

Your foundation vs. monsoon

Most of us find the wet, windy, dark monsoon weather an ugly inconvenience. But our homes suffer far more than we do during storm season.

We expect our roofs, windows, patios and landscaping to take a beating during the downpour. Yet the damage we can't see is potentially worse than anything we can. It's under the house.

The health of your home's foundation has everything to do with the soil it sits on. And how much trouble that soil will cause your home has everything to do with whether it's wet or dry.

This monsoon, don't let it get wet.

Much of the soil we build our homes on in the desert includes lots of clay, which is prone to swelling and shrinking. When it gets wet, it swells and "heaves," and when it dries out again, it shrinks and "settles."

So does whatever is on top of it — including your home.

In Phoenix, some homes sit on construction fill that's not stable enough over the long term to support the weight of a house. In Tucson and points south, much of the soil is collapsible, so instead of holding a building up, it can literally drag it into the ground.

It doesn't have to. The key is to keep the soil under your home from getting wet. During the monsoon, that's a challenge.

Here are seven ways you can prevent heavy, blowing rain from finding its way under your house, where it can cause the soil to swell or collapse and result in damaging heaving or settling.

1 Gutters with downspouts are a must for homes built on expansive clay soil. Attach the downspouts to drains that will carry the water far away from the foundation.

Inspect the perimeter of your home after it rains. If



If the soil beneath your home includes expansive clay, one preventive measure you can take is to install gutters and downspouts to carry rainwater away from the foundation. ELENA ALIAGA



On the House
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you see water collecting in ponds near the house, have your yard regraded to divert the water away from it. A subtle slope — as little as 2 percent — can solve the problem.

2 Likewise, if you're building a patio or sidewalk, grade it away from the house. Don't install any perfectly

flat, hard surface near your home.

3 Same goes when you install a swimming pool. Install a drainage system that will collect and send the water that hits your pool deck out to the street rather than under your house.

And there are other ways

that water can wind up under your house.

4 A running toilet or a leaking faucet sends a steady drip of water down the drain all day and all night. If your home has a septic system, all of that water winds up in the drain field outside, which can result in a soggy yard and even standing water. Standing water in your yard can create a disaster if it seeps under your house. Fix every plumbing leak in your house before the monsoon rains begin.

5 Moisture from an evaporative cooler, which adds moisture to the indoor air, can cause a wood-framed door or window to warp, swell and stick. Don't take this as a symptom of a foundation prob-

lem — yet. If you have an evaporative cooler and find no other signs of settling, run your air-conditioner for a few weeks to see if the doors and windows straighten out. Or wait until the cool season, when your cooler isn't running. If the doors and windows don't straighten out within three to four weeks, call a foundation specialist to learn if the problem is a signal that your foundation is settling.

6 Even a leaky roof can send water trickling behind walls all the way down to your foundation. You might not even know the roof is leaking if this happens, so have a professional inspect it before the monsoon.

7 Watering a garden too close to the house can put moisture under the foun-



Expansive soil can lead to cracks in the foundation. THE REPUBLIC

dation. Plus, the shallow roots of plants can grow under a foundation or floor slab and cause it to heave. Plant flowers, bushes and trees at least 2 feet away from the house. If you want a garden closer to the house, build a rock garden and include only succulent plants that need no supplemental water.

Keeping water away from your foundation takes some planning and effort. But it's far less hassle — and can be tens of thousands of dollars cheaper — to prevent a house from heaving or settling than it is to repair the damage once it does.

For more do-it-yourself tips, go to rosieonthehouse.com. An Arizona home building and remodeling industry expert for 35 years, Rosie Romero is the host of the *Rosie on the House* radio program from 8-11 a.m. Saturdays on KTAR-FM (92.3) in Phoenix, KQNA-AM (1130) in Prescott, KAZM-AM (780) in Sedona, KAFF-AM (930) in Flagstaff and KNST-AM (790) in Tucson.