

# RESALE HOMES

Ground water seeping into a house's foundation can rot the concrete block and wreck new drywall. Dealing with it adds to renovation costs but, if ignored, it will get progressively worse

## Basement blues

### Reno Diary

WEEK 27

BY CATHERINE ERDLE

One step forward, two steps back. That's how it feels this week, as my elation at seeing the drywall go up (at last!) is considerably tempered by yet another problem with the house.

We need to waterproof the home — and this involves digging a deep trench around the perimeter.

We've known we had a problem with the basement for quite some time. In fact, from day one, the basement smelled very damp. In areas where the concrete block foundation was exposed, there were signs of efflorescence — the white flaky powder caused by mineral-rich ground water making its way through the porous blocks. In some rooms, the walls looked and felt damp.

In other spots, we discovered

that entire walls were rotten due to moisture.

Initially, we thought the problem was with the eavestrough downpipes, which went straight into the ground. We repositioned them to flow away from the house. Although this helped dry the wall somewhat, the dampness remained.

While digging the foundation for the addition, the contractors found that the home's original weeping tiles were no longer working. The tiles, which actually aren't tiles but hollow clay pipes, were completely filled with wet sand.

So, even though I wasn't exactly overjoyed with the idea of spending even more money on the house, I realized this was a problem that couldn't be ignored.

I called in several waterproofing companies, and was surprised that each one had such different opinions on how to solve the problem. One suggested waterproofing from the inside, so we wouldn't have to disturb the garden or stone walkway. (But is that such a great idea? The water will still come through the foundation walls.)

Another fellow, whose price was \$6,000 less than our highest quote, said we should just dig out and wa-

terproof those areas where the walls look the wettest. (But won't that just make the water go elsewhere?)

Angelo Garaci, owner of [Watertite Waterproofers](#), made the most sense with his solution. He explained that houses are under constant hydrostatic pressure — which means water's always trying to get in. He said it's like wearing a rubber glove and sticking your arm in a bucket of water; the pressure will make the glove cling to your hand.

So the secret to waterproofing is to relieve that pressure, ideally by eliminating all soil contact with the walls. He said they'd dig a trench around the house (except the addition, which has already been waterproofed) and repair, coat and then protect the walls with a polymer plastic membrane so that no soil would touch the walls. Any water that reached the new membrane would collect in PVC weeping tiles, encased in a filter, at the gravel-bedded footing and drain into the storm system of the house.

Mr. Garaci, 37, who started working for his brother's contracting company as a teenager, realized a good business opportunity when he started [Watertite Waterproofers](#) eight years ago. The home renova-







Part of the exterior waterproofing shows above ground. Houses are under constant hydrostatic pressure — which means water's always trying to get in.

tion boom was well underway, and he saw that homeowners were unwittingly creating water problems by fixing up their basements.

In an uninsulated or poorly insulated basement, enough heat escapes through the foundation walls to keep the soil adjacent to the walls frost-free throughout the winter. However, once that basement is insulated, the soil is more likely to freeze. With the spring thaw, minor movement along the foundation walls can create hairline cracks. Water starts to make its way through those cracks. That water builds up throughout the year, and

there's an even greater freezing problem the following winter. "It's a problem that's progressively worse when left unchecked," said [Mr. Garaci](#).

He said he's seen countless cases where new drywall, insulation and framing had to be torn out because of mould. With a renovated basement, homeowners "created the perfect environment for mould to grow — dampness, limited light, limited air circulation. And they're feeding the mould growth with the cellulose-based products that they used to finish the walls with, like insulation and two-by-fours."

He said most homes in the city have water problems. "It doesn't matter whether it's a \$180,000 bungalow or a \$3-million mansion. They all leak. It's a problem everybody shares," he said. "It's an endless market."

[Mr. Garaci](#) said we're lucky that our contractors recognized that our moisture problem had to be fixed, rather than just hurrying to get the house completed. So, although it's one step forward and two steps back, at least we know we've taken the right steps.

*Special to The Globe and Mail*