

Weeks

Plumbing Drains...by Inspector 613.290.3697

I had two questions from homeowners this past month that had similar plumbing problems. One from Wakefield and one from Chelsea. Both had to do with the drainage systems. In one case the complaint was that the drains were not draining properly and a smell was coming from a sink. In the other case it was a concern of very slow draining toilet but the other drains were just slow. Both callers had a problem with their plumbing vent pipe. The problem they were having was that this vent pipe was freezing up. With the cold weather we have been having I was not overly surprised. The vent pipe is the plumbing pipe that extends through the roof or at best above the roofline. The function of this pipe is to let air into the drainage system. Without this air your drains will not drain effectively.

The example I often give is that of a straw being placed into a full glass of water. The straw will fill with water as it enters the glass. If you put your thumb over the top of the straw and carefully lift the straw up, out of the water, the water will stay in the straw. If you then release your thumb from the top of the straw the water will drain.

This same concept applies to your home drainage system. If the main stack becomes plugged or blocked you will compromise your drains ability to clear properly. In the case of the smelly sink my investigation concluded that the draw of the water and its need for air actually sucked the water right out of the sinks P-Trap that curved pipe under the sink, allowing sewer smells and gases into the house. The other issue was that the vent pipe in the attic was above the insulation horizontally and only a three inch pipe vertically through the roof. The best solution would be to insulate the pipes in the attic by lowering them into the attic insulation where possible and wrapping them with insulation everywhere else. Then change the 3 inch pipe to a 4 inch pipe on the vertical section as it goes through the roof. This will significantly reduce the frost build-up at the main stack and keep it from freezing.

With the case of the very slow toilet and marginally slow sink and shower drains, the caller was convinced that the septic tank was full or plugged and needed pumping. I concluded that here too the vent pipe was frozen. This was an older upgraded cottage with an old cast iron vent stack, very short and terminating just above roof line, at only 3 inches. One solution would be to pour hot water down the vent pipe from the roof. That; however, was not an option for this senior citizen, nor would I recommend anyone but a professional get up on a roof at any time of the year.

My solution to this one was dicey but it worked quite well. I suggested that she run the shower with full hot water for 10 to 15 minutes. The bathroom was directly below the stack pipe. This ended up producing enough steam to actually melt the frost build-up in the stack thus allowing a clear draw of air into the system. The toilets were tested and got a good clean flushit worked !!! " Inspector Weeks Is On The Case "

Peter Weeks has been a general contractor since 1988, he has been doing **Residential Home Inspections** for about four years. He is an Associate Member of OAHI (Ontario Association of Home Inspectors), CAHPI (Canadian Association of Home & Property Inspectors) and a member of the BBB in Good Standing.

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