



**Date:** November 6, 2018

**To:** Thomas J. Bonfield, City Manager  
**Through:** W. Bowman Ferguson, Deputy City Manager  
**From:** Donald F. Greeley, Director, Water Management

**Subject:** Buchanan Boulevard Waterline Replacement (American Tobacco Phase I) – Award of Construction Contract to J.F. Wilkerson Contracting Company, Inc.

### **Executive Summary**

The Department of Water Management (DWM) received bids on October 2, 2018 for the Buchanan Boulevard Waterline Replacement project. The proposed project is the first of three (3) construction phases of the overall American Tobacco District (ATD) water main replacement project.

The ATD water mains were installed in the 1920's and have reached the end of their useful life. These water mains are in poor condition, require frequent emergency maintenance/repair and do not provide sufficient fire protection to support the development in the area. See Attachment Project Area Map for the extents of the project area. The Buchanan Boulevard/Phase I portion consists of approximately 4,505 linear feet (LF) of water mains needing replacement.

The project also includes replacing and rehabilitating selected sanitary sewer mains and manholes in the vicinity of Buchanan Boulevard and Chapel Hill Street. The existing storm sewer within the project area was found to be in acceptable condition by the Public Works Department Stormwater & GIS Division, and no work is proposed on these utilities.

The bid received from J. F. Wilkerson Contracting Company, Inc. to perform this work is the lowest responsive and responsible bid. DWM is recommending award of construction to J. F. Wilkerson Contracting Company, Inc. DWM also recommends a 10% contract contingency due to the potential issues created by construction projects in urban environments.

### **Recommendation**

The Department of Water Management recommends that City Council:

1. Authorize the City Manager to execute a contract with J. F. Wilkerson Contracting Company, Inc. in an amount not to exceed \$3,334,355.50 for the Buchanan Boulevard Waterline Replacement Construction Contract,
2. Establish a contingency fund for the contract in an amount not to exceed \$333,435.55, and
3. Authorize the City Manager to negotiate change orders for the contract provided that the total project cost does not exceed \$3,667,791.05.

### **Background**

The DWM is responsible for the maintenance of existing water distribution and sanitary sewer collection infrastructure throughout the City of Durham. A significant portion of this infrastructure is nearing the end of its service life and/or is undersized for potential redevelopment.

The water mains are cast iron pipe installed in the 1920's. As cast iron pipe ages, it is subject to a process known as "corrosion and tuberculation" whereby the interior diameter of the pipe is reduced and the flow through the pipe is restricted. This restricted flow results in an inability to provide sufficient fire protection. Another by-product of the corrosion and tuberculation process is the weakening of the pipe wall which leads to an increased frequency of emergency maintenance/repairs as the pipe condition deteriorates.

This project is the first of three (3) construction phases of the ATD project. See Attachment Map 2 for a location of the ATD construction phases. It targets the water mains in the vicinity of Buchanan Boulevard and Chapel Hill Street with known fire protection issues and escalating maintenance costs. For this project, several manholes and a small portion of sanitary sewer require replacement as well and the remaining sanitary sewer in the vicinity will be lined with a structural liner to extend its useful life.

The proposed project will replace and upsize the existing water mains with new infrastructure sized to support the most current fire flow requirements. The proposed project will also line or replace the existing sanitary sewer mains to support buildout projections of wastewater flows. The new water and rehabilitated sanitary sewer mains will provide improved fire protection, increased reliability, decreased service interruptions associated with emergency maintenance, and improved water quality.

As part of this project, the existing storm sewer in the vicinity of Buchanan Boulevard and Chapel Hill Street was reviewed and found to be in acceptable condition by the Public Works Department Stormwater & GIS Division.

It is anticipated that Phase II of the ATD project will be advertised for bid in early 2019, and that Phase III of the ATD project advertised in early 2020.

The ATD project is the next major water/sewer infrastructure improvement project from within the downtown Durham area. It is preceded by the Downtown Loop (completed) and Central Park (under construction) water main replacement projects, and will be followed by the East Durham water main replacement project (professional services contract under negotiation) upon or near completion. These large replacement projects are shown in Attachment Map 3.

### **Issues and Analysis**

The DWM formally advertised this project for bid on August 10, 2018. At the initial bid opening, only two bids were received and the project was re-advertised on September 24, 2018. At the second bid opening on October 2, 2018, two bids were received and opened:

J. F. Wilkerson Contracting Company, Inc.	\$3,334,355.50
North American Pipeline Management, Inc.	\$6,317,900.50

The DWM, its consultant, and the Equal Opportunity/Equity Assurance (EO/EA) Department performed a due diligence investigation of the lowest bid and determined that J. F. Wilkerson Contracting Company, Inc. is the lowest responsive and responsible bidder.

Although the difference in bids between J. F. Wilkerson Contracting Company, Inc. and the second lowest bidder, North American Pipeline Management, Inc., is significant, we believe J.

F. Wilkerson Contracting Company, Inc. can successfully perform the work at the bid price. The engineer's estimate for the project was \$4,045,617. Based on the engineer's estimate and an analysis of the price per foot of recently constructed projects in the Central Park area, the DWM believes that the bid by J. F. Wilkerson Contracting Company, Inc. is a fair and reasonable bid. J. F. Wilkerson Contracting Company, Inc. has successfully completed past projects for the City of Durham including the Downtown Loop, East Main Street, Central Park and 2-inch Waterline Replacements. J. F. Wilkerson Contracting Company, Inc.'s bid reflects their knowledge, and thus cost savings, from working extensively with the City.

### **Alternatives**

Alternative #1 - Do not move forward with the water and sanitary sewer main replacement project. This alternative will likely result in increased water main leaks/breaks as well as deteriorating water quality and available fire flow.

### **Financial Impact**

Funding for this contract is available in the following accounts:

Construction funds (Water)	4100P002-731000-P0BBW	\$2,720,329.50
Construction funds (Sewer)	4100P002-731000-P28BW	\$614,026.00
Contingency funds (Water)	4100P002-731900-P0BBW	\$272,032.95
Contingency funds (Sewer)	4100P002-731900-P28BW	\$61,402.60
Total		\$3,667,791.05

### **UBE Summary**

The Equal Opportunity/Equity Assurance Department reviewed the bid submitted by J.F. Wilkerson Contracting Co. Inc., Morrisville, NC and determined that they are in compliance with the Ordinances to Promote Equal Business and Small Local Business Enterprise Opportunities in City of Durham Contracting. The goals for this project are MUBE 11% and WUBE 7%. It was determined that J.F. Wilkerson Contracting Co. Inc., was in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

### **UBE REQUIREMENTS**

J. F. Wilkerson Contracting Company, Inc. will subcontract to the following certified firms:

<b>Firm</b>	<b>ID</b>	<b>City/State</b>	<b>Amount</b>	<b>% of Contract</b>
Lacayo Concrete Flatwork, Inc.	MUBE	Rougemount, NC	\$47,700.00	1.4%
Cooper & Associates	WUBE	Morrisville, NC	\$15,800.00	0.6

The MUBE and WUBE goals were not met. J.F. Wilkerson Contracting Company Inc. was able to demonstrate good faith efforts in meeting the MUBE and WUBE GOALS.

### **WORKFORCE STATISTICS**

Workforce statistics for J. F. Wilkerson Contracting Company, Inc. are as follows:

Total Workforce	58	
Total Females	2	(3%)
Total Males	56	(97%)
Black Males	9	(16%)
White Males	19	(33%)
Other Males	28	(48%)
Black Females	0	(0%)

White Females	2	(3%)
Other Females	0	(0%)