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## Building Tomorrow Today

**Light steel frame** building consists of steel frames and trusses / roof structures made out of cold formed sections, which are manufactured using high strength thin gauge galvanised steel sheet. The wall frames are externally clad with durable fibre cement building planks or boards, while the internal lining and ceilings consist of gypsum board. Bricks, stone, reinforced concrete, architectural glass, sheet metal and even just paint have been used to cover the frame and complete the structure.

Fibre insulation blankets are installed in the wall cavities and on top of ceilings to insulate the building against extreme weather conditions.

This technique is now available in South Africa! Using this advanced light steel frame technology it is now possible to manufacture and build any house, warehouse, retail or commercial unit to exacting standards in less time and with the exact same finishes as conventional brick & mortar shells. Expand on the design concept by adding difficult bastions, cantilevers and unusual styles, all now made possible with our steel frame designs.



### **Benefits:**

- Exact and precise in building standards.
- High quality - no cracks and settlement problems
- Eco-friendly and environment friendly
- Design freedom
- Difficult structural designs poses no problem  
\*(cantilever / sloping site construction)
- Lightweight
- Lends itself to loft room conversions, penthouse builds on rooftops not designed for additional levels and much more
- Durable – expected to last up to 80 years.
- Saves power – thermal properties are so that it requires less heating and cooling and can save up to 20% in electricity costs. This was confirmed by the CSIR.

### **Cost:**

A steel-frame home costs (on average\*) up to 10% LESS than a conventional Brick & Mortar construction.



### **Applications:**

#### **Residential**

- New build houses & larger additions
- Loft rooms / 'Room In a Roof' Conversions
- Rooftop Penthouse Conversions/Additions

- 2<sup>nd</sup> Floor additions on single story dwellings
- Granny flats / Garden Apartments

### **Commercial**

- Large warehouses with 'column free' roof span – possible; up to 23m with self-supporting steel trusses
- Large retail developments capabilities as above
- Interior remodelling for warehouses and factories
- Office and Residential Development Projects
- Special Projects: Site Offices, Laboratories, Mine Camps and projects requiring Soundproofing and high insulation capabilities
- Film studios etc.

### **Industrial**

- Factories
- Plants
- Shipyards
- Mills
- Towers etc.



### **Design Options:**

We can professionally convert any building plans to light steel frame building designs. This is done by specialised software programs developed for the purpose.

LSF offers great design freedom because of its strength-to-weight ratio. Design elements, such as cantilevers of up to 24m that were difficult to achieve in traditional building, now becomes standard.

Designs are precise and all features are included in the framework, such as conduits for plumbing, electrical wiring and more.

## Construction

Once your blueprints have been converted to LSF building plans, your structure is carefully manufactured in our factory, according to strict standards and with attention to detail.

The completed units of the structure are transported to the building site where it is assembled by our experienced teams, and finished to exact specifications in a short time period.



Light Steel Frame is covered with various cladding options that can be plastered to give a traditional brick and mortar or alternative finish according to client or architect specifications. Insulation is placed inside the walls, ensuring superior thermal properties that save electricity while controlling temperatures inside the building.



Exterior cladding can consist of a single skin brick wall or fibre cement board, fixed to the wall frames. Services – electricity and plumbing – are installed in the wall cavity created by the light steel frames, as is the insulation material. Gypsum board, fixed to the light steel frame, is typically used for internal wall cladding and ceilings.

We provide a turn-key service from the planning stage right through to handing over your completed home or building, within your budget and on schedule.

