








**Fast & Efficient Infrastructure Solutions**

**We build in 90% Less Time**

Leaders in sustainable, multipurpose  
stationary & relocatable infrastructure

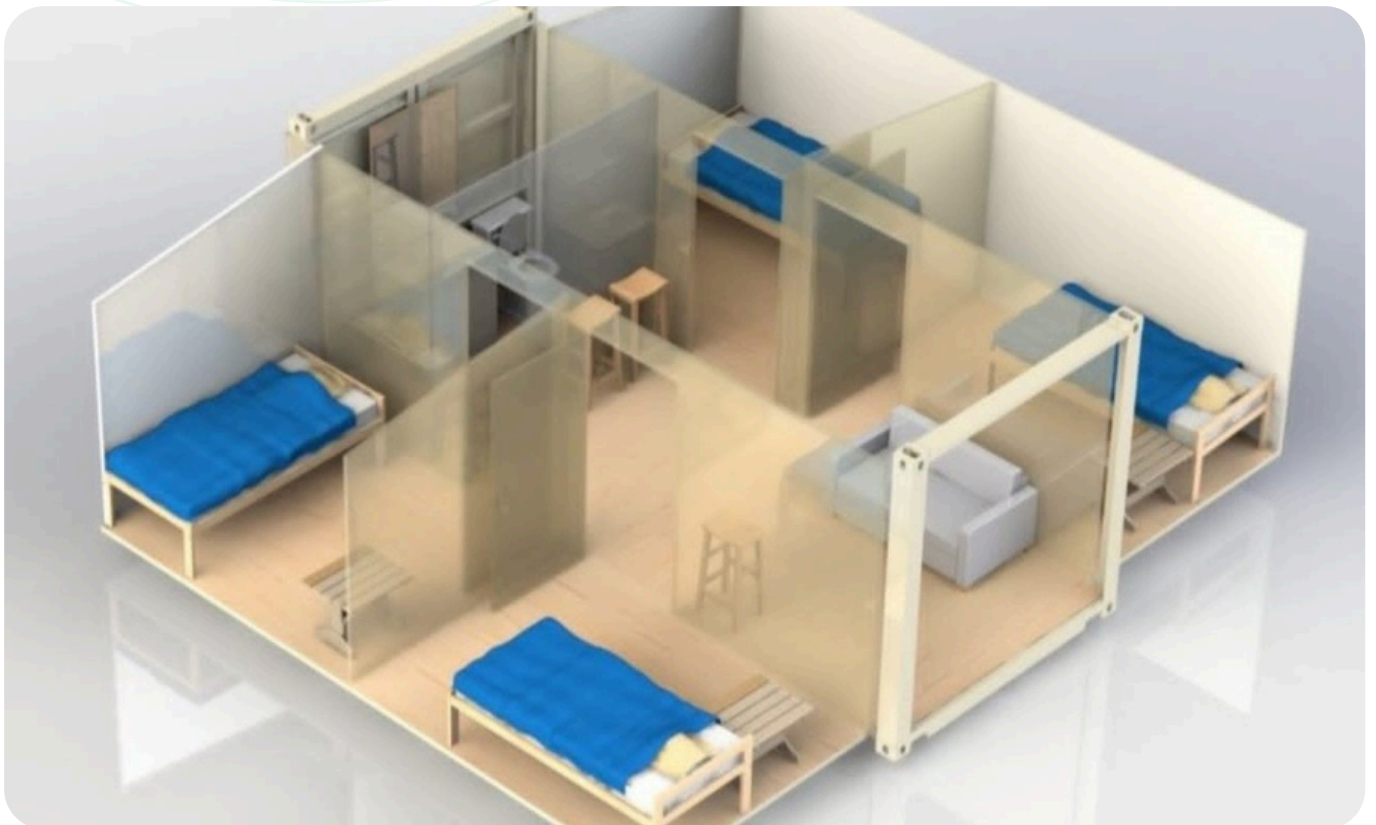
# What We Offer?

-  Fast, efficient and cost effective infrastructure solutions that are environmentally friendly and can be dismantled and relocated.
-  With our award winning and proprietary technology we can set up buildings and infrastructure in only 10% time.
-  Our component based design guarantees cost and energy efficiency with zero compromise on structural integrity.
-  Our fire and earth quake resistant mesh-based system is insulation-optimized making it suitable for all environments and climates.
-  All components are pre-built and assembled on-site, making them ideal for all terrains, including remote areas. They can also be flat-packed and shipped anywhere fast and economically.



# Military Applications

-  Accommodation and barracks
-  Mess and offices
-  Mobile clinics and field hospitals
-  Check posts
-  Warehousing, storage and equipment facilities
-  Staff housing communities
-  Infrastructure for remote areas
-  One-time investment on structures with potential for future relocation



# Energy & Mining

-  Labour accommodation optimized for remote location and harsh weather conditions
-  Executive housing; independent and shared units finished to high standards
-  Site offices, security and administrative buildings
-  Staff cafeteria and dining halls
-  One-time investment on structures with potential for future relocation
-  Warehousing and equipment storage facilities
-  Maintenance facilities and auxiliary structures
-  Power distribution infrastructure
-  Medical clinics and primary health centers



# Manufacturing & Logistics

-  On-site labour housing and staff accommodation
-  On-site executive housing, independent and shared units finished to high standards
-  Manufacturing facilities
-  One-time investment on structures with potential for future relocation
-  Management offices, security and administrative offices
-  Maintenance and repair facilities and auxiliary workshops
-  Research and development laboratories
-  Fire resistant warehousing and secure equipment storage
-  Primary health centers











# Eco-Tourism

-  Green-driven solutions for the hospitality sector
-  Self-sustained and eco-friendly chalets and adventure pods customized with a high level of luxury
-  One-time investment on structures with potential for future relocation
-  On-site staff accommodation
-  Net-zero designs that ensure minimal resource wastage
-  Autonomous and off grid solutions
-  Guest facilities and recreational buildings











# Net-Zero & Cost Effective Housing

-  Proprietary technology ensures cost effective and quick turn-around housing solutions
-  Intermesh system guarantees 90% reduction in embodied carbon
-  Prefabricated, flat-packed and economically shipped to site
-  Fast assembly, comes integrated with a plug and play mechanism for utilities, ready to live in as little as a day
-  Insulated walls and roof to regulate temperature with integrated wind catchers for natural cooling
-  Modular units with customizable interior and exterior design options
-  Durable engineering with 50+ year lifespan
-  One-time investment on structures with potential for future relocation









# Multi-Purpose Garden Rooms

-  Pre-built, flat packed with seamless assembly on-site
-  Built as quickly as in a day without the inconvenience and disruption of construction work
-  Energy efficient structures with an advanced level of insulation, providing comfortable space in all weathers
-  Built using environmentally friendly components which conform with international building codes
-  Comes integrated with a plug and play mechanism for utilities and can be interconnected with existing structure
-  Future proof investment in relocatable structure, which can move with the user
-  Attractive designs with customizable interiors and exteriors with the option of adding a wet area
-  Broad functionality with multiple uses, including home office, study, pet room, extra bedroom, music room, hobby room, pool room, maid's room, etc.



# Humanitarian Relief

-  Suited for disaster relief and reconstruction efforts
-  Quickest turn-around for refugee housing with a high level of weather protection
-  Field hospitals and clinics for disaster management
-  Educational facilities for the under privileged, best suitable for rural and remote areas
-  Eco-friendly and energy efficient structures with an advanced level of fire and earthquake protection
-  Flat packed, efficiently transported and rapidly assembled housing solutions for displaced people



# On-site Process



1  
Installation of plumbing system and civil works



2  
Steel structure is assembled



3  
Wall panels are attached



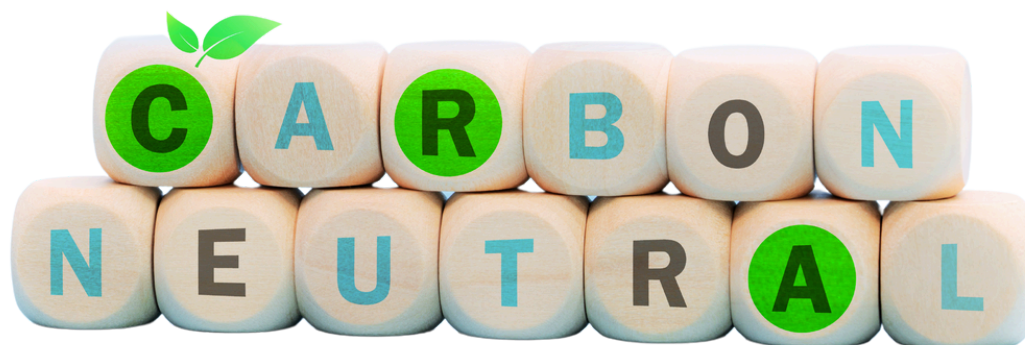
4  
Placement of roofing components



5  
Solar and MEP system is installed



6  
Completing any interior elements required



# Design Features



Cost effective



Time efficient



Low-carbon technology, helps save the environment



Energy efficient



Flat-packed & relocatable



Modular and DIY



Fire & earthquake safety



Works off-grid



Conforms with international building codes



Proprietary design



The components are **relocatable** and can be **flat-packed & shipped anywhere economically**

Multiple flat-packed units can fit on a single truck/shipping container



# Inter-Mesh Building System

## ~1 Day Setup

Quick assembly time without any heavy equipment\*

## 50+ Years

Robust with a long life span

## Fire & Earthquakes Resistant

Enhancing personal and community safety

## Net-Zero Technology

Helps save the environment

\*Our proprietary technology's quick assembly reduces manhours by 90%, mass manufacturing and component-based design reduces costs.

\*Patent pending



# Design Specifications

## Architectural codes

**International building codes - IBC 2015 and Local byelaws**

## Design codes: ASCE (LRFD)

- Mild steel sections are used as columns & beams.
- Roof slab composed of cement boards & light finishes.
- Whole structure is resting on a concrete slab on grade.
- ETABs Model: ETABs is used for the 3D Finite element modelling of the structure. The structure is categorized as IMRF (Intermediate moment resisting frame system) with sway columns and no shear wall (unless otherwise required by other means). The model is defined with beams, columns and slabs All loads are applied in the model and self-weight is auto-calculated by the software using concrete density. Load combinations and envelops are defined in the model to get worst load effects.

All the members are designed using in-house spread sheets based on AISC-360-10, using the analysis results from ETABs.



# Design Specifications

Following loads are applied in the 3D ETABs model for analysis:

## Dead Loads (Self-weight)

Auto assign function is used for the application of self-weight by assuming  $\gamma_c = 150$  pcf.

## Wall / Partition Load

40lb/rft

## Live Load

Roof live load = 20 psf

## Wind loads:

Following parameters were considered for application of wind load using UBC 97 Auto generated wind loading in ETABs from extent of diaphragms.

Wind Speed = 85 mph; Exposure category: D (Low obstructions, Open Areas);

Wind ward coefficient = 0.8; Lee ward coefficient = 0.5

Additional Uplift wind load is applied on the wind catcher as per ASCE-7-10

Wind uplift for overhangs. Value of load is taken as 19.3 psf (upward).

## Load Combinations

DL+SDead+LL

1.2(DL+Sdead) +1.6LL

1.4(DL+Sdead)

1.2(DL+Sdead) +1.0LL±1.0Wind+1.0WindUp 0.9(DL+Sdead)

+1.0LL±1.0Wind+1.0WindUp

# Fiber Cement Specifications

**Design Life: 50 years (same as concrete)**



Material has been tested by TUV SUD PSB Pte. Ltd., Singapore. The attestation of conformity of fiber cement sheets is based on the annex ZA of EN 12467:2004, "Fiber cement flat sheets - Product specification and test methods" and is also in accordance with EN12467.1, section 7.3.2. The testing institute confirms the flexural strength values for boards of 6 mm are  $> 7 \text{ N/mm}^2$  in wet conditions and the product characteristics fulfill all requirements in Category A, Class 2.

<b>Physical Properties</b>	
Thickness Tolerance	$\pm 6\%$
Density	$1300 \pm 50 \text{ kg/m}^3$
Modulus of Rupture	$> 7 \text{ MPa (Wet)}$
Modulus of Elasticity	$5500 \pm 50 \text{ MPa (Wet)}$
Water Absorption	$\leq 35\%$
Moisture Content	$\leq 12\%$
Water Tightness	Pass
PH Value	7-8
Thermal Conductivity	$0.15 \text{ W/m.K}$
Acoustic Insulation	STC = 30 dB (6 mm single board) STC = 50 - 60 dB (10 mm composite)
Moisture Movement	$\pm 0.4\%$
<b>Fire Resistance Properties</b>	
Ignitibility	Pass
Fire Propagation Index	$I = 0.1$
Surface Spread of Flame	Class 1
Reaction to Fire Classification	A2 - s1 d0
<b>Durability Properties</b>	
Freeze / Thaw Resistance	Pass
Warm Water Resistance	Pass
Heat / Rain Resistance	Pass
Soak / Dry Resistance	Pass

# We are Recognized by



# Awards & Achievements



# Contact Us

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