

## CASE STUDY: SHOP BUILDING AND GARAGE



### Challenge

The project was built to create a sound and visual barrier between the neighboring home after a section of trees on the side yard that joined the two properties was cleared. The owner wanted a handsome detached building to match the exterior finishes and architectural details of their existing creekfront home. The building needed to accommodate parking for a 20' Ford F-150, storage for lumber (for crafts/projects), tools, seasonal decor, crafts, power tools, fly fishing gear, golf clubs, and a side-by-side off-road UTV. This DIY project had to be completed during nights and weekends before the owner was scheduled for knee-replacement surgery.

The design was a collaboration between the homeowner, Dan Wall with Contour Drafting & Design, and a designer. The architectural details for the project were straightforward, as the project's design goals were clear and specific. A loft plan with raised dormer was the starting point, and the building took shape through online collaboration between the homeowner, a drafter and a designer. Also included within the design were Simpson Strong-Tie ICF Embeds and Ledger Board connectors for the floor system and the stair landing.

### Project Highlights

**1st Runner-Up 2022 ICF Builder Awards**

**Aesthetically pleasing: building settled into landscape of creekfront property and matches current homestead**

**Very low-maintenance building with metered Habersham EMC average monthly 300 kWh @ 0.106 for an average monthly bill of \$31.80 for energy usage**

### Project Stats

**Location:** Clarkesville, Georgia

**Industry:** Specialty Application

**Size:** 1,200 sq. ft.

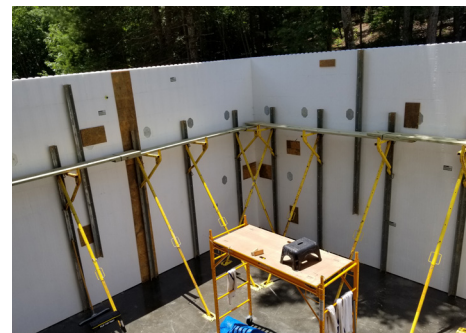
**ICF Use:** 1,320 sq. ft.

**Cost:** \$66,352

**Total Construction:** 24 weekends

**ICF Installation Time:** 2.5 days





## Challenge (continued)

Throughout the design and build process, it was important for the homeowner that trees and natural property were considered and safely transported when necessary. This meant careful clearing and transplanting of natural laurels, hemlocks and rhododendrons. The owner also kept several large oak and pine trees, which made it a challenge for the boom pump later in the build.

The owner completed the ICF Construction with some help from a few friendly local subtrades while utilizing Giraffe ICF bracing. It's an exceptional build with straight walls and no voids, honeycombing, or bulges in sight.

The turmoil of COVID has taught us that the spaces in which we live and spend time are incredibly important to our health and well-being. This project fully demonstrates what is possible for a DIY specialty project built with ICFs.

## Sustainability

In order to achieve the most efficient building design possible, Fox Blocks ICFs were incorporated along with 5½" of open-cell, spray-foam insulation into the knee walls and roof. The building envelope is tight, the side door closure has a solid feel and the building has experienced very low energy costs to keep a constant 70 degree F environment all year long.

## Budget

The project was completed within budget.

## Timing

Using nights and weekends, the owner was able to finish the project in 24 weeks.



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