

Portable Emergency Response Units (PERUs) or Lab Facilities (PLFs)

Generally, emergency response units are made of soft inflatable fabrics. This means that they are badly insulated and unable to support any facilities e.g. air conditioning units, desalination plants, communications equipment, solar or wind powered generation units etc. Any auxiliary support or essential systems must be self supporting. These additions mean that although the soft shelter itself is fairly light, when combined with the support systems required for power generation, air conditioning, communications etc, the softer, lighter emergency shelter systems become considerably heavier and more cumbersome than the hard walled system described below.

PERUs or PLFs

The solid insulated system (Fig.1) enables facilities to be mounted on it.

Energy Self sufficient (Fig.2)

- Solar panels fixed to a rack can be mounted on the roof
- wind powered generators attached to a pole may be fixed to the side

Awning (Fig.3)

The fabric awning zipped to the front can act as;

- Triage centre
- Water catchment for rainwater that is collected in a plastic bladder
- Shelter from weather

Structure

Stackable adaptable and easy to erect

- These buildings will stack on the deck of a boat or can be easily transported by truck, plane or helicopter
- They can be erected in a couple of hours; communicating and coordinating disaster relief in a short period of time.
- They are small enough to be placed into small isolated communities or flexible enough to be added to for larger communities.

Significantly though I think they offer easy and quick medical services and communications for coordination of emergency services.

Approximately 100 mm thick stackable recycled insulation and recycled metal or recycled plastic sandwich construction.

Similar to a 'port a com' building in design.

>4.8 metres in length

2.4 metres in height

2.4 metres in width

1X4.8mX2.4m floor

1X4.8mX2.4m roof

2X2.4mX2.4m end wall

2X4.8mX2.4m side walls

One door in place

Window at each end in place

Easy to dismantle and erect

To be fitted on site; Roof mounted Solar and wind powered satellite communications.

To be fitted on site; Solar and wind powered desalination and water filtration unit.

Composting or bio-digesting toilet.

Medical or lab facility.

Recycled plastic awning for the front of the room to act as triage, water catchment and storage.

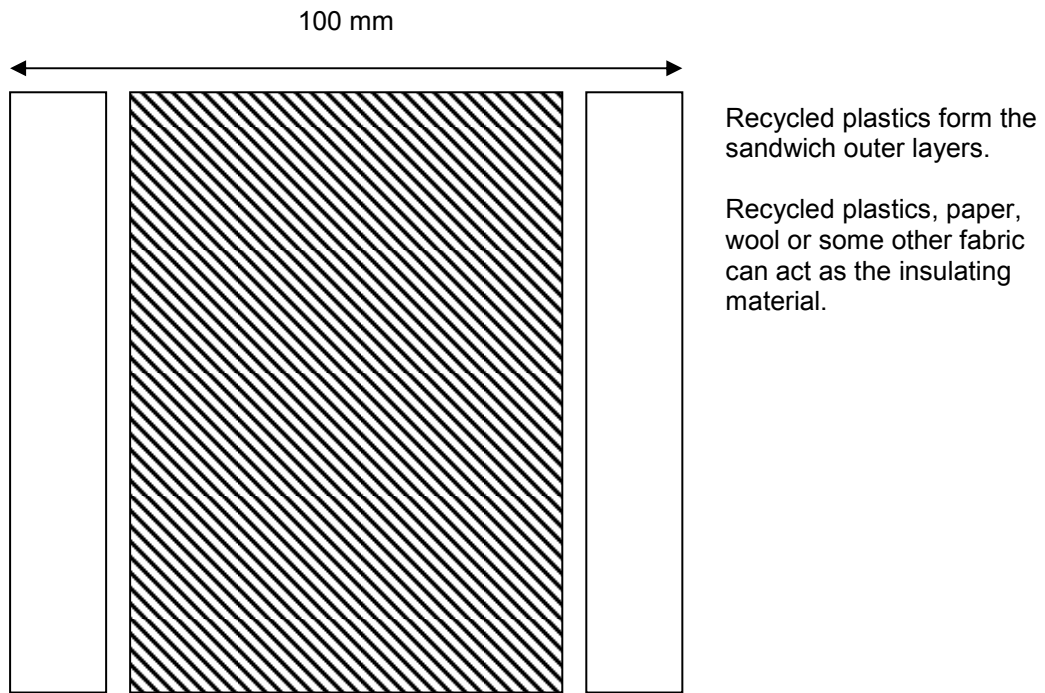


Fig1. Cross section of the sandwich construction for the walls of the PERUs or PLFs showing the outer recycled plastic layers and the insulating layer.

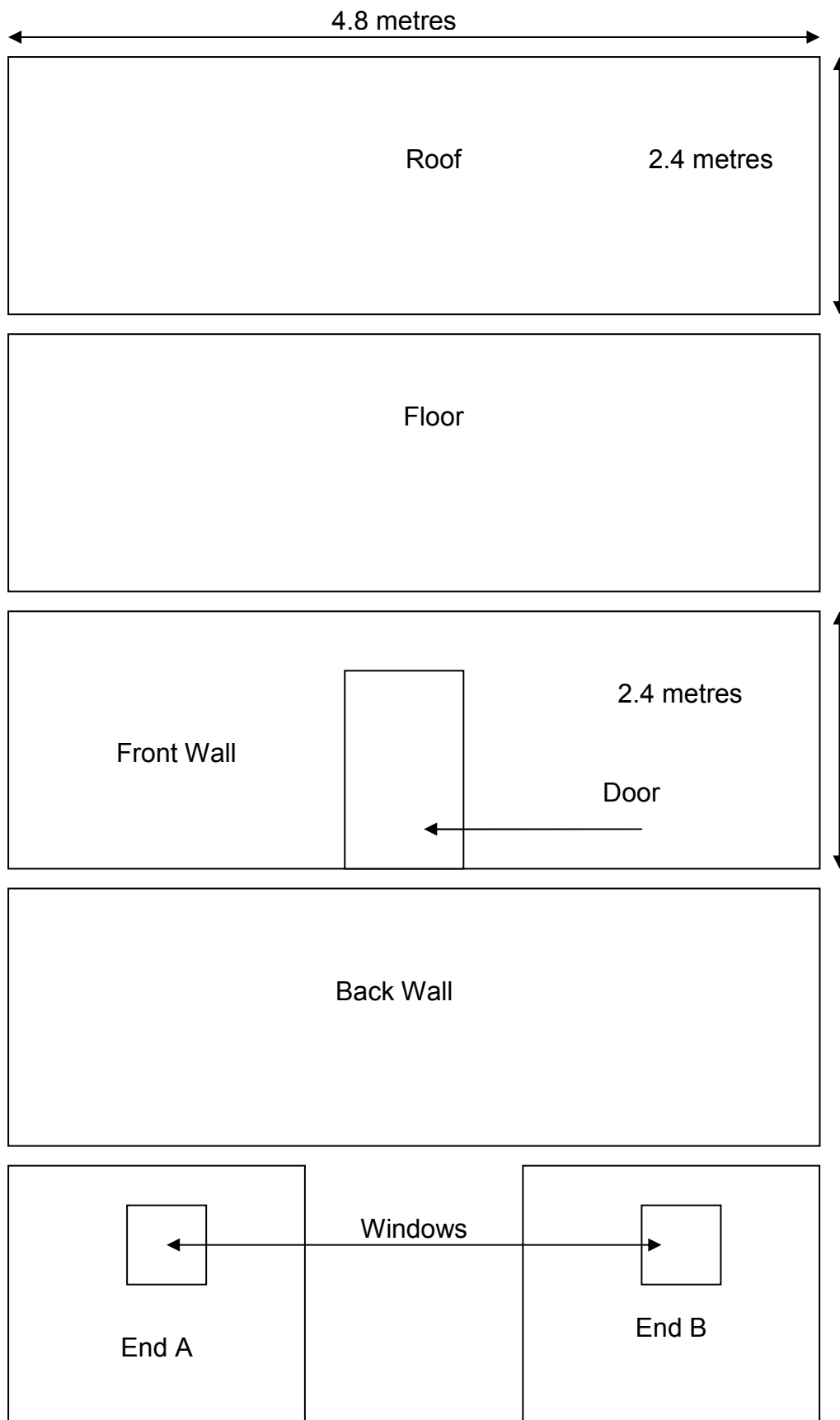


Fig 2. Shows the roof, floor, side and end elevations of the structure.

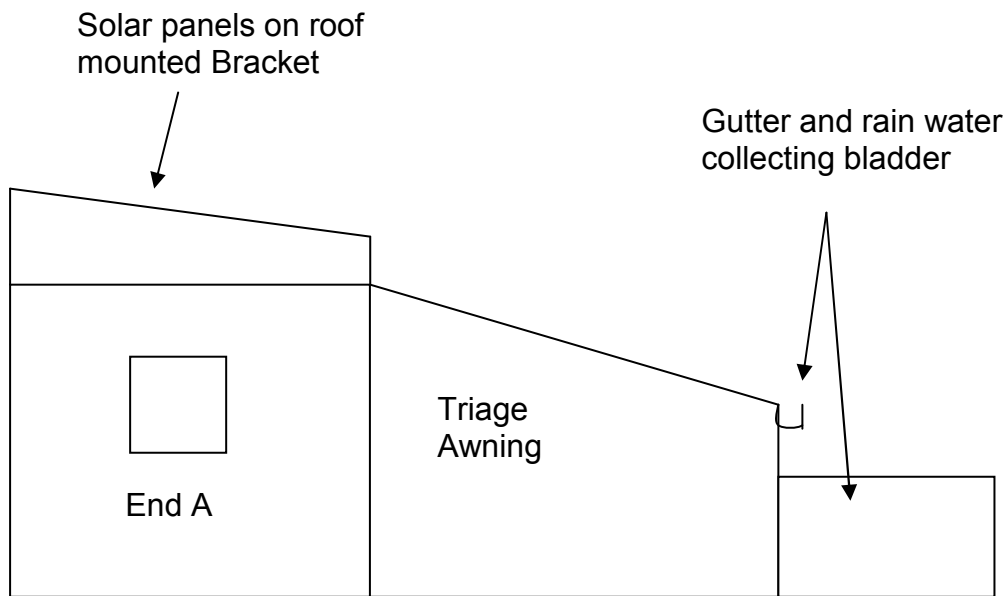


Fig 3. Shows the end elevation including the solar rack mounted on the roof, the awning (for triage) and water collection bladder including guttering.