

## 1,400 Man Camp in remote PNG

### Force 10 - The ideal mining camp solution

The logistics of manufacturing building components for five camps totalling 1,400 beds in remote areas of Papua New Guinea over a four month period are very complex, but that's exactly what Force 10 was able to deliver.

PNG presents special challenges but none more so than areas of Tamadigi, Hides and Gobe – the remoteness of these areas combined with the mountainous terrain and poor quality roads meant that there was only one product and one building method for the job.

This multi million dollar contract was won because of the Force 10s inherent product qualities:

- Ability to flat pack modular building components
- Ability to construct with relatively unskilled labour
- Extreme robustness particularly in this earthquake prone zone

The fact that all the components of a standard 65 sqm building were able to be packed securely into a 6 meter container, transported 750 km over rough roads and emerge unscathed ready for building, was critical in the success of this project.

***“The Force 10 system is by far the best available on the market when it comes to “fit for purpose” (strength) especially for Mining Camps. The exterior wall, an insulated FC package, is identical to the Interior wall and is virtually unbreakable. The finish is far superior to other ‘re-locatables’. The system comes flat out of a container so it is able to be transported over bad terrain and is easy to construct with little skilled labour. We’ve used it to construct various buildings for 1,400 men camps in PNG, and although there is another product available, the guys all want to be in the Force 10 camps.”*** - Steve Curry, CEO of NorthCorp Building and Construction who were contracted to assist with assembly.

### A winning solution

Australian Camp Services and Force 10 have a strategic agreement which meant they could offer the client, a leading multinational oil and gas company a winning solution

- Extensive consultation with the stakeholder
- Fast supply of modular components

***“Commencing September 2009, Force 10 substantially supplied all building components required for a number of camps totalling 1,400 beds in a 4 month period. The configuration of the camps included three types of sleeping accommodation, Kitchen/Diners, Ablutions, Laundries, Medical centres and Offices. The building components were supplied and packed into containers ex Brisbane for shipping to Papua New Guinea. Force 10 are responsive to client needs, efficient and pleasant to deal with. Their product is extremely versatile and robust and is well suited and cost effective in remote areas.”*** - Mark Knight, General Manager Australian Camp Services.

### **Fit for purpose design**

New legislation requiring minimum living accommodation space for occupants of Mining Camps has hurried the demise of the “Donga”. Smart employers have already realized that good, intelligently designed living accommodation and recreational facilities means better comfort levels and better productivity for mining workers. Force 10 is a more permanent type of modular construction which outperforms the competition every time.

Following research with stakeholders and potential occupants of the camp, our in-house design team produced an array of customized structures with floor plans and elevations including:

- Accommodation Units. These are a 7 X 3 metre unit comprising of 2 bedrooms both separately en-suited. These units are designed to be comfortable, secure, robust and re-locatable on steel skids. They are securely anchored in place using mega anchors and are a ‘plug and play’ solution with just 3 quick connections to be made on site: water-in, waste-out and power. The units also feature an exterior service deck to secure the air-conditioning and water heater and are usually erected ‘front to front’ separated by a covered central walkway. They are optimally sized for the occupants and relocation around narrow, twisty roads.
- Kitchen/ Diner
- Recreation
- Gym
- Ablution blocks
- Laundry
- First Aid

All units were designed in manageable connectable modules, capable of being quickly erected with a minimum of skilled labour.

## Superior Project Execution

Force 10 works to minimise construction variables completing as much as possible in the controlled conditions of our Brisbane factory before the modular building arrives at the site. Our modular system is then unloaded and quickly assembled by Force 10 supervisors and semi-skilled local labour.

Our experience in remote areas has led us to develop a number of additional systems that ensure superior project execution as they are specifically designed for rapid construction of mining camps in remote areas:

- Mega-Anchors are a “no concrete” solution to anchor the building securely, efficiently and quickly with the minimum of cost.
- Force 10 Floor System with galvanised steel bearers and joists.
- SupaBoard are a mineral based, extremely durable flooring - impervious to water and ideal for mining camps.
- Force 10 Wall Panels are a steel frame sandwiched with 6mm fibre cement board and with inbuilt polyurethane insulation. These are extremely durable and provide excellent insulation with an R Value of 3.5

## **The Force 10 Engineered Building System is an innovative modular building system that is particularly suited to Mining Camps and provides many advantages including:**

- Comprehensive floor, wall and roof system with all fixings and components
- Minimum components for maximum economy
- Ease and speed of assembly
- Ease/economy of shipment – all components can be ‘flat packed’
- Simplicity of connections.
- Maximum strength, durability and style
- Versatility and aesthetic appeal
- Cyclone resistance
- Termite resistance
- Fire resistance
- Environmental focus
- Maximum insulation benefits
- Innovative and precision engineering
- Stability of foundations

Australian Owned and Made Modular Floor, Wall, Roof Truss System resistant to:  
Cyclones, Earthquakes, Fire, Termites, Tornadoes



## FORCE 10 CORE CAPABILITIES

### CORE CAPABILITY

Ability to 'flat-pack' 110 m<sup>2</sup> Force 10 structure into a 12m shipping container

Versatility and aesthetic appeal

Strength and durability

### BENEFIT

Very significant transport and logistics savings

Ability to construct a wide range of structures including permanent motel resort-style accommodation

Force 10 components are extremely durable. In 10 years time the 'temporary' camp will be entirely serviceable and eminently saleable.