



Job No.: 33760.C1.00

May 16, 2022

TRANSMITTED VIA EMAIL

Jeff Edmonds, P.E.
Director of Engineer Services
City of Corpus Christi
P. O. Box 9277
Corpus Christi, Texas 78469

Subject: Leopard Street and Up River Road Waterline Replacement (21038)

Dear Jeff,

We are pleased to submit to your attention, our fee proposal for the above subject City project. The fee proposal is for professional services to design, bid and administer the rehabilitation of approximately 18,400 feet of 30-inch cast iron pipe water line, with a new 24-inch C900 PVC pipe along Leopard Street, Up River Road and McKenzie Drive, from Sharpsburg Road to McKenzie Drive. The rehabilitation project will either be a slip lining project, a remove and replace project or a complete re-route project. In addition to the waterline on Leopard Street, we will also assess a route for a new 24-inch waterline along McKenzie Road from Leopard to Up River Road. This line will connect the line on Leopard to an existing 24-inch waterline on Up River Road.

During the preliminary phase of the project, we proposed to investigate three alternatives to rehabilitate, replace or relocate the 30-inch water transmission main. The first alternative is the City's preferred option of slip-lining the existing 30-inch pipe with a smaller pipe or other selected lining material. The second alternative will involve removal and replacement of the existing 30-inch watermain with a new 24-inch PVC waterline at its current location. The third alternative will be to completely relocate the waterline within the Leopard Street right-of-way.

Under the slip lining option, we propose to undertake a desk top investigation to determine the feasibility of slip lining the existing 30-inch CIP. If it is deemed economically feasible, we will recommend a trenchless slip lining installation or recommend further investigation, of the 30-inch cast iron pipe. This investigation may include isolating and draining the 30-inch pipe to carry out an internal video investigation or other non-destructive inspection options. **This fee proposal does not include the services to carry out this type of investigation.**

A cursory review of the record drawings for the existing 30-inch pipeline indicates several locations where it may not be possible to utilize slip-lining. We also know from past experience that CIP waterline may contain segments of pipe that are tuberculated which, would also make it difficult and possibly not feasible to rehabilitate the affected pipe segments using slip-lining. Since it is likely that the existing 30-inch waterline can only be used as the host pipe for slip lining select segments of the pipeline, this proposal was developed for a combination open

trenching and trenchless installation. The fee proposal is based on designing, bidding and construction administration for removal and replacing the existing 30-inch transmission main with a new 24-inch PVC pipe.

We propose the following scope of services to prepare a preliminary engineering report and then contract documents (plans and specifications) for design, bidding and construction administration of the proposed water line improvements.

I. SCOPE OF SERVICES:

BASIC SERVICES

Preliminary Phase

- a. Attend (1) one kickoff meeting.
- b. AE will review background information including, City GIS/Block Maps, existing record drawings, masterplans applicable water modelling assessments and inspections (if available).
- c. AE will conduct a site visit to observe the existing conditions. The Utility Operating Department and the Engineering Services PM will be invited to attend this meeting.
- d. AE will carry out a desk top investigation of the existing 30-inch to determine the feasibility of utilizing it for slip-lining. This task will include review of slip-lining techniques, review of cleaning and pre-design inspection requirements. **The cleaning and televising are not included in this contract.**
- e. AE will assess the existing route and propose a new utility route if applicable
- f. AE will assess alternate design/construction techniques like HDD and pipe bursting trenchless installations for a new 24-inch waterline
- g. AE will determine if the following regulatory approval or coordination is required
 - i. U.S. Army Corps of Engineers (USACE)
 - ii. General Land Office (GLO)
 - iii. TxDOT
 - iv. TCEQ
- h. AE will assess the need for topographical and boundary surveying
- i. AE will assess the need for geotechnical engineering and sub surface utility engineering
- j. AE will prepare cost estimate for all applicable alternatives assessed
- k. AE will update the project schedule, at the Preliminary Phase, Design Phase, Bid Phase and Construction Phase
- l. AE will provide a summary of the preliminary phase tasks in a Preliminary Engineering Report or Engineering Letter Report in the City's standard format as follows:
 - i. Project description and location
 - ii. Discussion of existing conditions, alternatives, distribution system looping, regulatory requirements and construction techniques assessed
 - iii. Exhibits showing project vicinity, location and schematics of alternatives and proposed improvements
 - iv. Cost Estimates
 - v. Recommendations

COCC will Provide the Following:

- a. Access to the project site

- b. Record drawing and master planning information
- c. Water modelling assessments (as applicable)
- d. Waterline inspection reports
- e. WTP studies and reports (as applicable)
- f. Budget and funding information

Design Phase Services

- a. Provide Project Management services to ensure that the project deliverables that are provided meet the stake holder's requirements.
- b. Review, study, and verify all applicable comments and recommendations from the Engineering Letter Report, prepared during the preliminary design phase and incorporate into the new water line project contract documents.
- c. Prepare construction contract documents (plans and specifications) for the new water line. These plans and specifications will follow the City of Corpus Christi format as follows:
 - i. Prepare one (1) set of 60%, and one (1) set of 100% Contract and Bid Documents in City format (using City Standards as applicable), including Contract agreement forms, general conditions and supplemental conditions, notice to bidders, instruction to bidders, insurance, bond requirements, and preparation of other contract and bid related items; specifications and drawings to fix and describe, for bidding, the size and character of the entire project; description of materials to be utilized; and such other essentials as may be necessary for construction and cost analysis. Bid packages will also be provided electronically in PDF and CAD formats. Said bid documents henceforth become the sole property and ownership of the City of Corpus Christi.
- d. Prepare a 60%, and 100% Opinion of Probable Construction Cost Estimate (OPCC)
- e. Following the City's review of the 60% submittal package, the A/E will assimilate all review comments and make the appropriate modifications and additions/deletions to the 100% submittal package. Following the City's review of the 100% submittal package, the A/E will assimilate all review comments and make the appropriate modifications and additions/deletions to the final submittal package. The city agrees that any modifications of the submitted final plans (for other uses by the city) will be evidenced on the plans and be signed and sealed by a professional engineer prior to re-use of modified plans.
- f. Attend one (1) 60% complete design meeting to review the contract and bidding documents. Attend one (1) 100% complete design meeting to review the contract and bidding documents.
- g. Prepare a storm water pollution prevention plan (SWPPP) for the project and include it in the bid package.
- h. Provide Quality Assurance/Quality Control (QA/QC) measures to ensure that submittal of the 60%, and 100% complete plans, specifications and bid documents accurately reflect the percent completion designated and do not necessitate an excessive amount of revision and correction by City staff.

Bid Phase Services

The A/E will provide the following bid phase services:

- a. Attend a Pre-Bid Meeting
- b. Review and prepare responses to requests for information (RFI's) during the bid phase
- c. Prepare addenda as needed for the project execution

- d. Attend the Bid Opening
- e. Analyze bids and prepare a bid evaluation with a written recommendation to the city
- f. Post bid coordination and Preparation of Conformance Plans and Specifications

Construction Phase Services

The A/E will perform contract administration to include the following:

- a. Participate in a pre-construction meeting conference and provide a recommended agenda for critical construction activities and elements that impact the project.
- b. Review submittals, including shop/working drawings, materials and other information for conformance to contract documents.
- c. Review field and laboratory tests.
- d. Provide interpretations and clarifications of the contract documents for the contractor and recommend required changes, which do not affect the contractor's price and are not contrary to the general interest of the City under the contract.
- e. Make site visits to the site of the project, as requested by the City representative, to confer with the City project inspector and contractor, to observe the general progress and quality of work, and to determine, in general, if the work is being done in accordance with the contract documents. **This will not be confused with the project representative observation or continuous monitoring of the progress of construction.**
- f. Make final inspection with City staff
- g. Develop punch list items and provide to the City
- h. Prepare record drawings and provide a Certificate of Completion for the project, as requested.
- i. Provide QA/QC of project closeout
- j. Final submission of project deliverables to the City.

ADDITIONAL SERVICES

Texas DOT Permit

A/E will coordinate with the TxDOT to determine the agency requirements for crossing and installing infrastructure within the right of way of IH 37. Once the design is at 100% A/E will prepare permit application package for the new water line within and across the TxDOT right-of-way. **The information will be submitted to TxDOT via their UIR system by the City's project manager.**

Topographic Survey

AE will undertake a design level topographic survey along the proposed horizontal alignment to establish horizontal and/or vertical control for the design and construction of the proposed water line. The survey will start in the vicinity of Sharpsburg Road, Up River Road and IH 37 at the location of the City's 36-inch water transmission main. The survey will extend along the north side of IH 37 to a proposed crossing point in the vicinity of Rehfeld Road. The survey will cross IH 37 to Leopard Street and carry on along the north side of Leopard to McKenzie Road. At McKenzie we will survey the east or west side of the road from Leopard to Up-River Road. The side of the right-of way surveyed depends on which side is selected in the preliminary phase of the project. The survey will include the area from the edge of pavement to the right-of-way along the north side of IH 37 and Leopard Street and the edge of pavement along west side or

east of McKenzie Drive to the right-of-way. In general, the topographic shots will be at a 100-ft spacing along Leopard Street, picking up the edge of pavement, shoulder, top of bank, flow line, fence line and grade changes. The AE will also, pick up the power poles, signs, driveways, mailboxes curb & gutter and other street appurtenances. It appears that the corridor contains, City water, private gas lines, storm water structures, overhead power and other lines on poles. This information will also be obtained and shown on the topographic survey. The AE will also pick up survey monuments to locate the IH 37/Leopard/McKenzie Road right-of-way with a degree of accuracy for design. The survey deliverable will be an electronic ACAD file for use in preparing the design and construction documents.

Traffic Control Plan

AE will provide typical traffic control plans and standard traffic control measures for the various construction applications that can be reasonably anticipated. Including bid items for signage, illumination, markings, striping, and signalization, as applicable. The City Traffic Engineering Department will have final authority on the appropriate traffic control set-ups.

Assist COCC with Scope of Work for Geotechnical Engineering Services (T & M)

A/E will assist the city in preparing the scope of work/task order for the City's designated Professional Geotechnical Engineer to provide geotechnical engineering services for the project.

Assist COCC with Scope of Work for SUE Services (T & M)

A/E will assist the city in preparing the scope of work/task order for the City's designated SUE contractor to provide SUE services for the project.

Assist COCC with Scope of Work and Procurement of a Waterline Inspection Contractor (T & M)

A/E will assist the City in selecting a CCTV (or other non-destructive testing) contractor, preparing scope of work, reviewing the fee proposal and draft contract for inspection services for the project.

Review Inspection Report (T & M)

A/E will review the inspection report submitted by the inspection contractor and provide recommendation for further study or feasibility of using the 30-inch waterline for slip lining in this project.

Warranty Phase (T & M)

A/E will provide a warranty inspection of the project site toward the end of the 12-month warranty period and generate a warranty items punch list.

II. SCHEDULE:

The proposed schedule for the Leopard Street Up River Road Waterline Replacement Project Design, Bidding and Construction Phase services is attached to this proposal. It will be updated as required once the Preliminary Engineering Report has been completed.

III. FEE:

For services authorized by the Director of Engineering Services, the city will pay the A/E a lump sum or (T & M) not-to-exceed fee as per the following table:

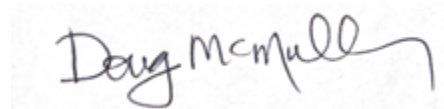
Summary of Fees

BASIC SERVICES	Total Contract
1. Preliminary Design Phase	\$102,865
2. Design Phase	\$499,675
3. Bid Phase	\$26,235
4. Construction Phase	\$78,585
Subtotal Basic Services Fees	\$707,360
ADDITIONAL SERVICES (As Authorized)	
1. TxDOT Permit Application Package	\$7,735
2. Topographic Survey	\$64,960
3. Traffic Control Plan	\$25,920
4. Assist COCC with Scope of Work for Geotechnical Engineering Services (T & M)	\$1,970
5. Assist COCC with Scope of Work for SUE Services (T & M)	\$2,680
6. Assist COCC with Scope of Work and Procurement of Waterline Inspection Contractor (T & M)	\$6,925
7. Review Inspection Report (T & M)	\$8,300
8. Warranty Phase (T & M)	\$2,015
Sub-Total Additional Services Fees	\$120,505
TOTAL	\$827,865

If the fee proposal is acceptable, please prepare an AE Contract for signatures. Should you have any questions please let me know.

Sincerely,

URBAN ENGINEERING



J. Douglas McMullan, P.E.

JDM/

Enclosures

xc: Sandra Gomez, P.E. – Engineer IV, Engineering Services w/encl. via email