

## Public Records Request #2952

The following materials have been gathered in response to public records request #2952. These materials include:

- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – Dewberry Engineers Inc.
- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – Gavel & Dorn Engineering, PLLC
- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – Kimley-Horn
- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – McKim & Creed
- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – STV Engineers, Inc.
- RFQ #FY20-RFQ-03: Water and Sewer Street Main Design – Willis Engineers

This information was provided as a response to a public records request on 10/30/19 and is current to that date. There is a possibility of more current information and/or documents related to the stated subject matter.

### Further Information

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For further information about this request or the Citywide Records Program, please contact:

Cheyenne Flotree  
Citywide Records Program Manager  
City of Charlotte/City Clerk's Office  
600 East 4<sup>th</sup> Street, 7<sup>th</sup> Floor  
Charlotte, NC 28202  
Cheyenne.Flotree@charlottenc.gov

Amelia Knight  
Public Records Specialist  
City of Charlotte/City Clerk's Office  
600 East 4<sup>th</sup> Street, 7<sup>th</sup> Floor  
Charlotte, NC 28202  
Amelia.Knight@charlottenc.gov

RFP#FY20-RFQ-03

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# WATER AND SEWER STREET MAIN DESIGN

Charlotte Water

OCTOBER 3, 2019



ELECTRONIC

**SUBMITTED BY**

9300 Harris Corners Parkway  
Suite 220  
Charlotte, NC 28269  
703.631.5207

**SUBMITTED TO**

Charlotte Water  
5100 Brookshire Boulevard  
Charlotte, NC 28216

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Dewberry Engineers Inc. | 704.509.9918  
9300 Harris Corners Parkway | 704.509.9937 fax  
Suite 220 | www.dewberry.com  
Charlotte, NC 28269

October 3, 2019

Charlotte Water  
ATTN: Abby Dolan, Procurement Manager  
5100 Brookshire Blvd., Charlotte, NC 28216

RE: Professional Engineering Services for the Water and Sewer Street Main Design

Dear Ms. Dolan,

As Charlotte Water continues its proactive approach expanding and improving its water and sewer infrastructure, this engineering contract will play an important role. As you will see in our enclosed qualification package, Dewberry Engineers Inc. (Dewberry) has the local knowledge, responsiveness, and focus on communication to fully support Charlotte Water with the completion of this contract. As you review our credentials, you will notice the following common themes:

**Local Leadership and Project Team.** Dewberry offers a full service design team based out of our local Charlotte office less than 20 minutes from the Charlotte Water offices. The local Dewberry team is backed by regional subject matter experts from our Raleigh office with extensive experience on small diameter water and sewer extension projects. The Dewberry team is supplemented by speciality MSBE certified subconsultants, Sweetwater Utility Exploration and Froehling & Robertson, Inc., who provide a local service and knowledge base that strengthens the overall project team.

**Exemplary Responsive and Timely Service.** Dewberry's success is rooted in our commitment to serve our clients and their communities. To effectively work in tandem with our clients, we adapt to our clients' specific requirements and serve as an extension of their staff. This allows us to be responsive to the immediate needs of Charlotte Water throughout the life of this project. We are committed to and have the availability to respond to any task assigned by Charlotte Water within 72 hours.

**Focus on Communication.** Dewberry manages each project with a primary focus on communication. We believe that an informed client is a happy client which contributes to a successful project. In addition to the completion of all project task orders, it is our responsibility to confirm that our client has clear understanding and status updates for each task being completed by Dewberry. It is equally important that Charlotte Water personnel involved with projects are equipped with project specific information and data to allow them to respond to questions posed by others within Charlotte Water, stakeholders, and your customers.

This contract will receive our team's highest priority for successful completion. We are eager to earn your trust and to build a lasting relationship with Charlotte Water. If you have any questions or would like to discuss our proposal further please feel to contact me at 704.631.5207 or cvolz@dewberry.com. Thank you for your consideration and we look forward to the opportunity to provide your water and sewer engineering needs.

Sincerely,

Christian Volz, PE, LEED AP  
Project Manager

Robert "Skip" Notte, PE, LEED AP  
Vice President



## **SECTION ONE:** Project Team

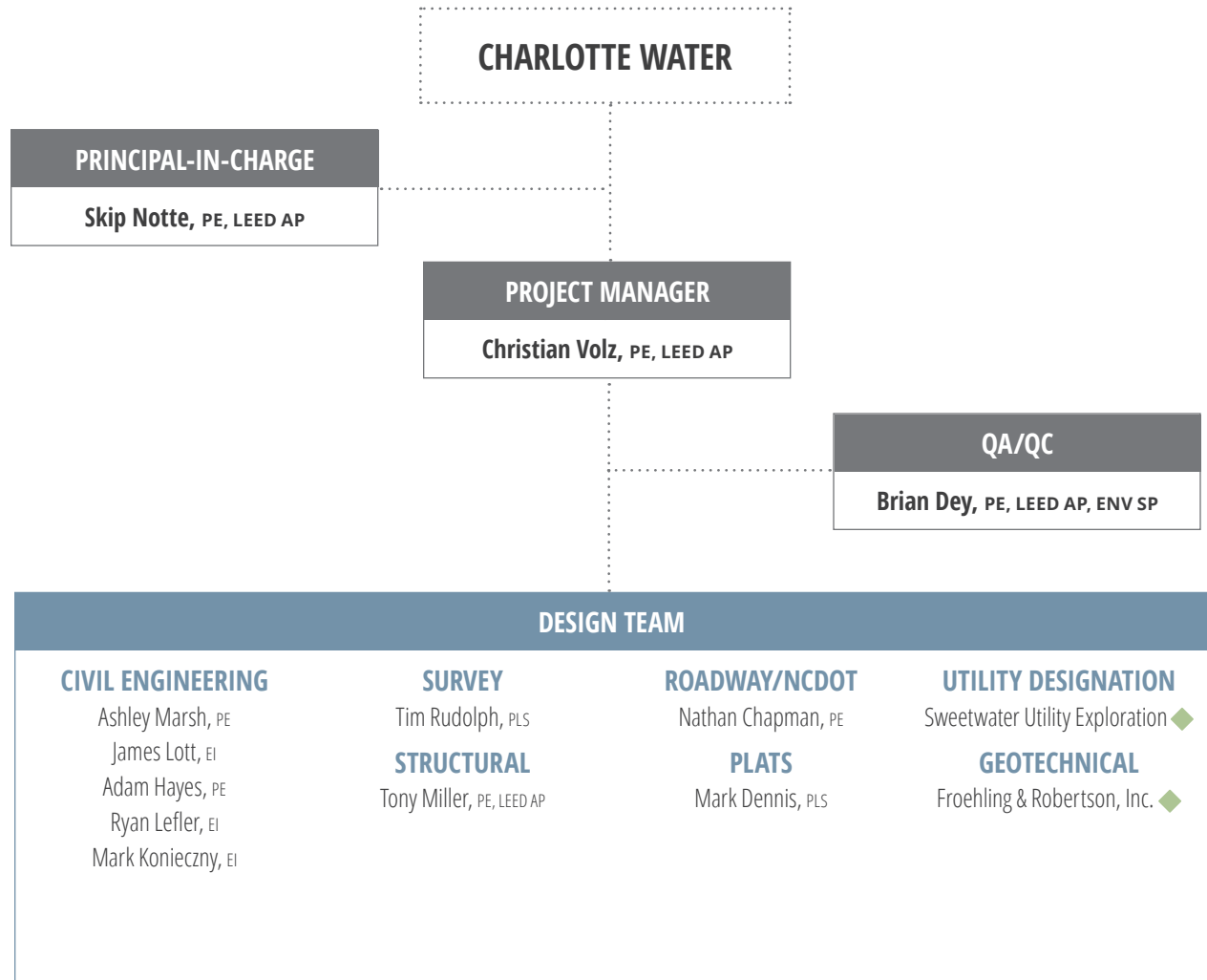
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# SECTION ONE: PROJECT TEAM

Dewberry has assembled a team of local professionals for this contract that is structured to provide Charlotte Water with on-the-ground support backed by our regional expertise. We have partnered with two local subconsultants who bring specialized knowledge and compliment the strengths of the Dewberry team.

Christian Volz, PE, LEED AP will serve as project manager for this contract. Christian will be Charlotte Water’s primary point of contact and will take personal responsibility for all projects performed.

PROPOSED SUBCONSULTANTS			
FIRM NAME AND SERVICES TO BE PROVIDED	OFFICE LOCATION	CONTACT	PHONE #
<b>Sweetwater Utility Exploration</b> Utility Designation	Statesville, NC	Matt Bellman	704.929.3074
<b>Froehling &amp; Robertson, Inc.</b> Geotechnical	Charlotte, NC	Alex Robinson	704.596.2889



◆ MSBE Certified

## MWSBE Certified Subconsultants Additional Information

### 1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?

Yes, Dewberry routinely includes MSBE firms on similar projects.

### 2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.

Yes, we have utilized MSBE firms under the City of Charlotte's program.

### 3. Include a list of past projects and your MSBE utilization on said projects.

MSBE UTILIZATION	
PROJECT NAME	UTILIZATION
Sunnyvale-Chandworth Storm Drainage Improvements	10%
Waverly/Marlwood Stormwater Project Topographic Mapping	10%
McAlway/Churchhill Storm Drainage Improvement Project	10%

### 4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFP. Identify specific scopes of work to be performed by MSBEs.

Our outreach efforts included contacting MSBE firms we currently have strong and successful relationships with to join our team. Phone calls and follow-up emails were made to confirm their participation.

Although specific percentages of work assigned to each firm will not be established until the final scope of services and fees are negotiated with the City, Dewberry is committed to meeting the City's established CBI goals and facilitate participation by MSBEs for all projects.

Our team includes two MSBE firms, Sweetwater Utility Exploration who will provide utility designation and Froehling & Robertson, Inc. who will provide geotechnical services.

### 5. Provide a recent project example of compliance efforts and results.

In order to meet supplier diversity compliance requirements, Dewberry sets spend goals expressed as percentages of the total planned contracted dollars for subcontractors within the accepted categories as defined by Charlotte Water. Specifically, the Dewberry MWSBE subcontracting strategy is developed to align short and long term diversity goals with our organizations' core business objectives and focus on using methods to identify potential business partners that can add project value and deliver on the project specific subcontracting needs.

A recent representative project example illustrating these efforts and results is the City of Charlotte M-Team storm water engineering term contract where Dewberry met, and in many cases, exceeded the MWSBE requirements on all the task orders assigned.

Dewberry has subcontracted over  
**\$1.7M** in MSBE FEES  
 in the past 5 YEARS

**Christian Volz, PE, LEED AP**

**ROLE/RESPONSIBILITY: PROJECT MANAGER**

Christian has extensive experience in the design and construction of water and sewer street main design as both a design consultant and utility manager. With over 100 miles of successfully delivered water/sewer pipeline replacement over the last 14 years, Christian has the background and knowledge, from the owner perspective, to support municipalities in the expansion, maintenance, and rehabilitation of water and sewer street main extension projects.

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**Skip Notte, PE, LEED AP**

**ROLE/RESPONSIBILITY: PRINCIPAL-IN-CHARGE**

Skip is the Charlotte, North Carolina office manager and is responsible for overall project management, staff allocation and resource management, QA/QC, and contract negotiations. As principal-in-charge, he will be responsible for oversight of all work performed on projects for Charlotte Water and maintain open dialogue with Charlotte Water's staff. Skip's expertise includes the preparation of engineering studies, master plans, technical specifications, design of projects, and construction administration for water, sewer, civil engineering and multi-disciplined projects, for a wide range of municipal clients.

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**Brian Dey, PE, LEED AP, ENV SP**

**ROLE/RESPONSIBILITY: QA/QC**

Brian has extensive experience in water resources and civil engineering including design, modeling, and project management for municipal infrastructure, parks, greenways, and commercial land development. Brian's significant experience in detailed design has contributed to the successful completion of numerous projects. Applying sound engineering principles in combination with his knowledge of advanced modeling software, allows Brian to solve the toughest civil engineering problems with client-centered solutions.

**Ashlee Marsh, PE**

**ROLE/RESPONSIBILITY: CIVIL ENGINEERING**

Ashlee has a broad range of experience performing hydrologic and hydraulic analysis, analyzing and designing water distribution systems, sewage conveyance systems, sewage pumping stations, designing wastewater treatment plants, and general civil engineering. She has 20 years of experience in process mechanical design of wastewater facilities.

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**James Lott, EI**

**ROLE/RESPONSIBILITY: CIVIL ENGINEERING**

James has experience as a civil designer and has been involved in a variety of site/civil design and land planning/development for state, municipal, and private clients. He has specialized experience in stormwater management solutions and erosion and sediment control plans. James is proficient in AutoCAD Civil 3D, StormCAD, and ArcGIS modeling softwares.

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**Adam Hayes, PE**

**ROLE/RESPONSIBILITY: CIVIL ENGINEERING**

Adam has more than 14 years of experience in storm water design and modeling, 3D pressure pipe and grading drafting design, master planning, site concept planning, and utility and minor highway design. He provides effective solutions on schedule that exceeds client expectations.

**Ryan Lefler, EI**

**ROLE/RESPONSIBILITY: CIVIL ENGINEERING**

Ryan has experience as a civil designer and has been involved in a variety of site/civil design and land planning/development for municipal and private clients. He has specialized experience in stormwater management solutions, site design, and erosion and sediment control plans. Ryan is proficient in AutoCAD, StormCAD, and WaterCAD modeling softwares.

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**Mark Konieczny, EI**

**ROLE/RESPONSIBILITY: CIVIL ENGINEERING**

Mark has significant experience with civil design projects ranging from storm water and sanitary sewer management systems, to single-family, multi-family, mixed-use, and commercial development. His timely completion of projects attributes to long range strategic planning, detailed scheduling with results on budget and of the highest quality, and always stresses customer satisfaction.

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**Tim Rudolph, PLS**

**ROLE/RESPONSIBILITY: SURVEY**

Tim has more than 43 years of land surveying experience. His surveying expertise is in utility / transportation route surveys, water wastewater/storm system asset mapping, hydrographic surveying and mapping. He also has experience with LiDar ground control/QAQC surveys, boundary retracement, and conventional/aerial topographic surveys.

**Tony Miller, PE, LEED AP**

**ROLE/RESPONSIBILITY: STRUCTURAL**

Tony has 13 years of structural engineering experience specializing in building design and underground structures, including new and renovation work. Tony has extensive experience in the design of structural systems for commercial, educational, institutional, and industrial buildings, as well as utility structures, site structures, structural evaluations, and third-party structural inspections. He performs structure damage assessments, construction administration, and construction inspections.

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**Nathan Chapman, PE**

**ROLE/RESPONSIBILITY: ROADWAY/NCDOT**

Nathan has more than seven years of industry experience in roadway design and utility coordination. This experience encompasses all phases of roadway design with an emphasis on preliminary and express designs for NCDOT feasibility study projects. Nathan served as a lead designer for various feasibility projects such as the I-40 Managed Lanes and the I-440 Widening projects for NCDOT.

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**Mark Dennis, PLS**

**ROLE/RESPONSIBILITY: PLATS**

Mark has extensive experience in the field of surveying including boundary surveys, topographic surveys, construction surveys, GPS surveys, drainage studies, route surveys, and hydrographic surveys. He has also served as construction inspector for numerous roadway, water line, sanitary sewer, and storm drainage projects.



WATER AND SEWER STREET MAIN DESIGN  
RFP#FY20-RFQ-03

NAME OF FIRM:					
PART I: STAFFING INFORMATION	KEY STAFF 1	KEY STAFF 2	KEY STAFF 3	KEY STAFF 4	KEY STAFF 5
Name of Personnel:	Christian Volz, PE, LEED AP	Skip Notte, PE, LEED AP	Brian Dey, PE, LEED AP, ENV SP	Ashlee Marsh, PE	Tim Rudolph, PLS
Current Title:	Senior Project Manager	Vice President; Office Manager	Associate; Senior Project Manager	Senior Project Manager	Senior Associate; Survey Manager
Certifications and Licenses (provide certification number and expiration date):	PE NC (047219) Exp. 12/31/2019	PE NC (037673) Exp. 12/31/2019	PE NC (27528) Exp. 12/31/2019	PE VA (035989) Exp. 12/31/2019	PLS NC Exp. 12/31/2019
Relevant Academic Degree(s) (list):	BS, Biological Engineering/ Environmental Emphasis	BS, Civil Engineering	MS, Civil Engineering BS, Environmental Engineering	BS, Urban Systems Engineering	N/A
Proposed Role/Function for Projects under this Contract:	Project Manager	Principal-In-Charge	QA/QC	Civil Engineering	Survey
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC
Number of Years with Current Firm:	1	20	6	12	21
Availability (%):	60%	10%	20%	60%	25%
Years Direct Experience in the following:					
• Design of water and sewer mains, <24"	15	21	23	20	0
• NCDOT encroachments	1	8	14	2	0
• Easement preparation	15	18	18	20	0
• Surveying	0	2	0	0	46



WATER AND SEWER STREET MAIN DESIGN  
**RFP#FY20-RFQ-03**

LIST PROJECTS INCLUDED IN PROPOSAL - INDICATE ROLE OF KEY STAFF MEMBERS	KEY STAFF 1	KEY STAFF 2	KEY STAFF 3	KEY STAFF 4	KEY STAFF 5
Name of Personnel:	Christian Volz, PE, LEED AP	Skip Notte, PE, LEED AP	Brian Dey, PE, LEED AP, ENV SP	Ashlee Marsh, PE	Tim Rudolph, PLS
1. Town of Mooresville WWTP Waterline Extension		Project Manager			Survey
2. Summer Walk Phase 6C			Project Manager		
3. Commerce Station Waterline Extension		Project Manager			Survey
4. Aqua North Carolina Southgate	Project Engineer	Project Manager		Project Engineer	
5. Palmetto Plantation Pump Station		Project Manager		Project Engineer	
Part II: Firm/Team Expertise	CONSULTANT	SUBCONSULTANT	SUBCONSULTANT	SUBCONSULTANT	SUBCONSULTANT
Name/Identifier of Firm:	Dewberry Engineers Inc.	Sweetwater Utility Exploration	Froehling & Robertson, Inc.		
Indicate Number of Years in Business:	63	8	138		
Registered with City as a Minority or Small Business	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
List Any City Contract Terminations, include date and reason for termination:	N/A	N/A	N/A		





## **SECTION TWO:** Experience and Approach

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# SECTION TWO: EXPERIENCE AND APPROACH

## Project Experience

Dewberry has recent, relevant experience providing water and sewer main extension designs within North Carolina, including for Charlotte Water. Our project manager, Christian Volz, PE, LEED AP, has experience as both a utility owner and design consultant on a wide variety of water and sewer pipeline projects from 4-inch to 24-inch. The Dewberry team has an in-depth understanding of all of the various tasks that Charlotte Water has identified in the

scope of services, successfully providing these services to our clients in the projects highlighted within this submittal.

The projects presented in this section are a snapshot of projects our team has worked on in the Carolinas over the past five years. In addition to these projects, our team members have successfully managed multiple on-call contracts for municipal clients throughout their careers and are accustomed to managing several projects at one time.

## Commerce Station Waterline Extension HUNTERSVILLE, NC



Dewberry provided engineering services for the installation of 2,800 LF of 12-inch water line for the Commerce Station Industrial Park in Huntersville, NC. The water line connects to the existing Charlotte Water distribution system. The project included site location, topographic survey, utility locations, curb and gutter, 5-foot sidewalks, storm water collection, storm water management facilities, and a road extension. Dewberry provided a sketch plan for the Town of Huntersville approval process, construction documents, public outreach, bidding assistance, and construction administration.

● **COST** \$2,488,151

● **DATES OF SERVICE**  
6/2012 - 9/2019

● **OWNER**  
Town of Huntersville  
Ryan McDaniels  
704.992.2300  
(contributed project to  
Charlotte Water)

● **PROJECT TEAM**  
Skip Notte, Project  
Manager; Tim Rudolph,  
Survey

### RELEVANCY:

- Water sewer utilities
- Topographic survey
- 12-inch waterline installation
- Utility and NCDOT coordination

## Town of Mooresville WWTP Waterline Extension MOORESVILLE, NC



Dewberry provided engineering services for 3,000 LF of 6-inch waterline to extend from the wastewater treatment plant (WWTP) to the public water supply for the Town of Mooresville. The 85% treated water they were using for on site processes at the WWTP was causing operational inefficiencies. Dewberry designed the waterline allowing the Town of Mooresville to have two water sources going to the public water supply while also improving the operating efficiency in the WWTP. Dewberry provided site survey, utility locations, and the design of an interconnection of the public water supply with WWTP's on site process water system.

- **COST** \$220,000
- **DATES OF SERVICE**  
9/2015 - 2/2016
- **OWNER**  
Town of Mooresville  
Barry McKinnon  
803.818.5781
- **PROJECT TEAM**  
Skip Notte, Project Manager; Tim Rudolph, Survey; Mark Dennis, Survey

### RELEVANCY:

- Water sewer utilities
- 6-inch waterline design
- Survey
- Utility coordination

## Summers Walk Phase 6C DAVIDSON, NC



Dewberry provided engineering services for the design and permitting of a single family townhome subdivision including 272 LF of 8-inch water line and 177 LF of 8-inch sewer line for the Summers Walk Phase 6C subdivision in Davidson, North Carolina. The water line connects to the existing Charlotte Water distribution system. The project included site location, utility location, curb and gutter, 5-foot sidewalks, storm water collection, and a road extension. Dewberry provided master plan and construction documents for the Town of Davidson approval process, public outreach, and bidding assistance.

- **COST** \$161,897  
(contributed project to Charlotte Water)
- **DATES OF SERVICE**  
Ongoing
- **OWNER**  
Blue Heel Development  
Matt Gallagher  
704.634.5140
- **PROJECT TEAM**  
Brian Dey, Project Manager; Mark Konieczny, Project Designer

### RELEVANCY:

- Water sewer utilities
- 8-inch waterline installation
- Site and utility design
- Utility and township coordination

## Aqua North Carolina Southgate GASTON COUNTY, NC



Dewberry provided engineering services for the replacement of 6,640 linear feet of 2- and 3-inch galvanized waterlines with 3-inch SDR 21 PVC waterline for Aqua North Carolina in a residential community located in Gaston County, North Carolina. The project required reconnection of 80 services with minimal disruption to the customer. The project included field location, preparing construction documents, NCDOT encroachment permitting, NCDEQ Public Water Supply Section permitting, bidding assistance and construction administration.

- **COST** \$566,017
- **DATES OF SERVICE** 3/2017 - 4/2019
- **OWNER** Aqua North Carolina  
Michael Melton  
704.489.9404
- **PROJECT TEAM** Christian Volz, Project Engineer; Skip Notte, Project Manager; Ashlee Marsh, Project Engineer; James Lott, Project Designer; Mark Dennis, Survey

### RELEVANCY:

- Water sewer utilities
- Utility and NCDOT coordination
- 2- and 3-inch waterline replacement

## Palmetto Plantation Pump Station YORK COUNTY, SC



Dewberry provided full engineering, survey, design, and construction services for the rehabilitation of the existing Palmetto pump station and construction of a new regional pump station, including 4,300 LF of 10-inch manifold force main and 2,300 LF of 15-inch gravity sewer replacement. Project scope included site selection, hydraulic modeling, and comprehensive civil design and construction services for the pump station and force main. The project was broken up into phases following the recommendations of the wastewater master plan completed by Dewberry.

- **COST** \$162,380
- **DATES OF SERVICE** 4/2017 - 5/2019
- **OWNER** York County  
David Hughes  
803.628.3211
- **PROJECT TEAM** Skip Notte, Project Manager; Ashlee Marsh, Project Engineer; James Lott, Project Designer; Ryan Lefler, Project Designer; Tony Miller, Structural; Mark Dennis, Survey

### RELEVANCY:

- Water sewer utilities
- 10-inch manifold force main
- 15-inch gravity sewer replacement

## Approach

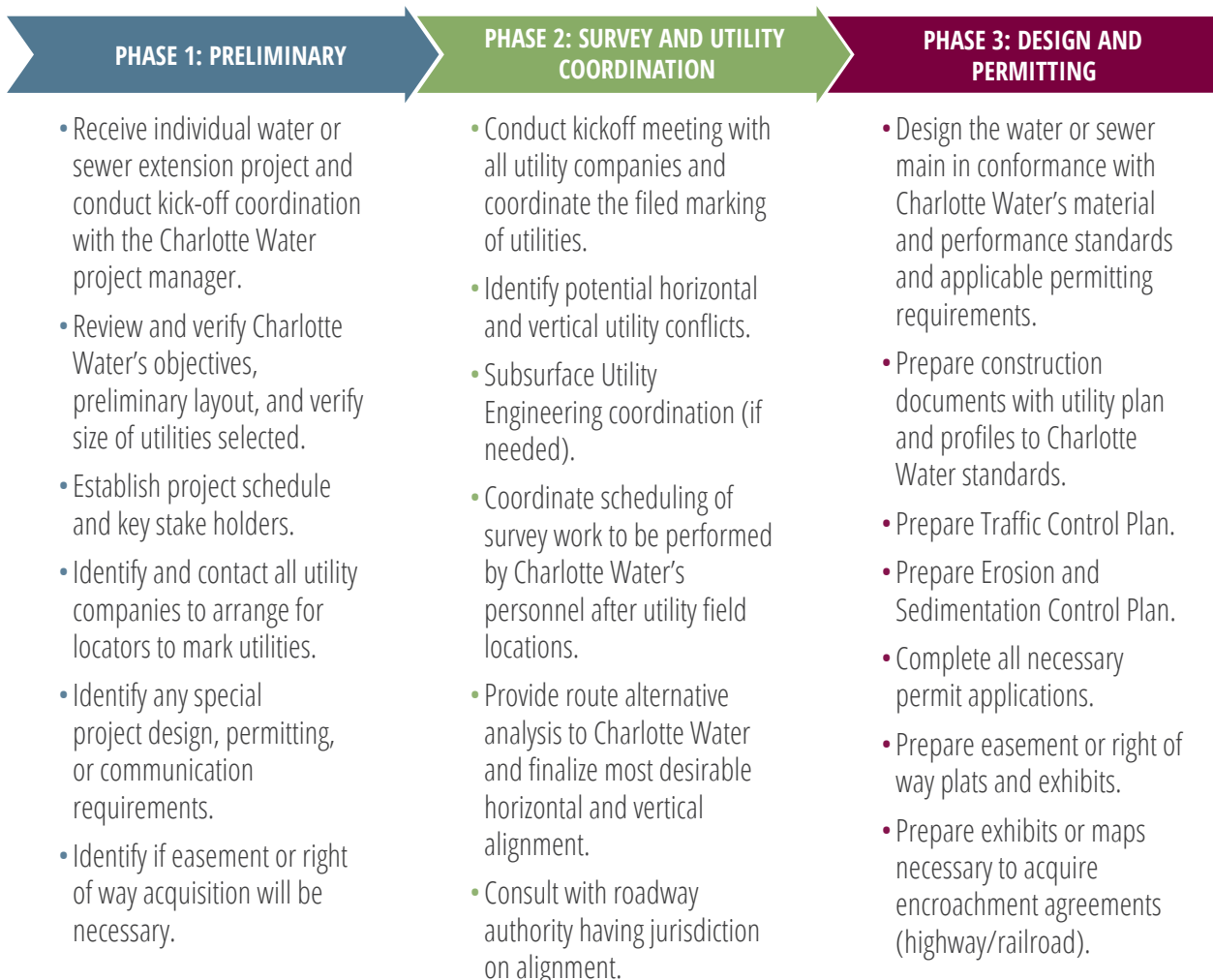
Dewberry is excited for the opportunity to partner with Charlotte Water on your water and sewer project extensions. Our approach has been developed with Charlotte Water's project objectives and an emphasis on responsiveness and providing expeditious and constructible water and sewer designs.

Dewberry understands that this contract will include design work for an undetermined number of water and sewer extensions within the Charlotte Water service area. Dewberry will furnish all labor, materials, equipment, and supervision necessary to perform professional engineering services as listed in your request for qualifications and provide a schedule within one week of response. This includes coordinating utility field locating and marking, scheduling survey work by others,

engineering design and plan review, route studies, traffic control planning, NCDOT coordination, permitting, and erosion control design.

Dewberry also understands that Charlotte Water is prioritizing responsiveness as a metric for successful completion of projects falling under this contract. Dewberry is proud to have the proven experience designing and constructing water and sewer extensions in the Charlotte Water service area necessary for this project. More importantly, Dewberry has a strong local team based in Charlotte with the capacity to respond to any task assigned within 72 hours, but much faster in many cases.

Generally, work assigned by Charlotte Water will progress through the following major work phases:



### Workload / Availability

All individuals assigned to the team are committed and available for multiple assignments. Dewberry provides Charlotte Water with “a one call away” service commitment. Charlotte Water staff is simply one phone call away from project manager, Christian Volz, who has full authority and ability to engage multiple staff members. Christian will maintain contact whenever needed. Day, night, weekends or holidays, he will provide Charlotte Water with the comfort and reliability they deserve. Our current, project availability is projected to the right. If significant personnel changes occur, Dewberry will notify Charlotte Water immediately.

STAFF AVAILABILITY		
EMPLOYEE	RESPONSE TIME	AVAILABILITY
Christian Volz, PE, LEED AP	1-hour	60%
Skip Notte, PE, LEED AP	1-hour	10%
Brian Dey, PE, LEED AP, ENV SP	1-hour	20%
Ashlee Marsh, PE	1-hour	60%
James Lott, EI	1-hour	40%
Adam Hayes, PE	1-hour	30%
Ryan Lefler, EI	1-hour	30%
Mark Konieczny, EI	1-hour	30%
Tim Rudolph, PLS	1-hour	25%
Tony Miller, PE, LEED AP	1-hour	20%
Nathan Chapman, PE	1-hour	20%
Mark Dennis, PLS	1-hour	30%
Sweetwater Utility Exploration	3-hours	As Needed
Froehling & Robertson, Inc.	3-hours	As Needed

#### PROJECT PROOF, RESPONDING TO URGENT REQUESTS: TOWN OF CORNELIUS, LAKEHOUSE POINTE DRIVE

After the completion of the storm water design improvements for Lakehouse Pointe Drive, the Town of Cornelius proceeded with construction of the improvements. Two days prior to the start of construction, the contractor informed the Town that their surveying sub-consultant was unable to complete stakeout in time to maintain the schedule. The Town reached out to Dewberry in the afternoon to see if we could mobilize a crew the following morning to complete the stake-out, and allow the contractor to maintain their schedule. Dewberry was able to dedicate the necessary personnel within hours of the request, and had crews on-site the next day to make sure that the Town’s project stayed on schedule.

#### PROJECT PROOF, WATERLINE CONNECTION RAPID RESPONSE: COMMERCE STATION IMPROVEMENTS

Dewberry completed the design for the extension of approximately 3,000 LF of 12” waterline for the Commerce Station Industrial Park in Huntersville, North Carolina. The construction of the waterline was coordinated with a new road and the expansion of an existing industrial facility. After construction of the initial 900 +/- LF of the waterline, the industry notified the team that they needed to obtain their certificate of occupancy and asked if they can hook into and utilize the waterline for their final flushing/ approvals. Dewberry worked closely with the industry, the Town of Huntersville, and Charlotte Water to develop an approach to meet the needs of the request, and expedite hydraulic testing, bacteriological testing, and as-built preparation and approvals to allow the industry to maintain schedule and obtain their certificate of occupancy as requested.



### Why Select Dewberry?

Dewberry is a full-service engineering and consulting firm with capabilities for all facets of engineering, we feel that our team is best suited for this project and highlight as follows:



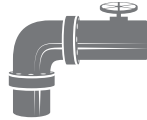
**Responsiveness.** Dewberry is committed to serving as an extension of Charlotte Water’s staff. We will be responsive to any needs throughout the life of this contract. Due to our proximity, we have the availability to respond to any task within 72 hours.



**Focus on Communication.** Dewberry understands communication is key to a successful project. It is our responsibility to confirm that Charlotte Water has a clear understanding and status updates for all tasks completed by Dewberry.



**Water Distribution and Modeling.** Dewberry is currently working on design and construction phase services for over 12 miles of water distribution piping. Additionally, we recently planned and designed a water system with a 3 mgd booster pump station and used modeling to verify the design. Dewberry holds five licenses for Innovyze software.



**Wastewater and Pipe Design.** Dewberry has extensive experience in the design and construction of water and sewer pipeline extensions from 2-inch to 24-inch of varying materials and installation methods.



**Division 10.** Dewberry is familiar with NCDOT Division 10 staff and the third party utilities staff that typically work in this area. Our team has worked with these third parties over the last 15 years.



**Local, Full Service Design Team.** Dewberry offers a full service design team located less than 30 minutes from Charlotte Water. Our team is backed by regional subject matter experts with extensive experience on small diameter water and sewer projects.

**2,300**  **EMPLOYEES** throughout the nation

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**200+** in the CAROLINAS | **40** in the CHARLOTTE OFFICE

“DEWBERRY HAS BEEN A TRUSTED PARTNER TO YORK COUNTY ON SEVERAL PROJECTS OVER THE PAST FEW YEARS. THEY ALWAYS LISTEN TO OUR NEEDS, AND ARE THEN VERY RESPONSIVE AND DELIVER ON THEM. THEY OFTEN USE REGIONAL SUBJECT MATTER EXPERTISE TO SUPPLEMENT THEIR LOCAL CHARLOTTE DESIGN TEAM. DEWBERRY HAS BECOME A GO-TO CONSULTANT FOR US.”

— LISA HAGOOD  
YORK COUNTY



## REQUIRED FORMS

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**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature: 

Printed Name: Skip Notte, PE, LEED AP

Title: Vice President, Office Manager

Date: 10-3-2019

**PROPOSER INFORMATION**

Company Legal Name: Dewberry Engineers Inc.

NC Board of Examiners for Engineers and Surveyors License No.: F-0929

Mailing Address (Headquarters): 8401 Arlington Blvd.  
Fairfax, VA 22031-4666

Mailing Address (Local Office, if different from above): 9300 Harris Corners Parkway, Suite 220  
Charlotte, NC 28269-3797

City of Charlotte Vendor Number: 76159

Person(s) to Contact Regarding Proposal (including questions and selection announcements):  
Contact 1 Name: Christian Volz, PE, LEED AP  
Contact 1 Email: cvolz@dewberry.com Phone: 704-631-5207  
Contact 2 Name: Skip Notte, PE, LEED AP  
Contact 2 Email: snotte@dewberry.com Phone: 704-625-5088

**Type of Company** (check one box)

- Sole Proprietor**       **Partnership**       **Corporation** | State of Incorporation: New York
- Limited Liability Company** | State of Incorporation: \_\_\_\_\_
- Joint Venture** (This exhibit must be completed by each joint venture company.)  
 Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under “Additional Information About This RFQ”.)

**Acknowledgement of Addenda:**

No.:   1   Date: September 27, 2019

No.:            Date:                   

No.:            Date:                   

No.:            Date:

**EXHIBIT 2**

**MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN**

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

<b>Subconsultant's Full Name</b>	<b>Description of work / materials</b>	<b>Indicate either "M" and/or "S"</b>	<b>City Vendor #</b>
Froehling & Robertson, Inc.	Geotechnical	M	8048
Sweetwater Utility Exploration	Utility Designation	S	127758

In addition, address the following: **See page 3 of proposal.**

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
3. Include a list of past projects and your MSBE utilization on said projects.
4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
5. Provide a recent project example of compliance efforts and results.

EXHIBIT 3

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

- 1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, discrimination means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, discrimination also includes retaliating against any person or other entity for reporting any incident of discrimination.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

Dewberry Engineers Inc.

Name of Company

[Handwritten Signature]

Signature of Company's Authorized Official

10-3-2019

Date

Skip Notte, PE, LEED AP

Print Name

Vice President, Office Manager

Title

**EXHIBIT 4**


**E-VERIFY CERTIFICATION**

Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:
  - a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
  - b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
  - c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.
  
2. As a condition of being considered for the Contract, Company certifies that:
  - a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
  - b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.
  
3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Dewberry Engineers Inc.  
Name of Company

  
Signature of Company's Authorized Official

Skip Notte, PE, LEED AP  
Print Name

10-3-2019  
Date

Vice President, Office Manager  
Title

EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: Dewberry Engineers Inc.

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

I hereby certify as stated above:

Skip Notte, PE, LEED AP
Print Name
Vice President, Office Manager
Title

[Handwritten Signature]
Signature
10-3-2019
Date

I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name
Title

Signature
Date



**EXHIBIT 6**

**BYRD ANTI-LOBBYING CERTIFICATION**

Project: Water and Sewer Street Main Design

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The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Dewberry Engineers Inc. (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

SKip Notte, PE, LEED AP

Print Name



Authorized Signature

10-3-2019

Date

9300 Harris Corners Parkway, Suite 220

Address

Charlotte, NC 28269-3797

City / State / Zip



 **Dewberry®**

[www.dewberry.com](http://www.dewberry.com)



CHARLOTTE  
**WATER**

*Statement  
of  
Qualifications*

**Water & Sewer Street Main  
Design Services**

**FY20-RFQ-03**

**October 3, 2019**



**Gavel & Dorn  
Engineering**



October 3, 2019

Ms. Abby Dolan  
Procurement Manager  
Charlotte Water  
5100 Brookshire Boulevard  
Charlotte, North Carolina 28216

VIA EMAIL

Subject: Request for Qualifications for Water & Sewer Street Main Design Services  
FY20-RFQ-03

Dear Ms. Dolan:

Charlotte Water (CLTWater) is seeking a firm to provide professional services for the Water & Sewer Street Main Design. Gavel & Dorn Engineering, PLLC (G&D) has been providing these same services to CLTWater since 2013 under two separate contracts awarded in 2013 and 2015. Presently, G&D continues to work under the 2015 contract and seeks to renew that contract for 2019 so that we may continue our successful partnership with CLTWater.

Since 2013, we have worked on over 46 projects with multiple project managers under the Water & Sewer Street Main Design contracts. These projects have included not only the design of water and gravity sewer mains but also design of low-pressure sanitary sewer systems, sewer flow analysis, geotechnical services, and survey and easement services. We have also modeled the Little Hope Creek area sanitary sewer system under this contract. We have demonstrated our engineering expertise in a variety of applications and shown to be a responsive provider of engineering services for CLTWater. We are also proposing to move forward with the same team under my direction as Project Manager.

We believe that G&D is uniquely qualified to provide these services and sincerely hope that you will continue the relationship. We are virtual neighbors with CLTWater, located just five minutes away on Freedom Drive. Our size and proximity to CLTWater have enabled us to work closely with CLTWater staff on a daily basis when necessary. Our past body of work has also demonstrated that we can do smaller projects such as these very efficiently and quickly.

Our firm is extremely grateful for the opportunity to work with CLTWater on the Water & Street Mains Design Services project over the past six years and we look forward to continuing to assist CLTWater with this project in the future. If you have any questions, please do not hesitate to call. I can be reached at your convenience by cell phone at 704-724-5047 or via email at [smayo@gaveldorn.com](mailto:smayo@gaveldorn.com). We would also like to acknowledge receipt of Addendum No. 1.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean Mayo", is written over a light blue circular background. The signature is fluid and cursive.

Sean Mayo, P.E.

Partner  
Gavel & Dorn Engineering, PLLC

**SECTION 1 Project Team**

**Section 1-1 Organizational Chart**

The following Organizational Chart (**Figure 1-1**) identifies the key members of the project team, including Subconsultants. **Sean Mayo, P.E., a partner, will serve as project manager.** All firm Partners (Kirk Gavel, P.E., Jason Dorn, Ph.D., P.E., Sean Mayo, P.E. and Joe Turner, P.E.) are empowered to make decisions for and act on behalf of the firm.

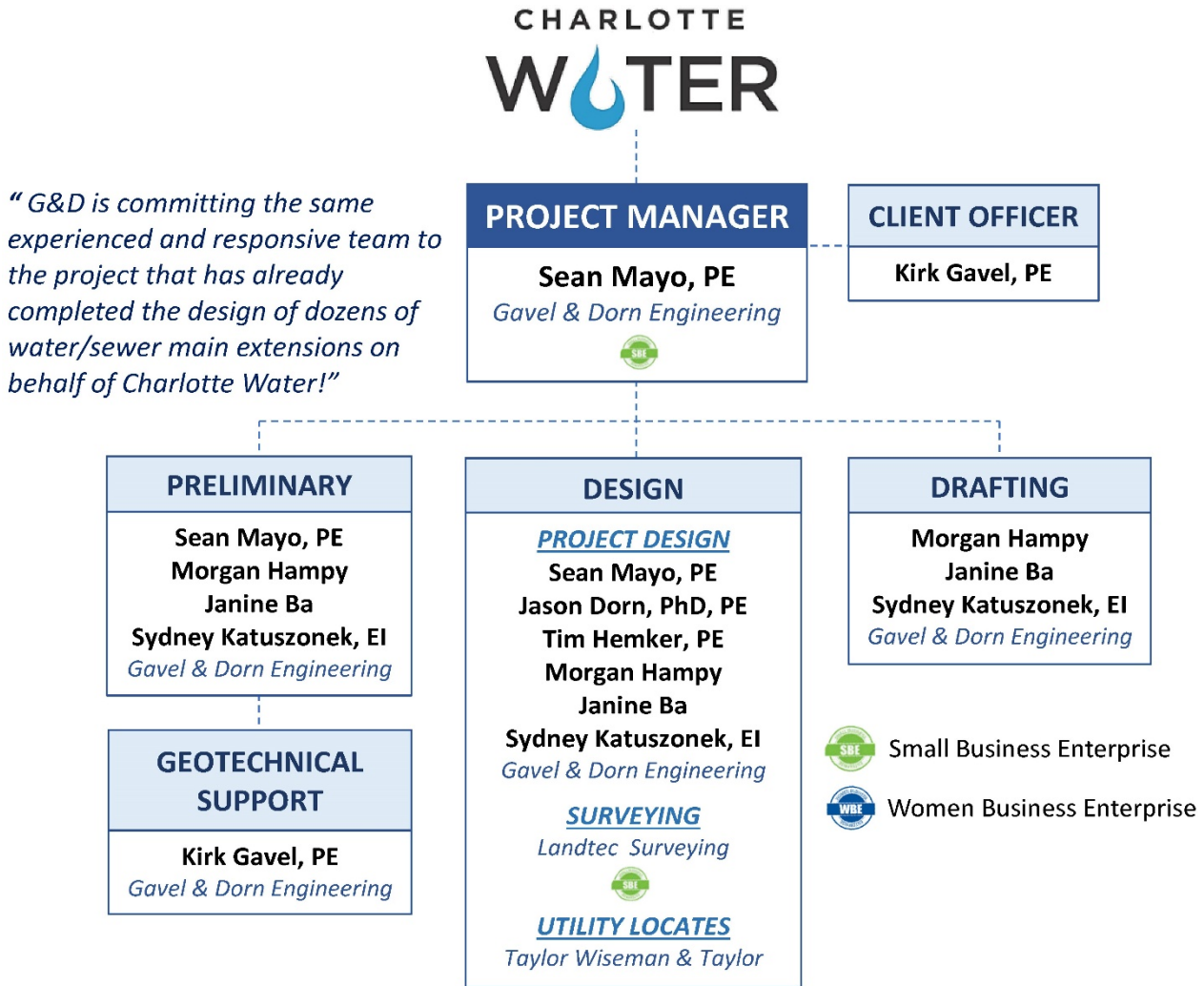


Figure 1-1 Organizational Chart

**Section 1-2 Subconsultants**

We propose to utilize Landtec Surveying, Inc for survey and easement plats and Taylor Wiseman & Taylor for subsurface utility location services on this project. Landtec is a certified SBE as noted in **Figure 1-1**.



**LANDTEC Surveying, Inc.** (LANDTEC) is an individually owned small business offering surveying and planning services in the Piedmont area. LANDTEC, established by Mr. Edwin Godsey, P.L.S., began operations in 1999. **Landtec is classified as a Small Business Enterprise (SBE) with the City of Charlotte (Vendor #307016).** G&D

and Landtec have maintained a partnership for over 10 years and, as a team, have completed more than 50 projects of various size and scope. Landtec's scopes of work have included topographic surveys, utility locates, and easement plat preparation. G&D continues to value our partnership with Landtec as a result of (1) the quality of survey work delivered, (2) Landtec's responsiveness to the needs of our projects, and (3) their cost-effectiveness.

LANDTEC is located at 11657 Rozelles Ferry Road, Charlotte, NC 28214. Contact is Ed Godsey, 704-201-9235.



**Taylor Wiseman & Taylor**  
ENGINEERS | SURVEYORS | SCIENTISTS

**Taylor Wiseman & Taylor (TWT)** is an engineering and survey company with more than 25 years of experience providing subsurface utility engineering services. In our experience, accurate identification and location of subsurface utilities is a critical factor in the success of these fast-paced projects. TWT has a full suite of equipment to survey horizontal and vertical location of utilities including state-of-the-art vacuum excavation equipment. TWT is located at 9771-A Southern Pine Blvd., Charlotte, NC 28273. Contact is Tom Pacella, 704-421-8522.

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**Section 1-3 Minority/Woman/Small Business Enterprises**

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*G&D is a certified SBE by the City of Charlotte (VMS No. 122596).* In addition, proposed subconsultant, *Landtec is a certified SBE by the City of Charlotte (VMS No. 307016).*

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**Section 1-4 Team Biographies**

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Exhibit 7, as required by CLTWater's Request for Qualifications, is in the Exhibits section at the rear of the SOQ. Brief biographies of team members are below:

**Sean Mayo, P.E. - Project Manager and Design Services  
Partner – Charlotte, North Carolina**

**Licenses and Certifications**

- ✓ Registered Engineer in North Carolina (36837)
- ✓ NASSCO PACP, LACP, MACP Certification (U-0119-070304052)
- ✓ OSHA Confined Space Entry Certification

**Education**

- ✓ Bachelor of Science in Civil Engineering Technology, UNC-Charlotte, 2005
- ✓ Associates in Applied Science in Civil Engineering Technology, Central Piedmont Community College, 2001
- ✓ Bachelor of Science in Zoology, University of Massachusetts at Amherst, 1990

Mr. Mayo is a partner at G&D and is a civil engineer with over 18 years of experience in all aspects of civil engineering. ***He will serve as Project Manager.*** His pertinent design experience includes new water and sewer main design, sanitary sewer rehabilitation, civil site layout, roadway horizontal and

vertical alignment, grading, erosion and sedimentation control, storm water drainage, and storm water management. Currently, Sean is serving as the Project Manager for CLTWater's Water and Street Main Design project and the Small Water and Sewer Related Project and Site Improvements (On-Call Services). Sean is also Lead Design Engineer on the Pipeline Rehabilitation and Construction Services project. Recently, Sean served as Lead Design Engineer on both the South (\$13.2M) and North (\$12.0M) Mill Creek Outfall Replacement Projects in Winston-Salem, the CBD Water & Sewer Rehabilitation Project in Hickory (\$4.7M), the System A Storm Drainage Project in Harrisburg



(\$1.0M) and a 1-Million Gallon Elevated Storage Tank in Harrisburg (\$2.8M). He is a registered professional engineer in North Carolina.

**Kirk Gavel, P.E. - Client Officer and Geotechnical Engineering  
Senior Partner – Charlotte, North Carolina**

**Licenses and Certifications**

- ✓ Registered Professional Engineer in North Carolina (022034), South Carolina (17813), and Georgia (029684)
- ✓ Licensed General Building and Public Utilities Contractor in North Carolina (44980)
- ✓ Certified in Pipeline Assessment by the National Association of Sewer Service Companies (NASSCO, Pipeline Assessment Certification Program, PACP)
- ✓ City of Charlotte Sedimentation and Erosion Control Certification
- ✓ Nuclear Density Gage Certification
- ✓ Confined Space Entry training

**Education**

- ✓ Bachelor and Master of Science in Civil Engineering, University of North Carolina at Charlotte, 1993
- ✓ Bachelor of Arts in Economics, Davidson College, 1985

Mr. Gavel is senior partner of Gavel & Dorn Engineering, PLLC with over 28 years of experience in engineering and construction. He has served as project engineer and/or project manager on a wide range of engineering projects in both the public and private sectors, including water supply and distribution system master planning, water

plant design and construction, wastewater process studies, wastewater treatment plant construction, and sanitary sewer system planning, design and construction. Mr. Gavel has varied experience with the construction of municipal engineering projects, serving in the role of construction administration engineer, resident engineer, and inspector, on over \$350 million of construction. He has provided special inspection services as an engineer and as an inspector on projects ranging from pump stations to restaurants. He has provided technical support for soils and geotechnical engineering projects and for construction quality assurance testing on projects ranging from pipelines to airport construction. He is a registered engineer in North Carolina, South Carolina and Georgia, and is a licensed general building and public utilities contractor in North Carolina.

**Jason Dorn, Ph.D., P.E. - Design and Draft Services  
Partner - Charlotte, North Carolina**

**Licenses and Certifications**

- ✓ Registered Professional Engineer in North Carolina (23575), South Carolina (20596) and Virginia (044028)

**Education**

- ✓ Doctor of Philosophy in Civil Engineering, North Carolina State University, 2004
- ✓ Master of Science in Civil Engineering, North Carolina State University, 1995
- ✓ Bachelor of Science in Civil Engineering, Old Dominion University, 1993

Dr. Dorn is a partner at G&D. He is a water resources engineer with over 25 years of progressive experience in all aspects of water resources including water and sewer planning and design; water and sewer system modeling; storm water drainage planning and design projects; and sanitary

sewer collection system flow monitoring, SSES, and rehabilitation. Dr. Dorn began working with Gavel Engineering in 2006 and became a partner in 2008 with the inception of G&D. Dr. Dorn has



managed a number of water and sanitary sewer projects including master plans, hydraulic modeling of systems, and design and construction of water mains and collector and trunk sewers. He is currently serving as project manager on the Pipeline Rehabilitation and Construction Services Project for CLTWater.

**Tim Hemker, P.E. - Design and Draft Services**  
**Senior Engineer – Charlotte, North Carolina**

**Licenses and Certifications**

- ✓ Registered Engineer in North Carolina (017625) and South Carolina (35357)

**Education**

- ✓ Bachelor of Science in Civil Engineering Technology, UNC-Charlotte, 1987
- ✓ Bachelor of Science in Geology, Wright State University, 1990

Mr. Hemker is a professional engineer with a comprehensive civil engineering background spanning 30 years with a concentration for 26 years on water and sewer utilities. His consulting engineering experience centered on serving numerous small to medium size cities and some small private

developments located in the piedmont and western regions of North Carolina. Experience is documented in planning, hydraulic analysis, design, and construction inspection/administration and project management. The value of the projects range from a few thousand dollars to over \$2 million in cost. Hydraulic analysis included studies on unidirectional flushing and evaluation of water quality parameters through water system modeling for Mount Holly and Salisbury, North Carolina. These studies involved developing cost-benefit recommendations for networking dead-end lines, installing water line flush locations, or booster chlorination systems to improve and maintain chlorine levels. Mr. Hemker provided hydraulic modeling guidance to support the design of several low-pressure sanitary sewer systems under G&D’s current Water/Sewer Street Main Extension Contract. Mr. Hemker recently completed the design of approximately 1,800 LF of 15-inch and 3,600 LF of 18-inch gravity sewer in Greenville, SC on behalf of the Metropolitan Sanitary Sewer Subdistrict (\$1.4M).

**Morgan Hampy - Design and Drafting Services**  
**Staff Engineer – Charlotte, North Carolina**

**Certifications**

- ✓ Stormwater BMP Inspection & Maintenance Certification (3240)
- ✓ NASSCO PACP, LACP, MACP Certification (U-0119-070304234)

**Education**

- ✓ Master of Science in Civil Engineering, 2014
- ✓ Bachelor of Science in Civil Engineering Technology, University of North Carolina at Charlotte, 2013

Mrs. Hampy is a staff engineer of G&D who joined the firm in 2015. Ms. Hampy assisted with recent projects such as North Mill Creek Interceptor Replacement, the City of Hickory’s Central Business District (CBD) Infrastructure Rehabilitation Project, a variety of UNC Charlotte facility

management projects and numerous water and sewer design projects completed for Charlotte Water. She is proficient in a wide range of engineering design using AutoCAD (Civil 3D) in addition to significant experience in preparing cost estimates, contract documents, and permit applications for these projects. In addition, she is proficient in the building and calibration of water distribution and sanitary sewer hydraulic models in EPANET and InfoWorks ICM, respectively. Mrs. Hampy was a major contributor to the City of Hickory Central Business District (CBD) Infrastructure Rehabilitation and the South and North Mill Creek Interceptor Replacement Projects in Winston-Salem, NC.



Mrs. Hampy recently served as lead design engineer on the South Fork Interceptor No. 3 Outfall Replacement Project on behalf of Winston-Salem, which consisted of over 9,400 LF of 54-inch FRP, among other sewer improvements (\$13.0M).

### **Janine Ba - Design and Drafting Services** **Staff Engineer – Charlotte, North Carolina**

#### Certifications

- ✓ NASSCO ITCP CIPP Certification (CIPP-1218-0400495)
- ✓ OSHA Confined Space Entry Certification
- ✓ NASSCO PACP, LACP, MACP Certification (U-0119-070304235)

#### Education

- ✓ Master of Arts in Business Intelligence, Dalarna University - Borlänge, SE, 2014
- ✓ Bachelor of Science in Civil Engineering, UNCC, 2000

Mrs. Ba is a staff engineer at Gavel & Dorn (G&D) who joined the firm in February 2018. She has broad experience in the design and construction of all aspects of public civil infrastructure including water and sewer. Mrs. Ba has assisted with recent projects at G&D including, Charlotte Water’s Water & Sewer Street Main Design project, Small Water and Sewer Related projects and Charlotte Water’s Pipeline Rehab project. Mrs. Ba is responsible for the planning and design of almost 100 individual potable water quality sampling stations. Mrs. Ba is

proficient in a wide range of engineering design using AutoCAD (Civil 3D) in addition to significant experience in preparing cost estimates, contract documents, and permit applications for these projects. In addition, she is proficient the use of ArcGIS.

Prior to joining G&D, she served as Engineering Project Manager for the Montgomery County Department of Parks (Silver Spring, MD). She managed Capital Improvements Projects, which included extensive stormwater management for water quality and erosion control. She is an experienced civil designer, having led several in-house design projects for the Parks Department. As a staff engineer with Department of Public Work in St. Thomas (Virgin Islands), she designed, managed and inspected the construction of roadway, drainage, cemeteries, school renovations, parking lots, sidewalks and office building renovations.

### **Sydney Katuszonek, E.I. - Design and Drafting Services** **Staff Engineer – Charlotte, North Carolina**

#### Certifications

- ✓ Certified Engineer Intern (EI/EIT) in NC (A-29632)

#### Education

- ✓ Bachelor of Science, Biological Systems Engineering, University of Wisconsin at Madison, 2018

Ms. Katuszonek, E.I. is a staff engineer at Gavel & Dorn (G&D) who joined the firm in January 2019. Her prior work history is dominantly in the permitting and regulation of large farms in Wisconsin. Ms. Katuszonek assisted with recent projects including

North Mill Creek Interceptor Replacement and South Fork Interceptor No. 3 Outfall. She also assisted with other G&D projects such as E&A Custom Builders Parkwood Reform, UNC Charlotte EV Charging Shed, CLTWater’s Water & Sewer Street Main Design, Small Water and Sewer Related projects and Charlotte Water’s Pipeline Rehabilitation project. She is proficient in engineering design using AutoCAD (Civil 3D) and experienced with field engineering, BMP inspections, submittal review, documentation, compliance, data analysis, design, and modeling. During her time as a regulator in Wisconsin, she learned how to read and interpret state regulations. This allowed her to review permits and respond to the public effectively about their concerns.

## SECTION 2 EXPERIENCE AND APPROACH

### Section 2-1 Relevant Project Experience

To follow is a list of projects with detailed descriptions performed by G&D that are similar in size or type to the CLTWater Water and Sewer Street Main Design projects. We've identified for each project the owner, project title, contact names and contact information. Key roles of proposed project staff for this SOQ, on this list of relevant project experience, is found in **Table 2-2** at the end of **Section 2-2**.

<b>Owner:</b>	CHARLOTTE WATER (CLTWater)
<b>Project 1 Title:</b>	Water & Sewer Street Main Extension Design Services
<b>Completion Date:</b>	Ongoing
<b>Contact:</b>	Matthew Ennis, PE
<b>Address:</b>	5100 Brookshire Blvd. Charlotte, North Carolina 28216
<b>Phone &amp; Email:</b>	704-336-1064 Matthew.Ennis@ci.charlotte.nc.us
<b>Cost:</b>	\$400,000 (Total Contract Value) \$346,000 (Invoiced Amount)
<b>Total Time Involved:</b>	6 years at the present (since 2013)

**Project 1** G&D has provided consulting services to CLTWater for design and permitting of water and sewer line extensions since January 2013. Two open-ended services contracts have been awarded with a total value of \$400,000. G&D has provided construction plans to CLTWater for more than forty-six projects since contract inception. Projects have varied in size and scope. Typical projects involve water and sanitary sewer main extensions less than

1,000 feet in length though extensions of up to 6,200 LF sewer outfall design have also been part of services provided. G&D has also completed projects for design and permitting of six low pressure sanitary sewer systems (LPSS), provided geotechnical services for a future horizontal directional bore project, designed and permitted a horizontal directional drilling installation within the NCDOT right of way, and provided survey and easement plat preparation services. *Landtec served as our survey partner throughout the duration of these projects.*

G&D's role during each street main extension is to produce construction plans, traffic control plans and all other necessary permit documents to complete construction of water and sewer mains located in NCDOT roadways as well as other locally maintained streets. Design work is completed for this project in accordance with all applicable requirements of the CLTWater design manual "Water and Sewer Policies, Procedures, Standards and Specifications". All traffic control plans are completed in accordance with NCDOT Standard Specifications for Roads and Structures and Charlotte's Work Area Traffic Control Handbook. All AutoCAD drafting is completed in accordance with CLTWater design standards. It is our belief that we have met CLTWater's stated Performance Expectations throughout project execution and are committed to continuing to do so in the future. We propose to discuss these expectations at our kickoff meeting to identify ways that we can improve our service to CLTWater.

The following **Table 2-1** identifies the variety of services provided under this open-ended project.

**TABLE 2-1 COMPLETED WATER AND SEWER STREET MAIN EXTENSION PROJECTS**

PROJECT TITLE	Project Manager	Type	Water (LF)	Sewer (LF)	Permits	Other	Comments
Belmeade	M. King	Sewer 8"	-	1266	NC DOT	-	-
Blue Moss Point Dr	M. Ennis	Water 2"	200	-	-	-	-
Carmel Forest Dr	M. Ennis	Sewer 8"	-	210	-	-	-
Celia Avenue	M. King	Sewer 8"	-	209	-	-	-

**TABLE 2-1 COMPLETED WATER AND SEWER STREET MAIN EXTENSION PROJECTS**

PROJECT TITLE	Project Manager	Type	Water (LF)	Sewer (LF)	Permits	Other	Comments
Cumberland Ave	M. King	Sewer 8"	-	167	-	-	Utility Locates – TWT Survey - Landtec
Eagle Chase	M. Ennis	Sewer 8"	-	241	-	-	Utility Locates – TWT Survey - Landtec
Faraday St.	M. Ennis	Water 2" & 3"	1428	-	NCDOT	-	-
9421 Harrisburg	A. Jarrell	Erosion Control	-	-	NC DENR	-	-
Harrisburg Road	M. Ennis	Sewer 8"	-	380	NCDOT	-	-
Hillside	M. Ennis	Sewer 8"	-	610	-	-	-
Johnny Cake Lane	M. King	Sewer 8"	-	104	-	-	-
Kenley Lane	M. Ennis	Water 2"	740	-	-	-	-
Lake Drive	M. King	Sewer 8" LPSS 2" Water 8"	3319	2029 LPSS 500 SEWER	NCDOT DENR LPSS & EROSION	-	-
MacGregor Lane	M. Ennis	Water 2" LPSS 2"	280	1200	NC DENR, NCDOT	Topographic Survey & Easement Maps	Low Pressure Sewer
Mascot Lane	M. Ennis	Sewer 8"	-	760	-	-	-
Matthews Commons	R. LeBlanc	Sewer	15", 12", 10" & 8"	6200 LF	NCDOT, NC DENR (Erosion)	-	Pump Station Abandonment
McCoy Road	M. Ennis	Sewer 8"	-	845	-	-	-
Moore's Chapel	M. Ennis	Geotech	-	-	-	-	Geotechnical Report for HDD Installation
Morning Drive	M. Ennis	Sewer 8"	216	-	CDOT	Traffic Control	-
Mountain Pt. Lane	M. Ennis	LPSS 2"	-	747	NC DEQ, NCDOT	-	Low Pressure Sewer - In Progress
Mt. Holly Road	M. Ennis	Sewer 8"	-	720	NCDOT	Easements	-
Mt. Holly-Huntersville Road	A. Jarrell	Sewer 12" & 8"	-	2898	NCDOT NCDENR	Easement Maps	Easements - Landtec
N. Beatties Ford Rd	M. Ennis	LPSS 2"	-	120	NC DENR	-	Low Pressure Sewer Permit
NC 73/Henry Lane	M. King	LPSS 4" & 2"	-	3100	NCDOT DENR LPSS & EROSION	-	Low Pressure Sewer
O'Hara Street	M. Ennis	Water 8" Sewer 8"	170	692	-	-	-
Old Dowd	M. King	Sewer 8"	-	348	NCDOT	-	Utility Locates - TWT
9616 Old Dowd	M. King	Sewer 8"	-	80	-	-	-
Oxford Glen	A. Jarrell	Water 6"	2796	-	-	-	System Modeling
Park Road	J. Boone	Water 8"	1280	-	NCDOT	Traffic Control	Project Cancelled
Parview	M. King	Sewer 8"	-	325	-	-	-
Paw Creek	M. King	Sewer 8"	-	365	-	-	In Progress
Ramsey Creek Park	M. Burgess	LPSS 2"	-	1993	NC DEQ	-	Low Pressure Sewer with station design

**TABLE 2-1 COMPLETED WATER AND SEWER STREET MAIN EXTENSION PROJECTS**

PROJECT TITLE	Project Manager	Type	Water (LF)	Sewer (LF)	Permits	Other	Comments
Remount Road	J. Boone	Water 2"	255	-	NCDOT	Traffic Control	-
Sample Road	A. Jarrell	Erosion Control	-	-	NC DENR	Erosion Control	-
Sardis Road	A. Jarrell	Sewer 8"	-	381	NCDOT	Survey	Survey - Landtec
S. Tyron St. Sewer	K. O'Leary	HDD Sewer 8"	-	185	NCDOT	Active Shoring	HDD Installation in NCDOT R/W
Sharon Acres	M. Ennis	Sewer	-	510	-	-	-
Sharon Lane	M. King	Sewer 8"	-	288	-	-	In Progress
Sportsman Drive	M. Ennis	Water 2"	302	-	-	-	-
Starnes Road	M. Ennis	Sewer	-	255	-	-	-
Stephens Road	M. King	Water 8" & 2" Sewer 8"	2109	1106	NCDOT	-	-
Sunset Rd Sewer	M. Ennis	Sewer 8"	430	-	NCDOT	Traffic Control	-
Tempest Place	M. Ennis	Water	68	-	-	-	-
Theran Lane	M. King	LPSS 3" & 2" WATER 8"	689	1221	NCDOT NCDENR	-	-
Torrence Chapel	M. Ennis		-	-	-	Traffic Control	-
Tresia Lane	M. King	LPSS 2"	-	145	NCDENR	-	Additional Flow Analysis for Basin

<b>Owner: CHARLOTTE WATER (CLTWater)</b>	
<b>Project 2 Title:</b>	<b>Small Water &amp; Sewer Related Projects</b>
<b>Completion Date:</b>	Ongoing
<b>Contact:</b>	Fred Hunter, PE
<b>Address:</b>	5100 Brookshire Blvd. Charlotte, North Carolina 28216
<b>Phone &amp; Email:</b>	704-336-1042 whunter@charlottenc.gov
<b>Cost:</b>	\$500,000 (Contract Value) \$292,700 (Invoiced Amount)
<b>Total Time Involved:</b>	12/2017 to present

**Project 2** G&D's has provided ongoing consulting services to CLTWater under the Small Water & Sewer Related Projects contract since December 2017. Under this contract, G&D's major effort has been the design of over 100 dedicated, stand-alone potable water quality sampling stations. The scope of work includes verifying locations, arranging utility locates and resolving conflicts, easement exhibits, mapping and inspections. Other work completed under this contract has included:

- Design of four auto-flusher installations. Design effort for this work included coordinating with CLTWater, estimating flush volumes, determining appropriate disposal methods, design of piping, permitting, and inspections.
- Design of small water and sewer main extensions including the design of 2000 LF of 6-inch water main along Park Drive & Hawthorne Lane.
- Sewer cleaning and monitoring services for Coffey Creek.



**Moores Chapel WQ Sampling Station**

<b>Owner: CHARLOTTE WATER (CLTWater)</b>	
<b>Project 3 Title:</b>	<b>Pipeline Rehabilitation and Construction Services</b>
<b>Completion Date:</b>	Ongoing
<b>Contact:</b>	Micah Burgess, PE
<b>Address:</b>	5730 General Commerce Drive Charlotte, North Carolina 28213
<b>Phone &amp; Email:</b>	704-336-1278 mrburgess@ci.charlotte.nc.us
<b>Cost:</b>	\$1,900,000 (Contract Value) \$98,500 (Invoiced Amount)
<b>Total Time Involved:</b>	2/2019 to present

**Project 3** G&D was awarded the Pipeline Rehabilitation and Construction Services contract in February 2019. Under this 3-year contract, G&D will provide CLTWater with design and construction services for their pipeline rehabilitation program which may require complete rehabilitation/replacement of water/sewer pipelines of varying lengths and sizes as well as the evaluation of water and sewer pipelines. To date, under this contract G&D has completed more than 10 water line

replacements, sanitary sewer flow monitoring services, multiple complex traffic control plans, valve testing assistance and construction services. In addition, G&D has been begun project management and design effort for over 40 miles of asbestos cement pipe (ACP) replacement.

<b>Owner: CITY OF HICKORY</b>	
<b>Project 4 Title:</b>	<b>Central Business District Water and Sewer Rehabilitation</b>
<b>Completion Date:</b>	November 6, 2017
<b>Contact:</b>	Shawn Pennell
<b>Address:</b>	PO Box 398 Hickory, North Carolina 28603
<b>Phone &amp; Email:</b>	828-323-7427, spennell@hickorync.gov
<b>Cost:</b>	\$4.9 Million (Construction)
<b>Total Time Involved:</b>	2.5 years

**Project 4** The potable water, sanitary sewer, and drainage infrastructure in the Central Business District (CBD) of the City of Hickory was nearing the end of its design life and was in poor condition. In addition, the City was embarking upon a significant streetscape enhancement project. As a result, developing a plan to upgrade the existing underground infrastructure was a priority. GIS and other information showed that there was

a significant amount of underground infrastructure in the 15-acre study area, which includes over 4,600 linear feet (LF) of water main, 5,500 LF of sewer main, 2,000 LF of storm sewer, and associated appurtenances. G&D completed a thorough review of all infrastructure via field and CCTV inspection (per NASSCO PACP methodology) and developed an overall rehabilitation plan that included a combination of pipe rehabilitation and replacement of existing water, sewer, and storm sewer mains and service connections via a variety of construction techniques including cured-in-place (CIPP) lining. G&D completed the design and submitted for and successfully obtained SRF funding to the State for construction. Total construction cost was 4.7-million dollars. Construction began in February 2017 and was completed (on-schedule and within budget) in December 2017.



Construction in Trade Alley, Hickory

<b>Owner:</b>	<b>UNIVERSITY OF NORTH CAROLINA at CHARLOTTE</b>
<b>Project 5 Title:</b>	<b>Student Union Sewer</b>
<b>Completion Date:</b>	February, 2017
<b>Contact:</b>	John Boal, AIA/Asst. Director
<b>Address:</b>	9201 University City Blvd. Charlotte, NC 28233
<b>Phone &amp; Email:</b>	704-687-0529, jboal1@uncc.edu
<b>Cost:</b>	\$270,000
<b>Total Time Involved:</b>	8 months

**Project 5** On the campus of UNC Charlotte and existing sewer main located along a creek in a heavily wooded area between the Student Union and Lynch Hall had been exposed due to channel erosion. The sewer had also been damaged by a falling tree, and the temporary repair needed a permanent fix. The University contracted with G&D to complete a

basin evaluation to determine the appropriate size of the new main in anticipation of future build out. The sewer study required flow monitoring and analysis of future land use within the basin. After completion of the sewer study, G&D provided a recommendation to upsize the existing main from an 8-inch main to a 12-inch main. G&D then developed construction plans and specifications for repair and rerouting of 1,500 feet of sewer. Sewer design included a jack & bore of Cameron Boulevard. G&D also provided bidding assistance, construction administration and inspection services. Construction was completed in February of 2017 at a cost of \$270,000.

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## **Section 2-2 Project Tasks and Approach**

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The project scope is enumerated in the RFQ. As noted previously above, G&D has provided services under this contract for 6 years and we understand the type of work and effort that will be required. G&D also understands that due to the nature of the particular tasks in the Water & Street Main Design contract, many projects will be ‘fast-tracked’ either because of the small scale of the project or because of a compressed timeline for construction. G&D has consistently been able to meet those tight timelines as required by CLTWater. Because of that past history we can confidently state that ***G&D will be able to respond to CLTWater requests within 72 hours and provide schedules within one week in response as required by the RFQ.***

As noted above, many of the tasks under this contract will not allow for a typical project sequence due to short project timelines. However what follows is a discussion of our general approach to completing projects tasks in a timely and effective manner including keeping the project on budget and schedule. These principles will be applied to all projects to the extent possible depending on length of schedule.

G&D has an established track record of consistently providing quality engineering and construction services on our projects. Consistent delivery of quality service requires a system for maintaining product integrity, monitoring costs, and adhering to schedules. Such a system applies to the overall operation of the organization and individual projects that the organization undertakes. At G&D, the principal partners of the firm, are ultimately responsible for the performance of the firm. All work performed by all project engineers and field technicians is ultimately reviewed by the partners before it is sent to the client. Mr. Mayo will review all timesheets, invoices, specifications, drawings, field reports, and test reports – any and all deliverable items - and then with assistance and cross checking from staff, send these items for delivery to the client.

### **Task 1. Preliminary Matters – Scope of Service and Budget**

G&D management and key staff for any given project will meet with the client to identify the client’s expectations and goals for the project or group of projects. Based on this meeting, G&D will provide a written scope of service, budget and schedule for the client to review. Upon receipt of client comments,

G&D will revise the scope of work, budget, and schedule, and enter into a contract on the basis of the mutually agreed upon scope and budget. When possible, G&D will combine information gathered in this item with item 2.

**Task 2. Project Kickoff Meeting**

The G&D project manager and key personnel will meet with the City's management staff and key operating personnel, and others at the discretion of the City. The project kickoff meeting may last for several hours, and may involve site visits, transfer of data, and other tasks related to gathering information needed to generate the desired deliverable, whether the deliverable is an engineering report or design documents. G&D will document the discussions from this meeting by writing meeting minutes and distributing these to all meeting attendees and any City staff as directed by the City's management. Project scheduling may be refined at this meeting, and interim deliverable milestone dates are established. Furthermore, G&D plans to discuss our past performance with respect to performance expectations to identify areas of improvement.

**Task 3. Execution of the Work**

After the kickoff meeting, G&D proceeds in an orderly fashion with completion of the work, directing staff and subconsultants toward the completion of the tasks needed to complete the Work. G&D will only engage subconsultants with an established track record of competency in their field and requires that all subconsultants carry professional liability insurance. G&D will manage subconsultants, as necessary, to obtain survey (i.e. Landtec) or other information as necessary. ***All work needed for interim deliverable documents is checked thoroughly by a partner prior to submittal to the client for review.***

**Task 4. Interim Project Milestones**

G&D typically establishes 30%, 60%, and 90% interim deliverables, generally centered on client meetings. G&D receives client commentary and documents commentary and/or meeting discussions with memoranda. ***G&D believes that frequent communication is essential to managing the client's expectations, and that there is no substitute for written communication, whether it is electronic or paper.*** Written documentation protects all parties involved in the project. Design documents will conform to CLTWater standards, specifications and details. G&D senior management will also regularly check with the client's management to ensure that work is progressing in a satisfactory manner.

**Task 5. Final Deliverable and Deliverable Deadline**

After all client commentary has been incorporated from interim deliverables, G&D senior management will oversee production of the final deliverable documents. G&D understands that meeting deadlines is important, as it is often related to meeting the client's own budgetary and scheduling needs that may impact other elements in the client's operations. When the deliverable is construction contract documents, G&D has established procedures for the bidding, construction, and warranty phases of the project. Construction administration and inspection are mainstays of G&D's service line, and a number of municipalities and other consulting firms engage G&D solely for that purpose.

**Table 2-2 Key Roles of Project Staff on List of Relevant Project Experience**

Projects	Key Staff 1	Key Staff 2	Key Staff 3	Key Staff 4	Key Staff 5	Key Staff 6	Key Staff 7
	Sean Mayo, PE	Kirk Gavel, PE	Jason Dorn, PhD, PE	Tim Hemker, PE	Morgan Hampy	Janine Ba	Sydney Katuszonek, E.I.
1. <b>Charlotte Water - Water and Sewer Street Main Extensions</b>	Project Manager	Client Officer Geotechnical Engineering	Senior Engineer	Senior Engineer	Staff Engineer	Staff Engineer	Staff Engineer
2. <b>Charlotte Water – Small Water &amp; Sewer Related Projects</b>	Lead Design Engineer	Client Officer	N/A	Project Engineer	N/A	Staff Engineer	Staff Engineer
3. <b>Charlotte Water – Pipeline Rehabilitation &amp; Construction Inspection</b>	Lead Design Engineer	Client Officer	Project Manager	N/A	Staff Engineer	N/A	N/A
4. <b>Central Business District Water and Sewer Rehabilitation</b>	Lead Design Engineer	Principal Engineer	Project Manager	N/A	Staff Engineer	N/A	N/A
5. <b>UNC Charlotte – Student Union Sewer</b>	Project Manager	N/A	Sanitary Sewer Capacity Study	N/A	Staff Engineer	N/A	N/A



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### Section 2-3 Workload Availability

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Key Staff availability is shown in Exhibit 7. In addition to the seven Key Staff members, G&D will have two other registered engineers and three additional staff engineers available to work on the project.

All of G&D’s proposed project staff are based at our Charlotte headquarters and all subcontractors are based in the Charlotte area as well. Recall that the G&D office is within five minutes of CLTWater.

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### Section 2-4 Why Choose Gavel & Dorn Engineering, PLLC

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G&D has a track record of providing excellent service on this very same Water & Sewer Street Main Design contract that is the subject of the RFQ. Since 2013 we have provided engineering services on over 45 individual projects under two separate contracts that we have been awarded. Our body of work under these contracts has included not just water and sewer main extensions but also low-pressure sewer design, survey, geotechnical, and various permits including NCDOT encroachments for jack-and-bore construction. ***At G&D we understand that our role is to help Charlotte Water staff provide great customer service to Charlotte Water customers.*** Knowing that, our goal is to complete our work on time and as efficiently as possible. We believe we have met our goal consistently over the six years since we started this work and feel that Charlotte Water project managers will concur that G&D is the firm that should be selected for this project.

Beyond our work on the 2013 & 2015 Water & Sewer Street Main Design contracts, our other work with Charlotte Water also validates our position as the firm to be selected for this contract. We have worked with a variety of CLTWater project managers on a range of engineering and construction services from small street main projects to some of the largest water and sewer pipelines in the system. We have performed projects similar to those described in the RFQ for cities such as Winston-Salem, Hickory, Harrisburg, Shelby, Greenville, South Carolina, and elsewhere throughout the Carolinas.

We also understand that projects often need quick turnaround in response to emergency conditions. As a small local firm, the firm’s principals are involved in every project. We are especially responsive to emergency projects. We will work side by side with Charlotte Water staff to get work done. We encourage you to contact CLTWater project managers (Matthew Ennis P.E., Richelle Hines P.E., Fred Hunter P.E., Marcus King P.E., Tony Martin P.E.) who have worked with G&D on recent projects to get first-hand information about our work quality.

G&D is proud of the quality of service we provide all of our clients. To follow, in **Table 2-3**, are additional client references of individuals familiar with our work across a wide variety of projects of various types and sizes. We encourage you to contact them for additional insight into our firm.

**Table 2-3 CLIENT REFERENCES**

Name	Municipality/Company	Phone #	Email Address
Arnold Jarrell, P.E.	Charlotte Water	704-399-2221	ajarrell@ci.charlotte.nc.us
Chuck Bliss	Charlotte Water	704-399-2221	cbliss@ci.charlotte.nc.us
Christine Putnam, P.E.	City of Concord	704-920-5343	putnamc@concordnc.gov
Wilmer Melton	City of Kannapolis	704-920-4200	wmelton@ci.kannapolis.nc.us
John Boal	University of North Carolina at Charlotte	704-687-0529	jboal1@unc.edu
Marty Wilson	City of Newton (now with Rural Water)	919-745-7968	ncrwamdw@aol.com
David Hux	City of Shelby	704-484-6840	david.hux@cityofshelby.com

**Table 2-3 CLIENT REFERENCES**

Name	Name	Name	Name
Marcus Felton, P.E.	Winston-Salem/Forsyth County Utilities	336-771-5111	marcusf@cityofws.org
Kevin Greer, P.E.	City of Hickory	828-323-7427	kgreer@hickorync.gov
Rob Donham, P.E.	Town of Harrisburg	704-455-0728	rdonham@harrisburgnc.org

### **REQUIRED FORMS (Exhibits 1 – 7)**

The following Exhibits, as required by CLTWater’s Request for Qualifications, are attached:

- Exhibit 1: Firm Information
- Exhibit 2: Minority and Small Business Enterprise (MSBE) Participation Plan
- Exhibit 3: Commercial Non-Discrimination Certificate
- Exhibit 4: E-Verify Certification
- Exhibit 5: Certification Regarding Debarment, Suspension and Other Responsibility Matters
- Exhibit 6: Byrd Anti-Lobbying Certification
- Exhibit 7: Personnel & Firm Qualifications Matrix

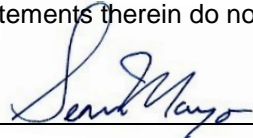
**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature: 

Printed Name: Sean Mayo, P.E.

Title: Partner

Date: October 3, 2019

**PROPOSER INFORMATION**

Company Legal Name: Gavel & Dorn Engineering, PLLC

NC Board of Examiners for Engineers and Surveyors License No.: P-0601

Mailing Address (Headquarters): 6730 Freedom Drive

Charlotte, NC 28214

Mailing Address (Local Office, if different from above): \_\_\_\_\_

City of Charlotte Vendor Number: 122596

Person(s) to Contact Regarding Proposal (including questions and selection announcements): Contact 1 Name: Sean Mayo, P.E.

Contact 1 Email: smayo@gaveldorn.com Phone: 704-919-1900 x 208

Contact 2 Name: Kirk Gavel, P.E.

Contact 2 Email: kgavel@gaveldorn.com Phone: 704-919-1900 x 204

**Type of Company** (check one box)

Sole Proprietor       Partnership       Corporation | State of Incorporation: NC

Limited Liability Company | State of Incorporation: \_\_\_\_\_

Joint Venture (This exhibit must be completed by each joint venture company.)

Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under “Additional Information About This RFQ”.)

**Acknowledgement of Addenda:**

No.:   1   Date: September 27, 2019

No.:            Date:                   

No.:            Date:                   

No.:            Date:

## EXHIBIT 2

### MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

Subconsultant's Full Name	Description of work / materials	Indicate either "M" and/or "S"	City Vendor #
Landtec Surveying, Inc.	Surveying Services	S	307016

In addition, address the following:

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
  2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
  3. Include a list of past projects and your MSBE utilization on said projects.
  4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
  5. Provide a recent project example of compliance efforts and results.
1. G&D has included MSBE on past similar projects including FY18-RFQ-03 Small Water and Sewer Related Projects and 2019-RFQ-04 Pipeline Rehabilitation Engineering and Construction Inspection Services.
  2. This experience has been with City of Charlotte programs (as noted above).
  3. G&D is an certified SBE per City of Charlotte, so for this project as well as most other past projects with the City, our utilization rate is 100%. Past Projects include:
    - a. Small Water and Sewer Related Projects (100%)
    - b. Pipeline Rehabilitation Engineering and Construction Inspection Services (100%)
    - c. Water & Sewer Street Main Design (100%)
  4. G&D, as an SBE, provides a 100% utilization rate. The services to be provided under this contract that would be available to bring in additional MSBE are limited to survey and subsurface utility location services. We have included Landtec (SBE) on the team to maximize inclusion. We also reviewed the City INclusion certified MSBE list to find a utility locate service. We have not found a team member at this time, but will continue to research to this so that we may include additional MSBE's on the team.
  5. G&D MSBE compliance efforts and results within the City of Charlotte are typically 100% due to G&D's status as an SBE (see project list Item 3 above). However, in other municipalities, G&D has been required to meet MBE requirement goals using subcontractors only. For example, in Winston-Salem, G&D recently designed three large sewer main projects with design contracts of approximately \$1.5-million. G&D has utilized a variety of HUB certified subcontractors for services including field survey, aerial survey, subsurface utility location, drilling, wetlands and permitting, and sanitary sewer evaluation services. The required MBE participation for all three projects has been 10% minimum and G&D has met those goals during the course of the projects.

EXHIBIT 3

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

- 1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, discrimination means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, discrimination also includes retaliating against any person or other entity for reporting any incident of discrimination.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

Gavel & Dorn Engineering, PLLC
Name of Company

Signature of Company's Authorized Official

October 3, 2019
Date

Sean Mayo, P.E.
Print Name

Partner
Title

**EXHIBIT 4**

**E-VERIFY CERTIFICATION**

Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:
  - a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
  - b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
  - c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.
  
2. As a condition of being considered for the Contract, Company certifies that:
  - a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
  - b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.
  
3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Gavel & Dorn Engineering, PLLC  
Name of Company

  
Signature of Company's Authorized Official

October 3, 2019  
Date

Sean Mayo, P.E.  
Print Name

Partner  
Title

EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: Gavel & Dorn Engineering, PLLC

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

I hereby certify as stated above:

Sean Mayo, P.E.
Print Name

[Handwritten Signature]
Signature

Partner
Title

October 3, 2019
Date

I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name

Signature

Title

Date



**EXHIBIT 6**

**BYRD ANTI-LOBBYING CERTIFICATION**

Project: Water and Sewer Street Main Design

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The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Gavel & Dorn Engineering, PLLC (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

Sean Mayo, P.E.  
Print Name

  
Authorized Signature

October 3, 2019  
Date

6730 Freedom Drive  
Address

Charlotte, NC 28214  
City / State / Zip

**EXHIBIT 7 (Page 1 of 4)**  
**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>	<b>Gavel &amp; Dorn Engineering, PLLC (G&amp;D)</b>				
<b>Part I: Staffing Information</b>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
Name of Personnel:	<i>Kirk Gavel, PE</i>	<i>Jason Dorn, PhD, PE</i>	<i>Sean Mayo, PE</i>	<i>Tim Hemker, P.E.</i>	<i>Morgan Hampy</i>
Current Title:	Senior Partner	Partner	Partner	Senior Engineer	Staff Engineer
Certifications and Licenses (provide certification number and expiration date):	Professional Engineer NC (022034), SC (17813), GA (029684); Licensed General Building/Public Utilities Contractor, NC (44980); Nuclear Density Gauge Certification; Sedimentation and Erosion Control Certification	Professional Engineer NC (23575), SC (20596), VA (044028)	Professional Engineer NC (36837); Stormwater BMP Inspection & Maintenance Certification (2163); NASSCO PACP, LACP, MACP Certification (U-0119-070304052); OSHA Confined Space Entry Certification	Professional Engineer NC (017625), SC (35357)	Stormwater BMP Inspection & Maintenance Certification (3240); NASSCO PACP, LACP, MACP Certification (U-0119-070304234)
Relevant Academic Degree(s) (list):	MS, Civil Engineering BS, Civil Engineering BA, Economics	PhD, Civil Engineering MS, Civil Engineering BS, Civil Engineering, focus in Water Resources	BS, Civil Engineering Technology; BS, Zoology	BS, Civil Engineering BS, Geology	MS, Construction and Facilities Management; BS, Civil Engineering Technology; AAS, Architectural Technology
Proposed Role/Function for Projects under this Contract:	Client Officer/ Geotechnical Engineering	Design and Draft Services	Project Manager and Design Services	Design and Draft Services	Design and Draft Services
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Greenville, SC	Charlotte, NC
Number of Years with Current Firm:	16 years	11 years	10 years	6 years	4.5 years
Availability (%):	20%	20%	50%	50%	50%
<b>Years Direct Experience in the following:</b>					
• Design of water and sewer mains, <24"	20	20	15	26	4
• NCDOT encroachments	5	15	15	10	4
• Easement preparation	0	15	15	10	2
• Surveying	0	0	0	0	0

**EXHIBIT 7 (Page 2 of 4)**  
**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
<b>Name of Personnel:</b>	<i>Kirk Gavel, PE</i>	<i>Jason Dorn, PhD, PE</i>	<i>Sean Mayo, PE</i>	<i>Tim Hemker, P.E.</i>	<i>Morgan Hampy</i>
1. Water & Sewer Street Main Extension Design Services	Client Officer/ Geotechnical Engineering	Project Engineer	Project Manager	Project Engineer	Staff Engineer
2. Small Water & Sewer Related Projects	Client Officer	N/A	Lead Design Engineer	Project Engineer	N/A
3. Pipeline Rehabilitation and Construction Services	Client Officer	Project Manager	Lead Design Engineer	N/A	Staff Engineer
4. Central Business District Water and Sewer Rehabilitation	Principal Engineer	Project Manager	Lead Design Engineer	N/A	Staff Engineer
5. Student Union Sewer	N/A	Sanitary Sewer Capacity Study	Project Manager	N/A	Staff Engineer
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>CONSULTANT</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>CONSULTANT</b>
<b>Name/Identifier of Firm:</b>	G&D	G&D	G&D	G&D	G&D
Indicate Number of Years in Business:	16	16	16	16	16
Registered with City as a Minority or Small Business:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
List Any City Contract Terminations, include date and reason for termination:	NONE	NONE	NONE	NONE	NONE

**EXHIBIT 7 (Page 3 of 4)**  
**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>	<b>Gavel &amp; Dorn Engineering, PLLC (G&amp;D)</b>			
<b>Part I: Staffing Information</b>	<b>Key Staff 6</b>	<b>Key Staff 7</b>	<b>Key Staff 8</b>	<b>Key Staff 9</b>
Name of Personnel:	<i>Sydney Katuszonek, E.I.</i>	<i>Janine Ba</i>	<i>Ed Godsey, PLS</i>	<i>Thomas Pacella, PMP</i>
Current Title:	Staff Engineer	Staff Engineer	Owner	Subsurface Utility Engineering Division Manager
Certifications and Licenses (provide certification number and expiration date):	Certified Engineer Intern (EI/EIT) NC (A-29632); OSHA Confined Space Entry Certification	NASSCO ITCP CIPP Certification (CIPP-1218-0400495); OSHA Confined Space Entry Certification; NASSCO PACP, LACP, MACP Certification (U-0119-070304235)	Professional Land Surveyor, NC	Certificate of Project Management Certificate Program, University of South Carolina
Relevant Academic Degree(s) (list):	BS, Biological Systems Engineering	MA, Business Intelligence; BS, Civil Engineering	BS, Engineering Technology	N/A
Proposed Role/Function for Projects under this Contract:	Design and Draft Services	Design and Draft Services	Subconsultant/Surveyor	Subconsultant/Utility Locates
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC
Number of Years with Current Firm:	<1 year	2 years	20 years	20 years
Availability (%):	50%	50%	10%	10%
<b>Years Direct Experience in the following:</b>				
• Design of water and sewer mains, <24"	<1	2	0	0
• NCDOT encroachments	<1	2	0	0
• Easement preparation	0	0	30	0
• Surveying	0	0	30	20

**EXHIBIT 7 (Page 4 of 4)**  
**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 6</b>	<b>Key Staff 7</b>	<b>Key Staff 8</b>	<b>Key Staff 9</b>
<b>Name of Personnel:</b>	<i>Sydney Katuszonek, E.I.</i>	<i>Janine Ba</i>	<i>Ed Godsey, PLS</i>	<i>Thomas Pacella, PMP</i>
1. Water & Sewer Street Main Extension Design Services	Staff Engineer	Staff Engineer	Survey/Easements	Utility Locates
2. Small Water & Sewer Related Projects	Staff Engineer	Staff Engineer	Survey	Utility Locates
3. Pipeline Rehabilitation and Construction Services	N/A	N/A	N/A	Utility Locates
4. Central Business District Water and Sewer Rehabilitation	N/A	N/A	Survey/Easements	N/A
5. Student Union Sewer	N/A	N/A	N/A	N/A
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>
<b>Name/Identifier of Firm:</b>	G&D	G&D	Landtec Surveying	Taylor Wiseman & Taylor
Indicate Number of Years in Business:	16	16	20	25 in NC, 118 total
Registered with City as a Minority or Small Business:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
List Any City Contract Terminations, include date and reason for termination:	NONE	NONE	NONE	NONE

QUALIFICATIONS

# Professional Engineering Services for the Water and Sewer Street Main Design

FY20-RFQ-03



OCTOBER 2019

Prepared for:



Prepared by:



IWPN15004.19

October 3, 2019

Ms. Abby Dolan  
Charlotte Water  
5100 Brookshire Boulevard  
Charlotte, NC 28216

■ Kimley-Horn  
200 South Tryon Street  
Suite 200  
Charlotte, NC 28202  
TEL 704 333 5131

## **RE:** Professional Engineering Services for the Water and Sewer Street Main Design, FY20-RFQ-03

Dear Ms. Dolan and Members of the Selection Committee:

As the demand for water and sewer services increase in the area, Charlotte Water (CLTWater) needs a consultant who can provide the resources, expertise, and project understanding to successfully execute your proposed water and sewer extension projects. Kimley-Horn is that firm. We have the staff available to quickly respond to your project assignments as they are assigned and the experience to produce deliverables designed to your standards. As you review our qualifications for the Professional Engineering Services for the Water and Sewer Street Main Design projects, please consider the following benefits our team offers you:

- **Streamlined Coordination.** We are able to provide all of the key technical services required for this contract in-house, from pipeline design to provide service in previously unserved areas to pump station design; and from innovative water tank coatings to water and sewer modeling and permitting. We also have the ability to support you in relevant areas such as traffic control, environmental, structural, and even project website development.
- **On-Call Specialists.** Our team members are on-call specialists and have been instrumental in the successful delivery of a broad scope of projects on budget and often under aggressive schedules. By applying best-practice knowledge gained from this experience, we can develop solutions tailored to your specific needs quickly and effectively.
- **Extensive Experience with Permitting Agencies and Regulations.** Kimley-Horn is well versed in the permitting and approval process. Our in-house team has extensive experience with railroad, environmental, and public works permitting. Our relationships with the reviewing agencies and knowledge of the permitting processes are so strong that our permit applications are often approved without any comments.

It has been a genuine pleasure serving you during the past five years. As your project manager, you have my personal pledge that our team will be available and responsive to your needs and that we will make every effort to provide you with a great project experience on each task. If you have any questions regarding this proposal, please contact me at 704 409 1801 or [rachel.rausch@kimley-horn.com](mailto:rachel.rausch@kimley-horn.com).

Sincerely,

**KIMLEY-HORN**



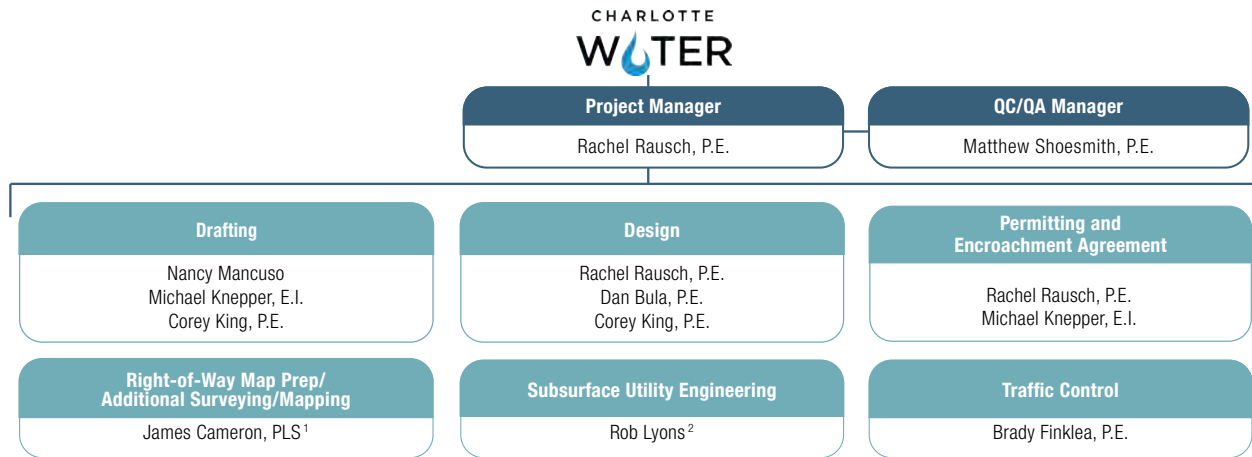
Rachel Rausch, P.E.  
Project Manager



Will Wilhelm, P.E., CFM, CPESC  
Authorized Signer

# Section One: Project Team

## ORGANIZATIONAL CHART



**SUBCONSULTANTS**

- 1. James Mauney & Associates (SBE)
- 2. RDL Private Utility Locating, LLC (WBE/HUB)

## SUBCONSULTANT INFORMATION

### James Mauney and Associates, P.A. (JMA)

JMA, founded in 2002, is a City of Charlotte Small Business Enterprise (SBE) and provides surveying and platting services on a variety of projects for local municipalities. Currently, the firm is working on topographical surveys for several major stream restoration projects, including portions of Torrence Creek, McDowell Creek, Stewart Creek, and Little Sugar Creek with Mecklenburg County.

- Office Location: Belmont, NC
- Contact Name: James Cameron, PLS
- Telephone Number: 704 829 9623
- Services: Additional Surveying and Mapping

### RDL Private Utility Locating, LLC (RDL)

RDL is a private utility locating company. Its employees have a combined 30+ years in the fields of utility protection prior to excavation and utility identifying for subsurface utility engineering (SUE) data. They also are a Women’s Business Enterprise (WBE) and Historically Underutilized Business (HUB) certified firm.

- Office Location: Concord, NC
- Contact Name: Rob Lyons
- Telephone Number: 980 781 4226
- Services: Subsurface Utility Engineering

## MSBE PARTICIPATION PLAN

Kimley-Horn is partnering with two minority/small business enterprises (MSBE) for this effort. JMA (SBE) will provide surveying services. RDL (M/SBE) will provide subsurface utility exploration services.

Qualified M/SBE firms always receive priority consideration when Kimley-Horn looks for suppliers to support its business operations. These businesses receive primary consideration in any submittal for government contracts and special consideration for proposals we submit for private-sector projects. Our commitment to retaining M/SBE firms to assist on projects is demonstrated in the table below, which shows the amounts Kimley-Horn has paid to M/SBE businesses during the past five years.

Year	Total Paid	No. of M/SBE Firms Used
2018	\$23.5 million (goal of \$14M)	165
2017	\$22.3 million (goal of \$12M)	176
2016	\$16.5 million (goal of \$10M)	186
2015	\$15.6 million (goal of \$10M)	198
2014	\$12.2 million (goal of \$9M)	190





## RACHEL RAUSCH, P.E.

*Project Manager; Design; Permitting and Encroachment Agreement*

Rachel's responsiveness, attention to detail, and enthusiasm for client service are what sets her apart. She has 5 years of engineering experience with a variety of utility and water resources projects, including water system modeling, gravity sewer and water line design, elevated storage tank construction administration, stream restoration design, and sanitary sewer pump station design. Her permitting experience includes NCDOT and railroad encroachment permits, erosion and sediment control, and Section 401/404 permitting. She also has completed grant funding tasks for federal and state grants, including environmental documentation.

### RELEVANT EXPERIENCE

- CLTWater Design and Drafting Standards, Charlotte, NC
- Neighborhood Water Enhancement Projects, Asheville, NC
- Miscellaneous Water and Sewer Engineering Services, Charlotte, NC
- McCrimmon Parkway Widening Utility Construction (NCDOT U-5828), Morrisville, NC
- CLTWater Stream Stabilization and Sanitary Sewer Protection Assessment and Repairs, Charlotte, NC
- Long Creek Stream Restoration, Charlotte, NC
- Various Storm Drainage and Maintenance Projects, Charlotte, NC
- Farmville Road Waterline, Shelby, NC
- Broad River Water Authority Water Treatment Plant Expansion, Rutherfordton, NC



*Farmville Road Waterline*



*Broad River Water Authority Water Treatment Plant Expansion*



## MATTHEW SHOESMITH, P.E.

QC/QA Manager

Matthew has 24 years of experience and has been with Kimley-Horn for six years. He has successfully managed utility projects for CLTWater, the City of Shelby, Winston-Salem City/County Utilities, Water and Sewer Authority of Cabarrus County, Union County, Davidson Water, Rock Hill, York County, and Salisbury-Rowan Utilities and Broad River Water Authority (BRWA). Matthew's design experience includes pump station design, large diameter gravity sewer, sanitary sewer evaluation survey (SSES), cured-in-place pipe (CIPP) lining, pipe bursting, horizontal directional drilling (HDD), boring, and force main design. His permitting experience includes North Carolina Department of Environmental Quality (NCDEQ), NCDOT, railroad encroachment, Section 401/404, and erosion and sediment control. His water distribution experience include large- and small-diameter waterlines, booster pump stations, elevated storage tanks, high-service pumping, and all associated permitting.

### RELEVANT EXPERIENCE

- I-77/NC 73 Interchange Reconfiguration Utility Construction (NCDOT I-5715), Charlotte, NC
- McCrimmon Parkway Widening Utility Construction (NCDOT U-5828), Morrisville, NC
- Potter Pleasant Plains Intersection Improvements Utility Construction (NCDOT U-5112/W-5502), Stallings, NC
- CATS Light Rail Blue Line Extension Utility Construction, Charlotte, NC\*
- 60- and 36-inch Statesville Road Water Line Extension, Charlotte, NC
- Farmville Road Waterline, Shelby, NC
- Shelby Westside Water System Improvement 16-inch Water Main in NCDOT Right-of-Way, Shelby, NC\*
- CLTWater Stream Stabilization and Sanitary Sewer Protection Assessment and Repairs, Charlotte, NC
- Long Creek Stream Restoration, Charlotte, NC

\* Experience prior to Kimley-Horn

### Professional Credentials

M.S., Environmental Engineering, University of Tennessee, 1995

B.S., Civil Engineering, University of Tennessee, 1993

Professional Engineer in NC, AL, GA, SC, and TN



60- and 36-inch Statesville Road Water Line Extension



CLTWater Stream Stabilization



## NANCY MANCUSO

*Drafting*

Nancy has 30 years of experience using AutoCAD and Civil 3D Design. Her technical experience includes water and wastewater, stormwater, best management practices (BMPs), environmental, roadway, and land development projects. Nancy has prepared concepts and full production plans using production tools, pipe networks, alignments, corridors, cross sections, mechanical details, profiles, typical sections, grading plans, utility plans, detention ponds, drainage calculations, and earthwork.

### RELEVANT EXPERIENCE

- Paddock Parkway Sewer Design, Rock Hill, SC
- CLTWater Design and Drafting Standards, Charlotte, NC
- CLTWater Stream Stabilization and Sanitary Sewer Protection Assessment and Repairs, Charlotte, NC
- Cross Charlotte Trail, South Charlotte Connector, Charlotte, NC
- CenterPoint Properties, Tyger Tributaries Permittee Responsible Mitigation, Spartanburg, SC

### Professional Credentials

A.A., Santa Fe Community College, 1984



## DAN BULA, P.E.

*Design*

Dan brings 6 years of experience on water resources projects have developed him into a successful young project manager at Kimley-Horn. Prior to his July 2018 relocation to the Charlotte office, he worked in our Raleigh and Durham offices serving clients such as NCDOT, City of Raleigh, City of Durham, Orange Water And Sewer Authority (OWASA), Cape Fear Public Utility Authority (CFPUA), and Town of Cary. He played an integral role on preliminary engineering reports, design of distribution and collection systems, regulatory permitting, and construction administration. He has designed water distribution mains up to 54 inches and sewer interceptors up to 60 inches.

### RELEVANT EXPERIENCE

- I-77/NC 73 Interchange Reconfiguration Utility Construction (NCDOT I-5715), Charlotte, NC
- Wilmington Bypass Utility Construction (NCDOT R-2633BA/R-2633BB), Brunswick County, NC
- Capital Boulevard Improvements/Peace Street and Wade Avenue Bridge Replacements Utility Construction (NCDOT B-5121/B-5237), Raleigh, NC
- Alston Avenue Widening Utility Construction (NCDOT U-3308), Durham, NC

### Professional Credentials

B.S., Civil Engineering, University of South Carolina, 2013

Professional Engineer in NC and SC



## COREY KING, P.E.

*Drafting; Design*

Corey's biggest strengths are his significant technical prowess and deep understanding of his project designs. He has 4 years of engineering experience with a variety of water and wastewater utility projects, including collection and distribution systems, lift and pump stations, elevated water storage tanks, and water and wastewater treatment facilities. He has also worked on the design for streambank stabilization and mitigation bank projects in North Carolina, South Carolina, and Tennessee.

### RELEVANT EXPERIENCE

- Broad River Water Authority Water Treatment Plant Expansion, Rutherfordton, NC
- CLTWater, Miscellaneous Water and Sewer Engineering Services, Charlotte, NC
- Wastewater Treatment, Land Treatment Site, Headworks Upgrade, Jacksonville, NC
- Farmville Road Waterline, Shelby, NC
- Western Regional Sewer System Improvements, Jacksonville, NC

### Professional Credentials

B.S., Civil and Environmental Engineering, University of South Carolina, 2015

Professional Engineer in NC



## MICHAEL KNEPPER, E.I.

*Drafting; Permitting and Encroachment Agreement*

Michael has 3 years of engineering experience on a variety of utility and water resources projects, including storm water system modeling and stream restoration design.

His responsibilities include data collection, geomorphic surveys, production of construction documents from preliminary design to bid sets, determining opinions of probable construction costs (OPCC), and creating GIS figures. He also plays a major role in creating packages for a multitude of permits necessary prior to construction kickoff, including authorization to construct, 404/401, erosion and sediment control, encroachment, and Federal Aviation Administration (FAA).

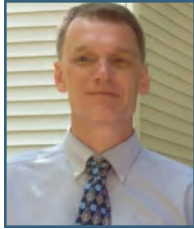
### RELEVANT EXPERIENCE

- CLTWater Stream Stabilization and Sanitary Sewer Protection Assessment and Repairs, Charlotte, NC
- Neighborhood Water Enhancement Projects, Asheville, NC
- Central Yard Storm Water Control Retrofit Project, Charlotte, NC
- North US Highway 21 1.5-MG Elevated Storage Tank, York County, SC
- Big Run Stream and Wetland Mitigation Bank, Berkeley County, SC

### Professional Credentials

B.S., Environmental Engineering, North Carolina State University, 2016

Engineering Intern in NC



## JAMES CAMERON, PLS

*Right-of-Way Prep/Additional Surveying/Mapping*

James has 33 years of experience and has supervised or consulted on an extensive number of land surveying projects, including land title, infrastructure, topographical, construction stakeout and control surveys. He is familiar with the most current surveying technologies used by the industry, including software for automated data collection and mapping, conventional and robotic total stations, Global Positioning System (GPS), and high definition surveying (Leica ScanStation).

### RELEVANT EXPERIENCE

- Stream Stabilization and Sanitary Sewer Protection Assessment and Repairs, Charlotte, NC
- Little Sugar Creek Stream Restoration and Greenway Acquisition, Mecklenburg County, NC
- Chatham Capital Improvement Plan (CIP) Storm Water Services Project, Charlotte, NC
- Charlotte Various Storm Water Projects Contact, Charlotte, NC
- Historic Stewart Creek Enhancement Project, Charlotte, NC



### Professional Credentials

B.A., Journalism, University of North Carolina, Chapel Hill, 1986

Professional Land Surveyor in NC



## ROB LYONS

*Subsurface Utility Engineering*

Rob offers more than 20 years of experience in utility locating and coordination. He is detail oriented and resourceful when completing projects and multitasking. He is highly successful in developing synergistic relationships to bring projects to completion. He uses various types of location equipment and follows the ten basic location procedures to help ensure accurate, quality locates. Rob holds a high level of expertise in reading and understanding the records and plats from different utility companies.

### RELEVANT EXPERIENCE

- NASCAR Museum Project, Charlotte, NC
- Mallard Creek Annexation Project, Charlotte, NC
- Irwin Creek Waste Water Treatment Plant, Charlotte, NC
- Beatties Ford Road Widening Project, Charlotte, NC
- Ballantyne Commons Road Widening Project, Charlotte, NC
- Revolution Park Neighborhood Improvement Plan (NIP), Charlotte, NC



# Section Two: Experience and Approach

## PROJECT EXAMPLES COMPLETED WITHIN THE PAST FIVE YEARS

Legend:  Date services performed  Dollar value  Owner information  Team members involved

### Old Town Water and Wastewater Utility Relocations

*Rock Hill, SC*

Kimley-Horn assisted the City of Rock Hill with the design of water and wastewater utility relocations in preparation for park improvements in the urban Old Town area. This project consisted of design, permitting, and construction administration for approximately 1,600 linear feet (LF) of 12-inch water line and approximately 1,500 LF of 8-inch sewer line along Elizabeth Lane, Black Street, and Main Street. This project was done in combination with a downtown revitalization park and fountain project. The schedule was under tight time constraints so that subsurface utilities could be completed prior to the requirements of the other projects. The project included CCTV inspection of all sanitary sewer lines. Construction of a large parking garage on Elizabeth Street and concurrent construction of a spray park project complicated project construction. Kimley-Horn coordinated traffic control so that no two intersections were closed simultaneously. The construction administration required sequencing and coordination with multiple City departments, contractors, and local businesses. Kimley-Horn also provided input on revisions to the City’s standard specifications.

-  April 2014
-  \$25,600
-  City of Rock Hill  
Mark Kettlewell  
803 817 5173
-  Matthew Shoemith — Project Engineer



### Stream Restoration and Sanitary Sewer Protection Assessment and Repairs

*Mecklenburg County, NC*



Kimley-Horn is providing planning, permitting, and design services for the stabilization of stream, channels, and sanitary sewer infrastructure at various sites throughout Mecklenburg County. The team was selected due to our expertise in channel evaluations, stream restoration design, bank stabilization, environmental permitting, and sanitary sewer design. To date, this contract has included the assessment of more than 18 sites across Mecklenburg County. More sites currently are being delegated to our team as CLTWater identifies them. Concept plans are developed for all sites—with detailed construction plans and specifications completed for most. These sites have included complete channel relocations/restoration of 3,500 feet of a large, major system (Long Creek) to small spot stream bed and bank stabilization to protect a sewer line or a manhole. Permits obtained typically include Erosion and Sediment Control, Flood Development (some with Conditional Letter of Map Revision or No-Rise Certification), and Section 401/404 with U.S. Army Corps of Engineers (USACE) Preliminary Jurisdictional Determination.

-  Ongoing
-  \$1.1 million (not to exceed)
-  CLTWater  
Bill Deal  
704 391 5150
-  Rachel Rausch — Project Engineer  
Matthew Shoemith — Project Engineer  
Michael Knepper — Project Analyst

## Johnston Drive Water Main Extension

*Pineville, NC*

Kimley-Horn designed and permitted approximately 750 LF of 6-inch water main at the intersection of Main Street (NC-51) and Johnston Drive. Johnston Drive was realigned and extended to accommodate a private development, therefore requiring the water main and drainage to be relocated as well. The design included using line stops with bypass to isolate the location of the new water main connection point, ideally minimizing service outages and effects on the small Pineville Pressure Zone within CLTWater’s 882-foot Pressure Zone. This project required intensive coordination between the Town of Pineville, CLTWater, and Kimley-Horn’s roadway, drainage, and utility design teams.





-  Ongoing
-  \$307,000
-  CLTWater (client)  
Bill Deal  
704 391 5150
-  Matthew Shoemith — Project Engineer  
Dan Bula — Project Engineer

## Farmville Road Waterline

*Shelby, NC*

This project includes construction of approximately 27,000 LF of 12- through 24-inch water main, 2,000 LF of 8-inch sewer force main, and construction of a 4.8 million gallons per day (MGD) booster pump station. The entire project—including design, permitting, bidding, and construction—had to be substantially complete within two years of notice to proceed (NTP).

The project was separated into three separate construction contracts to meet the aggressive schedule needs of the new industry. The first phase of construction included connecting to the property to provide water necessary for construction. The second phase included the proposed water main and booster pump station that are required to provide the water demand once the plant is operational. The final phase includes the elevated storage tank to provide redundancy to this portion of the distribution system. The project was bid in January 2018 and met the City’s contractual requirements to provide flow on February 13, 2019.

-  Ongoing
-  \$1.1 million
-  City of Shelby  
David Hux  
704 484 6840
-  Rachel Rausch — Project Engineer  
Matthew Shoemith — Project Manager  
Corey King — Project Engineer






## Neighborhood Water Enhancement Projects

*Asheville, NC*

Kimley-Horn provided professional engineering and survey services for the Neighborhood Water Line Replacement Program. This project included the design, bid, and construction administration for approximately 25,600 LF of 6- and 8-inch diameter water line replacements through existing neighborhoods. Replacement construction included water service connections and related appurtenances, traffic control plans, and pavement repair. The water line alignments were located near the following eight streets within Asheville:

- Warren Wilson Road – approximately 8,840 LF
- Dogwood Court – approximately 950 LF
- Piney Mountain Road – approximately 1,800 LF
- Contestee Street – approximately 770 LF
- Waynesville Avenue – approximately 4,820 LF
- Willis Way Alley – approximately 1,570 LF
- North Street – approximately 2,750 LF
- Hanover Street – approximately 4,100 LF

-  Ongoing
-  \$581,900
-  City of Asheville  
Mark Letterman  
828 232 4589
-  Rachel Rausch — Project Engineer  
Matthew Shoemith — Project Engineer  
Nancy Mancuso — Designer  
Michael Knepper — Project Analyst

## GENERAL TASKS REQUIRED AND FIRM'S APPROACH

Kimley-Horn has compiled a team that has depth in both staff resources and experience to meet the specific scheduling requirements for this project. Project manager **Rachel Rausch, P.E.**, has experience working with CLTWater on the current project that is structured in a similar way. For the Streambank Stabilization and Sewer Repair On-Call, multiple projects are delegated to our team as CLTWater defines them.

### Task 1 – Preliminary Engineering Phase

Kimley-Horn will review as-builts and survey provided by CLTWater and visit the site to determine if additional information is needed within 72 hours.

1. Kimley-Horn will schedule additional survey or SUE as needed.
2. We will develop a project schedule and submit it to CLTWater.



*Kimley-Horn team in the field*

### Task 2 – Design

Kimley-Horn will design the water or sewer extension to CLTWater Standards using AutoCAD Civil 3D 2018.

1. The design process will involve consulting CLTWater and other stakeholders (e.g. CDOT or NCDOT) to confirm the best horizontal and vertical design.
2. Drawings will be produced in accordance with client standards and will include any traffic control, erosion control, and other necessary additional plans.
3. Identify and complete required permitting and encroachment applications.
  - Permitting is expected to be minimal because of CLTWater's delegated review authority.
  - Right-of-way maps will be generated as needed.

Our team has experience with the design process described above. For example, we currently are working with CLTWater on the Streambank Stabilization and Sewer Repair On-Call project. The project is structured in a similar way to the Water and Sewer Street Main project, with CLTWater assigning projects to Kimley-Horn as they are defined. Often the projects are characterized as high-priority, and Kimley-Horn completes all field work, design, and permitting to complete the project as quickly as possible. CLTWater and other stakeholders are consulted during the design phase of each project, and we work efficiently to design the best alternative to meet CLTWater's needs.

We have included before and after photos of representative solutions Kimley-Horn has designed for CLTWater on the following page.





### Before and After Project Photos



*Eastway Park Before*



*Eastway Park After*



*Irwin Creek Before*



*Irwin Creek After*



*McMullen Creek Tributary Before*



*McMullen Creek Tributary After*

## Ability to Respond Within 72 Hours

It is our team's priority to respond to project assignment correspondence sooner than 72 hours. As project manager, **Rachel Rausch, P.E.**, will acknowledge the receipt of the project assignment and review the project's existing conditions (e.g., survey, project concerns, as-builts). If any information crucial to the design is missing, it will be communicated to CLTWater within 72 hours. Once all necessary site information has been identified and a plan is made to procure it, a project schedule will be submitted to CLTWater. Rachel then will allocate the staff resources to produce the plans and permits required for each project. The project team will use extensive design experience of water and sewer infrastructure to identify the current project site conditions, identify any design constraints, and design extensions in accordance with CLTWater's standards. **We have a large number of team members that are able to produce these plans, which will allow us to effectively act as an extension of your design group and increase the rate of projects that can be constructed.**

## Workload/Availability

Kimley-Horn has a proven record of performing on time and within budget. The key to our success is managing the right resources at the right time. We emphasize project management using bi-monthly effort reports that give our project managers up-to-date staffing and expense information related to their projects. This information enables them to continuously monitor the status of project cost, cost control effectiveness, and schedule. In addition, Kimley-Horn often schedules bimonthly telephone progress meetings with our clients to communicate progress to date and the next steps to be taken.

Frequent communication and clear definition of the responsibilities of team members are critical elements in maintaining schedules. With that in mind, our project-specific work plans identify critical project milestones and deliverable dates. We then actively manage our team resources to meet the agreed-upon schedules and keep your project on track.

To manage our staff workload, Kimley-Horn employs an intensive forecasting technique known as our "castahead" process. This effort involves assessing our project milestones and staff loading on a weekly, monthly, and six-month basis, drilling down to the individual level. Individual staff member loading is assessed to the person level in the one-week and

one-month time frames and the operating unit level in the six-month time frame. A database is used to track all project commitments and milestones as well as staff commitments firmwide. Using this intensive process, we can identify overloads and shortfalls many months in advance and develop strategies to overcome them. By having a clear picture of staff workload at all times, Kimley-Horn is optimally positioned to meet your expectations on these projects.

Please see **Exhibit 7** for a list of each key team member's availability.

## WHY KIMLEY-HORN SHOULD BE SELECTED

Below is a summary of why we feel our team is uniquely qualified and the best choice for this contract.

**Balanced, Local Team** — On our organizational chart, what you see is what you get—Rachel's detailed project management, Matthew's experience, and a dedicated local team. We're knowledgeable, efficient, and fun to work with!

**Your entire spectrum of project needs can be addressed by our team, easing coordination and enhancing communication.**

**Client References** — Our client project references speak for themselves. Kimley-Horn has a proven record of successfully representing other large municipal clients. We encourage you to reach out to our client references and hear what they have to say.

**You can rest easy knowing that your projects are in good hands.**

**Staff Availability and Responsiveness** — The Kimley-Horn utility team currently is closing out large utility design projects with multiple clients. Our team is fully ready to commit to any project and ensure even the most demanding schedules are met. Our project team prides itself on being responsive at any time of day.

**You'll have easy access to our team and the information and answers you need, when you need them.**

**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature: 

Printed Name: Will Wilhelm, P.E., CFM, CPESC

Title: Vice President

Date: 10/2/2019

**PROPOSER INFORMATION**

Company Legal Name: Kimley-Horn

NC Board of Examiners for Engineers and Surveyors License No.: F-0102

Mailing Address (Headquarters): 421 Fayetteville Street, Suite 600  
Raleigh, NC 2601

Mailing Address (Local Office, if different from above): 200 South Tryon Street, Suite 200  
Charlotte, NC 28202

City of Charlotte Vendor Number: 4479

Person(s) to Contact Regarding Proposal (including questions and selection announcements): Contact 1 Name: Rachel Rausch, P.E.

Contact 1 Email: rachel.rausch@kimley-horn.com Phone: 704 409 1801

Contact 2 Name: Matt Shoesmith, P.E.

Contact 2 Email: matthew.shoesmith@kimley-horn.com Phone: 704 954 7490

**Type of Company** (check one box)

Sole Proprietor       Partnership       Corporation | State of Incorporation: NC

Limited Liability Company | State of Incorporation: \_\_\_\_\_

Joint Venture (This exhibit must be completed by each joint venture company.)

Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under “Additional Information About This RFQ”.)

**Acknowledgement of Addenda:**

No.:   1   Date:   9/27/19    
No.:            Date:             
No.:            Date:             
No.:            Date:

**EXHIBIT 2**

**MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN**

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

<b>Subconsultant's Full Name</b>	<b>Description of work / materials</b>	<b>Indicate either "M" and/or "S"</b>	<b>City Vendor #</b>
James Mauney and Associates, P.A.	ROW Map Prep, Additional Survey, Mapping	S	150209
RDL Private Utility Locating, LLC	Subsurface Utility Engineering	M/S	302222

In addition, address the following:

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
3. Include a list of past projects and your MSBE utilization on said projects.
4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
5. Provide a recent project example of compliance efforts and results.

## EXHIBIT 2 RESPONSES

### 1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?

Yes, Kimley-Horn has worked with JMA on nearly 100 tasks and recently was selected with RDL on the Miscellaneous Water and Sewer Engineering Services contract.

### 2. Was this experience with the City of Charlotte’s program? If no, state the program used and briefly describe the requirements and compliance.

Yes, Kimley-Horn and JMA have teamed together on 98 tasks with the City of Charlotte. Kimley-Horn was recently selected for the Miscellaneous Water and Sewer Engineering Services contract, where JMA and RDL serve as subconsultants.

### 3. Include a list of past projects and your MSBE utilization on said projects.

Below is an abbreviated list of projects we’ve worked on with JMA. Because we were just selected for the Miscellaneous Water and Sewer Engineering Services contract, we have not had any tasks assigned to RDL.

PROJECT NAME	FIRM	AMOUNT PAID TO SUB	MSBE UTILIZATION
Streambank Stabilization	JMA	\$11,555	2%
Little Sugar Creek–Archdale	JMA	\$87,465	12%
Stewart Creek	JMA	\$84,215	10%
Toby Creek Rehabilitation	JMA	\$79,290	13%
Long Creek Stream Bank Improvements	JMA and Barry Davis	\$262,058	24%

*Utilization percentages were calculated off of invoices paid to date.*

### 4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.

Because of Kimley-Horn’s extensive past experience working on City of Charlotte projects, we have an established list of SBE and MBE firms and know the capabilities of each one. We started by identifying the project needs and then notifying the appropriate MSBE firms on our list (through email correspondence) who we feel can best meet those needs. This process gives us the best opportunity to not only reach out to SBE and MBE firms, but also to select from those that we feel establish the best team for the job.

Specific scopes of services on this project include:

- James Mauney and Associates — surveying and mapping
- RDL Private Utility Locating — subsurface utility engineering

### 5. Provide a recent project example of compliance efforts and results.

Kimley-Horn was selected to provide design services for the stabilization of Long Creek and other various stream bank and sanitary sewer systems within Mecklenburg County. **On this project, we teamed with Barry Davis and JMA to surpass the 20% goal and met a utilization goal of 24%.**

EXHIBIT 3

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

- 1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, discrimination means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, discrimination also includes retaliating against any person or other entity for reporting any incident of discrimination.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

Kimley-Horn
Name of Company

[Handwritten Signature]
Signature of Company's Authorized Official

Will Wilhelm, P.E., CFM, CPESC
Print Name

10/2/2019
Date

Vice President
Title

**EXHIBIT 4**

**E-VERIFY CERTIFICATION**

Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:

- a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
- b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
- c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.

2. As a condition of being considered for the Contract, Company certifies that:

- a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
- b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.

3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Kimley-Horn  
Name of Company

  
Signature of Company's Authorized Official

10/2/2019  
Date

Will Wilhelm, P.E., CFM, CPESC  
Print Name

Vice President  
Title



EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: Kimley-Horn

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

[X] I hereby certify as stated above:

Will Wilhelm, P.E., CFM, CPESC

Print Name

[Handwritten Signature]

Signature

Vice President

Title

10/2/2019

Date

[ ] I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name

Signature

Title

Date

**EXHIBIT 6**

**BYRD ANTI-LOBBYING CERTIFICATION**

Project: Water and Sewer Street Main Design

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The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Kimley-Horn (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

Will Wilhelm, P.E., CFM, CPESC

Print Name



Authorized Signature

10/2/2019

Date

200 South Tryon Street, Suite 200

Address

Charlotte, NC 28202

City / State / Zip

**EXHIBIT 7 (Page 1 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

NAME OF FIRM:	Kimley-Horn				
Part I: Staffing Information	Key Staff 1	Key Staff 2	Key Staff 3	Key Staff 4	Key Staff 5
Name of Personnel:	Rachel Rausch	Matt Shoosmith	Nancy Mancuso	Dan Bula	Corey King
Current Title:	Integrated Water Engineer	Integrated Water Engineer	Designer	Integrated Water Engineer	Integrated Water Engineer
Certifications and Licenses (provide certification number and expiration date):	P.E. in NC #047242 (12/31/20)	P.E. in NC #27670 (12/31/20)	-	P.E. in NC #046031 (12/31/20)	P.E. in NC #37046 (12/31/20)
Relevant Academic Degree(s) (list):	B.S., Bioproducts and Biosystems Engineering	M.S., Environmental Engineering B.S., Civil Engineering	A.A.	B.S., Civil Engineering	B.S., Civil and Environmental Engineering
Proposed Role/Function for Projects under this Contract:	Project Manager	QC/QA	Drafting	Design	Drafting; Design
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC
Number of Years with Current Firm:	5	6	13	6	4
Availability (%):	55%	15%	45%	35%	35%
Years Direct Experience in the following:					
• Design of water and sewer mains, <24"	5	15	10	6	4
• NCDOT encroachments	4	15	1	6	3
• Easement preparation	4	15	1	6	1
• Surveying (survey sub management and survey review)	5	15	10	6	4

**EXHIBIT 7 (Page 2 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

List Projects included in Proposal – Indicate Role of Key Staff Members	Key Staff 1	Key Staff 2	Key Staff 3	Key Staff 4	Key Staff 5
<b>Name of Personnel:</b>	Rachel Rausch	Matt Shoesmith	Nancy Mancuso	Dan Bula	Corey King
1. Old Town Water and Wastewater Utility Relocations	–	Project Engineer	–	–	–
2. Stream Restoration and Sanitary Sewer Protection Assessment and Repairs	Project Engineer	Project Engineer	–	–	–
3. Johnston Drive Water Main Extension	–	Project Engineer	–	Project Engineer	–
4. Farmville Road Waterline	Project Engineer	Project Manager	–	–	Project Engineer
5. Neighborhood Water Enhancement Projects	Project Engineer	Project Engineer	Designer	–	–
6. Paddock Parkway Sanitary Sewer Extensions	Project Engineer	Project Manager	–	–	Project Engineer
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>
<b>Name/Identifier of Firm:</b>	Kimley-Horn	James Mauney and Associates	RDL Private Utility Coordinating		
<b>Indicate Number of Years in Business:</b>	52	17	4		
<b>Registered with City as a Minority or Small Business:</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>List Any City Contract Terminations, include date and reason for termination:</b>	N/A	N/A	N/A		



# MCKIM & CREED

ENGINEERS SURVEYORS PLANNERS

192216

October 3, 2019

Charlotte Water  
Procurement Department, 2nd Floor  
ATTN: Abby Dolan, Procurement Manager  
5100 Brookshire Blvd.  
Charlotte, NC 28216

## RE: FY20-RFQ-03 // WATER AND SEWER STREET MAIN DESIGN

Dear Ms. Dolan and Members of the Selection Committee:

Charlotte Water and McKim & Creed have successfully worked together completing miscellaneous projects under on-call services contracts since 2012, including not only upgrades and expansions to water and wastewater infrastructure, but also repair and rehabilitation services. McKim & Creed is committed to continuing to provide Charlotte Water with the best professional service to help you improve your facilities and systems. Overall, McKim & Creed offers Charlotte Water:

- **FAMILIAR AND EXPERIENCED LOCAL TEAM** / Charlotte Water's familiarity with our team and our familiarity with Charlotte Water's organization, facilities, and operational goals, allows us to quickly work with the project team to identify, select and implement solutions. We have recently added local staff to our Charlotte team that brings new perspective, insight and depth of resources. Our selected project manager, **Zachary Trammel, PE**, highlights our Charlotte-based project team that knows and understands Charlotte Water's staff, facilities and infrastructure. In addition, McKim & Creed has deeper resources to call upon, which enables us to respond to any need.
- **RESPONSIVE COMMUNICATION** / A key to providing timely, cost-effective and quality professional services, specifically in an on-call capacity, is responsive communication. This starts by responding immediately to requests and listening to Charlotte Water's goals and objectives. Listening is especially critical when Charlotte Water's compliance and operational needs, as well as utility service to local customers, may be affected by construction activities. As demonstrated by our previous engagements with Charlotte Water, we listen carefully to the goals and objectives described by Charlotte Water staff and stakeholders, and put these into real action, making sure they are implemented through the life of the project.

As the project manager, Zachary Trammel, will be your primary point of contact for this contract. We are fully committed to continuing to provide you with the best of McKim & Creed's abilities. McKim & Creed has proven through past work with Charlotte Water that we are responsive, dependable and already up to speed with your standards and procedures.

We thank you for your consideration, and we are excited about the opportunity to work with you on the street main extensions.

Respectfully submitted,  
McKim & Creed, Inc.

Alexandra Terral, PE | Regional Manager  
aterral@mckimcreed.com

Zachary Trammel, PE | Project Manager  
ztrammel@mckimcreed.com

# SECTION ONE // PROJECT TEAM

We understand it is important to Charlotte Water that the team proposed be available for the on-call projects have the capacity to perform the necessary services. The proposed team outlined on our organizational chart has the design engineering capacity and is fully committed to successfully complete each of the projects that would be awarded under this contract.

The organizational chart below includes staff that will work with Charlotte Water for this project.

## MCKIM & CREED BY THE NUMBERS:

41

YEARS IN BUSINESS

22

U.S. OFFICES

580+

EMPLOYEES

70+

CHARLOTTE EMPLOYEES

290+

NC EMPLOYEES

#21

OVERALL DESIGN FIRM IN THE SOUTHEAST

#5

DESIGN FIRM IN NORTH CAROLINA

## 1.1. ORGANIZATIONAL CHART

### CHARLOTTE WATER



PROJECT MANAGER  
Zachary Trammel, PE



QA/QC  
Alexandra Terral, PE



BACKUP PROJECT MANAGER  
Christopher Rosenboom, PE

STAFF ENGINEERS  
Josh Marlin, EI  
Katherine Van Sice, EI

TRENCHLESS TECHNOLOGIES  
Christopher Rosenboom, PE  
Blake Peters, PE, PACP

NCDOT/EASEMENT MAPS  
Cal Scheinert (*NCDOT Liason*)  
Jamie Davis, PLS

DONATED PROJECTS LIAISON  
Kyle Crowe, PE

### SPECIALTY SUBCONSULTANTS

ENVIRONMENTAL/TRAFFIC ENGINEERING  
SEPI, Inc.

GEOTECHNICAL/ CONSTRUCTABILITY REVIEW  
Capstone Civil Engineering, Inc.

RIGHT-OF-WAY ACQUISITION (IF NECESSARY)  
Telics

## 1.2. SUBCONSULTANTS

McKim and Creed has selected a few of subconsultants that have worked locally for years to provide great services and are responsive, experienced and trustworthy.

Capstone, SEPI and Telics have provided services to Charlotte consistently. We selected Capstone for their knowledge and familiarity with the service area. SEPI has recently provided traffic control services in an effective and safe manner. Telics provides responsive services to right-of-way acquisitions that if not addressed correctly and promptly can become a road block for the completion of a project. These partners are CBI compliant and can assist McKim and Creed and Charlotte Water to maintain the goals of inclusion, while providing them real opportunities to serve.



**CAPSTONE CIVIL ENGINEERING, INC.** is a multi-discipline civil engineering and construction management firm. Their firm is 100% minority owned and is certified as SBE and MBE with the City of Charlotte. Capstone has worked with McKim & Creed on many projects over the last 10 years.



**SEPI, INC. (SEPI)**, founded in 2001, is a fully integrated engineering and design firm with a staff of more than 300 professionals. SEPI is a Woman-Owned Business and recognized by the State of North Carolina as a Historically Underutilized Business (HUB). SEPI is built on a team of professionals with extensive industry experience.



Telecommunication & Industrial Consulting Services Corporation (TELICS) was established in 1981 with Integrity as their cornerstone. TELICS Right-of-Way Division has a diverse team of qualified personnel who are dedicated exclusively to Right-of-Way Projects. TELICS has an impressive reputation of keeping both small and large projects on schedule and within budget.

### CAPSTONE CIVIL ENGINEERING, INC

<b>Services</b>	Construction Observation
<b>Location</b>	6612 E W.T. Harris Blvd # G Charlotte, NC 28215
<b>Contact</b>	Charles M.. Brown Jr., PE
<b>Phone</b>	(980) 938-6770

### SEPI, INC. (SEPI)

<b>Services</b>	Environmental/Traffic Engineering
<b>Location</b>	11020 David Taylor Drive, Suite 300 Charlotte, NC 28262
<b>Contact</b>	Barry Moose
<b>Phone</b>	(704) 714-4880

### TELICS

<b>Services</b>	Right-of-Way Acquisition (optional)
<b>Location</b>	3440 Lakemont Blvd Fort Mill, SC 29708
<b>Contact</b>	Steve Nichols
<b>Phone</b>	(704) 872-5060

## 1.3. MINORITY OR SMALL BUSINESS ENTERPRISE (M/SBE)

In compliance and support of the CBI policy to promote diversity, inclusion and local business opportunities, McKim & Creed has selected **Capstone** to provide geotechnical and constructability review services; **SEPI** to provide traffic control design. McKim & Creed will remain vigilant of opportunities to augment the involvement of these sub consultants as project permits. We are familiar and is accustomed to support the requirements of the compliance department.

## 1.4. EXHIBIT 7 MATRIX

The Exhibit 7 Personnel & Firm Qualifications Matrix can be found in Appendix A - Required Forms.



**ZACHARY TRAMMEL, PE | PROJECT MANAGER**

Mr. Trammel will be the project manager for McKim & Creed on this project, bringing more than 6 years of experience in the water industry to lead the project team. Mr. Trammel specializes in water and sewer design, pump station design, physical/chemical/biological treatment process design, permitting, and construction management. Mr. Trammel has contributed to a wide variety of Charlotte Water projects including small diameter water and sewer projects, large diameter gravity sewers, lift station improvements, and various treatment facility evaluations and improvements. His experience and familiarity with Charlotte Water's water and sewer system will ensure consistent adherence to Charlotte Water's design and construction standards.



**CHRISTOPHER ROSENBOOM, PE | BACKUP PROJECT MANAGER/  
DIRECTIONAL DRILLING**

Mr. Rosenboom has 17 years' experience in the water industry, and specializes in utility design, project review, permitting and construction management. He brings a wealth of experience and technical expertise in all aspects of water and wastewater industry. Chris has served as the engineer-of-record for many utilities providing a high level or effective responsiveness and successful design of many miles of pipe ranging in diameter from 2 to 36-inch. He is also experienced with trenchless construction methods, providing practical application to project needs. He is familiar with the Charlotte Water's requirements and also has worked with the rest of the team on many projects.



**ALEXANDRA TERRAL, PE | QA/QC**

Ms. Terral has more than 23 years of experience in the water/wastewater industry. She has recently served as the project manager for a utility extension project to provide water/wastewater and reclaimed water services for 6.3 square miles of pipeline extensions. This project included design while building process, rigorous SRF funding requirements and required 6 construction administration teams. She understands the level of service required to provide excellent service. Her dedication to serve the community is her motivation for providing excellent engineering services and responsiveness to meet the goals and needs of each project.



**JOSH MARLIN, EI | STAFF ENGINEER**

In his time serving clients with McKim & Creed, Mr. Marlin has contributed design work on water and wastewater systems, developed engineering reports, prepared permit applications, and provided quality assurance for a diversity of project deliverables. His areas of engineering experience include water and sewer main design, retrofitting water and wastewater treatment facilities, and pump station design. His experience at McKim & Creed is supplemented by previous experience as a wastewater treatment facility intern and a construction field technician.





**KATHERINE VAN SICE, EI | STAFF ENGINEER**

In her time serving clients with McKim & Creed, Ms. Van Sice has contributed design work on water and wastewater systems and prepared permit applications. Her areas of engineering experience include retrofitting treatment facilities for water and wastewater, pumping design, and water and sewer main design. Her experience at McKim & Creed is supplemented by previous experience as an environmental consultant who designed remediation systems and conducted environmental assessments.



**BLAKE PETERS, PE, PACP | DIRECTIONAL DRILLING**

Mr. Peters offers more than 19 years of experience in the planning, design, permitting, cost estimating and managing of diverse water and wastewater infrastructure projects including treatment, distribution and supply. He has an in-depth knowledge of construction and civil engineering technologies and methodologies, with the ability to apply them to the strategic benefit of the project. Mr. Peters has been involved with several horizontal directional drilling projects where he utilized advanced modeling software (BoreAid) to provide a more thorough evaluation of pipe stresses, soil conditions, overburden pressures, horizontal bends and other factors influencing a successful trenchless installation.



**CAL SCHEINERT | NCDOT LIASON**

Mr. Scheinert began his career as a LiDAR technician and, because of his technical expertise and relationship-building skills, now oversees McKim & Creed's geomatics services in the Charlotte area. He specializes in transportation surveying and excels at leveraging the most effective technologies—ranging from airborne, terrestrial and mobile LiDAR to subsurface utility engineering to conventional surveying—to fulfill the needs of clients throughout the South. Mr. Scheinert holds a graduate degree in geography with a concentration in terrestrial laser scanning, as well as a graduate-level geographic information systems certificate.



**JAMIE DAVIS, PLS | EASEMENT PREPARATION**

Mr. Davis has over 20 years of surveying experience in the private and public sectors. The majority of his work has involved easement mapping, boundary surveys, construction staking, route surveys and wetland mapping.



**KYLE CROWE, PE | DONATED PROJECTS LIAISON**

Mr. Crowe brings 14 years of engineering industry experience to McKim & Creed that ranges from on-site construction administration to project management. He has served as a design engineer, project engineer and project manager for projects from Florida to California to Connecticut which gives him unique perspective on challenges faced in different jurisdictions and climates around the country. Mr. Crowe has been intimately involved in residential, commercial, municipal, petroleum and industrial projects allowing him to cater to specific needs of any client in an efficient and professional manner.



**BARRY MOOSE, PE | SEPI CONTACT/TRAFFIC CONTROL**

Mr. Moose has 35 years of experience and has led major transportation projects through all aspects of the project delivery process from planning to construction oversight. He is well versed in traditional construction, design-build, and Public Private Partnership (P3) delivery methods with a focus on teaming partnerships and technical innovation within regulatory standards.



**BOB LEPSIC, PWS | SEPI ENVIRONMENTAL**

Mr. Lepsic has over 24 years of experience as an environmental scientist. He has experience managing and conducting stream and wetland restoration and monitoring projects for various public and private clients throughout the eastern United States. His experience includes conducting wetland and stream delineations as well as endangered species surveys. In addition, he has experience conducting Section 404/401 and NCDEQ buffer permitting.

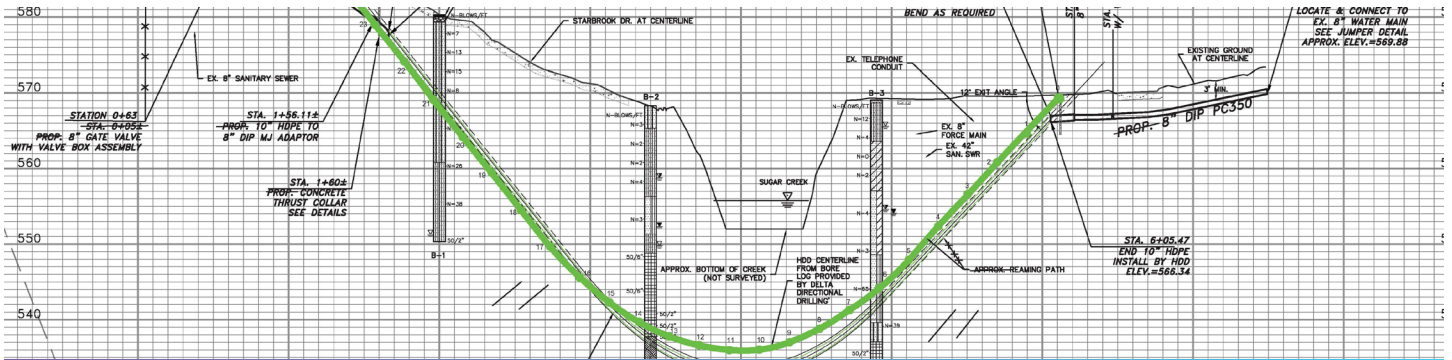


**CHARLES BROWN, PE, MCM | CAPSTONE GEOTECHNICAL/  
CONSTRUCTABILITY REVIEW**

Mr. Brown has been involved in several areas of construction industry including, aviation construction, building construction, highway construction, water/wastewater design and inspection, geotechnical engineering, material testing, special inspection and surveying. Mr. Brown range of experience includes planning, design, inspection, supervising, executing subsurface explorations and laboratory testing programs, providing geotechnical evaluations and recommendations for design and construction of municipal, commercial, industrial, and residential facilities.

# SECTION TWO // EXPERIENCE AND APPROACH

## 2.1. SIMILAR PROJECT EXAMPLES



## CHARLOTTE WATER HORIZONTAL DIRECTIONAL DRILLING (HDD) DESIGN AND CONSTRUCTION

## PROJECT #1

Charlotte Water (CLTWater) retained McKim & Creed provided design and construction administration services for these two pipelines utilizing HDD for the Stowe Creek Force Main and the Huntingtowne Farms Lane 8-inch Water Main.

The Stowe Creek Force Main consisted of approximately 4,210 LF of 10-inch diameter wastewater force main. The Stowe Creek Force Main was constructed along Shopton Road West from the existing 12-inch diameter force main at Stowe Branch (near Dan Caudle Road), to Rock Island Road and then along Rock Island Road to an existing manhole at Glenburn Lane. The project was designed, permitted, and bid to provide the bidders the option to bid using either open cut installation or HDD installation methods. The option to construct this project using either method was provided to ensure adequate competition and reduce construction costs. As a result, the successful bidder elected to construct the project using open-cut installation methods due to lack of competition among HDD installers, and therefore reduced cost.

The proposed Huntingtowne Farms Lane 8-inch Water Main project provided a connection between two dead-end water mains along Huntingtowne Farms Lane and Starbrook Drive. The dead-end water mains along Huntingtowne Farms Lane and Starbrook Drive were separated by Little Sugar Creek. The project consisted of approximately 800 LF of 8-inch water main and included the HDD installation of approximately 500 LF of the water main beneath Little Sugar Creek. Installation of the 8-inch water main underneath Little Sugar Creek by HDD installation was completed successfully on the first attempt and the new HDPE water main passed all pressure tests and bacteriological testing.

### PROJECT DETAILS:

**OWNER:** Charlotte Water

**CONTACT:** Matt Bedford | mbedford@ci.charlotte.nc.us | (704) 336-1009

**DATES OF SERVICE:** 6/2013 - 3/2019

**ENGINEERING FEE:** \$308,150

**KEY TEAM MEMBERS:** ✓ Zachary Trammel | Project Engineer ✓ Christopher Rosenboom | Drill QA/QC ✓ Alexandra Terral | Project Manager (construction completion) ✓ Josh Marlin | Staff Engineer ✓ Jamie Davis | Survey/SUE ✓ Blake Peters | Project Advisor



## CHARLOTTE WATER MISCELLANEOUS WATER AND SEWER EXTENSIONS

## PROJECT #2

This contract required services such as reviewing preliminary layout and sizing prepared by Charlotte Water, preliminary and final designs, regulatory permitting assistance and coordinating survey work performed by Charlotte Water's survey crews for various water and sewer main projects assigned. The regulatory permitting assistance varied from project to project but has included preparation of application packages for NCDOT right-of-way encroachment agreements, preparation and submittal of erosion control plans (including calculations) to NCDENR, and various environmental permits as needed. McKim & Creed has also provided surveying services, subsurface utility engineering (SUE) and preparation of easement maps as needed for selected projects.

This Huntersville-Concord Road Water Main project included the design of approximately 930 LF of 12-inch (originally designed as 36-inch) water main, preparation of NCDOT encroachment applications, preparation of an erosion control plan and preparation of easement maps. Listed below are additional projects that McKim & Creed completed for Charlotte Water under this contract:

- Moores Chapel (Harbor House) Water Main Design-approximately 2,290 LF of 12-inch water main; 220 LF of 8-inch water main; 105 LF of 6-inch water main and appurtenances; project included a horizontal directional drill installation of approximately 980 LF of the water main beneath I-85
- Tuckalake Drive/Salamander Court 8-inch sanitary sewer-construction phase surveying only
- Sanitary sewer to serve 6448 Lakeview Road (SR 2485)-approximately 600 LF of 8-inch sanitary sewer
- Sanitary sewer to serve 9901 Plaza Road Extension (SR 2803)-approximately 1,600 LF of 8-inch sanitary sewer
- Sanitary sewer to serve 8000 Block of Steele Creek Road-preparation and submittal of erosion control plans only
- Sanitary sewer to serve 5729 Olivet Drive (SR 3142)-approximately 160 LF of 8-inch sanitary sewer
- Gilead Road water main relocation-approximately 400 LF of 16-inch water main
- Sanitary sewer to serve 11409 Singletary Lane-approximately 84 LF of 8-inch sanitary sewer
- 2-inch water main to serve 11409 Singletary Lane-approximately 390 LF of 2-inch water main
- Sanitary sewer to serve 7812 Ocala Road-approximately 123 LF of 8-inch sanitary sewer
- Sanitary sewer to serve 11332 Albemarle Road-preparation and submittal of erosion control plans only
- Sewer to serve 11013 Blair Rd-preparation and submittal of erosion control plans only
- Sewer to serve 9804 Mallard Creek Rd-preparation and submittal of erosion control plans only

### PROJECT DETAILS:

**OWNER:** Charlotte Water

**CONTACT:** Arnold Jarrell, PE | [ajarrell@ci.charlotte.nc.us](mailto:ajarrell@ci.charlotte.nc.us) | (704) 391-5170

**DATES OF SERVICE:** 2014-2016

**ENGINEERING FEE:** \*varies by task

**KEY TEAM MEMBERS:** ✓ Zachary Trammel | Project Engineer



## AUSTIN CHANEY ROAD / ROCKY RIVER ROAD WATER MAIN REPLACEMENT

## PROJECT #3

Union County Public Works Department was replacing approximately 15,000 feet of 8-inch water main along South Rocky River Road (SR 1007) with 12-inch and 16-inch water main. The purpose of the project was to replace existing aging water mains, which were experiencing numerous leaks and breaks, and to improve hydraulic pressure and fire flows to the existing service areas. The South Rocky River Road water main replacement project consisted of approximately 14,650 LF of 12-inch water main, approximately 246 LF of 16-inch water main, and approximately 74 LF of 8-inch water main and appurtenances along SR-1007 from Waxhaw Highway (NC 75) to Long Hope Road.

McKim & Creed provided preliminary and detailed design, permitting, and bidding and construction administration services for the design and construction for the project. The scope included utilizing GIS information pertaining to the corridors of the proposed alignments supplemented by subsurface utility engineering (SUE) to locate existing utilities. The scope of work also included preparation of approximately 40 easements and conducting public meetings to present the project to residents along the affected roadway. The project also required coordination with NCDOT to locate the proposed water main to avoid conflicts with a future roundabout intersection.

### PROJECT DETAILS:

**OWNER:** Union County

**CONTACT:** Michael Caldwell | michael.caldwell@unioncountync.gov | (704) 296-4293

**DATES OF SERVICE:** 2013 - 2019

**ENGINEERING FEE:** \$213,000

**KEY TEAM MEMBERS:** ✓ Zachary Trammel | Project Engineer ✓ Christopher Rosenboom | QA/QC

## DUKEVILLE WATER MAIN EXTENSION DESIGN BUILD

## PROJECT #4

As a consultant to State Utility Contractors, McKim & Creed's scope of work provided one additional (each) electromagnetic (EM) survey and ground penetrating radar (GPR) survey, provided one additional staking of the centerline of pipe, valves, vault, RPZ, and fittings in addition to the staking already included, provided fill or cut elevations on the stakes during construction staking, provided an easement plat for the proposed water line across Duke Energy's property. This survey adhered to the NC Standards of Practice and Duke Energy standards for easement surveys. Lastly, McKim & Creed redesigned the water main crossing of Dukeville Road as a bore and jack installation.

### PROJECT DETAILS:

**OWNER:** Duke Energy

**CONTACT:** Leslie Geurin | Leslie.Geurin@duke-energy.com | (980) 373-2618

**DATES OF SERVICE:** 9/2018 - 7/2019

**ENGINEERING FEE:** \$60,283

**KEY TEAM MEMBERS:** ✓ Christopher Rosenboom | Project Manager  
✓ Josh Marlin | Staff Engineer



# UNCC 10-INCH WATER MAIN REPLACEMENT **PROJECT #5**

During a recent roadway improvement project on the UNC Charlotte campus, a milling operation damaged an existing 10-inch water main that had been installed at a very shallow depth beneath the pavement. Facilities management staff reached out to McKim & Creed to analyze the water mains in this area, and quickly provide a design to replace the existing shallow main at a proper depth. Our staff first performed quality level A and B subsurface utility exploration to identify existing utilities in the area and to establish the limits to which the existing main was installed at depths less than three feet. We then identified points of isolation, and provided a design within three weeks of notice to proceed for the replacement of approximately 600 feet of water main. This design included the open trench crossing of an existing roadway and limited impacts to vehicular and pedestrian traffic.

## PROJECT DETAILS:

**OWNER:** University of North Carolina at Charlotte  
**CONTACT:** Shawn Kelly | skelly64@uncc.edu | (704) 687-5597  
**DATES OF SERVICE:** 7/2019 - Present  
**ENGINEERING FEE:** \$15,000  
**KEY TEAM MEMBERS:** ✓ Christopher Rosenboom | Project Manager  
✓ Alexandra Terral | QA/QC ✓ Jamie Davis | Survey/SUE

..... **MCKIM & CREED** HAS COMPLETED .....  
.....

**29**  
ON-CALL  
CONTRACTS  
IN NC

**OVER  
55**  
CHARLOTTE  
WATER  
PROJECTS

**235**  
WATER PROJECTS  
COMPLETED BY OUR  
CHARLOTTE OFFICE

## 2.2. PROJECT APPROACH



Our firm repeatedly serves in an on-call and emergency response capacity for municipalities across the state. We understand that responsiveness and a quick turn-around are key to successfully completing these tasks.

In the following sections, we have outlined our step-by-step plan for completing any water and sewer line extension design requests, in less than the 30-day timeframe specified in the RFQ.

**This plan will be strictly implemented by our team to provide reliable design, while ensuring the level of responsiveness and project performance that Charlotte Water needs within 30 days.**

Upon receiving each work request for a street line extension design, the McKim & Creed project manager, **Zachary Trammel**, will immediately acknowledge receipt and will communicate with Charlotte Water's manager to obtain further details and or confirm the information received. Depending on the type of request, McKim & Creed may obtain additional support from our trusted team of subconsultants and/or in-house resources. The subconsultant selection will be made based on the type of request and the need to **provide as much CBI opportunity as possible**, while making sure the execution of this plan **provides Charlotte Water the most economical and expeditious design**.

Our proposed schedule will be reflective of our recent experiences with working with some of the longest permitting lead-time agencies such as CDOT, NCDOT and railroad authorities to provide a realistic schedule.

The proposed detailed schedule will be submitted to Charlotte Water within three working days of the initial request. Our proposed schedule will be reflective of our recent experiences working with both CDOT, NCDOT and railroad authorities, assuring a realistic timeframe for these permitting tasks. The schedule will be similar to **Figure 1** on the following page. Any questions on the schedule will be answered within 24 hours, in order to provide the final schedule within five days of the initial request. If there are no questions and the initial schedule is accepted, we will proceed as requested immediately.

**PRELIMINARY:** During this phase, our design team will focus on verification of the preliminary alignment, line sizing, survey information, potential conflicts, and other existing site conditions. Our design team will collect any additional information including mapping and record drawings from Charlotte Water and perform a site visit to

the location of the proposed water or sewer street main extension. This step will be most effectively completed on-site rather than using photogrammetry (such as Google Earth) to quickly realize existing conditions and identify potential conflicts to the preliminary layout. During the site visit, project area features such as those listed below will be documented and considered during the design and cost estimating effort.

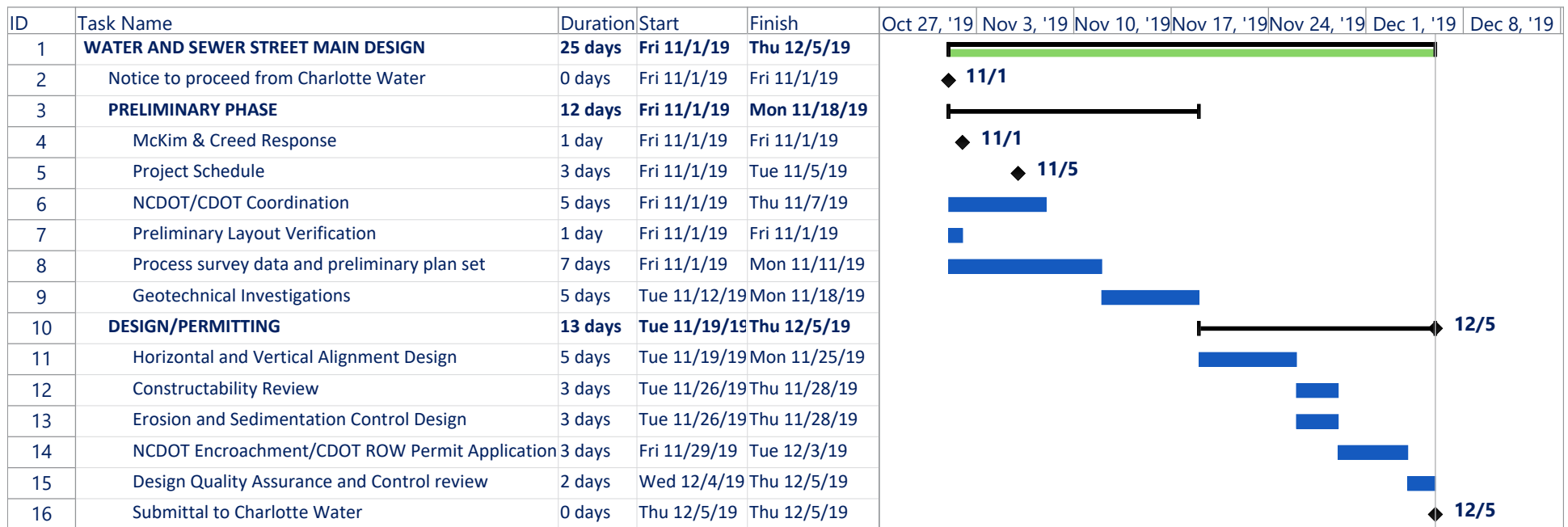
- Paint, markers, and flagging from existing buried utilities located (designated) previously
- Asphalt road cuts and patches from previous utility repairs
- Recent above grade infrastructure improvements to the ROW (sidewalks, curb, striping, etc.)
- Valve tags indicating the sizes of existing utilities
- If safe and feasible, observing inside existing manholes to verify invert sizes
- Existing dead-end / blow-off assemblies
- Traffic Control conditions
- Storm water and other considerations for erosion and sedimentation control

Any survey needs, inconsistencies with utility locates, and/or soft dig needs identified during the site visit and review of the preliminary layout will be quickly coordinated with Charlotte Water. We understand that Charlotte Water will provide all utility locates and survey information and we will coordinate closely to begin immediately following the receipt of this information.

In parallel with the review of utility locates and survey information, we will provide **confirmation of the selected pipe size**. Our design team will review any information available from Charlotte Water and assumptions made during the selection of the preliminary pipe size to verify the size selected meets the intended design life and purpose. Hydraulic calculations such as the Hazen-Williams and Manning's equations will be performed to verify sizing.

If sufficient preliminary and existing information is available, the Civil 3D pipe or pressure networks model (AutoCAD Civil 3D 2018 or later) can be set up in parallel with the review of survey information and pipe sizing. Other drawing sheets (scale 1"= 40') that can be prepared ahead of the detailed design phase will be developed during the preliminary phase, such as the cover, key sheet, general notes, details, and easement exhibits. **All drawing sheets and easement exhibits will be prepared to Charlotte Water drafting standards** and layering system standards to allow for seamless electronic and hard copy

# FIGURE 1. MCKIM & CREED EXAMPLE SCHEDULE



BECAUSE OF OUR **EXISTING RELATIONSHIPS** AND **KNOWLEDGE** OF THE CITY'S SYSTEMS, PROCESSES, AND DESIGN PREFERENCES, LEARNING CURVE IS ELIMINATED AND WE CAN **QUICKLY** AND **EFFICIENTLY** BEGIN WORK ON THIS PROJECT, WHILE MAINTAINING A HIGH LEVEL OF **QUALITY SERVICE**



submittal.

In case easement mapping/plats become necessary, easement exhibits will be prepared according to Charlotte Water's standards and under the Charlotte Water surveyor's guidance to include all property boundaries, ties to property corners and details of the permanent easement and temporary construction easements. Our survey staff has performed similar work for Charlotte Water on recent projects. We have included Telics on team as additional support to CLT Water for easement acquisition, only if needed.

Adequate geotechnical information can also aid the selection of the alignment to avoid, if possible, rock, groundwater, highly plastic or elastic clays and silts, and lightweight soils. Failure to adequately identify these conditions could lead to unnecessary delays and additional costs during construction. Prior to mobilizing our geotechnical subconsultant, **Capstone**, we will work with Charlotte Water to make sure nearby soil data is not available as part of another project. Assuming new data is required, Capstone will quickly collect this data, so it can be integrated into preliminary and final design.

**DESIGN:** Having the AutoCAD Civil 3D model and drawing sheets already prepared will allow the design team to quickly modify and adjust the preliminary street main designs to suit the field and survey conditions identified during the preliminary phase. The construction drawings will include but not be limited to the following elements:

**Cover sheet depicting project title, site location, plan sheet list, and other pertinent project information.**

**General notes and applicable project technical specifications for materials and workmanship**

**Plan and profile sheets including erosion and sedimentation control design**

**Detail sheets**

**Traffic control / maintenance of traffic plans as applicable**

**Collected geotechnical information**

The construction drawings will include necessary material, construction, and sequencing specifications and notes on the applicable sheets to allow for clear direction to the contractor during construction.

**PERMITTING:** We recognize that Charlotte Water is typically capable of self-permitting street main designs of this size and complexity. We have been through this process most recently on the Paw Creek Sewer Outfall Replacement and Huntingtowne Farms Lane water main projects.

**This familiarity with Charlotte Water's self-permitting capabilities will eliminate any learning curve and facilitate a quick application submitted by our team and an expedited review by Charlotte Water's reviewers.**

We also understand that street mains of this size and length will likely not require erosion and sedimentation control permitting through NCDEQ due to the limited size of the disturbed area. However, erosion and sedimentation control measures will be required and implemented in the designs to protect our community's waterways and for compliance with the City of Charlotte and Mecklenburg County Soil Erosion and Sedimentation Control Ordinances. NCDOT encroachment agreements, CDOT Utility Right-of-Way Use Permits, and railroad encroachments (if required) will be prepared and submitted to the authorities having jurisdiction quickly after determination of the final street main design layout. NCDOT encroachment agreements have been known to delay project schedules occasionally if utility burial depth beneath NCDOT roadways exceeds more than 10 feet. We will work to avoid these burial depth conditions if at all possible and will coordinate closely with local NCDOT reviewers to **limit encroachment agreement review times**, as much as feasible. Multiple NCDOT roadways within Charlotte are also known to be maintained by CDOT and would require a Right-of-Way Use Permit from CDOT as well as an NCDOT encroachment agreement. Our team's detailed knowledge of these local permitting situations will allow the permitting step to move as seamlessly as possible.

After all requirements and input has been incorporated, plans will be submitted to Charlotte Water within 25 days to the initial request.

## 2.3. WORKLOAD/AVAILABILITY

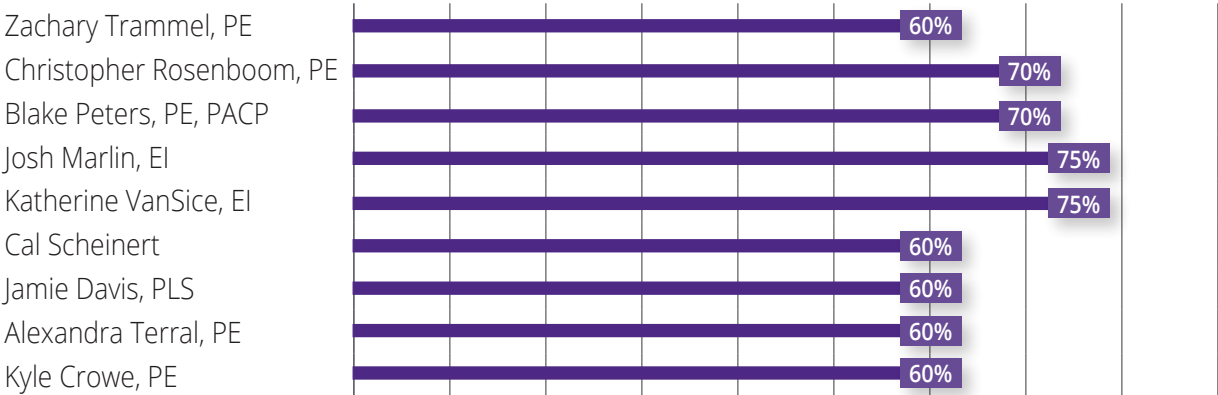
The McKim & Creed project team has the availability to meet all project assignments. Because of our highly skilled work force, future staff availability can be readily managed to meet the project requirements.

Each member of the project team performs conscientiously in accordance with the carefully conceived and rigorously enforced schedule. Task specific roles are assigned so that each team member is responsible for accomplishing certain duties. The entire team receives a copy of the task assignments so that each member is aware of the responsibilities of the individual team members. When tasks are assigned, schedules and man-hour budgets are distributed. Team conferences are held on a regular basis to provide for a smooth workflow for the duration of each project. Client meetings are scheduled at critical decision points in the project to reduce wasted efforts and undue delays. Agendas are prepared in advance to make the meetings as productive as possible. Meeting minutes are then prepared so that all conferees have a clear understanding of the decisions made. The project schedule identifies when formal meetings will occur and when project deliverables will be submitted.

In the event of a need to increase productivity, we have an exceptional work share program among our several other design teams that will allow us to surge staff assignments to meet your needs.

The chart below demonstrates the project team's availability for this project.

### PERSONNEL AVAILABILITY



**AT THE TIME OF THIS RFQ, WE ARE NOT ACTIVELY WORKING ON ANY DESIGN WORK FOR CHARLOTTE WATER. THE TABLE ABOVE INCLUDES OUR KEY STAFF AND THEIR ESTIMATED AVAILABILITY FOR THIS PROJECT.**

**THE TABLE CLEARLY SHOWS THAT WE HAVE THE NECESSARY AVAILABILITY TO RESPOND QUICKLY WHEN CALLED UPON.**

## 2.4. WHY MCKIM & CREED?

### A PROVEN PROJECT MANAGER

Our project manager, **Zachary Trammel**, has been serving Charlotte Water over the last five years. He has demonstrated his level of responsiveness both during design and construction as part of multiple critical projects. His knowledge of Charlotte Water's design standards, details, specifications, and specific preferences will assure that there will be no delays associated with a learning curve. **Chris Rosenboom** currently is serving Charlotte Water as the project manager for the Paw Creek Outfall and understands the level of services necessary to make each project successful. As the project manager for McAlpine Phase 4, **Alexandra Terral** is aware of Charlotte Water needs and maintaining high levels of responsiveness and efficient services.

### A TRULY LOCAL TEAM

Our local water staff in our Charlotte office will respond, and be on-site, on short notice following any request. In addition, should Charlotte Water's surveyors' workload increase such that they are not able to respond expeditiously enough to fulfill the design schedule, we regularly mobilize up to 10 survey crews from our local office. This resource is available as a back-up, only if required. Other experienced resources may provide alternatives to traditional design or construction methods that can expedite the project if need be. Our team is accustomed to work together and quickly respond and provide successful completion of projects for many communities and companies within the State.

### EXPERIENCE WORKING ON ON-CALL CONTRACTS

Often times with on-call (or as-needed) continuing services contracts, projects are not required for a period of time. When the need does arise, the consultant is ill-prepared and therefore not as responsive as the client would like. As evidenced with the figure below, we understand the purpose behind an on-call contract, and we are ready to react when called upon. We are consistently re-selected for our clients' on-call renewals based on past performance.

Having been involved with almost 30 surveying and water/wastewater on-call contracts, our team has the necessary range of expertise and experience to complete tasks which may arise under the contract term in a timely manner, and with the significant depth of resources available in the McKim & Creed project team, we can and will make a significant commitment of staff to this contract.

**29** RECENT ON-CALL CONTRACTS  
IN NORTH CAROLINA



Below is a list of clients that McKim & Creed has provided on-call engineering services for in the recent past.

APP STATE UNIVERSITY  
CFPUA  
CPCC  
CHARLOTTE WATER  
CHATHAM COUNTY  
CITY OF DURHAM  
CITY OF HENDERSONVILLE  
CITY OF JACKSONVILLE

CITY OF RALEIGH  
CITY OF WILMINGTON  
DUKE ENERGY  
FSU  
GTCC  
LCFWSA  
NCDOT  
NCSU

NORTHAMPTON COUNTY  
ONWASA  
OWASA  
TOWN OF APEX  
TOWN OF CARY  
TOWN OF CLAYTON  
TOWN OF WENDELL

UNC AT CHAPEL HILL  
UNC AT CHARLOTTE  
UNC AT GREENSBORO  
UNC AT WILMINGTON  
WAKE COUNTY PUBLIC SCHOOLS  
WATER AND SEWER AUTHORITY OF  
CABARRUS COUNTY



# APPENDIX A

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## REQUIRED FORMS

EXHIBITS 1-7

**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature: 

Printed Name: ALEXANDRA TERRAL, PE

Title: REGIONAL MANAGER

Date: 10/2/2019

**PROPOSER INFORMATION**

Company Legal Name: MCKIM & CREED, INC.

NC Board of Examiners for Engineers and Surveyors License No.: F-1222

Mailing Address (Headquarters): 1730 VARSITY DRIVE, SUITE 500  
RALEIGH, NC 27606

Mailing Address (Local Office, if different from above): 8020 TOWER POINT DRIVE  
CHARLOTTE, NC 28227

City of Charlotte Vendor Number: 37114

Person(s) to Contact Regarding Proposal (including questions and selection announcements): Contact 1 Name: ZACHARY TRAMMEL

Contact 1 Email: ZTRAMMEL@MCKIMCREED.COM Phone: (704) 841-2588

Contact 2 Name: ALEXANDRA TERRAL

Contact 2 Email: ATERRAL@MCKIMCREED.COM Phone: (704) 841-2588

**Type of Company** (check one box)

Sole Proprietor       Partnership       Corporation | State of Incorporation: NC

Limited Liability Company | State of Incorporation: \_\_\_\_\_

Joint Venture (This exhibit must be completed by each joint venture company.)

Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under “Additional Information About This RFQ”.)

**Acknowledgement of Addenda:**

No.: 1 Date: 9/27/2019

No.: \_\_\_\_\_ Date: \_\_\_\_\_

No.: \_\_\_\_\_ Date: \_\_\_\_\_

No.: \_\_\_\_\_ Date: \_\_\_\_\_

**EXHIBIT 2**

**MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN**

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

<b>Subconsultant's Full Name</b>	<b>Description of work / materials</b>	<b>Indicate either "M" and/or "S"</b>	<b>City Vendor #</b>
SEPI, INC	ENVIRONMENTAL/TRAFFIC ENGINEERING	WBE	115059
CAPSTONE CIVIL ENGINEERING, INC.	GEOTECHNICAL/ CONSTRUCTIBILITY REVIEW	SBE	20268438

In addition, address the following:

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
3. Include a list of past projects and your MSBE utilization on said projects.
4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
5. Provide a recent project example of compliance efforts and results.

### EXHIBIT 3

#### COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, *discrimination* means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, *discrimination* also includes retaliating against any person or other entity for reporting any incident of *discrimination*.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

**MCKIM & CREED, INC.**

Name of Company



Signature of Company's Authorized Official

**ALEXANDRA TERRAL**

Print Name

**10/2/2019**

Date

**REGIONAL MANAGER**

Title



## EXHIBIT 4

### E-VERIFY CERTIFICATION

Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:

- a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
- b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
- c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.

2. As a condition of being considered for the Contract, Company certifies that:

- a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
- b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.

3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

**MCKIM & CREED, INC.**

Name of Company



Signature of Company's Authorized Official

**ALEXANDRA TERRAL**

Print Name

**10/2/2019**

Date

**REGIONAL MANAGER**

Title

EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: MCKIM & CREED, INC.

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

X I hereby certify as stated above:

ALEXANDRA TERRAL

Print Name

REGIONAL MANAGER

Title

[Handwritten Signature]

Signature

10/2/2019

Date

I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name

Signature

Title

Date

## EXHIBIT 6

### BYRD ANTI-LOBBYING CERTIFICATION

Project: Water and Sewer Street Main Design

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The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

MCKIM & CREED, INC. (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

ALEXANDRA TERRAL

Print Name



Authorized Signature

10/2/2019

Date

8020 TOWER POINT DRIVE

Address

CHARLOTTE, NC 28227

City / State / Zip

**EXHIBIT 7 (Page 1 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>	<b>MCKIM &amp; CREED, INC.</b>				
<b>Part I: Staffing Information</b>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
Name of Personnel:	Zachary Trammel	Chris Rosenboom	Alexandra Terral	Blake Peters	Josh Marlin
Current Title:	Project Manager	Sr. Project Manager	Regional Manager	Project Engineer	Staff Engineer
Certifications and Licenses (provide certification number and expiration date):	PE: NC (46291, exp. 2/22/2020), SC	PE: NC (046265, exp. 2/19/2020), SC, FL, GA, TX	PE: NC (048710, exp. 5/13/2020), SC, FL, CO	PE: FL, CA; PACP, LACP, MACP	Engineer Intern: IA
Relevant Academic Degree(s) (list):	M.S. & B.S. Environmental Eng., Clemson University	B.S. Civil Engineering, University of S. Florida	B.S. Civil Engineering, University of Washington	B.S. Civil Eng., CA State Polytechnic Univ., Pomona	B.S. Civil Engineering, Iowa State University
Proposed Role/Function for Projects under this Contract:	Project Manager	Backup Project Manager/ Directional Drilling	QA/QC	Directional Drilling	Staff Engineer
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Sarasota, FL	Charlotte, NC
Number of Years with Current Firm:	5	2	1	10	2
Availability (%):	60%	70%	60%	70%	75%
Years Direct Experience in the following:					
• Design of water and sewer mains, <24"	5	17	22	19	3
• NCDOT encroachments	5	17	22	19	3
• Easement preparation	5	17	22	19	3
• Surveying	0	0	0	0	0

**EXHIBIT 7 (Page 1 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>	<b>MCKIM &amp; CREED, INC.</b>				
<b>Part I: Staffing Information</b>	<b>Key Staff 6</b>	<b>Key Staff 7</b>	<b>Key Staff 8</b>	<b>Key Staff 9</b>	<b>Key Staff 10</b>
Name of Personnel:	Katherine Van Sice	Cal Scheinert	Jamie Davis	Kyle Crowe	N/A
Current Title:	Staff Engineer	Geomatics Office Manager	Geomatics Project Manager	Project Manager	N/A
Certifications and Licenses (provide certification number and expiration date):	Engineer In Training: NH	Certified FAA Part 107 Remote Pilot	PLS: NC (L-4553, exp. 5/26/2020); OSHA 10-hour Safety Training	PE: NC (039112, exp. 12/31/2020)	N/A
Relevant Academic Degree(s) (list):	B.S. Environmental Eng., Penn State University	M.S. & B.S. Geography, East Carolina University	Attended: North Carolina State University, Wingate University	B.S. Civil Engineering, University of North Carolina at Charlotte	N/A
Proposed Role/Function for Projects under this Contract:	Staff Engineer	Surveying	SUE	Donated Projects Liaison	N/A
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC	N/A
Number of Years with Current Firm:	<1	7	15	5	N/A
Availability (%):	75%	60%	60%	60%	N/A
Years Direct Experience in the following:					
• Design of water and sewer mains, <24"	2	0	0	0	N/A
• NCDOT encroachments	2	0	0	0	N/A
• Easement preparation	2	0	0	14	N/A
• Surveying	0	8	20	0	N/A

**EXHIBIT 7 (Page 2 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
<b>Name of Personnel:</b>	Zachary Trammel	Chris Rosenboom	Alexandra Terral	Blake Peters	Josh Marlin
1. Charlotte Water Horizontal Directional Drilling Bidding and Construction Phases	Project Engineer	Drill QA/QC	Project Manager	Project Advisor	Staff Engineer
2. Charlotte Water Miscellaneous Water and Sewer Extensions	Project Engineer	N/A	N/A	N/A	N/A
3. Austin Chaney Road / Rocky River Road Water Main Replacement	Project Engineer	QA/QC	N/A	N/A	N/A
4. Dukeville Water Main Extension Design Build	N/A	Project Manager	N/A	N/A	Staff Engineer
5. UNCC 10-inch Water Main Replacement	N/A	Project Manager	QA/QC	N/A	N/A
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>		
<b>Name/Identifier of Firm:</b>	McKim & Creed, Inc.	Capstone Civil Engineering	SEPI Engineering & Const.	N/A	N/A
Indicate Number of Years in Business:	41	14	18	N/A	N/A
Registered with City as a Minority or Small Business:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	N/A	N/A
List Any City Contract Terminations, include date and reason for termination:	N/A	N/A	N/A	N/A	N/A

**EXHIBIT 7 (Page 2 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 6</b>	<b>Key Staff 7</b>	<b>Key Staff 8</b>	<b>Key Staff 9</b>	<b>Key Staff 10</b>
<b>Name of Personnel:</b>	Katherine Van Sice	Cal Scheinert	Jamie Davis	Kyle Crowe	N/A
1. Charlotte Water Horizontal Directional Drilling Bidding and Construction Phases	N/A	N/A	Survey/SUE	N/A	N/A
2. Charlotte Water Miscellaneous Water and Sewer Extensions	N/A	N/A	N/A	N/A	N/A
3. Austin Chaney Road / Rocky River Road Water Main Replacement	N/A	N/A	N/A	N/A	N/A
4. Dukeville Water Main Extension Design Build	N/A	N/A	N/A	N/A	N/A
5. UNCC 10-inch Water Main Replacement	N/A	N/A	Survey/SUE	N/A	N/A
<b>Part II: Firm/Team Expertise</b>					
<b>Name/Identifier of Firm:</b>	N/A	N/A	N/A	N/A	N/A
Indicate Number of Years in Business:	N/A	N/A	N/A	N/A	N/A
Registered with City as a Minority or Small Business:	N/A	N/A	N/A	N/A	N/A
List Any City Contract Terminations, include date and reason for termination:	N/A	N/A	N/A	N/A	N/A

Statement of Qualifications

# Professional Engineering Services *for the* Water & Sewer Street Main Design

**FY 20-RFQ-03**



October 3, 2019

Ms. Abby Dolan, Procurement Manager  
Charlotte Water  
5100 Brookshire Boulevard  
Charlotte, NC 28216



**Via e-mail to [adolan@charlottenc.gov](mailto:adolan@charlottenc.gov)**

**Reference: Professional Engineering Services for the Water and Sewer Street Main Design  
FY20-RFQ-03**

Dear Ms. Dolan:

Since its inception in 1992, the Street Main Extension Program offered by **Charlotte Water (CLTWater)** has been a very efficient, effective, and affordable means of providing water and sewer service to the residents of Mecklenburg County. CLTWater requires an experienced team with extensive experience in the design of water and sewer street mains. Unlike capital projects, street mains are totally customer driven. These projects require designers who can respond quickly, deliver designs on a fast-paced schedule, and remain customer-focused.

**STV Engineers, Inc. (STV)** has assembled a team of professionals with these specific credentials, who are locally based, and who have a track record of providing high-quality services for CLTWater. We also have a history of exceeding SBE/MBE participation goals on CLTWater projects, which will be key for this contract since surveying will be performed by CLTWater and that is typically one of the largest subcontract opportunities. Reaching the 10% goal will be challenging; however, STV is up for the challenge and we have carefully selected subconsultants with a strong local presence to complement our team and meet M/SBE goals. We have added the following subconsultants to our team:

- **CES Group Engineers, LLP (SBE)** — drafting of ROW maps
- **Froehling & Robertson, Inc. (MBE)** — geotechnical investigations
- **Hinde Engineering, Inc. (SBE)** — traffic control plans and utility coordination

Our proposed Project Manager, **Ron Weathers, P.E.**, will lead the STV team and is committed to achieving the project's success. With 40 years of utility experience, **Ron has designed and managed hundreds of street main projects for CLTWater dating back to 1992, when he started the street main section.** He has thorough knowledge of the unique challenges that street main projects present and he understands the importance of fostering proactive communication among CLTWater, the customer, and stakeholders.

Ron will be the primary point of contact and communication with CLTWater. He is located within STV's local office at 900 West Trade Street, Charlotte, NC 28202 and can be reached at (704) 348-4067 or via email at [ronald.weathers@stvinc.com](mailto:ronald.weathers@stvinc.com). Richard Capps, P.E., is empowered to commit the firm to a contractual arrangement with the City of Charlotte. STV acknowledges receipt of Addendum No. 1, dated September 27, 2019.

Our local team is available immediately and we look forward to the continued opportunity to assist CLTWater with the development of future projects.

Sincerely,  
**STV Engineers, Inc.**

A handwritten signature in blue ink that reads "E. Richard Capps Jr.".

E. Richard Capps Jr., P.E., Senior Vice President

Section 1

# Project Team



# 1. PROJECT TEAM

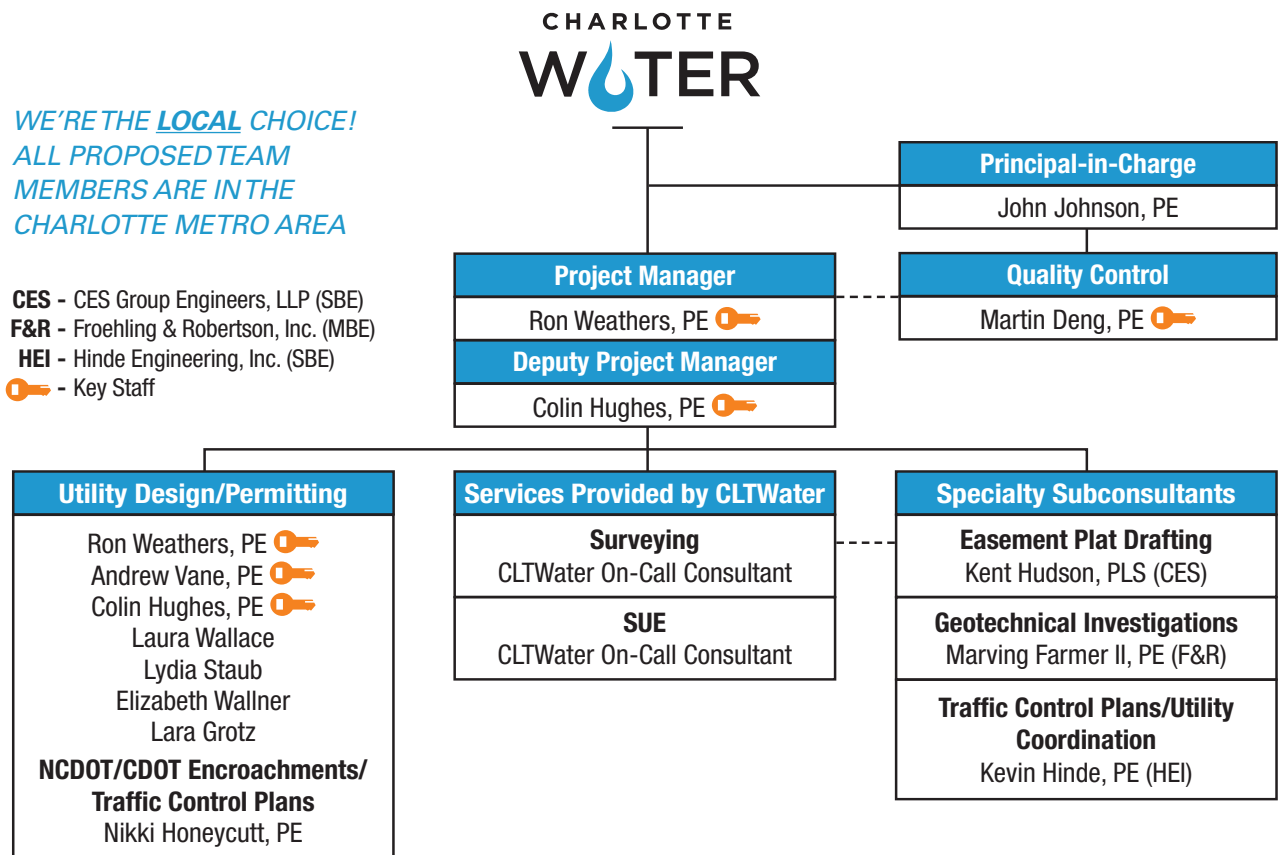
## ORGANIZATIONAL CHART

STV has assembled an ideal group of professional engineers, designers, and other specialists who understand the challenges associated with these types of infrastructure projects and can provide creative, economical solutions on a fast-paced schedule. The STV team offers the following key benefits to CLTWater:

- A dedicated project manager, based in Charlotte, who is familiar with CLTWater’s standards, processes, practices — **Mr. Weather’s first-hand knowledge of CLTWater’s street main project requirements and expectations provides rapid responsiveness to project requests and effective team leadership.**
- Committed, local personnel who routinely work together on similar projects and represent all of the key design disciplines under one roof — **STV’s in-house staff features the necessary resources to effectively address and resolve challenges to keep each project on schedule.**
- Specialized subconsultants who understand the immediate and future needs of these project types and have experience working with STV — **A history of successful collaboration provides peace of mind, and CLTWater can depend on our team to produce a high-quality product.**
- Commitment to maximizing M/SBE participation — **With three M/SBE firms on our team, we are prepared to meet participation goals for this contract.**

*WE'RE THE LOCAL CHOICE!  
ALL PROPOSED TEAM  
MEMBERS ARE IN THE  
CHARLOTTE METRO AREA*

**CES** - CES Group Engineers, LLP (SBE)  
**F&R** - Froehling & Robertson, Inc. (MBE)  
**HEI** - Hinde Engineering, Inc. (SBE)  
🔑 - Key Staff



## PROPOSED SUBCONSULTANTS

### CES Group Engineers, LLP

*Services: Easement Plat Drafting*

CES Group Engineers, LLP (CES) was established in 2011 and is a registered woman-owned SBE with the City of Charlotte. CES is widely recognized as a premier geomatics service provider in the region, with 10 field survey crews using the latest tools and equipment, directed by six licensed professional land surveyors. Their firm is currently providing on-call land surveying services to CLTWater and CLT Airport.

**Office Location:** 274 N Hwy 16 Business, Suites 200-500, Denver, NC 28037

**Contact:** Kent Hudson, PLS, (704) 489-1500 x1014

### Froehling & Robertson, Inc.

*Services: Geotechnical Investigations*

Froehling & Robertson, Inc. (F&R) has been serving the design and construction communities for nearly 140 years. Established in 1881, with offices in North Carolina since 1947, F&R is a leading multi-disciplinary engineering firm offering clients a full range of services including our core competencies of geotechnical engineering, construction materials testing and environmental services. F&R is a registered MBE with the City of Charlotte.

**Office Location:** 3300 International Airport Drive, Suite 600, Charlotte, NC 28208

**Contact:** Marving Farmer, P.E., (704) 596-2889

### Hinde Engineering, Inc.

*Services: Traffic Control Plans and Utility Coordination*

Hinde Engineering, Inc. (HEI) is a civil engineering firm specializing in utility projects for the public sector. HEI has developed a reputation for providing their clients with innovative and cost efficient solutions to utility issues. HEI staff members have extensive experience in utility construction projects, coordination of utility relocations, utility conflict resolution, contract administration, and construction observation. HEI is a registered SBE with the City of Charlotte.

**Office Location:** 7520 E. Independence Boulevard, Suite 230, Charlotte, NC 28227

**Contact:** Kevin Hinde, P.E., (704) 814-4407

## CERTIFIED MINORITY OR SMALL BUSINESS ENTERPRISE (M/SBE)

As on every City of Charlotte project, STV is firmly committed to meeting the City's M/SBE goals. To demonstrate this commitment, **we will engage M/SBE firms for a minimum of 10% of the assigned work.**

### M/SBE SUBCONSULTANTS

FIRM	DISCIPLINE	M/SBE STATUS
CES Group Engineers, LLP	Easement Plat Drafting	SBE
Froehling & Robertson, Inc.	Geotechnical Investigations	MBE
Hinde Engineering, Inc.	Traffic Control Plans/Utility Coordination	SBE

Delivering projects in Charlotte for over five decades, STV recognizes the diversity of our business community. We appreciate the importance of fostering small businesses, and we believe the inclusion of M/SBE firms adds value and diversity to our services.

STV was one of the City of Charlotte's first mentor firms chosen for their Mentor-Protégé Program, aimed at assisting small or start-up firms with best business practices. As part of this pilot program, STV mentored several firms, including Geological Resources, Inc., a 15-person firm based in Charlotte.

Additionally, STV and Latham Walters Engineering, Inc. met bi-monthly and conducted roundtable discussions on management aspects of a business in the engineering industry..

*We believe the inclusion of M/SBE firms adds value to our services, and we make every effort to meet or exceed established M/SBE goals.*



**RON WEATHERS, P.E.**  
*Project Manager | Utility Design/Permitting*

Ron is a civil engineer with more than 40 years of experience providing oversight for sanitary sewer and water main planning, design, permitting, and construction administration/inspection. He spent the bulk of his career with CLTWater, most recently serving as Division Manager for Rehabilitation and Operations Support, where he supervised more than 20 employees. Ron started the street main section for CLTWater in 1992, working on hundreds of street main water and sewer projects while supervising the section. He has also served as project manager/project engineer for over 150 street mains for CLTWater as a consultant, designing more than 66,737 feet of water mains and 87,914 feet of sewer mains. He is skilled in cash flow management, preparing capital and operating budgets, monitoring self-permitting programs, and overseeing capital improvement programs. Ron also provides QA services for water/sewer projects.

**FIRM**  
STV

**EDUCATION**  
Bachelor of Science, Civil Engineering; North Carolina State University

**PROFESSIONAL REGISTRATIONS**  
Professional Engineer: North Carolina, South Carolina

**TRAINING**  
OSHA 10-Hour Safety Training  
  
National Incident Management System (NIMS), FEMA

Incident Command System (ICS), NC Division of Emergency Management

NC Earthquake Program Overview, NC Division of Emergency Management

Water Sector Incident Command System, EPA

**MEMBERSHIPS**  
American Water Works Association

Water Environment Federation

**PROJECT EXPERIENCE**

***Charlotte Douglas International Airport Rental Car Road Sanitary Sewer | Construction Engineer***

Approving shop drawing submittals through eBuilder and participating in biweekly construction meetings with the contractor and Charlotte Douglas International Airport. Ron is reviewing the contractor's work on 2,300 feet of 8-inch and 18-inch sanitary sewer that is made more challenging by being 20-35 feet deep with seven bores/tunnels and limited work space in a high traffic area.

***CLTWater Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build | Design Project Manager***

Overseeing design on these CLTWater progressive design-build projects with 20% small and minority business enterprise (S/MBE) requirements. The Dairy Branch trunk provides service to the South Boulevard area of Charlotte, where recent and anticipated multi-story, multi-family housing and restaurant development along the Blue Line light rail is expected to exceed the capacity of the aging sanitary sewer. The \$10.5 million improvement project is anticipated to be approximately 6,300 feet in length. The Derita Branch, in a drainage basin that provides service to the I-85 area near the University of North Carolina at Charlotte (UNCC), can't accommodate the anticipated flows from development along the Blue Line Extension to UNCC, where multi-story, multi-family housing and hotels are expected, along with craft breweries that generate a very high volume of wastewater. The \$22 million improvement project is expected to be approximately 17,500 feet in length.

**ADDITIONAL EXPERIENCE**

- ◆ ***NCDOT Rail Division Locomotive and Railcar Maintenance Facility | QA/QC Reviewer***
- ◆ ***NCDOT Main Street/NC 115 Widening and Realignment (U-5908) | QA/QC Reviewer***
- ◆ ***City of Charlotte Rocky River Road West Improvements | QA/QC Reviewer***
- ◆ ***City of Charlotte McCullough Drive Streetscape | QA/QC Reviewer***



## JOHN JOHNSON, P.E. *Principal-in-Charge*

**EDUCATION** | Bachelor of Science, Civil Engineering; North Carolina State University

John manages STV's civil engineering staff in our North Carolina offices and is responsible for project delivery, quality control, and client satisfaction for various multidisciplinary projects. He has led teams of STV staff and subconsultants in response to assignments under multiple on-call task order contracts for the City of Charlotte, NCDOT, various municipalities, and other state departments of transportation.

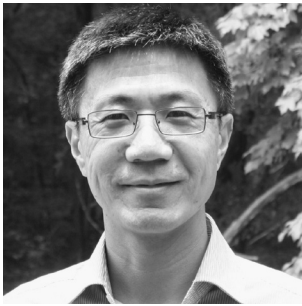
**FIRM**  
STV

**EXPERIENCE**  
28 Years

**REGISTRATION**  
Professional Engineer:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *CLTWater Little Sugar Creek Tributary to Fairview Road Sewer Line Improvements | Principal-in-Charge*
- ◆ *CLT Airport Water System Master Planning | Principal-in-Charge*
- ◆ *City of Charlotte Statesville Avenue Streetscape Project | Quality Manager*



## MARTIN DENG, P.E. *Quality Control*

**EDUCATION** | Master of Science, Civil Engineering; Case Western Reserve University  
Master of Science, Environmental Engineering; Tongji University

Martin is a civil engineer with experience designing and managing water and wastewater projects, including water distribution, wastewater collection, water and wastewater treatment, and rehabilitation projects. He is adept at preparing bid documents, including construction plans, specifications, special provisions, and cost estimates, as well as multidisciplinary and multi-agency coordination. He is familiar with all aspects of the project process, from preliminary design to preparation of final construction documents and construction management.

**FIRM**  
STV

**EXPERIENCE**  
18 Years

**REGISTRATION**  
Professional Engineer:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *NCDOT L&R Maintenance Facility (P-2918F) | Lead Utility Engineer*
- ◆ *CLTWater Little Sugar Creek Sewer Replacement | Project Manager*
- ◆ *CATS LYNX Blue Line Extension | Lead Utility Engineer*



## COLIN HUGHES, P.E. *Deputy Project Manager | Utility Design/Permitting*

**EDUCATION** | Bachelor of Science, Civil Engineering; Clemson University

Colin is a utility engineer with experience providing design for water treatment facility construction and transportation projects, including numerous NCDOT efforts. He is familiar with all aspects of geometric design and has designed 3-D models for use in demolition, renovation, and construction efforts. Colin makes sure that projects meet both the client's objectives and the project's schedule and budget.

**FIRM**  
STV

**EXPERIENCE**  
5 Years

**REGISTRATION**  
Professional Engineer:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *City of Charlotte Rocky River Road West Improvements | Utility Engineer*
- ◆ *City of Charlotte McCullough Drive Streetscape | Utility Engineer*
- ◆ *City of Charlotte Stormwater Country Club Improvement | Utility Engineer*
- ◆ *NCDOT Rail Division Locomotive and Railcar Maintenance Facility | Utility Designer*



## ANDREW VANE, P.E. *Utility Design/Permitting*

### EDUCATION

Master of Science, Civil Engineering; Case Western Reserve University  
Master of Science, Environmental Engineering; Tongji University

Andrew is a civil engineer and project manager with 27 years of experience providing design services and construction administration for a variety of water systems, sewer, and wastewater treatment facility projects. His expertise includes hydraulic modeling, soil erosion and sediment control, water system computer modeling, pumping and conveyance systems, and regulatory permitting. Andrew is a recognized leader in trenchless design applications, including HDD and jack and bore/tunnels for pipeline projects that traverse wetlands, buried utilities, railroads, and major roadways.

**FIRM**  
STV

### EXPERIENCE

27 Years

### REGISTRATION

Professional Engineer:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *CLT Airport Rental Car Road Sanitary Sewer | Utility Engineer*
- ◆ *NCDOT L&R Maintenance Facility (P-2918F) | Utility Engineer*
- ◆ *NCDOT Division 10 Bridge Replacement | Lead Pipeline Designer*



## LAURA WALLACE *Utility Design/Permitting*

### EDUCATION

Bachelor of Science, Environmental Resources Engineering; Humboldt State University

Laura is an engineering specialist with experience developing plans for projects involving relocating and improving water and sewer infrastructure. She provides data collection and hydraulic modeling services, analysis for alignments and pipe sizing, and utility coordination assistance with various utility owners. Laura is skilled in modeling water system improvements, master planning, and waterline relocations. In addition, she has analyzed upgrades for wastewater treatment systems.

**FIRM**  
STV

### EXPERIENCE

3 Years

### REGISTRATION

Engineering Intern:  
California

### SIMILAR PROJECT EXPERIENCE

- ◆ *NCDOT L&R Maintenance Facility (P-2918F) | Engineering Specialist*
- ◆ *CLT Water Little Sugar Creek Tributary to Fairview Road Sewer Line Improvements | Engineering Specialist*
- ◆ *CDIA Airport Water System Master Planning | Engineering Specialist*



## LYDIA STAUB *Utility Design/Permitting*

### EDUCATION

Bachelor of Science, Civil Engineering; University of North Carolina at Charlotte

Lydia is an engineering specialist with experience developing plans for projects involving relocating and improving water and sewer infrastructure. She has assembled technical reports and presentations to evaluate various design alternatives and has experience with conflict and cost analysis. Additionally, Lydia is skilled in working with regulatory bodies to obtain necessary permits for projects.

**FIRM**  
STV

### EXPERIENCE

2 Years

### REGISTRATION

Engineering Intern:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *CLT Water Little Sugar Creek Tributary to Fairview Road Sewer Line Improvements | Engineering Specialist*
- ◆ *CLT Airport Rental Car Road Sanitary Sewer | Engineering Specialist*
- ◆ *City of Concord Poplar Tent Road Waterline Extension | Engineering Specialist*



## ELIZABETH WALLNER *Utility Design/Permitting*

**EDUCATION** | Bachelor of Science, Civil Engineering; North Carolina State University

Elizabeth is an engineering specialist with experience providing utility design services for water and wastewater pipeline relocation and improvement projects, in North Carolina. Her experience includes both design and construction phase support.

**FIRM**

STV

**EXPERIENCE**

1 Year

**REGISTRATION**

Engineering Intern:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *CLTWater Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build | Engineering Specialist*
- ◆ *CLTWater General Engineering Relocation Services | Engineering Specialist*
- ◆ *NCDOT Old Monroe Road Widening (U-4714B) | Utility Designer*



## LARA GROTZ *Utility Design/Permitting*

**EDUCATION** | Master of Science, Environmental Engineering; University of Notre Dame  
Bachelor of Science, Civil Engineering; University of Virginia

Lara is an engineering specialist experienced at performing design for municipal utility pipeline projects. Her skills include preparing quantities for cost estimates and developing project scopes, schedules, and budgets for subcontractors.

**FIRM**

STV

**EXPERIENCE**

1 Year

**REGISTRATION**

Engineering Intern:  
Virginia

### SIMILAR PROJECT EXPERIENCE

- ◆ *CLTWater Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build | Engineering Specialist*
- ◆ *CLTWater General Engineering Relocation Services | Engineering Specialist*



## NIKKI HONEYCUTT, P.E. *NCDOT/CDOT Encroachments | Traffic Control Plans*

**EDUCATION** | Bachelor of Science, Civil Engineering; Clemson University

Nikki is a senior engineer and project manager with 11 years of providing oversight for vehicle-, pedestrian-, and bicyclist-related projects. She has managed feasibility studies, alternative and safety analyses, and functional, preliminary, and final designs for multimodal projects, intersection improvements, roadway widenings, and new roadways. She has successfully managed the simultaneous completion of multiple projects, including numerous NCDOT and municipal efforts, and has a talent for keeping projects on schedule and on or under budget while remaining attentive to client needs.

**FIRM**

STV

**EXPERIENCE**

11 Years

**REGISTRATION**

Professional Engineer:  
North Carolina

### SIMILAR PROJECT EXPERIENCE

- ◆ *NCDOT NC 51 Matthews Township Parkway Widening (U-5763) | Project Manager*
- ◆ *City of Charlotte Rocky River Road West Planning and Design | Project Manager*
- ◆ *City of Charlotte Carolyn Lane Connector Feasibility Study | Project Manager*





### **KENT HUDSON, PLS** *Easement Plat Drafting*

#### **EDUCATION**

Associate of Science, Civil Engineering; York Technical College  
Associate of Science, Graphics Technology; York Technical College

Kent has more than 24 years of surveying experience working on large commercial construction sites and performing boundary, utility and topographic surveys for government clients. He has been responsible for design and/or construction surveying services on many of the region's most high-profile projects, including I-77 HOT Lanes, multiple phases and sections of Charlotte's light rail system, multiple expansion projects at CLT Airport, and multiple projects for the City of Charlotte and CLTWater.

#### **FIRM**

CES Group Engineers, LLP

#### **EXPERIENCE**

24 Years

#### **REGISTRATION**

Professional Land Surveyor:  
North Carolina

#### **SIMILAR PROJECT EXPERIENCE**

- ◆ *CLTWater Commercial Water Meter Locations | Survey Manager*
- ◆ *CLTWater Little Sugar Creek Tributary Trunk Sewer | Survey Manager*
- ◆ *CLTWater Dairy Branch Sanitary Sewer Improvements Progressive Design-Build | Survey Manager*



### **MARVING FARMER II, P.E.** *Geotechnical Investigations*

#### **EDUCATION**

Bachelor of Civil Engineering; Auburn University

Marving has extensive experience overseeing environmental and geotechnical engineering projects. His expertise includes geotechnical engineering analyses for shallow and deep foundations including axial and lateral deep foundation analysis; embankment design and stability analysis; pavement design; and foundation settlement evaluations. Marving has provided geotechnical services in support of water lines, pump stations, military, multi-story structures, communication towers, retaining walls, dams, and roadways.

#### **FIRM**

Froehling & Robertson, Inc.

#### **EXPERIENCE**

34 Years

#### **REGISTRATION**

Professional Engineer:  
North Carolina

#### **SIMILAR PROJECT EXPERIENCE**

- ◆ *CLTWater Clems Branch Pump Station | Senior Geotechnical Engineer*
- ◆ *CLTWater Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build | Senior Geotechnical Engineer*
- ◆ *City of Lexington Hargrave Pump Station | Senior Geotechnical Engineer*



### **KEVIN HINDE, P.E.** *Traffic Control Plans | Utility Coordination*

#### **EDUCATION**

Bachelor of Science, Civil Engineering with Minor in Environmental Systems Engineering; Clemson University

Kevin is a civil engineer with 20 years of experience in utility design. He has provided design and project management on more than 120 utility design projects for NCDOT, CLTWater, Anson County, and other municipalities. Kevin has been responsible for the design of water mains ranging from 6 inches to 120 inches in diameter and sewer mains ranging from 8 inches to 60 inches in diameter. His experience includes all phases of the utility plan process, from project scoping through final permitting and construction.

#### **FIRM**

Hinde Engineering, Inc.

#### **EXPERIENCE**

20 Years

#### **REGISTRATION**

Professional Engineer:  
North Carolina

#### **SIMILAR PROJECT EXPERIENCE**

- ◆ *CLTWater Poplar Street Water Line Replacement | Project Engineer/Utility Coordinator*
- ◆ *CLTWater Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build | Utility Coordinator*
- ◆ *CLTWater Arrowood Road 24-Inch Water Main | Project Engineer/Utility Coordinator*

Section 2

# Experience & Approach



## 2. EXPERIENCE AND APPROACH

### RELEVANT PROJECT EXPERIENCE

The STV team has extensive relevant experience providing comprehensive water and sewer design for CLTWater. The following five projects demonstrate that STV has the knowledge, skilled personnel, and project experience necessary to successfully support this contract.



#### Country Club Drive Streetscape Improvements Water and Sewer Relocations Charlotte, NC

Client: CLTWater/Charlotte Storm Water Services  
 Contact: Bill Deal, (980) 722-0786  
 Estimated Cost: \$45,500 (water); \$67,500 (sewer)  
 Dates of Service: 8/2018 - Present  
 Status: In ROW acquisition by City of Charlotte

STV designed water and sewer relocations associated with the Country Club Drive streetscape improvement project. The project included 222 lf of 6-inch water mains and 209 lf of 8-inch sewer. The cost estimates above also include miscellaneous adjustments of water and sewer appurtenances, as well as the elimination of an aerial sewer creek crossing. The new sewer main will be buried to eliminate drainage obstruction and possible sewer spills.

#### Key Team Members

**Martin Deng** — Project manager  
**Ron Weathers** — Project engineer  
**Lydia Staub** — Designer, estimator, CADD



#### Rental Car Road Sewer at CLT Airport Charlotte, NC

Client: CLTWater  
 Contact: Chuck Bliss, (704) 336-1012  
 Cost: \$5,564,286.09  
 Dates of Service: 6/2017 - Present  
 Status: Currently under construction; anticipated completion by 11/19

To meet infrastructure demands brought on by expansive growth in and around the CLT Airport, STV provided design, permitting, bid, and construction phase services to replace 865 lf of 8-inch sewer, and 1,454 lf of 18-inch sanitary sewer to serve the new Concourse A. Construction was made more challenging by the lines being 20-35 feet deep with seven bores/tunnels and limited work space in a high traffic area.

#### Key Team Members

**Martin Deng** — Project manager  
**Ron Weathers** — Project engineer during construction (shop drawing review, construction administration, etc.)  
**Andrew Vane** — Project engineer, designer  
**Lydia Staub** — Designer, estimator, CADD  
**Laura Wallace** — Designer



### CATS LYNX Blue Line Extension Charlotte, NC

Client: Charlotte Area Transit System (CATS)  
Contact: Fred Hunter, P.E., CLTWater, (704) 995-7488  
Cost: \$15.4 million (water/sewer relocations)  
Dates of Service: 7/2012 - 3/2018  
Status: Complete

The BLE adds 9.3 miles to the light rail system's south corridor, extending service from Center City to the University of North Carolina (UNC) Charlotte campus. The corridor extends from uptown Charlotte within North Carolina Railroad (NCR) ROW and along North Tryon Street, ending on the UNC Charlotte campus. The project included 35,000 lf of up to 30-inch water main and 9,000 lf of up to 24-inch sanitary sewer, designed by STV, to accommodate the light rail system. Most of the water main and sanitary sewer were located within the NCR or NCDOT ROW, requiring coordination among the STV design team, NCR, NS, and NCDOT staff on the placement of the utilities and encroachment permitting. The design included multiple crossings under the corridor and required 4,000 lf of steel casing and cathodic protection for ductile iron pipe water mains sized from 6 inches to 30 inches and a cured-in-place pipe (CIPP) for an existing 30-inch reinforced concrete pipe sanitary sewer main.

#### Key Team Members

**Martin Deng** — Lead utility engineer

**Andrew Vane** — Utility QA/QC

**Colin Hughes** — Designer, estimator, CADD



### Rocky River Road Streetscape Water and Sewer Relocations Charlotte, NC

Client: CLTWater  
Contact: Bill Deal, (980) 722-0786  
Estimated Cost: \$289,000 (water); \$595,000 (sewer)  
Dates of Service: 10/2017 - Present  
Status: Ongoing; 100% plans signed, sealed and submitted – 9/9/19

STV designed water and sewer relocations and sewer upsizing associated with street improvements by City of Charlotte Engineering Division. The sewer upsizing was a result of the Blue Line Extension and CAP associated requests. The project included 153 lf of 6-inch water main, 258 lf of 16-inch water main and 75 lf of 6-inch water main. The project also includes 290 lf of 8-inch sewer, 1516 lf of 12-inch sewer, and 601 lf of 14-inch pipe bursting sewer. Water and sewer plans were self-permitted by CLTWater on 9/9/19 and the plans will be inserted into the City's roadway improvement project for bidding. The above cost estimates include numerous relocation items such as fire hydrants, water meters, and manhole adjustments, as well as one active corrosion protection test station that will be relocated as a result of this project.

#### Key Team Members

**Ron Weathers** — Engineer of Record, project manager, QA/QC

**Andrew Vane** — Project engineer, designer

**Colin Hughes** — Designer, estimator, CADD



### Locomotive and Railcar Maintenance Facility Charlotte, NC

Client: NCDOT  
Contact: Bill Deal, P.E., CLTWater, (980) 722-0786  
Cost: \$1.38 million  
Dates of Service: 10/2016 - 7/2018  
Status: Complete

With the growing popularity of high-speed rail, the NCDOT Rail Division sought to build a vehicle maintenance facility on the Norfolk Southern Piedmont Division main line. The facility will include tracks, the maintenance facility building, and a rail operations control center for NCDOT and Amtrak. In addition to the need to relocate a 54-inch PCCP water main located under the proposed tracks, the STV team also designed and oversaw construction of approximately 1,300 lf of 8-inch and 12-inch DIP sanitary sewer and 1,400 lf of 6-inch DIP water main relocations. CLTWater identified aged cast iron water mains that had corroded internally and required replacement mostly in South Graham Street. STV coordinated closely with CLTWater's on-call utility contractor to have line stops installed so that new valves and connections could be completed minimizing the time that customers were out of service. Construction of all the utility relocations began in October 2016 and was completed in 2018 although the street main work took less than one month to complete.

#### Key Team Members

**Martin Deng** — Lead utility engineer  
**Ron Weathers** — QA/QC of as-builts  
**Andrew Vane** — Water/sewer engineer  
**Colin Hughes** — Water/sewer designer

## PROJECT APPROACH

Project Manager Ron Weathers, P.E., brings unparalleled experience to this project. While supervising the CLTWater street main section for approximately seven years, Ron worked on hundreds of street main water and sewer projects. He was also project manager/engineer for more than 150 street mains for CLTWater as a consultant, designing more than 66,737 feet of water mains and 87,914 feet of sewer mains. Simply put, **Ron knows street mains.**

When Ron started the street main section in 1992, there was a huge demand for street mains, and at one point there was a backlog of more than 100 projects waiting to be built. The demand has since decreased; however, the schedules are still very fast-paced for these projects.

Through our team's vast CLTWater design experience and Ron's expertise managing the street main section, we have gained numerous lessons learned. This will help to frame our overall approach and will be used to proactively manage the Professional Engineering Services for the Water and Sewer Street Main Design contract.

### Responsiveness

**STV will respond within 72 hours.** STV's Charlotte office is 4.2 miles from CLTWater. **We will provide a schedule within one week of response.** By simplifying the schedules, we will be able to provide them in a quick and efficient manner. We don't anticipate Microsoft Project being necessary for these schedules, just short fill in the blank schedules will be sufficient. STV has the availability and staff to quickly and efficiently design these street mains. Since street mains are customer driven, there is no way to anticipate demand. The engineer must properly manage and assign resources to meet demanding schedules.

### Project Startup

STV's approach to street mains will be to establish a scope and schedule for each project just as we would for a large project. Each project deserves that attention. STV and CLTWater need to agree up front what the expectations are. By CLTWater

being responsible for certain aspects of the project, such as surveying, SUE, and possibly geotechnical investigations, the roles and schedule need to be well-defined up front. Ron will work with the CLTWater street main project managers to clearly define the expectations, schedule and responsibilities. Each project will have its own schedule. Nothing will be assumed, and the schedule needs to be agreed upon by all parties.

## Workload Scheduling

Many consultants tend to think of street mains as filler work to do in between large projects. That is a big mistake. Schedules will never be met that way. We maintain a diligent process of tracking our overall workload backlog versus capacity. We have — for over two decades — prepared workload projection documents that list all active projects and expected revenue projections over the upcoming 12 months, which is then compared to our capacity based on current/projected staff levels. Our typical backlog is 70% to 90% of our available capacity. We scrutinize this data constantly to plan our work production and evaluate staffing levels, all in the context of delivering the work product **on time and on budget**.

As projects are assigned and hours are defined per task, Ron will create a spreadsheet of those hours. Each week, as hours are billed on timesheets, they are removed from the spreadsheet, allowing Ron to track remaining hours for each task on a weekly basis. STV uses our in-house BST software to confirm spending for each task order on a monthly basis. At the start of each project, a formal setup process is initiated to allocate the budget into appropriate design phases. Invoice reports are generated each month and submitted in a pre-approved format along with supporting documentation. BST will not allow an invoice to be generated that exceeds the value remaining in the budget. Therefore, CLTWater cannot be billed in excess of the contract value without CLTWater's approval.

## Communication

Communication is the key to overall project success. Our team is located in Charlotte and will be available on any project site on short notice. Our Charlotte staff is available and committed to serving CLTWater on these projects. Project Manager Ron Weathers, P.E., will work directly with CLTWater staff through each phase and provide regular status updates. Ron will notify CLTWater immediately regarding any changes or issues to discuss and recommend the best course of action to keep the project on schedule and within budget.

## Coordination Surveying

Surveying is always a critical piece of street mains. The project engineer must meet the surveyors in the field and explain what he wants. The goal should always be to send the survey crew to a job site only once. The engineer must be prepared before he goes to the site. At times utility location, property owners, CDOT, NCDOT, etc. make this impossible; however, one field visit for survey should always be the goal.

## ROW

Over the years, street mains have been pushed further toward the edge and even outside of the street ROW. Acquiring ROW for street mains adds another speed bump to the schedule. As Charlotte continues to become more and more urban, a lot of the "easy" street mains have already been done. Each street main has its own unique challenges. Property owner concerns have to be addressed and they need to be handled in a respectful and diplomatic manner. Street mains are very disruptive — you are either digging up the street in front of houses or digging up front yards. The nature of street mains just invites complaints. As an engineer you have to keep this in mind and exercise patience. Coordination is also frequently required with NCDOT, CDOT, and railroads. STV has well-established working relationships with these agencies and our institutional knowledge of their approval processes will address their concerns and avoid schedule delays.

### Easement Mapping

Drafting of the easement maps needs to be performed by an experienced local firm whose surveyors know the legal requirements for mapping and the CLTWater surveying policies, procedures, and requirements. The surveyor will not only need to work closely with Lyle Pace and CLTWater surveyors, but they will also need to satisfy the requirements of the City’s Real Estate Division. Experience in easement mapping in Charlotte and for CLTWater will be a necessity. STV proposes to use **CES Group Engineers, LLP (CES)** for this task. We have worked with their team on numerous projects and they have a thorough understanding of CLTWater requirements and expectations. Since all field work will be done by CLTWater, CES will expect CLTWater to sign and seal the maps.

An advantage of having a full-service survey firm such as CES on our team is that during peak workload periods for CLTWater’s surveyors, CES can also provide surveying services for projects under this contract.

### Availability

CLTWater needs an engineer who is flexible and will manage the demand properly. Contingency plans must always be developed just in case. As assignments are issued under this contract, we commit to respond according to your schedules. We are ready and available to proceed with any assignment from CLTWater. Our team is committed to your success, and we will make our staff available to execute your work within the specified project parameters. As supported by our key personnel’s availability shown in Figure 1

below we feel our team offers ample capacity to handle multiple task order assignments simultaneously.

The flexibility of these type contracts should also encourage consultants to work much harder. Ron has looked at funding trends for street mains and there is a slight general increase the next five years in the CIP, but there is a huge increase in CAP project funding and water reliability project funding, which could also be done through these contracts. The funding increases are shown in Figure 2 below.

From looking at the CIP there is a tremendous amount of work to be done, and the better you preform the more work you will receive. No job is too small, and the amount of work given to a consultant is performance-based. Nothing is promised and nothing is expected. Everything must be earned. This should and will keep consultants focused. STV will be proud to be given a chance to shine in this environment.

Figure 2: CLTWater Funding

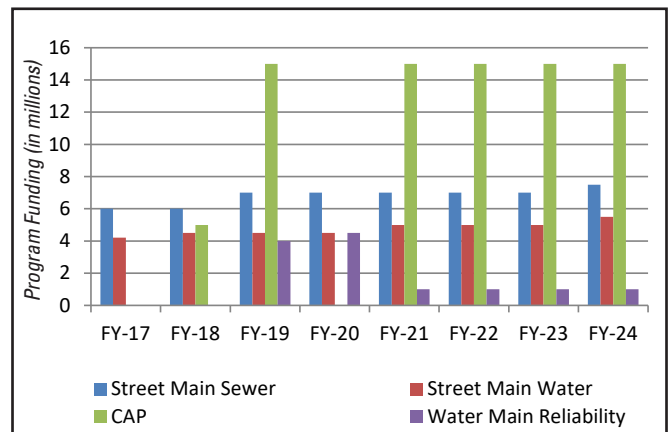


Figure 1: Availability of STV’s Key Personnel

AVAILABILITY	2019		2020												2021	2022
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN-DEC	JAN-DEC
Ron Weathers, PE	25-50%		50-75%						75-100%							
Martin Deng, PE	25-50%		50-75%						75-100%							
Andrew Vane, PE	25-50%		50-75%				75-100%									
Colin Hughes, PE	25-50%		50-75%						75-100%							

## PROJECT MANAGEMENT

### Schedule & Budget Control

At STV, timely submittals are taken seriously. We make sure that when we commit to a schedule, we deliver. Our team's experience with permitting issues, relationships with regulatory agencies and local utility owners, as well as knowledge of CLTWater practices provide a solid platform for timely delivery of projects. Our approach to control the schedule and budget includes best management practices, effective project leadership, and risk mitigation:

- Because coordination and communication among our teaming partners, including the City, is critical to successful project delivery, our tools include a formal project management plan, work breakdown structure, and quality control plan.
- Ron Weathers, P.E., will serve as the single point of contact for this project and will properly and consistently allocate resources so that we meet schedule commitments.
- We identify potential project risks early in the process to address the established project goals in a timely and cost-efficient manner by minimizing or eliminating impacts.

### Quality Management

STV's culture of high quality requires that every staff member at every level be accountable for his or her work product. Every task. Every time. Our quality of work is rated on our technical service, professionalism, innovation, communication, and adherence to budgets and schedules. It is the policy of STV to perform all design and plan production activities in conformance with applicable standards of quality. It is the personal responsibility of all STV and subconsultant personnel to understand and maintain the quality control applicable to their work. Internal quality control for designs is achieved through a rigorous review process that is adhered to on all projects.

### How We Measure Quality

At STV, we use a combined system of internal audits, external audits, customer surveys, customer review comments, surveillances, technical quality audits, and constructability reviews, to assess, revise, and continuously improve our quality management system.

### Approach to QA/QC

Following notice to proceed, Ron will implement a quality control plan (QCP) outlining QA/QC roles, responsibilities and procedures for the project.

### What's in a QCP?

#### *Detailed Checking & Technical Review Guidelines*

Thorough checking and coordination by each engineer and technician of his or her own work is required, as is the use of formal peer checking and QC checklists. Before each milestone submittal, our independent QC manager, Martin Deng, P.E., will review plans for constructability and value.

- Checking/red-lining follows the typical format of red (error), yellow (correct), blue (revised and backchecked), and green (comment).
- Checker, designer, and backchecker initial and date all plans upon review and revision.
- The peer checker is never the same person as the designer.
- Corporate quality assurance audits and surveillances are conducted regularly to confirm that QC procedures are being followed.

#### *Independent Review & Value Engineering Plan*

Independent review, evaluation, and analysis by other professionals within the organization are conducted regularly. This section identifies the frequency and level of detail. Constructability is also reviewed prior to milestone submittals.

#### *Document Management Guidelines*

Consistent project controls and document management are essential elements of an effective quality program. This portion of the QCP will identify the specific procedures for controls and document management, including everything from how to name and file documents consistently to proper project chargeability and timesheet keeping. Everything is clarified before the projects begin.

#### *Control of Subconsultants and Vendors*

Our subconsultants are required to implement their own QCP and provide records of their quality reviews to STV's QA reviewers. A key individual with each subconsultant will be responsible for their QCP and the necessary quality review records. All deliverables will be reviewed by STV's Project Manager Ron Weathers, P.E.



## WHY SELECT STV?

The STV team offers numerous features that will result in bottom-line benefits to CLTWater:

- Project Manager **Ron Weathers, P.E., offers expertise in water and sewer street main projects as well as a collaborative management approach.** He has hand-selected the team to complement STV's in-house abilities. Our proposed staff has successfully completed multiple utility design tasks within roadway projects in Charlotte.
- Our staff is proficient in both MicroStation and AutoCAD.
- The **entire proposed STV team is local** and has advantageous proximity to CLTWater's office. This enables us to meet as necessary and respond to needs in the field in a timely manner. We understand the immediate and future contexts within which these projects will operate.
- We are **available, have ample capacity, and will mobilize immediately** upon notice to proceed.



STV provides first rate customer service to the City. They routinely step up to take a leadership attitude. They have never failed us on important schedule deadlines and show commitment to providing additional staffing should the need arise.

**JIM KEENAN, PE**

*Engineering Program Manager, City of Charlotte*

## CLTWater can depend on STV to successfully deliver water & sewer street main projects

- ✓ We have exceptional utility design experience with CLTWater.
- ✓ We are a multidisciplinary firm that can provide a variety of services so that projects remain on schedule.
- ✓ We have demonstrated collaborative success among our key team members on similar Charlotte projects.
- ✓ We have strategically selected M/SBE subs based on previous similar work.
- ✓ We provide high-quality work, saving time and money because we do it right the first time.

## AVAILABILITY AND FLEXIBILITY

- Our project team includes three M/SBE subconsultants with the right experience/expertise to **promote diversity and enhance project delivery.**
- This is a **Charlotte-based team**, including all local subconsultants.
- Project Manager Ron Weathers, P.E., **understands the urgent nature of CLTWater's street main projects** and will make them his highest priority.
- Our project team will follow STV's robust **QA/QC plan** which has been proven through various successful projects nationwide.
- STV has **more than 100 local professionals** with various engineering backgrounds in our Charlotte office, who can be called upon if additional services are needed.
- Having **successfully delivered numerous similar projects for CLTWater**, we offer a team that understands how to bridge communication among various agencies, leading to successful project delivery.

# Required Forms



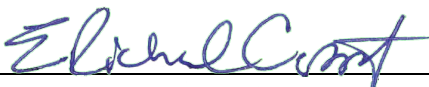
**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature:   
Printed Name: E. Richard Capps Jr., P.E.  
Title: Senior Vice President  
Date: 10/3/2019

**PROPOSER INFORMATION**

Company Legal Name: STV Engineers, Inc.

NC Board of Examiners  
for Engineers and  
Surveyors License No.: F-0991

Mailing Address  
(Headquarters): 225 Park Avenue South, New York, NY 10003

Mailing Address (Local  
Office, if different from  
above): 900 West Trade Street, Suite 715, Charlotte, NC 28202

City of Charlotte Vendor  
Number: 121069

Person(s) to Contact  
Regarding Proposal  
(including questions and  
selection  
announcements): Contact 1 Name: Ron Weathers, P.E.

Contact 1 Email: ronald.weathers@stvinc.com Phone: (704) 348-4067

Contact 2 Name: E. Richard Capps Jr., P.E.

Contact 2 Email: richard.capps@stvinc.com Phone: (704) 816-2564

**Type of Company** (check one box)

**Sole Proprietor**       **Partnership**       **Corporation** | State of Incorporation: New York

**Limited Liability Company** | State of Incorporation: \_\_\_\_\_

**Joint Venture** (This exhibit must be completed by each joint venture company.)

Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under “Additional Information About This RFQ”.)

**Acknowledgement of Addenda:**

No.: 1 Date: 9/27/2019

No.: \_\_\_\_\_ Date: \_\_\_\_\_

No.: \_\_\_\_\_ Date: \_\_\_\_\_

No.: \_\_\_\_\_ Date: \_\_\_\_\_

**EXHIBIT 2**

**MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN**

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

<b>Subconsultant's Full Name</b>	<b>Description of work / materials</b>	<b>Indicate either "M" and/or "S"</b>	<b>City Vendor #</b>
CES Group Engineers, LLP	Easement Plat Drafting	SBE	150090
Froehling & Robertson, Inc.	Geotechnical Investigations	MBE	8048
Hinde Engineering, Inc.	Traffic Control Plans/Utility Coordination	SBE	10575

In addition, address the following:

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
3. Include a list of past projects and your MSBE utilization on said projects.
4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
5. Provide a recent project example of compliance efforts and results.

**EXHIBIT 2 (cont'd.)  
MSBE PARTICIPATION PLAN  
STV Engineers, Inc.**

1. **Has the Proposer included Minority and Small Business Enterprises on past similar projects?** Our firm conducts extensive outreach efforts. We have had great success meeting MSBEs at preproposal meetings for the City. STV has used certified MSBE firms on various past City of Charlotte projects, including Hinde Engineering, Inc. for the Cedars East Storm Drainage Improvements and both CES Group Engineers, LLP and Hinde Engineering, Inc. for the Dairy and Derita Branch Sanitary Sewer Improvements Progressive Design-Build projects.
2. **Was this experience with the City of Charlotte's program?** Yes  
**If no, state the program used and briefly describe the requirements and compliance.** N/A
3. **Include a list of past projects and your MSBE utilization on said projects.** The table below features recent City of Charlotte projects where STV has met or exceeded the MSBE goals in recent years.

Project	Goal	Utilization
Dairy Branch Sanitary Sewer Improvements Progressive D-B (Phase I)	10% (SBE) 10% (MBE)	31.12% (SBE)* 10.35% (MBE)*
Derita Branch Sanitary Sewer Improvements Progressive D-B (Phase I)	10% (SBE) 10% (MBE)	18.07% (SBE)* 10.57% (MBE)*
2017 General Engineering Services for Relocation & Improvements Within Government Projects	20% (MWSBE)	20% (MWSBE)
Little Sugar Creek Tributary to Fairview Road Sanitary Sewer Improvements Design and Bid Services	9.82% (MWSBE)	9.82 (MWSBE)
Little Sugar Creek Tributary to Fairview Road Sanitary Sewer Improvements Construction Services	36.08% (MWSBE)	36.08% (MWSBE)
CATS Blue Line Extension	10% (MWSBE)	16% (MWSBE)

*\*ongoing project; percentage as of 9/30/19*

4. **Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.** STV has identified a qualified team, including MSBEs, to support this project. Our firm identifies potential firms through the Charlotte Business INCLUSION program website. We conduct interviews to discuss firm experience, staff qualifications, financial capabilities, and reputation for quality workmanship. Throughout this process, we make certain that the City is getting a quality product, as well as the best possible participation from the MSBE community. For this contract we have included the following MSBE subconsultants. Should we identify the need for additional support, we will contact qualified MSBEs using the CBI website.
  - **CES Group Engineers, LLP (SBE)** – Easement plat drafting
  - **Froehling & Robertson, Inc. (MBE)** – Geotechnical investigations
  - **Hinde Engineering Inc. (SBE)** – Traffic control plans/utility coordination
5. **Provide a recent project example of compliance efforts and results.** For the CATS Blue Line Extension project, STV exceeded the 10% MWSBE goal, achieving a total MWSBE participation of 16%. To comply with MWSBE goals, STV's efforts included contacting our known network of MWSBEs, researching the CBI website for MWSBEs to provide specific services, and meeting with MWSBEs present at City meetings for the project. STV's team included the following MWSBEs:
  - **AME Consulting Engineers, PC (SBE)** – Designer for the electrical work
  - **Capstone Civil Group (M/SBE)** – Performed erosion and sediment control for the entire project
  - **Envision Consultants (SBE)** – Responsible for providing project administrative support, maintaining design schedule, and reviewing contractor's construction schedules
  - **Lane Architecture, Inc. (W/SBE)** – Performed architectural support
  - **Neighboring Concepts PLLC (M/SBE)** – Designer of parking garage (30% to final construction documents)
  - **SEPI Engineering & Construction (W/SBE)** – Designer for the civil work
  - **Simpson Engineers & Associates, PC (SBE)** – Responsible for storm drainage structures

EXHIBIT 3

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

- 1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, discrimination means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, discrimination also includes retaliating against any person or other entity for reporting any incident of discrimination.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

STV Engineers, Inc.

Name of Company

[Handwritten Signature]

Signature of Company's Authorized Official

10/3/2019

Date

E. Richard Capps Jr., P.E.

Print Name

Senior Vice President

Title

## EXHIBIT 4

### E-VERIFY CERTIFICATION

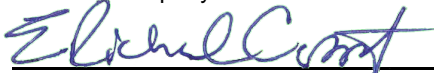
Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:
  - a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
  - b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
  - c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.
2. As a condition of being considered for the Contract, Company certifies that:
  - a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
  - b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.
3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

STV Engineers, Inc.

Name of Company



Signature of Company's Authorized Official

10/3/2019

Date

E. Richard Capps Jr., P.E.

Print Name

Senior Vice President

Title



EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: STV Engineers, Inc.

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

X I hereby certify as stated above:

E. Richard Capps Jr., P.E.
Print Name

[Handwritten Signature]
Signature

Senior Vice President
Title

10/3/2019
Date

I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name

Signature

Title

Date

**EXHIBIT 6**

**BYRD ANTI-LOBBYING CERTIFICATION**

Project: Water and Sewer Street Main Design

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The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

STV Engineers, Inc. (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

E. Richard Capps Jr., P.E., Senior Vice President  
Print Name

  
Authorized Signature

10/3/2019  
Date

900 West Trade Street, Suite 715  
Address

Charlotte, NC 28202  
City / State / Zip

**EXHIBIT 7 (Page 1 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>	<b>STV Engineers, Inc.</b>			
<b>Part I: Staffing Information</b>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>
Name of Personnel:	Ron Weathers, P.E.	Martin Deng, P.E.	Andrew Vane, P.E.	Colin Hughes, P.E.
Current Title:	Senior Water/Sewer Project Manager	Senior Engineering Operations Manager	Senior Project Manager/Utility Design Engineer	Engineer
Certifications and Licenses (provide certification number and expiration date):	Professional Engineer: North Carolina (1981/#010151/exp. 12/31/19), South Carolina (1996/#17913/exp. 6/30/20)	Professional Engineer: North Carolina (2008/#034415/exp. 12/31/19)	Professional Engineer: North Carolina (1999/#025221/exp. 12/31/19), New Jersey (1998/ #24GE04111500/exp. 4/30/20), and South Carolina (1999/#19911/exp. 6/30/20)	Professional Engineer: North Carolina (2018/#046708/exp. 12/31/19)
Relevant Academic Degree(s) (list):	Bachelor of Science, Civil Engineering; North Carolina State University	Master of Science, Civil Engineering; Case Western Reserve University; Master of Science, Environmental Engineering; Tongji University; and Bachelor of Science, Environmental Engineering; Hunan University	Bachelor of Science, Civil Engineering; Clemson University	Bachelor of Science, Civil Engineering; Clemson University
Proposed Role/Function for Projects under this Contract:	Project Manager/Utility Design/Permitting	Quality Control	Utility Design/Permitting	Deputy Project Manager/Utility Design/Permitting
Office Location:	Charlotte, NC	Charlotte, NC	Charlotte, NC	Charlotte, NC
Number of Years with Current Firm:	1	7	3	4
Availability (%):	70%	60%	70%	80%
Years Direct Experience in the following:				
<ul style="list-style-type: none"> <li>Design of water and sewer mains, &lt;24"</li> </ul>	40 years	18 years	27 years	5 years
<ul style="list-style-type: none"> <li>NCDOT encroachments</li> </ul>	30 years (reviewing for completeness)	15 years (reviewing for completeness)	19 years (reviewing for completeness)	1 year (reviewing for completeness)
<ul style="list-style-type: none"> <li>Easement preparation</li> </ul>	30 years (managing easement preparation subs)	10 years (managing easement preparation subs)	19 years (managing easement preparation subs)	1 year (managing easement preparation subs)
<ul style="list-style-type: none"> <li>Surveying</li> </ul>	30 years (managing survey subs)	10 years (managing survey subs)	19 years (managing survey subs)	1 year (managing survey subs)

**EXHIBIT 7 (Page 2 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

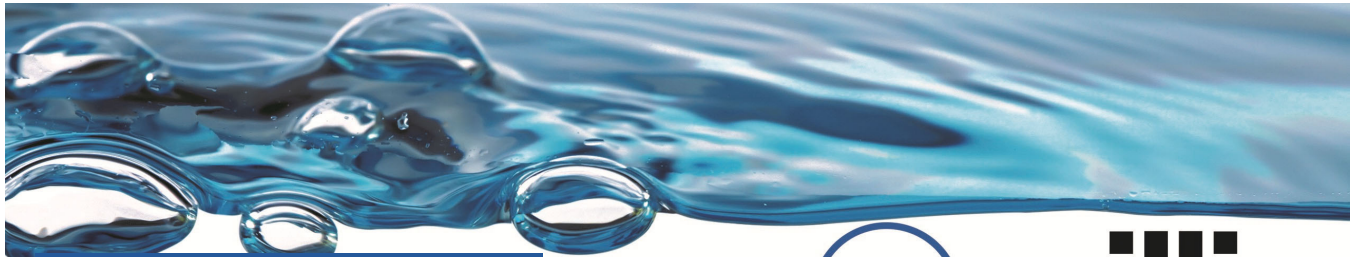
<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	
<b>Name of Personnel:</b>	Ron Weathers, P.E.	Martin Deng, P.E.	Andrew Vane, P.E.	Colin Hughes, P.E.	
1. Country Club Drive Streetscape Improvements Water and Sewer Relocations	Project Engineer	Project Manager			
2. Rental Car Road Sewer at CLT Airport	Project Engineer	Project Manager	Project Engineer/Designer		
3. CATS LYNX Blue Line Extension		Lead Utility Engineer	Utility QA/QC	Designer/Estimator, CADD	
4. Rocky River Road Streetscape Water and Sewer Relocations	Project Manager, EOR		Project Engineer/Designer	Designer/Estimator, CADD	
5. Locomotive and Railcar Maintenance Facility	QA/QC of As-builts	Lead Utility Engineer	Water/Sewer Engineer	Water/Sewer Designer	
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	
<b>Name/Identifier of Firm:</b>	STV Engineers, Inc.	CES Group Engineers, LLP	Froehling & Robertson, Inc.	Hinde Engineering, Inc.	
Indicate Number of Years in Business:	107	8	138	15	
Registered with City as a Minority or Small Business:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
List Any City Contract Terminations, include date and reason for termination:	N/A	N/A	N/A	N/A	

# Statement of Qualifications

## Water and Sewer Street Main Design FY20-RFQ-03

CHARLOTTE  
**W**ATER





## Statement of Qualifications



**willis**  
ENGINEERS

October 3, 2019

Ms. Abby Dolan  
Charlotte Water  
5100 Brookshire Boulevard  
Charlotte, North Carolina 28216

Subject: Statement of Qualifications  
Water and Sewer Street Main Design  
FY20-RFQ-03

Dear Ms. Dolan:

Over the past few years, Willis Engineers has had the privilege to work with Charlotte Water on a variety of different assignments, ranging from an evaluation of existing pump stations to the design of water and sewer extension projects. We understand that there are many qualified engineering firms seeking to perform design services for Charlotte Water. We value our partnership and hope we have proven that in addition to our expert engineering we provide responsive customer service in a professional, clear, and concise manner.

The core Project Team assembled for the Water and Sewer Street Main Design Contract consists of the same members who have previously worked with Charlotte Water on the 2015 Water and Sewer Street Main Design Services Contract. Our work under that Contract, which included the Tyvola Road Water Line, Hood Road Sewer Line and Mt. Harmony Church Road Water Line, was similar to the scope of work outlined in the FY20-RFQ-03 Request for Qualifications. Given our experience with those projects and familiarity with Charlotte Water's expectations, we believe we can make a seamless transition to completing the new assignments effectively and efficiently.

We are pleased to provide you with our Statement of Qualifications further describing our experience and providing additional background about our firm. I will continue to serve as the Project Manager for the firm. Should you have any questions, please feel free to contact me at 704.338.4662 or by email at [greg@willisengineers.com](mailto:greg@willisengineers.com).

Respectfully Submitted,

WILLIS ENGINEERS

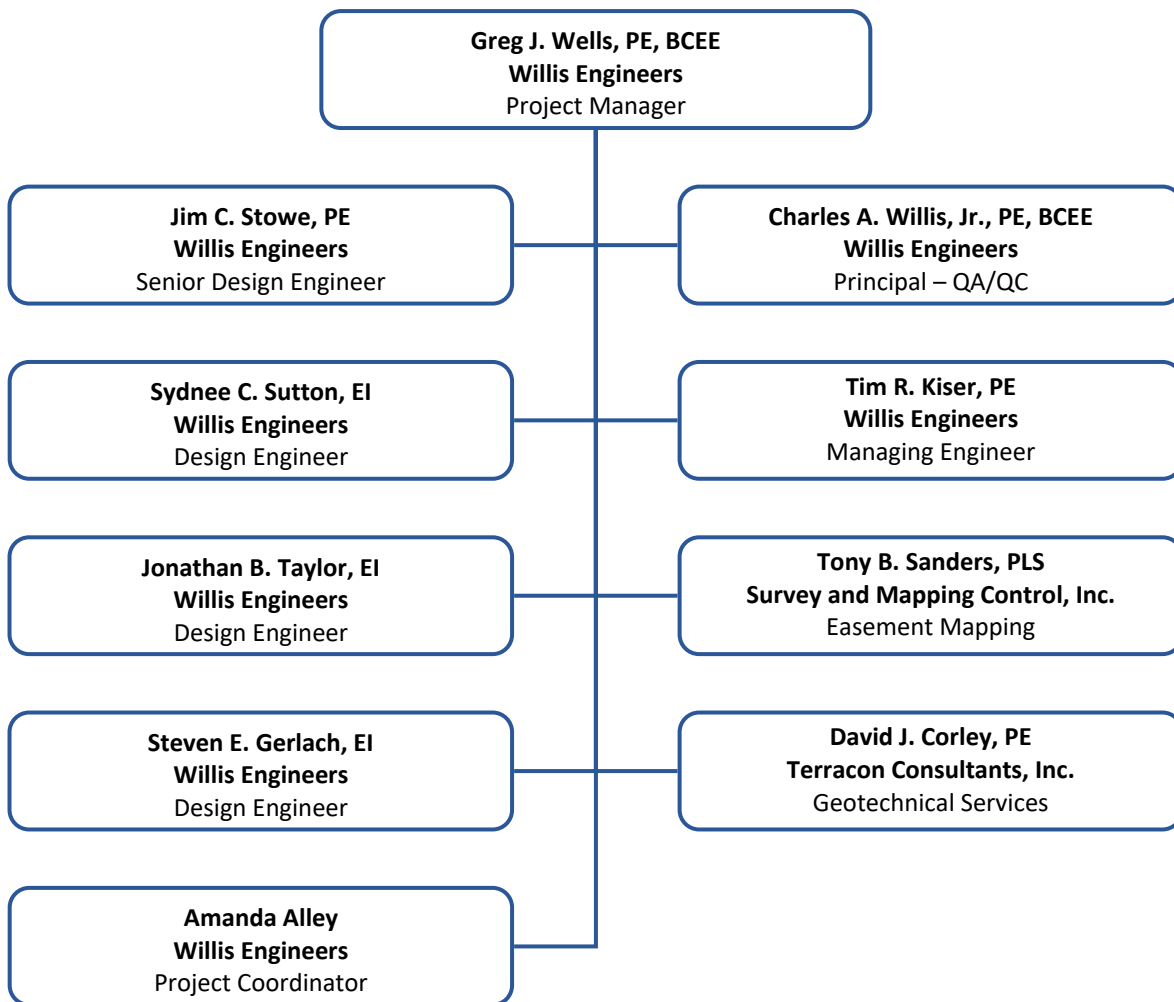
Greg J. Wells, PE, BCEE

10700 Sikes Place, Suite 115  
Charlotte, North Carolina 28277  
704.377.9844 / NC License F-0114

# Project Team

## 1. Organizational Chart

Our corporate structure is unencumbered by bureaucracy allowing us the flexibility to tailor project teams for each assignment. These teaming arrangements take advantage of the strengths of individual staff members as well as our key subcontractors. The following organizational chart identifies key members of the Project Team for the Water and Sewer Street Main Design projects.



### 2. Subconsultants

Based on the design and drafting services identified in the Request for Qualifications, Willis Engineers anticipates performing all duties with our staff. In the event easement mapping and/or geotechnical services are necessary for a given project, Willis Engineers will partner with the following subconsultants, both of which we have worked closely with and completed numerous projects in the past.

#### *Easement Mapping*

Surveying and Mapping Control  
Mr. Tony B. Sanders, PLS  
12727 Dorman Road  
Pineville, North Carolina 28134  
704.542.9095

#### *Geotechnical Services*

Terracon Consultants, Inc.  
Mr. David J. Corley, P.E.  
2701 Westport Road  
Charlotte, North Carolina 28208  
704.509.1777

### 3. M/SBE Partners

We applaud the City of Charlotte's efforts to promote the utilization of minority, women and small businesses. Willis Engineers was certified as a Small Business Enterprise (SBE) in 2009 and we are pleased to partner with others in the MWSBE

program, such as Survey and Mapping Control, Inc. If additional subconsultant support is necessary, we will pursue firms in the MWSBE program.

### 4. Team Members

Willis Engineers is proud of its long history of quality engineering services. We maintain one fully staffed office in Charlotte consisting of a group of technical professionals each of whom has extensive experience, training, and education to support their activities. The engineering staff includes seven graduate engineers, four of whom are registered Professional Engineers licensed by the State of North Carolina. Two of the five have advanced engineering training and are Board Certified experts.

Each member of the Project Team brings unique experiences that contribute to the overall success of a project. Although Greg Wells, as the Project Manager, will serve as the key client contact, the firm prides itself on having multiple project team members each of whom can seamlessly respond to client needs and project concerns.

The following provides a brief summary of each team member along with their background and experience. In addition, key team members and their roles in previous projects are further outlined in the Exhibit 7.



## Project Team



***Greg J. Wells, P.E., BCEE – Project Manager***

*Master of Science in Environmental Engineering - University of Cincinnati*

*Bachelor of Science in Civil Engineering – University of Cincinnati*

*Professional Engineer – NC, SC*

*Board Certified Environmental Engineer (BCEE)*

Central to the success of any engineering project is the strength of the Project Manager. The Project Manager for the Water and Sewer Street Main Design projects will be Greg J. Wells, P.E., BCEE. Mr. Wells has served in this role for our previous Charlotte Water projects. He has been with Willis Engineers since 1995 during which time he has been the principal designer for numerous water distribution, wastewater collection and wastewater pumping systems projects for the Town of Mooresville, Charlotte Water, the WSACC and other clients. He has also assisted in the development of several water and wastewater infrastructure planning and feasibility reports prepared by the firm.



***Jim C. Stowe, P.E. – Senior Design Engineer***

*Bachelor of Science in Civil Engineering Technology – University of North Carolina at Charlotte*

*Professional Engineer – NC*

Mr. Stowe has been with Willis Engineers since 1999. He has been a design engineer, construction contract administrator and inspector throughout his career. His experience and attention to detail are invaluable in ensuring the products at all stages of the project are complete, clear and concise. For these projects, his work will include oversight of design, preparation of any necessary regulatory and permit documents and other engineering assistance related to the projects. Mr. Stowe will also serve as another point of contact for Charlotte Water.



***Charles A. Willis, Jr., P.E., BCEE, President – QA / QC***

*Master of Civil Engineering – North Carolina State University*

*Bachelor of Science in Civil Engineering – North Carolina State University*

*Professional Engineer – NC, SC*

*Board Certified Environmental Engineer (BCEE)*

Mr. Willis has been with Willis Engineers for 29 years and currently serves as President. He provides hands-on design services and oversees construction of many of the projects designed by the firm. His major projects have included design of a 12 million gallon per day (MGD) Water Treatment Plant for the Town of Mooresville as well as numerous major water and wastewater treatment projects. In addition to his treatment projects, Mr. Willis has designed hundreds of miles of municipal water and sewer lines, 35 pump stations and numerous other facilities. He has successfully completed over 400 projects for more than 60 different clients throughout North Carolina. For the Water and Sewer Street Main Design projects, Mr. Willis will utilize his vast experience in providing the critical quality control and quality assurance reviews.

## Project Team



***Timothy R. Kiser, P.E. – Managing Engineer***

*Bachelor of Science in Civil Engineering – Clemson University  
Professional Engineer – NC, SC*

Timothy R. Kiser, P.E., recently joined Willis Engineers as Managing Engineer. Tim has over 30 years of experience in both consulting engineering and public service. He comes to Willis Engineers from the Water and Sewer Authority of Cabarrus County (WSACC) where he served since 2012 as Engineering Director. Prior to that, Tim worked for 15 years as Engineering Manager for the Rock Hill, South Carolina branch office of a larger consulting firm.



***Amanda Alley – Project Coordinator, Drafting, Finance***

*Associates in Computer Aided Drafting and Design – Pittsburgh Technical College*

Ms. Alley has been with Willis Engineers since 2007 previously serving as an electrical designer and CAD technician. She currently serves as the Business Manager of Willis Engineers and is the principal coordinator of documents and information systems. She will be assisting in the development of Contract Drawings, Regulatory Applications, as well as providing the financial and administrative functions. She has served in this role for all of the previous Charlotte Water projects completed by the firm.



***Jonathan B. Taylor, E.I. – Design Engineer***

*Bachelor of Science in Environmental Engineering – North Carolina State University*

Mr. Taylor joined Willis Engineers as a Design Engineer in January 2019. Previously, Mr. Taylor interned with Willis Engineers for three summers, assisting the Design Team with multiple water and wastewater pipeline extension projects. Currently, Mr. Taylor is assisting with a variety of projects including design of Dutchman’s Creek Parallel Sewer and the Riverbend Tank and Water Line projects for the City of Mount Holly.



***Sydnee S. Potter, E.I. – Design Engineer***

*Bachelor of Science in Environmental Engineering – North Carolina State University*

Ms. Potter joined Willis Engineers in January 2016 as a Design Engineer. Previously Ms. Potter worked for a general contractor in North Carolina, constructing a major water treatment plant expansion and renovation project. Since joining Willis Engineers, she has designed several water and wastewater pipeline extension projects and undertaken master planning efforts for the City of Mount Holly and the Town of Mocksville. Currently she is serving as the Design Engineer for two major wastewater interceptor projects and a major pump station project for the Town of Mooresville.

## Project Team



### ***Steven E. Gerlach, E.I. – Design Engineer***

*Master of Environmental Engineering – Pennsylvania State University*

*Bachelor of Science in Environmental Resource Management - Pennsylvania State University*

*Bachelor of Science in Biology – Pennsylvania State University*

Mr. Steven E. Gerlach joined Willis Engineers in 2015 after having worked for a consulting firm in Pennsylvania. Since joining Willis Engineers, Mr. Gerlach assisted Mr. Wells with the design of the Muddy Creek WWTP Expansion and assisted Mr. Willis with design of the improvements to the Town of Mocksville Dutchman’s Creek WWTP. He has also participated in design and evaluation of numerous pumping stations in Mocksville, Laurinburg and Two Rivers Utilities.

### ***Tony Sanders, P.L.S. – Easement Mapping Survey & Mapping Control, Inc.***

*Associates in Civil Engineering Technology – Fayetteville Technical Institute*

*Professional Land Surveyor – NC, SC*

*FEMA Certified Floodplain Surveyor – NC*

S&MC has extensive knowledge of local conditions and is familiar with local land records after completing numerous projects for the City of Charlotte. S&MC is also a certified City of Charlotte Small Business Enterprise firm and maintains a fully staffed office in the Charlotte area. If necessary, S&MC will provide easement map preparation in accordance with Charlotte Water standards. S&MC has provided these same services for many of our assignments completed for Charlotte Water.

### ***David J. Corley, P.E. – Geotechnical Engineering Terracon Consultants, Inc.***

*Masters of Science in Geotechnical Engineering – San Diego University*

*Bachelor of Science in Petroleum Engineering – Louisiana State University*

*Professional Engineer – NC, SC, CA*

Mr. Corley has been with Terracon Consultants, Inc., previously WPC, since 2002 and serves as their Chief Geotechnical Engineer. Terracon Consultants, Inc. provides a variety of services including geotechnical engineering, environmental services, and subsurface exploration. The firm employs knowledgeable drillers experienced in a wide range of sampling techniques and equipment, and can mobilize in the most difficult terrain. Terracon has partnered with Willis Engineers on a number of major projects including two we have performed for Charlotte Water: Steele Creek Sewer and Tyvola Road Water Line.

## Experience and Approach

### 1. Project Examples

Providing high quality engineering services has been a hallmark of our firm over our 50-year history. Although we are a small firm, we have a tremendous amount of experience. Over the past twenty years alone, the same senior engineering team at Willis Engineers has worked together to design and oversee the construction of hundreds of miles of water and sewer lines as well as numerous pumping stations and storage facilities.

Although the design and construction of pipelines is not the most glamorous engineering assignment, attention to detail is still necessary to create facilities of lasting quality. We have consistently taken the approach that good field work, careful consideration of alignment, and material selection are critical for a successful project. We believe the design process takes place “in the field” and not just at a computer screen.

The following are several highlighted examples of the distribution and collection projects we have undertaken in recent years.

#### **Charlotte Water** *Water and Sewer Street Main*

In 2015, Willis Engineers was selected to provide design services for the Water and Sewer Street Main Design Contract for Charlotte Water. The nature of the projects that we were engaged in under that Contract would be similar to those outlined in the Request for Qualifications. Below is a brief description of several of the Water and Street Main Design projects completed by the Willis Engineers Project Team. Construction of these projects was completed by On-Call Services Contractors for Charlotte Water.

#### *Tyvola Road Water Line*

Task Order 1 under the Water and Sewer Street Main Design Contract was to design and obtain regulatory approval for a new 12-inch water line on Tyvola Road. Overall, the project consisted of approximately 2,000 feet of 12-inch water line including a 200-foot cased crossing under a Norfolk Southern Railroad. The water line serves as a critical interconnect between existing water lines on either side of the railroad, thereby providing redundant service to the new Veterans Administration Health Care Center.

Willis Engineers designed the project and received regulatory approval from the Charlotte Department of Transportation (CDOT), Norfolk Southern Railroad and the North Carolina Department of Environmental Quality (NCDEQ).



#### *Mt. Harmony Church Road Water Line*

The water line on Mt. Harmony Church Road was initially slated for a flushing station. While investigating the proposed site, it was determined however that the better long-term solution would be

## Experience and Approach

to close the gap within the water system by extending the 12-inch water line on Mt. Harmony Church Road approximately 1,200 feet to the existing water line at Marglyn Drive.

As well being an NCDOT road, Mt. Harmony Church Road crosses under three bridges as part of I-485. Willis Engineers communicated directly with the NCDOT Design Services Unit in Raleigh and the local District Office to ensure the proposed design and alignment of the water line would meet their criteria.

### *North Wendover Road Water Line*

The North Wendover Road Water Line project was a result of a property owner request for service. Due to the heavy traffic volume along Wendover Road, Willis Engineers designed the new 6-inch water line extension within the footprint of the existing sidewalk and connected it to the existing system at Churchill Road and at Ellington Street. The project also included a cased crossing of Wendover Road and required approval from CDOT and NCDOT.



### *Other Water and Sewer Line Design*

Willis Engineers also completed design of two additional assignments: Rice Road Sewer Line and Hood Road Sewer Line. As with the North Wendover Road Water Line project, these projects were a result of a property owner request for water and/or sewer service.

### *Erosion and Sediment Control Plans*

As part of the 2015 Water and Sewer Street Design Main Contract, Willis Engineers also prepared Erosion and Sedimentation Control Plans for two projects designed by Charlotte Water. The Hambright Road Water Line project consisted of approximately 1,700 feet of 12-inch water main and the Bailey Road Sanitary Sewer project included approximately 1,400 feet of 8-inch sewer. Willis Engineers prepared the Erosion and Sedimentation Control Plans for each project and submitted them to the Land Quality Section of NCDEQ for approval. The Certificates of Approval for both projects were issued in February 2016.

For each of the projects noted above, Greg Wells, Jim Stowe and Chuck Willis provided key roles to ensure their success. Moreover, Survey and Mapping Control, Inc. provided the surveying and easement map preparation and Terracon Consultants, Inc. performed the subsurface investigation for the Tyvola Road Water Line project. These are the same Project Team Members proposed for the current Water and Sewer Street Main Design projects.

Under this Contract, Willis Engineers worked directly with Mr. Arnold Jarrell, Mr. Fred Hunter, and Mr. Chuck Bliss at Charlotte Water.

## Experience and Approach

### Town of Mocksville *Court Square Water Line*

Customers in downtown Mocksville were provided water service by 4-inch water lines that were over 100 years old. The Town was concerned that, due to the location of the pipeline, the new streetscaping efforts in Court Square could be hindered by the aging utilities. The pipe was made of cast iron, with lead joints and were difficult to repair. Any disturbance would result in a major leak. The Town therefore saw it necessary to replace the aging pipeline to ensure continued reliable service to customers in the Court Square area of Mocksville.



Willis Engineers designed the replacement of approximately 1,200 feet of 6-inch and 8-inch ductile iron pipe water line, the associated valves, fire hydrants, customer meters and service connections. The project was successfully completed in early 2018 and the streetscaping efforts were completed shortly after. It came in under budget for a total cost of approximately \$426,000. Feel free to contact Mr. Matt Settlemeyer, Town Manager, at 336.753.6701 regarding this project and others we have completed for the Town of Mocksville.

### *Water and Sewer to Gildan Industries*

In 2015, Willis Engineers assisted the Town of Mocksville with the construction of approximately 4,950 linear feet of 12-inch water line and approximately 2,070 linear feet of 12-inch sewer line to support the new Gildan Industries being constructed near Interstate 40. The project included extensive coordination with the North Carolina Department of Transportation and the various funding agencies providing financial support. Construction of this project was completed in the fall of 2015 at a cost of approximately \$646,000.

## Experience and Approach

### 2. Project Approach

#### *Project Management*

At Willis Engineers, we understand that the success of a project is often dictated by how it is managed. By far, the most common complaint we hear in the water and wastewater industry is that consulting engineers are not responsive to owner's needs with regards to schedules and effective communications. At Willis Engineers that lack of customer service is not acceptable. We take great pride in our availability and open communication with our clients.

Given the variable nature of the assignments envisioned within the Water and Sewer Street Main Design projects, the project approach may vary depending on the type of assignment. Regardless of complexity, however, we believe an initial Project Meeting is critical so that all parties have a clear understanding of the project's goals and objectives. During that meeting, we will listen carefully to the experiences and preferences of the Charlotte Water staff to ensure the completed facilities meet or exceed their expectations. Based on that understanding, if warranted, we will develop a work plan in the form of a detailed Project Schedule. The various tasks envisioned for the project will be outlined, identifying who is responsible for completing each task and when. The Schedule will then serve as a vital tool for monitoring the progress of the project as well as serving as an accountability system for keeping the project on track. Since the Project Schedule is a 'living' document, it can be updated as needed to ensure all parties stay informed of the overall progress of the project.

#### *Progress Monitoring and Reporting*

We understand the frustration that owners feel when not being updated on the progress of a project. We believe communication is critical for both the engineer and the owner. Depending on the stage of the project, this communication can take the form of a straightforward email, a more detailed Progress Report, or simply a telephone conversation between Project Managers. Being available to receive and/or return phone calls in a timely manner is something our Project Managers take very seriously.



Because our entire Project Team is local, we are also always available to meet in person when necessary to review and coordinate activities. Face-to-face meetings with the appropriate parties to discuss outstanding issues and build consensus with the plan moving forward are the most effective. We, however, do not believe that having meetings 'just to meet' is an efficient use of time.

## Experience and Approach

### *Quality Assurance*

The staff of Willis Engineers and our subconsultants collaborate in various combinations to form a Project Team for each project we undertake. These teaming arrangements take advantage of the particular strengths of our individual staff members and establish a structure for critical review, peer evaluation, and quality control.

Documents prepared by our staff and work performed by our consultants are routinely checked by three of our engineers. As evidence of the overall quality of our work, projects designed by the firm seldom exceed project budgets and Change Orders issued during construction are rare.

With our level of experience and effective management techniques, Willis Engineers can guarantee great engineering, timely performance and responsive service.



### **3. Workload / Availability**

Willis Engineers has available capacity to undertake the proposed projects. Our Project Manager, Greg Wells, has allocated time in his schedule to make sure that the projects are successfully completed on time. He has the authority to muster resources as necessary in our design team to ensure the work is completed efficiently.

### **4. Why Choose Willis Engineers?**

Willis Engineers has over 50 years of professional engineering experience in North Carolina. Since 1961 we have served over 250 clients and are proud of the strong working relationships we have built with municipal and industrial leaders in the region.

Those strong relationships reflect our commitment to seek the most cost-effective solution to our client's needs and design facilities with lasting quality.

In addition to applying those same principles and practices to the Water and Sewer Street Main Design projects, we believe Willis Engineers can continue to be a valuable partner with Charlotte Water for the following reasons:

#### *Experienced Team*

Willis Engineers has a high-quality staff with decades of experience in all aspects of the water and wastewater industry. Our core team has worked together for 20 years, which is uncommon in our business. This guarantees that a seasoned engineer will be working on your projects at all times.

#### *Familiarity with Charlotte Water*

The core project team members proposed for the Water and Sewer Street Main Design projects are the same team members currently working with Charlotte Water on the Steele Creek Sewer and previously worked on the 2015 Water and Sewer Street Main Design Services Contract. During the course of our work we have become familiar with Charlotte Water's preferences and expectations. As a result, we will be able to seamlessly transition to completing the new assignments effectively and efficiently.



**EXHIBIT 1**

**FIRM INFORMATION**

Project: Water and Sewer Street Main Design

This exhibit consists of the following 2 pages and should be signed by a person empowered to commit the firm to a contractual arrangement with the City of Charlotte. The person executing this exhibit, on behalf of the Company, being duly sworn, solemnly swears (or affirms) the following:

- He/she has fully read the RFQ document and agrees to the contents.
- The information contained in this Proposal, including its forms and other documents, delivered or to be delivered to the City, is true, accurate, and complete. This Proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead the City as to any material facts.

Signature: 

Printed Name: Greg J. Wells, PE

Title: Vice-President

Date: 03 OCT 2017

**PROPOSER INFORMATION**

Company Legal Name: Willis Engineers, Inc.

NC Board of Examiners for Engineers and Surveyors License No.: F-0114

Mailing Address (Headquarters): 10700 Sikes Place, Suite 115, Charlotte, North Carolina 28277

Mailing Address (Local Office, if different from above): \_\_\_\_\_

City of Charlotte Vendor Number: 117113

Person(s) to Contact Regarding Proposal (including questions and selection announcements):  
Contact 1 Name: Greg J. Wells, PE

Contact 1 Email: greg@willisengineers.com Phone: 704.338.4662

Contact 2 Name: Charles A. Willis, Jr., PE

Contact 2 Email: chuck@willisengineers.com Phone: 704.338.4668

**Type of Company** (check one box)

Sole Proprietor       Partnership       Corporation | State of Incorporation: NC

Limited Liability Company | State of Incorporation: \_\_\_\_\_

Joint Venture (This exhibit must be completed by each joint venture company.)

Name of Joint Venture: \_\_\_\_\_

**EXHIBIT 1 – FIRM INFORMATION (CONTINUED)**

**Does the Company or any key individual have any conflicts of interest with this project?**

Yes  No (If yes, please attach an additional sheet explaining.)

**Does the Company or any key individual:**

- a) currently have any unresolved claims, disputes, and/or litigation with the City of Charlotte?
- b) have claims, disputes, and/or litigation with the City of Charlotte resolved/settled within the past 5 years?

Yes  No (If yes, please attach an additional sheet explaining.)

**Proposal contains confidential / proprietary / trade secret information:**

Yes  No (If yes, pages must be clearly identified as described in Item 8 under "Additional Information About This RFQ".)

**Acknowledgement of Addenda:**

No.:   1   Date:   27 Sept 2019  

No.:            Date:                   

No.:            Date:                   

No.:            Date:

**EXHIBIT 2**

**MINORITY AND SMALL BUSINESS ENTERPRISE (MSBE) PARTICIPATION PLAN**

Project: Water and Sewer Street Main Design

List below all **MSBEs** that you intend to use on this contact.

<b>Subconsultant's Full Name</b>	<b>Description of work / materials</b>	<b>Indicate either "M" and/or "S"</b>	<b>City Vendor #</b>
Survey & Mapping Control, Inc.	Survey and Property Research	S	8899

In addition, address the following:

1. Has the Proposer included Minority and Small Business Enterprises on past similar projects?
2. Was this experience with the City of Charlotte's program? If no, state the program used and briefly describe the requirements and compliance.
3. Include a list of past projects and your MSBE utilization on said projects.
4. Identify outreach efforts that will be employed by the Proposer to maximize inclusion efforts as well as outreach efforts that have already been conducted in connection with this RFQ. Identify specific scopes of work to be performed by MSBEs.
5. Provide a recent project example of compliance efforts and results.

EXHIBIT 3

COMMERCIAL NON-DISCRIMINATION CERTIFICATION

Project: Water and Sewer Street Main Design

All requests for proposals issued for City contracts shall include a certification to be completed by the proposer in substantially the following form:

The undersigned Bidder or Proposer hereby certifies and agrees that the following information is correct:

1. In preparing its enclosed bid or proposal, the Bidder or Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not engaged in discrimination as defined in Section 2.
2. For purposes of this Section, *discrimination* means discrimination in the solicitation, selection, or treatment of any subcontractor, vendor or supplier on the basis of race, ethnicity, gender, age, or disability or any otherwise unlawful form of discrimination. Without limiting the foregoing, *discrimination* also includes retaliating against any person or other entity for reporting any incident of *discrimination*.
3. Without limiting any other remedies that the City may have for a false certification, it is understood and agreed that, if this certification is false, such false certification will constitute grounds for the City to reject the proposal submitted with this certification, and terminate any contract awarded based on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance and shall subject the Bidder or Proposer to any remedies allowed thereunder, including possible disqualification from participating in City contracts or bid processes for up to two years.
4. As a condition of contracting with the City, the Bidder or Proposer agrees to promptly provide to the City all information and documentation that may be requested by the City from time to time regarding the solicitation and selection of suppliers and subconsultants in connection with this solicitation process. Failure to maintain or failure to provide such information shall constitute grounds for the City to reject the proposal and to any contract awarded on such proposal. It shall also constitute a violation of the City's Commercial Non-Discrimination Ordinance, and shall subject the Bidder or Proposer to any remedies that are allowed thereunder.
5. As part of its bid or proposal, the Bidder or Proposer shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against Bidder or Proposer in a legal or administrative proceeding alleging that Bidder or Proposer discriminated against its subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
6. As a condition of submitting a bid or proposal to the City, the Bidder or Proposer agrees to comply with the City's Commercial Non-Discrimination Policy as described in Section 2, Article V of the Charlotte City Code, and consents to be bound by the award of any arbitration conducted thereunder.

Willis Engineers, Inc.  
Name of Company

  
Signature of Company's Authorized Official

Greg J. Wells, PE  
Print Name

03 OCT 2019  
Date

Vice-President / Project Manager  
Title

**EXHIBIT 4**

**E-VERIFY CERTIFICATION**

Project: Water and Sewer Street Main Design

This E-Verify Certification is provided to the City of Charlotte (the "City") by the company signing below ("Company") as a prerequisite to the City considering Company for award of a City contract (the "Contract").

1. Company understands that:
  - a. E-Verify is the federal program operated by the United States Department of Homeland Security and other federal agencies to enable employers to verify the work authorization of newly hired employees pursuant to federal law, as modified from time to time.
  - b. Article 2 of Chapter 64 of the North Carolina General Statutes requires employers that transact business in this state and employ 25 or more employees in this state to: (i) verify the work authorization of newly hired employees who will be performing work in North Carolina through E-Verify; and (ii) maintain records of such verification (the "E-Verify Requirements"). Section 126-7.1 of the North Carolina General Statutes requires state agencies to verify their employees' work statuses through E-Verify.
  - c. North Carolina General Statute 160A-20.1(b) prohibits the City from entering into contracts unless the contractor and all subcontractors comply with the E-Verify Requirements.
  
2. As a condition of being considered for the Contract, Company certifies that:
  - a. If Company has 25 or more employees working in North Carolina (whether now or at any time during the term of the Contract), Company has complied and will comply with the E-Verify Requirements with respect to Company employees working in North Carolina; and
  - b. Regardless of how many employees Company has working in North Carolina; Company will take appropriate steps to ensure that each subcontractor performing work on the Contract that has 25 or more employees working in North Carolina complies with the E-Verify Requirements.
  
3. Company acknowledges that the City will be relying on this Certification in entering into the Contract, and that the City may incur expenses and damages if the City enters into the Contract with Company and Company or any subcontractor fails to comply with the E-Verify Requirements. Only in the manner and to the extent permitted by the North Carolina Tort Claims Act, N.C.G.S. § 143-291, et seq., and without waiver of its sovereign immunity, company agrees to indemnify and save the City harmless from and against all losses, damages, costs, expenses obligations, duties, fines and penalties (collectively "Losses") arising directly or indirectly from violation of the E-Verify Requirements by Company or any of its subcontractors, including without limitation any Losses incurred as a result of the Contract being deemed void.

Willis Engineers, Inc.  
Name of Company

  
Signature of Company's Authorized Official

Greg J. Wells, PE  
Print Name

03 OCT 2019  
Date

Vice-President / Project Manager  
Title

EXHIBIT 5

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

Project: Water and Sewer Street Main Design

Company: Willis Engineers, Inc.

The bidder, contractor, or subcontractor, as appropriate, certifies to the best of its knowledge and belief that neither it nor any of its officers, directors, or managers who will be working under the Contract, or persons or entities holding greater than 10% equity interest in it (collectively "Principals"):

- 1. Are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency in the United States;
2. Have within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state anti-trust or procurement statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are presently indicted for or otherwise criminally or civilly charged by a government entity, (federal, state or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have within a three-year period preceding this application/proposal had one or more public transactions (federal, state or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award or in some instances, criminal prosecution.

I hereby certify as stated above:

Greg J. Wells, PE
Print Name
Vice-President / Project Manager
Title

Signature
03 OCT 2019
Date

I am unable to certify to one or more the above statements. Attached is my explanation. [Check box if applicable]

Print Name
Title

Signature
Date

EXHIBIT 6

BYRD ANTI-LOBBYING CERTIFICATION

Project: Water and Sewer Street Main Design

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of and Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96)].
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including all subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Willis Engineers, Inc. (the "Company") certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Company understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

Greg J. Wells, PE  
Print Name

10700 Sikes Place, Suite 115  
Address

  
Authorized Signature

Charlotte, North Carolina 28277  
City / State / Zip

03 OCT 2019  
Date

**EXHIBIT 7 (Page 1 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<b>NAME OF FIRM:</b>					
<b>Part I: Staffing Information</b>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
Name of Personnel:	Greg Wells	Jim Stowe	Chuck Willis	Amanda Alley	Timothy Kiser
Current Title:	Project Manager	Senior Design Engineer	Principal – QA/QC	Project Coordinator	Managing Engineer
Certifications and Licenses (provide certification number and expiration date):	Registered Professional Engineer (P.E.) in North Carolina and South Carolina  Board Certified Environmental Engineer (BCEE)	Registered Professional Engineer (P.E.) in North Carolina	Registered Professional Engineer (P.E.) in North Carolina and South Carolina  Board Certified Environmental Engineer (BCEE)	-	Registered Professional Engineer (P.E.) in North Carolina and South Carolina
Relevant Academic Degree(s) (list):	Bachelor of Science in Civil Engineering from University of Cincinnati (1992)  Master of Science in Environmental Engineering from University of Cincinnati (1994)	Applied Science in Civil Engineering Technology from Central Piedmont Community College (1993)  Bachelor of Science in Civil Engineering Technology from University of North Carolina at Charlotte (1995)	Bachelor of Science in Civil Engineering from North Carolina State University (1986)  Master of Civil Engineering from North Carolina State University (1990)	Associates in Computer Aided Drafting and Design from Pittsburgh Technical College (2003)	Bachelor of Science in Civil Engineering from Clemson University (1986)



Proposed Role/Function for Projects under this Contract:	Project Manager	Senior Design Engineer	Principal – QA/QC	Project Coordinator	Managing Engineer
Office Location:	Charlotte	Charlotte	Charlotte	Charlotte	Charlotte
Number of Years with Current Firm:	25	20	29	12	7 months
Availability (%):	50	60	50	50	60
Years Direct Experience in the following:					
• Design of water and sewer mains, <24"	25	24	29	12	30
• NCDOT encroachments	25	24	33	12	30
• Easement preparation	25	24	33	12	30
• Surveying	25	24	35	12	30

**EXHIBIT 7 (Page 2 of 2)**

**PERSONNEL & FIRM QUALIFICATIONS MATRIX**

<i>List Projects included in Proposal – Indicate Role of Key Staff Members</i>	<b>Key Staff 1</b>	<b>Key Staff 2</b>	<b>Key Staff 3</b>	<b>Key Staff 4</b>	<b>Key Staff 5</b>
<b>Name of Personnel:</b>	Greg Wells	Jim Stowe	Chuck Willis	Amanda Alley	Timothy Kiser
1. Tyvola Road Water Line	Project Manager	Senior Design Engineer	QA/QC	Project Coordinator	-
2. Mt. Harmony Church Rd Water Line	Project Manager	Senior Design Engineer	QA/QC	Project Coordinator	-
3. North Wendover Rd Water Line	Project Manager	Senior Design Engineer	QA/QC	Project Coordinator	-
4. Court Square Water Line	QA/QC	-	Project Manager	Project Coordinator	-
5. Water & Sewer to Gildan Industries	Senior Design Engineer	QA/QC	Project Manager	Project Coordinator	-
<b>Part II: Firm/Team Expertise</b>	<b>CONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>	<b>SUBCONSULTANT</b>
<b>Name/Identifier of Firm:</b>	Willis Engineers	Survey and Mapping Control	Terracon Consultants		
Indicate Number of Years in Business:	58	21	53		
Registered with City as a Minority or Small Business:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
List Any City Contract Terminations, include date and reason for termination:	N / A	N / A	N / A		



10700 Sikes Place  
Charlotte, NC 28277  
704.377.9844



[www.willisengineers.com](http://www.willisengineers.com)