## How to ensure a successful basement remodel

Americans continue to fuel remodeling spending across the country, driven by upward growth in real estate prices and the rising cost to trade up to a larger home. Basement renovations are expected to be a hot trend in 2016, as buyers look to maximize available living space rather than move, and as young buyers look to offset the cost of homeownership with potential income suites.

While finishing a basement can be a great alternative to moving -- especially if you love your neighborhood there are some challenges homeowners must be aware of when tackling below-grade living spaces. Choosing the right products is vital to the comfort, safety and function of your new living area. Look for products that help to maximize energy efficiency and protect against moisture, fire and noise.

Here are the top points

to consider to ensure a successful basement renovation.

Waterproof it. Check the interior foundation and floors to make sure there are no existing moisture issues, water damage or mold problems. Address any primary moisture issues before finishing the space. Examine grading to ensure water runs away from your foundation.

Insulation is key. Insulation plays a critical role in making your basement feel comfortable, while keeping it safe and dry. For the best results, install a rigid board insulation, like Roxul ComfortBoard IS, against the concrete foundation before you stud the wall. The board is mechanically fastened or adhered to the concrete foundation wall, which prevents thermal bridging through the studs, providing better thermal performance. Finish with a moistureresistant and dimensionally stable insulation between the studs, like R14 Comfortbatt, to protect against common basement issues such as mold, mildew and rot.

Choose a functional design. Draw out plans, carefully taking into consideration any low ceilings or small windows. Try to incorporate structural features, such as attractive wood beams, into your design. Keep the space as open as possible. Select lighting that provides a bright, airy feel.

Don't forget to soundproof it. Soundproofing is the ultimate solution to maximize your basement's quiet and privacy. Whether your newfound space will function as a home theatre, music room, home office or playroom, it will benefit from quality acoustic insulation, like Roxul Safe 'n' Sound. Not only is it highly effective, but it's also easy to install.

Consider fire safety. Since many basements are now being renovated as income suites, fire protection is also a vital consideration. Whenever possible, select building materials with a high fire-resistance rating and look for products that will not off-gas or contribute to toxic smoke in the event of a fire. Include additional exits in your renovation plan and educate yourself on your local fire code.

Before you start your renovation, be sure to check with your municipality to secure the right permits and to ensure that you're complying with local bylaws and building codes. Finishing a basement can be a smart renovation, if done properly, adding to a home's value, increasing its function and providing greater enjoyment or income potential.

## Prepare cooling systems for warm weather

One springtime task on homeowners' to-do lists is checking cooling systems to ensure they are ready for summer. Proper maintenance of cooling systems is essential to saving energy and keeping utility costs down. Fortunately, homeowners need not be certified HVAC technicians to maintain their cooling units.

· Clean filters.

Whether a home is kept cool by a whole-house central air conditioning system or window units, clean filters are necessary to keep the units working efficiently.

Routinely replacing or cleaning filters is one of the most important maintenance tasks to improve airflow and increase efficiency. The U.S. Office of Energy

Efficiency & Renewable Energy says replacing a dirty, clogged filter with a clean one can lower an air conditioner's energy consumption by anywhere from 5 to 15 percent.

· Know the square footage. When replacing a cooling system, have an understanding of the size of your home (or room if installing an window unit). Determine the area of the home so you buy a unit that suits your needs. Air conditioners use BTUs (British Thermal Units) to define cooling power. The more BTUs, the larger the space that can be cooled. However, homeowners do not want to exceed the necessary cooling power. This leads to energy waste. EnergyStar.gov can help homeowners find the right cooling system for their needs.

· Inspect system coils. The evaporator and condenser coils on air conditioners can collect dirt, even when filters are maintained. Dirty coils are less efficient at absorbing heat, so periodically remove the dirt. Outdoor coils can be kept cleaner by cutting back foliage from the unit to allow better air flow.

· Inspect condensate drains. Energy.gov also suggests making sure condensate drains, which take moisture pulled from the air away, are functioning properly. If they're clogged, they may not be effective at reducing humidity in a home, and they may even leak.

· Clear debris. Remove fallen leaves or other plant material from condenser units and fan blades. Obstructed components can cause the system to retain heat, compromising its ability to work effectively. Some homeowners prefer to cover their condensers at the end of the cooling season to keep leaves and dirt out of the unit.

· Check window unit seals. When installing window units, make sure all seals around the air conditioner are in place to prevent cool-air loss.

· Hire a technician. Air conditioner technicians can be very helpful and will know how to prepare a system for hot weather. Technicians typically conduct multipoint inspections and measure such things as refrigerant levels and duct leakage. Airflow through the evaporator coil also may be checked. If a homeowner suspects the thermostat is not working properly, a technician can verify if that is true and even install a new one if necessary.

As summer approaches, homeowners should prepare their air conditioning units for the busy months ahead.



Excessive energy bills can be a concern in spring and summer, just as much as they are in the winter. So how can you save money while keeping your home cool? The solution is simple: Top up your attic insulation.

A poorly insulated attic is a primary source of energy loss, forcing your AC unit to work harder than necessary over the warmer months. Most attics are insulated, but oftentimes the amount of insulation present is inadequate - especially in older homes. Over time, insulation can settle and compact, allowing heat to escape through gaps.

Topping it up is easy. Ideally, you want to aim for a depth of 16 inches of insulation for an overall R-value of 50. When existing insulation is present, simply level existing insulation to the top of the joist. Lay a fire- and moisture-resistant batt insulation, like Roxul Comfortbatt, on top of joists, running perpendicular to the first layer. Ensure batts are butted against each other tightly. Fit batts closely to cross joists; cut batt if necessary (this can be done easily with a serrated blade or bread knife) and leave no space between layers. Don't forget to insulate the attic hatch to the same level as the rest of the attic. Apply weather-stripping to the edge of the hatch to reduce air leakage. Keep in mind that only IC-rated electrical fixtures can have insulation placed with zero clearance. Follow the manufacturer's instructions and local building code to insulate around the chimney.

When a house is insulated properly, energy savings can add up over time. Remember, insulation starts working the moment it is installed and can last for the life of the building. Tips on this easy, low-cost DIY project that will reduce your home's energy loss and save you money are available at www.diywithroxul.com.

## - Did you know? -

The majority of grass species have chlorophyll to thank for their appealing green color. Chlorophyll is a bright pigment that absorbs both blue and red light especially well. But chlorophyll largely reflects green light, which is why the yards and fields we spend so much time in are green. And chlorophyll does more than influence the color of grass. Chlorophyll also plays an important role in the process of photosynthesis, during which green plants use sunlight to synthesize foods from carbon dioxide and water. According to LiveScience.com, chlorophyll molecules absorb light and then transfer that energy to special molecules that, when stimulated, fire off electrons that produce chemical changes in the plant. That chemical energy is ultimately turned into sugar, highlighting the essential role that chlorophyll plays in lawns'



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