



Date: May 22, 2018

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Marvin G. Williams, Director of Public Works
Subject: Pavement Condition Survey (ST-287)

Executive Summary

On January 31, 2018 the Department of Public Works advertised an RFQ to conduct a Pavement Condition Survey ST-287. Public Works received seven submittals and interviewed three firms. The selection committee recommends Data Transfer Solutions, LLC to be awarded the contract. The Pavement Condition Study will assess and rate the condition of the City's 780 miles of asphalt streets.

Recommendation

The Administration recommends that the City Council authorize the City Manager to execute a contract for ST-287, Pavement Condition Survey with Data Transfer Solutions, LLC in the amount of \$313,600.00.

Background

The proposed "Pavement Condition Survey of the City of Durham Street System" will provide a Pavement Condition Index (PCI) on a scale from 1-100 for every asphalt street and alley in the City network. This methodology, fully described in standards published by the American Society for Testing and Materials (ASTM Standard D6433-11), is widely used across the country and is based on industry standard methods developed in partnership between the Federal Highway Administration (FHWA), Federal Aviation Administration (FAA) and the American Public Works Association (APWA).

There have been several pavement condition surveys of the City of Durham street system over the last two decades. The last pavement condition survey was performed in 2013. It is industry standard to perform pavement condition surveys every three to four years. Each time that this data is collected it will provide a snapshot of the condition of the streets. Multiple data points will help to establish deterioration curves for each street section. This information will help guide the pavement preservation program which is aimed at maintaining the overall roadway network at a higher level of service at less overall costs using a variety to asphalt pavement maintenance applications.

There is an array of pavement preservation technologies such as micro-surfacing, slurry sealing, pavement rejuvenation, and crack sealing which are less expensive than repaving. These treatments prolong the life of the pavement before the more costly repaving and/or reconstruction are required. The choice about which of these technologies is most appropriate on any given street is dependent on its condition. The PCI study by nature of the protocol employed will provide the City with specific recommendations for which pavement preservation technology is most appropriate on a street-by-street basis.

The deliverables from the study will include a five-year plan for the application of the low cost pavement preservation technologies on the City Streets where appropriate based on their PCI ratings. It will also identify those streets, if any, for which pavement preservation is not applicable and re-paving or reconstruction is necessary. These plans are key not only to providing the Public Works Department with an indication of the funding necessary to maintain the streets in good condition, but also as a foundation for the annual work plan in the prioritization of the work to be performed. The five-year plan will be very reliable in the first two to three years, at which point it will become more heavily influenced by the continued growth of the City and the available funding for the pavement preservation program. This will be a three month project. The consultant plans to perform the work between July – September of 2018 and will be available to present the information to the City Manager and to City Council at any time that is convenient beginning in the fall.

Issues and Analysis

Pavement preservation treatments cost significantly less than traditional milling and repaving, and a series of preservation treatments can extend the life of a road by 10 to 20 years. Over the life cycle of the roadway pavement preservation treatments can save the City millions of dollars per roadway lane mile.

Alternatives

The City Council can choose not to approve this project, but Public Works will be without the data needed to make data driven decisions about the maintenance of the roadway network.

Financial Impact

Funds for this project are budgeted for in the following CIP account:

Repaving Funds:	3000L010-731002-LE960	\$298,600.00
Engineering Operating Funds:	0L030000-725000	<u>\$15,000.00</u>
Total		\$313,600.00

Equal Business Opportunity Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Data Transfer Solutions, LLC of Orlando, FL and determined that they are in compliance with the Ordinance to Promote Equal Business Opportunities in City of Durham Contracting.

M/W UBE REQUIREMENTS

No MUBE or WUBE goals were set.

WORKFORCE STATISTICS

Total Workforce:

Employment Category	Total Employees	Total Males	Total Females
Project Manager	7	6	1
Professional	18	13	5
Technical	18	15	3

Clerical	6	0	6
Labor	0	0	0
Total	49	34	15

UBE REQUIREMENTS

Male:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager	6	0	0	0	0
Professional	8	2	3	0	0
Technical	14	1	0	0	0
Clerical	0	0	0	0	0
Labor	0	0	0	0	0
Total	28	3	3	0	0

Female:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native
Project Manager	0	0	1	0	0
Professional	4	0	0	1	0
Technical	2	0	0	1	0
Clerical	4	0	2	0	0
Labor	0	0	0	0	0
Total	10	0	3	2	0