dunaway, PE
Mitchell O'Neal, PE

PROJECT COST
Estimated: $5.5M

The City of Aiken's Northside Sewer Project includes approximately 20,400 linear feet of 18" and 24" gravity sewer main. The proposed 24" alignment extends north from the Shiloh Heights Pump Station to the Verenes Lift Station along Windham Drive. The 18" main extends north along a former railroad corridor from the 24" main to Gregory Road just north of Interstate 20. The proposed gravity main will allow the City of Aiken to extend public sewer into unserved, but growing areas. The project will also allow Aiken to decommission the Verenes Lift Station, which is at capacity and has exceeded its functional life. Cranston completed a feasibility study to evaluate alternate sewer alignments to minimize private property impacts and to establish the most cost effective route.

The proposed sewer alignment generally follows Shaw's Creek and remains within City of Aiken property for the majority of the route. Care was taken to mitigate wetland and stream impacts. A jack or bore installation is required at the crossing of Reynolds Pond Road. The crossing of Shaw's Creek requires detailed analysis to provide sufficient cover below the creek bed. Specific design focus is directed to the gravity connection to the Shiloh Pump Station, which must remain active throughout the installation. Permitting through Aiken County, South Carolina DHEC, and Corps of Engineers is required.

CRANSTON

TOWN OF BLUFFTON, SOUTH CAROLINA INDEFINITE DELIVERY CONTRACT

BLUFFTON, SOUTH CAROLINA

DESIGNED
2017 - Present

CLIENT
Town of Bluffton, SC

CONTACT
Patrick Rooney, RLA
Project Manager
843-706-4521
prooney@townofbluffton.com

KEY PERSONNEL
Matthew E. Randall, PE, LEED-AP
Jake R. Eavenson, PE, SE
James B. Cranford, Jr., PE
Megan Smith, PE
Andrew Deltac, EIT
Patrick Goode, EIT

Cranston is one of three firms selected for an IDC with work to include professional engineering services associated with feasibility studies, research, comprehensive planning, civil, site, roadway, walkway, park, grading, drainage and utility design and specifications, permitting, program management, value engineering, bidding assistance and construction administration.

Bridge Street Streetscape
This redevelopment project involves design of roadway features including on-street parking and pedestrian sidewalks. In addition, stormwater improvements for Bridge Street and surrounding areas are proposed as part of the master drainage plan for the Town of Bluffton and to serve as an example for implementation of the Southern Lowcountry Stormwater Design Manual. Stormwater improvements include the design of underground detention chambers, a vortex separator, and multiple infiltration trench BMPs. Preliminary water quality calculations for each BMP included removal of phosphorus, nitrogen, fecal coliform, TSS, and freshwater removal. BMP design and water quality calculations were utilized in grant application documents including DHEC South Carolina Nonpoint Source Program 319 Grant.

Wright's Family Park
Project includes civil engineering design, regulatory permitting, bidding assistance and construction management for a new waterfront park with direct access to the May River. Improvements of new pervious on street parking, tree preservation, erosion control, stormwater treatment and detention, new utility connections, site planning, grading, paving, hardscaping, and landscape enhance this community landmark. Stormwater improvements include the design of bottomless inlets, infiltration trenches and a low impact conveyance system with low and high flow discharge points. Stormwater calculations included runoff reduction, removal of phosphorus, TSS, and freshwater removal.

Law Enforcement Center
Project includes civil engineering site design, regulatory permitting, bidding assistance and construction management for the Town of Bluffton's new Law Enforcement Center located on Progressive Street in the Buckwalter Place. The site design included a new parking lot with security fence & automated electronic gates, erosion control, stormwater conveyance, site planning, grading, paving, hardscaping, and landscape. The site is currently under construction and the town has requested Cranston to begin phase 2 of the parking lot expansion.

Simmonsville Road Sidewalk Phases 6A & 6B This project involves the design of approximately 4000LF of new sidewalk along Simmonsville Road (State Rd S-7-474). The project includes close coordination with SCDOT, the Town and utility providers. The project not only increases pedestrian connectivity in the area, but also improves stormwater conveyance, accessibility and roadway safety. The low Bids for first phase of the project were within 5% of each other and the engineer's cost estimate coming in under $300,000.00

Historic District Sanitary Sewer Extension Phases 1-6 Project includes the civil engineering design, regulatory permitting, bidding assistance and construction management for approximately 2,400 LF of new sanitary sewer main. The new main will be a combination of gravity main and force main extended to eliminate existing residential septic systems in close proximity to the May River. The project limits are within the town of Bluffton along the southern portion of Pritchard Street from the intersection of Tabby Shell Road crossing Bridge Street and serving all properties to the May River.

CRANSTON

GEORGETOWN COUNTY INDEFINITE DELIVERY CONTRACT

GEORGETOWN COUNTY, SOUTH CAROLINA

DESIGNED
2022

CLIENT
Georgetown County

CONTACT
Tracy Jones
Stormwater Division Manager
843-545-3524
gtc.stormwater@gmail.com

KEY PERSONNEL
Matthew E. Randall, PE, LEED-AP
Megan Smith, PE
Andrew Deltac, EIT
Patrick Goode, EIT
John T. Attaway, RLS
Goran Peric, RLS

Georgetown County Comprehensive Roadway Design & Engineering, IDIQ
Cranston was selected by Georgetown County to provide survey, geotechnical, environmental documentation & permitting, right of acquisition services, roadway design, stormwater management planning and drainage improvements, utility coordination and construction administration, engineering and inspections for various locally funded roadway projects within the county.

Pond Road Stormwater Analysis
The Cranston team provided engineering and sampling services to complete the Pond Road stormwater analysis and report for the project area located along Pond Road. Tasks included multiple site visits, extensive document, GIS and as-built plan reviews, hydraulics and hydrology modeling and analysis, stormwater sampling and analytical services to develop a comprehensive report. The report identifies pre-development versus post development stormwater conveyance changes due to the Pond Road drainage improvements, responds to stakeholder concerns and provides detailed exhibits to explain the results in a public forum.

Spring Gully Community Drainage Improvements
Spring Gully encompasses approximately 60 acres of residential homes and secondary roads. The current drainage is dependent upon side and backyard drainage ditches to convey runoff from the road to the ultimate receiving water body. The current drainage system is blocked and little or no maintenance of the side and backyard ditches is possible due to the lack of easements. This lack of maintenance has led to the deterioration of the road beds causing multiple potholes and significant cracking in the asphalt. The Cranston team is providing surveying, engineering ,permitting and construction administration services to complete the Spring Gully watershed study, roadway and stormwater improvements. Tasks include roadway and ditch surveying, easement exhibit preparation, grant coordination, wetland delineation and permitting, hydrologic and hydraulic analysis, roadway and stormwater design, construction document preparation, regulatory permitting through the county, SCDHEC, OCRM, USACE and local utility providers, bidding assistance and construction

FAMILIARITY WITH FEDERAL FUNDING REQUIREMENTS

Cranston's experience with grant funding includes coordinating and overseeing program management of grant writing, administration, and related services for capital projects utilizing state and federal funds for capital projects and economic development. We were responsible for maintaining the requirements of the grant by communicating and coordinating with agencies, municipalities, and economic development organizations to ensure that the projects are being completed on time and within the desired parameters of the client and stakeholders. We have overseen a portfolio of capital projects through the entire grant funding process for the client from identification to completion.

Examples of projects completed with federal funding:

- Williamsburg Streetscape: CDBG
- City of Aiken Northside Sewer: Appropriations
- Highway One Parallel Sewer: RIA Grant
- Amerson River Park: FHWA - GDOT
- Ocmulgee Heritage Trail: FHWA - GDOT
- Amerson Connector Trail: FHWA - GDOT
- Augusta Corporate Park: Georgia Ready for Accelerated Development (GRAD) Program understanding and familiarity with the funding requirements.
- Pole Branch: Natural Resources Conservation Service's (NRCS) Emergency Water Shed Protection (EWP) program
- Town of Bluffton IDC: 319 Stormwater Grant
- Georgetown County IDC: CDBG

ADDITIONAL INFORMATION

WHY CHOOSE CRANSTON?

We continue to evolve to meet the growing needs of industry and connectivity. Our team understands the many challenges that can arise within any project and have overcome those challenges to provide innovative, functional, and safe design solutions for our clients that add value to the towns, cities and counties we work with. We work diligently to ensure Cranston stands out from the crowd by delivering projects that meet expectations, and are produced in a cost effective and timely way.

OUR CLIENTS COME FIRST

At Cranston, we value development of long term relationships with clients based on trust. Our success depends on the success of our clients, through meeting their needs and delivering a successful product.

50 YEARS EXPERIENCE – OUR REPUTATION PRECEDES US

Since our founding in 1967, we have specialized in creating design solutions that meet our clients' expectations and enhance the communities in which they are located. Cranston's expertise and decades of experience consequently allows us to enjoy a high

OUR EMPLOYEES ARE VALUED

Hiring and retaining top talent is, first and foremost, the way to accomplish our primary business objective – pleasing our clients. Our employees are the heart of our company, and at Cranston we provide our employees with the structure to meet their goals to allow for professional advancement.

SMALL BUSINESS = LOW OVERHEAD

Cranston is a full service engineering firm, expanded throughout Georgia and South Carolina with 3 offices and around 70 employees. We are able to provide cost effective, innovative solutions with the same

LOCAL EXPERIENCE AND RELATIONSHIPS

Our team has significant experience in South Carolina. Cranston staff also has relationships with key local agencies, which will benefit the Municipal Association of South Carolina and help us move projects forward efficiently.

WE VALUE OUR...

- Team
- Integrity
- Project Partners
- Communities
- Collaborative Excellence
- Sustainability