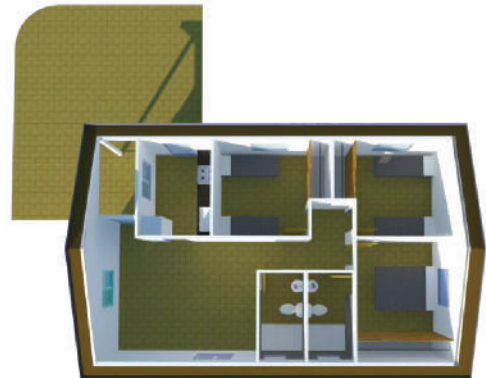


STEEL FRAME HOME PROJECT **75m²**

75 m² housing, Steel Frame construction system, with structure of cold formed lightened galvanized profiles.



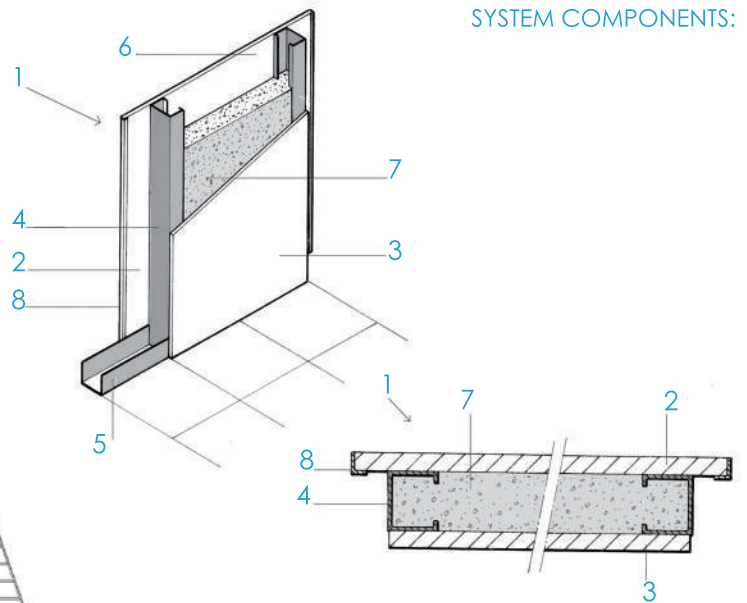
HOUSE ELEVATIONS



FUNCTIONAL DISTRIBUTION:

1. Access porch
2. Living room & dining room
3. Kitchen
4. Exterior laundry
5. Bedrom
6. Bathroom

SYSTEM COMPONENTS:



1. Vertical exterior enclosure
2. Exterior - Calcium silicate
3. Interior - Calcium silicate
4. Profiles - studs
5. Profiles - slab
6. Interior profile space
7. Lightweight concrete + perlite
8. Profiles - angular (corners)

URBAN SYSTEM (fits on request)



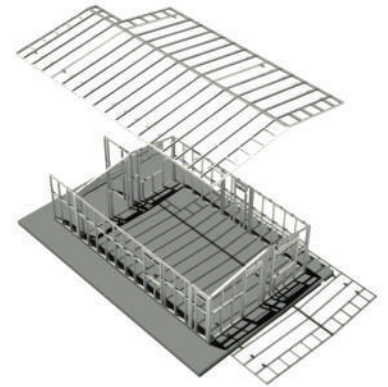
COMPONENT DESCRIPTION

SYSTEM GENERAL FEATURES

Steel frame is a constructive system whose main feature is a structure which consists in cold-formed profiles of galvanized steel. This system is basically formed by upright-profiles in C form (installed in vertical position separated 40-60 centimeters). On the borders, the profiles are screwed down to the track profiles (U form). These U form-profiles form the inferior and superior border of the whole grid.

The profiles are used to form structural and non-structural panels, secondary beams, ground beams, rafters and other components. These profile grids are later covered by different layers of panels. That is why we can talk about a Dry Construction system.

The profiles present reduced thickness and have drillings to let the electric and plumbing installation system go through them.



CONSTRUCTIVE PROCESS



ASSEMBLY - MAIN STRUCTURE



RESTRAINT SYSTEM



PANEL INSTALLATION (calcium silicate)



PARTITION WALLS (panels + lightweight concrete)



PUTTY APPLICATION (joints and screws)



FINISHED HOUSE MODEL (exterior)

SYSTEM ADVANTAGES

Main advantages:

- Faster (almost 80% faster than traditional systems)
- lower construction costs (around 40% cheaper)
- Easier to handle

We can also emphasize and group the system advantages into 3 types:

1. ADVANTAGES OF THE CONSTRUCTIVE SYSTEM ITSELF:

- Earthquake-proof system
- Fire proof system
- Light system
- Recyclable and environmental system
- Modular and panel based system
- adequacy and benefits not only in big but also in small projects
- Durability (profile sheet galvanization)
- Easy transport everywhere
- Investment in plants or models not needed
- Flexible to all kinds of design

2. ON SITE ADVANTAGES:

- More cost-effective
- Faster
- Easier (easier assembly)
- Better thermic and acoustic insulation
- Dry system
- Cleaner construction site
- The system does not need high qualified workers
- Increases the usable floor area regarding to traditional systems
- Avoids overrun and setting-out on site
- Eliminates heavy machinery and reduces auxiliar construction elements
- Reduces the number of trades on site
- Simplification of the electrical and plumbing installations.

3. ADVANTAGES POST - WORK

- Flexibility and simplicity in building extensions and renovations
- Easier, cleaner, faster and cheaper maintenance and repair works