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ENERGY EXTRA

The Grand Valley's Energy Newsletter

Locating and Stopping Air Leaks

Brought to you by:

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With temperatures continuing to top out around 90 degrees, it may seem like this summer will never give way to winter but the cooler evenings are a reminder that winter is just around the corner. While energy bills are typically at their lowest during the month of October, now is a great opportunity to focus on reducing energy bills for the winter months ahead. This month we will focus on finding weak points within the building envelope of your home.

Air leaks in a typical residence account for 25 to 40 percent of the energy consumption. By controlling the sources of the air leaks, you will not only reduce your energy bills but you will also benefit through improved comfort, improved indoor air quality, and fewer condensation problems. The easiest way to determine how much air is leaking into and out of your home is to hire a home energy auditor to perform a blower door test. This test will pressurize your home so that the certified rater can tell you how much your house is leaking and where those leaks occur. These audits typically cost between $300 and $400 depending on the size of your house.

Another option in finding the air leaks is to use a feather or kid's smoke gun (the kind that creates smoke rings). Either tool is most effective on a day with a slight to moderate wind. The way to check for air leaks with the feather is to slowly move it around doors, windows, light switches, outlets, or any other penetrations or opening in the exterior walls. As you move the feather around these openings, you will see the edges of the feather move as you discover the source of the leak. If you are using a tool such as a smoke gun, you can create little clouds of smoke (water vapor) near the exterior walls and observe any movement made within the smoke. The smoke will move away from the point where air is penetrating into the home and towards the point where air is escaping the home. Keep in mind that both points are considered weak points within the building envelope and need attention.

Typical weak points within the building envelope include; doors, windows, outlet and switch covers, and evaporative cooler vents. Typical doors and windows can be improved with caulking around the edges and the installation of weather-stripping around the openings. Single-pane windows can be improved by adding storm windows, thereby creating a more economical double-pane window. Outlet and switch covers can be improved by installing foam gaskets under the cover plates. These gaskets can be purchased at most home improvement stores with perforated punch outs for switches or outlets depending upon the application. Most home improvement stores also sell magnetic vent covers that can be applied to evaporative cooler openings. Another tip for sealing the evaporative cooler opening, when you winterize the cooler, is to remove the vent cover from the inside ceiling and install a pillow in the duct, then replace the vent cover. The pillow will expand to the shape of the opening creating an insulated air barrier.

Taking the time now to locate potential weak points within your building envelope, will not only improve the comfort and quality of your home but will also provide years of savings. If you have any questions regarding these tips or other tips for improving your home, please contact Derek Elder at 242-0040.

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