



Whitepaper:

## Inspect-It 1<sup>st</sup>'s Top 5 Exterior Home Maintenance Tips

*By:*

John B. Elson, ACI

National Technical Leader and Director of Education

October 1st, 2011

Inspect-It 1<sup>st</sup> Property Inspection  
7100 E. Pleasant Valley Rd.  
Suite 300  
Independence, OH 44131  
877.392.6278  
[www.inspectit1st.com](http://www.inspectit1st.com)

## **Introduction**

No matter where you live in this great country and no matter the type of home, every dwelling needs to be properly maintained. The lack of proper maintenance results in many different challenges, including water intrusion, safety concerns and health issues. A properly maintained home provides greater comfort, extends product life spans, lowers operating costs and maximizes the value of your investment. This is especially important when it comes time to sell the home. Properly maintained homes command higher selling prices and sell faster.



## **Exterior**

The exterior of the home includes many different components, including foundation, roof, chimney, cladding, landscaping, windows and doors. Here are five of the most important maintenance suggestions based on Inspect-It 1<sup>st</sup>'s twenty years in the property inspection business:

### *1. Roof*

Your roof protects the home underneath it from the effects of the weather. Rain, snow, ice, wind and sun all contribute to roof defects. Small concerns, such as deteriorated flashing on a roof vent, may result in a major leak. The roof on your home is the most important component and the most often overlooked. The generally accepted national average for full roof replacement is \$11,500 for an average 3,000 square foot roof. Costs vary by design, size and materials. To minimize surprises and future repair costs, we recommend that a professional walks your roof at least once a year to assess the condition of roof coverings, flashings, protrusions and drainage. All trees that overhang the roof should be trimmed back and all debris on the roof should be removed as it impedes proper drainage. The simple act of keeping the roof clean is very important in terms of roof leaks.

Most roof leaks are the result of defects at protrusions: Roof vents, chimneys, drain waste vents, skylights, turbines and other openings. Debris that impedes drainage may cause water to build-up at an opening and cause a leak. Unless the exterior roofing material is badly deteriorated, protrusion defects are most often the culprit. Regular inspection and repair of defects is essential in minimizing future repair costs.



Above photos:

Upper left: Missing asphalt shingles

Upper right: Tree debris at roof scupper (drain)

Lower left: Tree overhanging roof's parapet wall

Lower right: Protrusion without proper jack boot (flashing). As a result of this error, roof has an active leak.

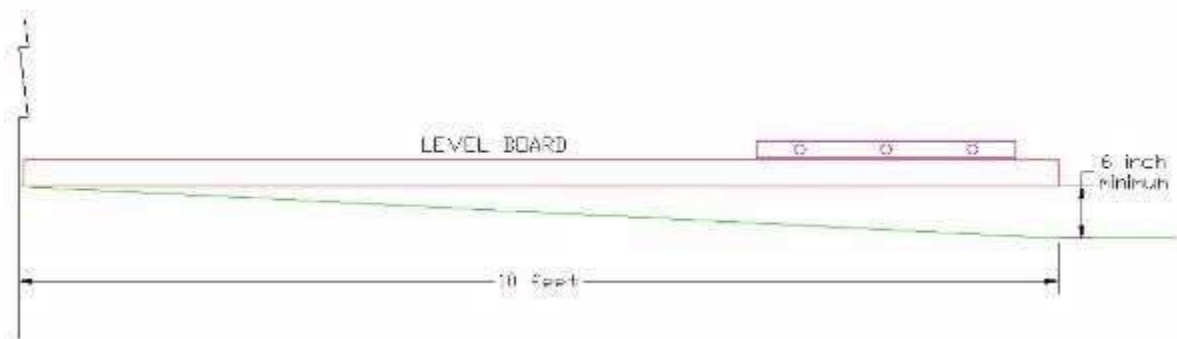
## 2. Gutters & Downspouts

If your roof has gutters and downspouts, we recommend the continual monitoring and cleaning of these components. Leaves and branches can become stuck in gutters and cause the gutter system to clog. Gutter seams can open, gutter hangars can fail and gutter slope can change over time so that the gutter is no longer routing water efficiently to the downspouts. In colder climates, lack of flow can contribute to ice damming and leaks.

An inspection of your gutter and downspout system should include the following:

- Make sure gutter seams are intact and that seals at downspout connections are complete.
- Make sure gutters and downspouts are properly attached to the home and that gutters are properly sloped towards the downspout. Slope should be at least ½" downwards for every 10 feet of run.

- Be certain that gutters are free of water and debris. Evaluate the downspouts including where water runs out and how this flow may impact the foundation, grade and drainage.
- Ensure that downspouts are sloped at least 6 inches downwards for every 10 feet away from the home. Be certain that downspouts are not directing water against the foundation walls as this is a common cause of basement leaks. Use proper downspout elbows and splash blocks to direct water away from the home and to minimize soil erosion.



Left photo: Partially disconnected elbow at downspout.

Right photo: Missing downspout elbow.

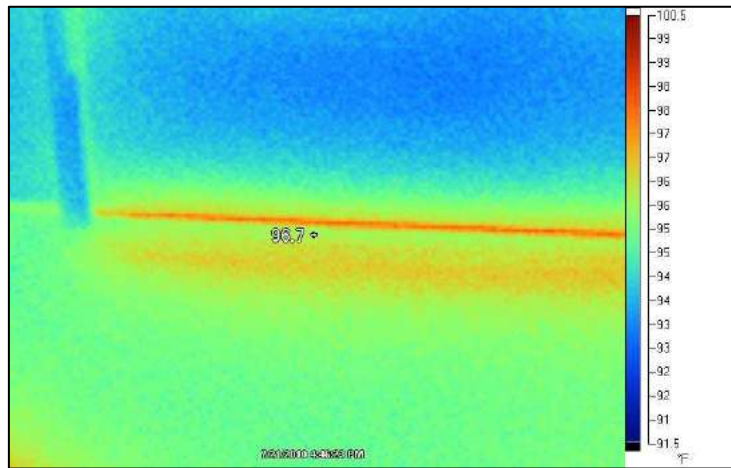
### 3. Windows & Doors

Windows and doors provide two main purposes. A fixed window provides a view of the outside/inside of the home. An operable door or window allows an air exchange between inside and outside and is a point of emergency egress. Window and door hardware, such as tracks, locks and hinges should be cleaned and lubricated at least once a year to ensure proper operation. Because a door or window is an opening in the building envelope, these components are a major source of energy loss. A basic strategy is to ensure the integrity of door edge weather stripping, including the

bottom of the door at the threshold. Ensuring that all doors and windows fully close is also important.

The transfer of heat by convection is the movement of heat through liquid and gas. Unless acted upon by an outside force such as a fan, hot air always moves towards cold air. Therefore, depending on the difference in temperature between the exterior and interior of the home, hot air will either exit or enter the home when the doors or windows are opened.

Homeowners should note any opening around windows or doors and take steps to seal that opening. In the infrared photo below, the small opening in a front entry door demonstrates the energy loss vulnerability of doors and windows.



The main entrance door of this home shows 96.7 degree heat entering from the exterior under the door at the threshold. This is a summer photo in Arizona and the interior temperature of the home is set for 78 degrees.

#### 4. Chimney

Fireplace chimneys are designed principally to exit the exhaust products of the combustion process, whether the chimney burns wood, natural gas, propane or other approved material. The products of combustion may include carbon dioxide, smoke, soot and ash. All chimneys and fireplaces should be examined and cleaned annually by a qualified chimney sweep. The examination should include checking for damage on both the exterior of the chimney and the inside of the fireplace hearth, throat and flue. Common defects include cracks on the chimney cap that may allow water to enter the chimney, missing spark arrestor/pest cage/rain caps on exterior flues and dampers that don't operate properly. Wood burning chimneys are especially prone to the build-up of creosote, a chemical compound that coats the inside of the flue and impairs upward draft. Heavy creosote build-up can lead to chimney damage and home fires. Creosote build-up is more significant when fuel products do not burn completely, so an annual cleaning is highly recommended. Creosote should be removed annually by the chimney sweep.



Photo: Chimney cap defects include cracks and holes and missing rain cap/pest cage.

## 5. Exterior Plumbing

Exposed plumbing at the exterior includes hose bibs, main supply lines and shut-offs, irrigation system valves and piping and water meters and their shut-offs. All plumbing components should be visually inspected on a regular basis for leaks. An easy check on the entire system is to inspect the water meter when all faucets, valves, water appliances and toilets are off. The meter should show no movement on the dial. If the water meter shows movement, there is likely a leak somewhere in the system.

Additionally, in climates where winter temperatures reach below 32 degrees Fahrenheit, exterior hose bibs and exposed plumbing should be winterized. This may include draining lines, covering exposed piping materials with insulation and locking hose bibs so that the system cannot be opened until warm weather returns. Hose bibs are a frequent source of leaks for homeowners in colder climates. Unless drained and properly insulated, any water trapped inside the pipe from the exterior to the interior is subject to freezing and may cause the pipe to burst.

### **Summary**

Consistent, attentive homeowner maintenance is one of the easiest ways to maximize the investment in your home. Staying on top of the systems and components of your home pays dividends far into the future.

Inspect-It 1<sup>st</sup> is the nation's premier property inspection franchise. We offer a diverse array of services to clients in both the residential and commercial property inspection business. Each office is individually owned and operated. Please visit us at [www.inspectit1st.com](http://www.inspectit1st.com) or visit us on Facebook or Twitter. *Before you buy or sell, Inspect-It 1<sup>st</sup>!*

### **Links to Further Information**

The following list identifies a few resources that provide excellent information about common household maintenance tips.

<http://www.inspectit1st.com/maintenance-guide/>

<http://www.inspectit1st.com/buying-a-home/home-maintenance-checklist>