



**RoadPacker Group**

**Low Cost Housing**

**Just Fit It**



If you're interested in our range of chemical soil stabilisation products please get in touch.

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## Low Cost Housing - Just Fit It

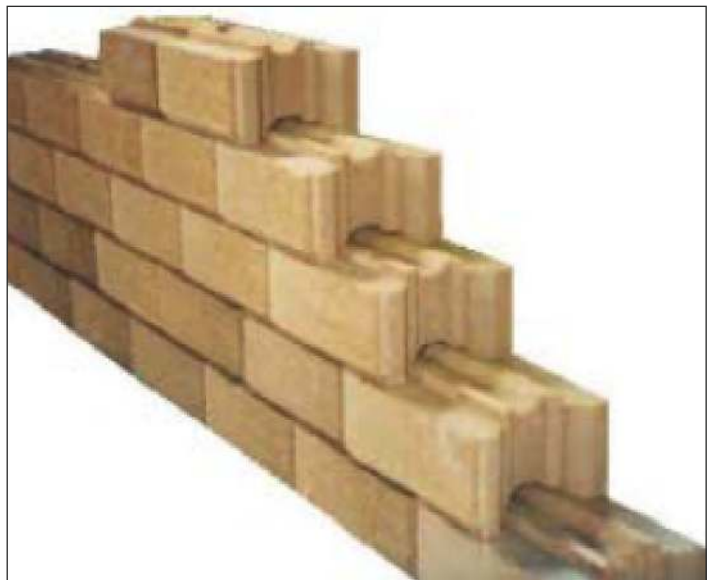
With the RoadPacker Group 'Just Fit It' Technology, houses of all sizes and styles can be built quickly and easily using the minimum of skilled labour and off-site materials. Even the plumbing and electrics can be fitted by unskilled labour and the door and window-frames just slot in too!

An example of a  
Security Guard Lodge.



In most cases, the 'Just Fit It' Technology requires NO MORTAR, NO REINFORCEMENT and NO OFF-SITE materials to be transported to the construction site. It features an interlocking dry-stacking stabilised earth brick [SEB] design that provides high stability and shear strength as well as very highly insulative properties.

This means that in the Summer months the SEB constructed homes stay cool and in the Winter months, cost very little to heat!





## Stages of Construction

1. The soil is crushed in a crusher to reduce the particle size and aid the absorption and reaction of the RoadPacker Clay Brick Stabiliser [CBS].



2. After treating with CBS, the soil is loaded into the brick-making machine to begin the cycle of compacting and extruding the brick.



3. After compaction of the SEB, a cycle begins to extrude the bricks from the machine giving a durable waterproof brick for house-building.



4. **Just Fit It!** The finished bricks are then stacked for curing for a short period of time, then building may commence.



5. Foundations are made using the same bricks reinforced with mortar. Building then commences above the floor level by dry-stacking the bricks one on top of the other.

A rammed-earth base is then made to act as the floor of the building which can then be covered with a thin screen of concrete if required, as shown here. If the earth is unstable, then a viable solution for stabilising the soil for the base of the house would be to use either RoadPacker Plus Ionic Soil Stabiliser or RoadBond.



Once the base is completed then house-building with the SEBs can commence upon this stable base. Upon completion this base may be tiled, carpeted or left bare.





6. Building now commences, mortar is only used to stick the first row of bricks to the concrete base. If a rammed-earth base was used the bricks can be dry-stacked on the foundation level. From this point onwards the bricks are all laid one-by-one in rows with no need for mortar or reinforcing bars.

However, if the house is in a high-risk area then reinforcing bars may be laid in the grooves along the brick-line to add an increased layer of stability especially in areas of the world where earthquakes, typhoons or hurricanes may be prevalent.

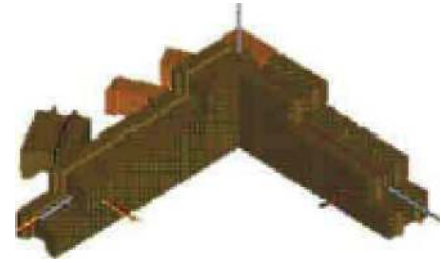
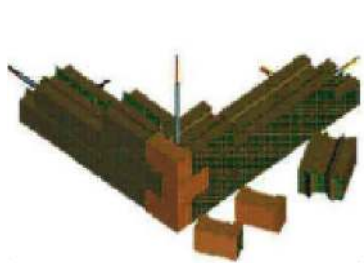
Special corner moulds are used to provide a smooth finish to the building. These interlock with the connecting bricks and provide a continuation of the groove for reinforcing bars.



7. Interconnecting walls are made in a very simple manner. A pair of reinforcing bars are placed in the exterior wall and at right-angles in the connecting wall. This makes for a stable join and mortar may be appropriate in high-risk area.



At this point the electrical conduits and outlets may be installed. The 'Just Fit It' Technology allows the conduits to flow deep inside the walls and provide flush-fitted outlets inside the house. Using this method, it is very easy to install electrics inside the walls, needing only a tradesman for the 'finishing' connection task.



Once the next level of bricks has been laid, the electric socket is completely flush to the wall and the interior of the house begins to take shape. The house may be left like this or finished with a thin-skin of plaster, if requested.



8. Once the shape of the house starts to form, the windows and doors may be fitted. In this example there is just one door and two windows. See how they slot easily into place and are secured to the frames placed in the opening. Again this may be done by completely unskilled labour. Once the doors and windows have been fitted the construction can continue all the way up to the roof level. The house is now beginning to take shape.





9. The roof may be easily applied using conventional methods. **Just Fit It!**

With the full walls in place the house now has high-stability and the lower bricks could NOT be removed without a pick-axe or heavy machinery.



The finished wall constructed with stabilised earth bricks is both as pleasing to the eye as it is economical to produce. The walls are totally hydrophobic in this state but may be painted or plastered to fit-in with either some local design environment requirements or alternatively the new house-owner's personal taste.



## Examples of finished houses

There are many different ways that stabilised earth brick dwellings can look and these are real examples of housing projects that we have completed.





## RoadPacker Group Low Cost Housing System

The stabilised earth brick building system is available in many different varieties depending on the size of the development and the speed of construction required. Here are some of the options available.



Hand-Press Trans



M7S2D & E Block-Making Machine



M7E-380



MI Machine



RoadPacker Clay Brick Stabiliser



An artist impression of a two-storey townhouse with 3 x bedrooms, kitchen, lounge, dining-room and 3 x bathrooms.