

GENERAL

Units of Work Defined – Scope of Specifications Included

- 1) **SEWER LINE CHEMICAL ROOT TREATMENT** shall be accomplished by soaking the line with a non-systemic herbicide which will kill roots but which will not permanently affect parts of trees distant from the treated roots. The active ingredient shall not adversely affect the performance of the wastewater treatment facility.
- 2) **SEWER LINE CLEANING** shall be performed with hydraulically propelled, high velocity jet, or mechanically powered equipment. Selection of equipment shall be based on field conditions such as access to manholes, quantity of debris, size of sewer, depth of flow, etc. Reference is made to the NASSCO “Jetter Code of Practice”, a guide for the selection and operation of sewer Jetter equipment and the selection of nozzles for different applications.
- 3) **SEWER FLOW CONTROL** shall be performed as required to comply with the specifications (see specific specifications on SEWER FLOW CONTROL)
- 4) **TELEVISION INSPECTION** shall be required to identify and document sewer line conditions and/or is performed in advance of, in conjunction with and after completion of pipe joint testing/sealing, pipe repair and pipe lining activities. All defects and pipe conditions shall be documented in accordance with the NASSCO Pipeline Assessment Certification Program (PACP) including the specific date and time of the inspection.
- 5) **SEWER PIPE JOINT TESTING** shall be performed to identify leaking (infiltrating) pipe joints and shall be accomplished by applying a positive pressure to each sewer pipe joint, monitoring the test pressure and monitoring the test media flow rate (water test) or the pressure decay time (air test).
- 6) **SEWER PIPE JOINT GROUTING** shall be accomplished by the injection of chemical sealing (grouting) materials into and/or through structurally sound joints from within the pipe (packer method)
- 7) **SEWER PIPE JOINT SEALING** shall be accomplished either by great injection directly into the joint or by applying a mechanical seal over the joint area. (man entry method)
- 8) **LATERAL SEWER SEALING** shall be accomplished using special techniques and equipment such as inflatable packers that expand into the lateral sewer. Working from the mainline sewer, the grout is injected

between the inflated packer and the wall of the pipe sealing any leaking joint in the lateral pipe.

- 9) **LATERAL SEWER LINING** shall be installed from a clean-out, an excavation or from the mainline to form a new lateral pipe within the existing pipe.
- 10) **LATERAL/MAINLINE JOINT SEAL** shall be applied using robotic methods to seal the mainline/lateral connection joint.
- 11) **SEWER LINE SECTION SEALING** including lateral connections and manholes shall be accomplished using the flooding method with a net hydrostatic exfiltration head of at least 4 feet.
- 12) **PIPE POINT REPAIR** shall be performed to repair short lengths of damaged pipe by inserting of a section of cured-in-place pipe using and inflatable packer or by sectional lining methods.
- 13) **SEWER PIPE LINING** shall be performed in mainline sewers. Processes include Cure-in-Place Pipe (CIPP), Folded Pipe (FP), Slip-lining, Spiral Wound, Grouted- in-Place Lining Systems.
- 14) **SEWER PIPE REPLACEMENT** shall be performed for mainline pipe. Processes include, pipe bursting, pipe reaming, directional drilling.
- 15) **MANHOLE INSPECTION** shall be required to identify and document manhole conditions and/or is performed in advance of, manhole sealing, coating and lining activities. All defects and pipe conditions shall be documented in accordance with the NASSCO Manhole Assessment Certification Program (MACP) including the specific date and time of the inspection.
- 16) **SEWER MANHOLE SEALING** shall be accomplished by structure sealing with chemical grout, cementitious materials, resin soaked oakum and manufactured seals. Frame sealing is accomplished with applied polymers materials and mechanical seals.
- 17) **SEWER MANHOLE REHABILITATION** shall be accomplished by the application of sealing, plugging, patching, coating and lining processes with materials that will stop I/I, protect against corrosion and structurally renew the manhole. Methods include lining, coating lining and structural enhancement of the manhole using cast-in-place concrete, spray applied cementitious or polymer materials, cured-in-place linings, profiled PVS and HDPE grouted or glued liners and prefabricated fiberglass inserts. Work may include repair of manhole chimney and corbel, step removal or replacement, frame and cover removal and replacement.