



**Date:** June 5, 2023

**To:** Wanda S. Page, City Manager  
**Through:** Bertha T. Johnson, Deputy City Manager  
**From:** Donald F. Greeley, Director, Water Management  
**Subject:** Award of Professional Engineering Services Contract with Brown and Caldwell, Inc. for the Forest Hills Park Sewer Improvements Project

**Executive Summary**

The Department of Water Management (DWM) issued a Request for Qualifications (RFQ) in May 2022 for professional engineering services to improve the sanitary sewer through Forest Hills Park because prior studies indicated that approximately 6,900 feet of sewer required upsizing to accommodate future development. This project with Brown and Caldwell, Inc. (B&C) will evaluate alternatives and design of sanitary sewer replacements. Additionally, the project will replace approximately 2,500 feet of existing cast-iron water main and coordinate with the Public Works Department, Stormwater Division to identify stormwater improvements within the project condor. See Attachment 1 for a map of the project area.

A scope of services for the first phase of the project has been negotiated in the amount of \$926,768. The first phase includes field data collection, hydraulic modeling, public outreach, and preliminary engineering services. Future amendments are expected for detailed design, permitting, bidding, and construction-related services. A 10% contingency is recommended for this phase.

**Motion**

To authorize the City Manager to execute a contract with Brown and Caldwell, Inc. for professional engineering services for the Forest Hills Park Sewer Improvements project in the amount of \$926,768;

To establish a contingency fund for the contract in the amount of \$92,676.80; and

To authorize the City Manager to negotiate and execute change orders for the contract provided that the total project cost does not exceed \$1,019,444.80.

**Background**

DWM is responsible for operation, maintenance, evaluation, rehabilitation, and improvement of both the sanitary sewer system and water distribution system throughout the City. As part of DWM’s ongoing efforts, sewers and water mains are occasionally found to no longer support the level of service required due to capacity limitations, poor conditions, location difficulties, or other concerns. This contract seeks to address some of these deficiencies.

A previously performed sanitary sewer basin analysis identified capacity limitations within and adjacent to Forest Hills Park. The sanitary sewers in this area are undersized for the proposed downtown redevelopment that contribute flows through the Forest Hills mains. Eventually, these flows make their way to the South Durham Water Reclamation Facility.

Approximately 6,900 feet of existing sewer mains are earmarked for replacement in this project, as seen on Attachment 1. Additionally, the project will replace approximately 2,500 feet of existing cast-iron water mains in poor condition, and potentially stormwater mains within the project area. The DWM is coordinating with the Public Works Department, Stormwater Division to identify necessary stormwater improvements within the project corridor.

The first phase of the contract includes public outreach, field data collection, hydraulic modeling, and preliminary engineering services. Future amendments are expected for design, permitting, bidding, and construction-related services. If early-outs are identified in the resultant Preliminary Engineering Report (PER), these may result in an amendment. Also, it is estimated that the construction cost of this project is between \$10 to \$12 million.

**Issues and Analysis**

In May 2022, the DWM advertised an RFQ. The following four firms responded:

- Kimley-Horn and Associates, Inc.
- Brown and Caldwell, Inc.
- McKim & Creed PA
- RVE, Inc.

The selection committee was comprised of staff from the DWM Utility Engineering Division, DWM Water & Sewer Maintenance Division, and the Finance Department Contract and Compliance Division.

In their proposal, B&C recognized that key components to this project, particularly around the park, require stakeholder engagement. They also indicated possible re-routing of sanitary sewer in some areas may improve maintenance efforts, as well as presented an experienced project team with a history of success on similar projects. Based on their proposal, the committee selected B&C for the project. DWM recommends the contract be awarded to B&C as in the best interest of the City.

**Alternatives**

Do not move forward with the project. This alternative would leave the existing sanitary sewer undersized through Forest Hills Park. This would increase the likelihood of sanitary sewer overflows within the park and limit downtown redevelopment.

**Financial Impact**

The funds are currently available in the following accounts:

Consultant Funds (Sewer)	4100P002-731004-P28WY	\$926,768
Contingency Funds (Sewer)	4100P002-731900-P28WY	\$92,676.80
Total		\$1,019,444.80

**Equal Business Opportunity Summary**

The Underutilized Business Compliance Division has reviewed the proposal submitted by Brown and Caldwell, Inc. of Raleigh, NC and have determined that they are in compliance with the Equal Business Opportunity Program Ordinance. The goals for this effort was/were Minority 8% and Women 6%.

The firm exceeded both goals and are in compliance with the Ordinance to promote Equal Business Opportunities in City Contracting.

B&C will subcontract to the following certified firms:

<u>Firm</u>	<u>ID</u>	<u>City/State</u>	<u>Amount</u>	<u>% of Contract</u>
BREE & Associates, Inc.	M/UBE	Wake Forest, NC	\$23,000	2.5
CriTek Engineering Group, P.C.	M/UBE	Greensboro, NC	\$70,920	7.7
Froehling & Robertson, Inc.	M/UBE	Raleigh, NC	\$4,500	0.5
Cooper and Associates Surveyors, PA	W/UBE	Cary, NC	\$101,380	10.9
Falcon Engineering, Inc.	W/UBE	Cary, NC	\$15,000	1.6

The MUBE and WUBE goals were both exceeded.

**Contractor Workforce Diversity & Hiring Practices**

According to the contractor’s responses to the “Contractor Workforce Diversity Questionnaire” the contractor is a medium employer (50 to 100 employees) consisting of mostly professional/skilled workers. The contractor believes it has a diverse workforce because of the broad range of backgrounds and experiences of their employees and because they exceed 50 percent of the industry for percentage of minorities in their workforce. The contractor did list many example efforts it makes to have a more diverse workforce.

**Employee Diversity Breakdown for Primary Location**

Employment Category	Total Employees	Total Males	Total Females	Males					Females					
				White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	
Project Manager	9	8	1	8						1				
Professional	29	16	13	15	1					9	2	1	1	
Labor														
Clerical	4	1	3	1						2			1	
Totals	42	25	17	24	1					12	2	1	2	

Employee Diversity Breakdown for the Consolidated Company

Employment Category	Total Employees	Total Males	Total Females	Males					Females				
				White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager	482	311	171	264	9	14	23	1	136	11	10	14	
Professional	1300	813	487	633	35	63	76	6	366	20	51	49	1
Labor													
Clerical	107	14	93	10	2	1	1		64	8	11	9	1
Totals	1889	1138	751	907	46	78	100	7	566	39	72	72	2

**Attachments**

Attachment 1 – Figure 1: Map of the Project Area

Attachment 2 – Agreement

Attachment 3 – Scope

Attachment 4 – Notice of Intent to Award