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Department of Utilities
Wastewater Treatment Plant
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TO: Chairperson Vered Meltzer and Members of the Utilities Committee

FROM: Chris Stempa, Utilities Deputy Director

DATE: March 17, 2023

RE: *Approve: Award the Sole Source Purchase of Secondary Clarifier Algae Sweep System from Ford Hall Company Inc., in the amount of \$131,040 with a 15% contingency of \$19,656 for a project total not to exceed \$150,696*

BACKGROUND:

There are six secondary clarifiers located southeast of the aeration tanks. The clarifiers are each 100 feet in diameter and 18 feet deep with a volume equal to 1,060,000 gallons. Mixed liquor flow from the aeration tanks is split between each of the six final clarifiers where solids are settled out and treated water passes. Approximately 20% of the solids are pumped for further thickening and anaerobic digestion while the remaining 80% is returned back to the head of aeration to maintain appropriate biological populations. The forward flow of treated water is equally distributed over a 470-foot-long weir located along the outer circumference of each clarifier. Each clarifier is equipped with an algae sweep system installed on the upper ends of the A-frames that are fabricated to the rotating collection mechanisms.

The original algae sweep system was designed, manufactured, and installed by Ford Hall in 2001 to facilitate automated cleaning of the weirs. If not addressed, prolific algae formation will foul weir openings causing short-circuiting and irregular flow patterns that negatively impact treatment performance. Prior to the algae sweep installation, staff were required to manually clean the weirs on a weekly basis. This was a labor intensive and costly process that was mitigated by the unique design of the Ford Hall algae sweep system.

After over 20 years of continuous use, the existing algae sweeps have reached their useful life and requires replacement. This project will replace the existing Ford Hall patented algae "Weir-Wolf" system with an another manufactured, installed, and commissioned by Ford Hall.

QUOTATION

Ford Hall provided a quote on for a complete turnkey installation at a cost of \$131,040. The quote includes replacement components, field installation certified technicians, start-

up testing, certification, and training. All components will be covered as part of a complete Five-Year Warranty. The quote provided by Ford Hall is 31% less than what had been projected in the CIP budget excluding costs for unknown or unanticipated repair work.

JUSTIFICATION

Ford Hall has 30 years of experience installing these patented systems across the country with over 30 alone in Wisconsin. Their claim is that the learned experience over that time has provided an in-depth knowledge of the nuances involved with installing and adjusting these systems to ensure successful operation. Ford Hall will not provide the 5-year warranty if the replacement components were installed by another contractor install. The explanation provided was that these components are installed to compensate for radial variances which are specific to each clarifier design. The AWWTP weir/trough system is not a true circle with independent straight segments measuring approximately 15-feet each and fabricated in series along the outer circumference of each clarifier. Each segment joint has an angle of approximately 11-degrees which the sweep system must navigate without catching while still performing their intended function. The consequences of one of the cleaning mechanisms catching on a weir segment or joint have been experienced at the AWWTP. The outcome of which involves extended clarifier downtime and thousands of dollars in repair costs to restore operation. It should also be noted that there is no unit cost guarantee on the replacement parts if the installation service piece was removed (currently a lump sum). Furthermore, it is unlikely that greater value would be received if we were to seek competitive costs for installation services given the nature of this work (confined space and rigging) especially when factoring the bidding climate over the past few years.

RECOMMENDATION

I am requesting sole source purchase award of Secondary Clarifier Algae Sweep System from Ford Hall Company Inc., in the amount of \$131,040 with a 15% contingency of \$19,656 for a project total not to exceed \$150,696.

If you have any questions or require additional information regarding this project please contact Chris Stempa at 920-832-5945.



SOLE SOURCE REQUEST

The undersigned certifies that the commodity/service shown below qualifies as a sole source request and meets one or more of the following requirements. The department has demonstrated, and the Purchasing Manager concurs that only one source exists, the price is equitable, and/or noncompetitive negotiation is in the best interests of the City.

- ☒ **Unique, proprietary, or one-of-a-kind:** Specific commodity/service is required and available from only one source, giving the City a superior and necessary benefit that cannot be obtained from other sources.
- ☐ **Inadequate competition:** Purchasing solicitation (bid, proposal, or quote) did not result in any qualified vendor responses and competition is determined to be inadequate.
- ☐ **Health or Safety Concern:** When a health or safety concern exists that is *not* an immediate threat but needs to be addressed in a period that does not allow for formal competitive procurement procedures.
- ☒ **Continuity of design:** Consistency with current commodity or service.
- ☐ **Emergency procurement:** A risk of human suffering or substantial damage to real or personal property exists requiring immediate attention.
- ☐ **Cooperative purchase:** Purchase from another governmental unit contract or state approved purchasing association.
- ☒ **Other:** Description provided below.

Ford Hall designed, manufactured, and installed system in 2001, providing 20+ years of continuous use. No other system with this design exists in today's market. Quote is 31% less than what had been projected in the CIP budget.

PROPOSED DETAILS
Requesting dept: Utilities
Product/service: Replace algae sweep system
Vendor name: Ford Hall
Total cost: \$131,040

Justification and price quotation provided by the department, for the items to be considered and approved as a sole source purchase attached for review.


Purchasing Manager

3/16/23
Date