

SECTION S935 - TELEVISION WATER MAINS

S935-1 DESCRIPTION

Work consists of visually inspecting water mains by means of closed-circuit television camera with video monitor and recording video on DVD disks, as required in the Contract Documents and as directed by the Project Manager.

S935-2 MATERIALS

S935-2.01 Televising Equipment

The television camera used for the inspection shall be one specifically designed and constructed for such inspection. All equipment entering the water main shall be specifically designated for use only in potable water installations. Lighting for the camera shall be self contained and suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be capable of operating in 100% humidity conditions. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the Project Manager, and if unsatisfactory, equipment shall be removed and no payment will be made for an unsatisfactory inspection.

S935-2.02 Video Recordings

Video recordings shall be furnished, in color, to the Project Manager on DVD disks. The DVD disks shall record footage with a visible screen footage counter

S935-3 CONSTRUCTION DETAILS

All camera equipment shall be spray or swab disinfected with a 5% sodium hypochlorite (bleach) solution, prior to inserting into the water main. The camera shall be moved through the pipe in either direction at a moderate rate, stopping when necessary to permit proper documentation of the water main's condition. In no case shall the television camera be pulled at a speed greater than 30 feet per minute. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the water main condition shall be used to move the camera through the water main.

When manually operated winches are used to pull the television camera through the line, telephones or other suitable means of communication shall be set up between the two access points of the section of pipe being inspected to insure good communications between members of the crew.

Record all runs on the same street with the camera pulled in the same direction on each run. Write on poster board and visually record the run number and location. Also record this information on audio.

Accurate distance measurements of the pipe defects, etc., are required. Measurement for location of defects shall be above ground by means of a meter device. Methods such as marking on the cable, which would require interpolation for depth of water main, will not be allowed. Accuracy of the distance meter shall be checked by a walking meter, roll-a-tape, or other suitable device, and the accuracy shall be satisfactory to the Project Manager.

Printed location records shall be kept by the contractor which shall clearly show the location in relation to a known excavation of each defect observed during inspection. In addition, other points such as locations of corporation stops, pipe fittings, and water main branches shall be recorded. A copy of the records shall be supplied to the Project Manager.

S935-4 METHOD OF MEASUREMENT

The quantity to be measured for payment shall be the number of feet of water main that is televised

S935-5 BASIS OF PAYMENT

The unit price bid shall include the cost of: televising the water main; all recording equipment and materials; dewatering and cleaning the existing water main to remove water, mud and other debris; disinfecting all components inserted into the water main; providing and maintaining protection required to prevent damage by vehicular traffic; and furnishing all labor, material and equipment necessary to complete the work.

Payment will be made under:

ITEM NO.	ITEM	PAY UNIT
S935.01	Televising Water Main, 16" Diameter and Smaller	Linear Foot
S935.02	Televising Water Mains, Larger than 16" Diameter	Linear Foot

ISSUED: November 8, 2010