

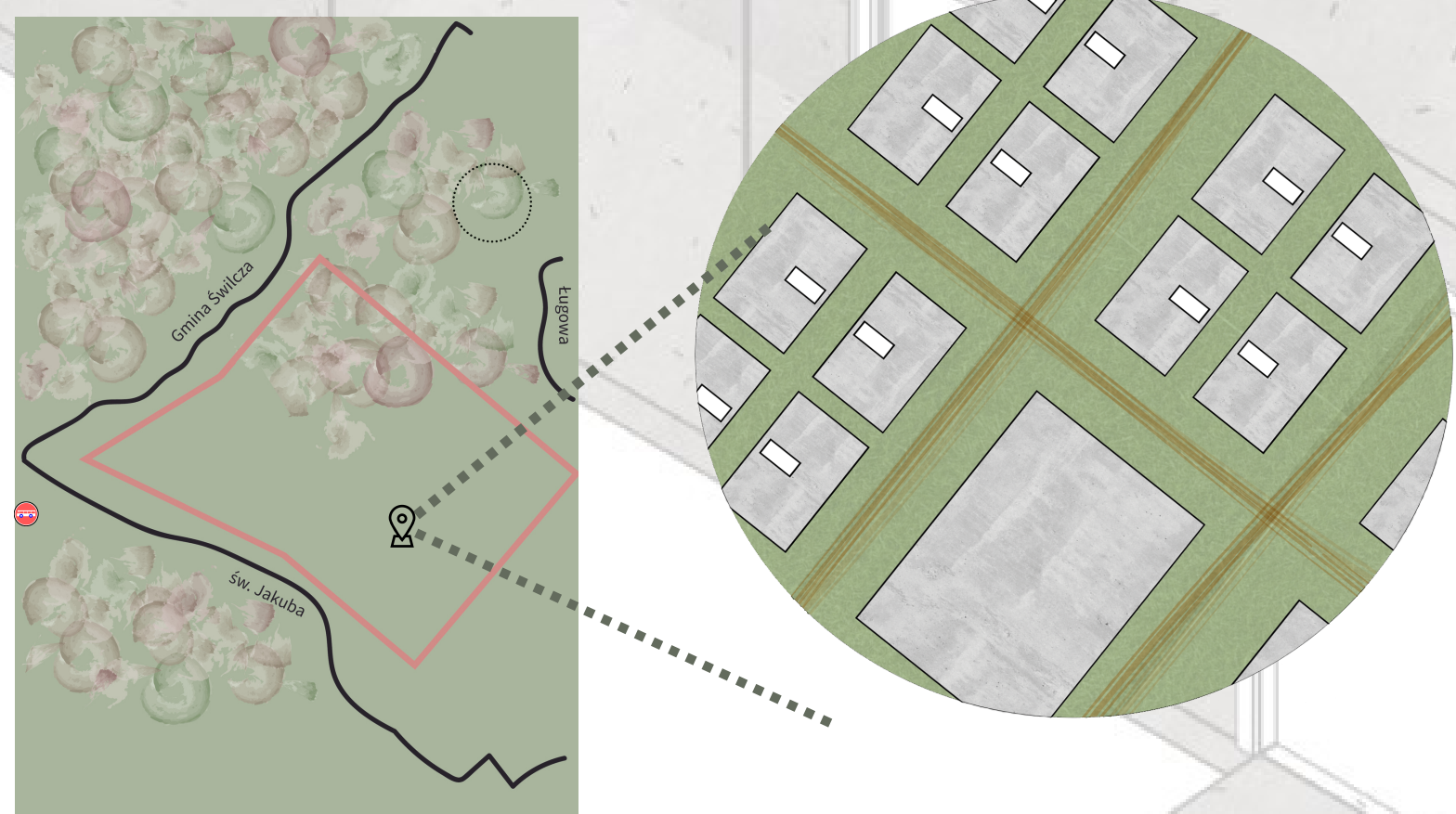
SHIFTING PERMANENCE

Narrative

Nearly 8 million Ukrainians have left their homes in search of shelter due to the Russian invasion of Ukraine in February 2022 (Yayboke, 2022). Since the battle of Kyiv began, nearly 2 million people have fled from the country's capital (Tondo, 2022). Natallia is only one of the people who was forced to leave her home after experiencing a nearby bombing. Natallia, along with her mother and mother-in-law, chose to flee by train, which took four days from their city of Kyiv to reach the border of Poland. The family then traveled an additional three hours by bus to the town of Rzeszow. Natalia's husband was forced to stay behind to serve in Ukraine's military during the war. Natalia's mother, like many others seeking refuge from the war, had to stop her chemotherapy treatment in Ukraine. She is waiting to obtain an EU visa to travel to England to continue her medical care.

The city of Rzeszow's population doubled due to the influx of refugees. There are currently no refugee camps in Rzeszow, however, all the rental units in the city have been occupied by Ukrainian migrants. With the help of civilian donations, we are proposing a refugee community in Rzeszow's countryside. This space would allow the migrant community to regroup while they figure out their next steps. Most refugees are permanently displaced, and the time frame of temporary housing solutions can vary from months to decades. We intend to improve the quality of life of the inhabitant by creating a housing solution that is accessible, sanitary, secure, and modular.

Site Plan



This site is located just east of the city Rzeszow. It is easily accessible by public transportation. The area is large enough to house around 15,000 refugees with over 675,000 m² of space.

Journey Map



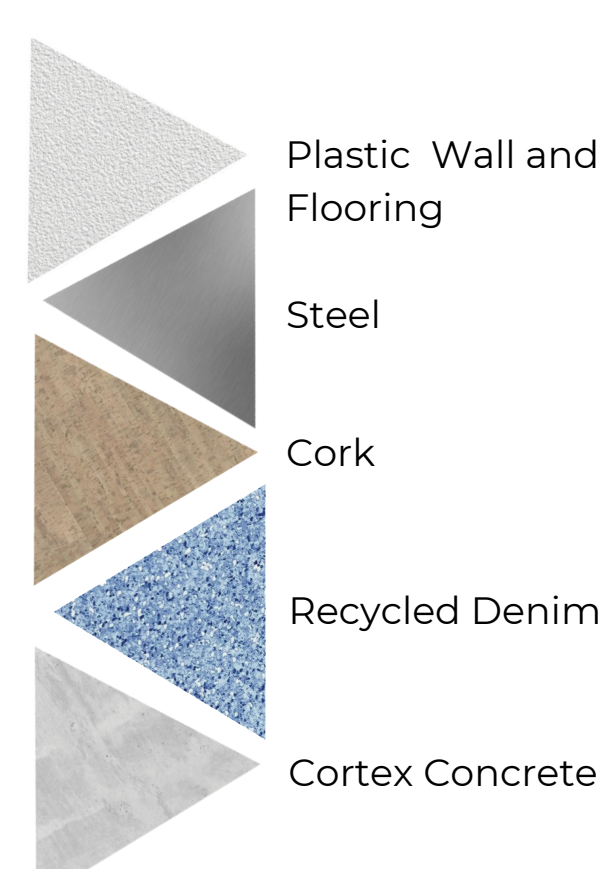
The journey made by Natallia and family had been made by train and assistance of bus to travel from Kyiv to Rzeszow. This journey took about 14 hours by train and an additional hour from the border to their final destination.

Concept Statement

More than a temporary housing solution to the continual displacement of people all over the world, this shelter aims to be a grounding transitional space for the dweller. It will allow the habitant to rest and create a home from the pieces of their past, while allowing them to imagine and find solace in the possibility of a new home. The shelter highlights include a private bathroom and shower to prevent the spread of disease as well as large windows that fill the space with natural light which can increase serotonin production and aid with depression that can follow displacement.



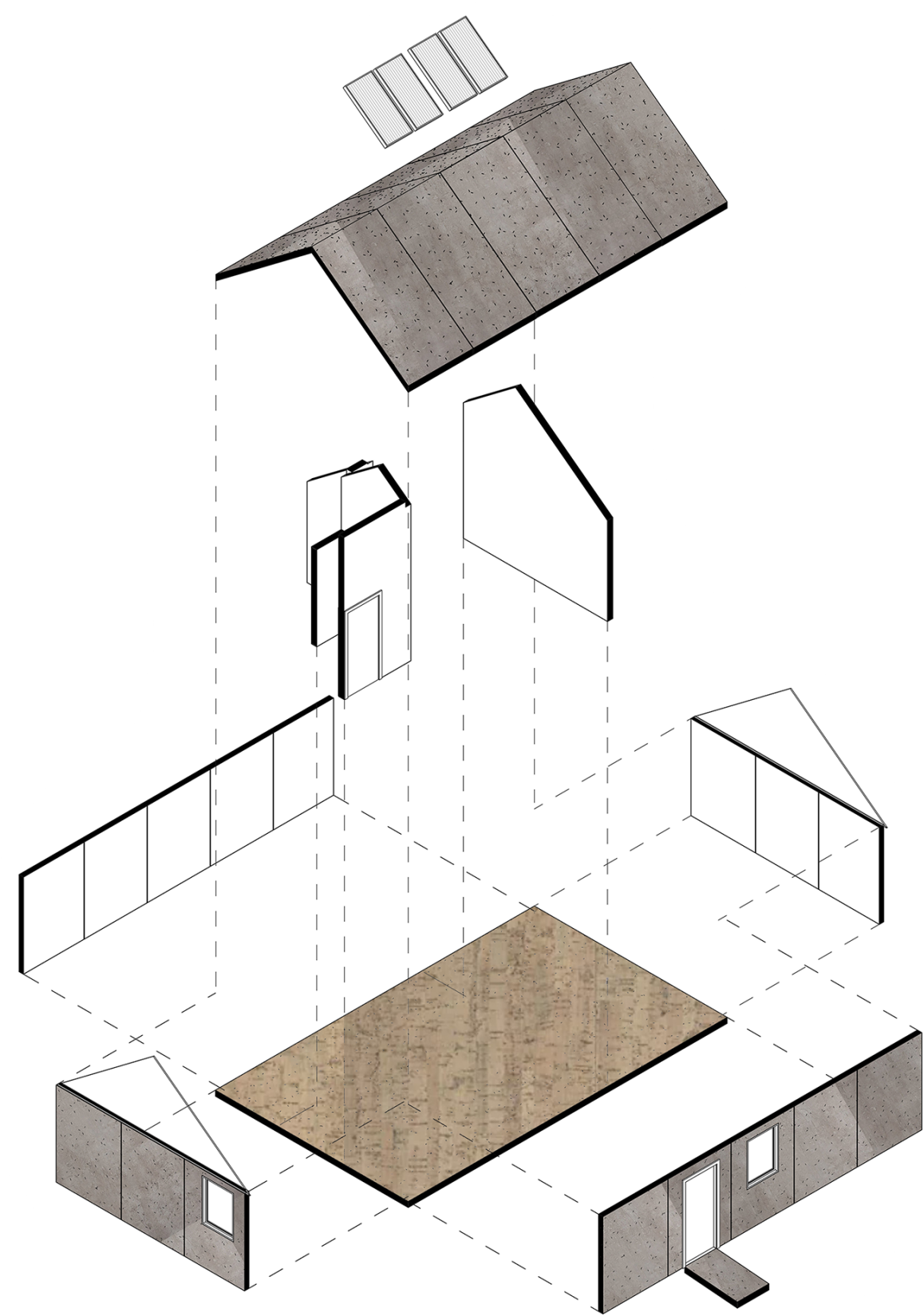
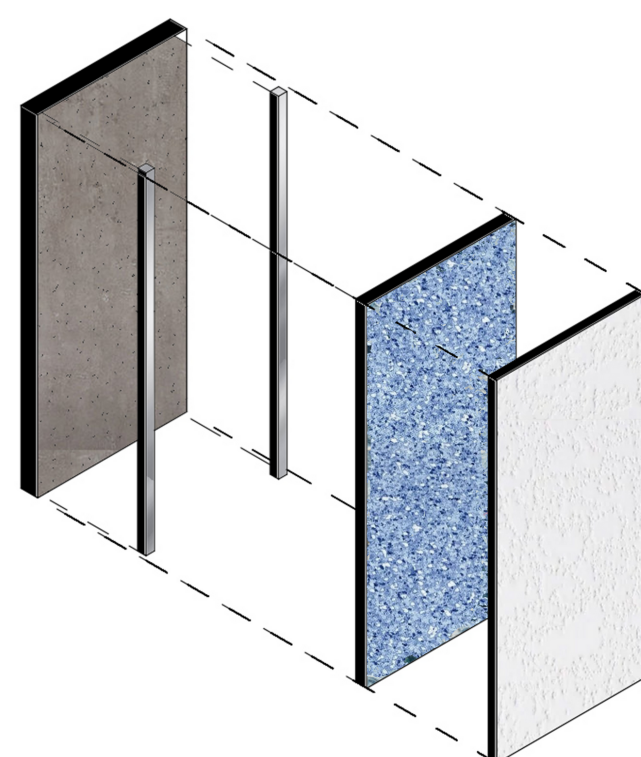
Key Materials



Material Research

Rzeszow receives about 10 inches of snow over 5 months out of the year. The height and pitched roof of the shelter allows for the weight of the snow to easily slide off the concrete plane. Our building envelope consists of Cortex Concrete. Although still under development, this concrete can be shipped before its set and assembled in within a day. Separate exterior and interior panels allow for modular assembly of the space to accommodate families of different sizes. To prevent the shelter from getting too cold, recycled denim was chosen as the interior insulator and cork flooring covers the living and sleeping areas. These materials can be treated with boric acid, making them fire-resistant and bug-repellant. The inclusion of large windows and a skylight allow for sunlight to help with mental health as well as cognitive function (Kent, 2009). Cleanliness and sanitation were also important factors for the space as the spread of disease are prevalent in refugee camps. The plastic wall finish is used to help the space remain clean, while plastic floor material in the restroom is waterproof and easily cleaned and disinfected. The space is divided into "clean" and "dirty" zones. The restroom contains a composting toilet with external access to easily remove waste without the risk of contamination on the inside of the home.

Envelope

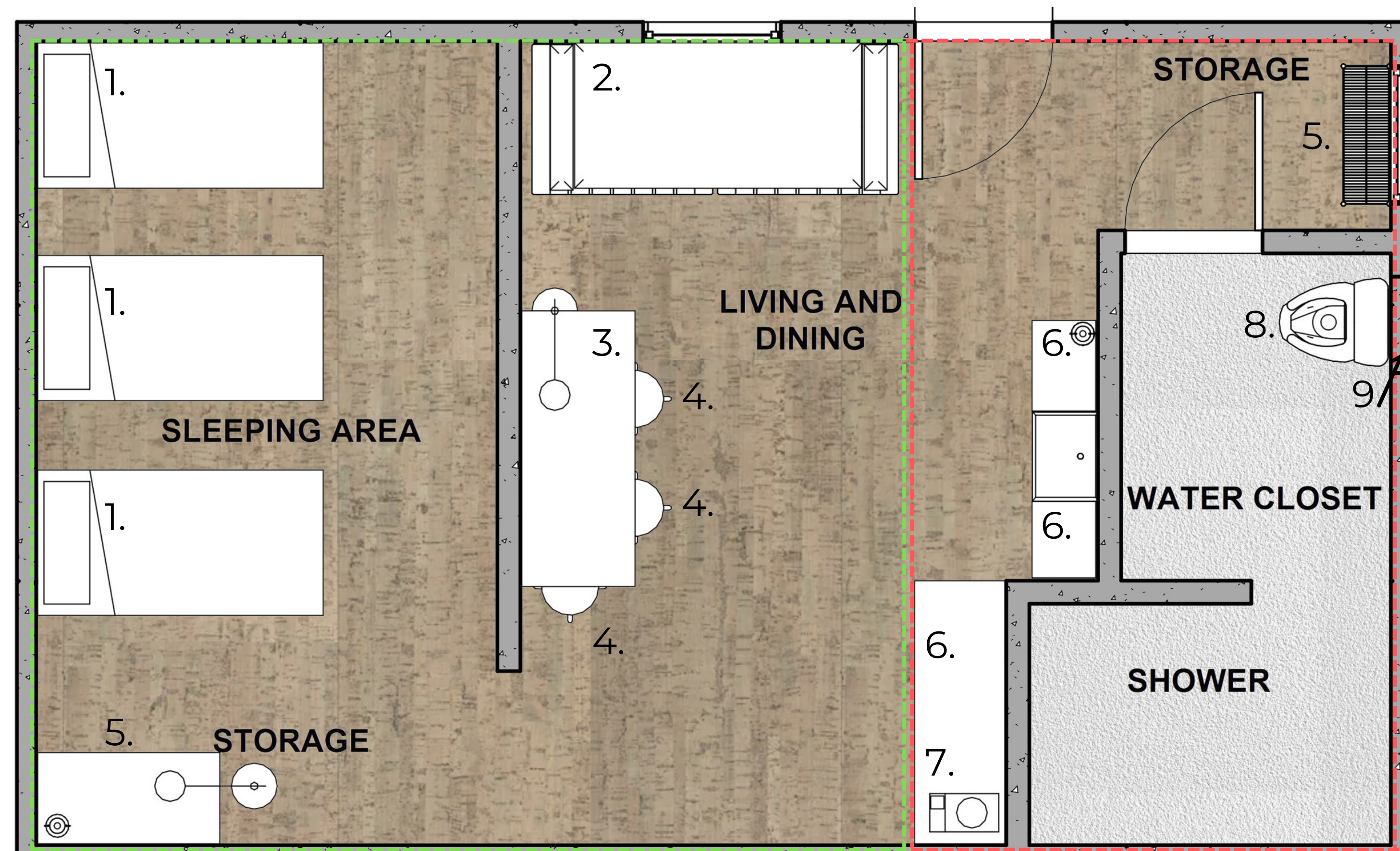


Exploded Axonometric



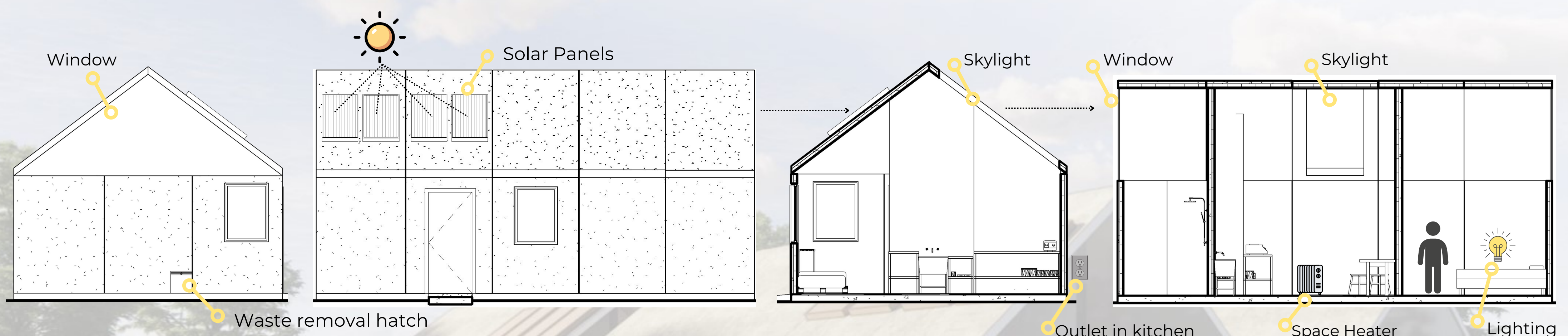
Interior Perspectives

Floor Plan



- Legend**
- 1. Twin Size Bed
 - 2. Couch made from shipping pallet
 - 3. Dining Table
 - 4. Bar Stools
 - 5. Wire Shelving Unit
 - 6. Preparation Tables
 - 7. Hot Plate
 - 8. Composting Toilet
 - 9. Waste removal hatch
- Zones**
- Dirty Zone
 - Clean Zone

Sections with System Plan



Resources

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