# small homes case study





## New Haven, Connecticut – 1,000 sq ft Affordable Duplex

#### Small and affordable two-unit home with a modern look, built by Yale students.

The Yale School of Architecture established its Jim Vlock First Year Building Project in 1967. This project gives first year architecture students the opportunity to contribute to the design and construction of a new home. Many have been in the New Haven area around Yale and built in partnership with local nonprofits, including the local Habitat for Humanity affiliate. In recent years, the houses have been made with the goals of affordability and small footprints. All units from 2014 to 2018 were less than 1000 square feet. The 2018 Jim Vlock Building Project is located on Button Street in New Haven Connecticut.

#### **Cost and Design:**

- 1,000 square feet (cumulative of two units)
- \$130,000 build cost, with the inclusion of major appliances (\$130 per square foot)
- Corner lot in medium density neighborhood
- Partnered with Columbus House, a homeless services nonprofit to build the house and select two formerly homeless families to reside there
- 58 Yale students built the house and contributed to project management, while industry professionals donated time and materials for construction
- Built with sustainably-sourced cross-laminated timber, which was cut off site and craned in
- Large windows to allow for significant natural light
- Solar panels will be added after new families move in
- Construction completed in under four months
- The two-story home is designed to have a high quality aesthetic, while incorporating stylistic elements similar to those in the neighborhood.



### Financing:

- Funding largely comes from Yale University, though many materials were donated and student labor was unpaid
- Homeowners will contribute 30% of their income towards rent and utilities through a Columbus House program

#### **Lessons Learned:**

- Affordable homes can be designed with modern aesthetics and incorporate unique design elements
- Partnerships and charitable work play a crucial role in addressing affordable housing issues
- Homes can still be small when being built for two families
- Elements of home design, such as privacy and security, can be more important elements than in most houses when
  designing homes for those that have faced housing insecurity and homelessness, accounting for the few street-facing
  windows
- Having few large windows can contribute to energy efficiency, reducing utility costs for low-income homeowner

## **Learn More**

https://yalebuildingproject.org/

https://www.archdaily.com/907643/2018-jim-vlock-first-year-building-project-yale-school-of-architecture