

SECTION 02762
PIPELINE TELEVISION INSPECTION

PART 1 - GENERAL

1.01 WORK INCLUDED

This section covers the television inspection of sanitary sewer lines.

- A. The inspection of each line shall be by a television (TV) camera especially designed to accurately show the condition of the lines from the interior and with the ability to pinpoint the locations of line faults and necessary repairs.
- B. A sewer line joint means the junction of two adjacent lengths of sewer pipe. The term “manhole section” as used in these specifications shall mean the length of pipe connection two manholes.

1.02 RELATED WORK

- A. Section 02730 - Sanitary Sewer Pipelines
- B. Section 02732 - Sanitary Sewer Service Lines
- C. Section 02760 - Pipeline Cleaning

1.03 SUBMITTALS

- A. The Contractor shall submit for approval manufacturer’s brochures and specifications for proposed TV equipment to the Engineer of Record. Upon request this information will be submitted to Little Rock Wastewater for their review.

1.04 INSPECTION

- A. Immediately upon cleaning the sewer line, it will be televised to determine the condition of the line and location of existing service connections, etc.
- B. The sewer lines shall be visually inspected by TV camera. The section being inspected shall be suitably isolated from the remainder of the sewer line as necessary.
- C. The camera shall be moved through the line in either direction at a uniform slow rate not to exceed 60 feet per minute, by means of cable winches, or similar mechanisms. **Under no circumstances shall the camera be tethered to a hydraulically propelled or high-velocity jet cleaning device while the cleaning device is on.**
- D. The camera shall stop at each service connection and provide a view up the service line.
- E. Telephone, or similar suitable means of communications, shall be set up between the two winches, the pumping unit and the monitor control.
- F. TV inspection will be done one manhole section at a time and the flow in the section being inspected will be suitably controlled. Sewer flow will not exceed those shown below as measured in the manhole:

6" - 10" Pipe	1 inch
12" - 14" Pipe	2 inches
14" - 24" Pipe	3 inches
Over 24" Pipe	4 inches
- G. The Contractor will make all provisions for pumping or bypassing the flow around the manhole section and the cost shall be incidental to TV inspection. Contractor shall not be allowed to float the camera unless permitted by the Little Rock Wastewater.

PART 2 - PRODUCTS

2.01 TELEVISION INSPECTION EQUIPMENT

- A. The television camera and monitoring equipment shall be specifically designed and constructed to perform the work as specified. The camera shall be operative in conditions of 100% humidity and/or under water. The camera shall be small enough to pass through a 6 inch diameter sewer and shall be waterproof with a self contained lighting system capable of producing enough light to produce clear, bright, sharp pictures on the monitor. The lighting and camera quality shall be suitable to allow a clear, in focus picture of a minimum of 6 linear feet of the entire inside periphery of the sewer pipe. Picture quality and definition shall be to the satisfaction of the Little Rock Wastewater; otherwise, the equipment shall be removed from the line.
- B. The monitor shall be located within a temperature controlled television unit that will accommodate three people to watch the sewer line inspection. The monitor will have a 12 inch minimum viewing screen. The Engineer of Record and a representative of the Little Rock Wastewater will have access to view the television monitor at all times.

PART 3 - EXECUTION

3.01 GENERAL

All television inspection will be performed by Little Rock Wastewater crews during the initial phase of the television inspection. The Owner/Contractor will use the services of a company of his choice, that meets the specifications listed above, if any addition television inspection is required. See Section 01100 Subsection 7.03.

3.02 TELEVISION INSPECTION BY THE CONTRACTOR

- A. When additional television inspection is required, the Contractor shall furnish videos of the lines televised to the Engineering Services Department of the Little Rock Wastewater for review and comments. The video media shall be CD, or DVD format. Software used in viewing the video will be provided the Utility if necessary. Each video media shall be permanently labeled with the following information furnished:
1. Project Name
 2. Manhole to Manhole Designation
 3. Name of Contractor
 4. Date Televised
- B. The following information shall be recorded and visible onscreen for 10 seconds immediately before the start of televising each line segment:
1. Project Name
 2. Manhole to Manhole Designation (Number, Pipe Material, Size of Line, and Direction of Televising)
 3. Name of Contractor
 4. Date Televised
 5. Street and or Easement Location
- C. A continuous uninterrupted recording of distance from the insertion manhole shall be visible at the lower left corner of the screen at all times during inspection.
- D. The following information shall be provided in hard copy to accompany each tape:
1. Project Name
 2. Name of Contractor
 3. Date Televised
 4. Street or Other Location
 5. Upstream Manhole Designation
 6. Downstream Manhole Designation

7. Pipe Material
 8. Pipe Diameter
 9. Direction of Televising (Downstream or Upstream)
 10. Location of Service Connections
- E. Videos will become the property of the LRW and will be retained by the Department of Engineering Services. If the videos are of such poor quality that the LRW is unable to evaluate the condition of the sewer line or to locate service connections, the Contractor will be required to retelevise and provide an adequate video of the line.

END OF SECTION 02762