

KARIN NAJARIAN

LEED Green Associate

knajarian2000@gmail.com | Woodbury University
(818)334-9646 | B.Arch | GPA : 3.8
linkedin.com/in/karinnajarian/ |

PROFILE

Architecture undergraduate student excited about designing captivating and sustainable human experiences. With a background in robotics, I am always looking for new materials, digital fabrication methods, and ways of integrating technology into architecture.

SKILLS

Rhino
Grasshopper
Illustrator
InDesign
AutoCAD
Revit
TouchDesigner
SketchUp
Microsoft Office
Laser cutting
Model building
3D-printing
Lidar-scanning & registration

EDUCATION

WOODBURY UNIVERSITY

Burbank, CA

Bachelor of Architecture & minor in Applied Computer Science Media Arts

Aug. '18 - May '23

EXPERIENCE

INTERN - GENSLER

Los Angeles, CA

Performing site observations, preparing and presenting Concept Design proposals for multiple exterior renovations to clients.

Jun. '22 - Aug. '22

INTERN - COVER

Gardena, CA

Using company software to draw and configure ADU designs.

Preparing submittals and applications for LA city and CA state permits.

May '21 - May '22

INTERN - NASA JET PROPULSION LABORATORY

Pasadena, CA

Used Leica BLK 360 lidar scanners to scan buildings on JPL site and registered the point cloud data using Leica Register 360.

Organized layers and information on existing site plans in AutoCAD.

Jun. '19 - Aug. '19

INTERN - ALAJAJIAN MARCOOSI ARCHITECTS

Glendale, CA

Used AutoCAD to draw plans, sections, and elevations for existing hand-drafted drawings for residential project.

Gathered material samples and created material board for residential project.

Jul. '18 - Aug. '18

INTERN - NAC ARCHITECTURE

Los Angeles, CA

Digitized blueprints for previous education building projects, organized files on the server.

Edited entourage into photographs of completed education buildings using Photoshop.

Jun. '17 - Aug. '17

LEADERSHIP

STUDENT LEAD - US. DEPT. OF ENERGY SOLAR DECATHLON

Burbank, CA

Designed and permitted the first 3d-printed residence in Los Angeles.

Liaised between the design team and GC.

Maintained a construction model and prepared architectural sketches for contractors.

Jan. '22 - present

PRESIDENT - NOMAS AT WOODBURY

Burbank, CA

Leading a team of about 30 students to design annual NOMA competition entry, plan lecture events for the student body, and design a brand guide for all team graphics.

Dec. '20 - Dec. '22

CO-FOUNDER & CO-LEADER - ASTERISK AT WOODBURY

Burbank, CA

Preparing discussions and facilitating discussions at Woodbury University about architects of color and other minority groups.

Sept. '20 - Jun. '22

PRESIDENT - FIRST ROBOTICS TEAM 696

La Crescenta, CA

Led a team of 30 students to build an award-winning robot made with custom-machined parts

Operated laser cutter and CNC mill, router, and plasma cutter.

Wired and operated robot for 3 years.

Jun. '17 - Jun. '18

AWARDS

AIA SFV PORTFOLIO AWARD

Feb. '23

NOMA BARBARA G. LAURIE STUDENT DESIGN COMPETITION

Oct. '20 and '22

AWAF SARAH HAYES SOCIAL IMPACT AWARD

Jun. '22

WSOA STUDENT SERVICE AWARD

May '22

WOODBURY UNIVERSITY DEAN'S LIST

Aug. '18 - present

KARIN
NAJARIAN

Woodbury School of Architecture
B.Arch Portfolio

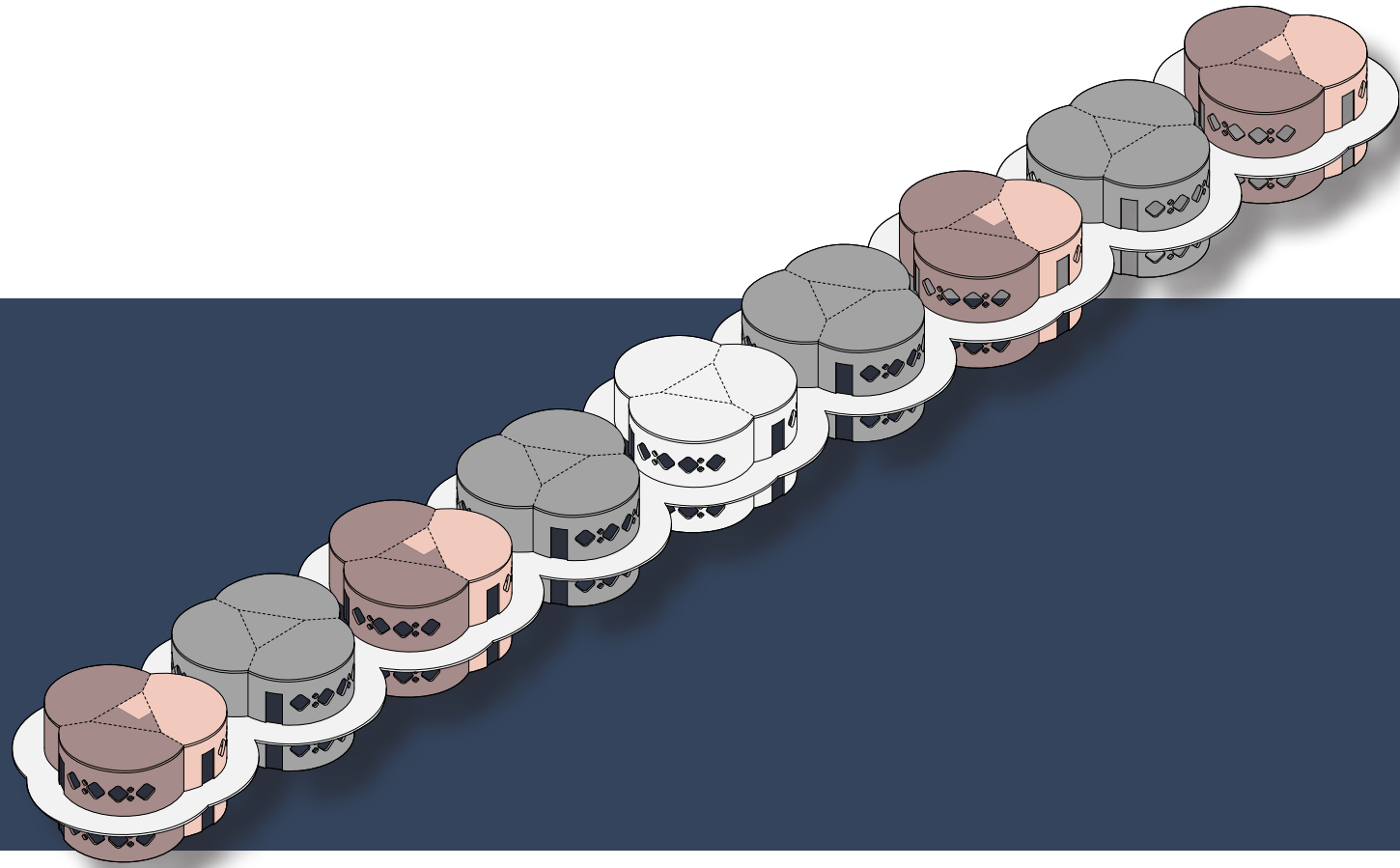


Karin Najarian
knajarian2000@gmail.com
[linkedin.com/in/karinnajarian/](https://www.linkedin.com/in/karinnajarian/)

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US DOE Solar Decathlon Entry

LASD 2030:
 Honorable
 Mention



Modular Housing

In 2016, Prop HHH was passed which allocated \$1.2 billion¹ to fund 10,000 Permanent Supportive Housing and Affordable Housing projects². Since it was passed, only 1 new project has been built, with 21 other projects currently under construction. It is anticipated that the final number of units will be around 8,000, which is 2,000 fewer than promised³. Meanwhile, the homeless population grows rapidly, so more urgent action is needed. We desperately need to save time and materials in order to abate

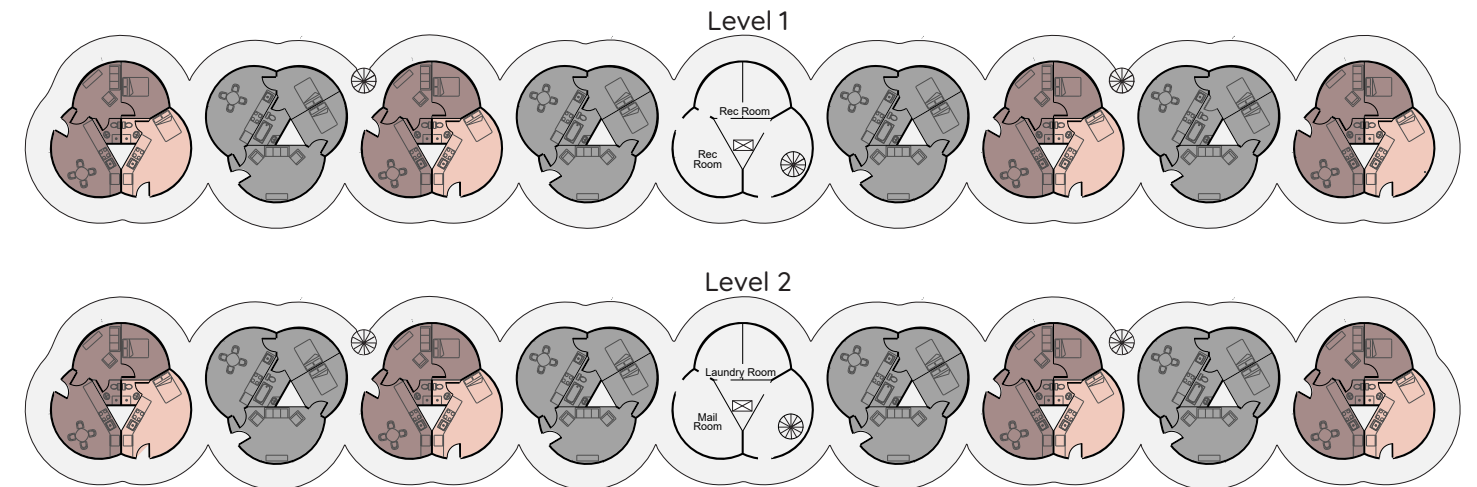
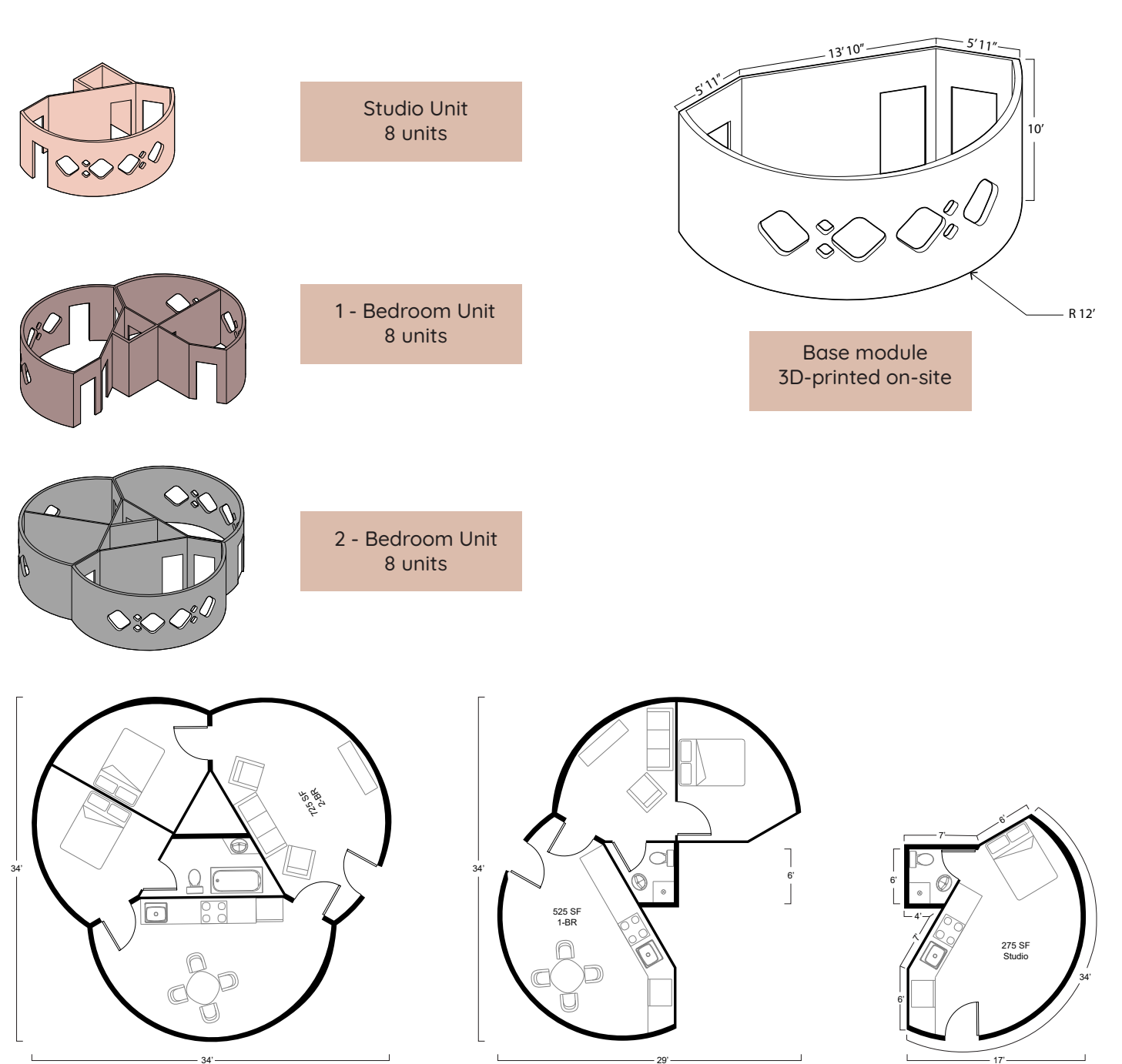
the extremely high rates at which the homeless population is growing in Los Angeles. Modular construction methods can cut construction times 20-50% due to parallel construction methods⁴. This proposal uses modular units that are 3D-printed on site and connected to create different sized apartments. The modules are round because it requires less material than a rectilinear building with the same square footage and the round walls make it better resistant to weather conditions such as wind and floods.

¹ Woetzel, Ward, Peloquin, Kling, and Arora. Affordable Housing in Los Angeles: Delivering more and doing it faster. McKinsey Global Institute, 2019. pg 11

² Los Angeles City Council and Mayor. City of Los Angeles Proposition HHH Permanent Supportive Housing Program Regulation, Policies, and Procedures 2018-19, 2019. pg 1

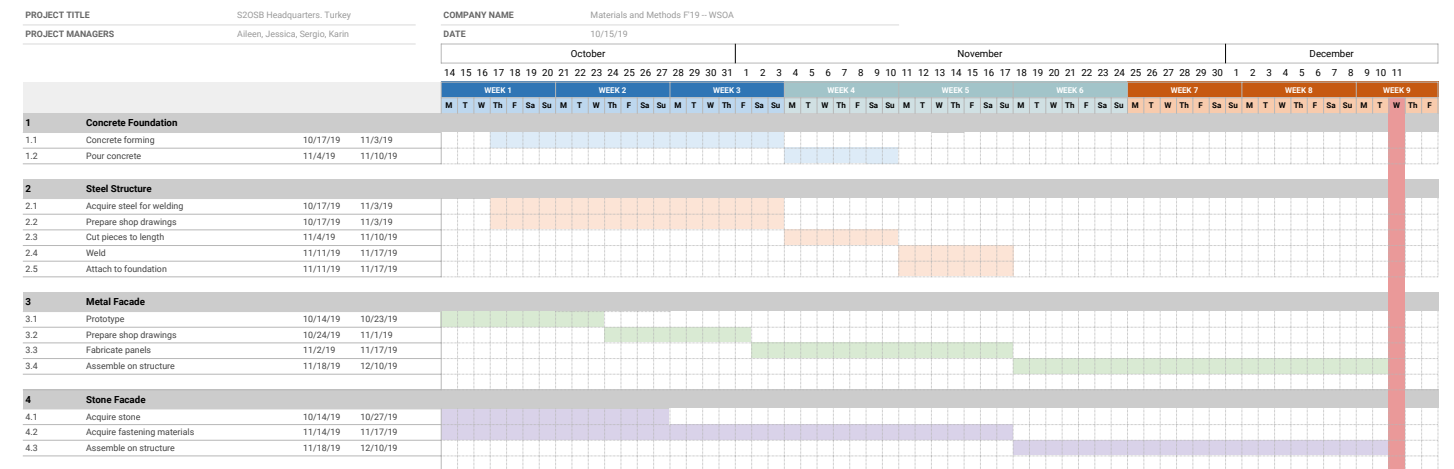
³ The Times Editorial Board. Editorial: You can't see results yet, but LA's HHH homeless housing is being built. Los Angeles Times, 2019.

⁴ Bertram, Fuchs, Mischke, Palter, Strube, Woetzel. Modular construction: From projects to products. McKinsey Global Institute, 2019. pg 11





Full-Scale Mockup Timeline



A Gantt chart was used to split up tasks and ensure that all tasks were finished in a timely manner.



Concrete foundation smoothed with hand-trowel



L-brackets connect panels to columns

Full-Scale Mock - Up

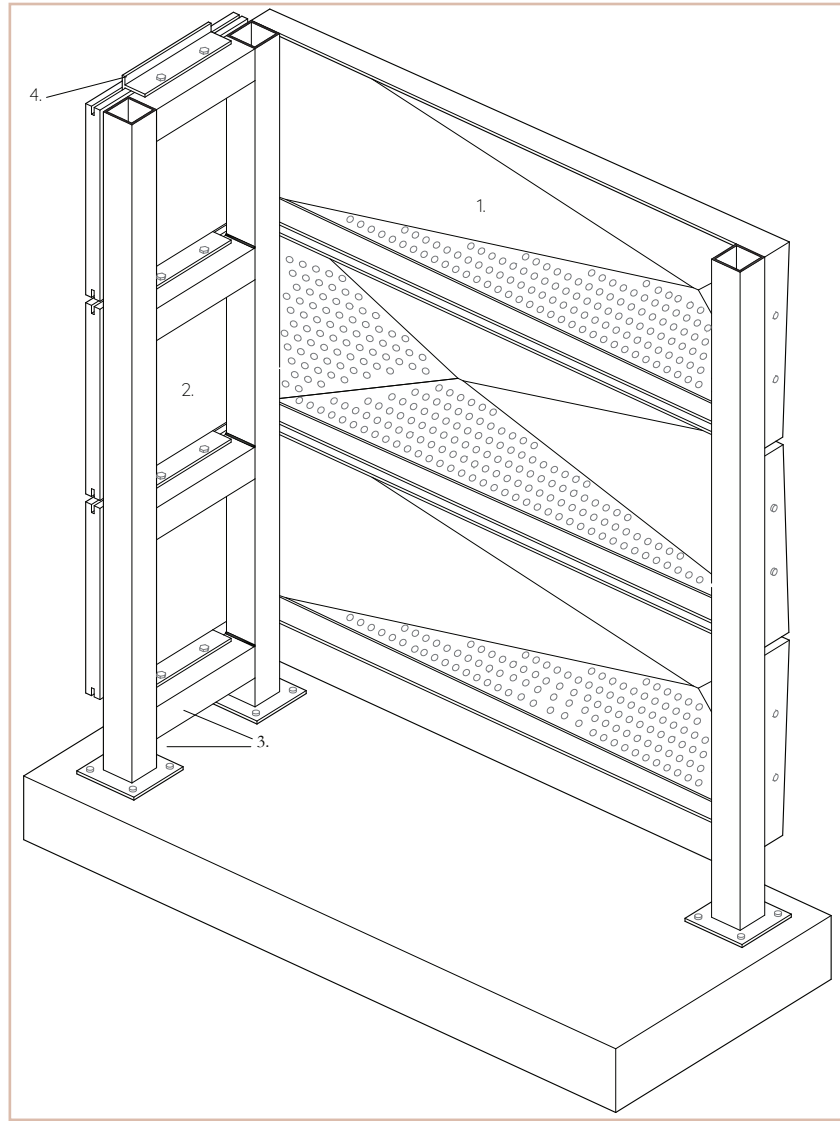
With Aileen Zaldana, Jessica Gomez & Sergio Santos

In a group of four, a precedent was studied and a full-scale mockup of a connection system was created. The Precedent is S2OSB Headquarters, a concert hall in Sakarya, Turkey. The building has a dynamic and all-encompassing aluminum panel facade, breaking only at the main entrance where a monolithic quartz wall stands, leading the visitor to the door. The full-scale mockup demonstrates this connection.

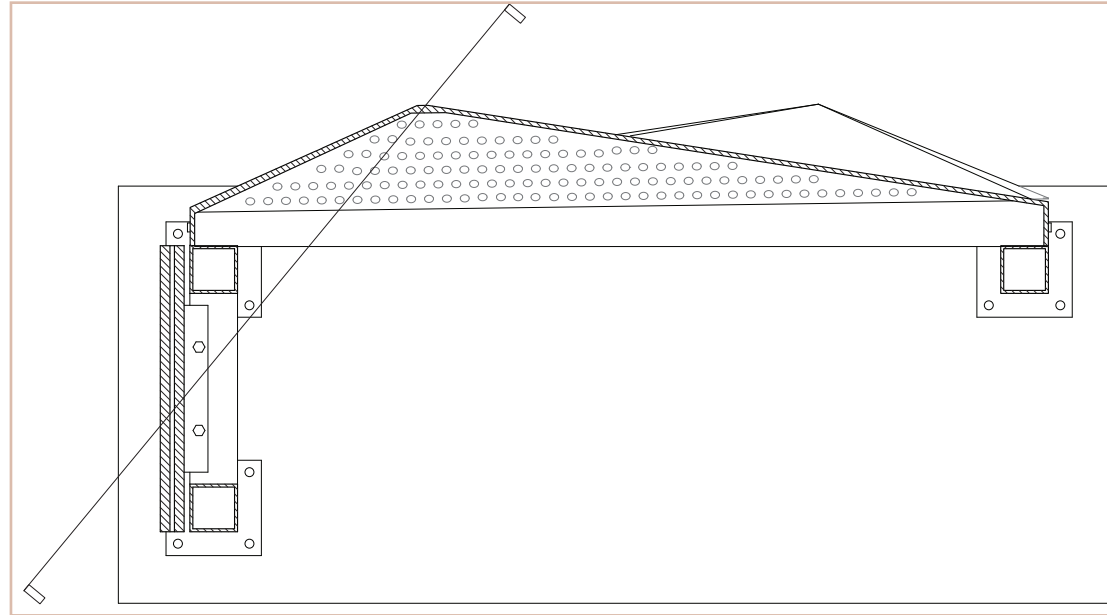
First, a concrete foundation was poured and smoothed using hand trowels. Aluminum composite material was drilled, scored, cut, and folded to create three panels that mounted on the welded steel structure. Three quartz slabs were slotted at the top and bottom edges and held secure with T extrusions attached to the steel structure.



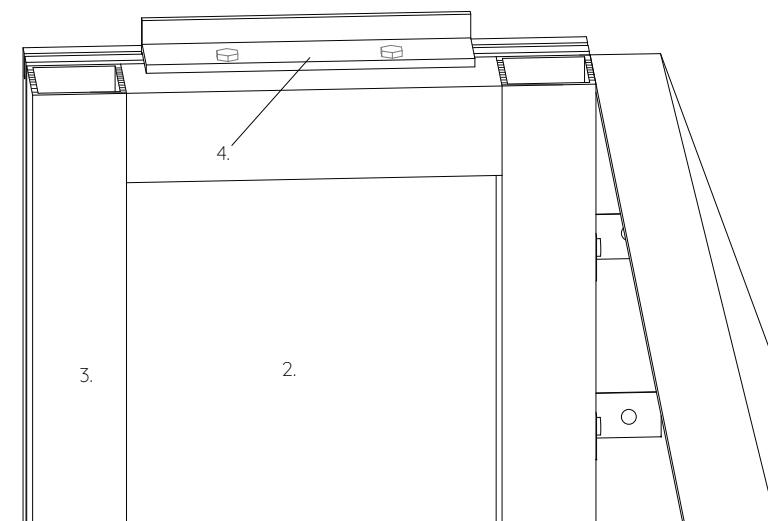
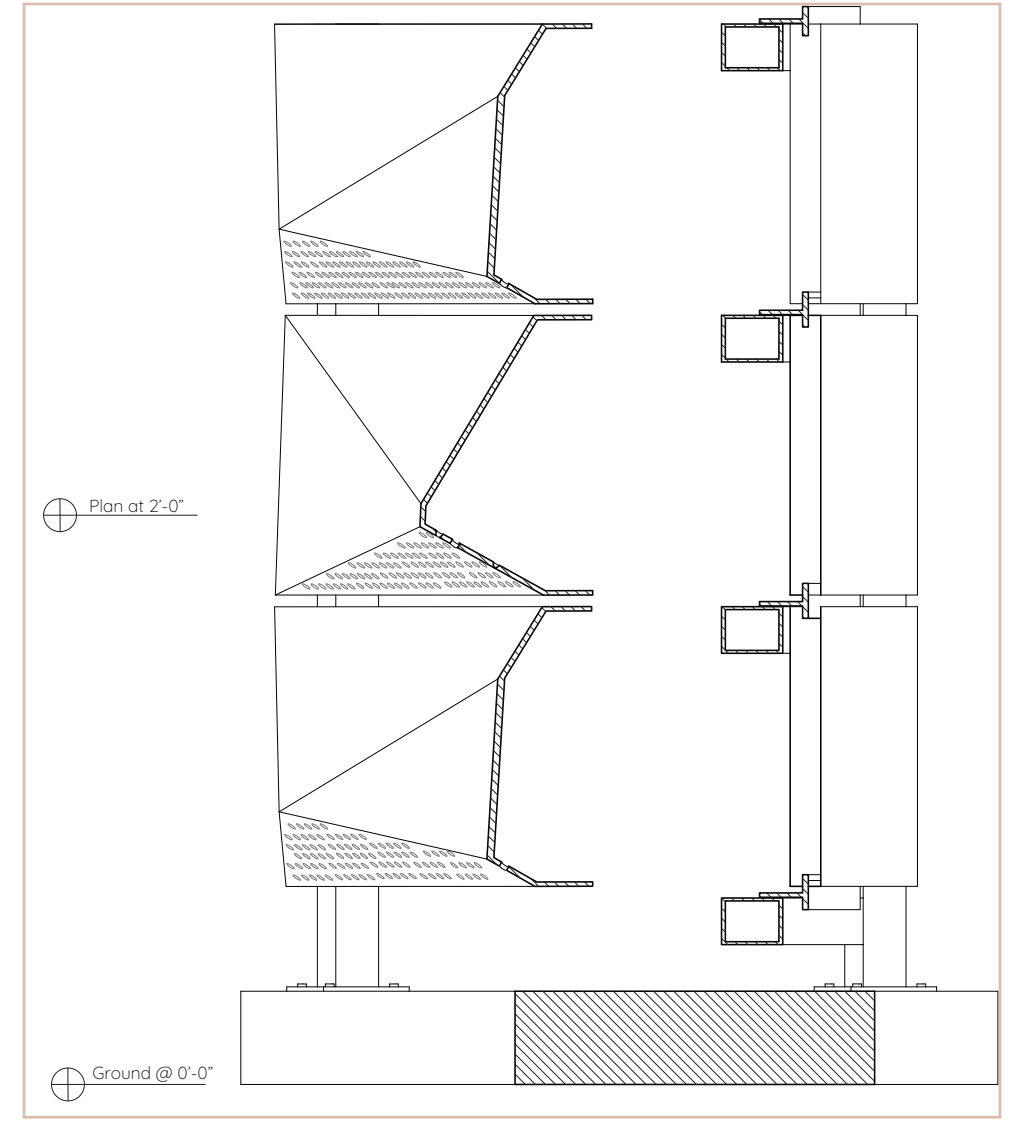
Precedent: S2OSB Headquarters by BINAA



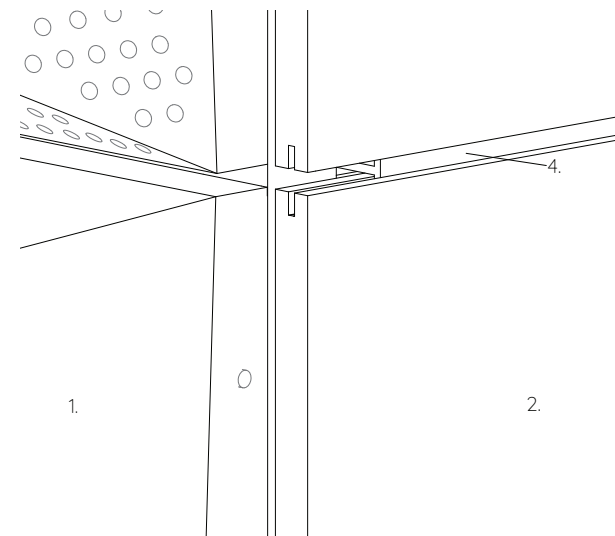
The views



- 1. Aluminum Composite Material (ACM)
- 2. Quartz 3/4"
- 3. Steel Tube 2"x2"
- 4. Aluminum T-Bar



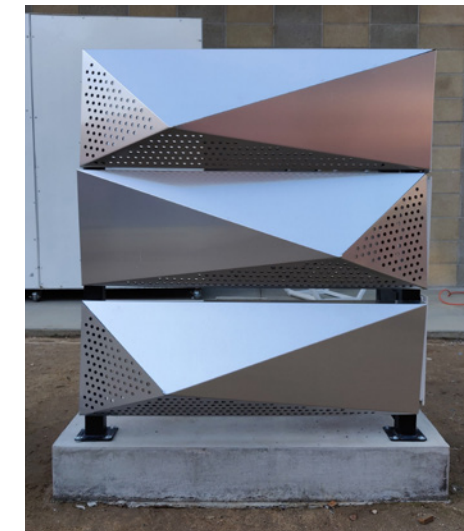
Interior corner detail



Exterior corner detail



Top



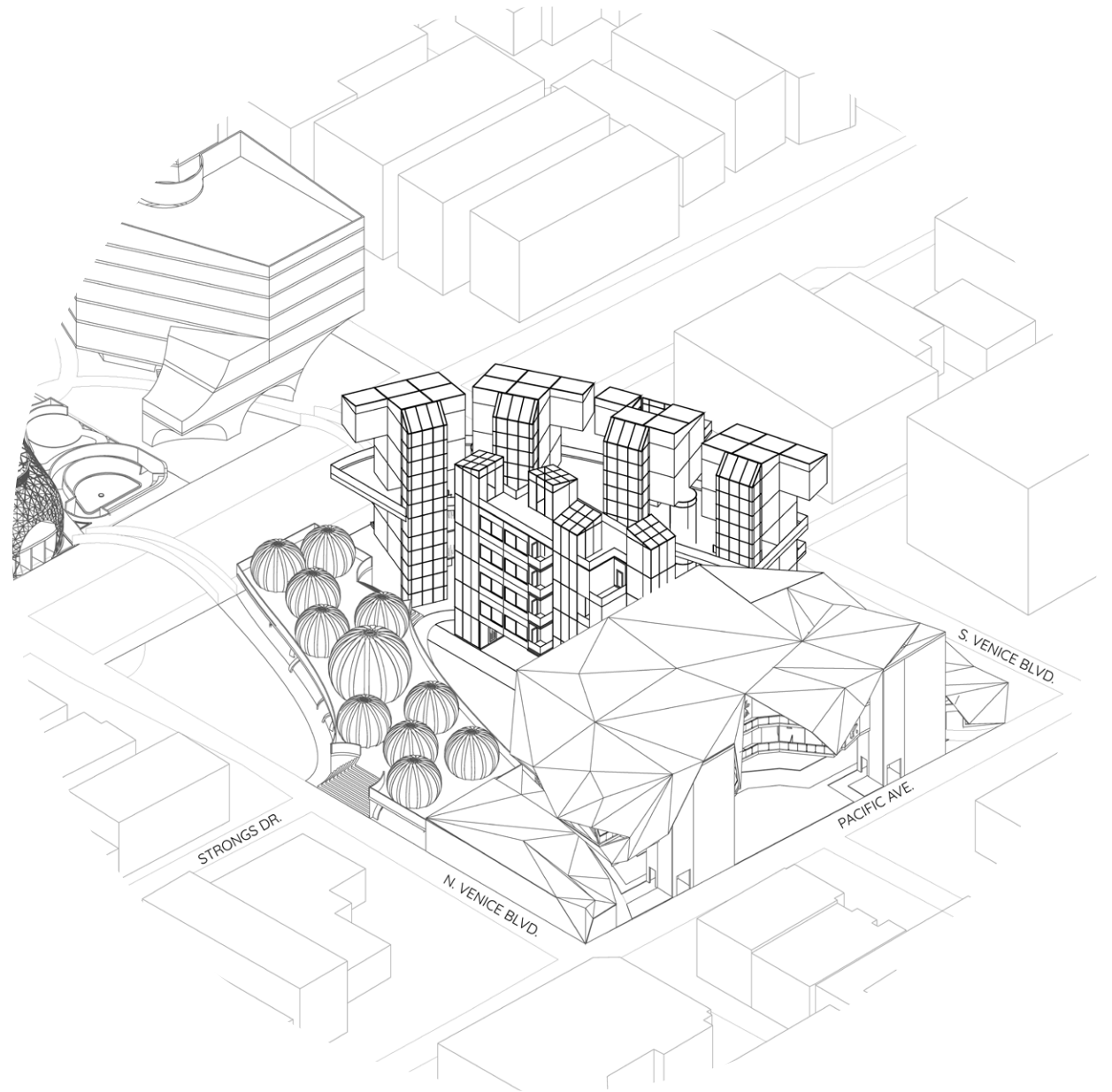
Front



Back



Roofless axon shows interior of 1-bedroom units with in-unit moving platforms for vertical circulation.



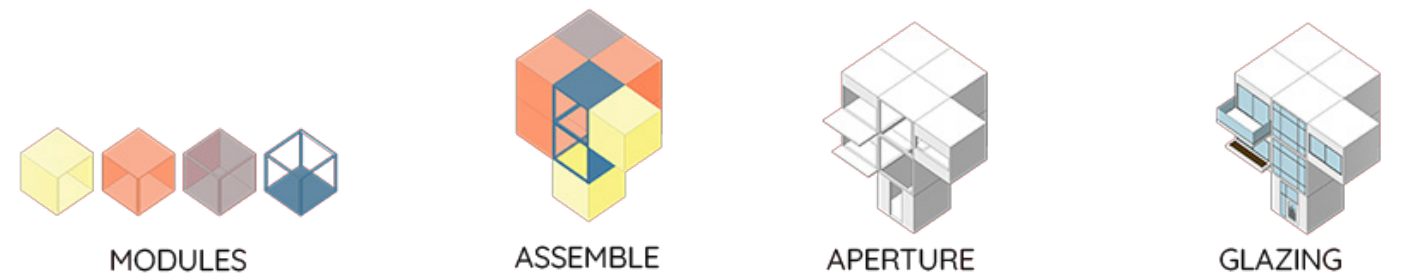
Site Axonometric

Venice Housing

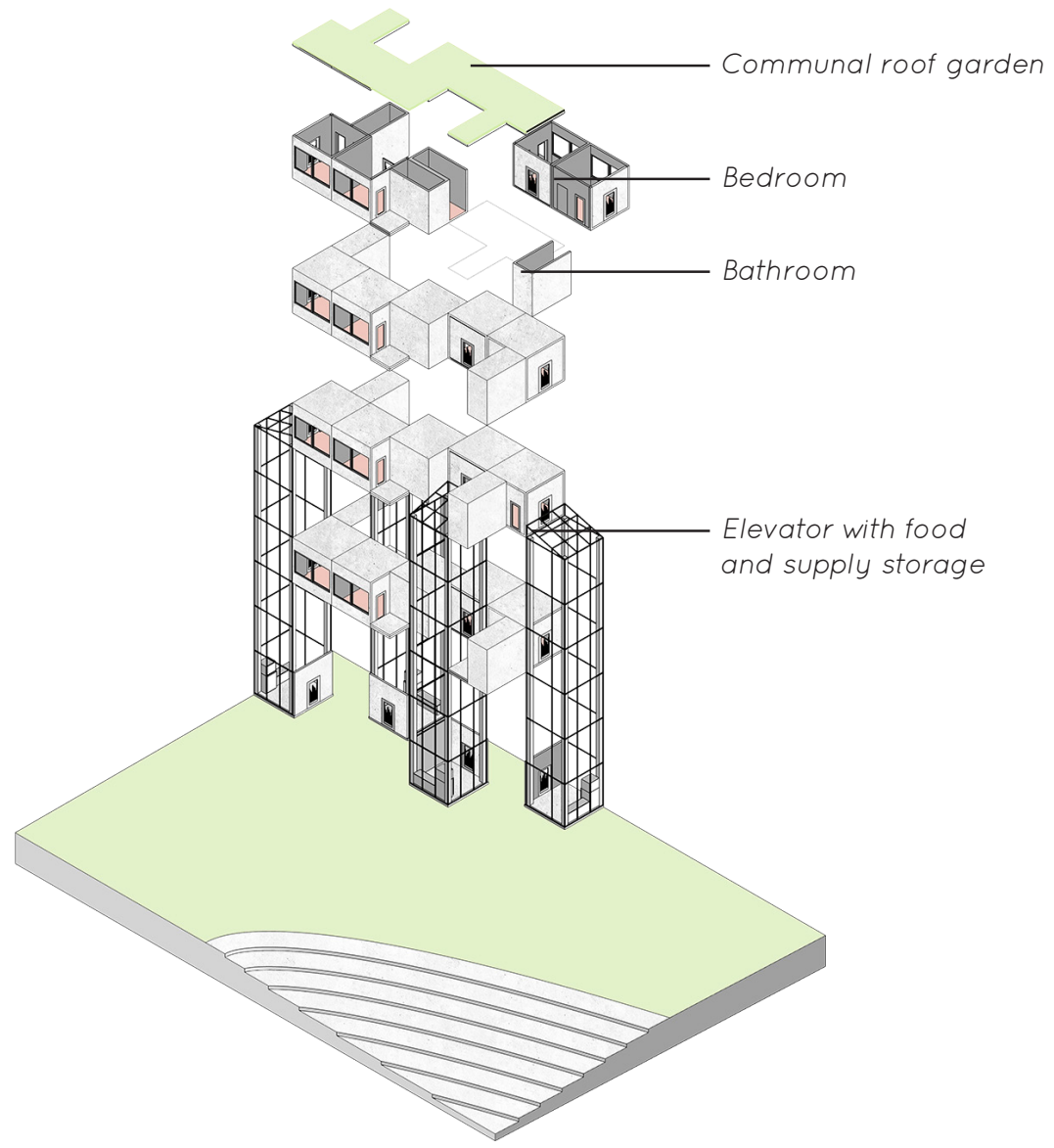
Situated on the canals of Venice, California, this housing project aims to make independent living easier for the elderly and those with disabilities by providing a moving vertical platform within each 3-level apartment. A second building contains 16 studio apartments for the unhoused individuals living in Venice.

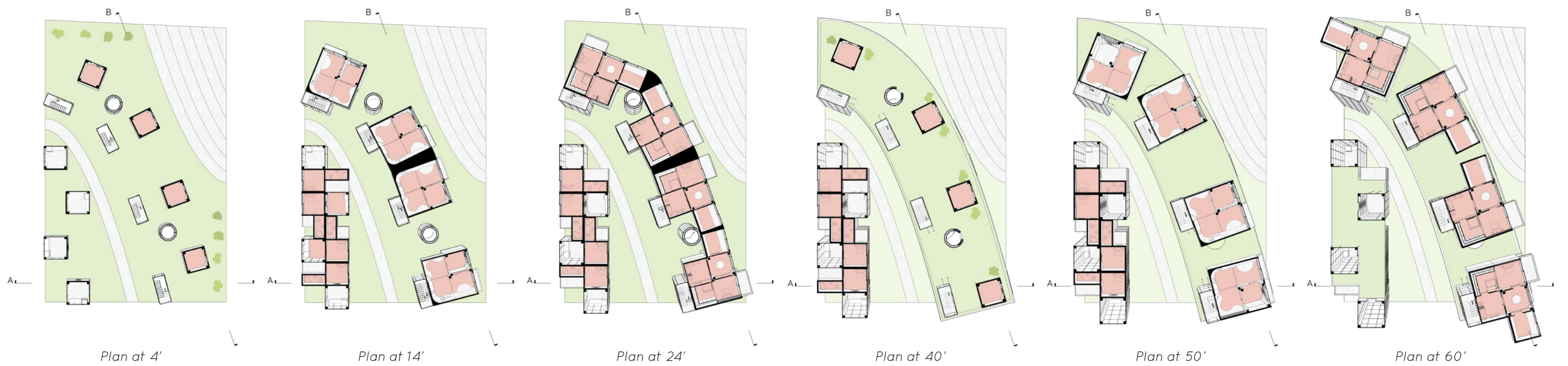
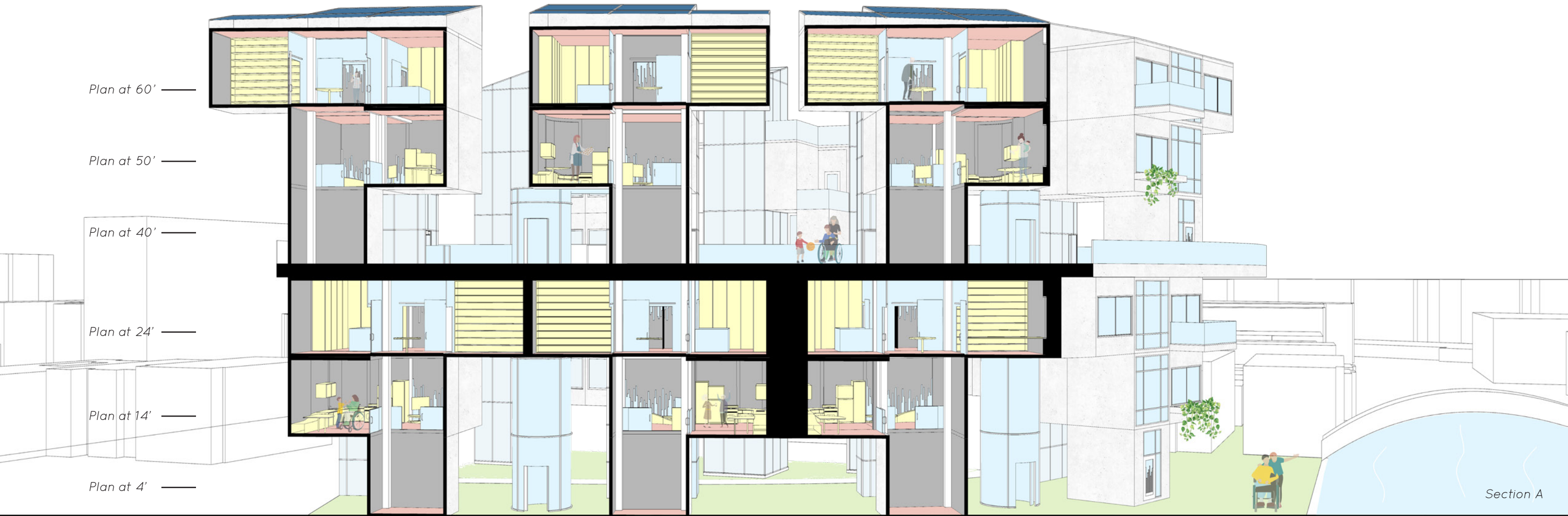


Unit Generative Diagram

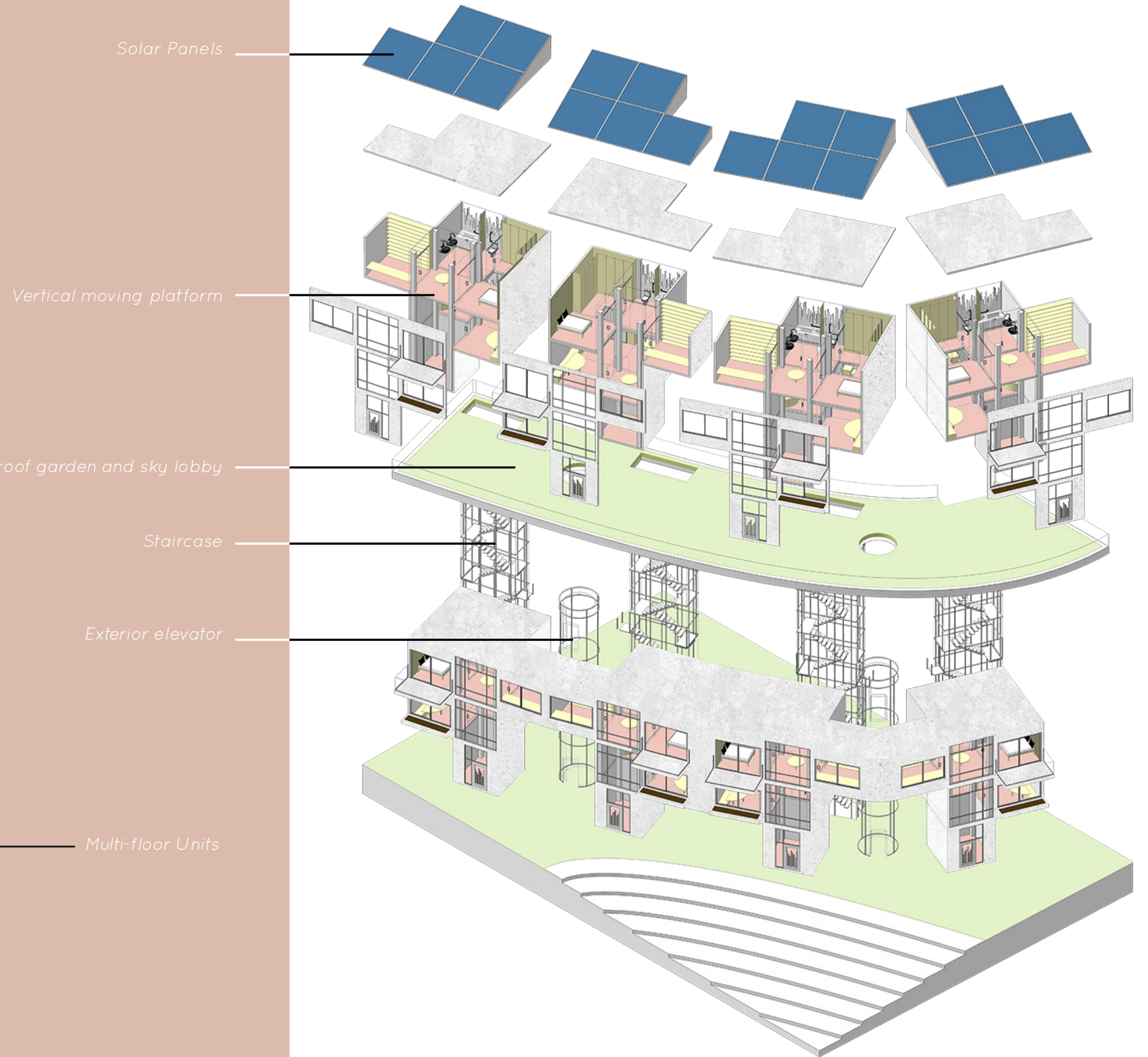
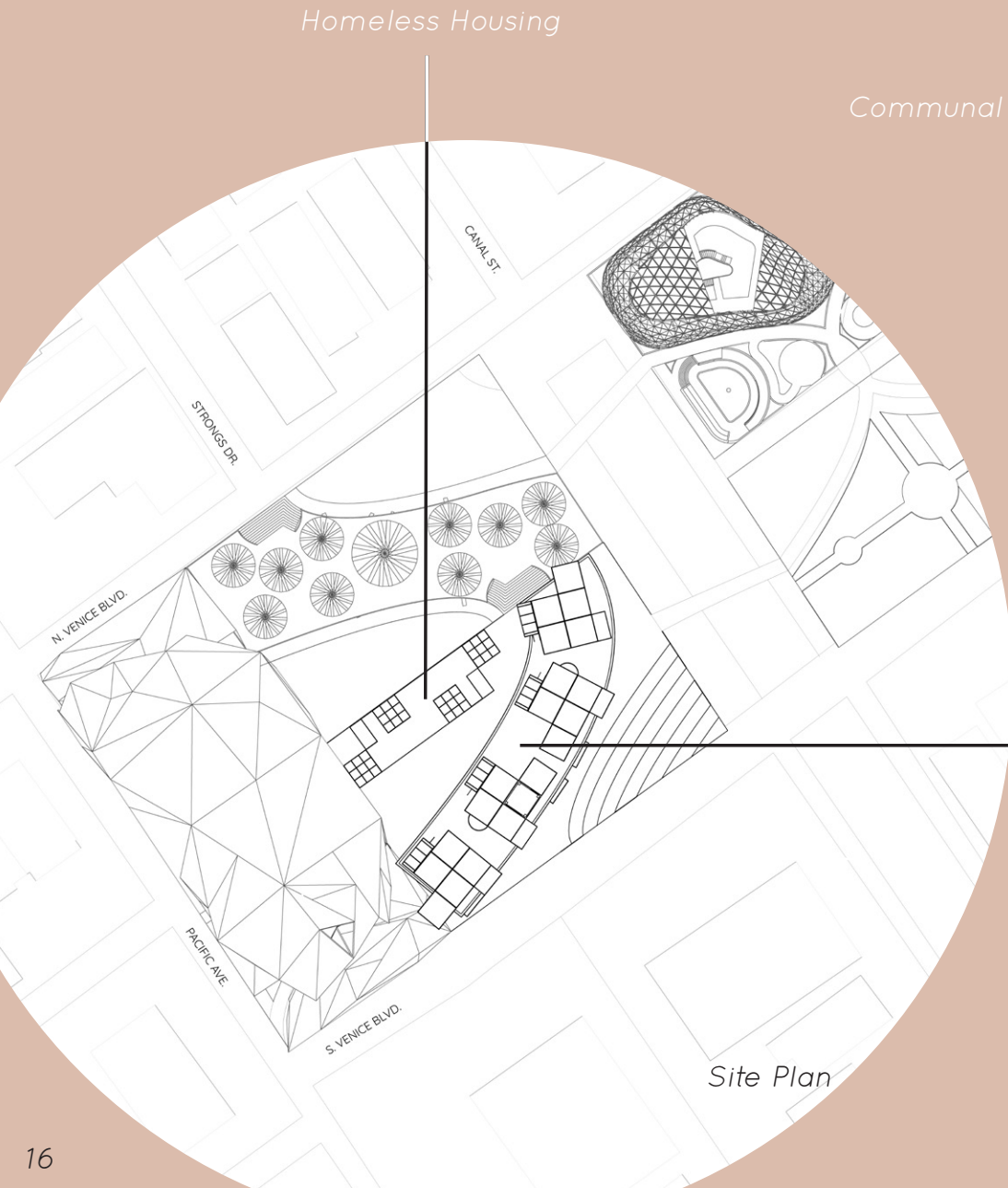


Homeless housing





Market Rate housing



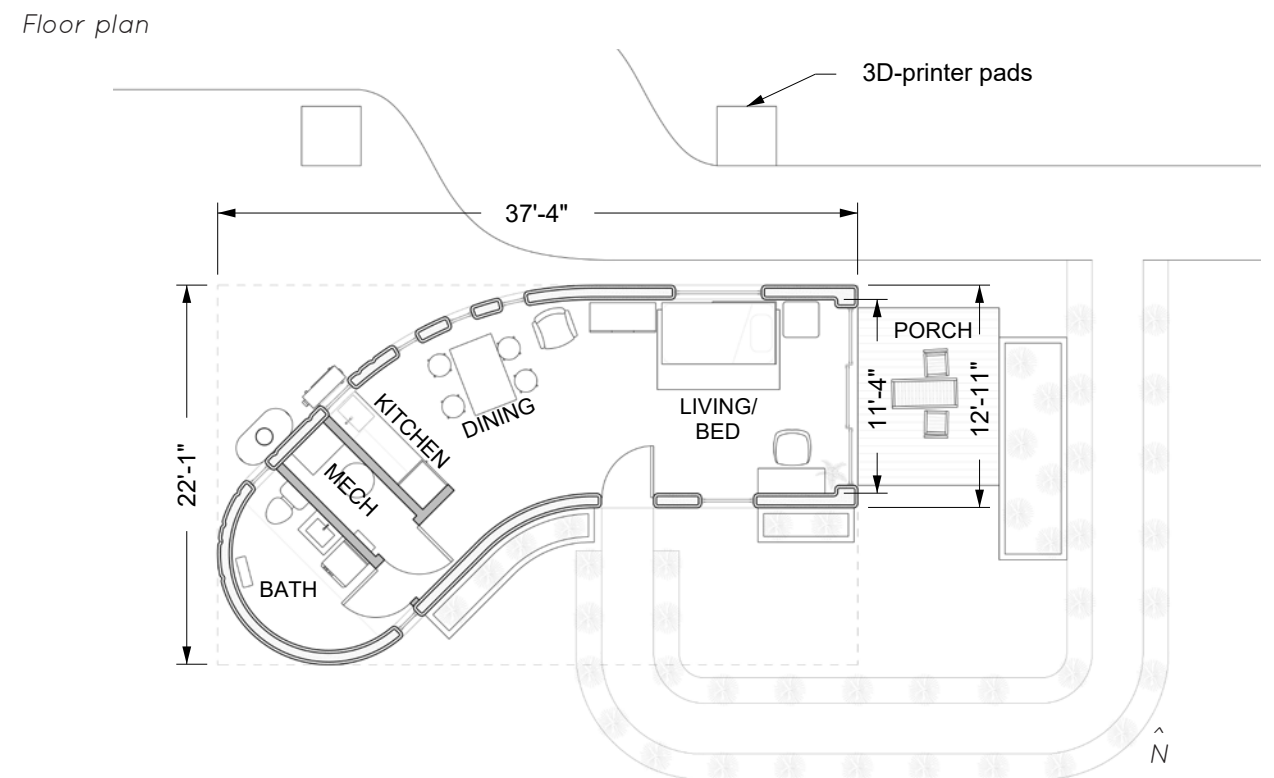
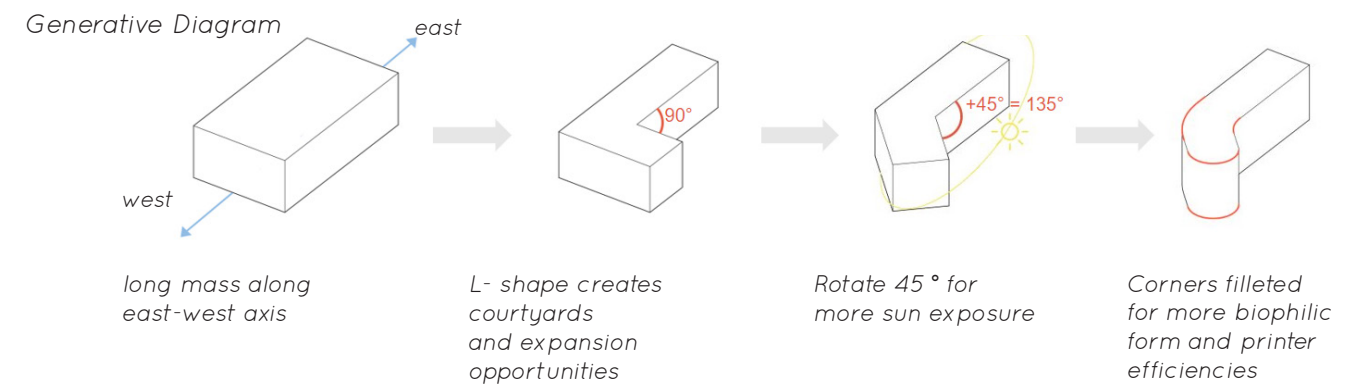
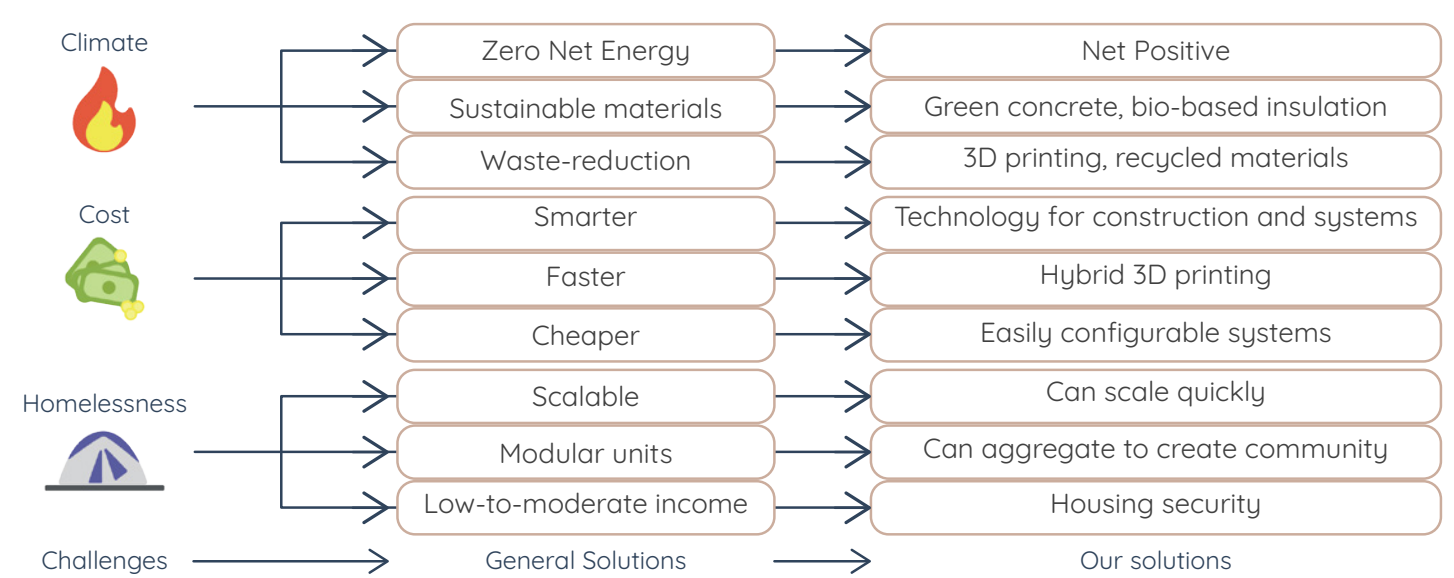


Solar Futures Residence

Solar Futures is the first permitted 3D-printed structure in Southern California. As part of our entry to the U.S. Department of Energy Solar Decathlon Build Challenge 2023, the Woodbury team set out to address 3 challenges in the housing industry: climate, cost, and homelessness. We designed a net positive house that uses long-lasting, resilient

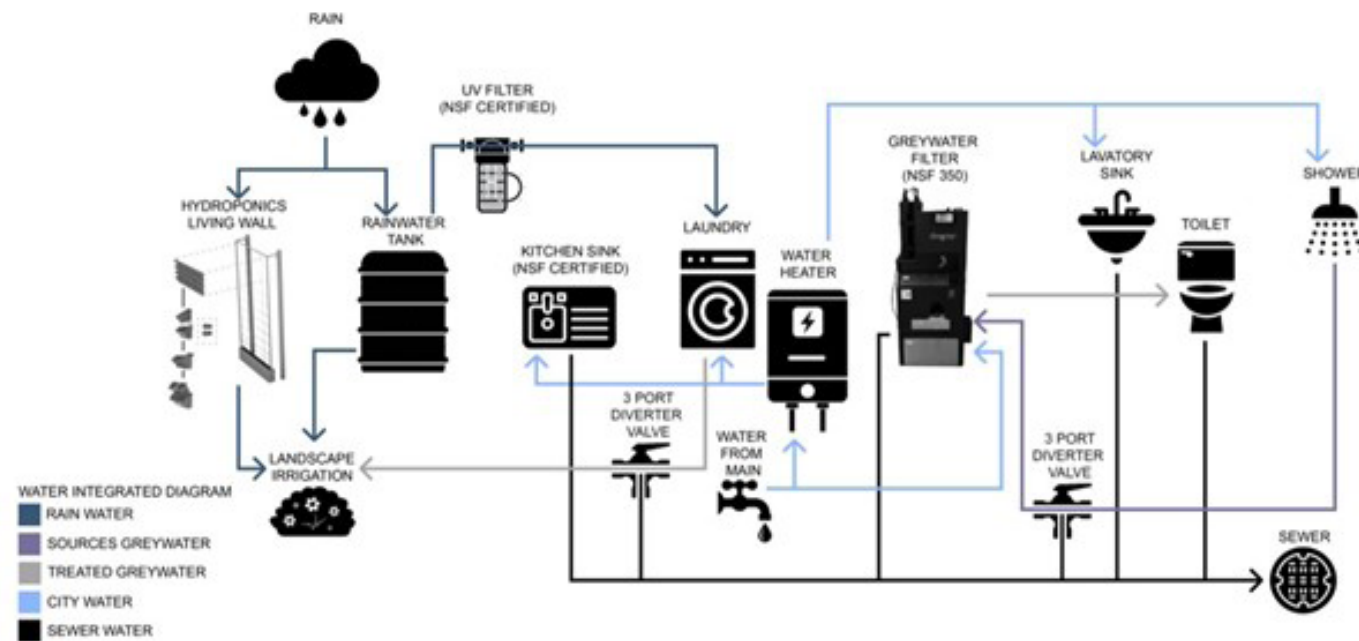
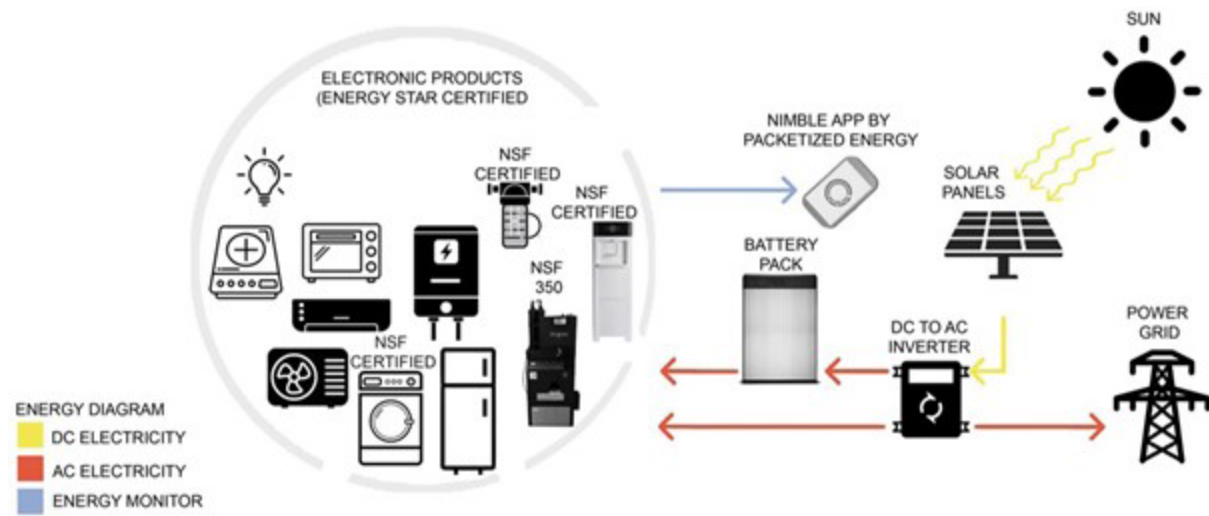
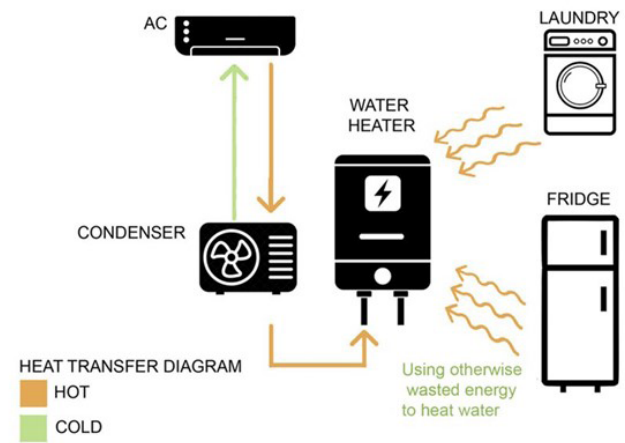
materials, innovative technology that reduces cost and time and is scalable and modular.

This unit will act as a prototype for 3D-printed dwellings as one possible solution for housing our neighbors.



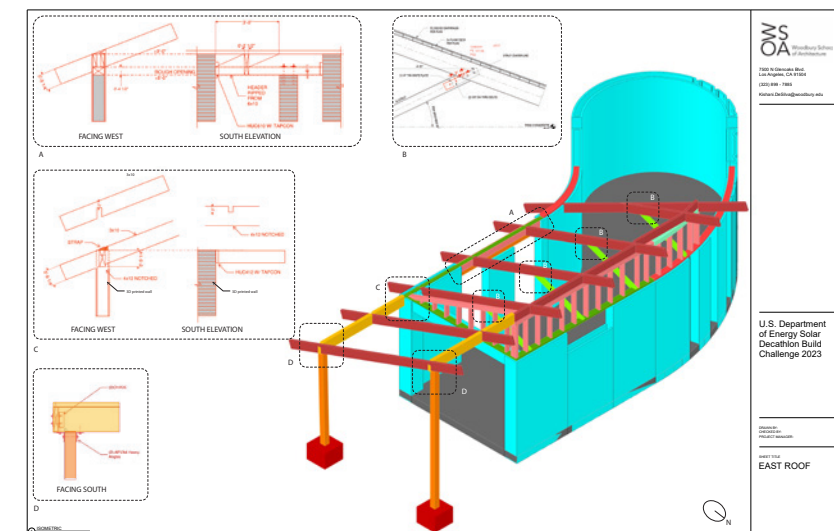
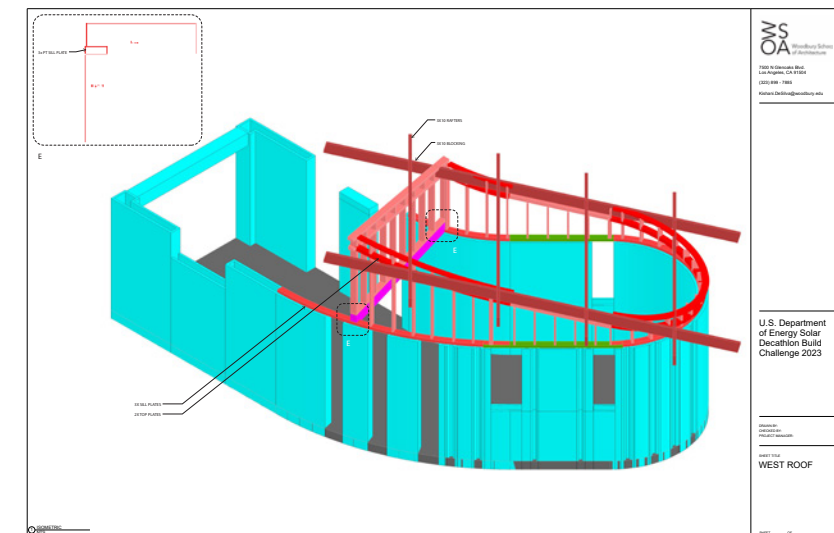
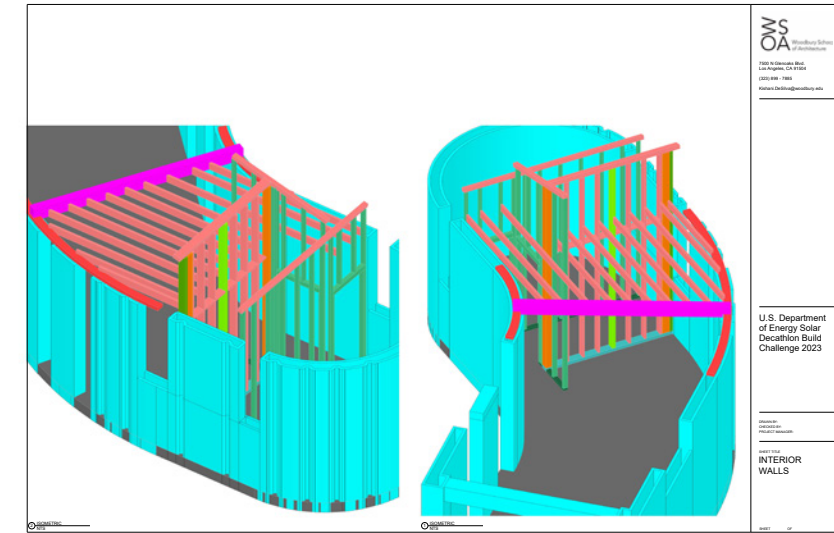
Green Strategies

Green strategies developed by the student team with the help of consultants



Framing sketches

Model Axons prepared based on the structural engineer's drawings and sketches to help the framers execute our vision.



Construction Photos

South Elevation



April 26, 2022



October 14, 2022



February 9, 2023



March 2, 2023



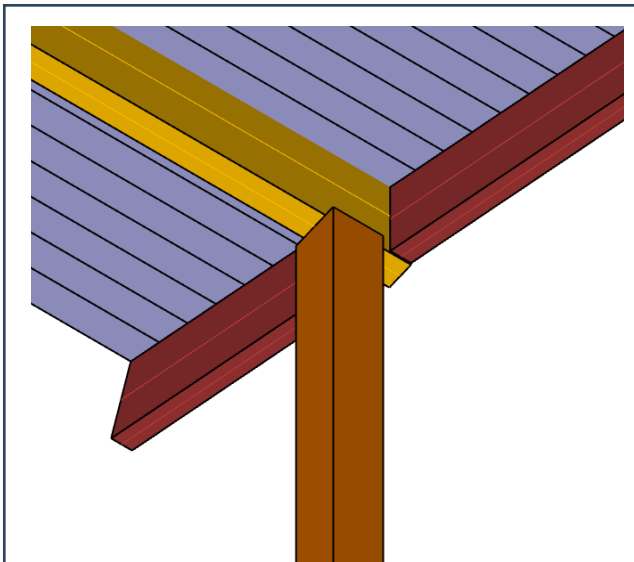
March 18, 2023



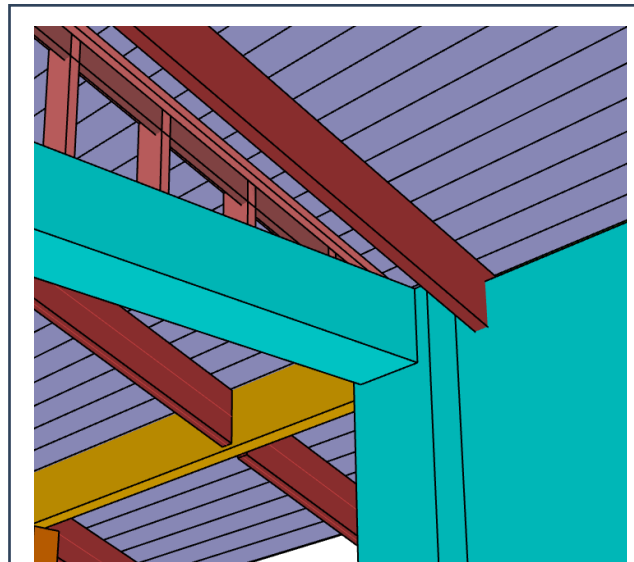
April 25, 2023

Construction vs Model

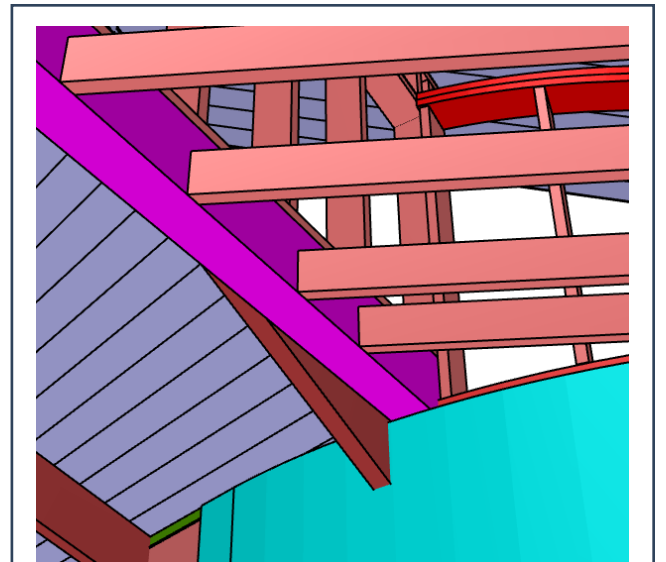
Designing for construction - produced material takeoffs and architectural sketches based on construction model



Porch post to beam connection



Slider header to 3D-printed column connection



Pony wall to 3D-printed wall connection

