

# Guiding Principles Behind a Green Built North Texas Home



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## Site Management and Waste Recycling:

Green Built North Texas homes incorporate efficient site management and waste recycling practices on the jobsite in order to help reduce the environmental impact of the home while under construction. For instance, site design principles such as tree preservation and protection, recycling measures, and storm water permitting procedures established by the Texas Commission on Environmental Quality (TCEQ) are processes used in the construction of all Green Built North Texas homes.

For Green Built North Texas homes, site management is also about minimizing job-site waste and fact, the average single-family home in the United States is estimated to generate more than 6,000 lbs. of construction waste. Green Built North Texas builders develop waste management plans in order to reduce the burden on increasingly scarce landfill space.

## Water Efficiency:

The average indoor daily water use in today's homes is estimated to be slightly over 64 gallons. Implementing water conservation measures can significantly reduce this amount and help conserve this vital resource. For this reason, Green Built North Texas homes are especially welcomed in North Central Texas, and may help extend current water resources.

The importance of water resources is becoming increasingly recognized in our area. Competing demand between sending water to growing urban areas and making water available for irrigation highlight the issues surrounding the scarcity of this valuable resource.

Green Built North Texas homes are designed to conserve water both indoors and out. More efficient water delivery systems indoors such as low-flow plumbing fixtures, combined with rainwater harvesters or native and drought-tolerant landscaping choices outdoors can help prevent unnecessary waste of our water.

## Indoor Air Quality:

Healthy indoor environments attract many people to "green built" homes. After energy efficiency, the quality of a home's indoor air is often cited as the most important feature of a green home. This is important in North Central Texas where high levels of allergens and pollen are not uncommon.

Reported diagnosis of allergies and respiratory ailments has increased, and more people are aware of their sensitivities to chemicals that can off-gas from construction and home furnishing materials. These factors have contributed to a heightened awareness of the air we breathe inside our homes.

Even though there is no authoritative definition of healthy indoor air, Green Built North Texas homes incorporate measures that can mitigate the effects of potential contaminants by controlling the source, diluting the source, and capturing the source through filtration.

## Energy Efficiency:

Energy consumption is of paramount concern to today's homebuyers due to financial and far-reaching environmental impacts, which range from the mining of fossil-fuel energy sources to environmental emissions from burning non-renewable energy sources. In addition, each home consumes energy year after year, meaning that the environmental impacts associated with that use accrue over time. Therefore, energy conservation is an integral part of all Green Built North Texas homes.

On average, a home built between 1990 and 2001 consumed about 12,800 kWh per year for space and water heating, cooling, and lights and appliances. In an effort to lower energy consumption and reduce the homeowner's annual utility expenses, all Green Built North Texas homes are, at a minimum, built to the EPA's Energy Star® performance standard, which means that they are at least 15% more energy efficient than homes built to the latest International Energy Conservation Code (IECC) requirements.

To meet this performance standard, Green Built North Texas homes can include a variety of energy-efficient features such as effective insulation, high performance windows, tight building envelopes and duct work, efficient heating and cooling equipment, and Energy Star® qualified lighting and appliances. These features contribute to improved home quality and homeowner comfort, lower energy demand, and ultimately, reduced air pollution.

#### Materials:

Green Built North Texas homes start with the consideration of the environment at the design phase when material selection occurs. Creating efficient designs that maximize function while optimizing the use of natural resources can conserve building materials, most notably, wood. For instance, Green Built North Texas homes using engineered lumber products are used to the maximum extent possible. These products can help optimize resources by using materials in which more than 50% more of the log is converted into structural lumber than conventional dimensional lumber.

Green Built North Texas homes are also built with sustainability in mind. Positive moisture drainage away from the home helps to mitigate moisture intrusion into building materials while durable cladding materials seek to minimize the effects of degradation and weathering, enhance the life expectancy of the home, and lessen maintenance needs.

#### Homeowner Education:

Inadequate maintenance can defeat the designer's and builder's best efforts to create a healthy, resource-efficient home, which is why homeowner education is arguably the most important aspect of Green Built North Texas.

Homeowners play a big role in the house performance and, therefore, should take the utmost care to operate their Green Built North Texas home as it was intended. As an example, homeowners often forget to change air filters regularly or neglect to keep doors and windows closed while the HVAC system is operating, which, in short order, will eliminate much, if not all, of the energy savings and indoor air quality improvements offered by Green Built North Texas homes.

Following the old common sense adage, "If you're not using it, turn it off," will go a long way towards making the most of the efficient features of your Green Built North Texas home. With sprinkler systems, you can add the phrase, "If you are using it, use it effectively," since drought tolerant and native landscapes not only survive, but thrive in hot Texas summers and therefore require much less water. In fact, over-watering oftentimes is very detrimental to these landscapes, and to homeowners in the form of unnecessary and costly water usage.

In addition, proper maintenance of the home's systems will help ensure that a Green Built North Texas home will operate at peak performance throughout its lifetime. Green Built North Texas builders will walk the homeowner through the basic operations of the home's systems and also provide the homeowner with information and resources on their proper maintenance.

For more information about the HBA of Greater Dallas's Green Built North Texas program and to contact participating builders, visit: [www.greenbuiltnorthtexas.com](http://www.greenbuiltnorthtexas.com).