

AGENDA MEMORANDUM

Action Item for the City Council Meeting of May 25, 2021

DATE: May 25, 2021

TO: Peter Zanoni, City Manager

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<p style="text-align: center;"><u>Construction Contract Award</u> Laguna Madre Wastewater Treatment Plant Rehabilitation</p>
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CAPTION:

Motion awarding a construction contract to Associated Construction Partners, Ltd, Boerne, Texas, for the Laguna Madre Wastewater Treatment Plant Rehabilitation upgrades to the main office building, digester blower building, plant lift station, influent structure, aeration basins, final clarifiers, chlorine contact chamber, sludge wasting system, pre-thickener, aerobic digester, sludge concentrator, digester sludge holding tank, belt press sludge holding tank, belt press building, located in Council District 4, in an amount of \$4,494,321.00, with FY 2021 funding available from the Wastewater Capital Fund.

SUMMARY:

This motion approves a construction contract for the Laguna Madre Wastewater Treatment Plant (WWTP) Rehabilitation project. The project provides for upgrades to the main office building, digester blower building, plant lift station, influent structure, aeration basins, final clarifiers, chlorine contact chamber, sludge wasting system, pre-thickener, aerobic digester, sludge concentrator, digester sludge holding tank, belt press sludge holding tank, and belt press building.

BACKGROUND AND FINDINGS:

The Laguna Madre WWTP is one of six wastewater treatment plants that the City owns and operates. The Laguna Madre WWTP serves the Flour Bluff area and is located along the Laguna Madre at the end of Jester St on the east side of Flour Bluff. It was originally constructed in 1971 as a 0.5 million gallons per day (MGD) average daily flow capacity and was expanded in 1983 to its current capacity of 3 MGD. The Laguna Madre WWTP facility is over 30 years old and some

of the plant equipment needs repairs or replacement. A few projects have been performed over the years to improve treatment quality and operability and/or meet changes in TCEQ requirements, but the electrical and mechanical equipment at various structures is beyond their service life and are failing. This is affecting plant operations and the safety of the plant operators. Some of the buildings and concrete structures are also in need of repairs and updating.

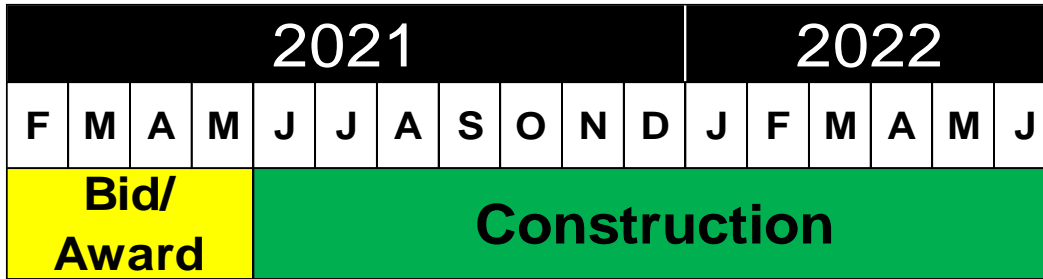
This project scope includes the listed below critical upgrades and replacement of deteriorated equipment at the Laguna Madre WWTP.

- Aeration Basins: Drain and clean the three basins, replace all the fine bubble membrane diffusers, replace butterfly pivot gates with slide gates, replace bridge supports, remove Waste Activated Sludge (WAS) pumps and piping, and provide Return Activated Sludge (RAS) flow meter.
- Final Clarifiers: Replace existing scraper equipment and weir troughs.
- Influent Structure: Replace non-functioning influent flow meter, add concrete curb to grit pump foundation, and provide windbreaks at dumpster.
- Chlorine Contact Chamber: Remove four existing inoperable drain valves on west side and provide new single drain valve in accessible vault.
- Sludge Wasting System: Convert wasting from Aeration Basins to wasting from Clarifiers. Provide new WAS piping to Pre-Thickener with actuated control valve and flow meter.
- Pre-Thickener: Original scope was to refurbish existing equipment but recent failures and observed condition of existing condition has led to providing replacement of the equipment. Replacement of sludge airlift pump with submersible pumps.
- Aerobic Digester: Replace existing manual slide gates with self-contained handwheel operated gates and frames and provide access walkways. Replacement of all steel handrail and new aluminum handrail.
- Sludge Concentrator: Replace badly corroded existing equipment with new and replace airlift pump with two duplex submersible settled solids pumps.
- Digester Sludge Holding Tank: Remove existing fiberglass covers and provide handrail around perimeter. Provide waste solids flow meter.
- Belt Press Sludge Holding Tank: Replace FRP ladder with stairs and replace FRP handrail with aluminum handrail.
- Belt Press Building: Minor refurbishment of building, replace polymer system and replace belt press with new ring press.
- Miscellaneous: Replace various damaged handrail and inoperable buried valves, paint non-potable water pumps, provide concrete housekeeping pads at various piping locations, and provide new area lights around Chlorine Contact Chamber.
- Main Office Building: Renovate interior of building, convert two existing rooms into one laboratory room, replace windows, and replace roofing material.
- New Office/Break Building: Construct a new building with two small offices and break room with kitchen for employees.
- Digester Blower Building: Replace windows and overhead door, and miscellaneous improvements.

- Maintenance Building: Provide storm shutters for the two windows and replace two overhead coiling doors.
- Plant Lift Station: Replace windows and replace roofing material.

The proposed improvements will maintain the plants current processing capacity of 3 MGD, with a two-hour peak flow of 9 MGD.

PROJECT TIMELINE:



Project schedule reflects City Council award in May 2021 with anticipated completion in June 2022.

COMPETITIVE SOLICITATION PROCESS

The Contracts and Procurement Department issued a Request for Bids. On April 7, 2021, the City received bids from five bidders. The City analyzed the bids in accordance with the contract documents and determined Associated Construction Partners, Ltd is the lowest responsive and responsible bidder. Associated Construction Partners, Ltd has successfully completed numerous City utility projects since 2012 including Greenwood WWTP 2011 Improvements, Greenwood WWTP Lift Station Force Main, and Laguna Madre WWTP Headworks and Bar Screen Improvements. A summary of the bids is provided below:

BID SUMMARY	
CONTRACTOR	BASE BID
Associated Construction Partners, Ltd	\$4,494,321.00
Reytec Construction Resources, Inc.	\$4,539,000.00
Garney Companies, Inc.	\$4,768,978.00
CSA Construction	\$5,329,000.00
Flintco Industrial	\$5,859,634.00
<i>Engineer's Opinion of Probable Construction Cost</i>	\$4,686,161.00

ALTERNATIVES:

The alternative is not to award the construction contract to the low-bidder, Associated Construction Partners, Ltd. This would delay improvements to the wastewater treatment plant and create more costly maintenance in the future. Not awarding the construction contract would eventually cause TCEQ permit violations and fees.

FISCAL IMPACT:

The fiscal impact for the FY 2021 is an amount of \$4,494,321.00 with funding available from the Wastewater Capital Fund. The FY 2021 CIP has an amount of \$2,500,000.00 and FY 2022 an amount of \$2,330,000.00 budgeted for the project. There is sufficient funding available to cover budgeted costs for both FY 2021 and FY 2022.

FUNDING DETAIL:

The CIP shows this project is ready to be implemented and there is sufficient funding budgeted to cover expenditures.

Fund: Wastewater 2021 CIP (Fund 4258)
Mission Elem: Wastewater Collection System (042)
Project: Laguna Madre Wastewater Treatment Plant Rehabilitation (Project No. 18086A)
Account: Construction (550910)
Activity: 18086-A-4258-EXP
Amount: \$ 4,494,321.00

Year 1 : \$ 2,340,000.00
Year 2 : \$ 2,154,321.00

RECOMMENDATION:

Staff recommends awarding the construction contract for the Laguna Madre WWTP Rehabilitation project to Associated Construction Partners, Ltd, in the amount of \$4,494,321.00. The construction duration is planned for 12 months from issuance of the Notice to Proceed to begin construction in June 2021.

LIST OF SUPPORTING DOCUMENTS:

Bid Tab
Location and Vicinity Map
FY 2021 CIP Page
Contract