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Department of Utilities  
Water Treatment Facility  
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**TO:** Chairperson Vered Meltzer and Members of the Utilities Committee

**FROM:** Chris Shaw, Utilities Director

**DATE:** May 11, 2020

**RE:** *Award Phase 3 Optimized Corrosion Control Treatment Apparatus Construction Project to Great Lakes Mechanical in the Amount of \$121,340 with a 10% Contingency of \$12,134 and a total not to exceed cost of \$133,474*

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**BACKGROUND:**

Corrosion in a water distribution system can lead to shortened asset life of infrastructure components and reduced water quality to customers taps. Corrosion can lead to dissolved metals (e.g., lead, iron, and copper), being released into drinking water. Nationally, lead concentration levels in drinking water have become a concern amongst the public and across regulatory agencies that provide water standards such as lead level concentration limits.

Currently, the Appleton Water Treatment Facility meets all State and Federal requirements for lead. Regardless, the Wisconsin Department of Natural Resources (WDNR) is recommending assurances that the City's Corrosion Control Plan is optimized.

As a result of the WDNR requirements, a Corrosion Control Treatment project was developed to determine the best course of action to enhance water quality (reduce leaching lead) while being financially responsible to the utility's rate payers. A project team of both Utilities and Public Works staff have been working on this project since August 2019.

This team broke the project into three phases. The first phase has been completed while phase two and three are meant to complimentary. The completed first phase consisted of an analysis of the City's corrosion control program. This was a desktop chemistry analysis that produced a report on current treatment. The second phase consisted of potential treatment alternatives followed by financial analyses. The report that was generated from this phase was submitted to the WDNR for review and approval. The result of the report would be a full-scale pilot through a testing apparatus.

The pilot test consists of running parallel treatment piping systems with city water over the course of one year. The testing apparatus has yet to be constructed and is the request of this memo. Once constructed the testing apparatus will be capable of mimicking household water use through different plumbing compositions and with different treatment chemistries. The resulting sampling and analyses effort over the course of the year will yield testing data that will provide the utility with the alternative treatment that is best suited for the city's distribution system.

**PROJECT SCOPE:**

Phase 3 work includes all of the equipment, materials, and labor to construct the testing apparatus. The apparatus was designed by Jacobs Engineering. Jacobs provided apparatus specifications including a parts list and drawings. Once constructed, the apparatus will be equipped with lead service lines from the City and become operational.

**QUOTE RESULTS:**

A request for quotes (RFQ) was distributed to three contractors. Each contractor had successfully demonstrated building mechanical/electrical systems for the Utilities Department in the past. A pre-quote meeting was held on April 24, 2020. Project quotes were due on May 8, 2020. The following table identifies a summary of the quotes.

<b>COMPANY</b>	<b>CONTRATPR QUOTE</b>
Staab Construction Corporation	DNP
Great Lakes Mechanical, Inc.	\$121,340
August Winter and Sons	\$214,900

Notes: DNP – Did Not Propose, NA – Not Applicable

The engineer found the Great Lakes Mechanical, Inc., quote to be responsive and least cost quote. The AWTF project team concurred with Jacobs to recommend the GLM quote.

**RECOMMENDATION:**

Award Phase 3 Optimized Corrosion Control Treatment Apparatus Construction Project to Great Lakes Mechanical in the Amount of \$121,340 with a 10% Contingency of \$12,134 and a total not to exceed cost of \$133,474. If you have any questions regarding this project please contact Chris Shaw at ph: 920-832-2362.