

# NGBS GREEN CASE STUDY

1674 Shawn Drive  
NGBS Green's 600,000th Home



**NGBS  
GREEN**<sup>™</sup>  
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## About the Project

**Project Type:** Whole-house renovation of a single-story single-family house.

**House Size:** 2,955 sq. ft.

**Location:** Baton Rouge, LA

**Performance:** 2020 NGBS Green Certification-Emerald Level (Nov 2024)

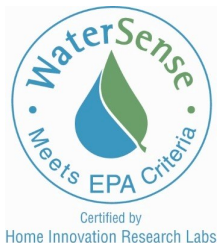
**Certifications/Recognition:**  
+RESILIENCE, EPA WaterSense Certification

## Project Team

**Builder:** Consilium Holdings LLC

**Designer:** Custom Home Designs

**WRI Verifier:** [Rebekah Phomsopha](#),  
NGBS Green Verifier, [Oxalis Advisors](#)



## Overview

Prioritizing earning the NGBS Green+ RESILIENCE certification, this home's renovations focused on resilient construction practices, which are designed to withstand natural and manmade disturbances while maintaining or quickly regaining their functionality. In addition, this home is the first NGBS Green remodel project to earn WaterSense certification, EPA's mark of superior water efficiency, through Home Innovation Research Labs, who serves as a Home Certifying Organization (HCO) and certifies buildings based on selected practices within the 2020 NGBS.



## Green Features/Practices

- Lot Design & Development:
  - ◆ Mass transit system and community resources within a half-mile radius
  - ◆ Non-invasive, regionally appropriate plants populate a butterfly garden
- Resource Efficiency:
  - ◆ Reclaimed and/or salvaged materials and components used as resource-efficient products containing fewer materials
- Water Efficiency:
  - ◆ ENERGY STAR or equivalent appliances and tankless hot water system
- Energy Efficiency:
  - ◆ At least 75% of outdoor lighting fixtures are controlled by photo- or motion sensors reduce unnecessary usage
  - ◆ Ductless mini-split systems allow for heating and cooling without installation of ductwork
  - ◆ Energy-monitoring device and energy management control system
  - ◆ Renewable energy system with battery storage system to capture excess energy for when demand outpaces supply
- Indoor Environmental Quality:
  - ◆ Whole-building smart ventilation system minimizes unnecessary usage
  - ◆ Low-emission insulation installed
  - ◆ Non-combustion appliances, equipment, and fixtures installed to eliminate sources of air pollution

## The Verifier Voice

*"The NGBS Green program acts as a distinguisher...a standard for green building compliance at different levels, and it was a clear choice to select a certification that would legitimize all of the upgrades holistically, not just on the energy level."*

- Rebekah Phomsopha, NGBS Green Verifier, and President of Oxalis Advisors LLC



## From the homeowner

*"I've always been interested in energy efficiency, but as I've gotten older, I've become more health conscious. As we've discovered more about the effects of formaldehyde and other dangerous chemicals in one's home, I've come to realize how much health and efficiency overlap."*

- Christina Dorsa, homeowner and remodeling company owner

## About the Home

The intent of this whole-house rehab wasn't just to improve energy efficiency, it was to create a sustainable and resilient legacy for generations to come. The lot features a butterfly garden and regionally appropriate native vegetation eliminating the need for an irrigation system. The home is conveniently located within a half mile of a church, an elementary school, therapy services, and additional community resources.

With a goal of earning the NGBS Green+ RESILIENCE certification, the exterior envelope of this home was reinforced with sheathing and cement board enabling it to better withstand forces generated by flooding and wind, reducing damage from severe weather events such as hurricanes. Despite the addition of solar panels on the roof, ice and water shields were installed to prevent leaks through the required penetrations. Improvements such as these resulted in this home being 30% more resilient than the minimum requirements of the 2018 International Residential Code.

Improvements such as smart appliances and equipment, interior lighting occupancy sensors, exterior lighting photo and motion sensors, and spray foam insulation throughout the rafters and walls optimize energy savings and lower utility bills.

The installation of solar panels and a battery storage system, robust roof trusses, advanced spray foam insulation, garage insulated with fire block foam for added fire protection, efficient ductless mini-split systems, a new energy recovery ventilation (ERV) system, instant water heaters, formaldehyde-free cabinetry, and the reuse of original elements all contributed to achieving recognitions over and above the NGBS Green Certification at the Emerald level.

