

# OUR JOURNEY TO ZERO



**ZERO**  
ENERGY READY HOME  
U.S. DEPARTMENT OF ENERGY  
HOUSING INNOVATION AWARD  
WINNER 2020

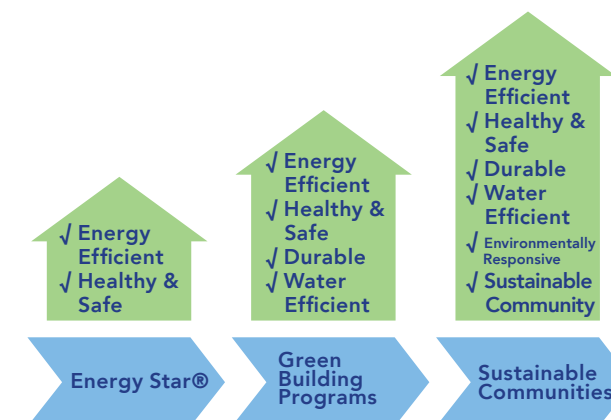


## DEAR ECO-FRIENDLY SUPPORTERS,

Since its founding, Hartford Area Habitat for Humanity (HAHFH) has prioritized building safe, decent, and affordable housing. In the early 2000's, HAHFH decided it was time to review house plans with a home energy rater and identify ways to construct more energy efficient homes. This resulted in HAHFH building only Energy Star® certified homes moving forward. For over a decade now, this certification highlighted our ability to construct well insulated and air-sealed homes eliminating drafts and keeping the interior air temperatures comfortable throughout the year. This increased insulation along with installing energy efficient appliances and light fixtures reduced utility bills for the homeowners. *These energy conscious measures help to reduce carbon emissions, limit waste on jobsites, and provide a positive long term environmental impact as compared to traditional homes.*

In 2006, Hartford Habitat completed a home with insulated concrete forms and another home with solar panels along with other efficient products. In 2019, HAHFH decided it was time to explore how far these energy saving measures could go. With the support of a Home Energy Rater, subcontractors, and hundreds of volunteers HAHFH built its first Zero Energy Home at 153 Roosevelt St in Hartford. This home was a standard design that was modified to run as efficiently as possible, reducing electric usage and generating at least 90% of the energy needed to power the home with a Photo-Voltaic System. *The completed project received several local and national awards for providing affordable housing that measures in at -7 on the HERS® scale.*

Thanks to the great success of this build and encouragement from our supporters, Hartford Area Habitat for Humanity is excited to share that all new construction builds *starting in 2021 and moving forward will be Zero Energy Ready Home Certified!* We believe this certification can be achieved with simple and thoughtful design changes to any house plan and will provide families with the safe, comfortable, and affordable homes they deserve. *Please join us on this journey by donating to make sustainable housing for our families and the environment!*



In Partnership,  
  
Karraine Moody  
Chief Executive Officer

Kris McKelvie  
Director of Construction





## CONCRETE EFFICIENCY



In 2006, Gossett and Ethline Jump, along with their two children, were thrilled to become Hartford Habitat's first concrete-built homeowners. They were going to live in a home that was designed for energy efficient living. A few key benefits of building with concrete are durability and easy maintenance. Concrete and cement-based products form a solid, durable surface that resists rot, pests, and fires.

Concrete homes look exactly like "stick built" homes. They are constructed using Insulated Concrete Forms (ICFs) that are stacked and braced. The forms used while building the Jump's home had 3" foamboard on both sides with a 6" opening for the concrete to be poured into. The ICFs had metal nailing strips that allowed the typical interior finishes and exterior treatments such as siding and sheetrock to be applied.

Gossett and Ethline began working on their home, putting in sweat equity starting in 2004. Gossett was amazed on how the construction took place and made it a point to save an ICF for future reference. He remembered with a smile all the volunteers helping to build and learning about concrete. He shared how living in a sound-proof house was extremely comfortable for when the windows and doors were closed, the sounds of the world stayed outside.

As for energy savings, the biggest area is in utility costs. Their home stays warmer in the winter and cooler in the summer. Currently the heating costs are approximately \$100 month using gas heat in the winter and the summer cooling using A/C window units is minimal.

Gossett and Ethline are grateful for their unique Habitat home. Their children are grown and out of the house and on their own, busy with their own lives. They now have a grandson who comes for visits and the house is busy with family gatherings and holiday celebrations throughout the year.



*The Jumpps with Governor Rell in 2006.*

## HARTFORD HABITAT BUILDS GREEN HOMES



With their sweat equity, and the guidance of Hartford Area Habitat for Humanity (HAHFH) and sponsors, Chris and Sharmane Walton helped build their award-winning energy and material efficient single-family home in South Hartford. **The home is Energy Star Certified, meets the EPA Indoor airPLUS and Zero Energy Ready Home (ZERH) requirements.**

The Department of Energy defines a ZERH home as a "high-performance" home which is so efficient, that a renewable energy system can offset all or most of its energy consumption. The Walton's home had to achieve several criteria to be defined as a ZERH rated home, such as: optimal thermal protection, high-performance heating and cooling, whole house water protection, comprehensive indoor air quality and solar ready construction. Thanks to the talented Green Team at HAHFH and their consultants and sponsors, the Walton's home met all the requirements and achieved a Home Energy Rating System (HERs) index of -7.

Chris and Sharmane Walton feel grateful for this opportunity to be Green Homeowners. They are seeing the benefits of living in a home that runs on electricity using current technology to heat, cool and run all the appliances, lighting, etc. What has become increasingly important is the ability to ensure that sustainable housing is affordable to homeowners over the long term. This means building homes that incorporate energy-efficient measures and technologies in their design.

The Walton's home is not only energy efficient, it is an award winner for 2019 CT Green Building Council – Residential Award of Honor; CT Zero Energy Ready Challenge receiving the 2019 Award Winners for Lowest HERs Rating before Renewables and Affordability and 2020 Housing Innovation Award – Grand Prize Winner in the Affordable Housing Category.

