



National Green Building Certification

Turning Over a New Leaf: The Greening of Remodeling

In many ways, there couldn't be a better time for green remodeling. Lower housing values are causing more people to stay in place; rising energy prices have caused homeowners to take a closer look at operating costs and ways to reduce the financial burden of high utility bills; and the federal tax credits for energy-efficient windows and heating and cooling systems are providing further stimuli for remodeling opportunities.

Further, the environmental benefits for green home remodeling can be notable. Old homes are notoriously leaky, which causes conditioned air to escape and heating and cooling systems to work harder. This is compounded by the fact that many older homes are equipped with inefficient heating and cooling systems and outfitted with inefficient faucets, toilets, appliances, and showerheads.

Faced with the challenge of remodeling older homes to be "greener," remodelers were left out of the growing number of green building programs. Even nationally recognized programs did not provide an opportunity for green remodeling projects to be certified as green ... until now.

The National Green Building Standard

The National Green Building Standard provides a credible industry benchmark and scoring process for green remodeling and renovation projects. The Standard was developed through an open, consensus-based process allowing full participation of all interested stakeholders. It is also the first green building rating system to be ANSI-approved, making it the benchmark for green residential construction. The Standard recognizes a wide variety of green practices, which can be incorporated into residential construction and renovation on a national scale, and encourages homeowners to operate and maintain their homes in an environmentally responsible manner.

Green Remodeling Step-By-Step

The National Green Building Standard provides in-depth guidance for green remodeling and a basis for scoring green remodeling projects.

There are two possible remodeling paths to green certification. Homes built after 1980 follow the same path to green certification as newly-constructed homes. For homes built before 1980, a remodeler can choose to follow the certification process for new home construction or the Green Remodel Path. Both paths allow certification at the Bronze, Silver, Gold, and Emerald levels for either single-family or multi-unit homes. Remodelers should fully explore both paths and evaluate which path best meets their needs from the perspectives of features, performance, and cost.

Green Remodel Path

The Green Remodel path applies only to buildings for which the original building permit was issued prior to January 1, 1980. The Green Remodel Path has only three required elements:

- Achieving a certain reduction in energy usage
- Achieving a certain reduction in water usage
- Complying with five mandatory indoor environmental quality practices

The reduction in energy and water consumption must range from a minimum of 20% for Bronze to at least 50% for Emerald-level certification. A qualified professional must audit or analyze the water and energy usage before and after the remodel. The same approach to the audit/analysis must be used for both the before and after studies. The remodeler should be sure to contract with the verifier to assess the condition of the building for the “before” energy and water analysis before the renovation begins. The verification process will require a very brief inspection to verify the indoor environmental quality practices, along with a review of the energy and water analysis. The Green Remodel can be used for renovations that include an addition, but if the addition is significant in size, it may be difficult to meet the energy and water reduction thresholds.

Green Building Path

This path requires a remodeler to incorporate green practices into the remodeling process. Each practice earns points or meets certain mandatory requirements toward certification. There are minimum threshold points in each of six green building categories, as well as an overall total for each certification level. There are several hundred practices to choose from, but you need only enough practices to accumulate threshold points for the desired level of green certification. The practices in this path are generally the same as the practices for new construction, but some are modified specifically for renovation. The Standard’s Renovation Notes often provide additional points toward certification. A Green Building Path renovation requires two inspections by an accredited verifier for certification. Remodelers can use the online [Green Scoring Tool](#), a free, easy-to-use software application available at www.NAHBGreen.org, to streamline the process of greening a remodeling project. The software is designed to guide users through the green requirements step-by-step.

Third-party Verification

Visual third-party verification of the green features in every project that earns the Green Certified mark is a hallmark of the NAHB Research Center’s National Green Building Certification. Verifiers accredited by the Research Center must independently confirm, through a process of document review and on-site inspections, that all green certification requirements and points specified by a remodeler are in place for a candidate home. Self-certification is not allowed. This is the cornerstone of the certification’s credibility. [Accredited verifiers](#) are listed by state on the NAHBGreen website.

Cost to Remodel Green

The additional costs to remodel a home to any green building rating system fall into three categories. First, there may be additional costs for the building products that comply with the green practices. These costs will vary widely by project, but aren’t necessarily significant. The second category of costs is for the project’s verification. Verifier fees vary by market and are negotiated between the remodeler and the verifier. Finally, to earn national recognition of the project’s green features, there is a certification fee. Fees for National Green Building Certification were designed to be affordable to a broad range of remodeling projects. For NAHB members, the remodeling project certification fee is \$200 per single-family unit, or \$200 per building plus \$20 per unit for multifamily projects.

For more information, please contact us at www.nahbgreen.org/ContactUs.