

What are the New Jersey Green Home Remodeling Guidelines [NJGHRG] Version 1.0 and what are they not?

The New Jersey Green Home Remodeling Guidelines (NJGHRG) Version 1.0 exemplify ways a homeowner or remodeling professional can incorporate green building practices into common home remodeling projects. The NJGHRG comprise a menu of 'best practices' organized by major building systems, while also referencing more technical guides that homeowners or remodeling professionals can access for additional information. Another value-added feature of the NJGHRG is the Green Products and Services shopping list, which identifies how to recognize 'greener' options to consider when selecting materials and services for the home.

How was the NJGHRG Version 1.0 developed?

The development of the NJGHRG was funded by the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Environmental Protection Agency (USEPA), who contributed a grant for workshops and other marketing activities. The Rutgers Center for Green Building (RCGB) developed the guidelines with extensive input and review by an expert advisory group comprised of residential building and remodeling professionals, interior designers, landscape architects, and experts in the field of green building and energy-efficient design. The engagement of local expertise and real-life project examples were key to customizing the guidelines to New Jersey and providing insight into local opportunities, costs, and challenges.

How are the NJGHRG Version 1.0 related to the REGREEN Residential Remodeling Guidelines 2008?

Concurrent with the launch of this project, the U.S. Green Building Council (USGBC) and the American Society of Interior Designers (ASID) unveiled the first draft of the REGREEN Residential Guidelines 2008 (www.regreenprogram.org). This opened an opportunity for the Rutgers Center for Green Building to benefit from national-level research on green home remodeling and customize recommendations for New Jersey.

The USGBC and ASID granted the RCGB the right to use the REGREEN strategy titles and strategy identification system (ID's) to establish a formal link to the REGREEN guidelines. The NJGHRG encompasses the REGREEN strategies deemed significant for New Jersey as well as strategies not covered by the REGREEN Guidelines. In most cases the REGREEN strategy titles were revised or combined to better reflect the purposes of the NJGHRG. In all cases, the strategy descriptions reflect original research conducted by the RCGB and the expert advisory group. Furthermore, the NJGHRG draw on some of the design and organizational features of REGREEN but incorporate original photos and illustrations, use regional case study examples and present local resources and references where possible.

NJ GREEN HOME REMODELING GUIDELINES

Why is green home remodeling important?

Residential buildings account for 22% of total energy and 74% of water consumed in the United States. When they contribute to climate change, the electricity used is generated from non-renewable and carbon-based fuels. A typical home emits almost 9,000 pounds of carbon dioxide per person per year; altogether, residences contribute 17% of the nation's carbon dioxide emissions. Moreover, Americans spend 90% of their time indoors, where concentrations of pollutants are often much higher than outside, making "green" in the residential sector important for both the environment and human health.

Green home remodeling offers the opportunity to cost-effectively reduce home energy demand, reduce home maintenance costs, and increase occupant comfort and indoor air quality.

What is green home remodeling important for New Jersey?

An analysis done by the Rutgers Center for Green Building shows that the majority of the state's housing stock is single-family detached housing built between 1940 and 1979. Houses need to be updated and remodeled 20 to 30 years after they are built, when major systems start to require upgrading or replacement. Therefore, the average age of the housing stock in New Jersey makes it an ideal candidate for green home remodeling. As fuel prices rise, homeowners in the state will greatly benefit from renovations that include the installation of energy-efficient appliances, efficient heating and cooling systems, and a better insulated building envelope.

- A main goal of green remodeling is to reuse existing assets and limit the impact of the built environment on the natural environment. In this way, green remodeling helps to meet New Jersey's planning goal to prevent urban sprawl and preserve natural resources and open space.¹
- The use of energy-efficient and renewable technologies lowers energy consumption by as much as 30-50% annually; reduces utility bills; and decreases demand on electrical power plants. This green strategy advances the state's goals of preserving energy resources and encouraging the development of different housing types within the limits of available infrastructure.
- Green homes consume less water than conventional homes through water-efficient appliances and by recycling water for irrigation and other uses. This helps to lower water bills and reduces costs associated with the adverse effects of stormwater runoff such as flooding and water pollution. This green strategy furthers the state's goals to preserve wetlands and prevent degradation of the environment.
- Green home construction calls for high-quality and durable materials, which reduces consumption of resources, maintenance costs, and adds value to a home. Reusing materials reduces the burden on the state's landfills, helps preserve the architectural features of historic homes, and maintains and improves the character of established neighborhoods in the state. This green strategy supports the state's goal to preserve the historical heritage of the region.²

FAQs

NJ GREEN HOME REMODELING GUIDELINES

- Green home building and remodeling reduces greenhouse gas emissions and curbs climate change. Almost all residential greenhouse gas emissions are related to energy consumption. Green home remodeling strategies that focus on energy efficiency help to reduce a home's carbon footprint. In turn, green home remodeling supports New Jersey's goal to reduce greenhouse gas emissions by 20% to 1990 levels by 2020, followed by further reductions of emissions to 80% below 2006 levels by 2050.

Notes:

¹New Jersey State Planning Commission 2001. New Jersey State Development and Redevelopment Plan. Adopted March 1, 2009. (Accessed August 11, 2009): www.state.nj.us/dca/divisions/osg/plan

²*ibid.*



RUTGERS
Center for
GREENBUILDING

FAQs

www.greenbuilding.rutgers.edu