

2012

Queensland Building Design Awards

- 
- Category 16 – Public & Special Buildings
 - **“ADAPT Modular”**. Sep 2011 HomeShow, Brisbane
 - Designer - Latemore Design + Mercury Design

Genesis

Every September, the Spring Courier Mail Home Show occurs at the RNA show grounds in Brisbane.

The organizers were aware of Designers' many successes at HIA Expos and asked Latemore Design and Mercury Design to create a feature that could be the major publicity vehicle.

Designers were in the midst of resurrecting the ADAPT concept from 2009, with another manufacturer, and had christened it **ADAPT Modular**.

Combining the two created an opportunity to build a prototype, with free suppliers products. Designers knew the concept could act like a stage, and suggested this. Within days this morphed into a large feature called the BIG BACK YARD.

What had we started?

Copyright of concept
remains with designers



2007 + 2008 + 2009

Evolve, TreeHouse, Adapt at the 2007/08/09 Brisbane HIA Expos were the catalyst for 2011.



Multiple Awards - BDAQ State & National + HIA

Concept



ADAPT concept

Copyright of concept
remains with designers

ADAPT Modular concept emerged from the “ADAPT” feature display at 2009 HIA Expo.

“ADAPT” was a fully realized housing concept, utilizing pods, each with different uses. Each pod was relocatable, and after the Expo went to a site.



ADAPT on site

Brief

ADAPT Modular was to designers' & manufacturer's own brief:

- An alternative housing option.
- Pods to be repeatable 'units'.
- Prefabricated, almost fully.
- Transportable, without escort.
- Highly robust.
- Pods to be lifted by common 10t cranes.
- Possible to go on any site.
- Not similar to cheap 'cabins'.
- Sophisticated and 'designed' building.
- Cost similar to higher quality project housing.
- Use existing panelized materials.
- Show to test site installation within 3 days.
- Prototype had to double as stage.
- Manufacture of prototype to test design & resolve issues.
- All (or most) materials supplied free, and be showcased.
- Interesting, enticing visitors to the Home Show.
- Re-used after Home Show.

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Designers solved the brief:

ADAPT Modular . . .

- is a new concept in housing.
- is made from repeatable pod units.
- is almost fully prefabricated, with the simple roof added on site.
- is transportable, without escort, being under 3.5m wide.
(The whole thing came to site on one large low loader)
- is 80% steel, incredibly robust, fully recyclable .
- was lifted by a 10t crane. (Main pod is only 3.5t).
- can go on any site, with adjustable steel legs.
- is a most sophisticated building.
- will cost similar to better project housing, with adjustments.
- used existing Bondor's sandwich panels and others' materials.
- was erected at Home Show within 3 days.
- as stage was a raging success.
- manufacture was fully tested & issues are resolved.
- was made from 97% donated materials, all showcased.
- was the best ever outdoor feature for Home Show.
- will be re-used probably as an office for a mining village.

Project Management

Like Evolve, TreeHouse & ADAPT, **ADAPT Modular** and the **BIG BACK YARD** presented a unique challenge whereby designers had to act as project managers, in conjunction with manufacturer. This required . . .

- arranging feature with Home Show organizers
- quantity surveying
- sourcing & ordering free materials (over \$75k worth)
- sourcing & engaging free tradespersons
- liaising with landscape designer
- coordinating all with manufacturer
- adjusting design during project management
- many drawings and details

The resulting network created a unique team of motivated participants, producing a display that became the Home Show draw card.

Frame under construction in background

31/05/2011

Resolutions

ADAPT Modular illustrated that it is possible to create a well designed and attractive transportable building system. Further, high quality features involving 'real' elements were again proved viable by designers at a show.

ADAPT Modular consisted of four units. The main pod, 3.3x6.6m, bath pod, 1.7x3.3m, and two decks, each 3.3m square. All of it manufactured off site, with roof added on site.

The entire building fitted onto one low loader. This included 8 large seating decks. The roof came on a small truck.

**ADAPT
Modular**
about to
go for a
drive





Site Plan

ADAPT Modular was the anchor to the Big Back Yard at the Sep 2011 Courier Mail Home Show. Designers were intrinsically involved with the whole feature, in conjunction with Seed Landscapes. The site was a large 14x28m, with seating, with ADAPT Modular doubling as the Show's stage.



Big Back Yard

In addition to designing and manufacturing **ADAPT Modular**, designers were responsible for the documentation and early publicity images of the whole Big Back Yard feature. This included renders like this that were issued to many potential suppliers.

6 months of intensive planning went into preparation for the show. Like previous features, many iterations occurred, right up to the last moment!

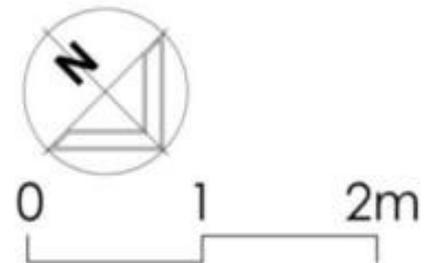


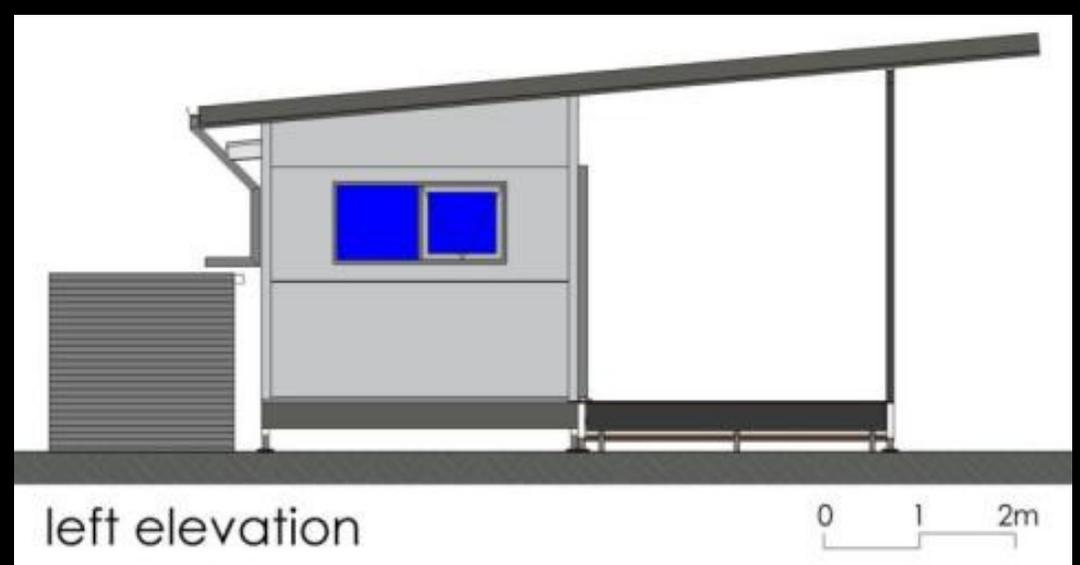
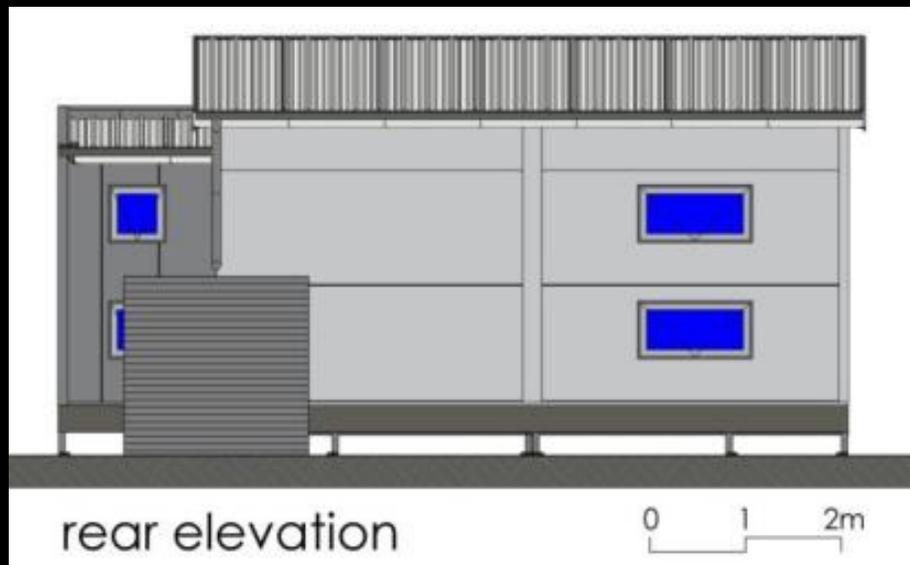
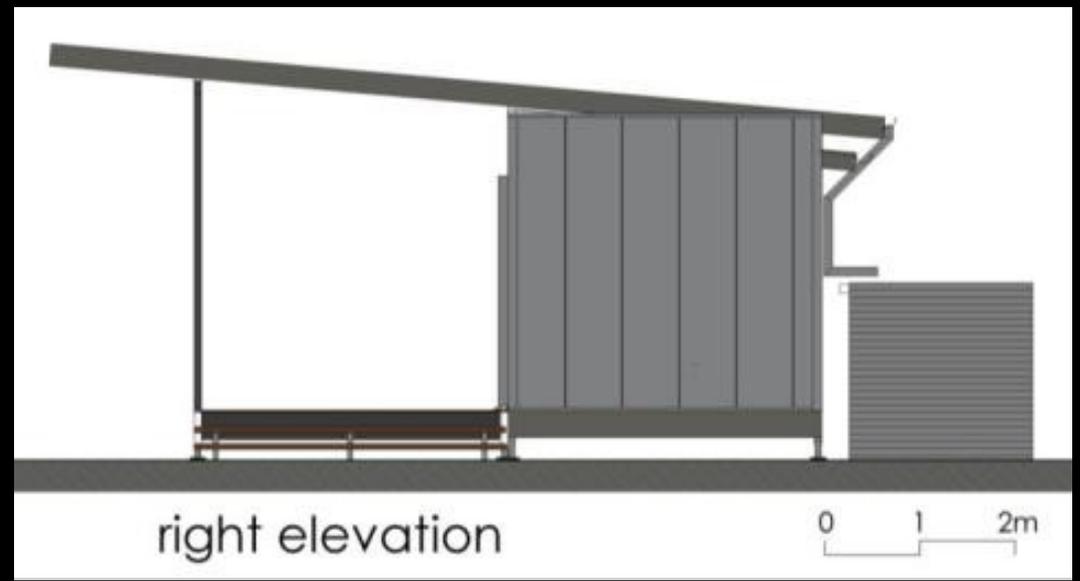
ADAPT Modular as displayed was 4 manufactured pods, each 3.3m wide to suit transport.

It was assembled from a 6.6m living unit, 1.7m bath unit, & 2no 3.3m decks.

Overall area 49m².

Floor Plan



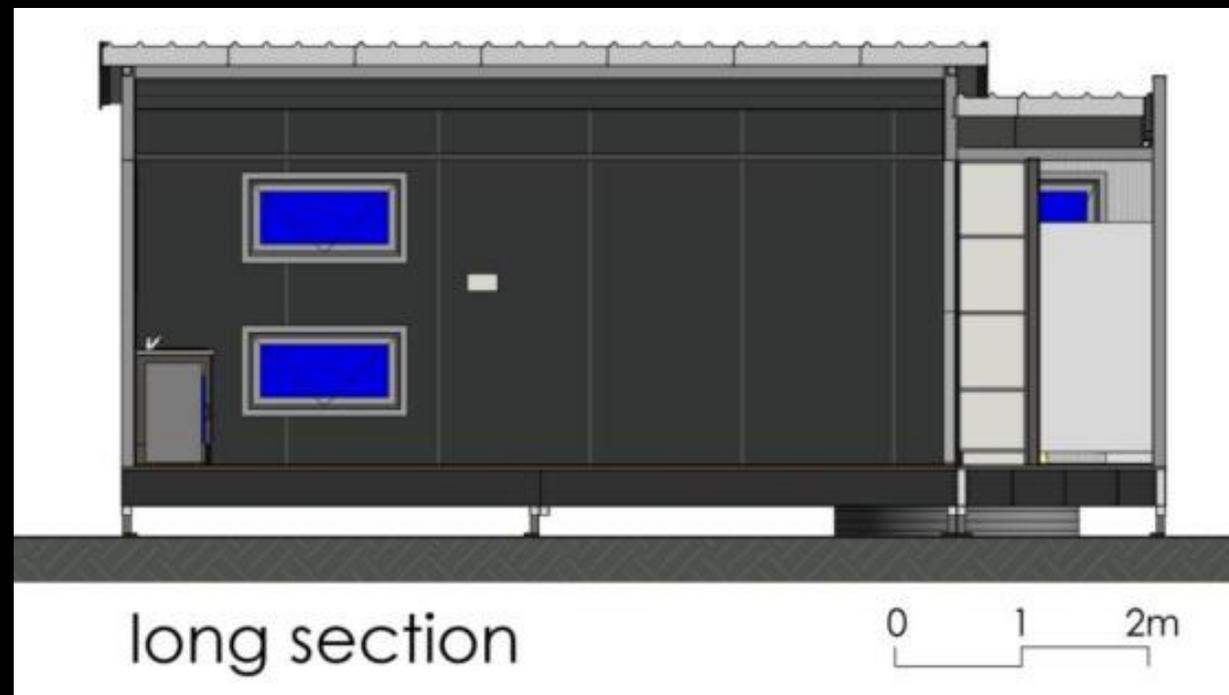
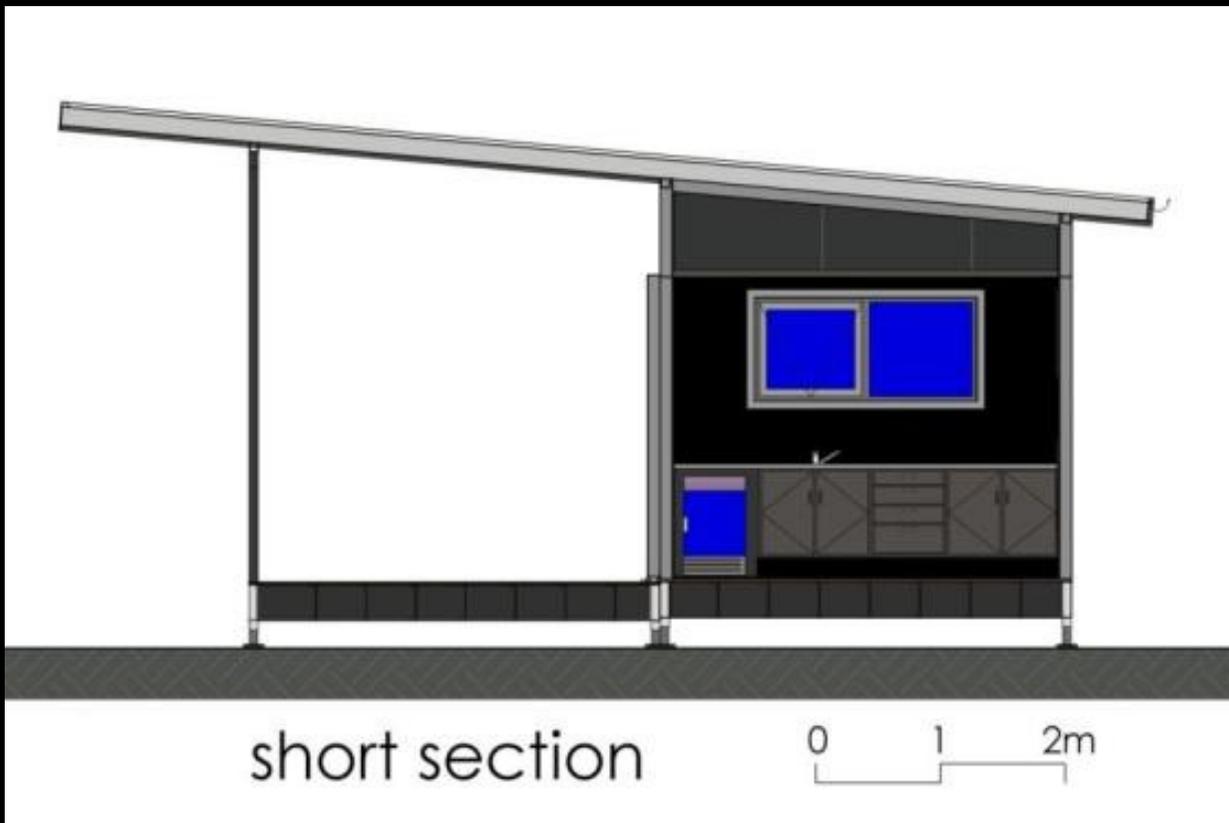


Elevations

ADAPT Modular was carefully designed to utilize existing technologies in new ways. Bondor industrial & patio sandwich panels became domestic walls, and the roof.

Sections

Note the enormous roof overhang on the deck. This skillion roof, added on site, takes the transportable building into a new realm, as most 'cabins' have no overhangs and appear quite truncated.





3d's

Front right

Note the two distinct pod volumes. The main living unit on left supports the skillion roof and so has a raking ceiling and a strong presence. The bath pod on right has a parapet wall, hiding the roof and with no windows forms a 'solid' end to the assembly.



3d's

Rear left

The building was carefully designed to utilize the best of the products. Designers experimented with Bondor's Equitilt product in both vertical and horizontal formats, and with the metallic Colorbond finishes.



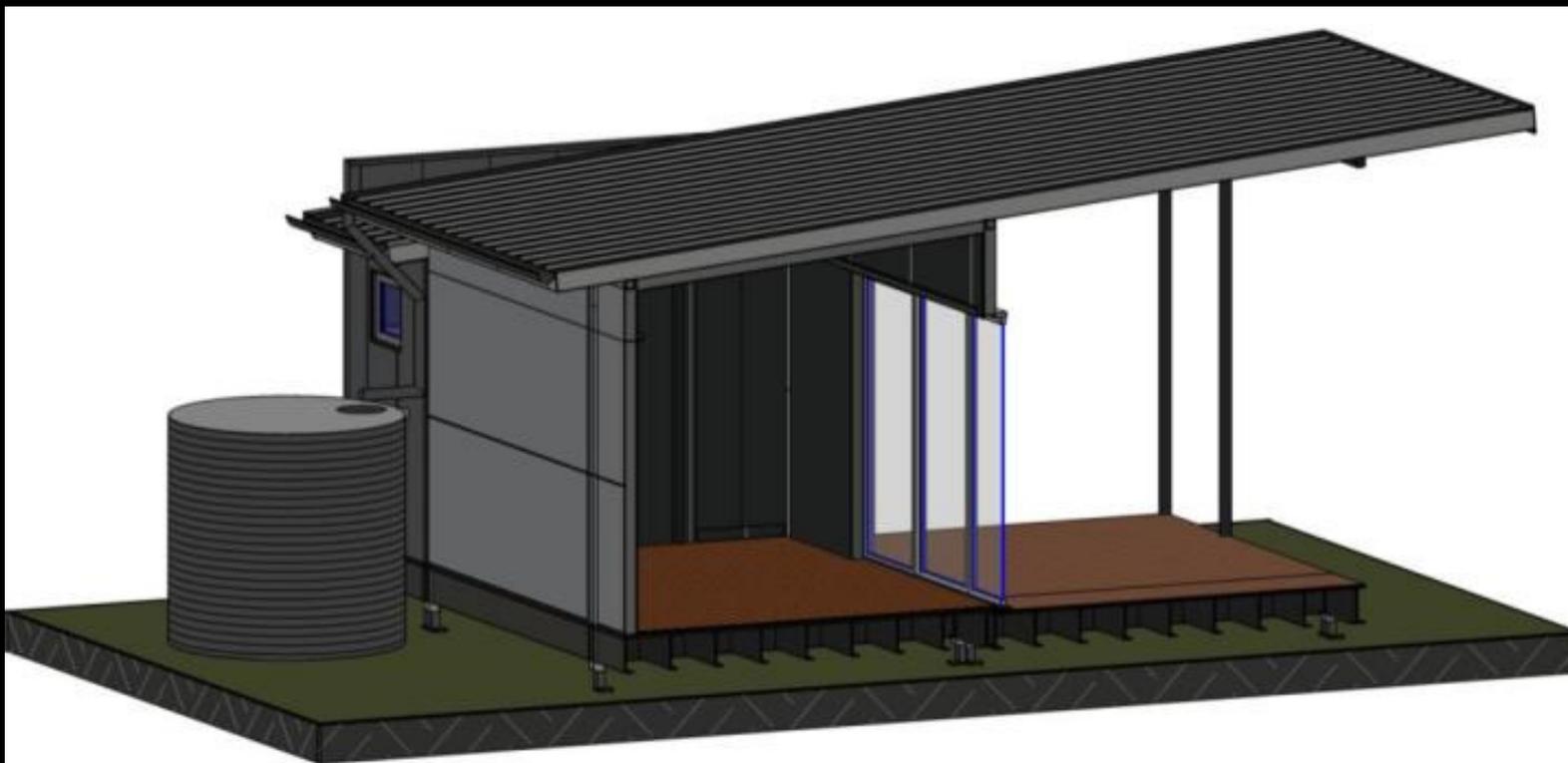
3d's

Cut aways

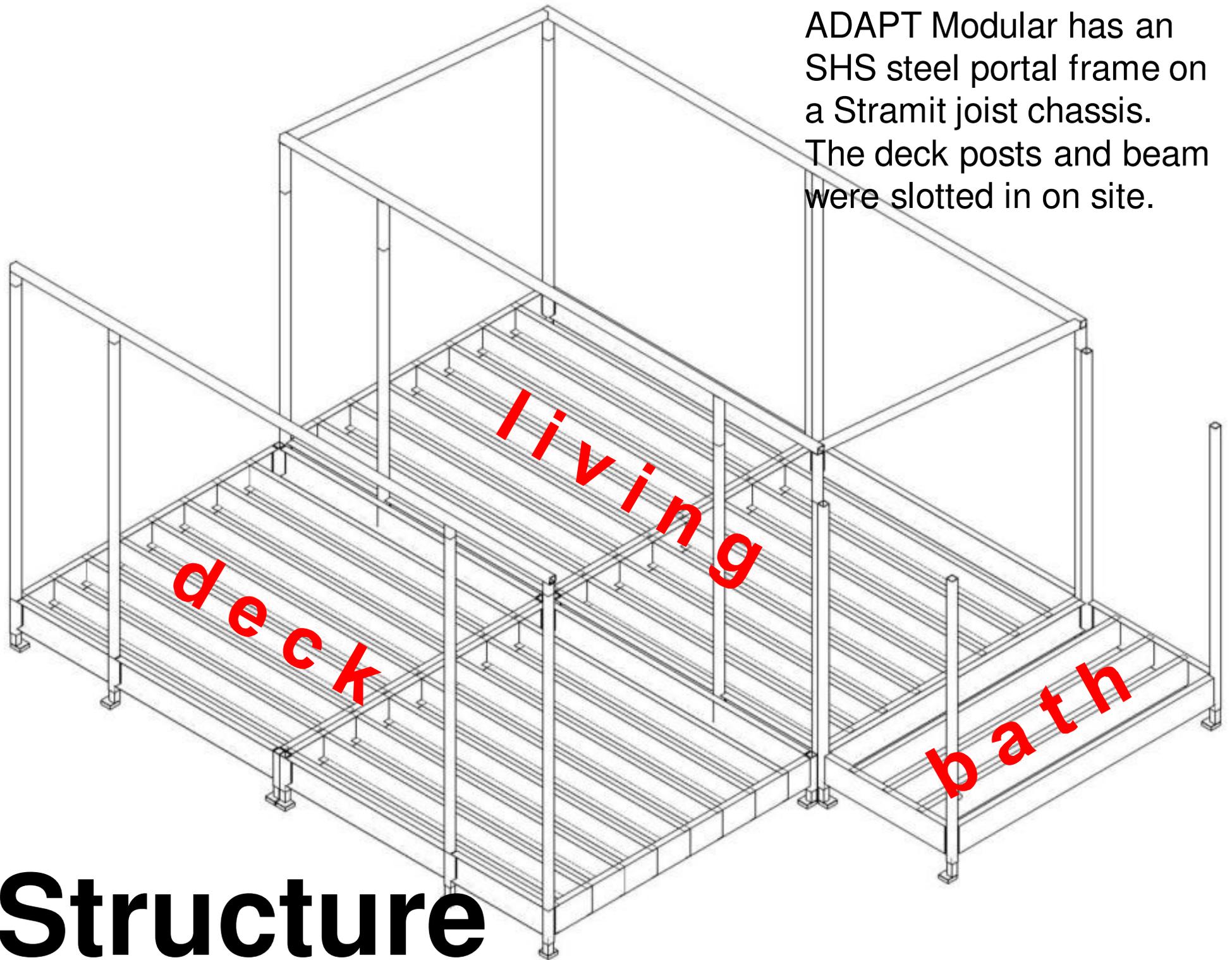
Views of **ADAPT Modular** from left and right.

Note the double panels in ceiling – the lower ones are wall panels doubling as ceiling and waterproofing for transport.

The result is brilliant insulation.



ADAPT Modular has an SHS steel portal frame on a Stramit joist chassis. The deck posts and beam were slotted in on site.



Structure



5 months lead up Prototype was fully fabricated within a factory, with lots of trial & error. Manufacturer, Designers & staff all helped.



3 days of bump-in

After 9 months of design, planning and construction, **ADAPT Modular** was placed at RNA Show grounds, over an intensive 4 days. (Including one day of intense rain!)

The pods were incredibly robust, not flexing a millimeter. The support posts were pre-cut to suit the site fall even.

Pods needed no footings, as mass exceeded uplift from roof.



Front of ADAPT Modular



Front left quadrant

Sound man was hidden behind a panel of signs



Rear of **ADAPT Modular**

Note how the Metallic Colorbond steel finish on the Bondor panels shimmers in the light. Also the mirrors under the building which show cased the Stramit subfloor.



Front right quadrant

Bath pod at right, with no windows, was a great place to list the suppliers.



Front at night

Doors are a 'face fixed' unit so that when fully back, they sit over wall = huge opening!



Front - set up as deck only

Sound gear and screens removed to show it as deck



ADAPT Modular as stage

Building doubled brilliantly as the Home Show stage.

Peter Latemore, one of the designers gave daily talks, to visitors on the deck seats.

It was quite festive.

The internal sophisticated dark colours also ensured the stage had a 'darker' backdrop.



Studio



Main room towards bathroom. Ceiling is wall panel, in Colorbond Citi, a medium grey. The huge doors contribute to the spacious feel.



Studio

Main room towards kitchenette. Walls clad in Easycraft to show visitors that a high quality 'flat' finish is possible. People loved the darker cool space.

Kitchenette

Kitchenette end of main room. Whole wall as splash back, clad with super shiny Laminex Metaline.



Bathroom



Experimental 'black' bathroom, using Laminex ribbed Aquapanel. Even though dark, the relectivity made the space quite light.

Bathroom



The bathroom emphasized the sophisticated nature of **ADAPT Modular**. Note the LED strip lighting. Visitors loved the double windows.



ADAPT Modular in BIG BACK YARD

View from above of the whole feature,
with ADAPT Modular building as the
anchor at the bottom.



ADAPT Modular in **BIG BACK YARD**

View straight down the 'entry' into the feature, with zones listed. The feature was illustrating a real back yard.

- 1 Entry as though leaving a house
- 2 Gallery deck
- 3 Conversation zone

- 4 Vege gardens + chickens + bees
- 5 Seating (lawn in real yard)
- 6 Side entries to feature



BIG BACK YARD

1



3



2



4

- 1 Special signs created explaining the principles behind feature
- 2 Raised Bluescope vege gardens in Colorbond shades to match ADAPT

- 3 Gardens with poly edging, finished in matching colours
- 4 Acres of Bretts cypress, which was so fragrant throughout the show

S p o n s o r s

Steel Sheet
Roofing Panels
Wall Panels
Floor Framing
Gutter
Steel Fixings
Header Beams
Flooring, Treads
Mouldings
Windows/Doors
Lights
Cypress
Joinery/Finishes
Walling
Cabinetry
Fittings
Tiles
Electrics
Tanks
Flashings
WPC decking
Furniture
Garden Walls
Vegetation
Mulch/Fencing
Chickens/Bees

Bluescope Steel
Bondor SolarSpan
Bondor
Stramit
Stramit
Steel-MAX
Bluescope Lysaght
Bretts
Bretts
AWS + Bretts
Firefly/Caribou
Bretts
Bretts
Easycraft/Laminex
Laminex/Sublime
Argent/Regency/Miele
Metro Tiles
Power Integration
Bluescope Water
Eziform
ITI
Design Initial/Eco
Boulton
Logan River/Hawkins
Bretts
City Chicks

Without the donation of products from suppliers, **ADAPT Modular & BIG BACK YARD** would not have happened.

The products included everything from walling, timber, decking, furniture, plants, fixings, roofing and more.

Major contributors were:

- Bluescope
- Bondor
- Stramit
- Bretts