

Team



Developer



Builder



Practice Partner



Practice Partner



Your name can be here



FLOURISHING COMMUNITIES COLLABORATIVE

A combination of design, technology, research, and entrepreneurship, Flourishing Communities Collaborative (FC2) is a replicable curricular model that builds relationships between students, faculty, practitioners, and the community in applied design thinking and problem solving for disadvantaged communities. Housed in the School of Architecture, College of Design, at Georgia Tech, FC2 empowers the community with tools aimed at investment of local expertise, amplifying impact for underserved community members, and offering a framework for smart, sustainable development. Our work sharpens the real-world application of Public Interest Technology to center community voice in pursuit of solutions for pressing problems, particularly challenges experienced by marginalized communities least well served by existing systems and policies.



Georgia Tech
Flourishing Communities Collaborative

- Julie Ju-Youn Kim AIA, Director/Founder FC2
School of Architecture
- Tarek Rakha PhD
Director of High Performance Building Lab
School of Architecture
- Frank Wickstead
School of Building Construction
- Katie Reilly
M Arch 2022, Project Manager and Designer

- Marianna Godfrey
BS Arch 2023
- Surabhi Maheshwari
M Arch 2024
- Breanna Rhoden
M Arch 2022, Project Designer
- Ranjitha Jayasimharao
MS 2022
Building Performance Analyst

Our approach demonstrates the value of a computational, quantitative, and data-driven approach to solving social and cultural problems, expanding equity for those who lack access to resources.



fc2.design.gatech.edu

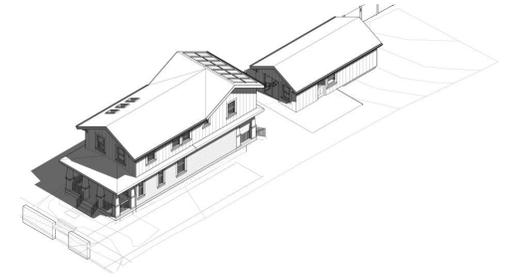
Overview

In Spring 2021, Professor Kim designed a graduate-level course in the School of Architecture (Georgia Tech) asking students to employ design research methods including site analysis, schematic design, and performance simulation to empower a current resident with a new affordable home aimed at redefining resiliency and economic sustainability. The students approached the project through three related considerations –

746 Jett Street Residences

Impact

Turning theory into practice, this project brings an academic project into a real-world application. A team of recent graduates, supported by practitioners offering technical expertise, are currently developing a set of documents for permit and construction with expected construction to start in Spring 2023.

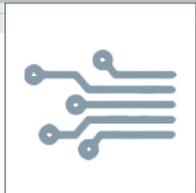


This proposal establishes a replicable model for future development and construction for affordable housing, designed to meet building performance criteria, thereby lessening energy burdens on thousands of future homeowners.



Issues

Issues on community and identity



Advancements

Advancements in technology and production, including evaluating opportunities for innovative fabrication/assembly initiatives



Energy Performance

Energy performance, resiliency, and sustainability

Specifications

All the systems are proposed to achieve more than 400\$ in energy savings every year.

- ▣ Main House
3 BR/ 2 BATH | 1,760 SFT
- ▣ Accessory Dwelling Unit (ADU)
512 SFT
- ▣ Fabrication System
Code compliant stick framing for the main house with high performing systems and innovative structural insulation panels (SIP) system for ADU

Environmental Systems

- ▣ Advanced enclosure - air sealing package with superior insulation measures (R-20 for walls, R-38 for walls and other envelope efficiency measures like Zip sheathing)
- ▣ VRF system with whole house dehumidifying ventilation
- ▣ Energy star rated appliances
- ▣ High efficiency electric water heater
- ▣ 90% LED lighting
- ▣ Smart thermostat to influence household energy use pattern
- ▣ Solar ready home
- ▣ No VOC paints.