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Simple Steps for Keeping Warm

By: Patrick Breen

My role as a home inspector spans across three basic categories. One, evaluate for structural and system integrity along with the functionality of these components; two, inspect for system and environmental safety, and three, to help educate the homeowner about routine maintenance so that the structure continues to be stable, safe and efficient for many years to come.

During this cold time of year there is one area of the inspection that garners a lot of attention; and that is heating efficiency. There are many factors that influence energy efficiency, but besides replacing old furnaces or single pane windows the biggest influences are thermal integrity and air infiltration. In other words, how well is it insulated and how easy is it for the wind to blow through. Both of these factors are fairly easy to remedy if you know where to look and what to do.

Insulation is rated in R-Values, which basically means the materials resistance to heat flow. Heat rises so the first place you should look is in the attic. In this climate zone it is recommended that homes have a minimum of an R-38, and there are two types of insulation generally used: blown (cellulose) or rolled (fiberglass). Cellulose has an R-Value of 3.7 per inch while fiberglass has a value of 3.14 per inch. General rule is 10 inches of blown or enough layers of rolled insulation equaling R-38. If you have only one layer of rolled fiberglass add blown cellulose on top. This method helps seal all the small gaps between surfaces.

An unheated crawl space should have cross ventilation, so install a layer of fiberglass between floor joists. Remember, the paper side of rolled batted insulation needs to be against the floor – not on the outside. This will only trap moisture and give rise to deterioration of both the fiberglass as well as the wood flooring.

To stem the tide of air infiltration place weather striping around all four sides of your exterior doors. Foam tape can be added along the edges while different types a weather strips can be placed along the bottom. Go around the interior and exterior of every door and window to see if there are gaps that can be filled with rope tape or expanding foam.

Another area to check for heat loss are your electrical outlets. Remove the cover plates from outlets and switches on exterior walls during a cold or windy day. If can you feel a breeze or cold air coming through fill the gaps around the outside of the electrical box with expanding foam.

Realize that all glass surfaces allow heat migration. Layer your windows with drapes or covers to trap air between the glass and the coverings. Stagnant trapped air is a great insulator. With these simple steps you will go along way towards increasing the efficiency of your home, and keep in mind: a home that is easy to heat in the winter is a home that is easy to cool in the summer.