Design Build Award

ACSA 2025

Full Resolution Studies (FRS)

Exquisite Corpse

Project Name:
Full Resolution Studies (FRS), Exquisite Corpse

Month/Year Completed: September 2023
Type: Temporary Structure (2 months)
Dimensions: 18'(W) x 60'(L) x 10'(H)
Photography by students & faculty
Expenses: Self funded

Location: Hellen Topping Library Patio,
The University of Southern California
School of Architecture

Students: Alyssa Ha, Anjing Tang, Daniel Ungar, Dongdong Tao, Emily Perez-Kowalski, Henry Bell, Jennifer Burke, Jie Sun, Jill Jenkins, Jintian Xu, Jong Hwa Park, Joyce Fu, Junwen Su, Joseph Wan, Kaiji Luo, Kellie Dinh, Khalid Alhazmi, Lilly Finkelstein, Mildred Dimas, Minh Anh Nguyen, Moustafa El-Mahdy, Navid Rodd, Qutaiba Alanjari, Samantha Okabe, Shoon Thu, Yibo Peng, Yifan Zhang, Yihe Qi, & Zhirui Zhang.

Faculty: Erin Kasimow, Jimenez Lai, & Ryan Tyler Martinez

Abstract

What is a full-scale installation, and how does it differ from a folly, a sculpture, or an oversized architectural diagram? Additionally, what is the significance of a contemporary 1:1 construction exercise for first-year M.Arch students, especially when considering resource concerns, cost management, future employability, and the need for a hands-on crash course in construction details—all while igniting a passion for lifelong architectural experimentation?

These questions guided students as they embarked on a two-week design-build charrette to translate their initial digital models into 1:1 Full Resolution Studies (FRS). These life-sized concept models explored foundational topics such as context, form, narrative, tectonics, and materiality.

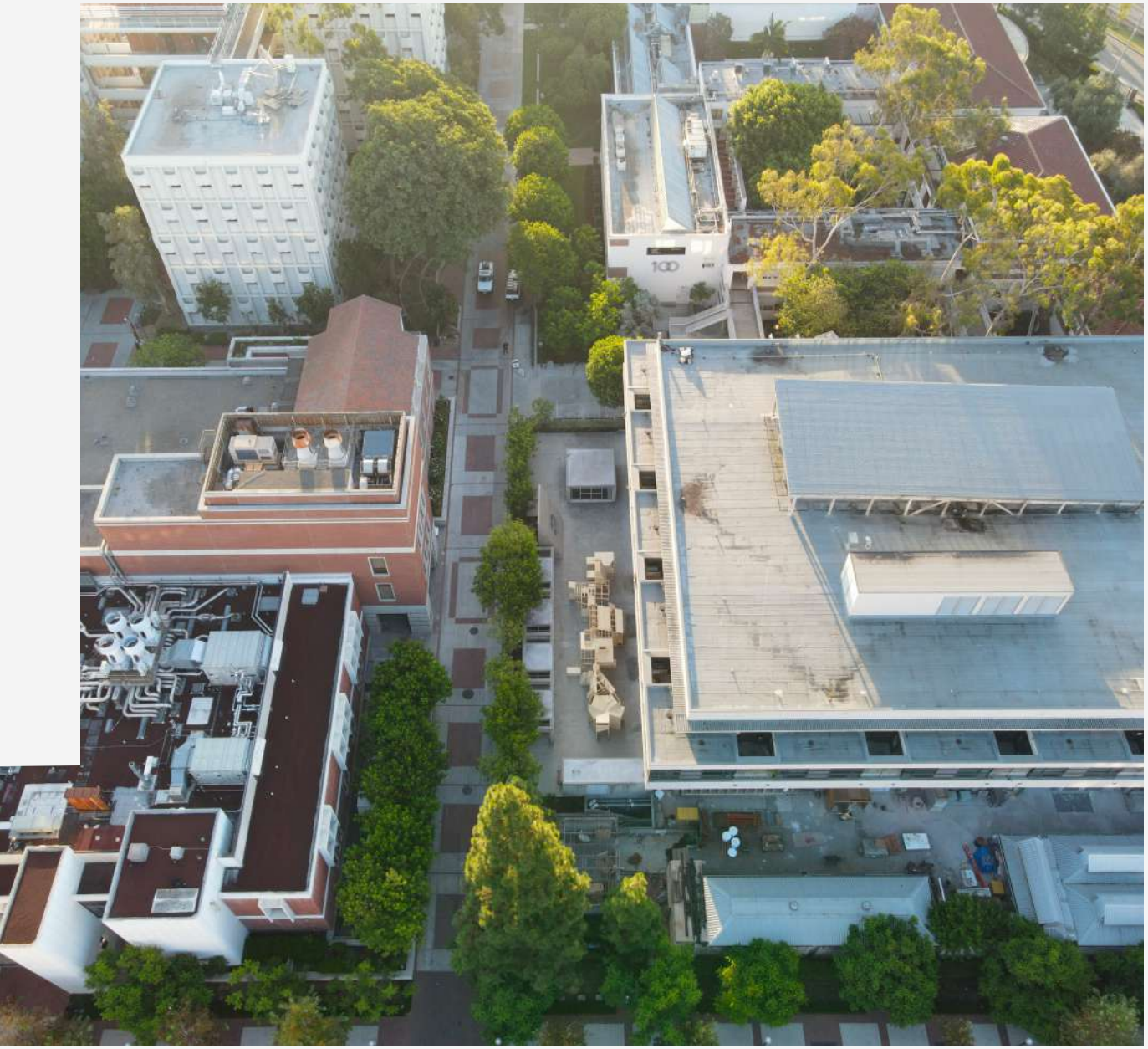
Many architects and students don't have the chance to realize built work until much later in their careers. However, within weeks of starting their M.Arch I program, students began transforming their digital concepts into physical realities. They navigated the complexities of teamwork to construct and install their pieces on the roof of the USC Art and Architecture Library (which is actually at ground level) taking into account existing site conditions and the new context they were erecting. In addition to designing and fabricating their individual FRS, groups collaborated with neighbors to create a final exquisite corpse composite, making adjustments that allowed their models to engage with one another.

A living construction site led by students was an appropriate event for an architecture school, and became a spectacle visible from the classrooms and studios above. The final exquisite corpse created a visually and spatially intriguing new campus neighborhood and a typically vacant space evolved into a de facto public plaza, inviting exploration by anyone passing by. After two months, the FRS were carefully disassembled, and the materials were recirculated to students and other classes throughout the school year, finding new life in furniture projects and temporary structures both on and off campus.

As we explored the concept of "Design Build" within professional practice, we aimed to provide the often-rare satisfaction of realizing an architectural experiment at a substantial scale, along with the tangible thrill of experiencing designed spaces in real life.

Image: Students installing the FRS, photography by students.

Learning Outcomes

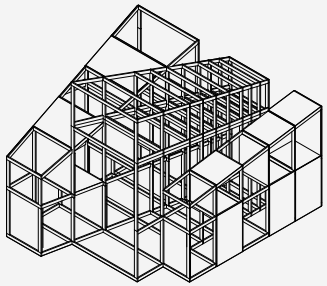


Site — Specific Analysis

Students measured and documented the existing site, 3D modeling the exterior facade and elements of the quad. The evaluation included assessing the accuracy and thoroughness of the documentation, as well as the ability to translate observations into meaningful design decisions that engaged aspects of the site's characteristics, views, and public access.

Digital to Material Translation

In week one, students quickly developed a design initially created in Rhino without thickness or scale to focus on structural concerns, connection details, material thickness, and tectonics at a larger human scale. Using a limited material palette sourced from the hardware store, their evaluation emphasized the creativity, innovation, and technical proficiency shown in their design solutions as they prepared their Rhino models for transition from the digital realm to real-world fabrication.



“ I enjoyed this project because it taught us how to translate a Rhino model into a full-scale structure. One challenge with using modeling software is that it’s hard to grasp the true scale of individual elements or the entire design. There’s something incomparable about experiencing a full-scale structure — no physical model or detailed Rhino rendering can capture that same beauty. ” - AJ Tang

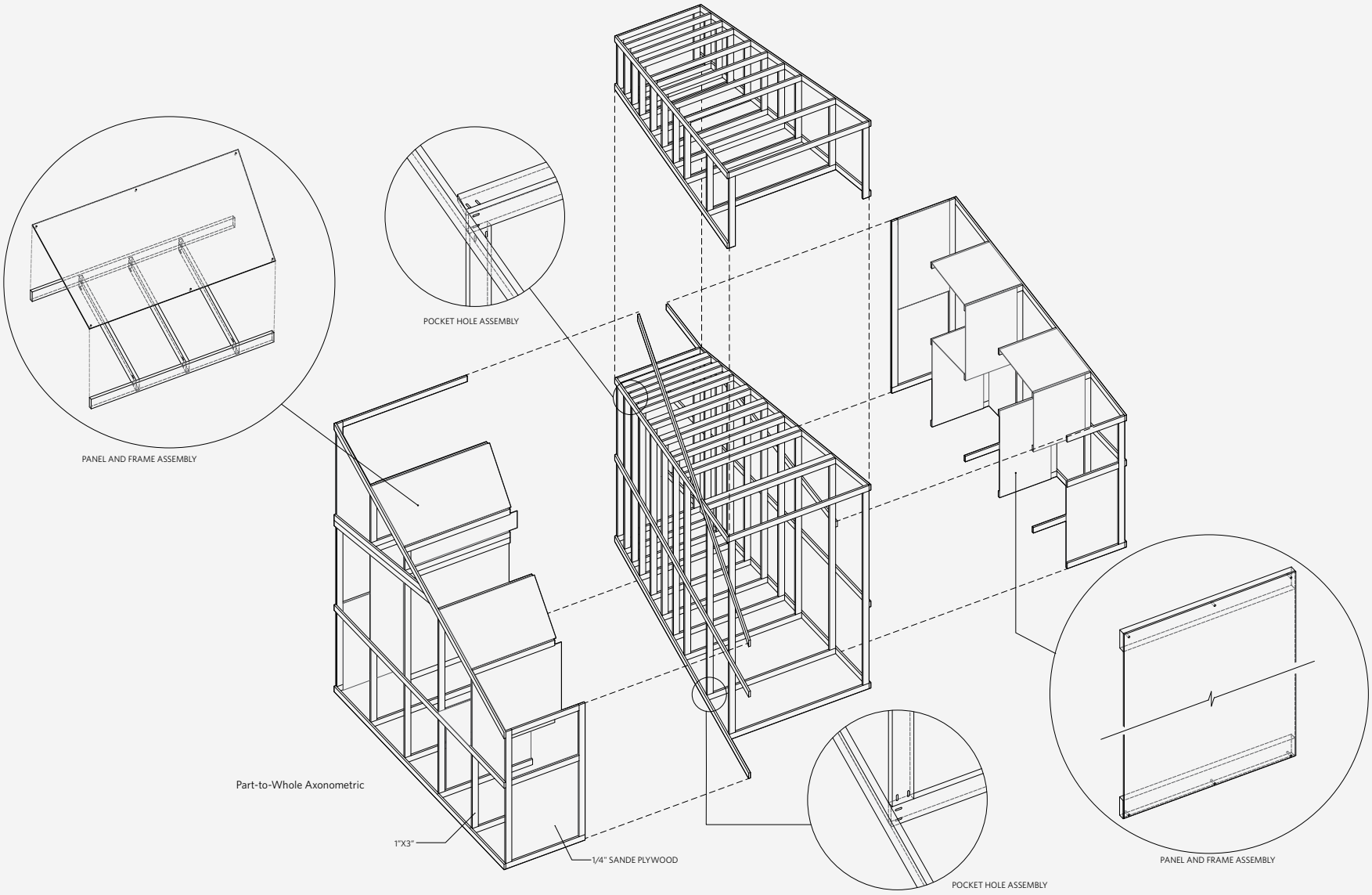

POCKET HOLE ASSEMBLY
PANEL AND FRAME ASSEMBLY
Part-to-Whole Axonometric
1"X3"
1/4" SANDE PLYWOOD
POCKET HOLE ASSEMBLY
PANEL AND FRAME ASSEMBLY

Image: Final Review, photography by students.

Collaboration

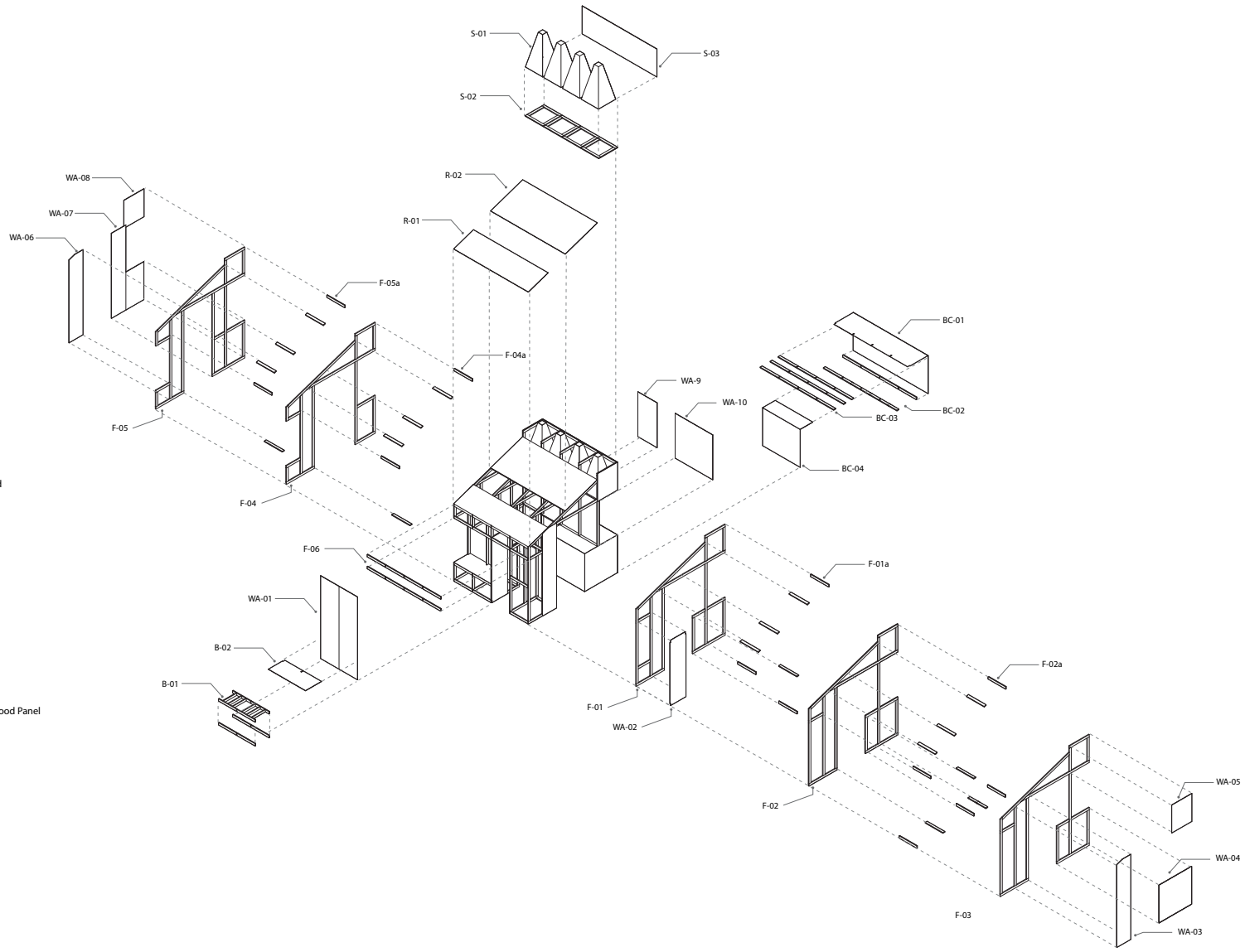
While confronting the challenges AND rewards of working together students shared experiences analogous to professional practice and a realization that built work is not the product of a singular design voice or ego but rather diverse collaborative efforts and teamwork. The evaluation involved assessing the effectiveness of teamwork, communication, and the ability to work collectively towards a common goal.

"Something I learned from this project is that there is no such thing as a useless team player. We just have to figure out their strengths and weaknesses and focus on what they can contribute. Everyone is helpful in their own ways." - Emily Thu

“ As a group we learned fast; and over the course of just a week, we had the opportunity to progressively sharpen our skills and knowledge of construction and tectonics. I really appreciate the project both for what it taught us and the camaraderie that was built, particularly on site. I continue to think back to the challenges and breakthroughs we had as a team.” - Joseph Wan

Construction and Fabrication Skills

Week two of the assignment focused on fabrication and construction. Students created their own construction documents, cut sheets and assembly plans, engaged the school shop and self-organized their construction sites to build their designs. The evaluation involved assessing the students' ability to translate their design into a physical form, their craftsmanship, attention to detail, and the successful execution of the FRS.



R -Roof Components
WA -Wall Components
B -Bench Components
BC -Bar Counter Components
F -Frame Components
S -Skylight Coponents

1 in. x 3 in. x 8 ft Furring Strip Board

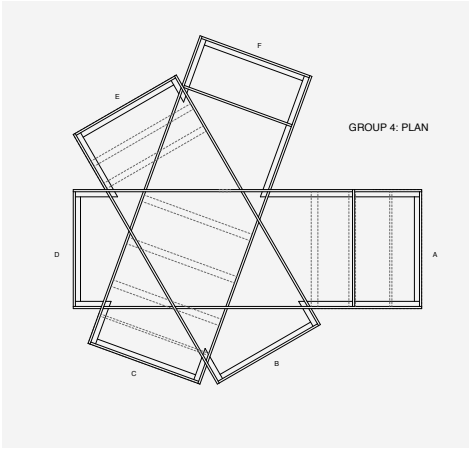
F-01
F-01a
F-02
F-02a
F-03
F-03a
F-04
F-04a
F-05
F-05a
F-06
B-01
BC-02
BC-03
S-02

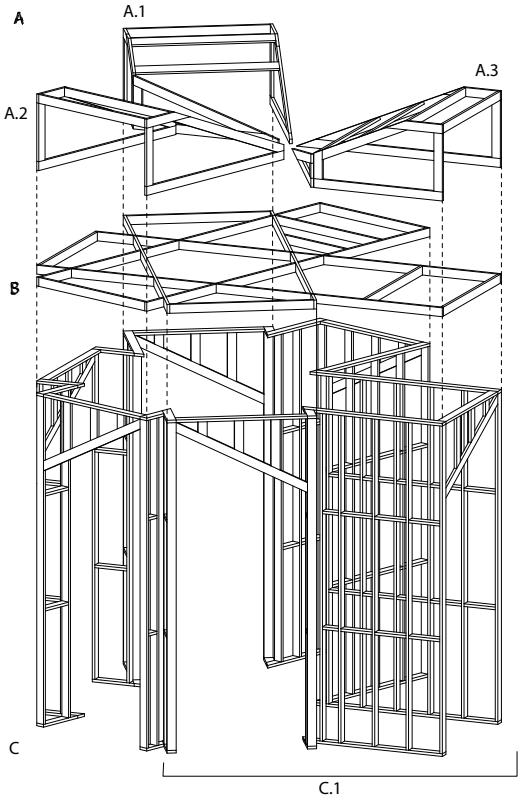
1/5 in. x 4 ft. x 8 ft. Hardwood Plywood Panel

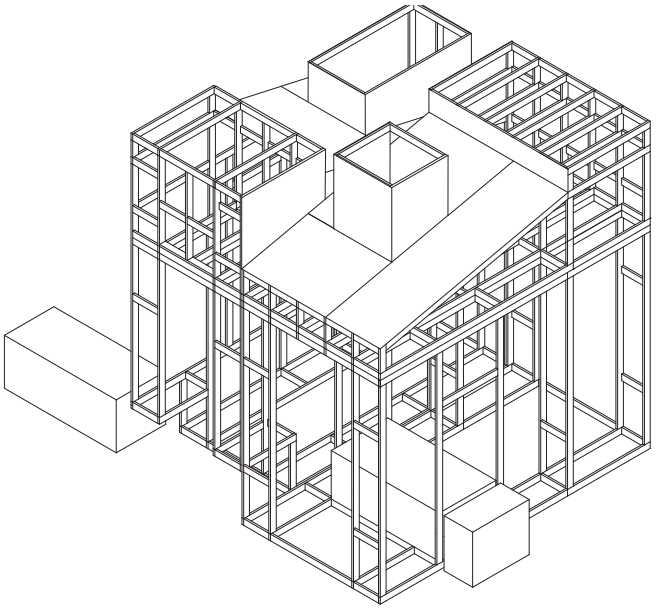
B-02
BC-01
BC-04
R-01
R-02
S-01
S-03
WA-01
WA-02
WA-03
WA-04
WA-05
WA-06
WA-07
WA-08
WA-09
WA-10

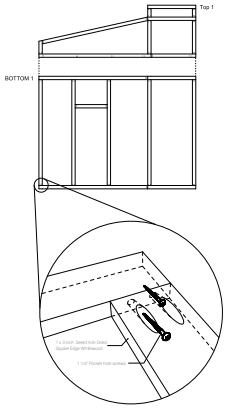
Isometric view

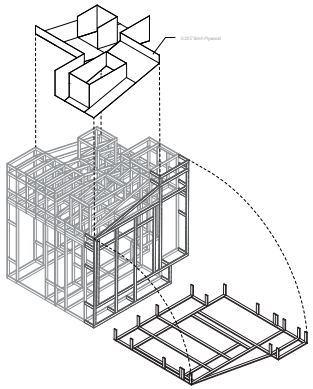
“ It seems that many architecture curriculum undervalue the experience of putting parts together to create a whole in real life — especially at full scale. The exposure to conventional construction materials, tools, and their application through the FRS is irreplaceable in the development of a young designer. ”
- Henry Bell


GROUP 4: PLAN
F
E
D
A
C
B


A
A.1
A.3
A.2
B
C
C.1




Top 1
BOTTOM 1



Budget + Resource Management

In efforts to achieve parity across teams, a budget was given and each group was responsible for maintaining their expenses and paying for building materials. As they will inevitably face these constraints in practice, this critical part of the exercise aimed to empower the students rather than have them see the budget as a concession. Financial and material restrictions gave students their first opportunity to think nimbly and resourcefully adapt their designs to meet costs without compromising the intention and effects of their installations. The overall budget for the design-build assignment was $120 per student. At the conclusion of the installation, students used their materials for other assignments in studio or seminars. The remaining wood was donated and recycled as part of the school's position on life-cycle waste management and re-usability.

"The FRS project provided us with the opportunity to build using real-world construction materials. We had to design with an understanding of material limitations. The challenge was finding ways to work within these constraints." - AJ Tang

“ We experienced the real life challenges of construction: preparing construction documents, gathering large quantities of material, and fabricating and assembling those materials. All while under constraints. Even with the challenges, the overall experience was rewarding and insightful. It truly gave us a glimpse into the labor and time it takes in the office and on-site to complete a project. ” - Mildred Dimas