

Why build green

**CRAFTSMAN CONSTRUCTION
RESOURCE COLLECTION**





WHY BUILD

GREEN

Why should we care about green building?

There are many compelling reasons for changing the way we build and operate our homes. Although we cannot avoid affecting the environment when we build a house, green building can work toward minimizing that environmental impact. Some of the guiding principles of green building are;

Lot Design

Resource efficient site design helps reduce the environmental impact and helps the energy performance of the new house. Orienting homes to maximize passive solar heating and cooling are just some of the ways to build green. Saving trees where possible, sending felled trees to the mill for lumber production, and grinding up smaller trees and brush into mulch are other ways to build green.

Resource Efficiency

Most successful green homes start with environmental considerations at the design phase, the time at which material selection occurs. Creating resource efficient designs and using resource efficient materials can maximize function while optimizing the use

of natural resources. For instance, engineered lumber can help optimize resources by using materials in which 50% more of a tree is converted into structural lumber than with conventional lumber. Other items that come from sustainable natural resources include Bamboo flooring, Linoleum and cork flooring just to name a few.

Resource efficiency is also about reducing job site waste. Leftover materials from the construction process as well as inefficient use of materials add to the waste factor. The average single family home of 2,320 S.F. generates between 6,960 to 12,064 lbs. of waste. By creating an effective construction waste management plan and taking advantage of recycling facilities, this waste can be reduced by half or more, thus reducing the burden on landfills.

Energy Efficiency

This is probably the number one reason why people consider building green. 49% of consumers surveyed said they want to reduce their energy bills. On average a home built between 1990 and 2001 consumed about 12,800 kWh per year for heating, cooling, lights, and appliances. Average energy cost for these homeowners is about \$1,600 per year. Building an energy efficient home can reduce these cost

20%, 30%, or even 40%. To achieve these savings an energy efficient building envelope will have to be constructed with a “whole system” approach in mind. Energy performance does not end with increased R- Values, the use of renewable energy, and or more efficient HVAC systems. Rather, there needs to be a balance between these features and careful window selection, building envelope air sealing, duct sealing, and proper use of air and vapor barriers from foundation to attic. This creates a truly high performance, energy efficient home that is less expensive to operate and more comfortable to live in.

Water Efficiency

Average daily water use in today's home is slightly more than 64 gallons per day. Implementing water conservation measures can reduce usage to fewer than 45 gallons. Green homes conserve water indoors and out. More efficient water delivery systems indoors and native and drought resistant landscaping can help prevent unnecessary waste of valuable water resources.

Indoor Environmental Quality

After energy efficiency the quality of a home's indoor air is often cited as the most important feature of a green home. The use of low VOC building products, like paint, carpet, cabinets help reduce out-gassing that effects air quality. A heat recovery ventilator (HRV) can be used to bring in fresh outside air and replace the stale inside air without wasting energy. Hepa filters can be employed to reduce allergens.



Lower Operating Cost

Homeowners receive less expensive utility bills because of energy and water efficiency measures.

Increased Comfort

Green homes have relatively even temperatures throughout the home, with fewer drafts and better humidity control.

Improved Environmental Quality

Green homes incorporate building materials and construction details that strive to increase the useful life of the individual components and the whole house. Longer lasting materials not only require fewer resources for replacement but also reduce maintenance and repair costs. Green homes have building elements that require less maintenance, and more durable building components that reduce the time needed for upkeep.



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