Delivering L.B. Foster innovation

CASE STUDY

CONCRETEPRODUCTS

Envirocast® Wall System

Two-Story Residential Build in Gainesville, FL

The Envirocast Wall System, manufactured by CXT® Inc., a subsidiary of L.B. Foster, in Leesburg, FL, simplified and accelerated the construction of a dual-unit residential investment property near Florida State University in Gainesville, FL.

Situation

A property owner and investor set out to develop a two-unit residential property near Florida State University in Gainesville, FL, with the goal of quickly entering the short-term rental market. The project included a two-story primary residence with a garage and front porch, along with a detached accessory dwelling unit (ADU) to maximize rental income potential.

As a non-local owner managing the project independently, coordinating contractors and monitoring progress required frequent travel which was time consuming. At the same time, a traditional construction schedule would delay occupancy and revenue generation.

The residential lot was very narrow, with limited staging space and required a construction approach that reduced congestion and minimized disruption to the surrounding neighborhood.

Requirement

The customer required a construction solution capable of delivering both structures within an accelerated timeline to begin generating rental income as quickly as possible. The solution also needed to reduce the level of on-site coordination and oversight required from a remote owner while suporting a durable, low-maintenance build that would help minimize long-term operating, utility, and potential insurance costs.

Additionally, the construction approach needed to accommodate a narrow lot with limited staging space and minimize impact to the surrounding residential neighborhood.

Specification

Envirocast prefabricated wall panels were utilized to support rapid construction and efficient jobsite execution. The panels were shipped ready for installation and erected in phases to accelerate construction and accommodate site constraints. Due to the narrow lot, the panelized system minimized staging requirements and reduced congestion within the residential setting.

Construction was completed in two phases. Phase 1 included installation of the single-story ADU and the first floor of the main residence, including the garage and front porch. Following installation, the framing subcontractor mobilized the next day to complete the ADU roof and frame the second story of the main residence.

Phase 2 occurred less than one week later with installation of the second-story wall panels. The prefabricated panels were delivered with integrated components including insulation, pre-installed metal studs, pre-formed openings for windows and doors, and pre-coordinated utility penetrations. Structural elements such as hurricane straps and anchoring systems were incorporated to align with the overall building design, further supporting installation efficiency and reducing modifications.

Coodination between trades allowed for shared crane usage. This reduced mobilization costs and improved overall jobsite efficiency.

Solution

Envirocast provided a prefabricated wall solution that streamlined construction and reduced jobsite complexity. CXT worked directly with the project team, including the architect and Engineer of Record, to support design coordination, permitting, and system integration, reducing the level of involvement required from the customer. The 8” wall was a direct swap for 8” CMU so no additional architectual revisions were needed and the interior square footage of the home was maintained from the original design.

Prefabricated wall panels were delivered ready for installation, allowing both structures to be erected in a matter of days. The integrated system, combining structure, insulation, and framing, reduced the number of trades required on-site and enabled the framing contractor to mobilize immediately following panel installation. This approach simplified construction sequencing, supported a significantly accelerated build schedule, and reduced the amount of time the customer spent traveling to the jobiste and managing subcontractors.

Results

The Envirocast solution enabled both the primary residence and the ADU to be erected and brought under roof in less than two weeks. This accelerated timeline allowed the customer to move quickly into finishing phases and begin generating rental income significantly sooner than traditional construction would have allowed.

By reducing the number of trades required on-site and simplifying coordination, Envirocast walls minimized the need for frequent site visits and ongoing management by the remote owner. The shortened construction duration also reduced disruption to the surrouning neighborhood. Residents maintained access to their properties, while construction traffic, noise, and jobsite impact were limited to a significantly shorter duration.

In addition, Envirocast’s integrated wall system provides long-term performance benefits, including improved energy efficiency, reduced maintenance requirements, and enhanced durability, supporting lower operating costs for the rental property over time.

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L.B. Foster

11035 County Road
Leesburg, FL 34788

t 863 378 9688
e envirocastinfo@lbfoster.com

lbfoster.com/envirocast/fl