A U S T I N C I T Y C O U N C I L

AGENDA

Thursday, October 11, 2007

Public Works **Item No. 19**
RECOMMENDATION FOR COUNCIL ACTION

Subject: Authorize execution of a construction contract with MATOUS CONSTRUCTION, LTD., Belton, TX, for the Davis Water Treatment Plant Process Improvements and Equipment Replacement/Rehabilitation – Phase B and Flocculator Improvements Project in the amount of $16,650,000 plus an $832,500 contingency, for a total contract amount not to exceed $17,482,500.

Amount and Source of Funding: Funding is available in the Fiscal Year 2007-2008 Capital Budget of the Austin Water Utility.

Fiscal Note: A fiscal note is attached.

For More Information: Daniel Layton, P.E., 974-7093, James King, P.E., 972-1794, Laura Bohl 974-7064.

Purchasing Language: Lower of two bids received.

MBE/WBE: This contract will be awarded in compliance with Chapter 2-9A of the City Code (Minority-Owned and Women-Owned Business Enterprise Procurement Program) through the achievements of Good Faith Efforts with 13.08% MBE and 0.57% WBE subcontractor participation.

Boards and Commission Action: Recommended by the Water and Wastewater Commission.

The Davis Water Treatment Plant (WTP) has a rated treatment capacity of 120 million gallons per day. The plant uses lime softening, rapid mix basins, flocculation basins, sedimentation basins, recarbonation basins, gravity filters, clear well storage, and raw water and finished water pumping stations. Powdered activated carbon is added for taste and odor control. Settled water pH is adjusted with carbon dioxide. The plant was constructed in 1954 and expanded in 1961 and 1973, with additional improvements in 1986, 1993, 1997, 2000, 2002, 2003, and 2006.

Much of the existing equipment at Davis WTP has exceeded its useful life and the integrity of certain components has been compromised by corrosion and age. Several improvement projects are currently active. This contract is a combination of two of those projects. The larger of the two is the Davis Water Treatment Plant Process Improvements and Equipment Replacement/Rehabilitation – Phase B. The second project is the Davis Water Treatment Plant Flocculator Improvements.

The Davis Water Treatment Plant Process Improvements and Equipment Replacement/Rehabilitation – Phase B includes:
•Modifications to the raw water header and yard valves to rehabilitate and replace existing defective valves and operators to improve operational reliability and flexibility.
•Modifications to the raw water vault to improve personnel access, flow monitoring and ventilation.
•Modifications to the chemical building to replace two existing chlorine analyzers and a turbidity analyzer.
•Replacement of the existing Sodium Hexametaphosphate (SHMP) storage and supply system.
•Modifications to the fluoride system to replace degraded piping, valves and gauges, and place new support grading and safety handrails.

•Replacement of 32 sluice gates and rehabilitation of 12 additional sluice gates in the distribution channels.
•Modifications to the sedimentation basins to replace 18 existing sedimentation clarifier drives along with new walkways and operating platforms. Rehabilitation of 36 existing corner sweep mechanisms and replacement of 18 sludge collector guide plates.
•Modifications to the three recycle basins to replace existing clarifier drives along with new walkways, operating platforms and associated components.
•Replacement of the existing sludge pumps, valves, piping and control stations at each sedimentation basin and installation of a sludge header with valves.
•Rehabilitation work on the sedimentation and recycle basin slabs.
•Replacement of degraded clear well hatches.
•Replacement of the gas-fed recarbonation system with a pressurized solution feed system, and improvements to the carbon dioxide tanks.
•Rerouting of a failing electrical duct bank that is critical to plant operations.

The Davis Water Treatment Plant Flocculator Improvements include:
•Replace 45 five-section flocculator shafts with new stainless steel three-section shafts.
•Replace/upgrade 180 water-flushed pillow-block bearings with new grease roller bearings with mechanical seals.
•Replace 45 leaking stuffing boxes, which are high maintenance and create unsafe working conditions, with 45 new stuffing boxes.
•Replace 45 motors with new motors, and replace 15 motor starters with new starters.
•Purchase and install equipment for safe basin access and maintenance by city personnel.
•Purchase, fabricate, and install three gantry crane/hoist structures for improved safety for City maintenance personnel.

Due to the potential for unexpected factors when constructing plant rehabilitation projects, a 5% contingency in funding has been included to allow for the expeditious processing of any change orders. The contract allows 600 calendar days for completion of this project.

Work is anticipated to start November 2007 and continue until July 2009.