BY JIM COOPER

Good Looks, Efficient Home

LEED certification is the energy-efficient equivalent of the gold standard. But achieving this rank is sometimes confusing. Our resident building pro sets you straight.



Left: LEED programs assess your home's design and its building materials. Home certification translates to lower energy costs and a boost in resale value.

've never had a client approach me and ask for a low-quality home. Affordable, yes-but certainly not cheap. And more than ever, clients want energy efficiency. But the big question is, "How do we know we're getting quality and efficiency?"

The answer isn't quite as simple as it seems. Too many people think that modern building codes ensure quality homes. Unfortunately, this isn't the case. Building codes mainly require that a home achieve a minimal standard for safety and efficiency. However, high quality can be light years from minimal standards.

Another problem is that some aspects of quality are in the eye of the beholder. As a building consultant, I run into this one squarely and often. One person's idea of a "delightful rustic retreat" is another's notion of a rundown shack suitable only for the bulldozer. The only way to determine the aesthetics of "quality" is by looking at a builder's product to see if it matches your own standard.

You can also ask for references to gain insight into things such as energy efficiency and maintenance requirements. But for the most reliable assurances about construction quality, you'll have to look further.

Fortunately, there are some new tools to help in your quest. One of the strongest is a program called Leadership in Energy and Environmental Design, or LEED. By its nature, a home bearing the LEED certification is assured of possessing many of the features homeowners look for when it comes to quality.

LEED, DEFINED

LEED was designed by the U.S. Green Building Council (USGBC) to promote safer, healthier buildings that are also sustainable and energy efficient. Created through the cooperative efforts of builders, architects, engineers and building scientists, LEED was originally aimed at improving commercial buildings. The program has since branched into a set of standards for almost every aspect of construction. LEED for Homes focuses entirely on residential construction.

LEED programs evaluate construction projects or existing buildings according to design principles and the materials and methods used to build them. Using a detailed checklist, an independent reviewer examines the project and awards points for specific features that indicate superior construction. If a project achieves a specific point level, it is awarded the designation "LEED Certified."

Higher point levels can raise the designation to LEED Silver, Gold or Platinum. A LEED for Homes Platinum Award marks a home that includes the most advanced features currently recognized for environmentally sound and energy-efficient construction.

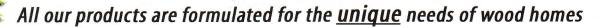
The two big advantages LEED offers are its team approach and third-party verification. With concerns about energy efficiency, water use and health impacts of some materials used in construction, homebuilding has become much more complex than a generation ago. The LEED for Homes program utilizes trained professionals working with educated builders to ensure that your home includes current best practices in most of the important areas of construction.

The LEED system relies on evaluation by a trained, certified independent party. This reduces the risk of bias from either the builder or the homeowner. It also provides a level playing field for comparing homes, because all LEED-certified homes are judged by the same standard.

HOW YOU GET A LEED-CERTIFIED HOME

A homeowner seeking to build a LEED-certified home works with a builder or architect just as he or she would for any homebuilding project. The builder or architect works with specially trained inspectors called a Green Rater and a LEED Provider. The Rater reviews plans and conducts field inspections during construction. The Provider oversees the certification process, reviewing the Green Rater's Work and managing the paperwork necessary for certification.

LEED for Homes requires two onsite inspections by a Green Rater. The first takes place just before hanging drywall and the second when the home is complete. In addition, the Rater evaluates the plans before construction begins, suggesting ways to achieve the highest rating. Scoring is based on design features, construction techniques and materials in eight areas—some of which have prerequisites that must be met before any points can be earned.





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The best place to start is with a LEED provider, because the company will be carrying out the actual certification. You can find the provider at www.usgbc.org/homes. Contact your provider and ask for LEED-experienced builders or architects in your area. Then you can interview and compare builders just as with any homebuilding project. Once selected, your builder or architect will shepherd you through the process.

You can also start by contacting a builder or architect who advertises his participation in the LEED program. He will already have connections to the LEED Provider and Rater.

If there are no LEED-credentialed builders or architects in your area, you can still have a LEED-certified home. Find a builder or architect willing to consider your goal and have him contact a LEED provider who covers your region. Be aware, however, that builders or architects unfamiliar with LEED may charge more because they are venturing into unfamiliar territory.

USE A PRO FOR FULL BENEFITS

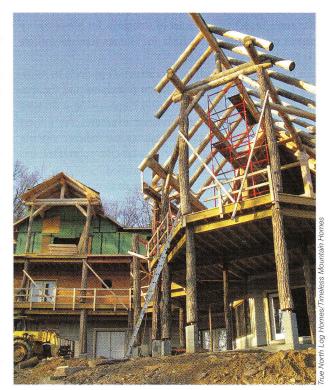
You can follow LEED standards on your own, of course, and still reap the benefits of energy efficiency. But keep in mind that your home can only achieve LEED certification through an accredited professional. If you don't plan to sell your home, the LEED credential may not mean as much to you—but you can still use the knowledge that has gone into creating the LEED for Homes program.

Start by visiting the LEED for Homes page at the USGBC web site and download the free LEED for Homes Rating System PDF file. This includes an overview of the certification process, a two-page checklist of all prerequisites and credits, and the steps necessary to earn them. Study the checklist for ways that might affect your project.

The program is divided into eight areas, five of which di-

Adding Value to Your Home

Bona fide LEED-certification involves professionals who are familiar with the most favorable designs, construction materials and building methods. Should you decide to sell your home, the independent LEED credential has already been shown to add value. It's pretty simple: a LEED certificate verifies that a home is more environmentally sustainable and energy efficient than a non-certified home. Because LEED is a registered trademark, the designation can only be used for homes that have been through the process.



Above: One of the LEED's rating categories relates to having a sustainable home site that reduces local "heat-island" effects.

rectly relate to design and construction practices: sustainable sites (best practices for siting your home), water efficiency, energy and atmosphere, materials and resources, and indoor-air quality. Three other categories deal with innovation and practices related to development and neighborhoods, which may be more applicable to developers than individual homeowners.

For example, Credit 3 in the Sustainable Sites category recognizes design and construction choices that reduce local heat-island effects. Heat islands are localized areas that get hotter than their surroundings, usually as a result of absorbing more solar energy. Walk from an air-conditioned mall across a concrete or asphalt parking lot on a hot sunny day and you'll experience a heat island. In addition to driving up cooling costs for your own home, creating or contributing to the heat-island effect increases demand on local electric utilities, reduces comfort levels, increases air pollution and increases threats of heat-related illnesses.

The LEED for Homes Rating System explains the intent of Credit 3: "Design landscape features to reduce local heatisland effects" and outlines steps you can take, such as locating trees or other plantings to provide shading for at least 50 percent of sidewalks, patios and driveways within 50 feet of the home. Additional strategies are listed as well.

Reviewing each credit in the rating system and the strategies for meeting it will give you a good background for designing your home and communicating with your builder. For the greatest benefit, study the rating system before you start designing

your house. Then keep the checklist handy as you work on your home and meet with builders and contractors.

Reviewing the entire system will provide a wealth of tips for achieving a more energy- and resource-efficient home that should be more comfortable and economical to operate.

LEED is certainly not the only program of its type. Many municipalities, counties or states have similar "green building" programs. However, LEED is the only third-party-verified program to be recognized nationally. If you're planning to build a new home and are concerned about its efficiency, environmental impact and your health, it's simply good planning to consider this innovative approach to a quality home. CWH

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= Hefty Price Tag?

The fee for certification is minimal: roughly \$150 for a single-family home. However, there may be design and construction costs associated with meeting LEED standards. To keep these costs to a minimum, work for LEED certification when designing your home. This will keep costs down, and it may allow you to include features that couldn't be added once construction has begun.

LEED for Homes was designed specifically to achieve a home at least 30 percent more efficient than its nonLEED counterpart without having to spend a lot more money—typically 5 percent in construction costs.

But in the long run, the math works in your favor. Reduced home maintenance and operating costs associated with LEED-designed homes offset the initial investment. For example, the added construction cost for a \$300,000 LEED-certified home might increase mortgage payments as much as \$70 per month. The good news? Your home will be more efficient and take a bite out of monthly utility bills.



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