

(Revised October 20, 2021)

## **SECTION 02530**

### **SERVICE LATERAL RECONNECTION AND REPLACEMENT**

#### **PART 1 - GENERAL**

##### **1.01 SECTION INCLUDES**

- A.** Work this section includes the reconnection of existing service laterals to the sewer main and the replacement of sewer laterals.

##### **1.02 RELATED SECTIONS**

- A.** Section 01510: Sanitary Sewer Main and Lateral Television Sonar Inspection
- B.** Section 01520: Sewer Flow Control
- C.** Section 02324: Trenching and Trench Backfilling
- D.** Section 02535: Gravity Flow Sanitary Sewers
- E.** Section 02537: Ductile Iron Sanitary Sewer Pipe and Fittings
- F.** Section 02622: PVC Gravity Sewer Pipe

##### **1.03 SECTION 02600 – WASTEWATER FLOW CONTROL REFERENCES**

- A.** ASTM A746 - 09 Standard Specification for Ductile Iron Gravity Sewer Pipe.
- B.** ASTM D1784 - 11 Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
- C.** ASTM D3034 - 08 Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
- D.** ASTM D3212 - 07(2013) Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
- E.** Potable Water Main, Gravity Sanitary Sewer, and Sanitary Sewer and Force Main Design Standards, DeKalb County Department of Watershed Management, Latest Edition and Version.

##### **1.04 SUBMITTALS**

- A.** The Contractor shall complete a daily written record (diary) detailing the work carried out and any small items of Work which were incidental to the Work. The Contractor shall include in his daily record and reference to the following:

1. Delays: Dense traffic, lack of information, sickness, labor or equipment shortage, etc.
2. Weather: Conditions (e.g., rain, sunny, windy, etc.).
3. Equipment: On site (e.g., specialty cleaning, by-pass equipment, etc.).
4. Submittals: To the Owner's Engineer.
5. Personnel: On site by name (e.g., all labor, specialty services, etc.).
6. Accident: Report (e.g., all injuries, vehicles, etc.).
7. Incident: Report (e.g., damage to property, property owner complaint, etc.).
8. Major defects encountered: including collapsed pipe, if any, cave-ins, sink holes, etc.
9. Visitors: On site.
10. Disposals: Type and quantity of debris (including liquids).

## **1.05 EXPERIENCE**

- A. See requirements stated in procurement process.
- B. Prior to beginning work, Contractor shall submit certification or documentation of the following:
  1. The supervisor of the field crews shall have received proper training and have a minimum of three (3) years' experience in performing the type of work covered under this section of these Specifications including safe working practices, confined space entry procedures, the types of equipment being used, product/materials being used, etc.
  2. Field crew leaders shall have received proper training in this function and have a minimum of two (2) years' experience in performing the type of work covered under this section of these Specifications including safe working practices, confined space entry procedures, the types of equipment being used, product/materials being used, etc.
  3. OSHA Confined Space and Trench, Excavation Safety training for all crewmembers.
  4. The Contractor shall provide the Owner's Engineer with written documentation that the supervisor, crew leader/s, and all crewmembers have received the proper training and where required the requisite experience.

## **1.06 RESPONSIBILITY FOR SANITARY SEWER OVERFLOWS AND DAMAGE TO PROPERTY AND UTILITY**

- A. Reference Specification Section 01030 – Special Project Procedures

## **1.07 SAFETY**

- A. All work shall be performed in accordance with OSHA standards and state and federal safety regulations.
- B. No person shall enter a confined space without the documented requisite training, certification, and entry permit.

## **PART 2 - PRODUCTS**

### **2.01 PIPE AND FITTINGS**

- A. All materials shall be pre-approved by the Owner.
- B. The Contractor shall use PVC (minimum SDR 35) pipe, or class 50 ductile iron pipe for 6-inch service lateral connections. All laterals segments within the roadway shall be replaced with ductile iron pipe. Transition from DIP to PVC with approved fittings beyond the edge of pavement is allowed.
- C. PVC pipe shall be gasket jointed conforming to the requirements of ASTM D-3212.
- D. For reconnection of existing services, the Contractor shall select service connection pipe diameter to match existing service diameter.
- E. The Contractor shall connect service laterals to the sewer mains with prefabricated sewer wye conforming to the specifications for the sewer main pipe material as specified in other sections of these Specifications, or other as approved by Owner's Engineer. The use of tees is prohibited without permission from the Owner's Engineer.

### **2.02 PIPE SADDLES**

- A. The Contractor shall use pipe saddles only on rehabilitated sanitary sewer mains.
- B. The Contractor shall supply Romac Industries, Inc. Style "CB" sewer saddle, branch type universal or Owner approved equal. The Contractor shall use a saddle fabricated to fit the outside diameter of the pipe to which it will be attached.

### **2.03 COUPLINGS AND ADAPTER**

- A. For connection between new PVC pipe or DIP service lateral and an existing service, the Contractor shall use a PVC C-900 rubber-gasket transition adapter when going from Ductile Iron or C-900 to Schedule 40 pipe.

### **2.04 CLEANOUTS**

- A. PVC, SDR 35 pipe and fitting shall be utilized for the installation of six- (6) inch cleanouts.
- B. Rubber couplings as manufactured by Fernco, Inc. or Owner approved equal shall be utilized for pipe connection to the existing pipe.
- C. Rubber doughnut gasket adapters shall be manufactured by Fernco, Inc. or Owner

approved equal.

- D. Non-traffic grade cleanout boxes shall comply with the Potable Water Main, Gravity Sanitary Sewer, and Sanitary Sewer and Force Main Design Standards, DeKalb County Department of Watershed Management, Latest Edition and Version.
- E. Traffic grade cleanout boxes shall comply with the Potable Water Main, Gravity Sanitary Sewer, and Sanitary Sewer and Force Main Design Standards, DeKalb County Department of Watershed Management

## **2.05 WATERTIGHT FULL WRAP SEAL**

The Watertight Full Wrap Seal is a one-piece liner with a sewn connection that covers in a full wrap/360° inside the mainline pipe. There is a smooth tapered transition to the host pipe continuing up the service lateral that creates a watertight fitting at the interface connection. The use of Hydrophilic Sealants (hydrophilic gasket and flowable hydrophilic paste at the main to lateral connection and a hydrophilic gasket at the terminating end of the CIPP lateral) and Silicate Resins applied to the backside of the full wrap/360° connection insures a watertight seal. The finished lateral product meets or exceeds ASTM F1216 for Cured-In-Place Pipe. Installation is done with the use of ambient cure polyester or vinylester resins and installations can be performed during active infiltration.

## **PART 3 - EXECUTION**

### **3.01 PROTECTION**

- A. The Contractor shall not allow sand, debris, or runoff to enter the sewer system. The Contractor shall ensure that wastewater does not backup into private property. The Contractor shall establish a plan to prevent sewer backups when reconnections are not accomplished in a timely manner.
- B. The Contractor shall provide for diversion of wastewater if necessary, in accordance with the requirements of Section 01520 – Sewer Flow Control. The Owner may direct the Contractor to use cleanouts to bypass wastewater from adjacent facilities if the possibility of wastewater backup is likely.
- C. The Contractor shall be responsible for any and all damage to property due to his work.

### **3.02 PREPARATION**

- A. The Contractor shall provide a minimum of forty-eight- (48) hour written notice to property owners whose sanitary sewer service will potentially be interrupted.
- B. The Contractor shall properly disconnect existing connections from the sewer and reconnect to the main line, as described in this section.
- C. The Contractor shall reconnect service connections, including those that go to unoccupied or abandoned buildings, unless directed otherwise by the Owner's

Engineer.

- D. The Contractor shall complete reconnection of all service lines within twenty-four (24) hours.

### **3.03 RECONNECTION ON REPLACEMENT SEGMENTS**

- A. The Contractor shall install a new service wye on the new sanitary sewer main for each service connection. The service wye shall be of a material compatible with the sewer main material.
- B. The Contractor shall remove and replace cracked, offset, or leaking service line from the center of the new sewer main up to the first fitting or five (5) feet, whichever occurs first.
- C. The Contractor shall make up the connection between new sewer main and existing service lateral using PVC C-900 or ductile iron sewer pipe and approved fittings and couplings.

### **3.04 UTILITY SERVICE REPAIRS**

- A. Where service connections or lines from water or gas mains or sewers to the user's premises are disconnected, broken, damaged, or otherwise rendered inoperative by the Contractor for any reason, the Contractor shall, at his own expense, arrange with the respective utility company for any repairs of lines under their jurisdiction. For lines not within their jurisdiction, the Contractor shall repair or replace same and restore service to the premises.

### **3.05 SPECIAL CONSIDERATIONS**

- A. The Contractor shall notify the Owner's Engineer of any service stub that is collapsed, has severe root intrusions, or is otherwise in poor condition. The Owner's Engineer will make a determination on a case-by-case basis whether to proceed with the cleanout installation or replace the entire service stub. All replacement service stubs will be six- (6) inch and shall be installed in accordance with the Potable Water Main, Gravity Sanitary Sewer, and Sanitary Sewer and Force Main Design Standards, DeKalb County Department of Watershed Management.
- B. The Contractor shall notify the Owner of conflicts with other utilities, which prevent the installation of a cleanout as specified herein and make recommendations to resolve such conflicts.
- C. Every effort shall be made to complete the installation and backfill excavations each day. In situations where the installation cannot be completed, the site may only be left open overnight with proper safety barriers and warning signs alerting the public to the hazard. The Contractor shall be responsible for providing and installing all barriers, barricades, fence, warning tape, and other items necessary to safely secure the work site.
- D. Without written permission from the property owner, the spoil pile may only be

placed within the easement area, right-of-way or Owner roadway and is not to be placed on private property. Where pedestrian or vehicular traffic is obstructed, the Contractor shall provide adequate safety measures to protect against accident or injury.

- E. Vehicles and construction equipment shall not be parked and left on private property.
- F. The Contractor shall repair damages to sprinkler systems including those that are installed within the Owner right-of-way and/or sanitary sewer easement. It is recommended that the Contractor confer with each property owner concerning the possibility of sprinklers and the locations thereof during the notification process.

### **3.06 TESTING**

- A. The completed cleanout installation shall be televised, both externally and internally with a color CCTV camera. The same camera shall capture and record a picture of the house or street address of the installation. Without pause in recording, the Contractor shall pan over the restoration of property, the cleanout box, and insert the camera into the cleanout installation. The Contractor shall pass the camera through the cleanout, into the wye and through that portion of the six- (6) inch pipe installed. Any defects found during inspection shall be noted and corrected at no additional expense to the Owner. The Contractor shall make appropriate repairs until the cleanout installation passes the video inspection.
- B. When directed by the Owner's Engineer, the Contractor shall perform smoke testing, dye testing, or low pressure hydraulic testing to confirm reconnection.
- C. All inspections shall be submitted following the standards and formats as outlined in Section 01510 – Sanitary Sewer Main and Lateral Television Sonar Inspection.

### **3.07 CLEANUP**

- A. After installation work has been completed and all testing acceptable, the Contractor shall clean up the work area. All excess material and debris not incorporated into the permanent installation shall be disposed of by the Contractor. The debris and liquids are to be disposed of properly in accordance with all applicable laws. The local municipality can furnish a letter to the landfill stating that the contractor is authorized to dispose of the non-hazardous materials. Debris and liquids type and quantities are to be tracked in the daily contractor diary. Hauling and disposal costs will be borne by the contractor. The work area shall be left in a condition equal to or better than prior condition. Disturbed grassed areas shall be seeded or sod placed as directed by the Owner's Engineer at no additional cost to the Owner. The work site restoration work shall be completed in accordance with the Section 02480 – Site Restoration and Landscaping.

### **3.08 WARRANTY**

- A. The Contractor shall guarantee his work for a warranty period of three (3) years from the date of final acceptance. If, at any time during the warranty period, any leakage, cracking, loss of bond, or other discontinuity/abnormalities is identified

the Contractor shall make repairs acceptable and at no additional cost to the Owner. In this case, the Contractor shall warrant the work for one (1) year in addition to the warranty required by the Contract.

- B.** If the frequency of similar defects requiring repair increases, then the entire project will be re-evaluated.

**END OF SECTION**