



The Smarter Small Home™

Case Book

Creating innovative, affordable
housing solutions with **James Hardie**



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Inside the book

When the affordable concept house The Smarter Small Home™ was launched a year ago, it caused a surge of interest that couldn't be immediately satisfied. However, over the 12 months since, a number of Smarter Small Home-type developments have been in planning around the country. They're only now coming onto the market. This book showcases a few of these projects.

Almost a year ago, something quite unusual was unveiled before a collection of Australian developers in an empty aircraft hangar near Brisbane airport.

It was a new type of affordable housing solution called The Smarter Small Home: a highly livable and sustainable home designed to be sold as part of a house and land package for around \$300,000.

Of course, the idea of a small home isn't new, but the combination of a small lot, small home, smart choice of materials and an efficient construction method immediately caught the attention of developers and builders.

Once it appeared on *A Current Affair* and the like – largely due to the efforts of project instigator Kevin Doodney and his real estate team – homeowners across Australia were really keen to know how they could build a Smarter Small Home too.

Hundreds booked into design tours of the Brisbane display home. Others requested plans, details of Smarter Small Home builders and addresses of The Smarter Small Home in other states.

While the interest couldn't be immediately satisfied, it prompted industry innovators – from builders to developers to designers – to take action and develop their own projects.



The Smarter Small Home™.

Like the Townsville builder launching an affordable, lightweight two-storey display home in a place known largely for its single-storey rendered concrete block, or the Sunshine Coast builder heartily sick of energy-intensive 'dogboxes'. Or the medium-density developer whose application to convert a DA-approved site to Smarter Small Home duplexes was fast-tracked through the local council, which was already impressed with The Smarter Small Home.

Or the government housing department that selected the Smarter Small Home as the concept for remote area housing for government employees.

Then there's the large modular building company well known for its industrial-style mining camp buildings. It's now introduced a range of highly livable and sustainable two-storey modular homes – that can be produced en masse, transported to remote locations and withstand cyclonic conditions.

Of course as developers, builders and designers continue to spin off their own designs and projects from The Smarter Small Home, there are many other projects on the drawing board. And behind the scenes, helping to enable good-looking, cost-effective, construction-easy design and building, is James Hardie. ■

The keys to the home

When 30-year veteran of the property and real estate industry Kevin Doodney thought about the housing affordability problem in Australia, he knew there had to be a solution. The Smarter Small Home™ is the affordable concept home that was the result of his vision – and chutzpah.

While Doodney was the catalyst for the project, the result is the product of an entire team. Spearheading the design smarts was designer Brett Blacklow. Doodney and Blacklow had met 15 years before and had since collaborated on a number of projects.

The pair agreed that their goal was to build an affordable home, defined as one costing around \$300,000 for house and land package.

With land often representing at least half the total cost of a home and land package, they knew a small lot size was crucial. They decided on a lot size of 10 metres by 30 metres; the challenge then was to design a livable, sustainable and affordable home on it.

The Smarter Small Home was the result.

Livable

It's livable because the double-storey construction minimises the building footprint without sacrificing inside living area and leaving a sizable yard for outdoor entertaining and activities. Inside, no space is wasted and many do 'double duty'.



Kevin Doodney



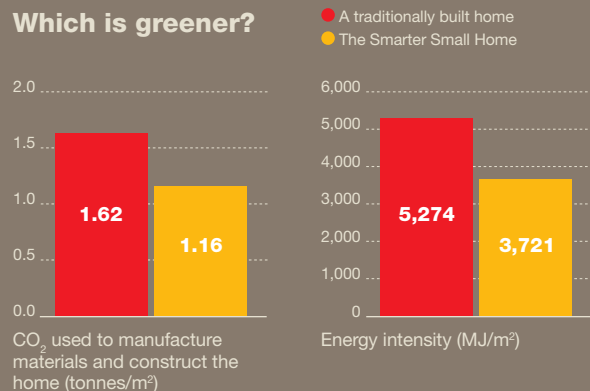
Brett Blacklow

Sustainable

The Smarter Small Home is also sustainable – it has a 5.5 star energy rating, uses a range of low-embodied-energy materials and smart power-saving devices to minimise homeowners' running costs.

In addition, James Hardie asked Climate Friendly* to measure the carbon footprint of The Smarter Small Home. It found that significantly less CO₂ was used to manufacture the materials used in the home, as well as to actually construct it, than that in a traditionally built home. Climate Friendly also found that the energy intensity was much lower than in a traditionally built home.

Which is greener?



Very affordable

However, there are other homes that are livable and sustainable. The heart of the Smarter Small Home is its affordability. Here are the key ingredients to cost-effective construction that The Smarter Small Home embodies.

Design to fit, not cut to fit

Blacklow went looking for a number of key economical materials first, and then designed the structure of the house and floor plate around them. “Typically no-one approaches it like that. The builder or designer comes up with a floor plan and then he works out how to make it stand up,” Blacklow says.

Blacklow feels this is a recipe for adding all sorts of costs that aren’t immediately obvious into a building, because the designer or builder has to make the structure work. His approach means the design of rooms, heights and walls are to the size of materials available and any offcuts that are generated are re-used elsewhere in the design. This also helps minimise waste.

Minimise installation steps, and multiple trades

Often, time is money, which means maximising the speed of construction. A key way to achieve this is to select products that can be installed and simply finished; ones that involve the least number of construction layers.

For example, Blacklow chose an all-in-one Bondor® sandwich panel for the roof, which meant the roof was fully installed in half a day. “One product turns up to site,” he says. “When it’s finished, we have our roof structure, insulation, sheeting, ceiling structure and finished ceiling. Instead of having a scaffold up for two or three weeks, it’s all done in half a day.”

The sub-floor is another area where layers were reduced. Twenty-two steel screw-in piers were used instead of brick piers and joists or the traditional slab on ground.

“While screw-in piers have been around for ages, hardly anyone uses them,” Blacklow says. “The beauty of them is that we don’t have to come out and make a flat area and we don’t have to dig or pour footings and box up the slab. We just screw these things into the ground, we put the posts on that afternoon, and on day two we start installing the floor framing.”

“Many of James Hardie’s products are sheet products and so a carpenter can cover an area of three square metres in 10 minutes. So we’ve chosen products that cover a big bit of area when they go on,” Blacklow says. After installation, they usually just need to be painted.

Choose highly flexible claddings to maximise repeatability

A key driver of the affordability of a development versus that of a single home is building the exact same floor plan. “When we’re doing this we want to make the outside of these homes look as different as possible, while still being essentially the same,” says Blacklow.

“The thing I’d say about these [James Hardie®] products is that you can give me one standard flat sheet like HardieFlex™, and I can give you five or six different finishes. It can be done without texturing or anything like that, but through using vertical or horizontal battens, or smooth ones or really protruding ones. These products just have a bucketload of flexibility at a really affordable price,” he says.

After researching exterior cladding materials, Blacklow and the team concluded that there is “nothing that can touch a few of the James Hardie products price-wise”. ■



Highly flexible claddings enable repeatable designs and diverse facades.

*More detail on the affordability, sustainability and livability aspects, as well as a directory of the key products used, can be found in *LookHome™* issue 7, available from www.smartersmallhome.com.au.

The increasing number of small lots on Queensland's Sunshine Coast prompted this third-generation builder to launch a new division – offering small, sustainable homes built traditionally, or for transportation.

Branching out



About a year ago, the two brothers in the Sunshine

Coast building business the Thompson Building Group decided to take advantage of a market gap. They felt that homeowners on the Coast just did not have enough affordable, sustainable and good-quality homes to choose from.

“Especially with new urban footprint coming out, with block sizes reducing to 300 and 400 square metres, we could see this [kind of product] was the way of the future,” says director Brendan Thompson.

According to Thompson, Stockland and other developers in the region have a number of small-sized lots earmarked. As a result, Thompson Sustainable Homes has designed a product that suits a lot width of 10 metres and greater, that can be built on site with a slab on ground, or in a yard and shipped to remote locations.

Innovation

This latter aspect marks a totally new step in the life of a business more than 50 years old. Another is the decision to build a display home in the yard of a local building materials supplier.

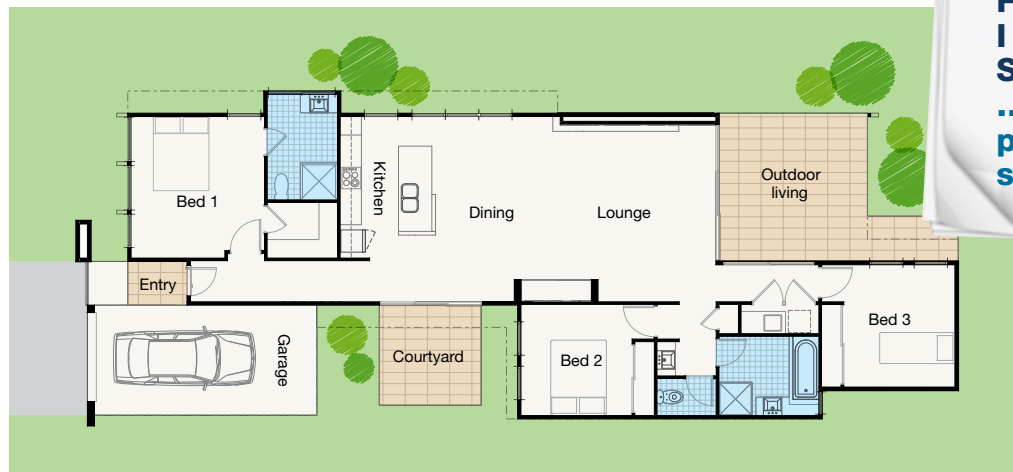
“We’ve done displays in display villages previously but Melco generate a few thousand people through their doors every week and we were looking for major industry partners we can team up with,” says Thompson. “Everyone knows we can build them slab on ground in estates, but what we’re pushing across the road from Melco is the transportable version of it.”

Co-director Brad Thompson credits his visit to The Smarter Small Home™ as the spark that set them firing. “From the moment I first saw it ... you believe that’s probably where we should be heading, and the whole thing sort of sprouted from there.”

Affordable sustainability

The brothers commissioned Golden Beach Design’s Tim Christopher to design the home they’re launching – Bloom. And while The Smarter Small Home might have been the catalyst, Bloom is very different.

For a start it’s a 159 square metre, single-storey home that can be built on a slab or a raised floor. “It’s also more zoned, with a kids’ area at the back of the house and two courtyards to use depending on the time of the day; one



Floor plan for single-storey Bloom.

From the moment I first saw The Smarter Small Home ... you believe that’s probably where we should be heading.



Well-designed interiors make the best use of the footprint.

Key Partners

BUILDER	Thompson Sustainable Homes
DESIGNER	Golden Beach Design
JAMES HARDIE	Greg Lister and Brendan Jennings
BUILDING MATERIALS	MelcoLanhams
MORE INFO	www.thompsonsustainablehomes.com.au

covered and one uncovered,” Christopher says. “It’s also quite modern with floor to ceiling glazing and some built-in wall features like the study nook and TV cabinet.”

Christopher comments that one challenge was trying to make an affordable home look like a quality, conventional home, so that “people don’t feel it’s a cheap alternative”.

Another was balancing sustainability with cost. “We went through every supplier and made sure they had green credentials,” he says. “It means we’re not actually using the cheapest products – for example, the laminates, vinyl and carpet were all chosen more for their sustainability. The glass evacuated tube solar hot water system is the most efficient – especially in winter time – but it’s not the cheapest.”

At handover, homeowners will also receive a chain of custody certificate for all the applicable products in the home.

First homebuyer appeal

All of these factors, plus the modern look and \$150,000 price for the option on display should appeal to the younger, first home buyer, who’s a key part of the Thompsons’ target market.

The home will also have a 9.5 star rating when it’s built with a slab on ground, and its design suits the Sunshine Coast. “It’s basically the beach home from 30 years ago,” says Brendan Thompson, “but modernised and designed for the future.”

Brad Thompson adds: “When you say it’s 150 or 160 square metres, people are expecting a box. But when you look at the design, you’ll see it’s a really nice home.”

The brothers are targeting sales of at least 40 homes a year, with 70% built traditionally in estates and the balance transported to remote locations. And they’re already getting a stream of calls from real estate agents, developers and homeowners. “The response so far has been brilliant,” Brendan Thompson says.

“We don’t believe we’ve got any competition in this market at the moment. You’ve got your brick-and-tiles builders, but this is architecturally designed, using all the new James Hardie® products. It’s all lightweight, environmentally friendly, and reduces the carbon footprint.”



A modern beach-home look.


Innovative supply approach

Sunshine Coast building materials supplier MelcoLanhams is keen to be seen as something other than the typical commodity outlet. Even before the Thompsons' Smarter Small Home project came along, MelcoLanhams was trying to figure out how to work more closely with its builders.

"We want to understand more about what they're trying to do so," says MelcoLanhams' CEO Darren Jordison. "Instead of just being a commodity supplier, we want to become a greater part of the project ... there's virtually nothing we can't supply, but we want to supply it in a way that's adding value."

The joint venture with Thompsons is just one way of demonstrating MelcoLanhams' innovative approach. "We're sending a message to all our builders: we'll be flexible and innovative, leveraging our resources to help them achieve their goals," Jordison says. "In Thompson's case, it's to build this kind of home."

Thompsons had originally wanted to build The Smarter Small Home as a display home on MelcoLanhams' premises. However, in a three-way agreement between Thompsons, MelcoLanhams and the landlord of their Nambour store, Thompsons are building right across the road.



Instead of just being a commodity supplier, we want to become a greater part of the project.

Mutually convenient

Jordison comments that when projects like the MelcoLanhams-Thompsons joint venture come about, it's usually because "a bunch of things conspire together". MelcoLanhams' visit to The Smarter Small Home was just one of those factors.

"One of the things we've been trying to do is get the resources we have in our staff to get behind a project and have a greater understanding of it," Jordison says. "So we took this road trip [with 40 of our staff] to Brisbane one evening, had dinner down there and the Hardie's guys took us through The Smarter Small Home. That started to get a lot of ideas floating around."

It also provoked all sorts of talk about the property market. "The level of interest was fantastic," he says. "It generated all sorts of talk about investment property. And we want our people to be interested in that, because that's the game we're in."

Jordison believes that Thompsons were also looking for ways to do things a little bit differently. "We thought The Smarter Small Home was a great project when we saw it, and Thompsons were obviously on the same wavelength ... so it was mutually convenient," he says.

Already successful

The proximity of the display is already helping MelcoLanhams be more central to a builder's project and understand the needs of their customers.

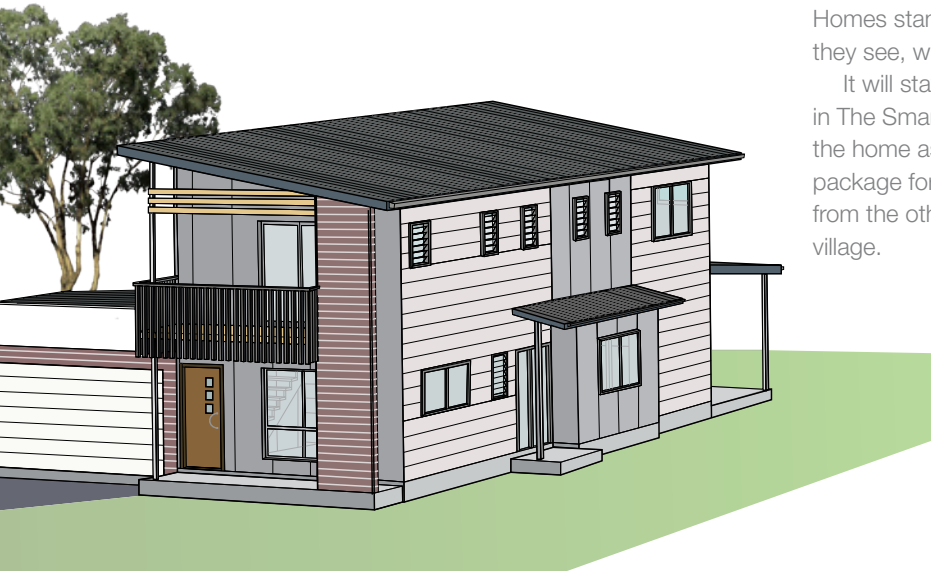
"Having that building going up straight across the road from store makes it a helluva lot easier to generate interest. You've got people coming into the shop all the time saying: 'Hey, what's going on across the road?' So the checkout people have wanted to know; they want to help."

MelcoLanhams will participate in a range of joint marketing activities around the home when it's completed. "We know intimately what's gone into that house ... so what we'll be doing is leveraging our retail customer base. We'll create things like an open home, a house warming and some training nights."

However, the home is already generating tremendous interest and drawing more people to the store. "While we want to see Thompsons sell a bunch of houses, it's already a success in that sense," Jordison says. ■

Banking on boldness

One builder defies naysayers with the design of this new, affordable home – and pleases a local developer in the process.



Re-designed to suit

To fit the Townsville climate and also appeal to local buyers, Better Homes asked local firm GVD Building Design to re-design the Smarter Small Home concept. A skillion roof, trusses and eaves were added but the mix of James Hardie® materials remained – Scyon™ Matrix™ and Stria™ cladding with Linea™ weatherboard on the facade and Scyon™ Secura™ interior flooring inside.

The result is an 8.5 star home fitted with all the Better Homes standard inclusions. People will walk in “and what they see, will be what they get”, McKenzie says.

It will stay true to the promise of affordability embodied in The Smarter Small Home. Better Homes will market the home as part of a house and 450 square metre land package for about \$400,000. It will also be totally different from the other eight or so homes in the Sanctum display village.

Townsville has been screaming out for product variation. Our project builders are just same old, same old.

When Townsville's Better Homes manager John

McKenzie first saw The Smarter Small Home™ in Brisbane, he thought it was something he should try in Townsville.

He knew it was a bold move. Most of Townsville's housing is single storey and built from rendered concrete block. To build a double-storey home entirely from lightweight materials was “a bit of a gamble”.

“I really thought there could be a market for it,” McKenzie says. Unfortunately his business partner and salespeople weren't entirely convinced.

“I just decided that someone should have a go. [This type of housing] is becoming more of the future down south, so eventually it's going to get here,” he says.

Key Partners

BUILDER	Better Homes, Townsville
DEVELOPER	Maidment Development Group
DESIGNER	GVD Building Design
JAMES HARDIE	Rowan Blizzard
BUILDING MATERIALS	Bunnings
MORE INFO	www.betterhomesqueensland.com.au

Price is king but...

Running through the centre of the Sanctum estate, on the northern beaches of Townsville, is 30 hectares of park. A number of lots – about 262 in the first precinct – overlook this area and will be smaller than others in the estate.

Developer Glen Maidment says that with the smaller lot size, people will be calling for the kind of two-storey, affordable product Better Homes will provide. “The smaller footprint means people [can] still have a decent sized home, and reasonably large yard, which is what a lot of buyers are coming out to our development for.”

While a couple of other builders have tried offering two-storey homes in Townsville, they haven’t been successful. “They make the fatal mistake of building the flagship of the range ... they haven’t built something that’s cost-effective.”

Maidment stresses that while price is king and any two-storey product needs to be cost-effective, buyers are sick of seeing rendered concrete block homes. “I think that Townsville has been screaming out for some product variation for a fair while ... the buyer that’s coming in at the moment is looking for something different.”

He notes that “variation in building product is something that’s happening in plenty of other places, but doesn’t seem to be happening big time in north Queensland. I think some of the issue is that our project builders are just same old, same old. I kid you not,” he says, “they’re building the same plan they were building 12 or 15 years ago. I’m pretty sure the world’s moved on from that.”

Confident risk-taker

McKenzie says there’s no question that the price point will be a big factor in the home’s success.

“Everyone’s shopping around on price point up here at the moment,” he says, “so we’re marketing this as an affordable home. But it’s not that small ... it’s quite roomy and can fit on a small block of land and still give you a yard.”

This means the home is well suited to the inventory of small lots in the Sanctum estate. This is undoubtedly one of the reasons the home has won praise from the developer, Maidment Development Group.

“The developer likes it,” McKenzie claims. “They said to me: ‘We’ve got plenty of blocks you’ll sell that on.’”

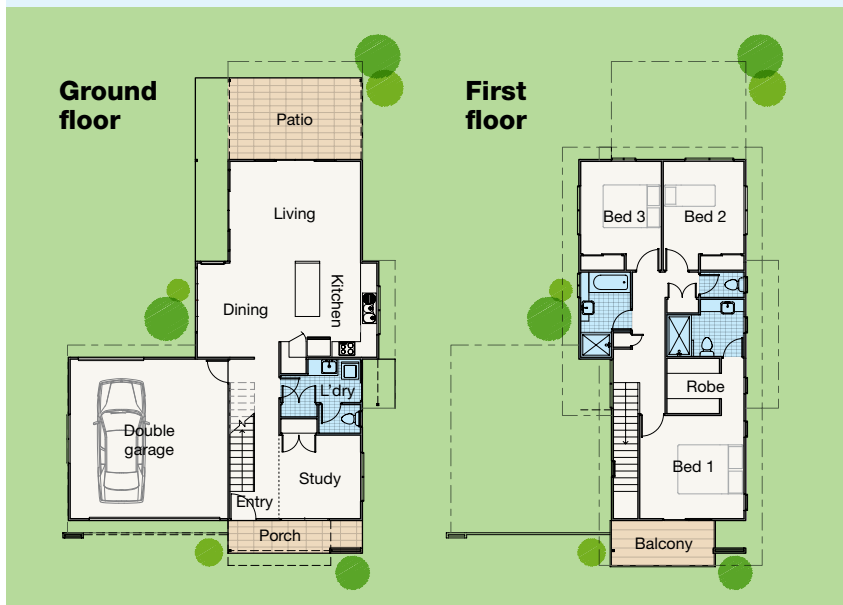
Affordable status symbol

Finally, McKenzie is banking on human nature to make the home a success.

I know that “people are creatures of habit and they like blocks and mortar”, he says. “But I think that if our home is only fractionally dearer than a single storey, people will buy into the status symbol [of a double-storey home]. If you live in a two-storey house, you must be doing all right.”

All of this makes McKenzie believe the home will be a “winner”.

“We’ll test the water and take all the risk, but we’ll also be in at the ground floor,” he says. “I just have a gut feeling that we might just do all right.” ■





Move over dogbox

This Sunshine Coast builder wants to give young buyers a red-hot alternative to the traditional brick-veneer dogbox, in the busiest estate on the Coast.

When Ausmar Homes launches the Smart Home in Stockland's Brightwater estate at Easter, director Tony Bryan believes it will fill a glaring hole in the market. It will also be totally different from the 20 other display homes in the estate.

The Smart Home challenges the norm of the affordable home, claims Bryan. "What we're trying to do is give young people in particular a really good alternative to what they thought they could afford," he says.

"So many people build a small, slab-on-ground, tiled roof, brick veneer home and we're saying, 'here's a red-hot, super-duper, trendy, beach-style, super energy-efficient home – not your standard brick veneer dogbox'."

Key Partners

BUILDER	Ausmar Homes
DEVELOPER	Stockland
DESIGNER	Golden Beach Design
JAMES HARDIE	Brendan Jennings
MORE INFO	www.ausmarhomes.com.au

Cost-effective and comfortable

The 200 square metre, 8.5 star rated Smart Home will sell at about the same price as the "traditional dogbox" – about \$180,000. It might be slightly smaller but its design is space efficient, Bryan claims. It will also have an optional outdoor room, for about \$30,000, that can be added later as needed and as finances allow.

While the first display is targeted at younger buyers, the other six homes in the range cater to buyers of all ages. They will all particularly suit the small lots that Stockland and other developers are introducing.

Already the Smart Home gets the highest numbers of hits on the Ausmar website.

"We're getting more customers now that want to do the right thing, they want to save money, they want to live in a comfortable home, they're a bit more educated," Bryan says. "But we don't push the fact that [this home is] super energy-efficient, we push the fact that it's 10 times more comfortable."

Innovation is a mantra

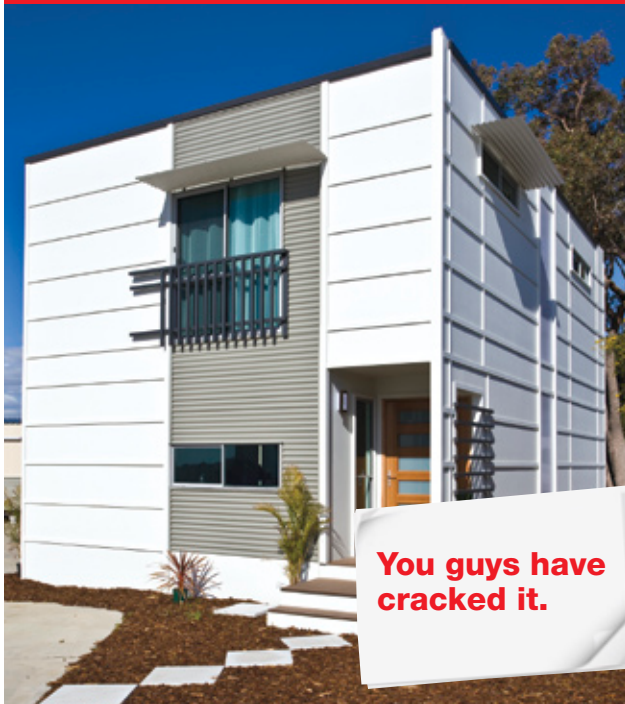
Given the market gap is so obvious, Bryan is perplexed as to why competitors aren't yet following suit. "It's not rocket science," he says. "We've just brought something to the market that's missing – and that's the affordability, energy efficiency and the cost savings in running the home."

"Too many of our competitors just run a standard set of 30 homes and that's all they sell," Bryan says. "They get complacent and not proactive ... We just keep our finger on the pulse to see what people want. And the Smart Home will sell. No problems at all." ■

When Ausco's General Manager for Strategic Development Robin Mysell saw The Smarter Small Home™, all the bells began ringing.

Modular en masse





You guys have cracked it.

Ausco Smarter Small Home on display at Wacol in Brisbane.

In just three months, Ausco, a company well known for modular and transportable buildings, including the quaintly dubbed ‘donga’, has introduced factory-built homes that people really want to live in.

Mysell joined Ausco about a year ago, fresh from a period managing a very similar UK-based firm.

“In the UK everybody builds multistorey,” Mysell says. “So [when I came here] multistorey was always where I believed the future was. Having done a bit of research, the biggest problem here was that land costs so much, so the idea was that you have to start doing medium density or high density.”

Before seeing The Smarter Small Home, Mysell had already been actively looking at designs that might suit. “Then when I saw Brett’s design, all the bells started ringing. The minute I saw it, I thought: ‘This is it. This is exactly what we need to do,’” he says.

Key Partners

BUILDER	Ausco
DESIGNER	Brett Blacklow/Ausco Modular
JAMES HARDIE	Steve Pisani
MORE INFO	www.ausco.com.au

Re-designed for modular construction

The Ausco technical team spent three months modifying the design to suit modular construction. Ausco was only targeting rural areas – the cost of modular construction would make it difficult for the company to compete in the metropolitan area.

However in rural areas, time on-site is critical. “Because when you’re miles away and accommodating your electricians and plumbers, it costs you a lot of money,” Mysell says. “So we wanted a house that could arrive on a Monday and [be finished] on a Friday – anywhere in the country.”

Ausco re-designed the house to fit those criteria: small footprint, energy efficient – ticking all the environmental boxes – with a very quick turnaround on-site. While price was important, it wasn’t the critical thing, especially where other people are building for \$2,000 a square metre, Mysell notes.

Made for extremes

As part of the re-design process, Ausco changed the layout of the kitchen, the master bedroom and outdoor living areas, as well as the claddings. There’s a combination of both steel and James Hardie® claddings to appeal particularly to Ausco’s mining clients.

“James Hardie products are superb – but they [our clients] will want to see some tin on that house,” Mysell says. “We’ve changed the claddings – using some Custom Orb® on the exterior – but the combination of that with James Hardie claddings, everyone loves. The other day a guy from one of our major mining clients walked in and said: ‘You guys have cracked it’. He then placed an order for 20 homes.”





Ausco Smarter Small Home built for cyclonic Region D on display in Perth.

The design has also been modified to a cyclonic Region D (AS 4055-1992), found primarily in WA. Additional design options are possible and a Region D-rated home is on display at Ausco's Perth premises.

Produced en masse

Mysell believes they are definitely one of the first companies to offer a two-storey, Region D-rated home that can be produced en masse, not just for one-off purchasers.

"Anyone can build one or two [of these types of homes], but we can do 20 in four months, and that's what we're achieving here in a remote area," Mysell says. "And we're not providing a cheap house. An affordable house is what we sell."

Understand the market

While Ausco has a lot of potential orders in the pipeline, "for us it's a strategy of catch the monkey slowly," says Mysell.

The company understands the pressures housing managers face in mining companies where mining's been accelerated and management is looking for housing. "Housing is a very sensitive market," Mysell says. "If your employees aren't happy, you're in trouble."

Because of this Mysell can understand why a housing manager might be a little risk-averse. "Suddenly Ausco comes along and says, 'We've got a revolutionary new product, and we can do it in a shorter time than anyone else'; well, you're probably not going to believe them," he says.

Modular in Mt Morgan

Mt Morgan boasts the first modular version of The Smarter Small Home. Local developer Panorama Living was looking for a house that would suit small blocks of land, would be quick to market and reasonably priced. It bought the Smarter Small Home modular prototype and is currently selling from it as a display.

However, Ausco Marketing and Communications Manager Patrice Simpson says that a complete mind shift is needed across multiple sectors, including banking, in order to successfully sell modular homes to homeowners.

"There's been so much groundwork done, not only by us but also other people associated with the house, to get the wider community and commercial environment up to speed on what modular housing is all about," she says. "You look at even financing – it's very new to banks to finance a modular house. They don't understand it. They think it's temporary."



A stylish and livable interior.

The new product is a major step for the company, but it's also a natural progression from what Ausco has done in other markets. Mysell adds, "We do huge mining camps worth millions of dollars and ... we always finish those on time." ■



Northern light



A streetscape perspective of three of the six Karratha homes.

Double-storey doesn't sound all that innovative but it's the way the space is used that's interesting.

Comfortable subsidised housing is one of the major perks that lure nurses, teachers, firefighters and other key workers to the harsh, hot north of Western Australia.

Building housing for government employees in the remote northern areas of Western Australia is a challenging task. Not only is there a shortage of developed land, it's also expensive to develop, particularly when competing with mining companies for civil works contractors. The cost of construction is also high and building quickly is important but difficult.

Government employees in these remote areas tend to come from other parts of the state. And if teachers ready to start the school year don't have their homes ready, for example, then they might spend some time in expensive motel accommodation.

"With the summers so long and hot, if you can build them [houses] possibly in the dry, cooler season, that's an advantage", says the WA Department of Housing's

Director of Built Form and Civil Construction, Graeme Jones. However, according to Jones, the typical construction period for a two-storey home might be 35 to 40 weeks.

Two-storey innovation

Given these factors, when Jones saw The Smarter Small Home on display in Brisbane he thought "the two-storey nature was interesting, because a number of the lots are starting to be on the smaller side in the north-west of the state," he says.

"Double-storey isn't typical there; there's a slow move to that. Now that doesn't sound all that innovative, but it's the way you use that space which starts to become quite interesting."

Jones and his colleagues decided that the promise of a two-storey, highly livable and sustainable home that could be built quickly and cost-effectively was definitely worth exploring. The department had a few lots in Karratha and committed to try out a few "innovative ideas" – a series of Smarter Small Home-inspired designs on six cottage lots.

Toe in the water

After a tender process in 2009, the contract was awarded to construction firm 2020. The approval of the project marks the 250th under the Royalties for Region Stimulus Program for government officers.

The homes, in two groups of three homes, are expected to be complete towards the end of June 2010 within a construction period of 19 to 20 weeks – about half the typical time.

Architect Bruce Robinson, who'd also visited The Smarter Small Home, designed the three-bedroom, two-bathroom homes to suit 2020's proprietary construction system – prefabricated, lightweight, low-carbon composite steel panels that are load bearing and easily locked together.

Robinson designed one primary floor plan with four to five facades to allow it to be easily repeated in the same street. The difference between it and The Smarter Small Home has “more to do with orientation and adding external living spaces” than anything else, although “there is also a different aesthetic experience externally”, Robinson says. To suit the Karratha climate, outdoor terrace areas and a rear-loaded carport linked with the terrace and a store-room have been added.

Livability

The livability of the home was a key selling point. “The dwelling has a really comfortable feel about it,” Jones says.

Key Partners

DEVELOPER	WA Department of Housing
BUILDER	2020
DESIGNER	Bruce Robinson
JAMES HARDIE	Bill Buxton

The way the spaces are used, the concentration on indoor-outdoor living – that's certainly one of the factors the further you move north. When the weather's nice, a lot of the living is done outside under cover, so the design offers those sorts of outcomes to the tenant.”

When the department comes to assess the success of the project, resident feedback will be important. “One of the things we'll be interested in is getting advice from the residents, particularly if they've had experience living in the northwest in other housing types,” says Jones. “We'll look at the comparisons of what they were living in before, with the dwelling, the attributes of that and their appreciation of them.”

After all, “one of the ways we lure them there is with the promise of good housing. Generally, they can look over the fence and see their neighbour is earning a lot more than them, because they're in the mining industry. So we try and make life better with good housing.”

The housing is also provided at a subsidised rental rate; market rates in these areas can top \$2,000 per week. ■

Building no burden

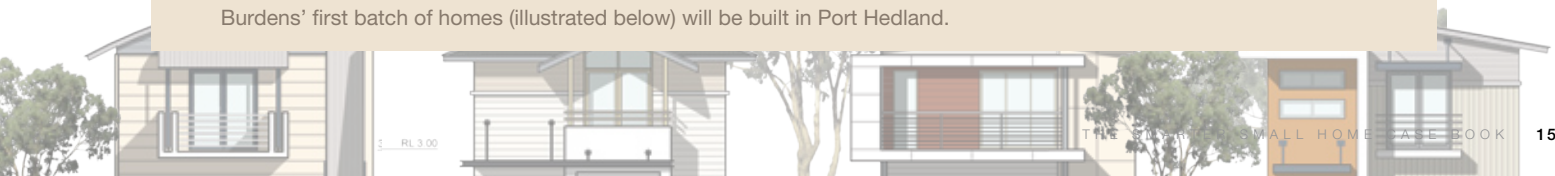
UK civil engineering and building materials supply firm Burdens has entered the Western Australian construction market. The company has bought the rights to the Quikloc modular panel system and commissioned architect Bruce Robinson to design a range of small, affordable single and double storey homes using the system. The homes are expected to achieve a 7 or 8 star rating and will be built all over the state.

Quikloc is renowned for being a very quick, affordable way of building. “The advantage of the system is that you only need one skilled person and two unskilled people,” says Robinson.

“In actual fact, for a single-storey four- by two-bedroom house, you can actually stand the walls of a single-storey home in two days. You start on Monday and you can have the roof on it by Friday.”

There is also “nothing that beats the insulation factor”, Robinson says. “The insulation factor of the Quikloc panel by itself is already about 2.2 as an index, but you add the James Hardie® product it goes to 2.8.”

Burdens' first batch of homes (illustrated below) will be built in Port Hedland.



This medium-density development of 18 highly affordable, 6 star rated Smarter Small Homes is five years ahead of the rules.

Game changer





Amarco site plan.

When Met Developments' architect Joe Evans first

saw The Smarter Small Home™, he “just loved it”.

“I thought it was just a simple but very well-designed solution, so I started from that point thinking, alright, where can I find a site to put this house?”

Evans found a DA-approved site in Redbank Plains. “It had been on the market for a while and couldn't sell ... so I bought the site at the right price,” Evans says.

On the fast track in council

The approval allowed for 18 two-storey, two-bedroom attached homes. However, before Evans had the site under contract, he and The Smarter Small Home designer Brett Blacklow met with planning staff at Ipswich City Council.

Prior to the meeting, Evans sent through a copy of the revised plans – for 16 duplexed and two detached two-storey, three-bedroom houses – all to The Smarter Small Home design.

And then at the meeting, “before we'd even sat down at the table, they said: ‘Yep, it all looks pretty good’. I've never had that in my life going into a planning meeting; I was very impressed. It was unbelievable.”

Even the formal approval of the modification to an existing DA only took about 20 business days.

Part of the reason for the quick response was that a number of staff members from the planning, business development and building departments had already visited The Smarter Small Home and had talked extensively with

We've gone and done this development which is \$315,000 starting price and not 5 star but 6 star.

Blacklow. By the time that Evans' plans went to council, “they all knew of the product and thought it would be of great benefit in Ipswich”, Evans says.

Way ahead of the rules

Ipswich Lord Mayor Cr Paul Pisasale will join Queensland Minister for Climate Change and Sustainability Kate Jones, in opening the development in mid-February, 2010. A story will go to air on *Today Tonight* at around the same time.

Evans believes that the introduction of the government's mandatory 5 star energy rating is part of the interest being shown in the project. “Because they've [the government] brought in that new legislation for 5 star minimum as of January this year, and then in five years' time they'll push it to 6 star, there's quite a lot of issues within the development industry about it pushing up the price of developing, making it more unaffordable,” Evans says.

“But then on the flip side, we've gone and done this development which is \$315,000 starting price and an average \$322,000 across the 18, and it's not 5 star, it's 6 star – five years ahead of what's required and affordable.”

Key Partners

DEVELOPER	Met Developments
DESIGNER	Brett Blacklow
JAMES HARDIE	Steve Pisani
MORE INFO	www.amarco.com.au

A key factor in achieving this is the cost-effectiveness of the construction, which “has a lot to do with the way it’s built”, says Evans.

“While it’s still traditional building techniques, rather than trying to wrap a structure around a set of plans, the structure of the house came first ... and then the design was worked through. There’s also the whole concept of not producing as much waste in the construction phase to avoid double handling of materials.”

New to the market

The construction approach is not the only thing different about The Smarter Small Home. Evans comments that Redbank Plains has a lot of tight brick-and-tile townhouses or terraces with small living spaces. The majority of these don’t get sold to the general public; they’re sold through marketing channels and the like.

“While we’re duplexing some, it’s going to be quite a different product to what’s out there,” Evans says. “The overall feel is a lot nicer than the existing product. And using the fibre cement sheeting can still look very solid, but it’s very much a Queensland-looking house.”

Met Developments is going direct to the market and will rely far more heavily on the green credentials of The Smarter Small Home to attract not only owner occupiers but investors as well. “It’s about people looking for a product that’s not on the market in most markets – an environmental and sustainable product that still has a really good design effect in the quality of living space.”



Quite a different product from the homes that surround it.

Free marketing a plus

Blacklow believes these are some of the aspects that will give developers using The Smarter Small Home, like Met Developments a boost with “free marketing”.

“Sustainability and affordability are on the tip of everyone’s tongue at the moment and ... because The Smarter Small Home reeks of affordability and sustainability, it’s a no-brainer. Someone says ‘we’d love to do a story on that’.

“In this case, they get a lot of marketing and the whole exercise might put them in a position where they where they have enough pre-sales to go ahead on a more economical construction finance because they’ve reduced the risk in the project,” says Blacklow. ■

Council convert

About a month after the Ipswich City Council group’s visit to the Smarter Small Home, Blacklow received a phone call. “They said: ‘Listen, we really like this and think it would be an awesome solution in our character areas’.”

Blacklow was asked to provide a series of character facades, which the council would then pre-approve in the character area. After discussions with the council heritage consultant, Blacklow has developed two of the series. The first two homes using these facades will receive their building approval shortly, and an additional 11 are in process.

Cost control

The Smarter Small Home™ is not only the heart of this medium-density Cessnock development, it has also changed the developer's whole approach.

For some time before Hunter Valley developer

Clint McRae visited The Smarter Small Home, he'd been developing his own affordable two-bedroom product.

"We market to the sub-\$300,000 market, so we'd had an idea some time ago to build a product for \$199,000 that everyone could afford. These days it's difficult – for our children anyway – to buy in areas that we all grew up in."

McRae says that across the project marketers Hunta Corp works with, no-one was offering product at that price point. "The sustainability and the viability of The Smarter Small Home are really attractive – but it's a three-bedroom version of something I've been working on for some time. [When we saw it] we had a real 'aha' moment. Someone's taken it a step further, which is great."

In harmony with Cessnock

The first Hunta Corp development to feature The Smarter Small Home is Harmony in Cessnock. Fourteen detached dwellings – six of which are the same as The Smarter Small Home, and eight of which have been modified to a two-bedroom version – nestle into the site. They'll sell from \$239,000.

Already the response has been positive – from investors and the local community. McRae, who says "we don't turn a sod before we have 100% debt coverage" has about 75% of the sales required. "Things are on track and we should have the homes out of the ground and complete by the end of the year."



I like it because it's predictable and cost- and time-efficient.

The Smarter Small Home on display in Brisbane.

Surrounding the development are predominantly weatherboard homes, so there's already a lightweight vernacular in the area. However, during McRae's extensive community consultation, some people expressed an initial preference for brick and tile.

"One mother told us we should build bricks and mortar. I told her that's a hangover from years gone by, and that building in lightweight material is a positive, not a negative," McRae says. "Once people's eyes are opened to the sustainability [aspects] and cost-effectiveness, they tend to grasp it and run with it."

Investors are also "very happy" notes McRae. "If the price point comes down the rent yield doesn't change – and certainly the new range of lightweight products that have come out are far more attractive than what was on the market before."



Harmony site plan.

Key Partners

BUILDER/DEVELOPER	Hunta Corp
DESIGNER	Brett Blacklow
JAMES HARDIE	Brian Needs
MORE INFO	www.prowealth.com.au

Change of approach

Following its exposure to The Smarter Small Home, Hunta Corp has made a conscious decision to move solely to lightweight construction.

“I think the ability to build something lighter and quicker, and control the trades, means we can control time frames and become more efficient without becoming a top-heavy builder-developer, McRae says.

“Carpenters can build the whole house instead of us being held to ransom by the masonry trades, and I like it because it’s predictable and cost- and time-efficient. It all means we can do more developments each year without taking on additional cost.” ■

On the drawing board

Waterfront Homes director Wayne Poulton, a Mornington Peninsula builder with over 20 years experience, was so excited when he heard about The Smarter Small Home on *A Current Affair* he hopped on a plane to see it.

“I found Brett [Blacklow] was driven with passion, and I clicked with him straight away,” says Poulton. “Because I don’t like being the norm, I don’t like the brick veneer and the tiled roof. Then when I found the James Hardie® products and how he’d even used them on the inside, it clicked with me too.”

Poulton says he can really see “the future away from brick veneer, concrete slabs and roof tiles”, which is why he likes The Smarter Small Home.

“I’ve got quite a few developers who’ve pricked their ears up because of the small lots that are available and needed to make it affordable. This concept is going to help a lot of first home buyers.”

Poulton has purchased the initial set of plans for the Smarter Small Home and is negotiating a block of land for a display home. He’s also been in discussions with developers and investment partners to build The Smarter Small Home on a larger scale.

What now?

If you've arrived at this page, you now know at least a little about The Smarter Small Home™ and some of the projects inspired by it. We hope we've whetted your appetite! If you're interested in creating your own Smarter Small Home or development, check out some of these options:



Virtual fly-through

Before construction on The Smarter Small Home was completed, we created a virtual fly-through of the home, complete with visual notes to explain the key products used. You can play this short video at www.smartersmallhome.com.au.



Mini LookHome magazine

For the launch of The Smarter Small Home to industry and consumers, we produced a mini *LookHome* magazine. (*LookHome* is the James Hardie-published consumer magazine that explains the ins and outs of sustainable renovating and new home building.)

The mini version, issue 7, covers the detail on how the project began, the key ingredients of affordable construction, an outline of sustainability features and Climate Friendly comparative analysis, as well as a directory outlining the main products used and why.

You can either download a copy of the magazine from www.smartersmallhome.com.au OR go to www.lookhome.com.au and subscribe to *LookHome* – ordering a hard copy of this back issue at the same time.



Visit the display

While pictures are helpful, nothing beats walking through the real thing. The original Smarter Small Home is on display in Brisbane, just near the airport. To arrange to visit the home, just call one of the key James Hardie partners listed below to discuss your project.



Find relevant partners

Of course after reading, looking and talking comes doing. If you're a builder, developer, designer or council planner and you're interested in kickstarting a Smarter Small Home project, you might need some help – finding design and building partners, for example, as well as products. To explore this, just call one of the key James Hardie partners listed below to discuss your project.

QLD projects and companies:	Doug Haarhoff 0417 318 947
NSW projects and companies:	Adam Cable 0425 736 409
VIC and TAS projects and companies:	Darren Nixon 0414 291 342
WA projects and companies:	Bob Ortega 0421 619 826
SA projects and companies:	Phil Blundell 0418 829 472
National projects and companies:	Steve Pisani 0418 829 451
General product enquiries:	Customerlink 13 11 03

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