



FABRICATION AND BUILDING PROCESS

For

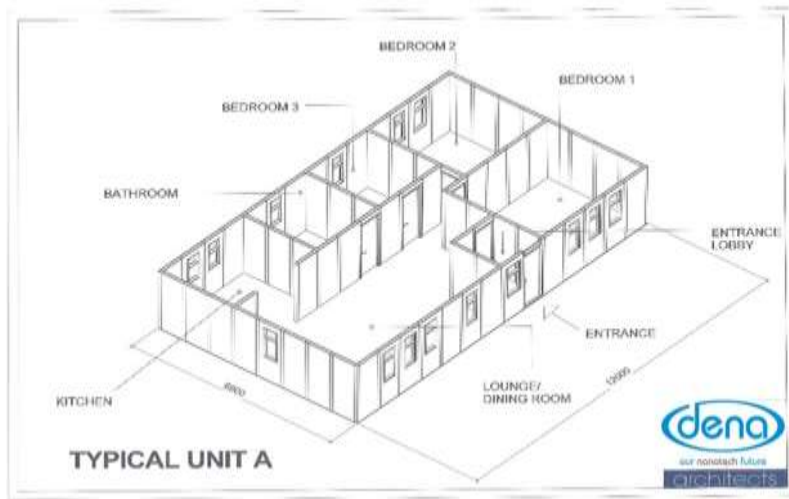


DENA ENVIRO BUILD (DEB) HOUSING

The Building Stages consist of:

- **Design**
- **Fabrication at Factory, of the Panel, Floor, Roofing, Doors etc.**
- **Building on site within day or more depending on size and type of the building.**

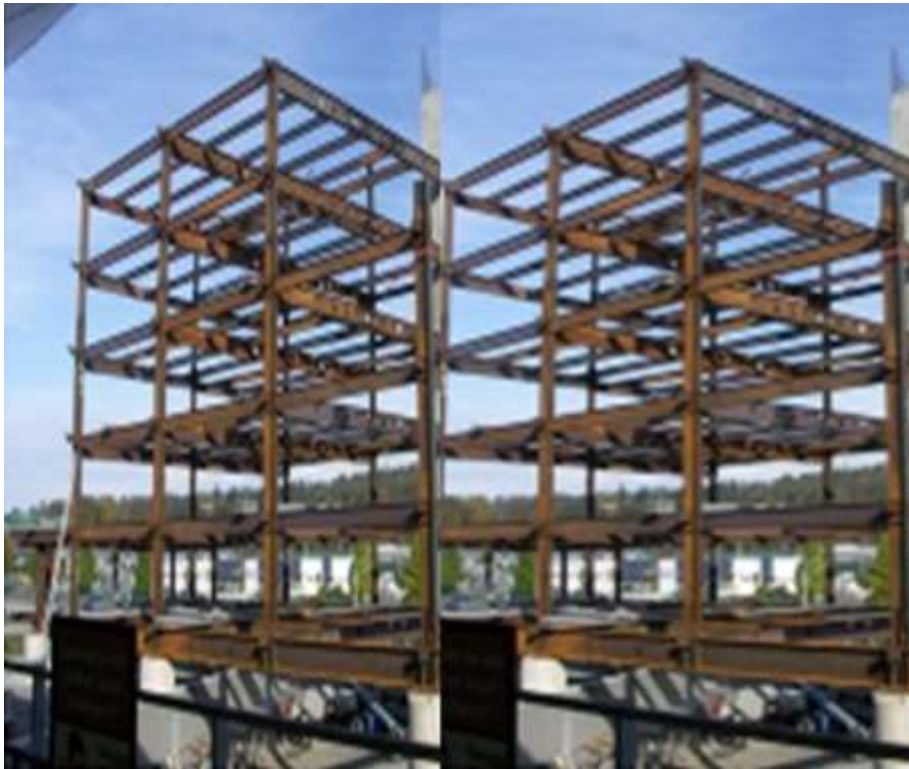
1. Design Stage



2. Fabrication Stage -in UK

The Stages of Building Flats or any building with more than 2 floors is consist of:

- **Steel structures after the required design.**
- **Fabrication at Factory, of the Panel, Floor, Roofing, Doors etc.**
- **Building on the site within day or more depends on size and type of building.**



3. Buildings

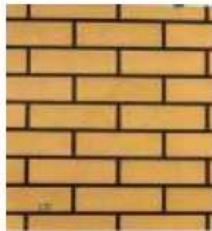
This technology can be used to build many building/structures from lo-cost housing up to villas and hi-rise buildings (apartments and offices etc.) regardless of the number of floors.

a. Lo-Cost Affordable Housing (Residential)



b. Villas & Permanent Housing

Villas and permanent houses will be clad with a Brick / Stone Slip over the **DEB** material made from End of Life (E.O.L.) Tyres to give the appearance of a traditional build.



c. Hi-Rise Buildings (Apartments and Offices etc.)

Multi-storey builds will be clad with a Brick / Stone Slip over the **DEB** material made from End of Life (E.O.L.) Tyres to give the appearance of a traditional build.



Apartments with Shops, Clinic & Supermarket



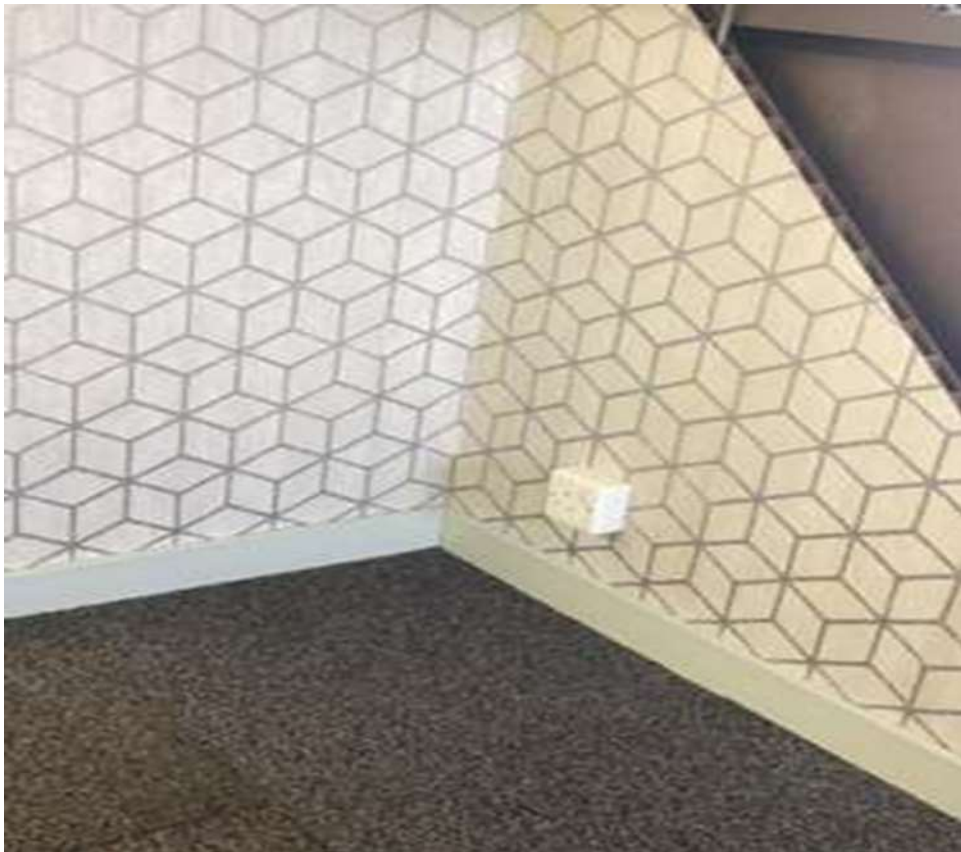


d. Other Buildings

Schools/Colleges, Hospitals and Industrial Buildings/Units can also be built using the same principle above and may last from 50 to 100 years.



e. Interior Wall Facing



f. Furniture

Kitchens



Bedroom Furniture



Living Room Furniture



DENA TECHNICAL FEATURES OF PREFABRICATED HOMES

TECHNICAL DATA	
EARTHQUAKE CONDITIONS	(7.9 on the Richter scale)
CLIMATE CONDITIONS	Production is made based on 3rd climate zone
SNOW LOAD VALUE	Snow loads well in excess of 104Kg per square meter
WIND SPEED VALUE	80 km/h (Must be anchored to the ground)
EXTERIOR WALL INSULATION COEFFICIENT	K: 0.45 Kcal/m ² hC (K: 0,53 W/m ² K)

INTERNAL WALL INSULATION COEFFICIENT	K: 0.44 Kcal/m ² hC (K: 0,51 W/m ² K)
LIGHT STEEL MATERIAL	Dependent on the number of floors single storey not requiring supporting structure
Dena Panels	60 – 120 mm thick x 820 width x length/height as per design
Insulative properties	As above

	Load Type	Design Load – With Frame	Ultimate Failure Tested – No Lumber
Loading	Racking		1600 lbf/ft-width
	Transverse	160 lbs / sq. ft	260 lbs / sq. ft
	Axial	1,500 lbs/lin ft	20,000 lbs / lin ft

ROOF INSULATION COEFFICIENT - Up to 2 times the coefficient of the exterior wall panels.

INTERIOR AND EXTERIOR PANELS - The outer and inner panels are manufactured of Dena process

PANEL JOINTS - Glued and screwed

CARRIER CONSTRUCTIONS - Dependent on design and pitch of selected house type

MEZZANINE CONSTRUCTION

The mezzanine construction carrier frame is made of special shaped galvanized steel profiles. The mezzanine floor is covered with Dena board. On the ground floor suspended ceiling.

PROFILE SHEET

Dena's profile sheet can be corked and provides extra thermal and sound insulation.



DOORS

EXT.DOOR	Dena's door 4 cm thick
INT.DOOR	Dena's profile picture frame door 2.5 cm thick internal panel, 4 cm outer frame



WINDOWS

WINDOW		Local supply perhaps finished with a Dena veneer.
DOUBLE GLAZING		All glass used for windows to be supplied by most appropriate local if possible double-glazed units.

STAIRS



Produced from galvanized steel profiles, that are specially shaped by roll form machines. Stairs are assembled using seamless screw system. Staircase clad in Dena wood replacement materials.

PAINTING

As per agreed design. Dena products can be painted, or the colour can be specified and introduced during the production.

ELECTRICAL INSTALATIONS			
INSTALLATIONS	Electric installation is applied during manufacture to meet local building standards.		
CABLES	Installation is done at factory.	FUSES	To meet country codes
LIGHTING FIXTURES	Certified materials are used	SWITCHES & SOCKETS	Certified switch and sockets are used.
EXTERIOR	Electric meter, ground rods and outdoor connections are responsibility of the buyer.		
SANITARY INSTALLATIONS			
SANITARY WARE	certified materials are used	TAP AND SHOWER EQUIPMENT	certified materials are used
PIPES	Dena waste and water pipes.	EXTERIOR CONNECTION	Water meter and outer connections are responsibility of the buyer

Benefits of Wood Replacement Products

- 100% water, humidity & sea water resistant.
- Resistant to the majority of chemicals, e.g. salts, petrochemicals detergent solvents.
- Insects and Fire Resistant.
- Highly insulated thermal material
- Soundproof.
- Rot Proof.
- Easy to clean.
- Durable and Impact Resistant.
- Can be drilled, nailed and screwed.
- Available in various colours.
- Dena's Wood Replacement Products can be painted, with standard household paints.