

**SPECIAL SPECIFICATION****1113****Storm Sewer (Television Inspection)**

**1. Description.** Provide the televising and color digital video disc (DVD) recordings of existing storm sewer lines utilizing a color closed circuit television inspection unit to determine the condition of the lines.

**2. Work Methods.**

**A. Television Inspection.** The existing lines will be televised and recorded to determine the condition of the line and to locate existing connections. The inspector will observe the TV inspection in progress. Upon completion, the Contractor will contact the Engineer to review the DVD, if necessary.

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Perform television inspection one manhole (structure) section at a time. Control flow so that it will not exceed 25% of the pipe diameter at the time of televising.

When the depth of flow at the upstream manhole of the manhole section being televised is above the maximum allowable for television inspection, reduce the flow to allowable levels by temporarily plugging or blocking the flow, or perform the inspections during minimum flow hours.

**B. DVD Logs.** Provide an inspection report with each completed DVD, which is a written log of all pipe defects, sags, points of root intrusion, offset points, connection locations, and conditions recorded on a footage basis. This log will also denote the section being televised, flow direction, camera direction, position of taps or failures, pipe condition, and weather conditions. This report will be submitted to the Engineer for approval.

**C. Video Log Formats.** Submit one DVD copy of the recordings to the Engineer. Each DVD will be permanently labeled with the following:

1. Date Televised
2. Station to Station Location and Size of Storm Sewer
3. Station/Easement Location
4. Name of Contractor

5. Date Tape Submitted

6. DVD Number(s)

**D. Video Quality.** If the Contractor produces a video of such poor quality that the Engineer is unable to evaluate the condition of the existing storm sewer main or locate the existing storm sewer lateral connections, the Contractor will be required to re-televising the existing storm sewer main and provide a new DVD of good quality at no additional cost.

**E. Equipment Required for Video Inspections.** The Contractor will be required to have all materials, equipment, and labor necessary to complete all televising on the job-site prior to isolating the sewer manhole segment and beginning videotaping operations. A camera designed for televising sewer lines is required.

**F. Obstructions and Hindrances.** It is possible that some sections of the existing storm sewer lines cannot be televised. Therefore, existing storm sewer connections will have to be located on the ground by the Contractor.

There may be occasions during the inspection of a manhole structure section when the camera will be unable to pass an obstruction. At that time and prior to proceeding, televise the manhole section from the other direction in order to provide a suitable DVD of the entire manhole section to the Engineer. If more than 25% of the entire length of an existing storm sewer line cannot be televised because of obstructions, the Engineer will be immediately notified to determine if a repair is necessary.

**G. Video Equipment Operations.** The Contractor will be responsible for the inspection equipment having an accurate footage counter which displays on the monitor the distance of the camera from the centerline of the starting manhole. Adjust the camera height such that the camera lens is always centered (1/2 ID or higher) in the pipe being televised. In no case will the television camera be pulled or propelled through the line at a speed greater than 25 ft. per minute.

**H. Negotiability of Sewers.** The Engineer makes no guarantee that all of the existing storm sewer mains proposed to be televised and inspected are clear for the passage of a camera.

No separate or additional payment will be made for any excavation, man entry, or any other method, which may be required to retrieve video equipment that has been hung up, destroyed, or lost during the televising operation.

**3. Measurement.** This Item will be measured by the foot of line televised. The foot measurement will be determined from the distance recorded on the DVD log.

**4. Payment.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Storm Sewer (Television Inspection)." This price includes all labor, materials, equipment, tools, logging, and incidentals.