

PROTOTYPE OF A FLYPOD

We opted for the most economical method to construct structurally stable shelter pods by pre-constructing wall and floor panels off-site in a controlled environment and assembling those panels on site using non-skilled labor. With sustainability and material lifecycle as main design focus, the panels are fabricated with exterior cladding made with sheets formed from shredded waste plastic, insulation incubated from mycelium, and accents walls made of reclaimed wood. Broadening the scope, we envision adapting the concept to be viable temporary or transitional housing, or for other parties in need.

1. OFF-SITE CONSTRUCTION

PANEL TYPES

Wall Panels

Wall Panels
with Openings

Front Wall Panels

Floor Panels

1" Thick Waste Plastic Exterior Cladding

The outer face of the panels needs to withstand extreme climate with little maintenance. Unfortunately, most materials that boast the needed staying power are highly manufactured, processed, energy intensive, and detrimental to the environment.

What if we leverage our past mistakes as a viable resource while helping to reduce a massive existing environmental footprint?

Collect



Shred



Press



6" Thick Mycelium Insulation and Interior Finish

Temperatures at Fly Ranch range from 21 to 92 degrees Fahrenheit. A viable shelter needs to protect inhabitants preferably with as little energy consumption as possible. To address this issue, each pod is insulated with mycelium mushroom panels.

This organic solution thermally outperforms most market leading synthetic and organic insulation products and produces zero toxic waste.

Select



Incubate



5/8" Reclaimed Wood Floor Decking

Reclaimed wood boasts a positive environmental impact. The reclamation process is markedly more environmentally friendly and significantly less energy intensive than virgin wood. Utilizing reclaimed wood keeps wood from landfills and reduces use of environmental hazards used in manufacturing new products. Supporting this industry lowers the demand for newly sourced lumber or petroleum-based products.

Salvage



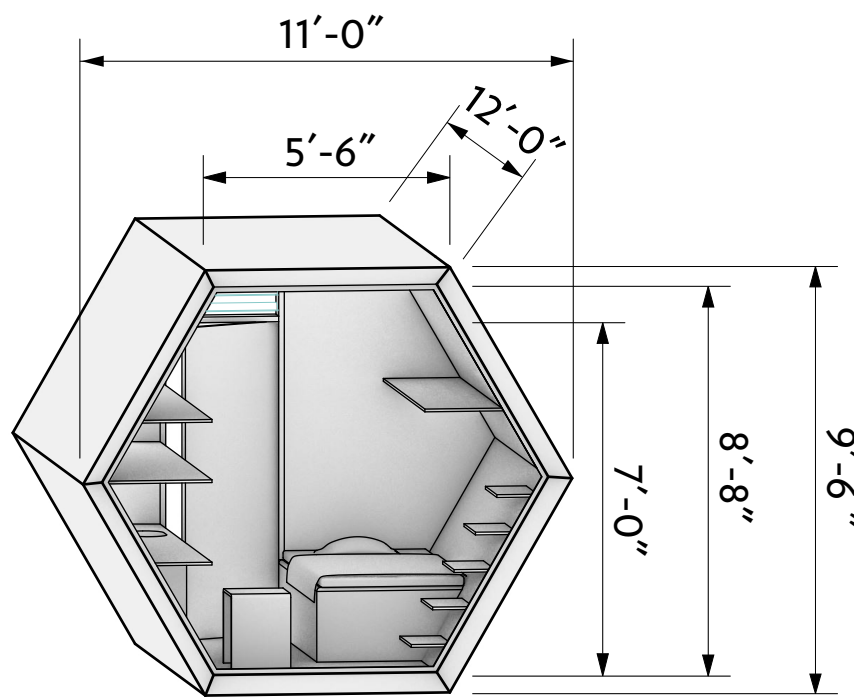
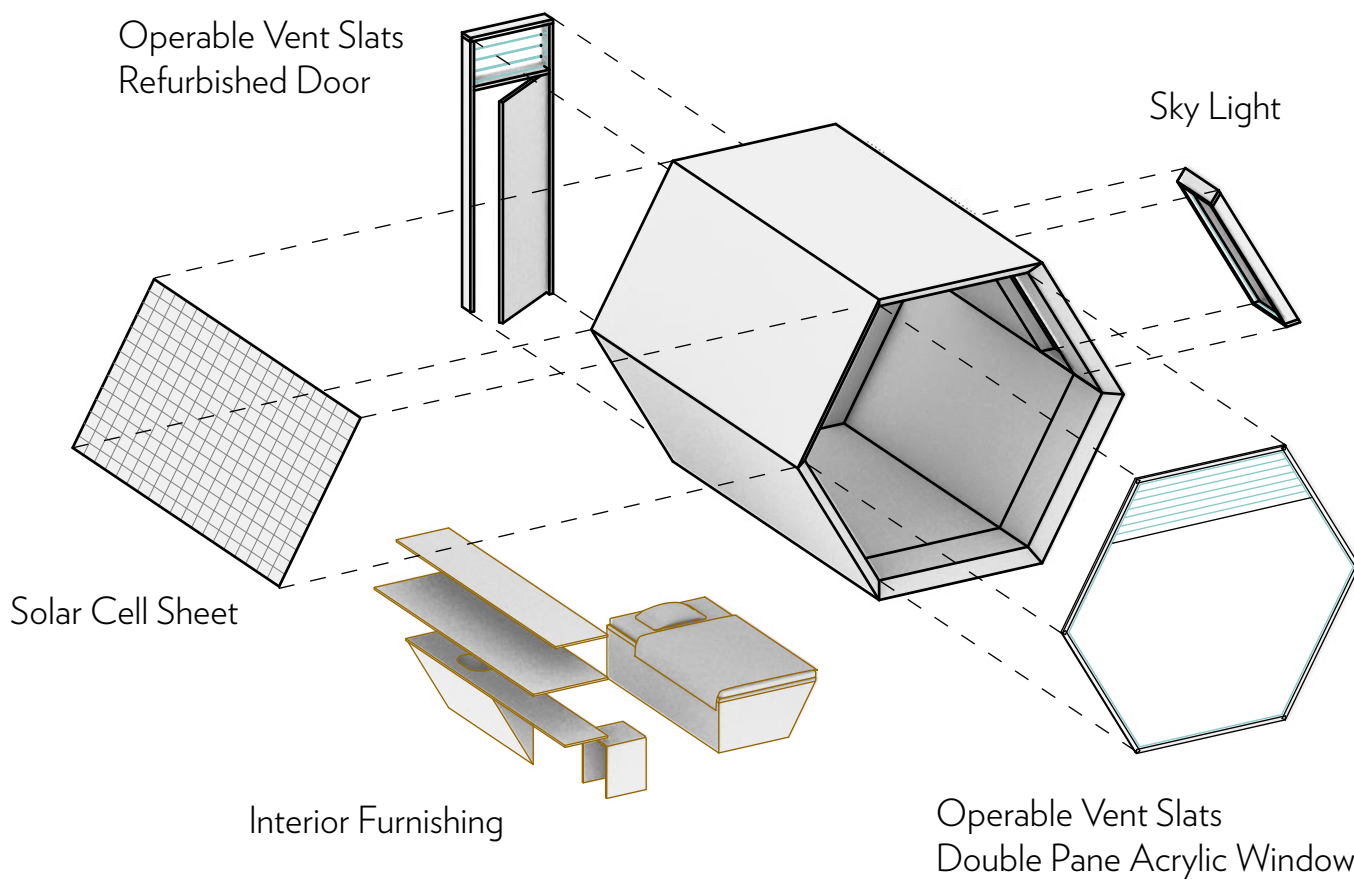
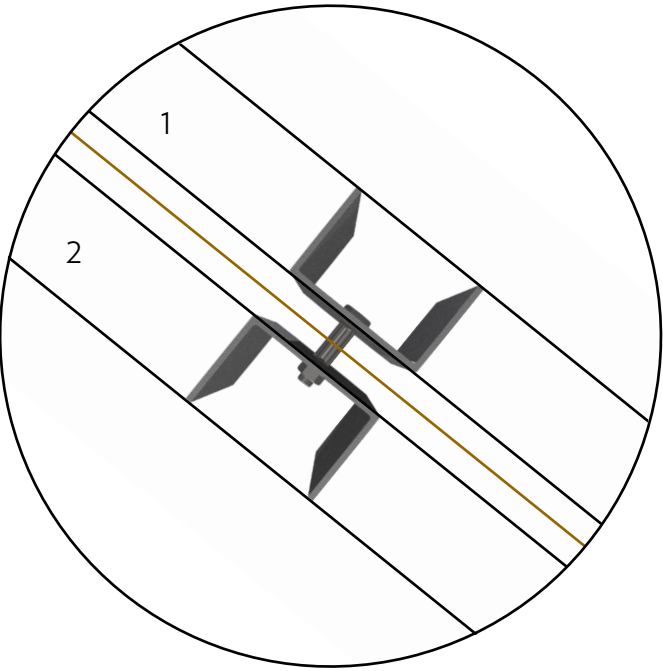
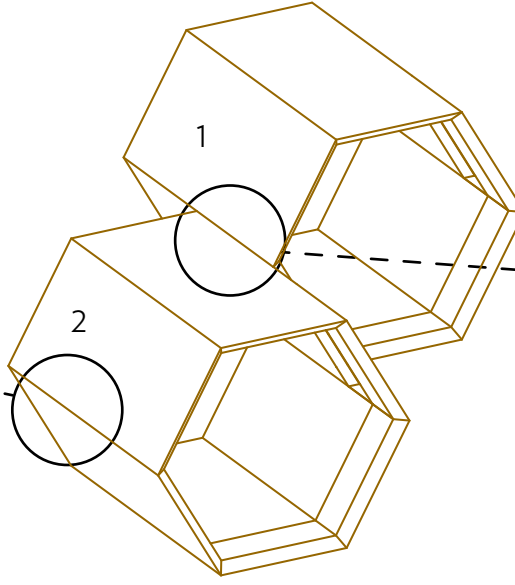
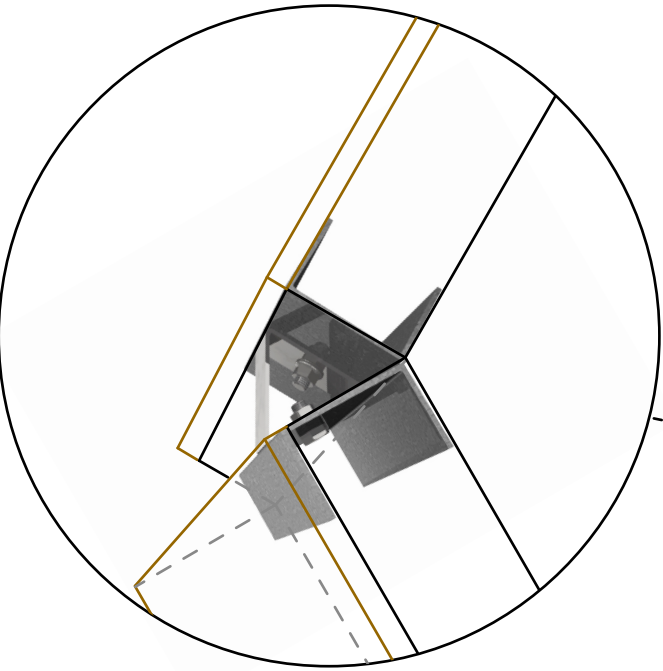
Assemble



2. ON-SITE ASSEMBLY

Panel to Panel Connections

Each panel will be constructed using cold formed steel perimeter framing members. The panels will be connected to each other by inserting steel wedges into the gap between the framing members and each panel will bolt into these wedges



Total Carbon Reduction of FLYHIVE

5,828 ft² of reclaimed wood = 8,000 lb
4,092 ft² of solar cell sheets = 51,000 lb/yr
13,500 ft³ of mycelium = 656,000 lb

Total Waste Diverted from Landfill

216,000 lb of waste plastic reused
15,000 lb of reclaimed wood used

