

ELITE GROUP

INSPECTION PROFESSIONALS



1625 Van Horne Ln, Redondo Beach, CA 90278
Inspection prepared for: Robert Abeyta
Real Estate Agent: -

Date of Inspection: 2/24/2021 Time: 12:00 PM
Age of Home: 1961 Size: 1064
Weather: Sunny and warm
Order ID: 234133

Inspector: Erik Armendariz
Phone: 702-800-9084



ELITE GROUP

INSPECTION PROFESSIONALS

Inspecting to a Higher Standard Since 1984

PLEASE READ THIS GENERAL INFORMATION

The purpose of a sewer scope inspection is to determine the condition of the property's sewer line from the exit of the home to the city main and to determine if the system is functioning as designed. This inspection often does NOT include sewer lines that run under the home, but only the lines that run from the main cleanout or access point only to the main city connection if reachable (no refunds will be given if the main is not reached).

A standard sewer scope inspection for a single family residence takes approximately 30 minutes to one hour to complete (time may vary and is based on accessibility to the sewer cleanout location). Lack of a proper cleanout access WILL prevent a complete inspection. Some areas may be accessible from a roof plumbing vent, however these inspections are often VERY limited and the camera may not be able to negotiate some turns within the sewer line piping.

Our Inspector/Technician will insert a mini video camera into the sewer line through the sewer cleanout (or sometimes a roof plumbing vent pipe). The cleanout may be located in the basement, crawlspace or outside where the sewer line exits the home. If no obstructions are encountered, we will inspect from the cleanout to the city main (if the main is reachable with the camera length limitations). If problems with the line are found, we will provide you with an approximate distance to the trouble area from the cleanout/camera entrance point, however we will NOT always provide a sonde pinpoint location on the ground. We advise you to consult with a plumber for additional fees associated with locating the actual pinpoint location of a problem.

Common sewer line problems are root intrusion, sewer sludge, pipe offsets, standing water, cracks, clogging and pipe separation. A functioning sewer line may have problems that do not currently affect the performance of the line, however, these problems may cause a future sewer backup leading to an unexpected emergency line repair or replacement. NOTE: This inspection cannot determine if a sewer line leaks.

When the inspection is complete, if present, you will be verbally informed as to condition of the sewer line based on your Inspector's/Technician's opinion of what he viewed at that time, this verbal information may change upon the technicians review of the camera video prior to filing the final report, so please read your final report AND watch the full video for full disclosure. Your Inspector/Technician will send out a final report within 24 from the time of the original inspection (if you do not receive your report, you are expected to contact us by phone at 800.494.8998 so that we may send it to you again). Still photographs and video will be included in your final report. Upon receiving the report, You ARE expected to view the report, watch the ENTIRE sewer line video and contact your Inspector with any questions, PRIOR to the release of contingencies. If any problems are found in the sewer line, we recommend that you contact a licensed plumber immediately for further evaluation or repair. Further evaluation may uncover additional defects.



GENERAL INFORMATION CONTINUED

Disclaimer: This is not a pass or fail inspection. This inspection does not cover plumbing codes or other building code violations. The Inspector/Technician cannot predict future problems or issues with the drainage system. If you view something in the video that you feel the inspector did not properly disclose on the written report, you ARE expected to contact your Inspector to discuss the condition and have the Inspector update the report as needed. Conditions can and often do change after the inspection; root intrusion, breakage, cracks, etc. can occur at any time without any previous signs during the inspection. The Inspector/Technician or The Elite Group are not responsible for damage found or damage occurring during the inspection. The hiring party is expected to have proper insurances and/or approvals for this inspection by the existing home owner. We do not provide pricing for any repairs.

A sewer camera inspection is intended to reduce risk, however cannot eliminate all risk. The Client acknowledges that Inspector will not observe every square inch of the sewer system and that Inspector could fail to see or note a defect, and that defects may exist that cannot be detected by visual inspection only. The Client agrees that the inspection and report in no way lessen the risk or likelihood of repairs or replacements being needed at any time in the future. The Client understands that in order for the Inspector to provide this service at a lower price than a licensed plumber, location devices will be used to mark location on a limited basis and the technician will NOT determine direction/schematic of any underground drain lines.





SEWER PIPE MATERIALS AND DESCRIPTIONS

Older Homes: Clay, Cast Iron, and Orangeburg

In older properties built before the 1970s, may contain clay pipe, cast-iron pipe, or a fiber conduit pipe called Orangeburg for the sewer line.

Clay and cast-iron are older types of sewer piping and can remain in the ground as long as they are still moving waste with no leaks. Orangeburg sewer pipe is worth replacing if you have the ground opened up, *even if* the Orangeburg appears to be in good shape.

Even older homes might have newer plastic sewer pipe. As the years wear on, sewer systems deteriorate. When replacement happens, it typically will happen with plastic pipe.



Clay pipe

Life Expectancy: 50 to 60 years



Cast Iron pipe

Life Expectancy: 50 to 75 years



Orangeburg pipe

Expected to last 50 years, however known to fail after 10 years

Vitrified **clay sewer pipe** is still used today, though as a do-it-yourself homeowner you probably will not want to choose this for your sewer line replacement. Clay pipe is heavy and tricky to cut. Often, your choice of sewer pipe is dictated by what your home improvement store has on hand, and none of the major retailers carry clay pipe.

While clay pipe may seem archaic, it is a viable form of sewer pipe. One great benefit of clay pipe over plastic pipe is that it is inert, making it highly resistant to chemical degradation.

Because clay sewer pipe has a porous surface, it tends to attract tree roots. Roots that impinge on clay pipe may eventually cause the pipe to crack.

Cast-iron sewer pipe, like clay pipe, is associated with older homes, yet it is still installed today.

One of the best things about cast iron pipe is that it is incredibly strong. A four-inch diameter sewer pipe can withstand well over two tons of pressure per linear foot. By contrast, clay, ABS, and PVC pipe are all subject to breakage.

Cast-iron sewer pipe is heavy and difficult for a do-it-yourselfer to cut. To cut a cast-iron pipe in the ground, you need a soil pipe cutter, a specialty tool that can be rented from supply houses for a small fee.

Cast iron pipe is non-flammable. This is not an issue for below-ground installations; but should you decide to continue the cast-iron into the house, you can feel secure knowing that cast-iron pipe will not melt in a fire.

Flawless, pristine **Orangeburg sewer pipe** is not something you often see. Typically, you find Orangeburg sewer pipe in a collapsed state after you dig up your malfunctioning sewer line.

Orangeburg, a fiber conduit pipe, was manufactured from wood fibers bound with a special water-resistant adhesive, then impregnated with liquefied coal tar pitch.

Orangeburg was favored by many plumbers of the time because it was lightweight to carry and easy to cut with a regular wood saw.

Fiber conduit pipe that was properly bedded in sand and pea gravel to reduce stress will last longer than poorly prepared installations. Most Orangeburg has a lifespan of no more than 50 years.



Concrete pipe

Life Expectancy: 50 to 75+ years

While it may be rare to see a concrete pipe used as a residential sewer line, some homes and locations may have used it. Concrete drain lines have been used for hundreds of years and continue to be used to this day in large scale construction and in many irrigation construction for the farming industry.

Newer Homes: Plastic, Cast Iron, and Clay

Homes built from the 1970s onward tend to have plastic sewer pipe. In some rare instances, you may find older cast-iron or clay sewer lines at a new house. The new house (and even some remodeled houses) will often have new pipe installed within the house envelope itself and extending a few feet into the yard. The yard area is where the old sewer pipe will start up again and continue all the way to the city sewer main.

In most new sewer line installations, you may find yourself being steered in the direction of PVC or ABS plastic pipe over clay and cast-iron. While the plastic pipe is undoubtedly easier to work with, clay and iron have strong points, such as longer lifespans and strength (for the iron).



ABS (Acrylonitrile Butadiene Styrene)
Color: Usually black
Life Expectancy: 50 to 70+ years



PVC (Polyvinyl Chloride)
Color: White, Green, Orange, Gray
Life Expectancy: 50 to 70+ years

Plastic sewer pipe for underground installations is available in both ABS and PVC. Both types of pipe have smooth interiors for excellent carrying capacity of solid waste matter. The smooth exteriors also help resist root anchorage.

Plastic sewer pipe is usually the material of choice for do-it-yourselfers since it is lightweight, easy to cut, inexpensive, and available at all home centers. As an added benefit, plastic pipe can be tied into cast-iron and clay pipe.

4 Reasons Why a Sewer Camera Can't Locate a Leak

1. A leak is water escaping the pipe through a hole, break, or crack. Since the camera is inside the pipe, it cannot see the outside of the pipe. Meaning, it can't see if something is leaking OUT of the pipe. It can only show what is going on INSIDE the pipe.
2. The inspector/technician is looking at a monitor displaying what the camera "sees." So the inspector/technician has to interpret, or guess, what he's seeing. He might think he see something that looks like a hole, break, or crack in the pipe. But keep in mind, this is your sewer system we're talking about. This is where your waste flushes and runs through. Trust us when we say it does not look good. And all that gunk and waste makes it hard to tell if something is a leak based solely on what can be seen on the monitor.
3. Sewer pipes can be made of multiple different materials (as explained above). So something very possibly might look like a hole or a crack or a break, but because the walls of the pipe are so thick, it's possible what the inspector/technician is seeing does not go all the way through the pipe so no water is leaking out at all. The result: no leak.
4. Particularly with cast iron, but this could also be true for PVC, there are years of buildup on the walls of the pipe. Calcium, soap scum, grease, debris... you name it, builds up on the walls of your sewer pipes. So any cracks or holes the plumber sees could very well be in the buildup and not the actual pipe.



Summary Page

The summary below consists of potentially significant findings. These findings can be a safety hazard, a deficiency requiring a major expense to correct or items I would like to draw extra attention to. The summary is not a complete listing of all the findings in the report, and reflects the opinion of the inspector. Please review all pages of the report as the summary alone does not explain all of the issues. All repairs should be done by a licensed & bonded tradesman or qualified professional. I recommend obtaining a copy of all receipts, warranties and permits for the work done.

Sewer Camera Inspection		
Page 8 Item: 1	Conditions of Sewer Line	<p>Heavy sewer line sludge observed in portions of the sewer line - cleaning recommended</p> <p>Debris material found in drain line at approximate distance of: 42 feet (see pictures)</p> <p>Root intrusion found in various areas of the sewer line, see pictures for more details</p>



Sewer Camera Inspection

1. Conditions of Sewer Line

Report Details:

Equipment used: Armorcam X3MS-100ST Micro Draincam, 100 foot Sewer Camera (head is not self leveling), Inspection performed by a Certified Sewer Scope Technician

Drain line materials (sometimes difficult to tell with older pipes): **ABS**, CLAY & CAST IRON

Clean out size: 2 inches

Approximate final length/distance reached during this inspection: 72 feet

The sewer camera was believed to have reached the city pipe connection with no issues

Offset found in sewer line at approximate distance of: 62 & 67 feet

Standing water was found in areas of the sewer line and may be caused by lack of proper drain pitch, annual sewer cleaning/maintenance is suggested, further evaluation and repairs may be needed if standing water problem worsens

Separations/steps/offsets observed in sewer line (this is a common condition at many pipe connections) - consult a licensed plumbing contractor for service options)

Clean out cap has normal wear for age with no major visible defects at the time of the inspection

An annual sewer scope inspection is recommended to monitor the condition of the sewer line

We recommend that you consult with a licensed plumber for further evaluation, cleaning and any repairs needed

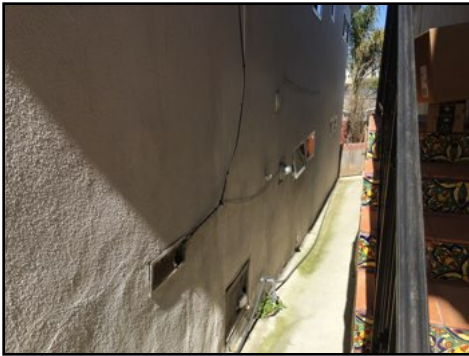
***Please follow the secure link below to view your sewer inspection video;

<https://youtu.be/yG-no-KpHGg>

Heavy sewer line sludge observed in portions of the sewer line - cleaning recommended

Debris material found in drain line at approximate distance of: 42 feet (see pictures)

Root intrusion found in various areas of the sewer line, see pictures for more details



Location of home used for inspection



Clean out used for inspection



Equipment used for inspection



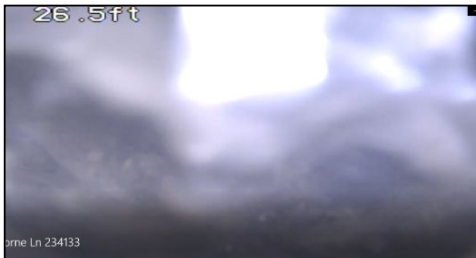
Sewer line sludge observed at 9.4 feet



Sewer line sludge observed at 10.7 feet



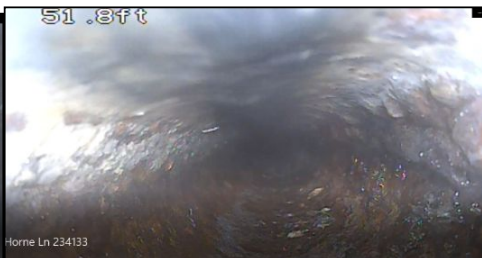
Condition of sewer line at 24.9 feet



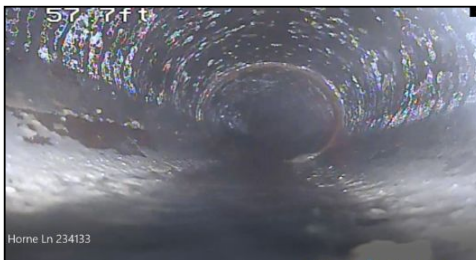
Standing water present at 26.5 feet



Sewer line sludge build up present at 42.0 feet



Condition of sewer line at 51.8 feet (cast iron piping)



Condition of sewer line at 57.7 feet (abs piping)



Offset & root intrusion present at 62.7 feet



Root intrusion present at 65.7 feet



Root intrusion present at 66.0 feet Offset and root intrusion present at 67.0 feet Root intrusion present at 70.3 feet



Believe to have reached main city sewer line at 72.0 feet

Glossary

Term	Definition
ABS	Acronym for acrylonitrile butadiene styrene; rigid black plastic pipe used only for drain lines.