Why are my water pipes freezing?

Last winter my bathroom sink water pipes froze. This hasn't happened before. I thought having insulation blown into the walls would keep my pipes from freezing. What happened?

Joe Frege, Chattanooga, TN

First off, water pipes should never run through an outside wall if freezing weather is a possibility. But, given that they're already there, here's an anti-freeze strategy and maybe an explanation for your particular problem.

The pipes have to be insulated from the cold exterior side of the wall cavity, and kept warm with the heated interior air to keep them from freezing. Your blown-in insulation probably did a better job of keeping the pipes cold rather than warming them.

To correct the problem, first shut off the water to the

bathroom pipes and cut open the cabinet back and the drywall to expose the plumbing. Open the hole gradually to avoid accidentally cutting the pipes or electrical wiring. A keyhole saw is the safest tool to use for this. A reciprocating saw is faster but can cut into a pipe or wire very quickly. Size an opening so a return air grille will cover it when you're done. Remove the existing insulation and then work rigid insulation between the pipes and the exterior sheathing. You'll probably have to use several pieces. Remember, you want the warm air to circulate along the pipes, so don't put insulation between the pipes and the interior. Also, seal all holes and cracks on the exterior side so cold air cannot penetrate. If you can't work within an opening small enough for a return air grille, open more of the wall.

A return air grille allows warm air from the house to circulate into the wall cavity. If this grille is inside a cabinet, you might have to install an additional grille on the face or side of the cabinet.

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