

STU-PODS



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GBC STUDENT PORTABLE ON DEMAND HOUSING

The STU-POD design is portable student on demand housing geared towards college & university students looking for affordable housing situated in the downtown core, specifically our design will be utilizing unused lane way spaces, which are widespread throughout the surrounding areas. The STU-POD will be lease-to-own student residences which are available to all students as long as they are enrolled in a university or college. Upon graduation students will have the option of selling their POD to a new student or relocating it and using it as a first home. With this system the students can build equity in the home and have pride of ownership. The central pods will contain all the mechanics of the building including the washroom and kitchen and will be owned, operated, and maintained by George Brown College. This design is unique because POD'S can be added or removed with ease and in a timely fashion, using a patented hydraulic lifting system which keeps the POD level during all stages of transportation. The STU-POD was designed with sustainability and energy conservation in mind, using environmentally friendly yet cost effective materials. The design is energy efficient in numerous ways allowing for the lowest possible strain on the already overburdened urban infrastructure.

INTRODUCTION

- Student housing for GBC students
- Situated in Laneways throughout the city
- There is a main core and separate POD's
- At end of term, students have option of selling to new students or taking the POD with them as a starter home
- Order and customize through GBC run STU-POD community website. (buy, sell, or trade)
- Whole unit is mobile and can be relocated easily on a using a regular sized flat bed trailer

THE CORE

- The base core will be owned and operated by GBC
- It will house the kitchen and washroom, along with eating and lounging areas
- With all the mechanical systems underneath the house and out of the way, we ensure that a POD can be attached anywhere on the outside wall, therefore utilizing all possible spaces
- Cores measure 12' x 16' and has a floor area of 196 sq ft.

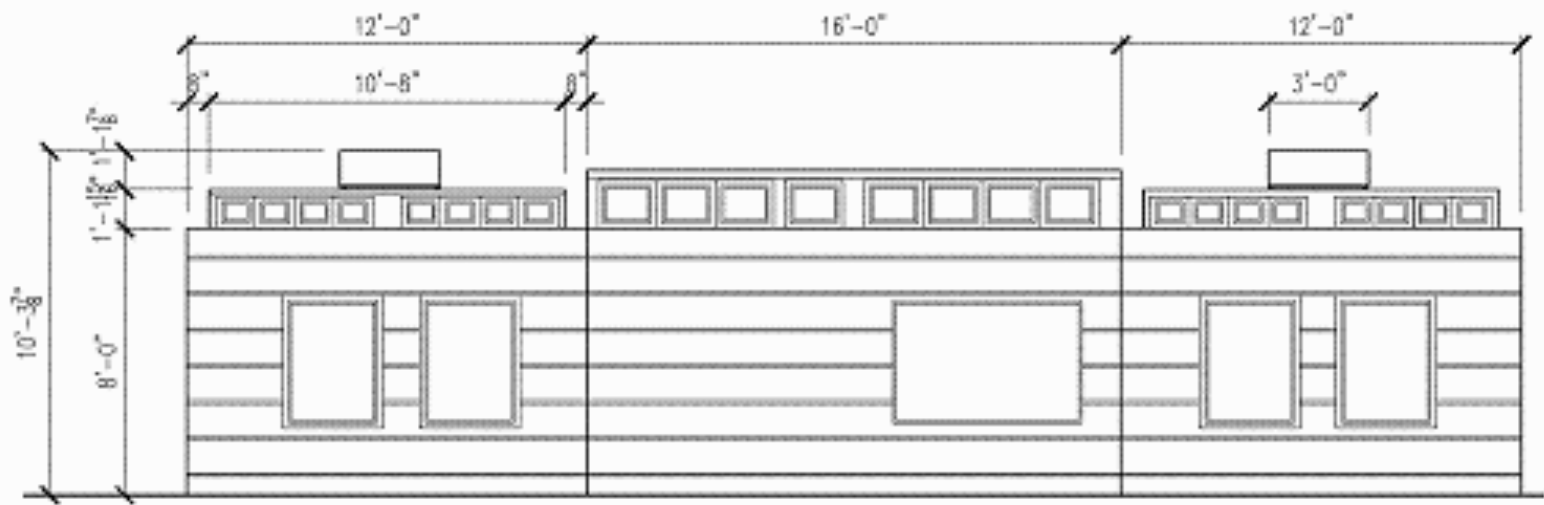
STU - PODS

- 2 Permanent Pods 8' x 8' x 12' at 96 sq. ft.
- Steel Tubing Special Frame (Recycled)
- Structural Insulated Panels
- Fiber-Cement exterior panels
- Rain Water Collection : Slope To Back
- 110 watt Solar Panels on each POD
- Window Panels Placed High on Main Unit for Light & Heat

OTHER FEATURES

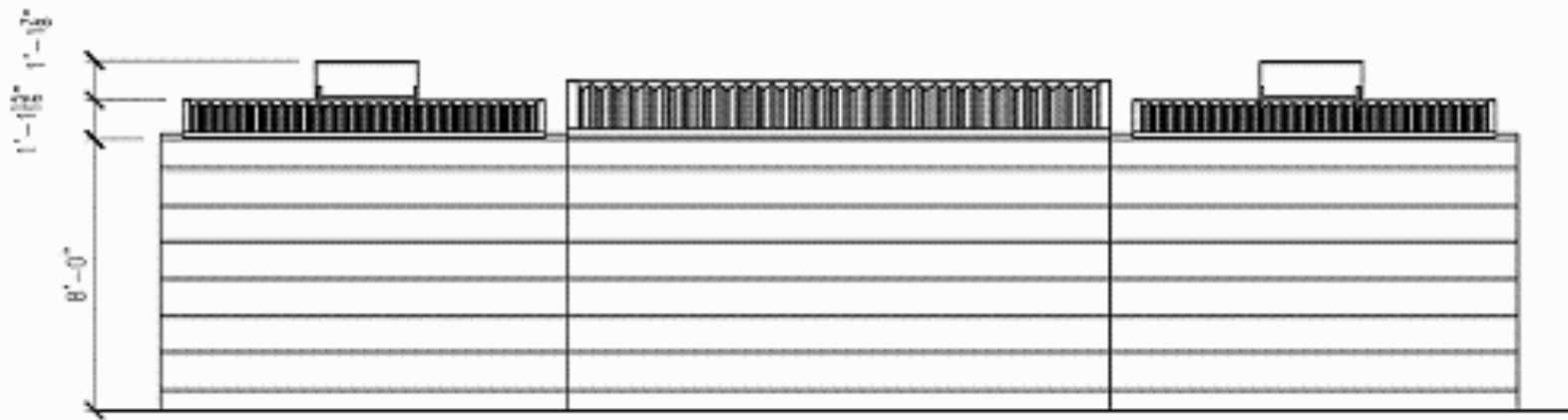
- Hot Water: Tankless Water Heater
- Collected Rain Water Used For Toilet Flushing & Irrigation
- Catch Basin Under Main Building
- Composter: Household Waste Used to Feed Plants
- Radiant Floors: Warm Floors, No Heat Ducts, & More Efficient
- Bike Racks Outside

GBC STUDENT PORTABLE ON DEMAND HOUSING



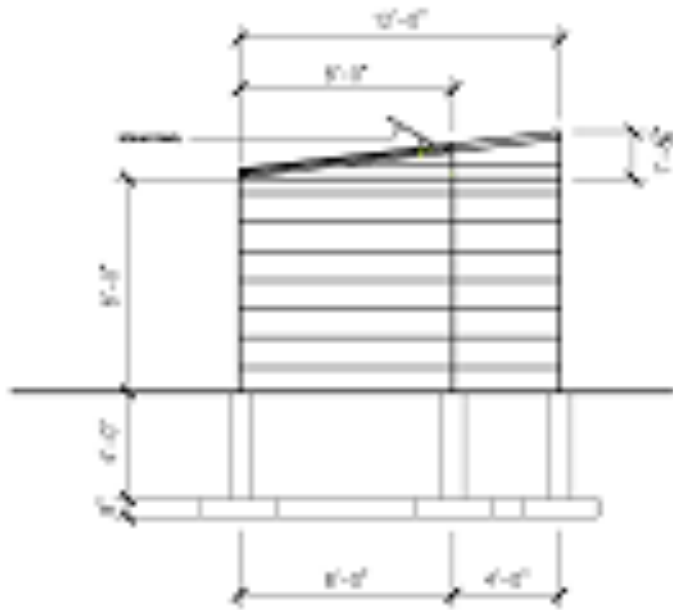
SOUTH ELEVATION

GBC STUDENT PORTABLE ON DEMAND HOUSING

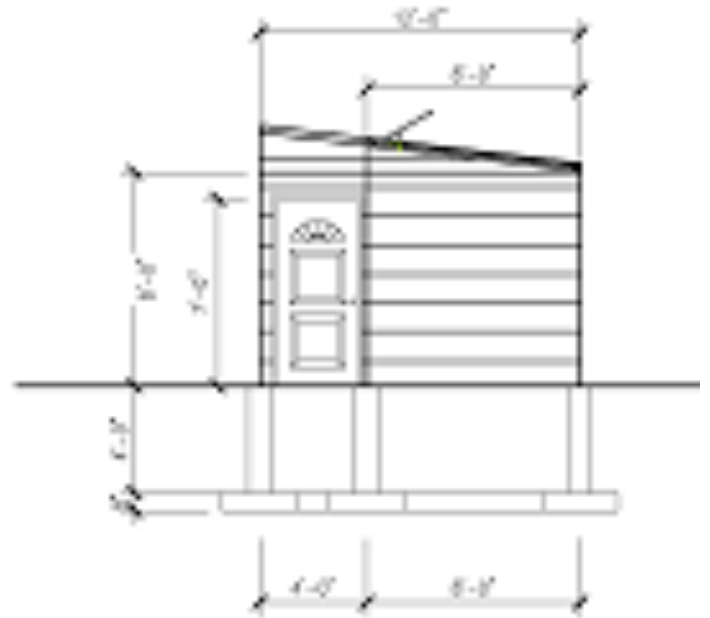


NORTH ELEVATION

GBC STUDENT PORTABLE ON DEMAND HOUSING



WEST ELEVATION



EAST ELEVATION

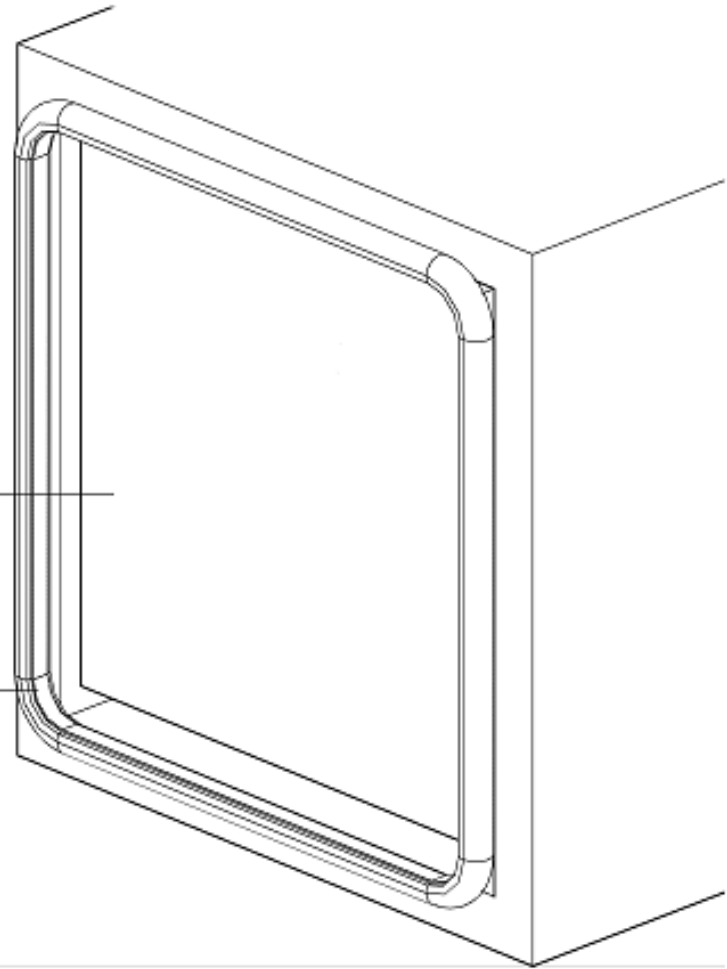
GBC STUDENT PORTABLE ON DEMAND HOUSING

AIR GASKETS

INTERIOR POD

WATERPROOF SEALANT

SEALANT DETAIL



STU-PODS

Based on a pre existing storage pod design already used and mass produced



POD MOBILITY

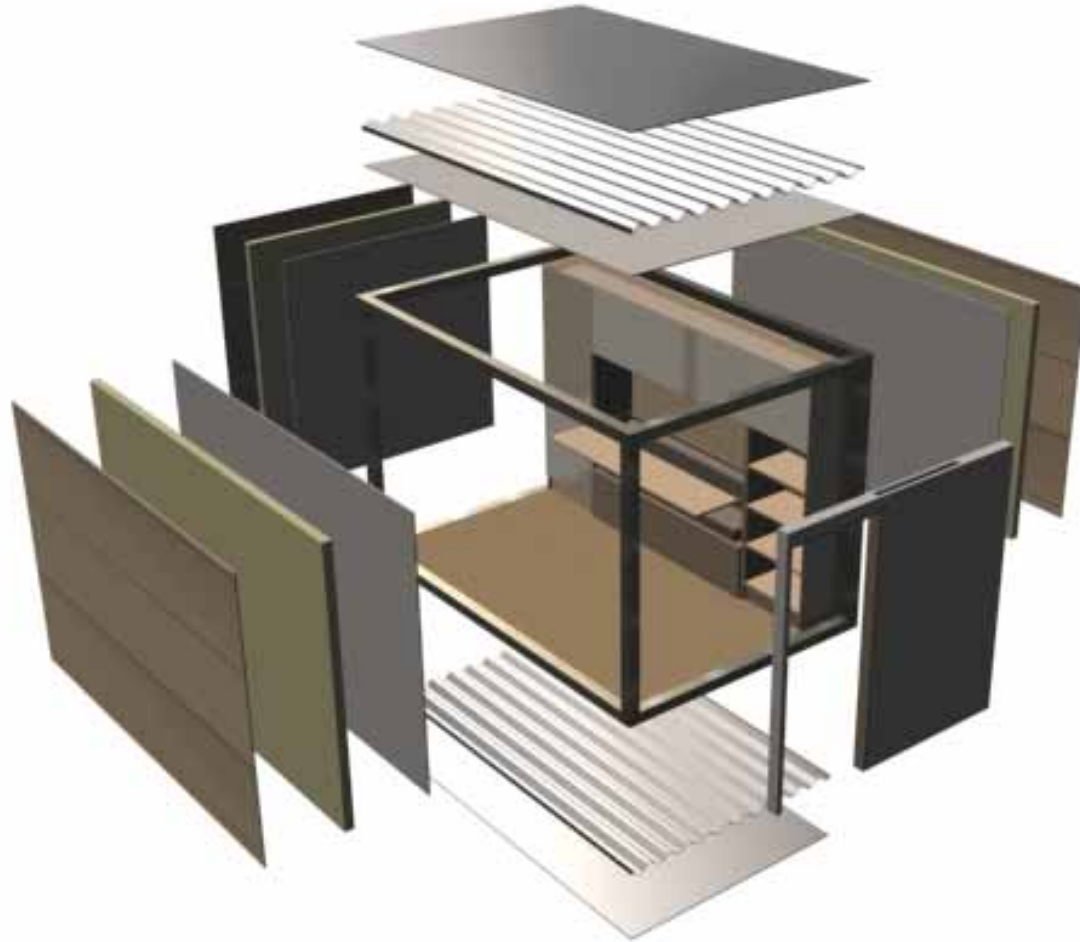
The POD is kept level and never actually tilted at all during the process of loading the POD container onto the truck. Instead, their patented hydraulic lift system picks up the POD level and sets it down level, making for easy and fast transportation



POD MOBILITY

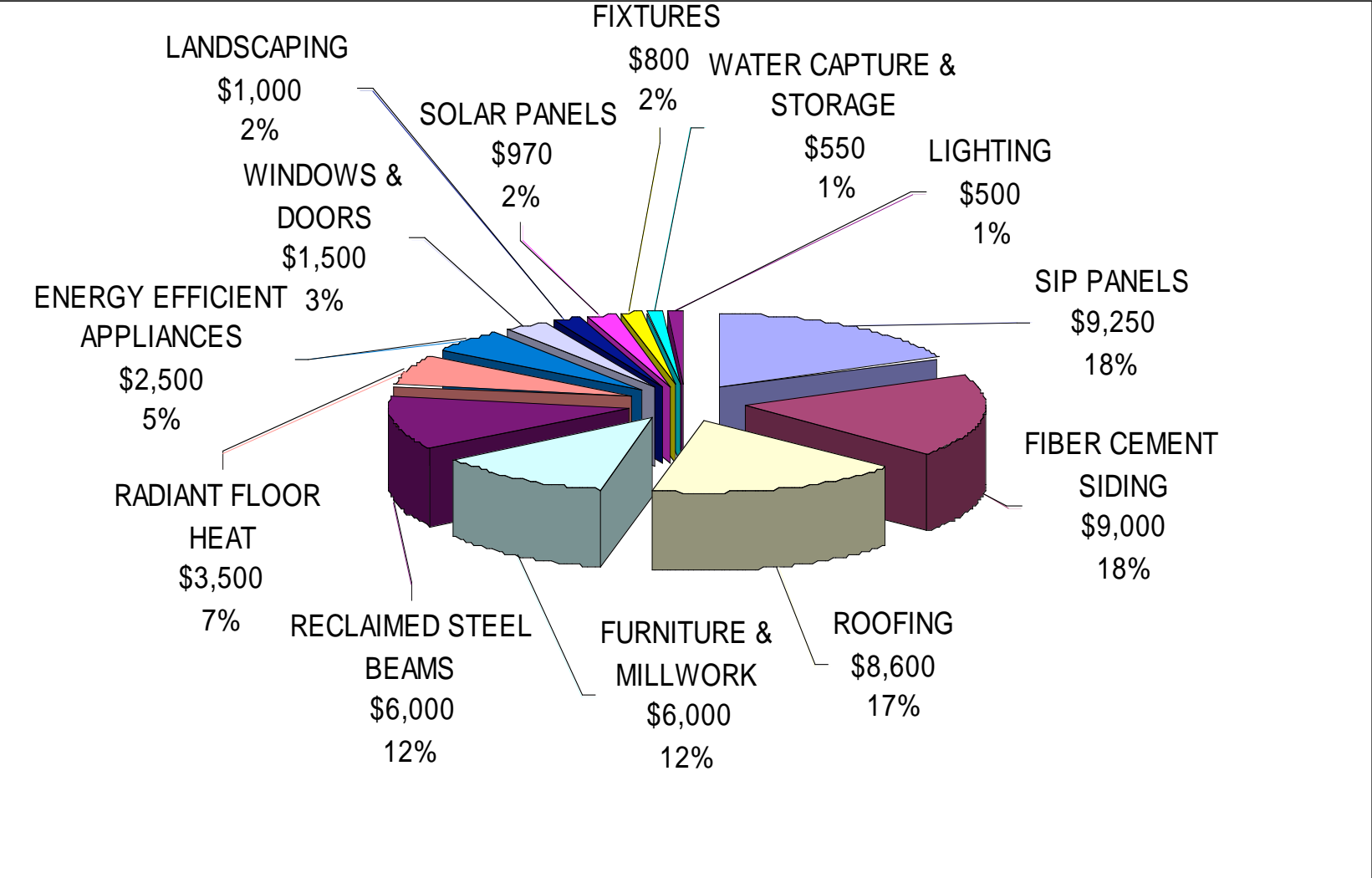
Since the POD remains fully upright the entire time, you don't have to worry about your stuff that's packed "on top" ending up tossed into the corner, or eventually making its way to the bottom! There is virtually no "shifting" of the contents inside.





SELF CONTAINED POD

COST BREAK DOWN



TOTAL COST: \$50,170

BUILT IN FOLD AWAY FURNITURE

- The bed can fold away into a couch, while the desk & office stays out



BUILT IN FOLD AWAY FURNITURE

- The Bed and Desk can totally fold away into the wall there fore leaving the user with an open uncluttered space



BUILT IN FOLD AWAY FURNITURE

- This shows the bed totally unfolded with the desk hidden away into the millwork



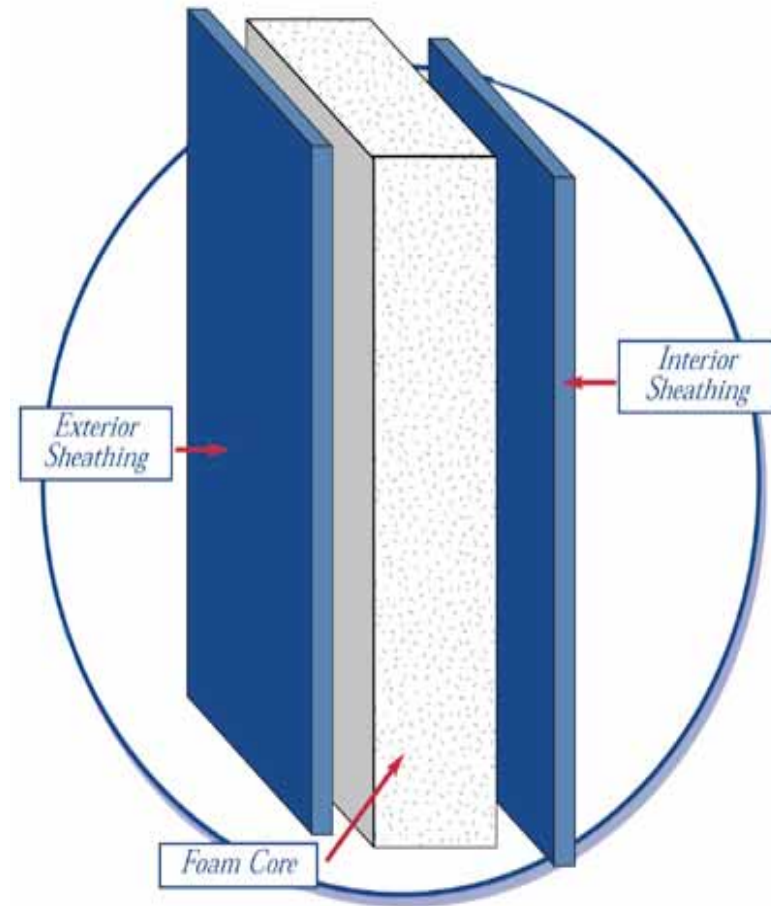
BUILT IN FOLD AWAY FURNITURE

- This picture just show another configuration with the desk folded out and the bed into the couch



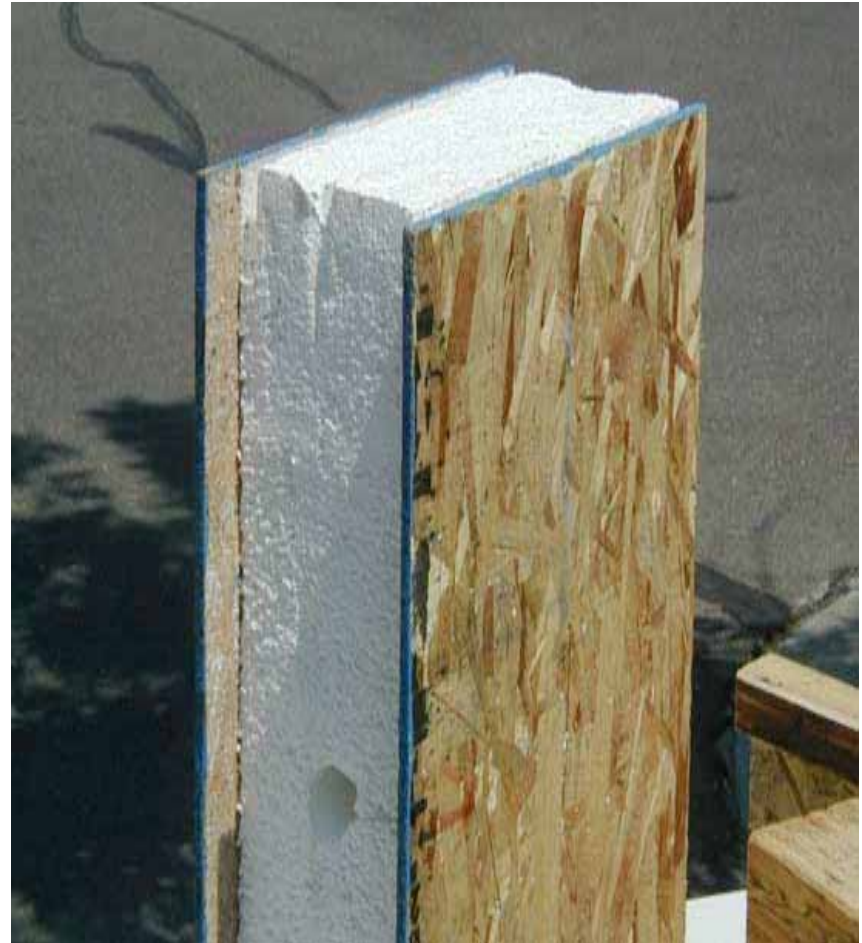
Structural Insulated Panels (SIPs)

- Have become a widely used alternative construction material for homes and other buildings
- The acronym SIPs now usually refers to panels made from a thick layer of foam (polystyrene or polyurethane) sandwiched between two layers of Oriented Strand Board (OSB), plywood or fiber-cement



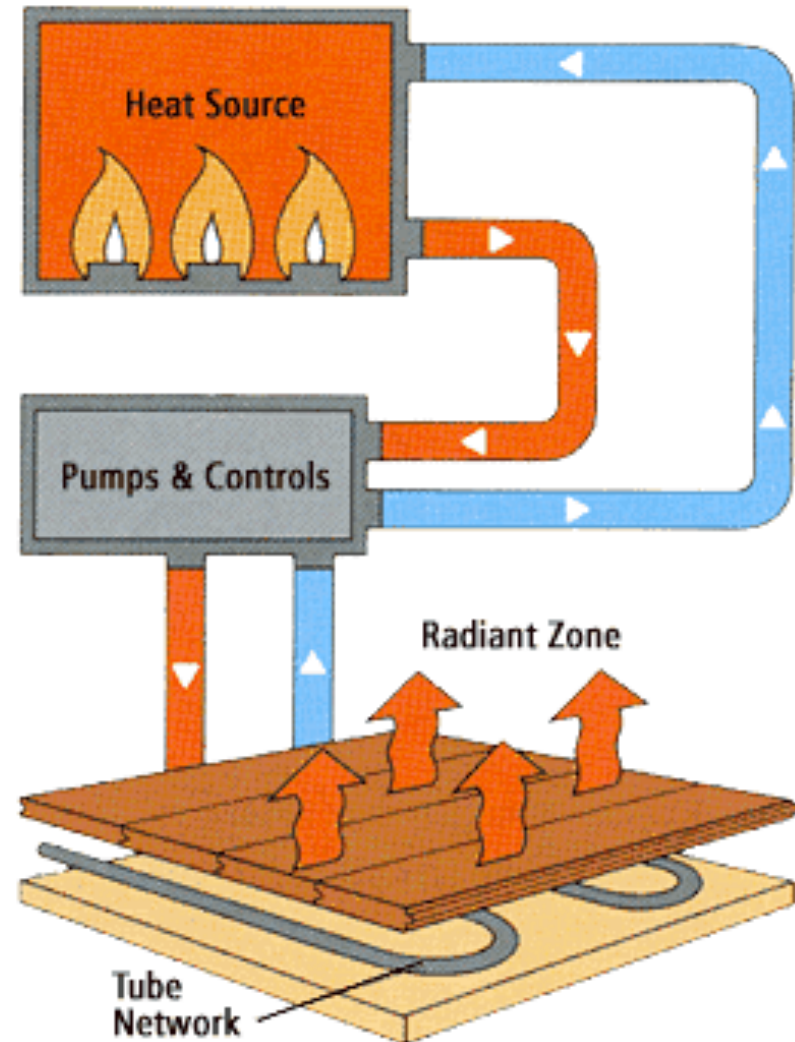
Structural Insulated Panels (SIPs)

- SIPs generally contain higher R values than a similarly sized wall, improving thermal performance. By being very airtight, they also allow little infiltration, adding to the thermal performance
- Use of SIPs panels can help conserve scarce timber resources, since they provide good structural performance using significantly less dimensional lumber. The lumber used for manufacturing OSB comes from fast growing trees that can be planted and harvested in just a few years



ENERGY-Radiant Flooring

- Ultra-thin floor heating systems are designed for convenient invisible installation under tile, natural stone, hardwood, carpet and floating wood floors. They are highly energy efficient and are maintenance free for the life of the system





ECONOMY: Finance

- The main unit which is the core will be owned by George Brown College. The PODS are owned by students attending the college. They may pay rent for 2 – 4 years when they are in college and then have the option to buy them. The Core can also be bought by students if the college agrees to sell
- OSAP will be used by the student to pay for rent of the PODS



POD COMMUNITY WEBSITE DESIGN

