

STATEMENT OF WORK

- A. Summary: This Project consists of the design and construction of a flow controlled connection from the City of Atlanta's existing raw water tunnel and shaft system to the existing Chattahoochee water treatment plant (CWTP). It includes associated yard piping and valve installation, grading, lighting, erosion and sediment controls, and all other items required by the contract documents to complete the Work. It is imperative that all work shall be performed without disrupting the operational ability of the CWTP to receive and process raw water into the plant. The CWTP manager must receive and approve of all activities which could impact the operations of the plant.
- B. Bridging documents consisting of drawings and specifications are provided in this solicitation. These documents are at a 50% or more completion status and serve as a basis of design for the project. Deviations from the basis of design must be approved by the City. The successful proponent will utilize these documents to provide a final design, stamped by a State of Georgia registered professional engineer.
- C. Major Portions of the Work consist of, but are not limited to, the following items:
 - 1. Review the bridging documents in a workshop with the City's project management team and Operations staff to assure a full understanding of the project. Project drawings and guide specifications, developed at 50% or more, have been provided in the bridging documents. Final design/construction documents shall be completed by the contracted design-build team and stamped by appropriate State of Georgia registered Professional Engineers and Land Surveyors.
 - 2. Confirm on-site locations of all existing utilities and tie-in points – yard piping and electrical. Damage to existing infrastructure during the contract could greatly impact operations at both Chattahoochee and Hemphill water treatment plants. Call Before You Dig (811) will not have comprehensive utility information inside the CWTP boundaries, therefore the contractor may need to explore additional location methods.
 - 3. Continuous WTP operations must be maintained to assure clean and safe drinking water for Atlanta's customers. Any work with associated risk that could result in an impact to normal operations shall be submitted with a work-plan and approved by the plant manager prior to commencement of that task.
 - 4. Coordination with the City's security department for site access by the Contractor's workforce and requirements to maintain security fencing. The City's project manager will assist with this coordination.
 - 5. As shown in the bridging document drawings, design, furnish, and install a yard piping connection between the end of the existing tunnel shaft stub-out

pipng (60-inch) and a tie-in point to the existing 60-inch yard piping entering the CWTP central mix influent. Yard piping for this project consists of approximately 350 linear feet (combined total) of 60, 48, and 42-inch pipe with a minimal rating of 150 psi.

6. As shown in the bridging document drawings, the pipe connection shall include ductile iron piping, a control valve, isolation valves, a by-pass valve, a flow meter, an environmentally controlled maintenance friendly accessible vault, and accessories as indicated. All large valves (42-inch and above) shall be within an accessible vault (not direct buried) and operational by electrical actuators with manual backup. Corrosion control shall be incorporated into the piping design.
7. The existing 42-inch raw water main coming from the pump station, which is in conflict with the piping connection route to the tunnel, shall be relocated and reconnected, including an air release valve (ARV). Records indicate that the existing 42-inch pipe material is steel.
8. The existing 60-inch raw water main, coming from the pump station, shall be the tie-in point for the tunnel connection piping. The tie-in work shall include a new electrically actuated 60-inch valve, vault, and ARV. A written work-plan for this connection will be required to be submitted and approved prior to construction work on the existing 60-inch pipe.
9. Electrical connections shall be run underground in ductbanks and sourced from existing gear within the CWTP Chemical Application Building. All required electrical and lighting components shall be designed, furnished, and installed by the contractor.
10. The Contractor shall incorporate all valve control and monitoring signals into the CWTP SCADA system – including HMI screens. An operational control strategy shall be developed by the Contractor, in association with the City’s staff, at a full day workshop, and incorporated into the SCADA programming. The new tunnel connection infrastructure designed and built under this project, shall provide automated and manual flow control of raw water into the CWTP. In an automated mode, raw water flow should enter the CWTP at an Operator set point and automatically adjust the flow control valve as variable conditions occur, such as if the head pressure in the tunnel shaft changes or if raw water pump station pumps are operating.
11. The Contractor shall provide O&M manuals, Standard Operating Procedures (SOPs) and adequate training for all new equipment. An SOP and at least one day training is required for SCADA operations and maintenance personnel.
12. Site erosion control, traffic control, and site restoration must meet State of Georgia and local requirements and will be monitored carefully during the project. Restoration (grass areas and paving) shall be at or better than existing conditions. Chemical deliveries to the chemical and fluoride

buildings are based on need and may occur several times each week. The Contractor shall be responsible to assure there is an entrance/exit path for chemical truck deliveries.