



LDA ENGINEERING

November 21, 2023

Ms. Niki Ensor
Water / Wastewater Utilities Director
City of Kingsport
620 West Industry Drive
Kingsport, TN 37660

RE: Proposal for Professional Engineering Services
Pump Station Design
Lift Station #120 - Pendragon

Dear Ms. Ensor,

We appreciate the opportunity to provide a proposal for your review. This proposal includes the engineering design of a new lift station to replace Station #120 (Pendragon).

PROJECT DESCRIPTION

The project consists of the design of a new Lift Station #120 and appurtenances adjacent to the existing station. It is our understanding that the new station can be constructed on the existing station property.

The proposed submersible station will be equipped with three new submersible chopper pumps, each capable of pumping 500 gpm. Two pumps will provide the station capacity of 1000 gpm, and a third pump will provide redundancy.

LDA will provide preliminary design, 90% design, and final design documents to the City for review and confirmation of the design. Final comments will be incorporated into the construction documents prior to bidding.

LDA proposes to perform the following scope of services:

Task 1 Engineering Design

Data Collection & Preliminary Design Phase

- LDA will collect any remaining existing sewer system or station information as well as the Flood insurance Rate Map (FIRMs) for the project area.
- Perform topographic survey of the station, including property boundaries, establish survey control points, base mapping, identifying all existing utility locations, and locating soil borings.

- The preliminary engineering report prepared for the station will be utilized as the basis of design for the new facility.
- LDA will meet with City staff and provide a preliminary design of the station which will include equipment lists and a preliminary cost estimate. LDA will meet with the City at this milestone to discuss project design.

Detailed Design Phase

- Detailed station design of the new submersible station will include an efficient wet well layout, pumping equipment, motor drives, VFDs, and pumping arrangement.
- Electrical design and specifications will be prepared for the station and site, including pull boxes, conduit, generator selection, and interconnection details.
- Foundation system design for support of the station
- Yard piping and valving
- Fencing, parking, lighting, and stormwater provisions
- Odor control measures (if deemed necessary)
- All critical equipment will be constructed a minimum of one foot above the 100-year flood elevation

Permitting

- Apply for TDEC construction general permit. A SWPPP will likely not be necessary due to the size of the project.
- If required, prepare temporary or permanent easements for the construction of the station.

Task 2 Bidding Phase Services

LDA proposes to:

- Distribute project plans and manual
- Answer questions submitted during the bidding phase
- Lead a pre-bid meeting and distribute minutes
- Prepare addenda, as necessary,
- Attend the bid opening, prepare a bid tabulation and provide a reward recommendation, prepare final contract documents.

Task 3 Engineering Services During Construction

- Conduct a pre-construction conference.

- Review contractor submittals and payment requests.
- Conduct monthly progress meetings for the duration of construction. LDA will prepare and distribute minutes of each progress meeting.
- Answer Contractor questions during construction.
- Perform periodic field visits.
- Assist in the preparation and execution of any construction change orders approved by the City.
- Attend a walk-through at substantial completion and prepare a punch list.
- Perform a final inspection of the site.

Task 4: Post Construction Services

LDA will provide the following post construction services:

- Provide record drawings in paper and digital (GIS) format for the proposed pump station utilizing survey data captured during construction and after final completion.
- Provide a 1-year warranty inspection report based upon the substantial completion date.

Task 5 Sub-Consultant

- Geotechnical exploration will be performed by a subconsultant within the location of the proposed station during the design phase. The geotechnical work will consist of sample collection and analysis and recommendations for design and construction.

EXCLUDED SERVICES

Although not a complete list of all services or potential services that will be excluded from this proposal, the following services are specifically excluded from this scope:

- A. It appears the new station is outside of the regulatory floodway and will not require hydraulic modelling for permitting and coordination with FEMA. If this changes during the design of the project, a separate fee will be submitted for your review to perform this work.
- B. Resident Project Representative (RPR) services are not included as part of this proposal.

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PROJECT FEES

LDA Engineering will provide the services outlined above on an hourly, not to exceed basis, as outlined below. The following is a breakdown of services and not to exceed fees:

Task 1 – Engineering Design and Permitting	\$ 210,000.00
Task 2 – Bidding Phase Services	\$ 7,500.00
Task 3 – Engineering Services During Construction	\$ 60,000.00
Task 4 – record drawings	\$ 7,500.00
Task 5 – Subconsultant Services (fee passed through at cost)	
Geotechnical Exploration	\$15,000.00
Total	\$ 300,000.00

Tasks 1-5 above will be billed hourly using our 2023 Rates. Subconsultant invoices will be billed to the project at cost. A 9-month construction duration is estimated.

LDA Engineering is pleased to have the opportunity to be of further service to the City of Kingsport. We are prepared to begin this project immediately upon your authorization. We anticipate the final plans will be ready for City Review within 4-months of authorization to proceed.

Sincerely,

Reuben Robertson

Reuben Robertson, P.E.

Proposal Accepted By: _____

Date: _____