

ASK THE INSPECTOR COLUMN FOR NOVEMBER 11, 2015  
HEADLINE: ARE BASEMENT WINDOWS IMPORTANT?

Nearly every home we inspect has windows that need some review, be it simple maintenance, like caulking and washing, to actual replacement. The cost of window replacement often takes many, many years to recover. The actual capital cost is far more than adding attic insulation, where the energy savings is recovered sooner. While I expect to hear from the window companies about this comment, it has some considerable merit. The other side of the coin is old windows that are leaking or damaged can cause additional problems in the overall opening. I have seen more than one opening where the window was removed to find that the frame under the window was rotted out, the insulation was soaked and there was damage to the actual wood plate supporting the wall. All of this adds considerable expense, over and above the cost of the actual replacement window.

Windows offer more than just light and ventilation. In addition, they are a possible escape route in the event of a fire or other emergency. Something that many homeowners do not understand is that windows are part of the "Stack Effect." Like wind, stack effect moves considerable amounts of air through the home or building envelope, as we commonly say. In the winter, the warm air created by the furnace or heating system, which is less dense than the cold exterior air, moves upwards through the home. This flow of air enters at the base of the building, entering through openings at the base plate where the wood frame meets the foundation, through wall vents like the dryer and, of course, through windows. In fact, windows are the largest avenue of cold air travel in the stack effect of the home.

While this air flow happens every day of the year, it has more effect in the winter months when a home is closed up, often tested at 2-3 times the air exchange effect. Air entering the building makes the lower levels cooler. Hence, the thermostat gets turned up and you wind up increasing the air flow. Second level homes find the rooms upstairs hotter.

This brings us to basement windows and their importance. Some weeks ago, I ran into a window representative in Kingston at an inspection. The client brought him in, as they knew the windows in the home needed to be replaced. I commented about the basement windows. He smiled and commented, "Most people only want to spend on windows they see every day." He adds that, while he knows the value, it comes down to who gets the sale if he pushes on this issue.

I would hazard a guess that over 75% of homes did not get the basement windows done when the rest were replaced. Basement windows, especially in a home built before the 90's, are likely glass sliders; possibly single glazed and almost certain to be wood frame, usually not pretty.

So with the cost what it is, other than the air flow issue, why bother? The first reason is maintenance. It is eliminated, for the most part, when they are replaced with vinyl windows, which are the most commonly used today. Energy savings, while small, are still a factor. As well, old windows are often painted shut, making escape difficult if needed.

Kingston has opened up to the possibility of upgrading the basement for additional living space and, in particular, for rentals, especially for singles. The size of the window now becomes a concern. It must have no less than 3 square feet of clear egress for occupancy in a bedroom. If the windows are near or below grade, then a window well is usually needed. This well will capture snow and ice and, again, I have seen hundreds of old windows where the water stains are evident under the window inside. I suggest the addition of a clear Plexiglas cover over the window well. It will capture some solar heat and keep the window well clear over the winter allowing natural light.

Now that the value of upgrading basement windows is more obvious, sizing is the next issue. I see time and time again where the "stock sizes" available at the big box lumber stores have been made to fit. This usually reduces the window size, thereby reducing the natural light considerably, never mind the egress issue. This brings up a negative to any basement window and that is the issue of security. Window bars are not that common, but we do see them. Often the keys for the lock are missing or the bars are fixed so they cannot be removed in an emergency. Most of the add-in style bars are more for peace of mind than security, since a good swift kick by an intruder will remove them when they are intent in getting into the home.

All to say that the cost of basement windows for most homes, particularly when done during a complete upgrade, is not that substantial in relation to the overall benefits. Taken together, the value in reducing the stack effect and thereby the heating costs in a home, reduced maintenance costs and the increased security all make the outlay worth the investment.

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