

Appendix A Technical Specifications

Engineering Services for the New World Ave – Waterworks St to Chaffee Rd Water Main

DESCRIPTION OF SCOPE OF SERVICES

GENERAL

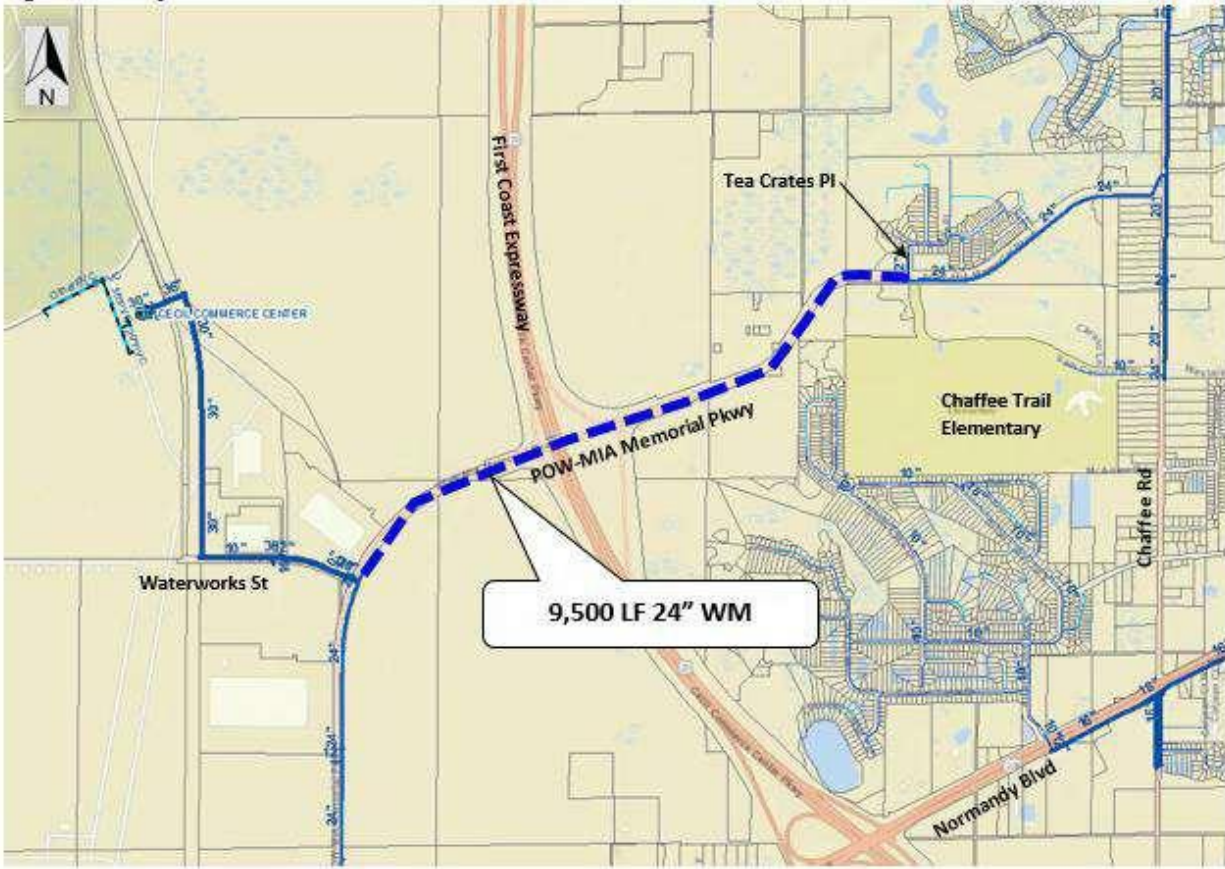
Consultant agrees to provide Engineering Services for the above project as outlined herein. SCOPE OF SERVICES

The Scope of Work performed under this task consists of final detailed design, permitting, bid phase assistance, and engineering support services during construction.

TASK PLAN

- A. General tasks that are to be included in this project includes the following:
  - 1. Development of the design for the installation of approximately 9,500 linear feet of 24- inch water main, Figure 1-Project Location
  - 2. Suggested methods of construction
  - 3. Analysis of special crossings
  - 4. Real state acquisition requirements
  - 5. Survey requirements
  - 6. Geotechnical and Environmental requirements
  - 7. Permitting requirements
  - 8. Engineering Services during Construction

Figure 1 – Project Location



B. Design Kickoff Meeting

Attend the design kickoff meeting at the date and time established by JEA. Prepare meeting minutes and submit to JEA.

C. Design Criteria

Comply with JEA Water & Wastewater Standards Manual; JEA Water, Wastewater and Reclaimed Water Design Guidelines requirements; JEA Rules and Regulations for Water, Sewer & Reclaimed Water Services for water pipeline design, and state, federal and other applicable standards.

D. Opinion of Costs

Consultant will prepare opinions of construction cost at all stages of deliverables in accordance with the Association for the Advancement of Cost Engineering International, Inc. (AACE) for the purpose of assisting JEA in preparing budget funding request, evaluating design options. Expected accuracy will be as follows:  
Class 3 estimate for 30% design

deliverable; Class 2 estimate for 60% design deliverable, and Class 1 estimate for 90% and 100% design deliverable.

#### E. Permitting Assistance

Assist JEA in filing and obtaining all the necessary permits from local and state agencies to include but not limited:

- City of Jacksonville (10 set review and Right-of-Way permit)
- Florida Department of Environmental Protection (FDEP)
- Florida Department of Transportation (FDOT)
- United States Army Corps of Engineers (USACE)

Assistance will include:

- Pre-meetings with permit agencies as needed to insure necessary approvals.
- Preparation of applications, exhibits, drawings, and specifications as needed for execution and submittal.
- Furnishing additional information about the project design as required for permit approval.
- Submittal of applications to the permitting agencies.
- JEA will provide payment for necessary permit fees.

#### F. Design Contract Documents

1. Prepare detailed drawings, specifications, and Bid Form for the proposed construction work and for materials and equipment required. The documents shall be prepared for selection of private construction contractors on a competitive bid price basis. The documents shall be prepared as one contract.
2. Update the opinion of probable construction cost for the proposed work covered by the contract documents and provide with final construction contract documents.
3. Review the contract documents for completeness and constructability.
4. Provide Bid Form in the Asset Management format
5. Provide two sets of contract documents to JEA for review at 30 percent, 60 percent, 90 percent and final construction drawings.
6. Following the review of the completed contract documents meet with JEA to discuss with them and to resolve any modifications and questions. This item provides for four (4) meetings with JEA personnel to discuss review comments.
7. Bidding Documents submitted to JEA include drawings, bid form, technical specifications, and text for inclusion into the JEA Special Conditions, if needed.
8. Provide one CD with electronic drawing files and two copies of the final construction drawings to JEA. If not directed otherwise by JEA, provide

electronic files of specifications and drawings in PDF format, and drawings in AutoCAD format.

#### G. Bid Phase Services

1. If requested by JEA, attend the pre-bid conference at the date and time established by JEA.
2. Interpret construction contract documents in response to Contractor questions. Support JEA with drawings and/or specification updates for addenda issuance. JEA will coordinate and issue all addenda.
3. JEA will conduct the bid opening. The designer is not required to attend the bid opening.
4. Provide Conformed drawings and specifications. JEA will be responsible for the coordination and distribution of conformed copies of the construction contract documents.

#### H. Construction Services

1. If requested, attend and participate in the pre-construction meeting to answer technical questions.
2. In case of special crossings: Review and approve shop drawings. The contract will include the time for two (2) reviews per shop drawing submitted. The consultant will fund any additional reviews, subsequent to the second review not approved.
3. Attend monthly status meetings/site visits.
4. Respond to Contractor RFIs. Include two (2) responses per month. Responses that require corrections to drawings or specifications are not counted in this total.
5. Attend Substantial and final acceptance inspections.

#### I. DELIVERABLES

Consultant shall provide the following deliverables to include but not limited: 30, 60 and 90%

##### Design Documents

- 30, 60, and 90% engineering drawings
- 30, 60, and 90% written specifications if needed
- Final design calculations
- Applicable permits
- Asset management documentation

#### 100% Design Document

- Final engineering drawings
- Final written specifications, if needed
- Final QC performed
- Final survey
- Geotechnical Report Bid

#### Documents

- Bid set engineering drawings
- Bid set written specifications, if needed
- Bid Form- In asset management format
- Related Bid documents

#### Construction Documents

- Conformed engineering drawings

#### J. INFORMATION BY JEA

JEA will provide the following documents for this RFP.

- Project Scope Statement (PSS)

#### K. SCHEDULE

The design/permitting phase services shall not exceed seven (7) months unless approved otherwise by JEA.