



## PRICING

CTI's price is based on the following scope of work:

- **Proposed Storm Water Pond (6.87 Acres)**
  - Earthen-lined impoundment with sloping bottom with a minimum embankment crest elevation of 768.
  - Associated storm water piping
  - Sections of perimeter dikes at 100 foot on center.
- **Phase 1 (51.24 Acres)**
  - Geologic buffer
  - Drainage corridor
  - Earth embankment
  - Sections of perimeter dikes at 100 foot on center.
- **Proposed Gypsum Dewatering Facility Area**
  - General grading to the elevations shown on drawing 10W427-6
  - Additional finish grading will be designed by others at a later time
- **20-Foot-Wide Relocated Access Road (Approx 6,000 LF)**
  - Design of new unimproved roadways to replace existing unimproved roadways being displaced by the project
    - Roadway details shall show construction of compacted earth fill sub-base, followed by 12 inches of compacted densely graded stone aggregate base
    - Plan and profile drawings
    - Storm drainage design
- Prepare construction drawings for work depicted in Drawings 10427-4 and 10W427-5, along with the necessary details shown on 10W427-14 through 10W427-23.
  - Additional information such as dimensions, specific elevations, etc., shall be added to the details as necessary in order to provide the information necessary for bidding and construction.
- Prepare construction drawings and specifications for the underdrain lift station as shown on 10W427-24, including any civil, structural, mechanical, electrical, as well as instrumentation and control details
  - Duplex lift station is to be level-controlled with alternating starts between the pumps
  - 2 wired signals, a high level alarm and a general pump alarm, from the lift station to the MCC will be required. In the MCC, these signals will then interface with a wireless system (designed by others) that transmits back to the main control room
  - Electrical service for the lift station will be from an MCC located near the proposed plan which is currently in the design phase



- Develop necessary specifications, details, sections, horizontal and vertical control data, and basic dimensions for construction of the areas
- Earth material required for the geologic buffer, embankment construction, and general fill activities will be taken from the area designated as Phase II. A progressive grading plan shall be developed to reflect the general progression of borrowing activities in this area that will complement the eventual construction of the area such that construction activities for the present project will not result in additional work in the future (e.g., excavating to grades in areas that will require fill during construction of Phase II)
- Erosion control plans including:
  - Design of temporary sedimentation ponds
  - Phasing of disturbance areas
  - Design of appropriate best management practices

**Construction Documents** - Required drawings and technical specifications for constructing the base and associated features in accordance with Permit Documents (prepared by others)

- Drawings - Drawings shall be prepared in AutoCAD and be suitable for use in digital terrain modeling packages for surveying and construction
  - All topography shall be constructed in layers on 3-dimensional state plane coordinate (TN Lambert, NAD 27) in model space
  - All topography shall be in layers
  - Permit drawings will provided by TVA in AutoCAD format
  - All drawings are to be in accordance with the TVA CAD DRAFTING STANDARDS AND PROCEDURES (FPG.SP.09.010)
    - Drawings shall be prepared on the TVA W sized DCA title block (provided by TVA), approximately 27 inches tall and 46 inches wide
    - Drawing shall be numbered 10W428-1, -2, -3, etc
    - AutoCAD Xref file usage is not permitted under the TVA Drafting Standard; the files are to be bound and exploded prior to submittal
    - Drawings shall be prepared such that the ZOOM-EXTENTS command can be used when plotting drawings to scale
    - Drawing shall be numbered 10W303-1, -2, -3, etc
    - Each sheet shall be a different file, with the drawing border encapsulating the entire contents of the file in model space
    - Portable Document Formats (Adobe PDF, Microsoft MDI, or similar platforms) are not acceptable as submittal documents at any stage of the construction document preparation process except as specifically approved by the Technical Contract Manager.



- **Technical Specifications** - Technical specifications shall be provided for procurement and installation by TVA construction forces or by a contractor.
  - Technical Specifications shall be limited to documents necessary for procurement and construction
  - Technical Specifications shall be written to coordinate with the terms and requirements of the TVA Construction Contract Terms and Conditions, provided as Exhibit 1 to this Attachment A of RFP 20071022, so as not to have a conflict between sections of the documents
  - Technical Specifications shall be prepared based upon the approved quality control protocols outlined in Appendix F (Material Specifications and Construction Quality Assurance and Quality Control Plan) as developed for the permit documents
  - Contract terms (General Conditions, Special Conditions, Close-out Documents, Performance Bond, Final Release of Lien, etc) are not required and will be issued by TVA Procurement
  - Bidding Documents, if necessary, will be prepared by TVA procurement personnel
  - Electronic files shall be provided in MS WORD format. Portable Document Formats (Adobe PDF, Microsoft MDI, or similar platforms) are not acceptable as submittal documents at any stage of the construction document preparation process except as specifically approved by the Technical Contract Manager.

**Quantities Estimates and Opinion of Probable Cost** - Estimates of quantities for construction as well as an Opinion of Probable Cost shall be provided

**Calculations** - Copies of structural, storm water and drainage calculations shall be provided upon completion

- Digital spreadsheet output, when utilized, shall be provided in MS Excel format
- Written discussion text that is not handwritten shall be submitted in MS Word formats
- Data files or executable files shall be provided for utilization when commercially available software packages are utilized for design purposes, including but not limited to, structural and drainage calculations.
- Portable Document Formats (Adobe PDF, Microsoft MDI, or similar platforms) are not acceptable as submittal documents at any stage of the construction document preparation process except as specifically approved by the Technical Contract Manager.

**Site Visits** - Site visits during the design process will require notification of the plant personnel and a TVA escort. Proper personal protective equipment (PPE) for the conditions, typically consisting of hard hats, safety glasses, hearing protection, and sturdy footwear are required.

**Meetings and Coordination** - Close coordination shall be maintained on a continuous basis with TVA.

- Attendance at a design review meeting conducted at the plant site will be required
- Submittal of 4 draft sets of documents will be required for distribution 10 calendar days prior to the date of the design review meeting



**Final Documents** - Comments resulting from the review of the draft set and the design review meeting shall be incorporated into the documents prior to submission of the final set.

- Final Document set shall include 6 bound copies of all construction drawings and specifications as well as one unbound set for additional reproduction
- Electronic copies
  - Drawings in AutoCAD format
  - Specifications in WORD format
- Completed calculations
- Portable Document Formats (Adobe PDF, Microsoft MDI, or similar platforms) are not acceptable as submittal documents except as specifically approved by the Technical Contract Manager.

CTI's proposed lump sum fee for the work described above is \$ 37,850.

**HOURLY RATES**

**RATE SCHEDULE**

JOB TITLE	RATE PER HOUR
Executive Engineer/Manager	\$140.00
Senior Project Engineer/Manager	126.00
Project Engineer/Manager	113.00
Architect	91.00
Engineer	91.00
Environmental Specialist	80.00
Engineer Intern	70.00
Geologist	68.00
Senior Drafter/Technician	67.00
Drafter/Technician	57.00
Senior Project Representative	61.00
Project Representative/Geologist	62.00
Project Representative	51.00
Senior Clerical/Secretarial Support	47.00
Clerical/Secretarial Support	36.00
Senior Administrative	62.00
Hourly rates are effective through December 31, 2007.	

**FINANCIAL STRENGTH**

For CTI, this is a relatively small project, the total fee representing less than 10 percent of one month's typical billings. Other than mortgage debt on the Chattanooga office building, CTI has no debt. Its current ratio and quick ratio both exceed 2.2. Its total liabilities to equity ratio is below 0.8. CTI is an employee-owned firm.

**SUBCONTRACTING**

Due to the relatively small size of the project and tight schedule, no subcontracts are anticipated. All services are proposed to be performed in the Chattanooga office of CTI.