



City Council Report

Date: November 16, 2020
To: City Council
Through: Kari Kent, Assistant City Manager
From: Beth Huning, City Engineer
Rob Kidder, Assistant City Engineer
Subject: Lewis East Substation Rebuild
54 East University Drive
City Project No. CP0461-0018
Council District 4

Purpose and Recommendation

The purpose of this report is to present the Guaranteed Maximum Price (GMP) for the Lewis East Substation Rebuild project, a Construction Manager at Risk (CMAR) project. (See Exhibit "A" for project location).

This GMP includes the scope of work to install the conduits, foundations, structural steel, relays, transformer, cable and switches necessary to support the substation rebuild.

Staff recommends that Council award a contract for this project to Builders Guild (Mesa business) in the amount of \$2,711,081.44, (GMP) and authorize a change order allowance in the amount of \$135,554.07 (5%).

Background

The Energy Resources Department will be replacing the 45-year-old transformer and associated switchgear in the east bay of Lewis Electrical Substation with a new transformer and associated switchgear. The incoming voltage into the substation is 69 kilovolts (kV), and the transformer reduces the voltage to 12.47 kV. The age of the existing transformer and switchgear exceed the expected life of such equipment and their replacement will help ensure that Mesa's electric service continues to be safe, reliable, and efficient.

During this rebuild, the City will upsize the existing 22.4 megavolt-amperes (MVA) transformer to a 28MVA transformer to support downtown's growing electrical demand. In addition to the equipment replacement, portions of the substation facility will be rearranged to provide greater flexibility for routine maintenance, which may help minimize the impact on Mesa's electric customers in the event of electric system

failures or disturbances. The rearrangement will necessitate site grading, new concrete pads to accommodate the larger substation transformer footprint, and other ancillary support structures.

Discussion

In November 2019, 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, Builders Guild was recommended as the most qualified CMAR, and was awarded a Pre-Construction Services contract. Builders Guild 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.

Once underway, construction of this project is anticipated to last no more than 6 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 schedule and complexity of the project. The majority of all work in this project will be competitively bid by Builders Guild 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 not to perform the work. This is not recommended because the Lewis East Substation supports roughly one-eighth of the electric demand of City electric customers and serves as a critical backup to the other electrical substations. The failure to replace equipment of this age could result in a loss of the entire substation bay, burdening the remaining substations, and increasing the likelihood of significant electrical system outages.

Fiscal Impact

The total authorized amount recommended for this project is \$2,846,635.51, based upon a GMP of \$2,711,081.44, plus an additional \$135,554.07 (5%) as a change order allowance. This change order allowance will only be utilized for approved change orders.

This project is funded by 2014 authorized Electric Bonds.

Coordinated With

The Energy Resources Department concurs with this recommendation.