# Callaway Corners

**Panama City, Florida**

## *First LEED Platinum Home in Florida*

To most people, platinum is a precious metal with a silver hue, but to Stalwart Built Homes, platinum has never looked so green. Settled among Callaway Corners, a new single-family detached workforce housing development in Panama City, Fla., this LEED Platinum certified home is the first home in Florida to achieve the highest certification level through the U.S. Green Building Council's (USGBC) LEED for Homes program. Reaching a platinum certification level requires dozens of green building techniques to be implemented during and after construction that will provide continuous benefits to the homeowner and environment.

This factory-built modular home not only satisfied all of program requirements to the highest degree, but it also attained a commendable Home Energy Rater Score (HERS) of 26 – on a scale where zero translates to little or no energy use and 100 is the standard code-compliant home score – coming close to being a net-zero-energy home.

When Stalwart Built designed and engineered this home, the goal was to use the home's energy-generating and energy-efficient features to "zero-out" the energy purchased on an annual basis. During the day the home sells leftover power created by its solar panels to the grid, and at night the home will buy whatever power is needed from the grid. By building a near zero-energy home, the homeowners made an immediate and measurable impact on energy use and carbon dioxide emissions, while living in a healthy, comfortable and affordable home.

*PV panels on the Callaway House*

### Efficiency Features

- Spray foam insulation in attic and under the house for a well-sealed building envelope
- Low-volatile organic compound (VOC) paint interior
- Sustainable bamboo floor
- Low-emissive vinyl windows
- "Desuperheater" providing hot water
- Air filtration system
- ENERGY STAR® appliances
- Geothermal heating and cooling unit
- 3.6 kilowatt PV system

*The Florida Solar Energy Center® (FSEC), a research institute of the University of Central Florida, is the largest and most active state-supported renewable energy and efficiency institute in the United States. Working in alternative fuels, hydrogen fuel cells, photovoltaics, solar thermal technologies, high performance buildings, and education areas, FSEC's 140-member staff helps provide Florida with a future of energy independence and environmental sustainability.*


*Building America is a private/public partnership that develops energy solutions for new and existing homes. The Building America project combines the knowledge and resources of industry leaders with the U.S. Department of Energy's technical capabilities. Together, they act as a catalyst for change in the home-building industry.*

Building America U.S. Department of Energy

# "Green" Relationship

Green building addresses the relationship between a building and the land on which it sits; how the structure might help to foster a sense of community or reduce the need for automobile use by its occupants; how to minimize energy use in the building (energy consumption being one of the largest environmental impacts of any building); and how to create the healthiest possible living space.

# Building Envelope

One of the most basic steps in energy-efficient building is creating a well-sealed "building envelope" by using a variety of insulation methods. Heating and cooling account for 50 to 70% of the energy used in the average American home, making inadequate insulation and air leakage the leading causes of energy waste in most homes. This home's spray foam insulation installed in the attic and under the house alleviates the worry of wasting energy on unnecessary heating and cooling costs.

# Healthy Interior

Inside the home, a number of energy-efficient measures were taken, such as using low-VOC (volatile organic compound) paint on the walls. Materials with VOC's can evaporate and potentially create toxic fumes. Sustainable bamboo flooring was installed throughout the home, as well as low-emissive vinyl windows, which capture 98 percent of the radiant heat from the sun while allowing at least 70 percent of natural light into the home.

# Efficiency Features

Other features include a "desuperheater", which provides free hot water to the home, a high-tech air filtration system, ENERGY STAR-rated GE appliances, and a geothermal unit, which uses the constant temperature of the ground to provide central heating and cooling. The home also uses a 3.6 kilowatt photovoltaic system to provide electrical energy.


Photos by Eric Martin

### *LEED for Homes*

*LEED for Homes is the U.S. Green Building Council's rating system that promotes the design and construction of high-performance green homes. A green home uses less energy, water and natural resources; creates less waste; and is healthier and more comfortable for the occupants.*

*Benefits of a LEED home include lower energy and water bills; reduced greenhouse gas emissions; and less exposure to mold, mildew and other indoor toxins. The net cost of owning a LEED home is comparable to that of owning a conventional home.*