



Requirements for Video Inspections of Private Sewer Lateral (PSL)

PURPOSE AND NATURE OF WORK

1. To repair defects in the sanitary sewer system and reduce the inflow and infiltration of groundwater into the public sewer system.
2. References: (MBMC 14.07.030.C) All house connection sewers, industrial sewers, private sewage disposal systems and appurtenances thereto, now existing, or hereafter constructed, shall be maintained by the owner of the property in a safe and sanitary condition and all devices or safeguards which are required by this section for the operation thereof shall also be maintained in a good working order by the owner. It shall be the property owner's responsibility to maintain that portion of the sewer to the public main, including the connection to the public main.
3. Key defect types:
 - * "Break-in" type sewer main connections (Not a factory wye)
 - * "Orangeburg" pipe material (asphalt impregnated paper)
 - * Offset joints and bad gaskets
 - * Cracked and broken piping
4. This document provides information and sets forth standards for private sewer lateral (PSL) closed circuit television (CCTV) inspections submitted as part of the City of Morro Bay's Project Requirements. Sewer inspections are required to be performed whenever the property owner is seeking a building permit which will result in an increase of fixture units or sewer flow to the public sewer system. All required repairs shall be included on the approved set of building plans.

FIELD DATA COLLECTING PRACTICES

1. CCTV inspection recordings shall be submitted by USB flash drive or uploaded to the city portal, which allows for an electronic copy to be maintained on the City's server, or in the City's physical file. The following are acceptable file formats in order of preference: MP4, AVI, WMV, & FLV.
2. Camera, power source, lights, and other components for the video inspection shall be equipment that was designed and manufactured for the inspection of laterals and piping.
3. Lighting and camera quality shall be suitable to provide a clear, in-focus picture of the entire inside periphery of the sewer pipe for all conditions encountered during the work. Focal distance shall be adjustable from a range of 6 inches to infinity.
4. Lighting shall be suitable to allow a clear picture of the entire inner pipe wall extending at least 3 feet but no more than 10 feet in front, including black High Density Polyethylene (HDPE) pipe. Lighting for the camera shall minimize reflective glare.
5. All pictures (recordings) shall be properly focused and illuminated with good contrast, adequate color and tint, without distortion, or outside interference. The picture, while moving forward or on the reverse run, should have adequate light to clearly ascertain, with certainty, cracks or fractures and their severity, in addition to the obvious features (i.e., roots and joints).



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6. The camera lens must be kept clean and clear; any fogging due to oil, grease, or other water content or debris that obscures the lens shall be cleaned off before proceeding with the recording operation. The camera is to be operative in 100% humidity conditions.
7. The camera shall be moved through the line at a uniform rate but in no case at a speed greater than 30 feet per minute. The camera shall be stopped for a minimum of 5 seconds at broken sections, root intrusion, miss-aligned joints or other defects. The camera shall be stopped for a full minute at flowing, undocumented connections, and if needed, pulled back and re-televised to ensure a clear recording of the connection. If needed, the lens and lighting shall be readjusted to ensure a clear, distinct, and properly lighted feature. Camera units shall have adjustable supports and shall be set so the camera axis is generally at the centerline of the pipe.
8. The contractor and owner should coordinate to minimize or temporarily stop sewer discharge into the lateral while recording.
9. The inspection shall begin with the camera outside of the lateral, showing the property being inspected, with the camera operator clearly stating the following:
 - a. Date
 - b. Time
 - c. Location (address)
 - d. Lateral being inspected, if more than one lateral on the property
 - e. Contractor's Name
 - f. Pipe size
 - g. Material

The operator shall clearly identify the surface location of the following: all wye-tee junctions, taps, breaks, roots, or other defects.

10. Include data view display feature capable of showing on recording the following information:
 - a. Lateral address
 - b. Date and time of inspection
 - c. Contractor name
 - d. Inside pipe diameter and material
 - e. On-going footage counter (accurate within 3 percent)
 - f. Identify access and starting point for video inspection, e.g., upstream cleanout and location of cleanout
11. The preferred direction is forward from upstream to downstream. The camera operation may be cable-pulled or self-propelling, and may record PSL defects/details moving forward or on a reverse pull depending on the pipeline conditions.
12. Video televising of the entire length of the private lateral is required including the junction with the sewer main, unless there is an inability to complete the inspection due to the condition of the lateral, such as broken pipe segments preventing the continuation of the inspection yet demonstrating that the lateral is not free of leaks. If there are no access points, an installation of a new cleanout may be required at the building and other locations according to the UPC in order to perform a video inspection of the private sewer lateral.
13. The pipe diameter shall be obtained by physical measurement in the upstream (or downstream) Cleanout.



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14. CCTV submissions shall be labeled. Labels shall be typewritten or legibly hand printed and include:
 - a. Title: PSL CCTV Inspection
 - b. Street address
 - c. Date of inspection:
 - d. Tape provided by "Contractor Name"
 - e. Contractor/Plumber License No
15. Contractor Identification: The following information shall be provided:
 - a. Name of the firm
 - b. Firm's principal place of business
 - c. Contact's name and telephone number
16. Operator shall identify on tape all potentially illicit connections draining into the sanitary sewer system.
17. In the event that a PSL has been determined by the contractor to fail the CCTV inspection a hardcopy image of at least one of the identified PSL defects shall be provided in addition to the DVD. The provided image shall include the information from Item 9.