

Agenda Report



MEETING DATE: Tuesday, April 23, 2024

TO: City Council

FROM: PUBLIC WORKS & UTILITIES DIRECTOR LINDBERG
PRINCIPAL ENGINEER FRASER

THROUGH: CITY MANAGER MENDEZ

SUBJECT: RESOLUTION APPROVING CONTRACT CHANGE ORDER
NO. 2 TO CONTRACT WITH TOP LINE ENGINEERS, INC FOR
THE ADDITIONAL REQUIRED REPAIRS UNDER THE AMESTI
WATER RESERVOIR RECOATING AND CONNECTION
MODIFICATIONS, PROJECT NUMBER WA-22-14826

RECOMMENDED ACTION:

Staff recommends that the City Council adopt a resolution to approve the amendment to the Amesti Reservoir Interior Recoating and Connection Seismic Improvement Project in the Amount of \$433,605 with Top Line Engineers, Inc. to cover additional work performed to repair the Amesti Reservoir to acceptable integrity for further use; and authorize City Manager to execute said contract change order.

BACKGROUND:

The Public Works & Utilities Department awarded a contract for \$729,100 for the recoating of the Amesti Reservoir plus upgrading the connection to include a flexible seismic connection to the tank outlets. This project extends the life of Amesti Reservoir for approximately 30 years and improves the survivability of the tank in an earthquake. During the course of construction more significant damage and corrosion to the existing steel tank was discovered which was outside the original contract scope of work, requiring repair.

DISCUSSION:

City Council awarded the contract to construct Amesti Reservoir Interior Recoating and Connection Seismic Improvement Project to Top Line Engineers, Inc. in the amount of \$729,100. This action was taken with the adoption of Resolution No. 21-23 CM at the Council Meeting held on February 7, 2023.

Over the course of construction, a significant amount of additional corrosion and steel damage was discovered under the coating that was not anticipated in the original contract

scope and would not have been visible in the underwater dive inspection completed prior to design.

Contract Change Order No. 1 was approved by City Manager to add \$136,461.75 to the contract for a portion of the additional interior work discovered after initial inspection prior to blasting. This change order was not required to be approved by Council because it was within the signing authority of the City Manager and the 10% contingency amount authorized by City Council at the time of project award.

Contract Change Order No. 2 is requested in the amount of \$433,605 to pay for the cost of actual quantities installed based on the bid unit pricing including mainly additional welding and bottom shell material and coating repairs, and other small, miscellaneous out of scope work. Due to unexpected damage to components of the Amesti Reservoir that were not visible prior to initiation of construction, these additional repairs to the tank were required during the rehabilitation. Failure to perform these repairs would render the tank unusable, leaving Pressure Zone 3 without storage necessary to reliably operate the water distribution system. Ultimately the cost for these repairs is significantly less than the cost to replace the existing tank in its entirety.

The following outlines the additional scope items included in the change order.

1. Roof rafter corrosion damage repair

Upon blasting the roof rafters, removal of corrosion indicated enough metal loss to require the roof rafter perimeter knuckles to be replaced. Additionally, thinning of the web on the rafters at the perimeter ends required reinforcement. Consultation between the contractor, structural engineering consultant, and the City resolved that the least expensive solution was to tack weld the rafters to the tank roof in order to enhance the structural integrity of the system and compensating for weakness in the perimeter knuckles. Additional metal plate was also welded to reinforce the beam web at the perimeter ends. Though this resulted in significant additional grinding and welding, it negated the need to replace the rafters, which would have cost on the order of \$1,000,000 for materials and labor.

CCO 2 Additional cost:

Additional weld grinding: 485 ft @ \$95/ft	\$46,075
Additional welding: 953 ft @ \$230/ft	\$219,190

2. Shell bottom repair

Corrosion of the exterior of the tank shell was caused by past installation of asphalt above the tank floor and in contact with the shell, causing corrosion damage that reduced the thickness of the shell bottom. Due to the corrosion being covered by a layer of paint, it was not possible to determine the extent of the damage until the paint and corrosion was blasted. The estimated bid quantity was 20 linear feet (LF) of repairs, but field inspection following coating removal determined that the entire tank bottom circumference required repair, approximately 240 ft. The bid unit price for this repair at 20 LF was \$1350/LF. Since the quantity increased significantly over the

estimated bid quantity, the City and contractor negotiated a reduced unit price of \$460/LF to account for the larger actual quantity required.

Additional cost:		
Additional repairs: 220 ft @ \$460/ft		\$101,200
Additional exterior spot coating repair: 395 ft ² @ \$95/ft ²		\$20,540
3. The remainder of items were small adjustments in the actual quantity installed versus the estimated bid quantity and other minor out of scope additions:		
6 Added Tank Bottom Repairs (Bid Item B-2) \$6200 each		\$37,200
Additional Caulking Seal around Circumference		\$4,850
Additional Paving Repair \$325 SF @ \$14/SF		\$4,550
4. Delete Shell plate repair Bid Item in entirety (reduces original contract amount to \$700,500).		
CCO 2 Added Amount		\$0

Change order total: \$433,605

With the Original Contract Amount reduced to \$700,500 with the deletion of Bid Item B-3, and the addition of Change Orders 1 and 2, the final contract amount will be \$1,270,576.75.

STRATEGIC PLAN:

The project supports Strategic Plan Goal:
3 – Infrastructure & Environment

FINANCIAL IMPACT:

There is sufficient budget available in Water Enterprise Fund 913-7855-14826 to cover the \$405,105 needed to cover the Change Order No. 2 amount, accounting for the deletion of Bid Item B-2 in the amount of \$28,500 from the original contract amount.

ALTERNATIVE ACTION:

No reasonable alternatives are available at this time.

ATTACHMENTS AND/OR REFERENCES (If any):

None