

## **Appendix J**

### **LEED for Homes Program**

# **LEED® for Homes Program Pilot Rating System**



*for Homes*

**U.S. Green Building Council**

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# Contents

Introduction to LEED for Homes .....	4
How to Participate in LEED for Homes .....	8
Quality Assurance .....	16
Overview of the Rating System .....	18
Home Size Adjuster .....	22
Checklist .....	26
<b>Detailed Explanation of Credits</b>	
Innovation and Design Process (ID) .....	31
Location and Linkages (LL) .....	42
Sustainable Sites (SS) .....	54
Water Efficiency (WE) .....	69
Energy and Atmosphere (EA) .....	76
Materials and Resources (MR) .....	106
Indoor Environmental Quality (IEQ) .....	119
Awareness and Education (AE) .....	139
Glossary .....	145
<b>Attachments</b>	
A. Initiative for Affordable Housing .....	153
B. Builder Agreement .....	156
C. Builder Accountability Form .....	160
D. Durability Inspection Checklist .....	162
E. LEED for Homes Project Completion Checklist .....	168
F. ENERGY STAR Advanced Lighting Package .....	170
G. ENERGY STAR with Indoor Air Package .....	172

# Introduction to LEED® for Homes

## What are green homes?

The environmental impact of the residential sector is significant. There are more than 120 million homes in the United States, and about 2 million new homes are constructed each year. According to the U.S. Department of Energy, the residential sector accounts for 22% of the total energy consumed in the US and 74% of the water. Indoor air pollutants can often be four to five times higher than outdoor levels. Twenty-one percent of U.S. carbon dioxide emissions are contributed by the residential sector. The considerable impact on the environment created by homes necessitates a shift toward more sustainable residences.

Green home building addresses these issues by promoting the design and construction of homes that have much higher performance levels than conventional homes (i.e., homes that are built to the minimum building codes). Generally, green homes are healthier, more comfortable, more durable, and more energy efficient. And of course, they also have a much smaller environmental footprint than conventional homes.

Green homes rely upon established and proven design features and technologies that do not have a significantly large cost. Many green measures will reduce long term costs, particularly those features that involve energy and water efficiency. In many cases, these reductions in operating costs will more than offset the additional up-front costs of a green home. The home building industry is beginning to recognize the value of healthy homes, environmentally responsible projects. The LEED for Homes Rating System provides a basis for quantifying the benefits of green homes, thereby facilitating a wider adoption of this more sustainable approach to home building.

## The LEED® Green Building Rating System

The U.S. Green Building Council (USGBC) established LEED (Leadership in Energy and Environmental Design) as a system to define and measure "green buildings." The LEED™ Green Building Rating System is a voluntary, market-driven building rating system based on existing proven technology that derives market strength and credibility through industry-wide development of the LEED products. After the initial pilot launch of LEED in 1998, LEED has evolved and branched out to include: LEED for New Construction, LEED for Existing Buildings, LEED for Commercial Interiors, and LEED for Core & Shell. LEED for Homes is bringing the successes of the LEED Green Building Rating System to the residential market.

## Overview of LEED for Homes

LEED for Homes is an initiative designed to actively promote the transformation of the mainstream home building industry towards more sustainable practices. LEED for Homes is targeting the top 25% of new homes with best practice environmental features. LEED for Homes is a collaborative initiative that actively works with all sectors of the home building industry.

By recognizing sustainable design, construction, and operations practices in homes nationwide, LEED for Homes helps home builders to differentiate their homes as some of the best homes in their markets, using a recognized national brand. Furthermore, home buyers will be able to readily identify high quality green homes, simply by selecting LEED Homes.

While there are already a number of local or regional green home building programs, LEED for Homes is attempting to provide national consistency in defining the features of a green home and to enable builders anywhere in the country to obtain a green rating on their homes. LEED for Homes represents a consensus standard for green home building developed and refined by a diverse cadre of national experts and experienced green builders. The LEED for Homes rating system is part of the comprehensive suite of LEED assessment tools offered by USGBC to promote sustainable design, construction, and operations practices in buildings nationwide.

The LEED for Homes rating system uses eight different resource categories to measure the overall performance of a home:

1. **Innovation and Design Process (ID)** - the category that includes several types of innovative measures including: special design methods, unique regionally credits, measures not currently addressed in the Rating System, and/or exemplary performance levels.
2. **Location and Linkages (LL)** - the placement of homes in socially and environmentally responsible ways in relation to the larger community.
3. **Sustainable Sites (SS)** - the use of the entire property so as to minimize the project's impact on the site.
4. **Water Efficiency (WE)** - the water conservation practices (both indoor and outdoor) built into the home.
5. **Energy and Atmosphere (EA)** - the improvement of energy efficiency particularly in the building envelope and heating and cooling design.
6. **Materials and Resources (MR)** - the efficient utilization of materials, selection of environmentally preferable materials, and minimization of waste during construction.
7. **Indoor Environmental Quality (IEQ)** - the improvement of indoor air quality by reducing possible air pollution.
8. **Awareness and Education (AE)** - the education of homeowner, tenant, and building manager (as appropriate in larger multifamily buildings) about the operations and maintenance of the green features of their LEED Home.

The LEED for Homes rating system works by awarding credits for different aspects of environmental design in each of the above categories. The level of performance achieved in the above categories is separated into four

performance tiers. LEED for Homes will rate qualified homes at the Certified, Silver, Gold and Platinum levels (presented in Exhibit 1) according to how many points the home achieves in the Rating System.

**Exhibit 1  
LEED for Homes Certification Levels**

<b>LEED for Homes Certification Levels</b>	<b>Number of LEED for Homes Points Required</b>
Certified	45-59
Silver	60-74
Gold	75-89
Platinum	90-128
Total Available Points	129

The rating system is designed to guarantee minimum levels of sustainable practices through 18 Prerequisites (or Mandatory Measures) in eight different credit categories. At the same time, the rating system also ensures flexibility for the builders with the wide variety of optional credits available to achieve the four LEED for Homes certification levels. Credit Interpretation Requests (CIRs) are also available to projects that need clarification or special consideration on specific credits.

### **Does LEED for Homes include affordable and multifamily homes?**

LEED for Homes includes both affordable single family and low-rise multifamily projects of three floors and below. Exactly how mid-rise multifamily projects will ultimately be addressed by LEED for Homes will be examined during a separate pilot phase for this housing type, scheduled to run through the end of 2007. Mid-rise multifamily housing structures between four and six stories may be eligible to participate in this pilot phase, and project managers should contact USGBC at (202) 828-7422 for further information. Also, multifamily housing structures that are over three stories are currently eligible to participate in LEED for New Construction (LEED-NC).

### **Does LEED for Homes include the renovation of existing homes?**

LEED for Homes was designed to assess and label newly constructed homes. It cannot be used to assess or label a portion of a home. Only substantial or "gut"

rehab project may be included in LEED for Homes at this time. Partially renovated homes cannot be rated under LEED for Homes.

### **Where can I find out more about green home building?**

There are many green home building resources available on the internet. For more information about LEED for Homes, please contact [leedinfo@usgbc.org](mailto:leedinfo@usgbc.org), or visit the U.S. Green Building Council website at [www.usgbc.org/leed/homes](http://www.usgbc.org/leed/homes)