



## Home Inspection Services Newsletter

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August 1, 2006

### Educational Section: **Grading and Drainage**

The ground at the foundation should slope away from the foundation at a slope of **1 inch per foot for 6 feet**. This “minimum grade” ensures that **water is directed away from the structures foundation**. Additionally, all home entrances should be several inches above the outside grade. In Arizona, many homes sit on flat lots and grade is considered neutral. Most homes do not have gutters and downspouts to direct “roof” water away from the structure. Many homes have swimming pools that take up most of the rear yard, and the pool decks slope away from the pool and towards the home. The landscaping of some homes incorporates mounds (particularly in the front yard) that direct water to the foundation.

We live in the desert where the average rainfall is on the order of 8 inches per year. **So what's the issue?**

We can receive **four inches in an hour from a local cloud burst** and as water cascades off the roof, much of that will be concentrated near the structure. Remember, most of the valley receives more rain than is officially recorded (at the airport).

**For slab on grade foundations**, the major concerns are water penetration under the foundation's stem wall and slab. In the presence of expansive soils this can be very damaging as the soils swell and contract thereby moving and damaging the foundation. Even with non-expansive soils, the presence of moisture is conducive to pests and organic growth.

**For homes with basements**, unless foundation footing drains are well designed, installed, and drain (or pump) to an area that will accept the rain water, moisture will seep into the basement area during heavy rains.

**For manufactured homes with crawl spaces**, water under the home (especially if ventilation is marginal) will promote organic growth (mold) and will make the structures wood susceptible to decay.

**We suggest** that during the next rain storm, take the time to observe the drainage around your home and make the appropriate improvements.

## Inspection Item for August:    **Trees & Branches**

(Each month, we select appropriate items so that over a 12 month period you are reminded to attend to most common household maintenance/inspection items.)

**Trees:** The main concerns with trees is damage to the foundation from the roots if the tree is planted too close or damage to the structure from falling into the house in a windstorm (think monsoon). If you have large trees proximate to the home, we suggest evaluation by an arborist.

**Tree Branches:** Branches that are close to or touching the home **will cause damage** during windstorms. Rodents love to climb them as well.

**Vines:** I know, they're beautiful. The roots can cause damage to the siding, enter window framing, creep under roofing, etc.

## Question of the Month:    **What is roof flashing?**

The ideal roof has no penetrations and no transitions (where the roof changes direction or abuts another structure). In the real world of plumbing vents, chimneys, skylights, hips & valleys, and HVAC units, the roof/roofing material is not continuous presenting opportunities for water to enter the structure. **Flashing** is used in these areas to **direct water to the roof surface** (not under the shingles or tiles). Flashing is made aluminum, tin, galvanized steel, rubber, rolled roofing, etc. Often, it is made or modified on site. Inspectors pay particular attention to the parts of the flashing that can be viewed and to the roof sheathing (in the attic) that is proximate to the flashed area (for signs of water leakage).

## Safety Tip of the Month:    **Fire Extinguishers**

I seldom see these critical devices during a home inspection. We strongly recommend accessible fire extinguishers in the garage and in the kitchen. Both of these areas are more prone to fires. [Raffle for](#)

## August:    **Bottle of Red Wine– Mark's Pick**

To enter, send a reply email with "August Raffle" in the subject along with your name and Ph# to [Lauren@hainspect.com](mailto:Lauren@hainspect.com) John F. from Scottsdale was July's winner.

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