



City Council Report

Date: July 5, 2022
To: City Council
Through: Marc Heirshberg, Deputy City Manager
From: Beth Huning, City Engineer
Marc Ahlstrom, Assistant City Engineer
Subject: Food to Energy Program, Phase 1: Flare to Fuel Project
Northwest Water Reclamation Plant (NWWRP)
City Project No. CP0870
Council District 3

Purpose and Recommendation

The purpose of this report is to present the first Guaranteed Maximum Price (GMP) for the Food to Energy Program, Phase 1: Flare to Fuel, a Construction Manager at Risk (CMAR) project. (See Exhibit "A" for project location).

This is the first of multiple GMPs that will be presented to Council for approval. GMP No. 1 will include early procurement of the following items: Granite Fuels Biogas Upgrading System, gas monitoring system, gas odorizer system, valves and piping, electrical equipment and will provide short-term storage of these materials.

Staff recommends that Council award a contract for this project to Archer Western Construction in the amount of \$4,844,773.16, (GMP No. 1) and authorize a change order allowance in the amount of \$484,477.32 (10%).

Background

In January of 2020, the City completed a feasibility study of implementing co-digestion of food waste in the existing digesters at the Northwest Water Reclamation Plant to generate additional biogas that could be converted into renewable natural gas and used as a fuel for the Environmental Management and Sustainability Department's truck fleet. The study determined that utilizing biogas to generate renewable natural gas under the federal Renewable Fuel Standard program was both environmentally friendly and economically feasible. The study recommended a phased approach, with the first phase installing a gas upgrading system to maximize revenue potential. The future second phase will include the implementation of high strength food waste co-digestion.

This contract includes procurement of the necessary equipment for the installation of a gas upgrading system which will "clean" the existing biogas at the Northwest Water Reclamation Plant to make it suitable for the City's existing natural gas distribution system. Utilizing this gas will allow the City to collect credit incentives from the federal

Renewal Fuel Standard program.

Discussion

In October 2020, Staff received two “Statements of Qualifications” (SOQ) from contractors proposing to act as the CMAR for this project. Based on an evaluation of the SOQ’s and subsequent interviews, Archer Western Construction was recommended as the most qualified CMAR and was awarded a Pre-Construction Services contract on January 11, 2021. Archer Western Construction has performed pre-construction services during the design development including reviewing the design for constructability, preparing cost estimates, and developing the project schedule and phasing.

Community Impact – The project work will take place within the existing treatment plant site. Some construction noise and traffic may impact the immediate area as the work progresses. Once underway, construction of this project is anticipated to last no more than 12 months.

Alternatives

An alternative to the approval of a Construction Services contract for this CMAR would be to construct this project using the traditional Design/Bid/Build method. This is not recommended due to the unique and complex nature of this project and extensive coordination needed with other plant operations. The majority of all work in this project will be competitively bid by Archer Western Construction to multiple subcontractors, and staff will ensure that Mesa based businesses, including affiliated business, are given an opportunity to bid on the work.

Another alternative is to not perform the work. This is not recommended because the existing biogas is a valuable renewable resource that is currently being disposed of and could be used as a renewable energy source and help the City achieve the renewable energy goals in the Climate Action Plan.

Fiscal Impact

The total authorized amount recommended for this project is \$5,329,250.48, based upon a GMP of \$4,844,773.16, plus an additional \$484,477.32 (10%) as a change order allowance. This allowance will only be utilized for approved change orders.

This project is funded by the Enterprise Fund and the Environmental Compliance Fee Fund.

Coordinated With

The Environmental Management & Sustainability Department and Water Resources Department concur with this recommendation.