Legislation Text

File #: 2019-151, **Version:** 1

Contract No. 1803538

Ford Road Booster Station Improvements

CIP#/BCE Score: 132006 / 43.4

Agenda of: April 24, 2019
Item No.: **2019-151**
Amount: $2,530,866.00

TO: The Honorable
Board of Directors
Great Lakes Water Authority

FROM: Sue F. McCormick
Chief Executive Officer
Great Lakes Water Authority

DATE: April 16, 2019

RE: **Contract No. 1803538**
Ford Road Booster Station Improvements
Vendor: Weiss Construction Co., LLC

MOTION

Upon recommendation of Cheryl Porter, Chief Operating Officer - Water and Field Services, the Board of Directors (Board) of the Great Lakes Water Authority (GLWA), authorizes the Chief Executive Officer (CEO) **to enter into Contract No. 1803538 "Ford Road Booster Station Improvements" with Weiss Construction Co., LLC, at a cost not to exceed $2,530,866.00 for a duration of 450 days;** and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

BACKGROUND

The Ford Road Booster Station was constructed in 1961. The station receives pressure and flow from the Springwells intermediate pressure discharge header and provides boosted pressures to the wholesale customers to the west

including Dearborn Heights, Garden City, Westland, and Inkster. The station also provides suction pressure and flow to the Joy Road Booster Station, which provides service to Canton Township, City of Plymouth, Plymouth Township, and the Ypsilanti Communities Utilities Authority (YCUA).

Several issues have impacted the operation of the Ford Road Booster Station. The original design of the Ford Road Booster Station did not include a system such as variable speed control or discharge control valves to control discharge pressure from the station. The station control relies on cycling of pumps to maintain reasonable pressures downstream of the station. The station's normal suction pressures range from 40 to 55 psi with typical discharge pressures ranging from 70 to 85 psi. However, there are conditions when the suction pressure varies rapidly, which can result in excessive discharge pressures. The existing reservoir fill valve is subject to frequent issues due to adverse flow and pressure conditions that prematurely cause wear and tear to the valve. The existing suction isolation valves on the line and reservoir pumps at the station leak and do not provide good isolation when maintenance is needed on the pumps.

JUSTIFICATION

Due to the issues described above, pump control valves are required in order to maintain consistent discharge pressures at the Station. Furthermore, pump maintenance, repair or rehabilitation that requires removal of the pumps is very difficult for the line and reservoir pumps at the Station because the existing isolation valves are old and leak excessively and the existing reservoir fill valve requires excessive maintenance and repair. For these reasons, the suction isolation valves on the pumps and the reservoir fill valve assembly must be replaced.

Contract No. 1803538, a construction contract at the Ford Road Booster Station, involves installation of the following:

- New isolation valves on the suction side of the five-line pumping units and five reservoir pumping units
- New pump control valves on the discharge of the five-line pumping units and five reservoir pumping units

  New reservoir fill station piping, isolation valves, and reservoir fill valve Backup power generation to operate the valves in the case of power failure

PROJECT SCHEDULE

Substantial Completion: 390 Days from Notice to Proceed

Final Completion: 450 Days from Notice to Proceed

FINANCIAL PLAN IMPACT

Summary: Sufficient funds are provided in the financial plan for this project.

Funding Source: Water Construction Bond

Cost Center: Water Engineering

Expense Type: Construction (5519-882111.000-616900-132006)

Estimated Cost by Year and Related Estimating Variance: See table below.

Fiscal Year	
FY 2019 Budget	$ 60,000.00

FY 2020 Budget	2,340,000.00
Financial Plan Estimate	$ 2,400,000.00
Proposed Contract Award	2,530,866.00
Negative Estimating Variance	$ (130,866.00)

This negative estimating variance to be funded from capital reserves.

SAVINGS, COST OPTIMIZATION, AND REVENUE ENHANCEMENT IMPACT

The project is the improvement of pressure and flow control equipment at the Ford Road water booster pumping station. The improvements will provide for reduced maintenance. Cost Savings are not determinable at the time of this award.

COMMITTEE REVIEW

This item was presented to the Operations and Resources Committee at its meeting on April 11, 2019. The Operations and Resources Committee unanimously recommended that the GLWA Board adopt the resolution as presented.

SHARED SERVICES IMPACT

This item does not impact the shared services agreement between GLWA and DWSD.