

Maintaining traffic around the bypass pumping setup is critical. Submit a detailed plan for the bypass setup to Meridian Township and the ICRD. Maintain all vehicular and pedestrian traffic for the duration of the project. Use pump-through ramps, designed for the purpose, at all vehicle route crossings, including roads and driveways. Cross each road or driveway in a single span with the ramps. Install and maintain warning lights at the corners of all such ramps to alert vehicles during nighttime use. Additionally, place asphalt wedges on the ramp approaches, as directed, to mitigate the disruption caused by the ramps. This is especially important for any primary road crossings. Lastly, install advance-warning signs for each ramp indicating a 'bump' (MMUTCD – W8-1).

BYPASS PUMPING will be paid for at the Contract Unit Price on the following basis: upon successful startup of each bypass system, 50% of **Bypass Pumping** will be paid; after successful return of the respective gravity mains to normal service, 100% of **Bypass Pumping** will be paid.

20a-c. **SEWER, CIPP, _____ INCH** – The Contract Unit Prices for these pay items include all labor, equipment, and material necessary to install a full CIPP liner of the specified size in accordance with the Technical Specification in this contract, “Cured-In-Place Pipe – Mainline Lining”. Payment will be made according to the footage measured between manholes along the ground surface at the Contract Unit Price on the following basis: after successful completion of the CIPP & grouting work, 90% of this item will be paid; after the successful completion of the warranty inspection, the remaining 10% of this item will be paid.

The CIPP rehabilitation broadly includes the following:

- All cleaning and preparation of existing sewer;
- Video inspection and recordings of the pre- and post-lined pipes;
- Bypass Pumping (paid for separately);
- Collection and disposal of debris removed from sewers.
- Removal of roots and mineral deposits from sewers, as needed.
- Grouting **or use of Pre-Liners for** infiltration,
- Design and engineering of the CIPP liner;
- Insertion and curing of the CIPP liner;
- Testing;
- Lateral locating and reinstatement;
- Site Restoration (paid for separately);
- All necessary labor, materials and equipment;
- All necessary and specified safety equipment, procedures and traffic control;
- Project supervision; and
- Any other items incidental, but necessary, to the installation of the CIPP liner.

20d. **SEWER, SECTIONAL CIPPR, _____ INCH** – The Contract Unit Price for this pay item includes all labor, equipment, and material necessary to install a sectional CIPP liner of the specified size in accordance with the Technical Specification in this contract, “Cured-In-Place Pipe – Mainline Lining”. Payment will be made at the Contract Unit Price per each installation accepted by the Owner.

20e-p. **SEWER, AIR TESTING and JOINT GROUTING, _____ INCH** – The Contract Unit Prices for these pay items include all labor, equipment, and material (except Grout, paid separately) necessary to grout all joints and circumferential defects along a mainline in accordance with the Technical Specification in this contract, “Pipeline Chemical Grouting and Testing”. Payment will be made according to the number of joints and defects sealed per diameter of pipe at the Contract Unit Price on the following basis: after successful completion of the grouting work, 90% of this item will be paid; after the successful completion of the warranty inspection, the remaining 10% of this item will be paid. Grouting rehabilitation broadly includes the following:

- All cleaning and preparation of existing sewer;

- Video inspection and recordings of the pre- and post-grouted pipes;
- Bypass Pumping (paid for separately);
- Collection and disposal of debris removed from sewers.
- Removal of roots and mineral deposits from sewers, as needed.
- Grouting of non-joint infiltration.
- Design and engineering of the grouting mixture;
- Injection and curing of the grouting mixture;
- Air Testing, before and after grouting;
- Lateral locating and connection grouting;
- Site Restoration (paid for separately);
- All necessary labor, materials and equipment (grout volume paid separately);
- All necessary and specified safety equipment, procedures and traffic control;
- Inspector training and demonstration of grouting procedure and equipment;
- Project supervision; and
- Any other items incidental, but necessary, to the application of grout.

20q. **SEWER, MATERIAL, GROUT** – The Contract Unit Price for the quantity of this Item will be the number of gallons of grout used for sealing Mainline Joints, Lateral Tap Connections and Laterals Connected to Manholes (including void space grout -- except for Lateral Tap Connection packers where an undersized sock is used in a lateral (e.g., 4” sock in a 6” lateral), in which case the void space volume will be subtracted from the volume of grout measured for payment). The unit price for this Item will be full compensation for providing all labor, materials, equipment, tools, and incidentals not included in other Items required for all aspects of grouting.

22a.b. **SEWER, LATERAL CONNECTION, AIR TESTING and GROUTING** – The Contract Unit Prices for these pay items include all labor, equipment, and material (except Grout, paid for separately as “SEWER, MATERIAL, GROUT”), necessary to air test and grout all lateral connections along a mainline in accordance with the Technical Specification in this contract, “Pipeline Chemical Grouting and Testing”. Payment will be made per each tested and grouted connection at the Contract Unit Price on the following basis: after successful completion of the grouting work, 90% of this item will be paid; after the successful completion of the warranty inspection, the remaining 10% of this item will be paid.

22c. **SEWER, LATERAL CONNECTION LINER** – The Contract Unit Price for this pay item includes all labor, equipment, and material necessary to seal the lateral-to-main connection with a CIPP liner in accordance with the Technical Specification in this contract, “Cured-In-Place Pipe – Lateral Connection Lining”. The liner must seal the lateral connection at the main, and extend a minimum of five feet (5’) up the lateral. Payment will be made per each installation at the Contract Unit Price on the following basis: after successful completion of the lining work, 90% of this item will be paid; after the successful completion of the warranty inspection, the remaining 10% of this item will be paid.

MANHOLE REHAB

PAY ITEMS

21a. **MANHOLE, GROUTING, FULLY SEALED** – The Contract Unit Price for this pay item includes all labor, materials and equipment required by the Contractor to furnish a leak proof manhole to the Owner, in accordance with the Technical Specification in this contract “Manhole Rehabilitation”. It includes the sealing of all barrel joints, pipe connections and sources of infiltration. Payment will be made for each structure rehabilitated at the Contract Unit Price on the following basis: after successful completion of the grouting work, 90% of this item will be paid; after the successful completion of the warranty inspection, the remaining 10% of this item will be paid. The material cost of Grout is included in this pay item.