



DEPARTMENT OF
UTILITIES

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MEMORANDUM

Date: October 17, 2024
To: Chairperson Brad Firkus and Members of the Finance Committee
CC: Chris Stempa, Director of Utilities
Kelli Rindt, Enterprise Accounting Fund Manager
From: Ryan Rice, Deputy Director of Utilities
Subject: **Finance Committee Action: Award Sole Source Engineering Services Contract to McMahon Associates for Summer Street Lift Station Replacement in the amount of \$122,200 with a 5% contingency of \$6,110 for a total not to exceed \$128,310**

BACKGROUND:

There are approximately 335 miles of collection sewer and 14 lift stations within the City of Appleton Sewer Service Area (SSA) that convey sewage to the Appleton Wastewater Treatment Plant (AWWTP). Failures of lift stations pose the immediate risk of sanitary sewer back-ups into residential basements, businesses, and industries served in these areas. The lift stations currently serving customers within the City of Appleton are a critical component of the sewerage system, and it is vital that their operational integrity be always maintained to prevent sanitary sewer overflows or backups.

The 2024 Capital Improvements Program (CIP) plan identified the Marshall Heights and Water Street lift stations as candidates for upgrades after over 20 years of continuous service. However, staff have recently reprioritized the CIP plan to focus on the Summer Street lift station after an escalating trend of sewage pump blockages, pump failures, and observations of groundwater intrusion into the existing drywell.

The Summer Street lift station is located on the northeast side of intersection at North Badger Avenue and West Summer Street in Appleton. It was originally constructed in 1939 as an integral wetwell/drywell equipment lift station within the north lane of West Summer Street. Integral design meaning that the pump motor equipment was installed on an intermediate floor above but within the sewage wetwell (i.e. concrete tank).

The lift station was upgraded in 1963 to a 'can' style station, consisting of below grade dry pit centrifugal pumps housed in a steel enclosure that was constructed just north of the wet well. The pumping equipment was removed from the wet well.

In 1998, the lift station received its latest upgrade to a Gorman Rupp, factory built, canned lift station. The lift station includes a pair of self-priming centrifugal pumps. The inlets of the pumps are installed approximately 11-feet above the floor of the wet well, creating a suction lift condition. The intermediate floor remains within the wetwell today which creates a confined space entry hazard for

maintenance or emergency response activities. The present day below ground drywell structure requires staff to enter a manway at ground level and climb down a ship ladder approximately 17 feet to the lower elevation to access the equipment. Staff are required to follow confined space entry procedures whenever accessing the drywell space. This lift station design is the only remaining “can” design of the City’s 14 lift stations, after Briarcliff lift station’s “can” design was replaced with a submersible pump lift station in 2018, which was a McMahon engineered project.

McMahon was previously contracted to provide an evaluation of the current lift station which included: collection area capacity evaluation, equipment conditions assessment, and project alternatives analysis. That evaluation included feedback from the Utilities and Public Works departments pertaining to safety, reliability, and operational improvements. McMahon identified a concept not considered by AWWTP staff that effectively addressed those concerns by constructing a new lift southeast of the current site. Before McMahon’s evaluation, staff had focused on solutions immediately adjacent to the existing lift station within the terrace on the north side of Summer Street.

In McMahon’s evaluation, an opinion of probable cost for construction of \$1,493,000 was provided for a new station.

PROPOSAL

McMahon was asked to provide a proposal for professional engineering services that would deliver design, bidding, and construction services needed to replace the current lift station entirely. The scope of services also includes processes associated with Wisconsin Department of Natural Resources (DNR) review and approval. That step is requisite prior to any construction activities could begin in 2025. The McMahon proposal detailed each aspect of the design, bidding, and construction services required to provide the necessary deliverables that would allow AWWTP staff to advance the construction public bid process early in 2025 to achieve a favorable bidding environment. The proposed cost of design phase (\$61,900), bidding (\$4,500) and construction management services (\$55,000) totaled \$122,200.

JUSTIFICATION

The 2024 capital budget identified \$1,600,000 in total for engineering and construction costs for the Water Street and Marshall Heights lift station. With the reprioritization of Summer Street lift station for replacement and the estimate of \$1,493,000 for construction, McMahon’s proposed total fee of \$122,200 is approximately 8.2% of the total amount estimated for construction. That percentage is below the average of 15% for engineering services on a project of this complexity.

McMahon has provided engineering and construction management related services on half of the sewage lift stations within the Appleton SSA. Those projects have varied from equipment rehabilitation or upgrades to wholesale lift station system replacement, including most recently construction of the third largest lift station (new construction) in the Appleton SSA. They are familiar with the sewerage collection system and have consistently demonstrated the ability to develop effective approaches that deliver successful project outcomes. McMahon’s local presence and experienced team coupled with past City of Appleton collection system project experience has translated into highly responsive and value-added services which is reflected in their proposal fee and a 5% contingency recommendation (in lieu of 10%-15%).

RECOMMENDATION:

I am recommending the approval of a sole source engineering contract to McMahon Associates for Summer Street Lift Station Replacement in the amount of \$122,200 with a 5% contingency of \$6,110 for a total not to exceed \$128,310

If you have any questions regarding this project, please contact Ryan Rice at 920-832-5945.

Encl: Finance Department Sole Source Request Form