

High-Performance Builder Spotlight

Ferrier Custom Homes – Dallas, Texas



On a Mission

In 2008 Ferrier Custom Homes of Fort Worth, Texas, committed to building every one of its new homes to meet the requirements of the U.S. Department of Energy's Builders Challenge Program as well as the requirements of the LEED for Homes Program, NAHB Green Building Guidelines, and the Green Built North Texas protocol.

“ We have an opportunity to make houses better than they've ever been made before. This is definitely something to be proud of. ”

HEATHER FERRIER, General Manager,
Ferrier Custom Homes, Dallas, Texas

“Builders Challenge is a good fit for our projects. It fits in with the way we build,” said Heather Ferrier, general manager of Ferrier Custom Homes and daughter of founder and president Don Ferrier, a third-generation Texas builder who serves on the NAHB Green Building subcommittee and is a presenter at green building conferences.

Don Ferrier walks the walk and has earned a slew of awards to prove it, such as the National Association of Home Builder's 2007 Green Builder Advocate of the Year and Energy Value Housing Awards in 2005, 06, 07, 08 and 09. In 2008 the custom home builder and remodeler constructed the first LEED Platinum home in Texas (the third in the nation) and the first U.S. home rated under the American Lung Association's new, more stringent Health House Guidelines.

Energy-Efficient Features and Innovations

Ferrier incorporates many Building America-recommended measures to ensure energy efficiency throughout the home, starting with passive solar design and lot orientation to minimize solar gain. Walls are constructed with structural insulated panels or advanced framing techniques like 2x6 24-inch on center framing and ceiling joists, two-stud corners, no headers on non-load bearing walls, single top plates, and spray foam insulation. The ducts and air handler are located in conditioned space in the insulated attic. A 19-SEER air conditioner, solar and tankless hot water heaters, low-emissivity high-performance windows, and ENERGY STAR appliances and lighting complete the energy-efficiency package.

Additional “green” features might include water-conserving features such as low-flow or dual-flush toilets, high-efficiency clothes washers, and low-flow showerheads and faucets, rainwater containment systems; low- or no-emission paints, varnishes, and cabinetry; sealed fireplace units with a blower and dedicated fresh air intake; solar tubes and skylights; and recycled plastic carpets and bamboo flooring.

Dollars and Sense

Ferrier's homes achieve average HERS scores of 50. Heather Ferrier noted that most of their homeowners are “seeing utility bills of one-half to one-third of their neighbors, and that gap will only get bigger as energy prices continue to increase and energy-saving technologies continue to advance.”

BUILDER PROFILE

Ferrier Custom Homes

www.ferriercustomhomes.com

Founded: 1984, Dallas-Fort Worth, Texas

Employees: five

Square footage: 2,750 sq. ft.

Price range: \$230,000 - \$1,000,000

Number of homes built per year: 4;
number of remodels 2; number of
commercial 3

Energy efficiency commitment: All homes
built to meet the Builders Challenge

Mission statement:

To advance, communicate, and facilitate
energy-efficient and sustainable building
practices to the home building industry
and into the homes and structures we build.



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

KEY FEATURES

Average HERS index score 50

Passive solar design and lot orientation

SIPS or advanced framing with spray-foam insulation

ENERGY STAR appliances and lighting

10 SEER air source heat pump with infinitely variable speed compressor and room occupancy sensors

Low-emissivity double-pane windows

Foam-insulated crawlspace

Ducts and air handler in insulated space

Solar or tankless water heaters

Light-colored metal roofs and exteriors

Low-flow showerheads and faucets, low-flow or dual-flush toilets

Rainwater containment systems (where budget allows) for yard irrigation and toilets

Xeriscaping

Low- or no-VOC paints, adhesives, finishes

Sealed fireplaces with fresh air intake and blower

Solar tubes and strategically placed windows for daylighting

Recycled plastic carpets

Locally purchased materials such as stone and wood

“The reality is there is an upfront cost to this. Homeowners have to ask themselves, ‘Do I want to invest in performance-based items that will save me energy in the long term? Or would I rather put the money into countertop upgrades? There are little choices and big choices all along the way. But time and time again, people tell us they are so glad they made the energy-efficiency choices.” said Heather.

The Bottom Line

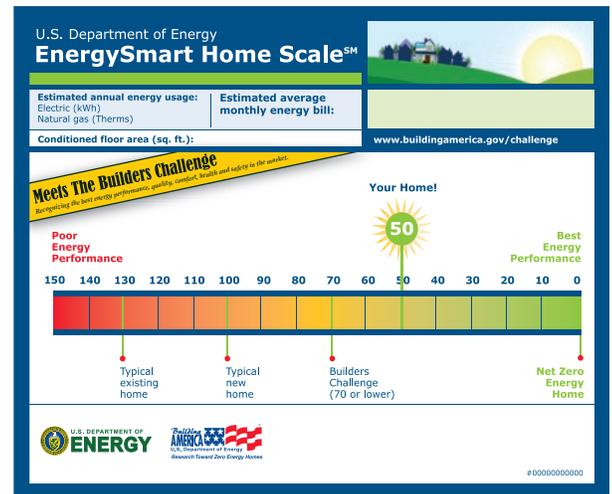
“If we only had a dollar for every person who told us this was a fad or that we were going after too small of a niche, but time has proven us right. We are seeing more homeowners seeking us out because they want something that will be cost effective over the long run... You have to take it one step at a time, and research as you go, but we’ve found it to be profitable. We wouldn’t want to be building any other way,” said Heather.

U.S. Department of Energy Builders Challenge

DOE has posed a challenge to the homebuilding industry—to build a new generation of high-performance homes using proven innovations and to work toward the ultimate goal of providing cost-neutral, net-zero energy homes by 2030. Homes that qualify for this Builders Challenge must meet a 70 or better on the EnergySmart Home Scale (E-Scale). The E-scale allows homebuyers to understand—at a glance—how the energy performance of a particular home compares with others. Through the Builders Challenge, participating homebuilders will have an easy way to differentiate their best energy-performing homes from other products in the marketplace, and to make the benefits clear to buyers.

The figure to the right shows a sample E-Scale label. The E-scale is based on the well-established Home Energy Rating System (HERS) index, developed by the Residential Energy Services Network. To learn more about the index and HERS Raters visit www.natresnet.org.

To learn more about the Builders Challenge and find tools to help market your homes, visit www.buildingamerica.gov/challenge.



The Building America Program

Building America is a private/public partnership sponsored by DOE that conducts systems research to improve overall housing performance, increase housing durability and comfort, reduce energy use, and increase energy security for America’s homeowners. Building America teams construct test houses and community-scale projects that incorporate systems innovations. The teams design houses from the ground up, considering the interaction between the site, building envelope, mechanical systems, and other factors, and recognizing that features of one component in the house can greatly affect others. More than 40,000 energy-efficient houses have been built by the seven teams to date.

For more information visit www.buildingamerica.gov. The website contains expanded case studies, technical reports, and best practices descriptions.