

DIVISION 33 – UTILITIES
SECTION 33 01 31 – TV INSPECTION OF SEWER PIPELINES

PART 1 – GENERAL

1.01 SCOPE

- A. Post construction Internal Sewer Audio/Video Taping is required for all installed sanitary sewer mains that have active flow as indicated in Section 33 31 00. The recording equipment used must be of professional grade as rated by the manufacturer, and meet the requirements herein.

1.02 QUALIFICATIONS

- A. Required taping shall be performed by a firm actively engaged, experienced and knowledgeable in video taping of sewer conditions on utility projects. The Engineer reserves the right to request sample work and investigate the qualifications of any firm chosen to perform this work.

1.03 SUBMITTALS

- A. Contractor shall provide two (2) digital video discs (DVD) and typed video logs of all televised pipe sections.
- B. Upon completion of the work, all video discs recorded during the television inspection shall become the property of the Authority.
- C. Audio Video Discs and typed video logs shall include the following information:
 - 1. Date of television inspection.
 - 2. Sewer section and manhole number.
 - 3. Distance along reach (tape counter footage).
 - 4. Label.
 - 5. Verbal confirmation of sewer section and television direction in relation to direction of flow.
 - 6. Verbal description of pipe size, type, and pipe joint length.
 - 7. Verbal description and location of each service connection and pipe defect.
 - 8. Type of weather during inspection.

PART 2 – PRODUCTS

2.01 EQUIPMENT REQUIREMENTS

- A. DVD shall be manufactured by a recognized manufacturer (i.e. Memorex, TDK, etc.) No used DVD or “seconds” shall be allowed.
- B. All video shall be in color and conform to NTSC standards. It shall contain no electrical breaks with color correctly balanced to white.
- C. The camera used for the inspection shall be one specifically designed and constructed for this type of inspection. The camera should have a pan and tilt head for inspection of the top, bottom, and sides of pipe and for looking up lateral connections. The camera shall be mounted on adjustable skids or be self-propelled to keep it in the center of the pipe. The camera shall be supplied with a lamp capable of being dimmed or brightened remotely. The lighting system shall be capable of lighting the entire periphery of the pipe. The camera shall operate in 100% humidity and have a minimum of 650 lines of resolution and tested at 400 psi.
- D. Audio will be recorded during field production and shall contain verbal information relevant to the conditions and items appearing on the video (i.e. identifications of place, conditions, etc.).
- E. When non-remote powered winches are used to pull the camera through the line, the Contractor is responsible to ensure that a clear picture of the sewer is maintained.
- F. A meter shall be used to accurately record the location of the television camera with respect to the referenced manhole.

PART 3 – EXECUTION

3.01 PROCEDURE

- A. All taping to be done following successful installation of gravity sanitary sewer mains and service lateral reconnections that have active flow. Conduct taping during periods of low flow to insure unobstructed views of the completed work. Provide flow control measures as necessary at no additional costs.
- B. Authority and Engineer shall accompany Contractor during taping. A 48 hour notice shall be given to the Authority and Engineer prior to video taping.
- C. Control direction of travel, panning rates, and zoom in-out rates in a manner that produces clarity of subject during playback.
- D. Properly identify all discs by disc number, date, locations and project name. Begin each disc with current date, project name and municipality.

END OF SECTION