

2010

Queensland Building Design Awards



- Category 14 – Special Projects
- “ADAPT”. 2009 HIA Expo, Brisbane Convention Cr
- Designer - Latemore Design + Mercury Design

Brief

Every August, HIA Queensland, hosts an enormous Building and Renovation Expo, within the Brisbane Convention Centre.

After the success of 'Evolve' in 2007, and 'TreeHouse' in 2008, HIA asked Latemore Design and Mercury Design to again create the feature for 2009 in conjunction with Apollo YouthTraining. Like before, feature was to be HIA's major publicity vehicle.

The concept began during TreeHouse, when affordable and adaptable housing was thought an important concept to explore. After some preliminary meetings and early concepts, it was christened **ADAPT**.

Again, the project involved the Apollo YouthTraining program, supported by HIA Youthbuild, whereby students from various high schools in SE Qld, built **ADAPT**, as part of their school based apprenticeship. This required some mentoring by designers.



Copyright of concept
remains with designers

2007 + 2008

Evolve and TreeHouse at the 2007 and 2008 Brisbane HIA Expos were the catalyst for 2009.

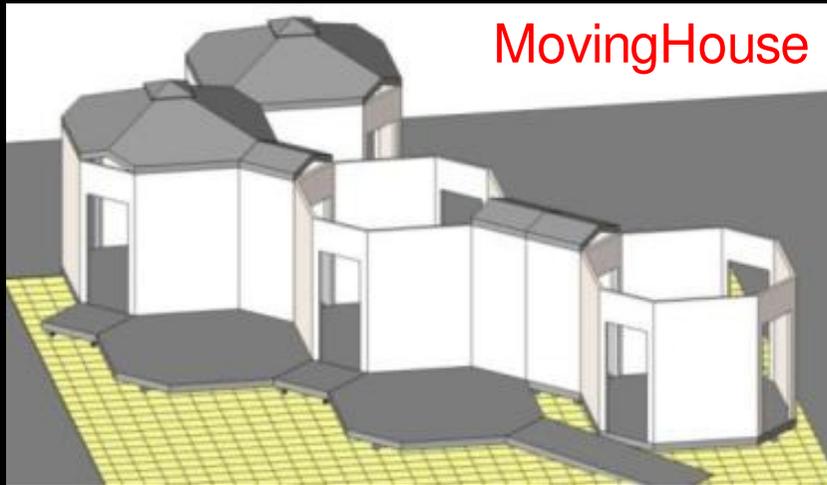


Evolve
2007



TreeHouse
2008

Concept



The **ADAPT** concept began as a mix of looking at affordable housing, in conjunction with some mobility.

The first idea, “MovingHouse” was a series of movable pods on wheels, but was thought problematic by HIA.



The second version, “Linear”, was simpler, harking back somewhat to “Evolve”, but was discounted as not being house like.



“**ADAPT**” emerged from this as a fully realized housing concept, utilizing pods, each with different uses. Each pod is relocatable, and after the Expo went to a site.

Design

Design of **ADAPT** was heavily influenced by many constraints:

- ADAPT must be a real 3 bed dwelling.
- ADAPT had to be prefabricated, almost fully.
- ADAPT must be transportable.
- ADAPT should be possible to go on any site.
- ADAPT should cost similar to project housing.
- ADAPT had to be 'bumped in' over 4 days.
- ADAPT was needed to accommodate many visitors.
- ADAPT construction had to suit school based apprentices.
- ADAPT was showcasing supplier's products.
- ADAPT had to be interesting, enticing visitors to the Expo.
- ADAPT was to be re-used by Apollo after Expo.

The design solved all this. Designers and Apollo have since investigated a real business, manufacturing these affordable pods.



Project Management

Like Evolve & TreeHouse, **ADAPT** presented a unique challenge whereby designers would need to act as project managers. This required sourcing the landscape designer, extra suppliers, and coordinating all with HIA and Youthbuild. The resulting network created a unique team of motivated participants, producing a display that became the Expo drawcard.

Again, designers performed project management during design, which is an unusual occurrence in our profession. This occurred right until the night before the expo. The drawings changed often.

As before, designers performed some quantity surveying, so that suppliers could assess their involvement. This presented another unusual challenge as material choices shifted a few times during design and even during construction. Use of Revit (high end BIM software) allowed this to occur. And by creating 3D images, all participants, especially the apprentices, gained understanding very quickly.

Reso | n | u | t | i | o | n

ADAPT illustrated that it is possible to create a full 3 bed, designed 'house' within an Expo environment.

It consisted of three pods, mostly built off-site. Left pod as a master wing, middle as kitchen and living, right as two bedrooms with bathroom. A fourth pod as deck, all linked by walkways and ramps.

Without the donation of products from suppliers, **ADAPT** would not have happened. The products included everything from timber, decking, furniture, plants, paving, roofing and more. Refer to a full list at end of slides.

ADAPT
from in
front



The Event

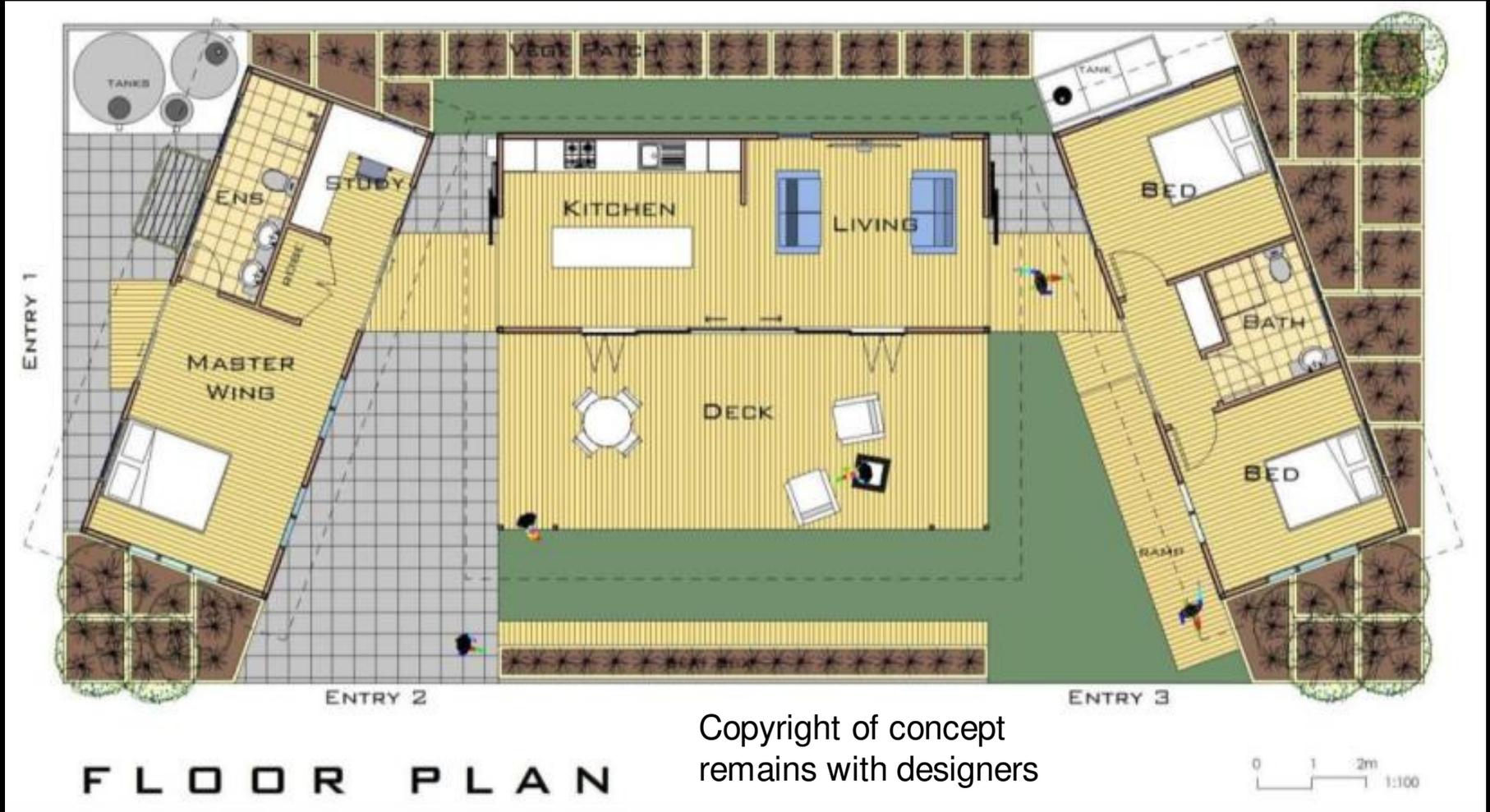
Setting up the display was an intense week of work involving Apollo Youthtraing mainly, along with tradespersons, and the sponsors installing their products. With some advice from designers.

Over the Expo, sponsors stood with designers greeting the public, explaining the concept and products. This was beneficial as the public could see products in their real use. Sponsors were amazed by the interest from the general public and trade professionals.

As proved by Evolve and TreeHouse, visitors again enjoyed seeing things brought together in a 'real' environment. **ADAPT** was packed the whole weekend with many visitors stating that ADAPT was the reason they were there, which pleased HIA.

ADAPT had an extra function – attracting visitors to the adjacent BDAQ stand. Building designers received a huge boost in interest.

Floor Plan

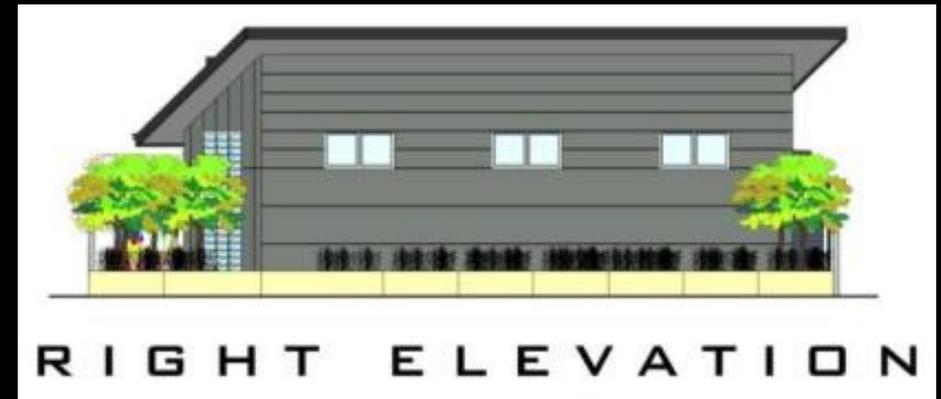
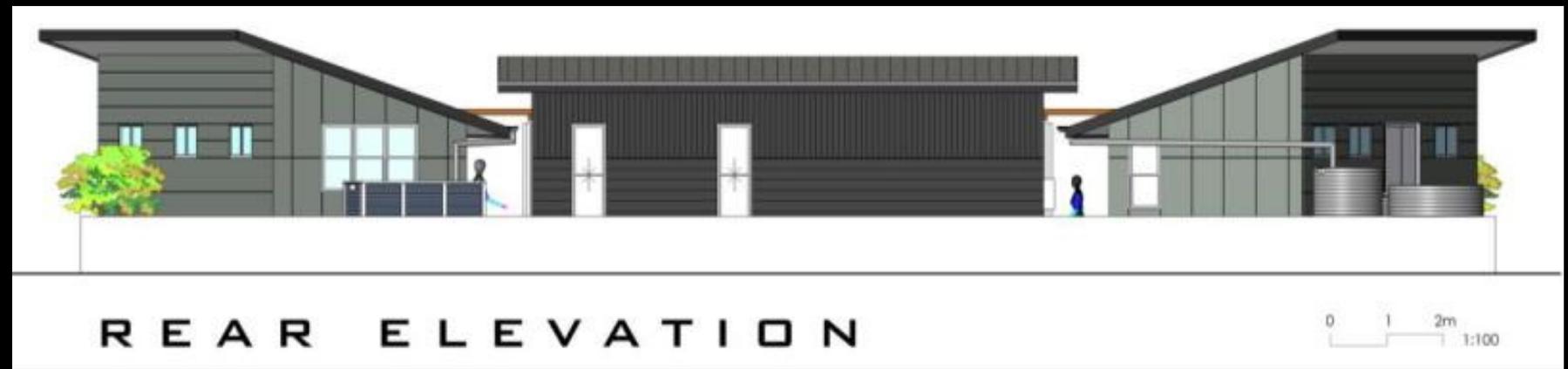


ADAPT was designed to encourage flow around and through it, and be interesting from every angle. The splayed position created a welcoming open stance from the front.

4 pods, linked with small decks. Master Bed left, Kitchen/Living central, 2 Bed right, with deck in front of centre pod.

Each pod is 3.6x9.0m. And can be rearranged into other configurations.

Elevations



Left and right pods were given steeper rooves to accentuate the 'splay'.
Final cladding was limited by supply to Skyon Matrix and Stria.

Sections



Sections show the difference between the pod rooves. Outer pods steeper to accentuate the splay, inner pod lower to suit the broad roof over the deck, and the uplighting within the pelmut.

3d's



Views of ADAPT from left and right.

Expos always have changes to the design: Landscape box numbers reduced and squared. Sign at front replaced by touchscreens. Centre pod roof split in two. Round tanks did not arrive. Minor adjustments to joinery.



But it still looked great!



3d

Cut away view of ADAPT from right, showing the centre pod with master bed pod behind.



3D of **ADAPT** from front. This image closely matches the result and helped HIA from early on in attracting interest to the Expo in spite of the GFC.

Affordability

ADAPT, 130m² including huge deck, can be erected on site, as illustrated for \$170k.

About **\$1300/m²**.

This makes **ADAPT** an affordable proposition!

With added fourth living pod, rate drops to \$1230/m².

COST



6 months of lead up

First semester of 2009, 16 schools participated in pre-fabricating **ADAPT**.

At Apollo Youth Training, Rocklea.

ADAPT pods built by school based apprentices (boys + girls), with their teachers, working from designer's drawings in Apollo's facility.



The students and the teachers enjoyed this as they were building something totally real for a showcase event.





ADAPT Construction

Each pod is essentially an open topped box.

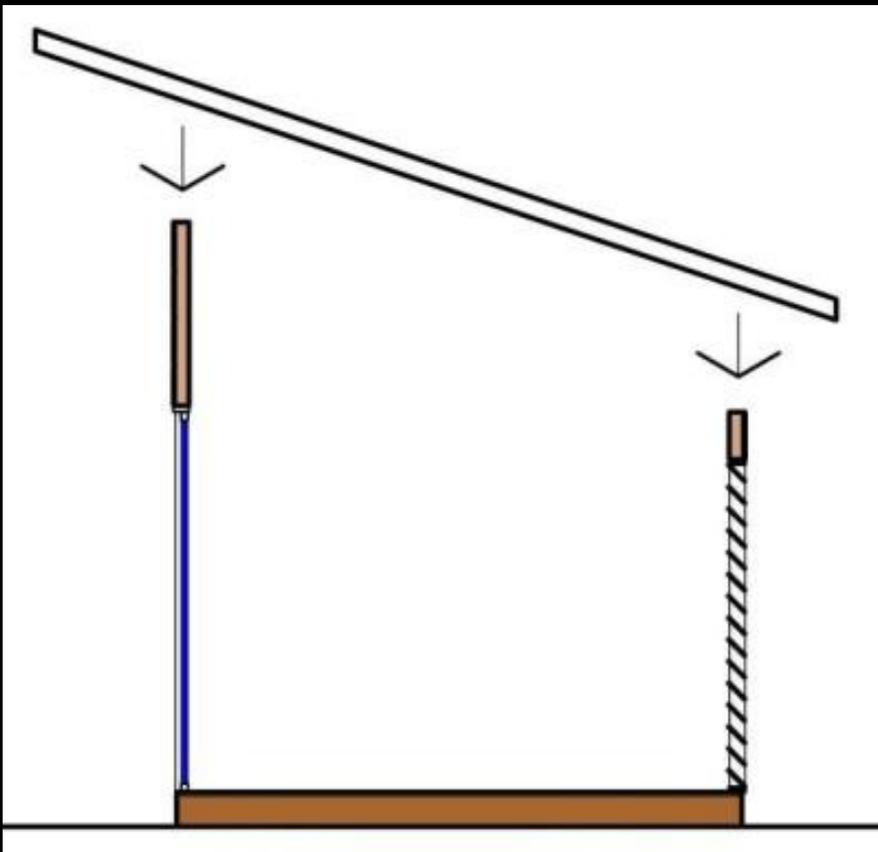
Uses Carter Holt Harvey timber to frame walls above floor.

On a frame that can be lifted.

The roof is added on site – which also occurred for the Expo.
This means pods become real buildings, with overhangs.

On a site, pods placed on posts and beams. For Expo, just placed on convention floor.

All this allowed quick deconstruction.





4 days of bump-in

After 8 months of design, planning and construction, **ADAPT** was placed in the Convention Centre, over an intensive 4 days. Involved several suppliers' workers, thirty HIA Youthbuild apprentices and their teachers (yellow vests). Designers were there too (orange vests). Students worked through one night!



Direct view of **ADAPT** at front.

Master bed pod, left. Kitchen/living pod central. 2 bed pod right.
BDAQ stand was around to right.



View from left
People
everywhere!



View from right

The touchscreens at front had an interactive display of 4 different configurations of ADAPT, all in 3D.



Landscape boxes

These boxes were set up prior to the expo, and simply brought in by forklift.

(The plants were to have been planted many months before, but those schools opted out, leaving it to others with only one month to go. These things happen with Expos.)



Ramp + Light Ball

The ramp provided equitable access. Those in wheel chairs really appreciated this.

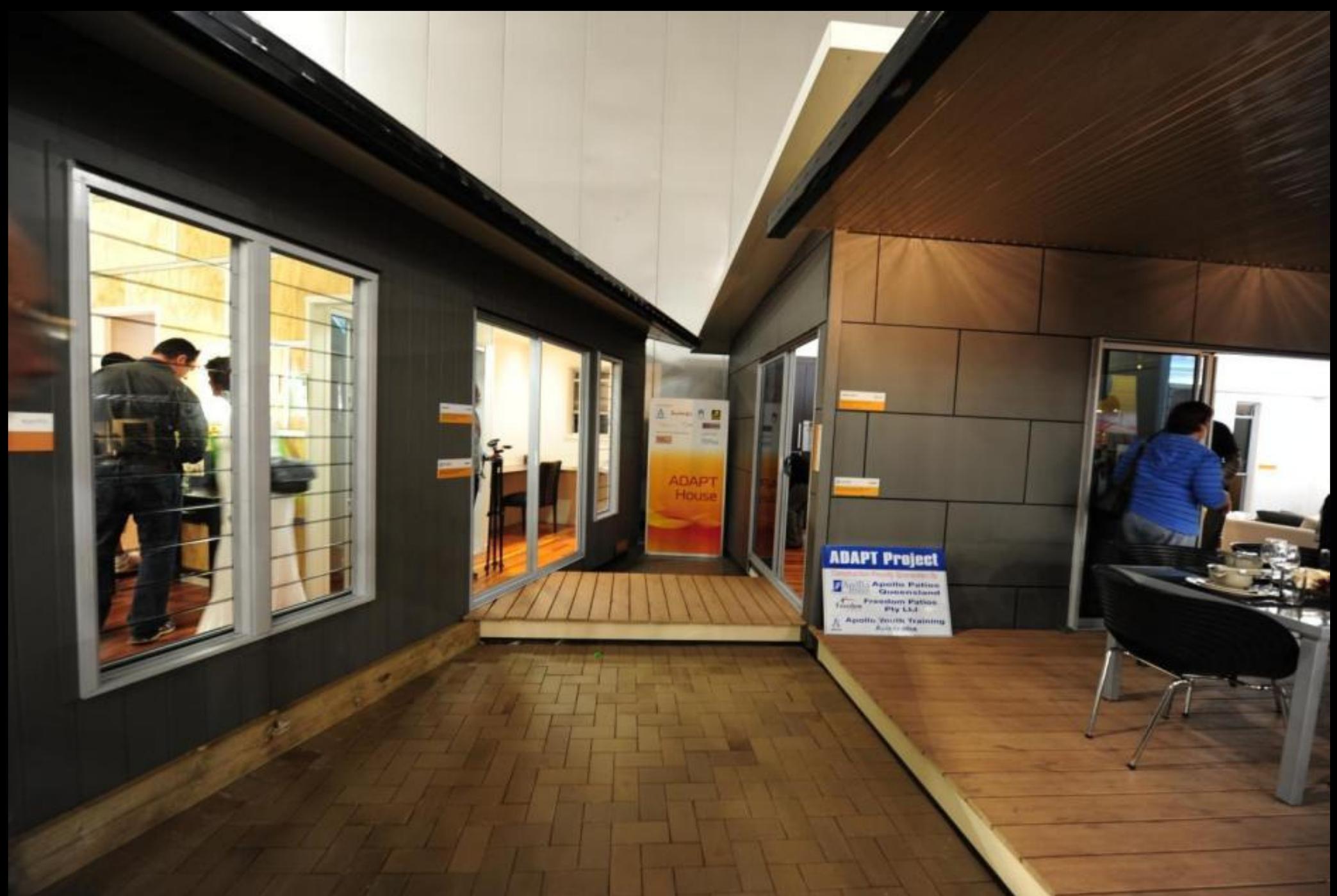
This light ball got some comments!



Back of master bed pod
The sliding door allowed access from the side too. We even had a groovy rectangular tank in matching colours.



Bed pod + screen
Enormous screen with continuous slideshow about ADAPT.
Note the signs – these listed the contributors and explained the concept. Every portion of the display had a label on each product.



Link between master bed and centre pods
So many access points on ADAPT encouraged flow, so visitors went all over.



Deck pod

Viewed from either end.

This space doubled as a meeting point for sponsors, designers and visitors. Visitors conducted discussion sessions on it the whole weekend.



ADAPT deck as stage

One evening, ADAPT became the venue for an exhibitor's party, at which it received a special award.



Master Bed Pod



Generous space with good ventilation from breezway louvres. ADAPT was fitted out by furniture hire company, including bed linen and towels.

Master Bed Pod



Ensuite - fully pre-fabricated before transport to Expo.



Study – plus robe. Like ensuite with flat ceiling to allow prefitting of lights.



Supplied by multi-award winner, Sublime.
Very compact galley style, designed in conjunction with
building designers. Even has laundry at one end.

Centre Pod - Kitchen



Prefinished interlocking floor boards.

Centre pod lit with LED strip lighting in pelmut, negating ceiling fittings under sandwich panel roof.

ADAPT was set up with loads of automated lighting, even ClimateSmart meters, to showcase sustainable lighting.

Centre Pod - Living

2 Bed Pod



Grooved ply used internally for strength and durability for transport.

Bathroom fitted out fully, like ensuite, before Expo. Has dropped ceiling to suit overhead fixture.



Deck Pod



One of the designers with a visitor, in the comfy setting on the deck.

Deck Pod



The 'view' from the deck out over the Expo display stands.





ADAPT from across the hall.

A rare feat to insert a full, real dwelling into an expo environment.

Special Mentions

ADAPT was a huge success, and these people helped.

Kim Coles from HIA

The coordinator of HIA Expos. She believed it was possible!



Youthbuild + Apollo Youth Training

Darrel Biss, the kids and their teachers were amazing.



Paul Stein of Seed Landscapes

ADAPT depended upon Paul's landscaping and paving.



Illuminating Engineering Society (IES)

Steve Coyne + Barry Gull did so much to organise lighting.



VirtualBuilder 3D

These wizards produced lots of imagery. Truly stunning.



Russell Brandon + BDAQ head office

More in the background this time, but helped nonetheless.



S p o n s o r s

tiling
pavers
roofing
louvres
joinery
bathrooms
timber framing
ply
sheet floor
cladding
synthetic turf
flooring
lights
cabinetry
furniture
solar
tank
appliances
plants
wpc decking

Auspec/MTM
Austral
Bondor
Breezway
Brendale Doors & Windows
Caroma Dorf
Carter Holt Harvey
Carter Holt Harvey
Carter Holt Harvey
James Hardie
Lush Turf
Mariposa
Moonlighting/Osram
Sublime
Suite Deals
SunElec
Unique Modular Tanks
V-Zug
Withcott Seedlings
Woodhouse

Publicity 1

HIA Renovate & Build Expo
24th - 26th July 2009

EXPO FEATURE

Are you looking for a new way to showcase your product?

Do you want an audience of up to 20,000 people who are serious about building or renovating?

Here is your opportunity to have your product showcased in this year's Expo Feature "Smart Home Solutions" at The HIA Renovate & Build Expo to be held 24-26 July 2009 at the Brisbane Convention & Exhibition Centre.

Smart Home Solutions feature will be a major attraction within the exhibition, and provides a variety of products and building materials in a visually stimulating display. This display house will feature interior and outdoor living that provides solutions for extended living space, affordable, flexible design and energy efficient products.

Don't miss the opportunity to showcase your product in this year's feature (conditions apply). See attached brochure for full details of involvement.

HIA Renovate & Build Expo
24th - 26th July 2009

EXPO FEATURE

Are you looking for a new way to showcase your product?

Do you want an audience of up to 20,000 people who are serious about building or renovating?

Here is your opportunity to have your product showcased in this year's Expo Feature "Smart Home Solutions" at The HIA Renovate & Build Expo to be held 24-26 July 2009 at the Brisbane Convention & Exhibition Centre.

Smart Home Solutions feature will be a major attraction within the exhibition, and provides a variety of products and building materials in a visually stimulating display. This display house will feature interior and outdoor living that provides solutions for extended living space, affordable, flexible design and energy efficient products.

Don't miss the opportunity to showcase your product in this year's feature (conditions apply). See attached brochure for full details of involvement.

ADAPT featured heavily in lead-up marketing for the Expo.

Advertisements (left) used designer's images.

The TV campaign (below) used **ADAPT** only, with designer's Revit file forming basis of production.

20,000 potential customers
in just **THREE** days

Can you afford NOT to be there?

Do you want an audience of up to 20,000 people who are serious about building or renovating?

Here is your opportunity to have your product showcased in this year's Expo Feature "Smart Home Solutions" at The HIA Renovate & Build Expo to be held 24-26 July 2009 at the Brisbane Convention & Exhibition Centre.

Smart Home Solutions feature will be a major attraction within the exhibition, and provides a variety of products and building materials in a visually stimulating display. This display house will feature interior and outdoor living that provides solutions for extended living space, affordable, flexible design and energy efficient products.

Don't miss the opportunity to showcase your product in this year's feature (conditions apply). See attached brochure for full details of involvement.

Looking for a "smart" way to showcase your product to 20,000 potential customers?

Do you want an audience of up to 20,000 people who are serious about building or renovating?

Here is your opportunity to have your product showcased in this year's Expo Feature "Smart Home Solutions" at The HIA Renovate & Build Expo to be held 24-26 July 2009 at the Brisbane Convention & Exhibition Centre.

Smart Home Solutions feature will be a major attraction within the exhibition, and provides a variety of products and building materials in a visually stimulating display. This display house will feature interior and outdoor living that provides solutions for extended living space, affordable, flexible design and energy efficient products.

Don't miss the opportunity to showcase your product in this year's feature (conditions apply). See attached brochure for full details of involvement.

affordable energy-efficient attractive

Adapt House

HIA Renovate & Build Expo.
BRISBANE 24th - 26th JULY 2009

VirtualBuilder3D

Afterwards



ADAPT continues to live on in articles and promotional material.

HIA Building News, Sep 09, top.

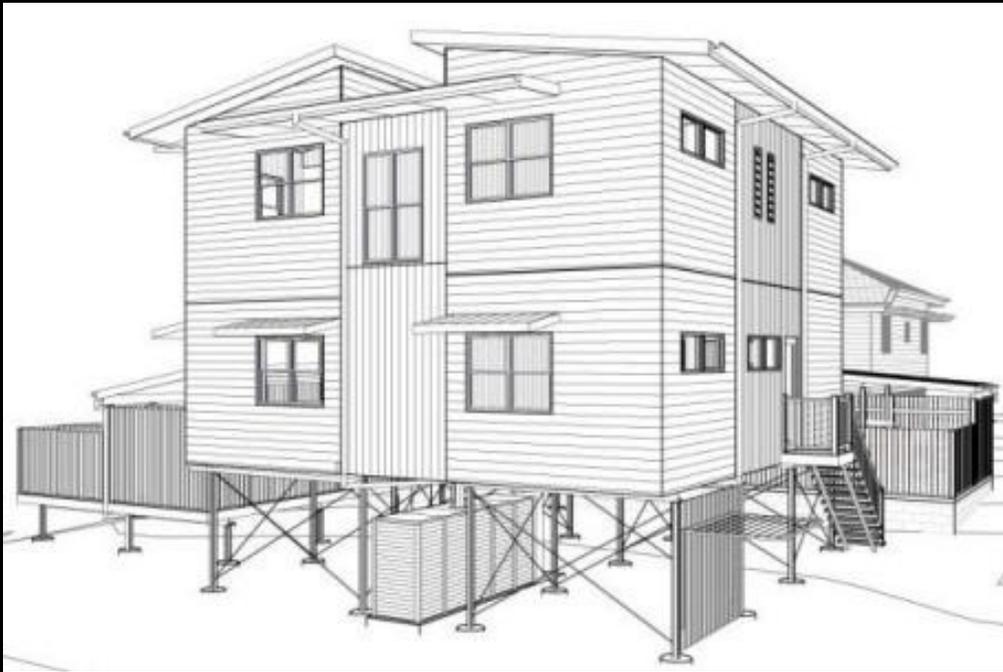
Renovation Magazine, bottom

Afterwards



ADAPT has lead onto two projects, currently in early development.

Top is a single pod as a 2 bed pavilion, located behind a house.



Bottom is a 6 pod, 4 bed building done in 2 storeys, as part of a multi-dwelling site.

Copyright of concept remains with designers

Slide show -
Julie Welch, Peter Latemore
Photos – Jose Figlioli

Category 14 - Special Projects - "ADAPT" - Latemore Design + Mercury Design