ADDENDUM NO. 5

FRIAR'S BRANCH BASIN IMPROVEMENTS
CONTRACT NO. W-12-029-201

The following changes/additions shall be made to the Project Manual:

I. Temporary Bypass Pumping (01 51 43)

Replace section with the attached revised temporary bypass pumping specification.

The following requests for bidder information were received. Responses below are provided to the questions for informational purposes.

I. Please provide videos of as much of the piping on this project as possible, especially the 36-inch and 42-inch piping.

Response: *CCTV records will not be provided during the bidding phase for this project.*

II. Please also provide a line item for all manhole installations on the 36-inch and 42-inch piping.

Response: *The Contract Documents do not provide for installations of new manholes within the interceptor portion of the Project. Per Section 01 22 00, Paragraph 1.07.C of the Specifications, no additional payment will be made for additional work items required to install and test the CIPPL rehabilitation. Bidders shall include any costs for additional access points in the unit prices for other items.*

III. The thickness specified for the 36- and 42-inch CIPP seems to be over-designed based on the existing field depths. Could you review those thicknesses and confirm?

Response: *The thicknesses specified in the Contract Drawings are based on the design requirements found in Section 33 01 30.73, Paragraph 2.04 of the Specifications. Per Section 33 01 30.73, Paragraph 1.04.A.2 of the Specifications, the Contractor shall furnish proposed liner thicknesses for review and approval by the Engineer and Owner prior to construction.*

IV. Bid Items 9j, 9k, 9l, and 9m: What size main line do these service connections connect to? Is this a partial or full-length service lateral replacement?

Response: *The Contract Drawings specify lateral repairs on 8-inch and 10-inch mains. The quantities include placeholders in case additional lateral replacements are needed during the rehabilitation work. Lateral replacements generally extend from the main to cleanout or edge of right-of-way.*

V. Will the City please provide flow data for the 36-inch and 42-inch pipe?

Response: *As noted in Section 01 51 43, Paragraph 2.01.A of the Specifications, the two-year peak flow for the interceptor is 15,400 gallons per minute (GPM).*

VI. Will the City please extend the completion deadline to 360 days?

Response: *The final completion time will remain at 270 days per Addendum No. 3.*

VII. Will the City please pre-approve air inversion/steam cure (AISC) installation for slopes/falls of 2.5% or greater?

Response: *Per Section 33 01 30.73, Paragraph 3.06.A of the Specifications, the Contractor may submit a written request for the use of AISC installation to the Owner and Engineer for approval.*

VIII. Will the City please add a bid item for the removal of existing collars at the intersection of the top of the pipe and the bottom of the manhole on the 36-inch and 42-inch piping?

Response: *Per Section 01 22 00, Paragraph 1.07.C of the Specifications, no additional payment will be made for additional work items required to install and test the CIPPL rehabilitation. Bidders shall include any costs for removing the collars in the unit prices for other items.*

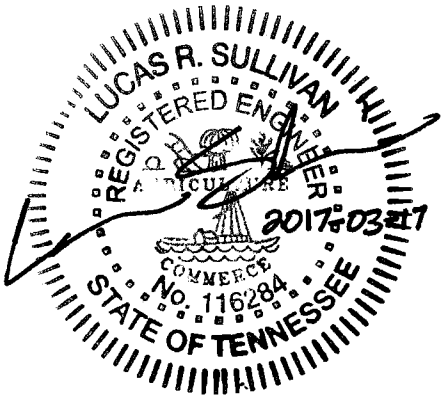
IX. Will the City please consider reducing the required thicknesses of 12-inch CIPP (13.5-mm and 16.5-mm)?

Response: *The thicknesses specified in the Contract Drawings are based on the design requirements found in Section 33 01 30.73, Paragraph 2.04 of the Specifications. Per Section 33 01 30.73, Paragraph 1.04.A.2 of the Specifications, the Contractor shall furnish proposed liner thicknesses for review and approval by the Engineer and Owner prior to construction.*

X. Will the City please pre-approve composite CIPP, as designed per the manufacturer's specifications, such that a reduced sidewall thickness with equal or greater strength may be achieved?

Response: *This project shall be bid using the specifications enclosed in the bid documents. Equivalent products shall be submitted for Engineer's review and approval as part of the submittal process after the Contract has been awarded.*

March 17, 2017



/s/ Justin C. Holland, Administrator
City of Chattanooga
Department of Public Works

Part 1 General

1.01 Scope

A. This Section covers furnishing, maintaining, and operating a temporary bypass pumping system during construction. The Contractor shall furnish all materials, labor, equipment, power, maintenance, etc., to implement a temporary pumping and control system for the purpose of diverting the existing flow around the work area.

B. Design and installation of these systems shall be the Contractor's responsibility subject to Engineer's approval as specified.

1.02 General

The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The Contractor shall employ the services of a Specialty Contractor (Firm) who can demonstrate to the Engineer that it specializes in the design and operation of temporary bypass pumping systems. The Firm shall provide at least five references of projects of a similar size and complexity as this Project performed by his company within the past three years. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

1.03 Submittals

A. The Contractor shall prepare with the Firm a specific, detailed description of the proposed pumping system(s) required for each location and submit it along with the Firm's references within one month following Notice to Proceed.

B. The Contractor shall submit detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing wastewater flows in accordance with the submittal section. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, pump and drive control selection and design, materials and all other incidental items necessary and/or required to insure proper protection of the facilities. The plan shall include but not be limited to details of the following:

1. Staging areas for pumps.

2. Sewer or structure plugging method and types of plugs.

3. Number, size, material, location and method of installation of suction piping.

4. Number, size, material, method of installation and location of installation of discharge piping.

5. Bypass pump sizes, capacity, and number of each size to be on site and power requirements.

6. Motor control package design, including wiring diagrams, voltage and amperage requirements, control logic description.

7. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted).

8. Standby power provisions.

9. Thrust and restraint block sizes and locations if applicable.

10. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill.

11. Any temporary pipe supports and anchoring required.

12. Design plans and access provisions to bypass pumping and generator fueling locations indicated on the Drawings.

13. Calculations for selection of bypass pumping pipe size.

14. Schedule for installation and maintenance of bypass pumping lines.

15. Continuous monitoring, operating and emergency response plan.

Part 2 Products

2.01 Design and Performance Requirements

A. Bypass pumping systems shall have sufficient capacity to pump from negligible flows to 15,400 gallons per minute (GPM) peak flow for the Friar's Branch Interceptor. The Contractor shall provide all pumps of adequate size to handle the flow events and temporary piping to ensure that the total flow can be safely diverted around the work area.

B. Contractor shall have adequate standby equipment available onsite and ready for immediate operation and use in the event of an emergency or breakdown.

C. The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

D. The Contractor shall provide all necessary means to safely convey the sewage past the work area. The Contractor will not be permitted to stop or impede the main flows under any circumstances.

E. The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers and that will protect public and private property from damage and flooding.

F. The Contractor shall protect water resources wetlands and other natural resources.

G. The Contractor shall provide standby power to all electric pumping units in the event of power loss.

2.02 Equipment

A. All pumps used shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to handle low flow events for long periods of time to accommodate the cyclical nature of the wastewater plant flows.

B. The Contractor shall provide the necessary stop/start and variable speed controls for each pump. The motor controls shall use a PLC based level control system with a submersible level transducer to initiate start and stop signals to the motor controls.

C. Discharge piping systems shall be constructed of restrained joint type piping. Joints shall allow no leakage. Standard aluminum irrigation piping is not acceptable.

Part 3 Execution

3.01 Field Quality Control and Maintenance

A. The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping prior to actual operation.

B. The Contractor shall inspect the bypass pumping system every two hours to ensure that the system is working correctly.

C. The Contractor shall ensure that the temporary pumping system is properly maintained and that a responsible operator shall be on hand at all times when pumps are operating.

D. The Contractor shall submit a plan for the replacement of malfunctioning equipment.

E. Spare parts for pumps and piping shall be kept on site as required.

F. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

3.02 Installation and Operation

A. The Contractor shall install the bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the Owner and the Engineer. Routing of bypass pipelines shall not impede pump station traffic flow.

B. The Contractor shall protect the temporary pumping station and piping from damage during construction.

C. Contractor shall provide all fuel and power for the temporary pumping facility. Contractor shall make arrangements for a power meter and pay all associated fees.

END OF SECTION