

from **the pros**



*The Partnership for Advancing Technology in Housing (PATH) is a public-private partnership of leading-edge builders, manufacturers, researchers, Federal agencies and others seeking to improve the quality, affordability and environmental performance of America's homes. PATH is administered by the U.S. Department of Housing and Urban Development. Learn more at [www.pathnet.org](http://www.pathnet.org).*

# GREEN & MAINSTREAM



## North Carolina Home Marries Conventional Look And Unconventional Design

A few environmentally sensitive homebuyers today will tell you they had always imagined owning an earthship or geodesic dome, but the average homebuyer — even the eco-friendly one — is looking for a more traditional design. Fortunately, the new house on the block knows it's the green on the inside that counts.

The Mainstream GreenHome in Raleigh, N.C., is proving that green design doesn't have to look way-out modern. Built by Cherokee Investment Partners, the nation's largest brownfield redevelopment company, the Mainstream GreenHome is expected to use half the water and fossil fuels of a conventional home, but look exactly like one.

"This project will show homebuyers that green homes do not necessarily have to look or feel different from what consumers are used to," says Jonathan Philips, senior director of Cherokee Investment Partners. "Our message to buyers is that they do not have to make sacrifices to live green."

## From Brown To Green

Specializing in the remediation and redevelopment of environmentally contaminated areas known as brownfields, Cherokee has made a habit of using green practices to transform communities.

“One of the main benefits of living on a former brownfield is often living in an urban location with mass transit options and the ability to walk to shopping, work and pleasure,” says Philips. Living in town also means less suburban sprawl, less traffic, less pollution from automobiles and a healthier lifestyle for people who can walk or bike to their destinations.

After more than a decade of environmental remediation, Cherokee decided to embrace green design principles not only for its brownfields, but also for the homes built there.

“We realized that the impacts produced by the buildings constructed on our properties are just as important as remediating polluted sites,” says Philips. The Mainstream GreenHome is intended to serve as a model for all the residential properties developed on Cherokee’s brownfields.



*The Formanek front door of the Mainstream GreenHome retains nearly as much energy as a fully insulated wall.*



*The spray foam insulation in the home expands 30 times its original size upon application, helping create a tight seal for an energy-efficient building envelope.*

## Green From The Inside Out

The Mainstream GreenHome features a wide array of PATH-profiled technologies and design techniques. To save water, stormwater management and irrigation systems are designed efficiently, while rainwater is harvested from the roof and stored in an underground cistern to be reused for toilets, laundry and irrigation. The landscaping, which will be certified by the National Wildlife Federation’s Backyard Habitat Program, uses drought-resistant native plants and trees to reduce erosion. Other features include low-flow toilets, faucets and showerheads, and a water-efficient dishwasher and washing machine.

Cherokee has committed to making its first home carbon neutral through energy-efficient features such as spray and rigid foam insulation, energy-efficient lighting, an energy recovery ventilator, window shading, and a sealed attic and crawlspace. Light-colored roofing materials reduce the home’s heat absorption. A ground source heat pump, solar thermal hot water, photovoltaics and a hot water heat exchanger will help keep traditional energy demands low. Renewable energy credits, which are certified by the Center for Resource Solution’s Green-e Program for Consumer Protection, were purchased to offset any remaining emissions.



*Rainwater is harvested from the roof and stored in an underground cistern to be reused for toilets, laundry and irrigation.*



*The solar panels on the Mainstream GreenHome take on the look of traditional shingles, enabling the energy-producing roof to blend in with the others on the block.*



Nearly every product in the Mainstream GreenHome was selected based on indoor air quality criteria. A properly balanced ventilation system provides adequate air exchange, which is essential when a home is tightly air sealed. Air filters, mold and radon mitigation systems, as well as a central vacuum system, help keep indoor air clean. More than 90% of products in the home, including paints, cabinets and carpets, contain no- or low-volatile organic compounds (VOCs).

### Green Principles Defined

**Brownfields:** Abandoned, idled or under-used facilities where redevelopment is complicated by environmental contamination. Learn more at [www.epa.gov/brownfields](http://www.epa.gov/brownfields).

**National Wildlife Federation's Backyard Habitat Program:** Any homeowner who provides the essential elements for healthy and sustainable wildlife habitats can have their backyard or garden plot certified by the National Wildlife Federation. Learn more at [www.nwf.org/backyard](http://www.nwf.org/backyard).

**Renewable Energy Certificates:** A Renewable Energy Certificate is a tradable unit that is usually equivalent to the environmental attributes of one mWh of electricity from a renewable generation source. Learn more at [www.evomarkets.com](http://www.evomarkets.com).

**Indoor Air Quality:** A measure of the healthiness of indoor air. See PATH's IAQ Tech Set at [www.pathnet.org](http://www.pathnet.org) under "Tools." Also visit [www.epa.gov](http://www.epa.gov).

Other building materials were selected to limit air pollution during transportation, support regional economies, and reduce and reuse waste. The seemingly traditional wood floors, carpets, doors and cabinets are salvaged from sustainable sources or of local origin whenever possible.

Learn more about the Mainstream GreenHome at [www.MainstreamGreenHome.com](http://www.MainstreamGreenHome.com). A virtual tour will be available soon. The home is expected to open for tours in October 2007.

On request, Cherokee will send you a list of green experts that will help you build green. PATH's Technology Inventory also provides detailed information on many of the home's technologies at [www.toolbase.org](http://www.toolbase.org).

*By Peggy Foran,  
for the PATH Partners*

### RESOURCES

Center for Resource Solution's Green-e Program for Consumer Protection, [www.green-e.org](http://www.green-e.org)

Cherokee Investment Partners Inc., [www.cherokeefund.com](http://www.cherokeefund.com)

Mainstream GreenHome, [www.mainstreamgreenhome.com](http://www.mainstreamgreenhome.com)

National Wildlife Federation's Backyard Habitat Program, [www.nwf.org/backyard](http://www.nwf.org/backyard)

PATH's Technology Inventory, [www.toolbase.org](http://www.toolbase.org)

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