

# LIGHT STEEL FRAME ECO BUILD



**TRADEVEST CONSTRUCTION**

ECO SMART CONSTRUCTION

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### SURFACE BED

- Very basic cost-effective foundation can be poured with a 25mpa mix
- Minimal steel or fiber reinforced concrete can be used. This factor depends if an engineer has been appointed to the project
- The surface bed will be finished to client's specifications



### LIGHT STEEL FRAME

- 90 mm Galvanized C channel is used as the main structure
- The structure is delivered to site in panels which are assembled as per engineer drawings
- The assembly process is fast, clean and uses little to no "precious" resources like water
- This product is SABS approved







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### External cladding

- The structure is cladded with treated OSB Board (oriented strand board), this ties the structure together. The boards are then wrapped with DuPont Tyvek house wrap, the purpose of the Tyvek is to allow moisture to escape the walls but not to enter the walls
- A mesh is then fixed to the walls if a plaster finish is required. Cladding such as Vermont planks can also be used, this will eliminate the use of mesh





### Roofing

- various roof finishing's can be used.
- Saflok 700 can be used – this ensures a leak proof roof. It is light in weight, hence less steel will be used in the design of the roof
- If a heavier option eg tiles is chosen, the roof structure will be designed to handle the weight



- All electrical and water reticulation is installed within the light weight frame walls, All wall panels are punched with holes in their vertical common studs. Water lines are installed at the bottom and electrical at the top





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### Insulation

- The wall panels are filled with A product called Isover cavity batt insulation. This can also be installed in ceilings to better the R value of the building



### Internal cladding

- The internal walls are boarded with fire resistant plaster boards throughout the house while in the bathrooms and kitchens a moisture resistant board is utilized. The boards are then skimmed with Rhinolite





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### Finishings

- Internal and external finishings are to the client's specification
- Brick filling is installed in the walls where needed. This is for fixing purposes where heavy objects will be hung

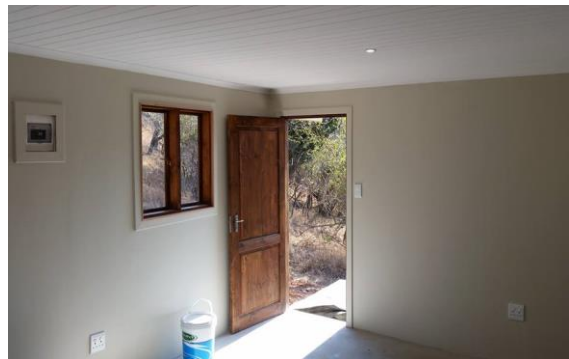


- Once completed, the house has the appearance of a conventional brick and mortar structure



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- Internal finishes can vary from very luxurious to very basic but neat.



### Summary

- Light steel frame construction is an eco smart building solution, using very little water and produces less building waste. Speed of construction is much faster resulting in lower labour costs. The smaller 90mm walls result in more living floor space than in the conventional 230mm brick walls.



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