

## SECTION 01010

### PROJECT SUMMARY

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Summary of the Work
- B. Project Time
- C. General Requirements

##### 1.02 SUMMARY OF THE WORK

- A. This project consists of:
  - 1. Site grading, site restoration, fencing and double gate. Asphalt and concrete pavement and concrete sidewalks ( with an additive alternate for all concrete paving)
  - 2. Addition of a second clearwell and rehabilitation of the existing clearwell.(see item 8) The new clearwell will be reinforced concrete structure with a center wall and roof. New piping penetrations and access hatches and ladders, and guardrail are to be provided. The top of the clearwell is to be coated.
  - 3. A new building with an electrical room and a pump room. The building shall consist of CMU walls with brick facing, a double door, three single door, a rollup door, a metal joist roof and parapet walls. Two access hatches in the roof for pump access. The building is to have gutters and downspouts and scuppers.

Equipment pads are to be provided in the electrical room, and pump pads are to be provided in the pump room.
  - 4. New power feed and backfeed to the filter building
  - 5. Interior and exterior lighting for the new building.
  - 6. Heating via two gas heaters, cooling (roof mounted HVAC), and plumbing in the new building.

7. Two new high service pumps, piping and valves, and connection to an existing high service yard pipe.
8. Rehabilitation of the existing clearwell including two new ladders, cleaning and sediment removal, removal of block center wall, addition of FRP wall and partial side wall replacement for the addition of 24 inch exit pipe, and removal of a 24 inch valve, and coating of the top of the clearwell.
9. Yard piping including:
  - Interconnecting piping and valves to connect all clearwells and wetwells
  - Three new manholes and new drain piping with cleanouts, and rerouting of existing drain piping
  - Piping and valves to connect the new sludge processing functions
  - Natural gas and plant water extensions
  - Finished water sample piping in double conduit
10. Addition of a mixer with hoist to the existing concrete backwash tank. Addition of a sludge decant mechanism with removal system to the existing concrete backwash tank.
10. One new sludge withdrawal pump with yard piping and valves and connection to existing yard piping.
11. A new prefabricated building with a polymer feed system.
12. A new sludge box concrete pad to serve two concrete boxes (to be provided by the owner) including storm drainage and feed piping with supports.
13. Electrical additions and modifications including:
  - a. Furnish and install new VFD's for two high service pumps.
  - b. Emergency pushbuttons for all pumps
  - c. Demolition of items while installing new items will require the use of a temporary generator.
  - d. Power and signal wiring and conduit for the equipment.
  - e. Installation of a new electrical service.
14. Control panel modifications and lighting protection at the intake pumps
15. All SCADA and instrumentation including wiring, conduit, computer system, software, level transmitters, devices, RTU's, etc., for a complete and operable SCADA system.

16. Equipment at remote tanks and pump station to bring in signals to the water plant via cellular. (RTU)
17. Updates to the chemical feed system including new peristaltic pumps, and new scales.
18. Other miscellaneous improvements as noted on the plans and as defined in the specifications.

#### 1.03 PROJECT TIME

- A. The project time shall be 300 consecutive calendar days for Substantial Completion and 330 consecutive calendar days for Final Completion to complete the work as shown on the Contract Documents.

#### 1.04 GENERAL REQUIREMENTS

- A. Smoking and Fire Precautions: No smoking, fire, or use of any fire or explosion producing tools or equipment shall be permitted on the premises or at any locations where such may endanger said premises or the current operations thereon.
- B. Manufacturers Qualifications: The manufacturers of all materials and equipment used must be reputable and regularly engaged in the manufacture of the particular material or equipment for the use and service to which it will be subjected.
- C. Contractor Shall Pay for All Laboratory Inspection Service: All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Contractor and approved by the Engineer and/or Owner. Contractor to pay for all laboratory inspection services as a part of the Contract. Submit all material test reports to the Owner in triplicate.
- D. Compliance with State and Local Laws: Comply with all applicable requirements of state and local laws and ordinances to the extent that such requirements do not conflict with federal laws or regulations.
- E. Protection of Public and Private Property: Take special care in working areas to protect public and private property. The contractor shall replace or repair at his own expense any damaged water pipes, power and communication lines, or other public utilities, roads, curbs, gutters, sidewalks, drain pipes, ponds or pond structures, sewer drainage ditches, all properties and fixtures (both permanent and temporary) fences, and all plantings, including grass or sod on the site of the work. Leave the site in original or better condition after all cleanup work has been done.

- F. Markers: Preserve all USGS, TVA, State of Tennessee, and City property markers and private markers. Do not remove or disturb any such markers without prior approval from the Owner. Any removal and replacement of such markers shall be at the expense of the Contractor.
- G. Non-discrimination: The Contractor agrees to hire qualified persons without regard to race, creed, color, sex, or national origin for the performance of the work specified in this contract.
- H. Pavement Repair and/or Replacement: Whenever pipe trenches are cut across or along existing pavement or shoulders, backfill same and restore traffic over the cuts as quickly as possible by constructing a temporary surface with twelve (12) inches of Class A, grade D crushed stone. Add material and otherwise maintain such surface until the permanent pavement is restored by the Contractor or until the entire project is accepted.
- I. Approved Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. The use of all such chemicals and the disposal of residues shall be in strict conformance with instructions
- J. Catalogue Data for Owners: Provide duplicate, complete, bound sets of a compilation of catalog data of each manufactured item of mechanical and electrical equipment used in the work, and present this compilation to the Engineer for transmittal to the Owner before payment of more than ninety percent (90%) is made. Include descriptive data and printed installation, operating, and maintenance instruction (including a parts list for each item of equipment) Provide a complete double index as follows:
  - 1. Listing the products alphabetically by name.
  - 2. Listing alphabetically the names of manufacturers whose products have been incorporated in the work, together with their addresses and the names and addresses of the local sales representative.
- K. Operation and Maintenance Instruction to Owner: Where the specifications for specific equipment require that a factory service representative provide operation and maintenance instruction to the Owner for that equipment, this service is to be performed by prior arrangement with the Owner after and in addition to the manufacturer's instructions to the Contractor for installation and start-up. The individual performing the instruction to the Owner shall be trained and/or certified by the manufacturer as its authorized operation, maintenance, and service specialist. If the said specialist is not a regular full-time employee of the manufacturer, the specialist's qualifications shall be submitted to the Owner for

review and approval prior to scheduling the site visit for instructions to the Owner.

- L. Drawings of Record: Provide a complete, up-to-date record set of blue line prints, which shall be corrected daily to show every change to the approved shop drawings and shall be deducted from any amounts that are due or become due to the Contractor.
  
- M. Preservation of Existing Vegetation: Take reasonable care during construction to avoid damage to vegetation. Where the area to be excavated is occupied by trees, brush, or other uncultivated vegetable growth, clear such growth from the area, and dispose of it in a satisfactory manner. Leave undisturbed any trees, cultivated shrubs, flowers, etc., situated within public rights-of-way and/or easements through private property but not located directly within excavation limits. Transplant small ornamental trees, cultivated shrubs, flowers, etc., located directly within excavation limits so they may be replaced during property restoration operations. Do not remove or disturb any tree larger than 6 inches in diameter without the permission of the Engineer. Take special precautions (including the provision of barricades and the temporary tying back of shrubbery and tree branches) for the protection and preservation of such objects throughout all stages of construction; the Contractor will be held liable for any damage that may result to said objects from excavation or construction operations. Trim any limbs or branches of trees broken during construction operations with clean cut, and paint with an approved tree pruning compound. Treat tree trunks receiving damage from equipment with a tree dressing.
  
- N. Utilities: The Contractor is to contact the Owner of all underground utilities before beginning construction in the area. Contractor shall determine exact location of all existing utilities prior to beginning construction in accordance with *State of Tennessee, Title 65 – Public Utilities and Carrier, Chapter 31 Underground Utility Damage Prevention Act*. Carefully protect from damage all utilities in the vicinity of the work at all times. If it is necessary to repair, remove, and/or replace any such utility in order to complete the work properly, do so in compliance with the rules and regulations of the particular utility involved. Any such work shall be considered incidental to the construction of repairs of utility lines, and no additional payment will be allowed therefore.

**PART 2 - PRODUCTS**

N/A

**PART 3 - EXECUTION**

N/A

**END OF SECTION**