

MAKING THE GRADE

The importance of proper grading around the home

Proper grading and draining around a home is one of those things that few people see when shopping for a home, and yet it can have one of the most significant impacts on a home's condition and the health of its occupants. As a professional home inspector since 1994, I would say improper grading is one of the more common defects I find.

Improper Slope

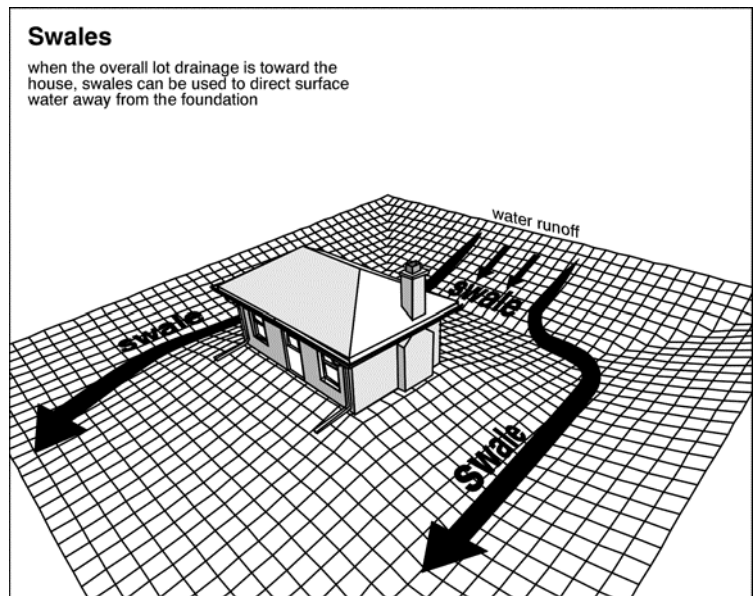
When the grading of a lot slopes toward the home, it is called negative slope (or improper slope). In times of heavy rain or thaw, negative slopes can allow flooding to occur. Even during moderate conditions, water that runs toward the home saturates the ground around the foundation, which over time will damage the foundation with freezing and the natural corrosive properties of water. Saturation around the home also encourages seepage into basements, crawlspaces and even under slab foundation homes. Seepage can rot wood framing and develop harmful mold problems, and cause excessive floor sweating in slab foundation homes, causing the inside flooring to rot, mold & deteriorate. Water that freezes is extremely powerful and can lift a whole house, causing significant damage.

It would be a mistake to assume that just piling more dirt around the house would solve the problem. Some houses do not have room below the siding to create a positive slope away from the home by adding more dirt. Covering up the siding with earth or landscaping materials could cause more damage could occur with ground moisture rotting the framing of the house. Or in the case of brick, water seeps into the porous brick then freezes, deteriorating the brick. Having the ground too close to, or in contact with the siding promotes wood destroying insect infestations as well. So, just applying more dirt around the home is not always the best remedy.

Proper grade

The grade away from the home should not be less than 1 inch per foot of the grade for a distance of about 6-10 feet. If this condition is not possible with the level of the house siding, more serious re-grading and lot swale improvement will need to occur.

Sometimes I have inspected homes that were originally built too low on the lot, with elevations that put the house at the bottom of a bowl. Solving these kinds of elevation problems can be expensive and usually involve a landscape engineer.



Routing downspouts

Drain water from gutters far away from the house, making sure the water doesn't run back. It may be necessary to install dry wells or subsurface drains to carry water out to the street or city storm sewer systems. Check annually to ensure the subsurface drains are clear and working properly.

Keep debris away

Debris and glass clippings can retain water and promote seepage and insect infestations.

Sump Pumps

Sump pumps are designed to drain naturally occurring ground water away from the foundation's footer, not necessarily to handle the excessive amount of water run off a normal size roof can shed. If water is permitted to run up against the foundation, the sump pump could be over utilized. If the sump pump fails, the basement or crawlspace could flood pretty quickly. Reliance on your sump pump to effectively discharge the water from a 1/4 acre lot, is well, a little like playing Russian roulette.

