



ATTACHMENT "A"

March 5, 2024

Mr. Jack Haralson
Director of Public Works
City of Texas City
7800 Emmett F. Lowry Expressway
Texas City, Texas 77591

Re: Proposal for Engineering Design and Construction Phase Services for "**Far West Water Plant Phase 2 Project**"
City of Texas City, Texas

Dear Mr. Haralson,

ARKK Engineers, LLC (ARKK) is pleased to submit this proposal for performing engineering services for the above project. The proposal is based on our understanding of the project as discussed in our previous meetings and conversations. For your convenience this proposal consists of General Overview, Scope of Services, and Fee.

GENERAL OVERVIEW

The City of Texas City has recently completed the construction of Phase 1 of the Far West Water Plant facility located on Lago Mar Boulevard. The Phase 1 project consisted of the construction of a new 1-million gallon elevated water tank, driveways, major water connections, drainage, and sitework.

For this Phase 2 Water Plant Facility, the scope of the work will be the design of the following major components:

- A 1 MGD gallon ground storage tank, prestressed concrete construction;
- A booster pump station, with four to five booster pumps;
- A masonry control building housing the electrical equipment and panels;
- An onsite groundwater well
- An auxiliary power generator

In addition to the above major water plant components, the following will also be included:

- Construction of a liquid chlorine (bleach) and liquid ammonium sulfate chemical feed station to achieve disinfection of the well feed by chloramines. This system will also include provisions to boost the disinfectant levels of the incoming GCWA treated surface water feed. This equipment will be provided with small pre-manufactured enclosures.
- Addition to the existing driveway a small parking area for approximately 2-3 City vehicles.
- Provision of electrical service to the site with capacity for the proposed well and booster pump equipment.
- All equipment will be SCADA-ready and designed in consultation with the City's SCADA contractor/consultant. SCADA programming will be included as an allowance in the construction contract to facilitate the construction contractor hiring of the City's SCADA contractor directly.
- Modifications to the site fencing and gates as desired by the City.

The estimated construction cost of these improvements is **\$5,981,860**, which includes a 10% contingency.

This proposal addresses the engineering services ARKK will provide the City during the Design and Construction Phases, as well as associated Geotechnical, and other services necessary to support the project. Survey data from the recently completed Phase 1 project will be utilized to prepare the design drawings. The proposal does not include performing any environmental studies. Should the need arise during the design phase to perform any environmental investigations, a separate proposal will be submitted to the City. The proposal is separated into Basic Services (expected normal engineering services) and Special Services.

The following section details the scope of engineering services proposed for this Project.

SCOPE OF SERVICES

I. DESIGN PHASE SERVICES

A. Basic Services - Design Phase

- Obtain underground utility information in the project area from public and private utility companies.
- Perform field reconnaissance of the project area to obtain information on surface features and other information that would impact construction.

- Meet with City of Texas City staff to discuss and finalize design criteria and acquire pertinent information regarding the Project.
- Prepare civil, mechanical, electrical, and structural engineering design including specifications, drawings, and contract documents based on the previously listed water plant improvements.
- Coordinate with the City of Texas City staff during the design phase. Provide draft documents for their review and comments.
- Coordinate with Texas Commission on Environmental Quality (TCEQ) during the design phase. Furnish necessary documentation to TCEQ for their review.
- Incorporate appropriate comments from pertinent governmental entities into the final bid documents.
- Prepare a final cost estimate for the project.
- Furnish three (3) sets of construction documents to the City.

B. Special Services - Design Phase

1. Survey Services

- Surveying services are not proposed. The existing water plant site design survey and drawings will be utilized.

2. Geotechnical Services

- Geotechnical engineering services are proposed for the ground storage tank foundation design requirements. The manufacturers of the concrete ground storage tanks will be consulted to confirm their requirements.

3. Reproduction

- Costs for reproduction will be charged under special services for reproduction of plans, specifications and reports beyond the three (3) sets of construction documents provided (as listed in the design services) to the City.
- Reproduction for review sets, submittals to the City, governmental agencies, and utility companies will be included in the cost for reproduction.

4. Permitting

- Coordinate with TCEQ and Harris-Galveston Coastal Subsidence District offices for permitting requirements.
- Prepare and submit a formal application to the TCEQ reflecting the proposed water plant improvements.
- Prepare and submit a formal application to the Harris-Galveston Coastal Subsidence District reflecting the proposed water well.
- Furnish drawings to TCEQ and Harris-Galveston Coastal Subsidence District for review.

II. BID PHASE SERVICES

- Assist the City of Texas City (City) in obtaining bids for the project. The City will advertise the project and will absorb all related advertising costs. ARKK will coordinate with the City and will assist in developing the wording of the advertisement.
- Dispense construction documents from ARKK's office or via Civcast.com to potential bidders.
- During the bidding process, provide information to and answer questions from potential bidders concerning the Project's construction documents and prepare addendums as necessary.
- Conduct a pre-bid conference for potential bidders.
- Attend bid opening for the project.
- Prepare bid tabulation for the projects. Check the bids for mathematical errors and/or bid irregularities.
- Evaluate the bids and the qualifications of the apparent low bidders and advise the City as to the acceptability of the apparent low bidder.
- Prepare of letter of recommendation for award of construction contract for the project.

- Prepare and compile copies of the construction contract for execution by the Contractor and the City.
- Deliver executed contracts provided by the Contractor to the City

III. CONSTRUCTION PHASE SERVICES

A. Basic Services – Construction Phase

- Prepare an agenda for the pre-construction conference.
- Conduct a pre-construction conference for the project.
- Prepare a summary of meeting minutes for the pre-construction conference and distribute to all attendees.
- Act as the City's Project representative during the construction phase.
- Review and respond accordingly to all submittals as required by the contract specifications.
- Prepare change orders necessitated by field conditions.
- Verify quantities installed for use in monthly pay estimates.
- Review the contractor's pay estimates, evaluate the completion of work and make payment recommendations to the City.
- Prepare the final cost estimate and close-out documents provided by the Contractor to the City.
- Visit the site at intervals appropriate to the various stages of construction to observe the progress and quality of executed work and to determine in general if such work is proceeding in accordance with the Contract Documents.
- ARKK will not be responsible for the means, methods, techniques, sequences or procedures of construction selected by the Contractor(s) or the safety precautions and programs incident to the work of the Contractor(s). ARKK's effort will be directed toward providing a greater degree of confidence for the City that the completed work of Contractor(s) will conform to the Contract Documents, but ARKK will not be responsible for the failure of Contractor(s) to perform the work in accordance with the Contract Documents. During site visits and on the basis of

on-site observations ARKK shall keep the City informed of the progress of the work, shall endeavor to guard the City against defects and deficiencies in such work and may disapprove or reject work failing to conform to the Contract Documents.

- Coordinate with the Contractor and setup preliminary walkthrough for the project.
- Prepare a preliminary punch list for the project.
- Coordinate with the City on the punch list items identified from the final inspection and assist with subsequent follow up inspections.
- Conduct a final inspection of the Project and make a recommendation for Final Payment on the project.
- Engineer shall provide one set of reproducible record plans based on the Contractor's red line marked up as-built drawings.

B. Special Services – Construction Phase

1. Construction Observation Services:

- Provide a project representative to periodically observe the progress of construction activities and to assist in the interpretation of plans and specifications.
- This budget for this proposal is based on the project representative being on-site an average of 20 hours per week during the active construction periods of the construction contract. The anticipated construction contract duration for the project is estimated to be 365 calendar days.
- The project-site representative will be on-site for fewer days per week during the initial and completion stages of the work, and more often during the middle portion of the construction contract when the work is most active.
- Provide engineering and technical office personnel support throughout construction.
- Assist City with conducting progress meetings for the project.

- Prepare a summary of meeting minutes for the monthly progress meetings and distribute to all attendees.
- The project-site representative shall maintain daily reports in a format satisfactory to the City of Texas City.
- The project-site representative will attend meetings with the Contractor and the City of Texas City such as pre-construction conference, progress meetings, and other project related meetings where his presence is requested by the City of Texas City.
- The project-site representative will take periodic photographs of the construction progress and of key items of concern.
- The project-site representative will estimate quantities installed for use in reviewing monthly pay estimates.
- The project-site representative will aid in the coordination of activities of the testing laboratory.
- The project-site representative will assist in the performance of a final inspection, the preparation of a punch list and subsequent follow up inspections.
- The project-site representative will be provided in an effort to aid in the process of observing performance of work of the Contractor(s). Through more extensive on-site observations of the work in progress, ARKK shall endeavor to provide further protection for the City of Texas City against defects and deficiencies in the work of the contractor(s); but the furnishing of such on-site representative will not make ARKK responsible for construction means, methods, techniques, sequences or procedures or safety precautions or programs, or for Contractor(s) failure to perform their work in accordance with the Contract Documents.
- ARKK will process daily reports and other administrative office duties.

3. Construction Materials Testing:

- Construction materials testing is included in this proposal as a budgetary item. It is anticipated that a separate construction testing firm mutually agreeable to the City of Texas City (City) and ARKK will be utilized as a subcontractor to ARKK to perform the testing services. The City has the option to contract directly with the materials testing firm.

FEE

1. DESIGN PHASE

Design Services: Civil - Lump Sum	\$237,280.00
Design Services (Electrical & Structural)- Lump Sum amount of:	\$45,375.00
TCEQ Permitting: Lump Sum	\$2,500.00
Subsidence District Permitting: Lump Sum	\$1,575.00
Geotechnical Engineering Budget: Cost plus 10%	\$ 26,250.00
Reproduction Budget: Cost plus 10%	\$ 2,000.00
Bid Phase Services: Lump Sum	\$3,750.00
Miscellaneous Services Budget: Hourly and Coat plus 10%	<u>\$10,000.00</u>
Total Design Phase Amount	\$328,730.00

2. CONSTRUCTION PHASE SERVICES

Construction Administration Services: Lump Sum	\$ 70,400.00
Construction Administration Services (Electrical/Struct) - Lump Sum:	\$11,125.00
*Construction Materials Testing Budget: (Cost plus 10%)	\$35,000.00
*Construction Support Services Budget: (Hourly and cost plus 10%)	<u>\$110,850.00</u>
Total Construction Phase Amount	\$227,375.00

Total All Services **\$556,105.00**

*At this time the magnitude of these tasks is not known. Therefore, budgetary amounts are provided. These figures may change depending upon the actual work required. If an increase becomes necessary it can be accomplished by utilizing the available funds from other line items that have under run, funds from the miscellaneous special services line item or by contract amendment.

The anticipated construction contract duration for the project is estimated to be 365 calendar days. The construction observation budgetary fees are based on providing a project site representative an average of 20 hours/week for the 365 calendar day construction period. Hourly charges for on-site field representative shall be charged based on a raw labor rate times a multiplier of 2.70. Mileage will be charged at the prevailing IRS rate. Reimbursable expenses will be charged at cost plus 10%.

ARKK Engineers, LLC appreciates the opportunity to submit this proposal and we look forward to continuing working with the City of Texas City on this very important project.

Sincerely,

ARKK ENGINEERS, LLC



Madhu Kilambi, P.E.

Senior Project Manager / Principal