

Skyhouse

This is a clever 'Flat Pack' system culminating in the construction of a Modular Housing Unit.



Clever in the fact that all elements required to achieve this is supplied in pack form and modular in the way that the house can 'GROW' in either length or width.

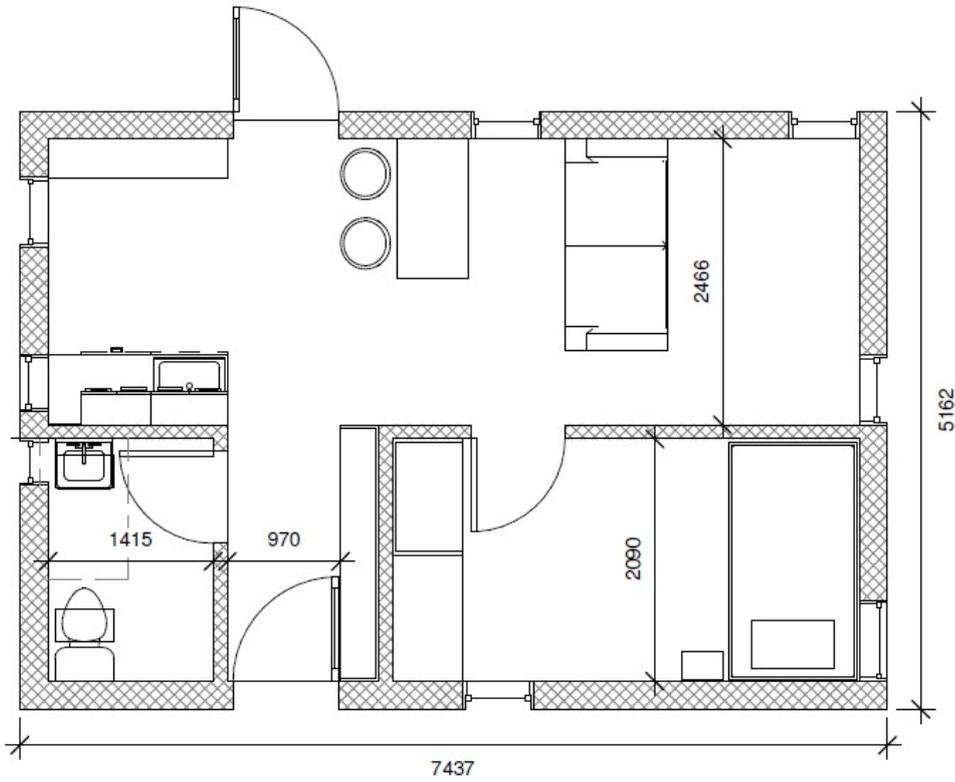
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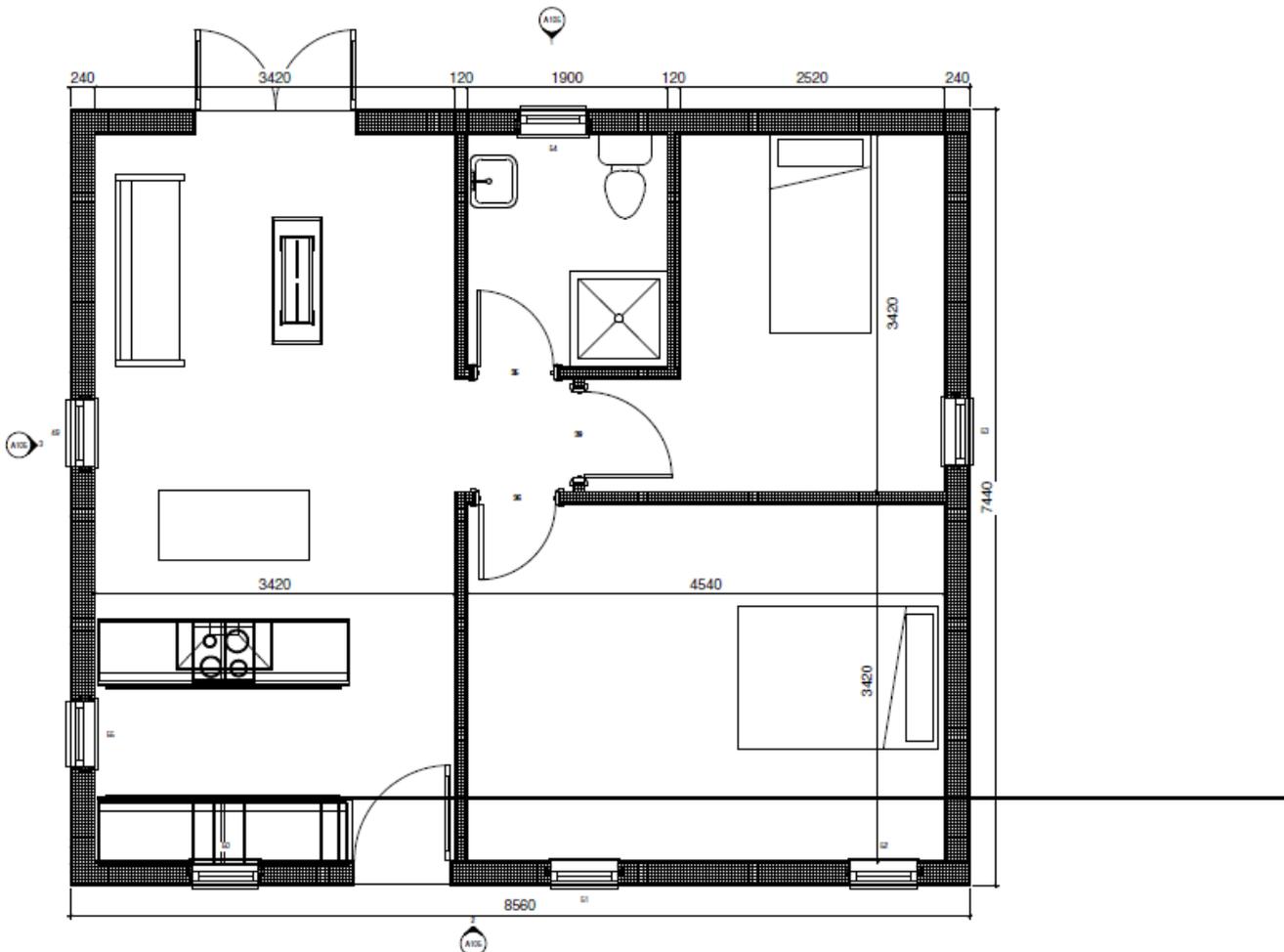


FloorPlan

1 Bedroom Skyhouse



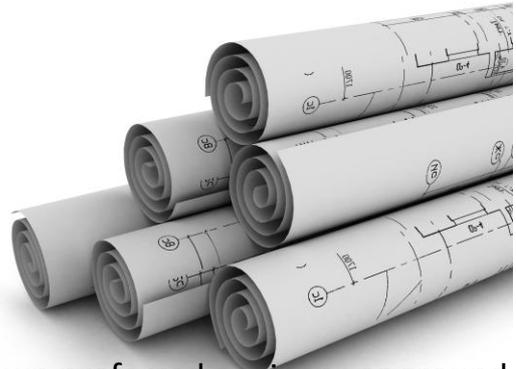
2 Bedroom Skyhouse



Groundworks

As each site is different so therefore we will conduct a site survey and design a suitable foundation and floor to suit your individual house.

Alternatively we can work closely with your own preferred engineer or ground worker.



Material Specification

COLD ROLLED STEEL

Section Properties SB220 Range

REF.	SB22012	SB22015	SB22018	SB22020	SB22024
t (mm)	1.2	1.5	1.8	2.0	2.4
Mass (kg/m)	3.67	4.59	5.51	6.09	7.32
Area (cm ²)	4.78	5.93	7.12	7.90	9.45
Ixx (cm ⁴)	329.83	410.22	490.32	542.81	645.63
Zxx (cm ³)	29.98	37.30	44.58	49.36	58.71
Rxx (cm)	8.31	8.32	8.30	8.29	8.27
Iyy (cm ⁴)	25.91	31.95	37.69	41.36	48.32
Zyy (cm ³)	5.67	6.97	8.21	9.01	10.51
Ryy (cm)	2.33	2.32	2.30	2.29	2.26
Cy (mm)	19.33	19.10	19.10	19.00	19.00

General Notes:

Physical properties are calculated using the nominal base metal thickness (excludes galvanised coating) in accordance with BS5950 : Part 5: 1998

All dimensions are nominal and in millimetres. All holes 18mm in diameter unless otherwise stated, e.g. Pairs of Tie Rod fixing holes 14mm sq.

Skywall

Build durable and energy efficient walls

- Save up to 60% on utility bills
- Require smaller, less costly heating and heating equipment
- Quieter, draft-free environment
- Stronger and more impact resistant in extreme weather conditions
- Healthier – resists moisture, mould, rot and insects
- Contains and inhibits fire



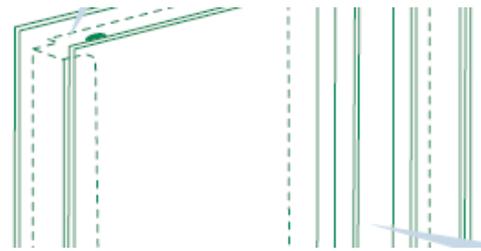
INTRODUCTION

- SkyWall is an engineered, insulated, structural wall
- SkyWall is composed of expanded polystyrene insulation laminated between magnesium oxide structural sheathing
- SkyWall replaces traditional construction methods and combines structural strength, insulation, air and vapour barrier.
- The use of Magnesium oxide as SkyWall sheathing provides a non combustible wall on both the interior and exterior that (with the use of XIM UMA bonder and Primer or a suitable PVA primer can be easily finished with paint, render or cladding and is moisture and mould resistant.

- Skywall results in less air leakage which results in significantly lower utility costs and a more comfortable living environment.
- SkyWall is structurally superior to conventional construction
- SkyWall is highly impact resistant and durable.
- SkyWall is fast and easy to install

Connection and Fastenings

Panels are joined together using cold rolled steel channels and splines. Panel joints must be structurally fastened to ensure integrity of



the system. 50mm Galvanized Screws every 150mm on centre, industrial foam adhesives and suitable adhesives/caulking fasten and seal wall sections.

Vapour and Air Barrier

A membrane vapour barrier or air sealing membrane is generally not required for SkyWall. Skywall panels in combination with the adhesives/joint sealants create the air barrier assembly. A vapour barrier coating or paint may be used in extreme vapour drive conditions.

Seal all joints and voids on the exterior and interior with adhesive/caulking to ensure no air infiltration or exfiltration.

Magnesium Oxide Board

- Magnesium Oxide board is the most heavily tested MgO board



on the market with performance results that are truly impressive.

- Intertek Listed as Non Combustible.
- Thoroughly tested for numerous applications and assemblies.
- Outperforms most sheathing products with a single 11mm board.
- Exceeds building code requirements in common commercial or residential construction.

Electrical works

All electrical works are carried out on site
by approved RECI electricians
(Registered Electrical Contractors of Ireland)

- Electrical wires are pulled through pre-cut vertical channels inside of the panels called chases.

Vertical electrical chases are located two feet on center.

- Electrical boxes or light switches should be drawn at the desired location (ideally close to the vertical chase) and then cut using a router, small blade skill saw, or jigsaw and the foam is removed with a hot knife or utility knife creating access to the electrical chase. The wire is then pulled through the chase into the box cavity.
- The box) is then pinned with screws and all voids around the box should be filled with polyurethane foam. Once foam is dry – trim excess foam and then wire and install the box. Note – electrical can be run from the joist cavity to the outlet location below and above. This reduces wire and splits wiring zones between floors.



Roof: Flat Tile Effect Cladding

SKYCLAD lightweight properties and attractive appearance coupled with low maintenance make it an ideal product for schools, mobile homes, hospitals, public, domestic, retail buildings and general extensions and conversions. It is supplied with a non-drip/anti-condensation membrane applied to the underside of the sheet. Comes in Pvc Gauges 0.7mm

Heating and Plumbing



All types of heating system can be used with the Skyhouse. We can provide our own certified plumber to carry out the works or liaise with your own preferred plumbing contractor. Many of our customers prefer to avail of electric heating which is proving to be a quick cost effective alternative to gas and oil.

Ceiling Panels

Our ceiling panels are constructed using a 65mm insulated magnesium oxide panel which are fixed to the horizontal roof joists using galvanised screws. These are then jointed using Brilux Joint adhesive and left ready for decoration.

Internal Stud Walls

The internal walls are manufactured using 9mm magnesium oxide boards and 100mm EPS polystyrene to provide 120mm thickness as a stud partition. This is fixed in place using our cold rolled channel track system which act as a head and sole plate system.

Windows and Doors

Skyhouse use one of the newest German designed Upvc window and door systems on the market today, this system is specifically designed to outperform most modern Upvc windows. The system incorporates a 5 chamber design to give maximum strength and exceptional performance when it comes to energy efficiency, the Advance 70 system easily achieved "A" ratings when reinforced with steel across all colours unlike other systems which have to compromise on reinforcing to achieve similar ratings. The advance 70 system can also incorporate a larger glazing unit which will greatly enhance these energy ratings.

For more information –

Contact our Sales team

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