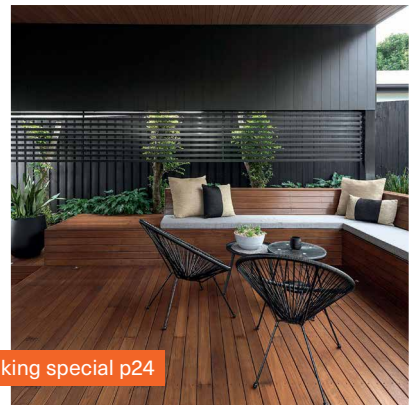
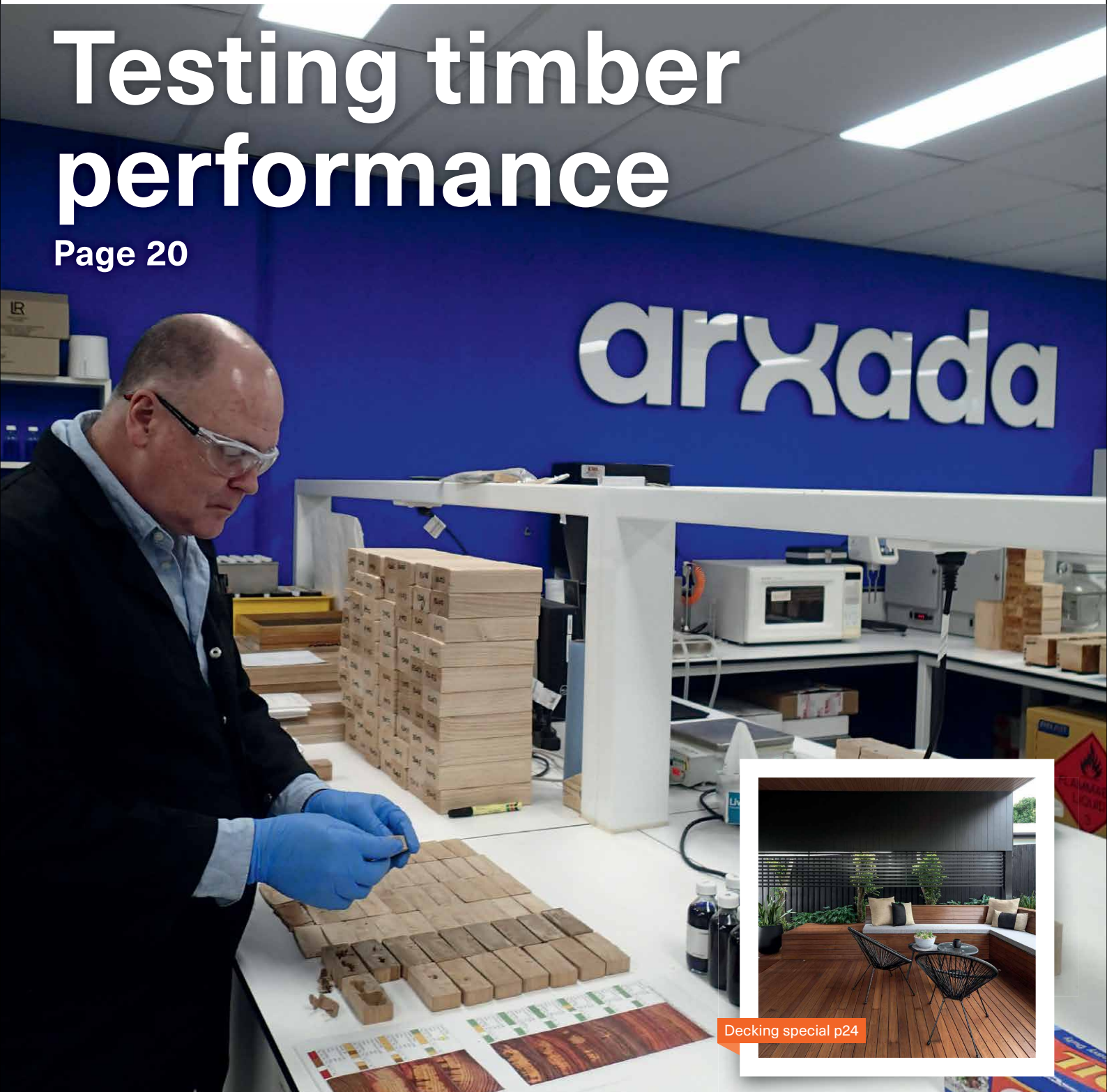


# TimberTrader

## news

# Testing timber performance

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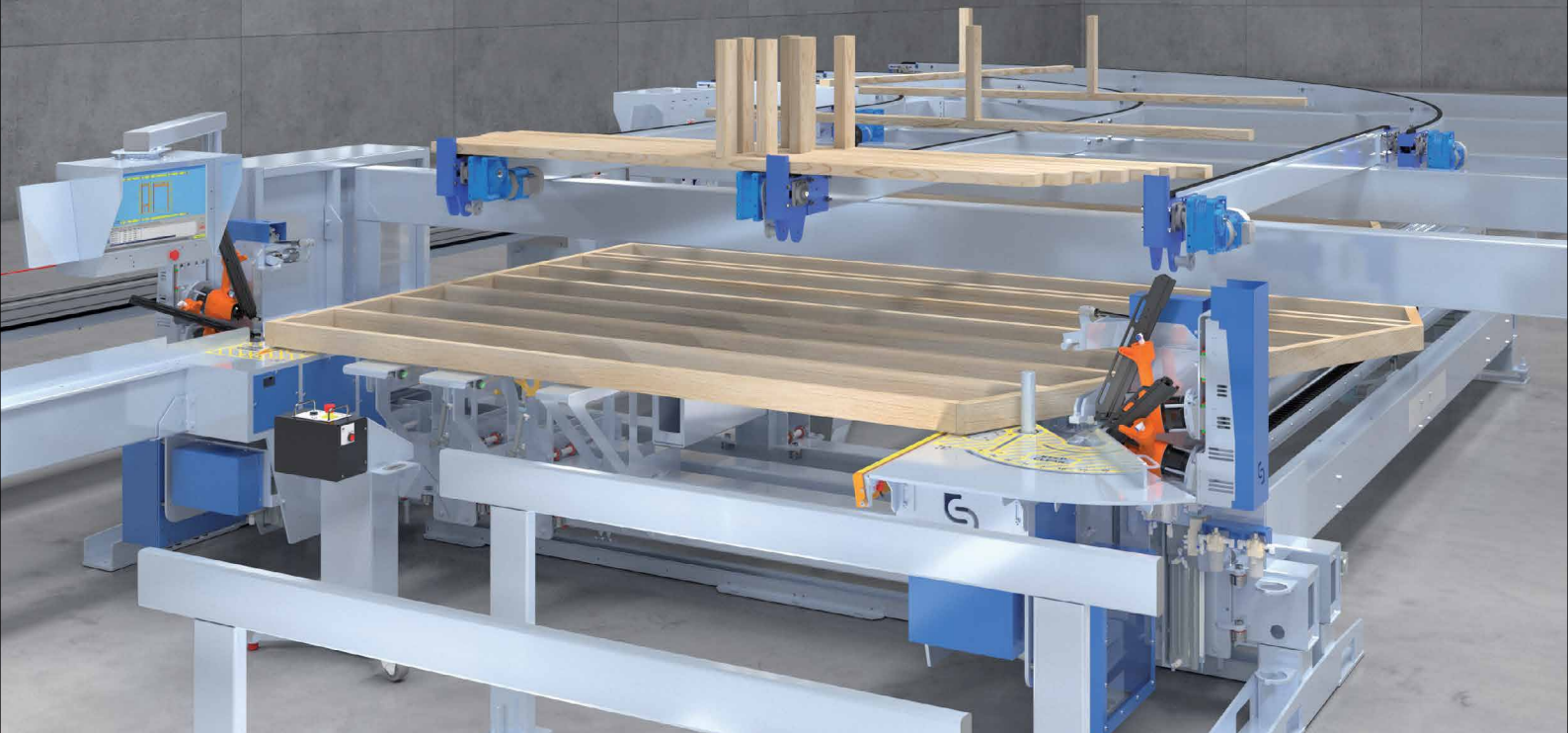
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PAGE 45  
**BUILDING THE GREAT  
AUSTRALIAN DREAM**



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### Publisher

Timber Media Australasia  
query@timbertradernews.com.au

### Editor

Donyale Harrison  
donyaleh@ttnews.com.au

### Editorial Contributors

Paul Davis, George Dolezal, Kersten Gentle, Craig Kay, Afzal Laphir, Peter Maguire, Michael Smith, Dean Wilson and the late John Halkett

### Art Director

Julitta Overdijk  
julittao@ttnews.com.au

### Sales and Advertising Director

Campbell McInnes  
campbellm@ttnews.com.au  
Mob: 0406 223 007

### Accounting, Corporate Director & Subscriptions Manager

Chris Parker  
cparker@ttnews.com.au

### Printer

IVE Group  
Unit 1/83 Derby Street,



**Timber Media**  
AUSTRALASIA

Silverwater, NSW 2128

### Timber Media Australasia Pty Ltd

ABN: 50 626 345 088

PO Box 3001

Maraylya NSW 2765

Email: query@timbertradernews.com

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**COVER CREDIT:** Courtesy Arxada. Inset: Pentarch.

Timber Trader acknowledges the Cammeraygal people, Traditional Custodians of the land on which this publication is produced, and pay our respects to their Elders past and present. We extend that respect to all Aboriginal and Torres Strait Islander peoples today.

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## Publisher's note

Welcome to 2024 and our Jan/Feb new year addition of *TTN*. We would like to take this opportunity to thank all our advertisers and readers for their support and positive feedback in 2023. Last year we saw many challenges for our industry and covered a range of important issues. Looking ahead to this year your *TTN* Team are looking forward to continuing to bring you new and exciting editorial features as well as industry updates, news and of course our regular spots. We are particularly pleased with the positive response we have received on our front cover stories and this year will see the continuation of these features. Front cover features already booked in for this year include, ITI's Design Pine, Multinail, the latest from VueTrade and Meyer Timbers.

In this issue we are pleased to present our front cover feature with Arxada, who has been a long-time supporter of the *Timber Trader News* magazine.

Arxada is an international science-based chemical specialty business that creates innovative chemistry and solutions. The companies aim and motto is for 'Better Science to Solve the World's Toughest Preservation Challenges' and they do this by enhancing sustainability with cleaner, greener solutions.

Arxada focuses on multiple end markets, not only in wood protection but also in fields ranging from nutrition to paints, providing a broad portfolio of different products and solutions, supported by its science and innovation capabilities and track

record in manufacturing and process development. With 3600 staff, 24 production sites and 14 research and development centres around the globe, Arxada works hard to help its customers succeed.

Testing is a core component of its work, on page 20 you can read about recent investigations into how much preservative penetration is required to maintain timber, and the encouraging results.

Decking is one of those beautiful products that most Australian homes have, aspire to or dream of having. With the vast majority of Australian's living on or near the coast coupled with our outdoor living climate, love of sports and BBQs, it draws us to the outdoors and what better way to enjoy the outdoors with family and friends than on a deck in an alfresco entertaining area! In this issue we look at some of the current options available to use and feature some special decking products, see page 24.

One major concern in Australia currently is housing. As the good old quarter acre blocks disappear from our landscape and the house blocks become smaller and smaller the only real option homeowners who are looking to build is to build up. Timber multires dwellings are a cost-effective solution, particularly with the increase in offsite construction which also brings an extra element of safety to the construction process, see our story on page 34.

The Team at *TTN* hope that you enjoy this issue, as much as we have enjoyed putting it together for you. We also bid a fond farewell to Donyale Harrison, our editor of six years, and wish her the very best of luck in her next adventures.

*Campbell Mc Innes and Chris Parker*



## Editor's letter

Six years, nearly to the day, after I started on my first *TTN*, I am finishing my last. It was an unexpected role: the previous editor, Alison Turner, was a friend from a previous magazine and had contacted me a month or two before saying, "I mean this with love, but you're the only writer I know who's a big enough nerd to be into chemistry."

She commissioned me to write a story on treated timber, a topic I knew barely three things about. I must have driven Jack Norton from the TPAA spare that month, but he was too much the professional and too good an advocate for his industry to complain. By the end of that piece, I not only knew a lot more

about treatment, but I was starting to see how complex the timber world really was.

When Al asked if I would be willing to take over the mag, I gave a ready yes, because one thing was immediately obvious even then: the timber industry is one of most practical ways of actively decarbonising our modern way of life without sacrificing quality of life, and that was a message I was happy to get behind.

It was TTIA's Brian Beecroft who early on disabused me of any notion my small-g greenie ways were flying below the radar as editor, telling me: "I like that you're an environmentalist who doesn't wail about cutting down trees." Of course I don't wail: trees grow back! No one who's seen the deep gouges of abandoned mines cut into WA's earth and the verdant regrowth of state forests in NSW and Victoria could possibly prefer the steel industry to timber.

Reassuringly, by then I knew I wasn't alone: almost everyone I have met in this role has prioritised sustainability in the industry. And that's not just lip service: from the sector-wide work of groups including Responsible Wood, FWPA and WoodSolutions to the practical waste-minimising actions of businesses like Programmed Timber Supplies and Australian Panels/Borg, the timber industry is leading the way in showing Australians the real value of wood fibre.

Yes, there is work yet to do when it comes to educating the general public, but as we've seen in recent research commissioned by

Forestry Australia, when people understand the renewable nature of timber forestry – and that is responsible native timber hardwood harvesting as well as plantation timbers – most support the industry.

Some valedictory notes: two of our regular writers predate my tenure on *TTN* and will probably outlast another editor or two. FTMA's Kersten Gentle has not only been a wonderful support and resource, she's been an inspiration with her tireless advocacy for fabricators and her championing of projects such as Carbon Warrior. Paul Davis has taught me more about trusses than I thought I would ever know, and made me laugh while doing it – a feat probably no one else could manage.

Our regular engineering writers, Craig Kay from Tilling and Afzal Laphir and George Dolezal from Meyer Timber, provide a mini masterclass in each issue, as well as deliver deep insights into industry-wide issues that really matter. I'll still be following their columns long after I've stopped tweaking the odd comma in them.

Peter Maguire's passion for ensuring healthy, contented workforces is something that brings me joy – even more because I know he is not alone in this industry – and NTHA's recent workplace safety column is a very welcome addition, as I know it is a major concern for most of our readers.

This time last year I had a moment of worry that I may have outlasted the magazine when the previous publisher, Ian Brooks,



made the hard decision to shutter it after the retirement of Julie McConachy, *TTN*'s long-term and indefatigable ad manager.

The late, great John Halkett wasn't having that and, with Chris Parker (who brings the business focus) and Campbell McInnes (whose contact book and absolute passion for the sector have made him a formidable sales and advertising director), bought the title and refocused it more towards timber as well as trading. John wrote the new Woodwise column for every issue until his untimely passing in October, and his hand is still apparent in the editorial direction of the magazine. Chris and Campbell are a safe set of hands and I know they will continue as they have begun with the new editor – and I'll be writing features now and then to stay in touch.

Beyond the editorial team, I would like to thank some of our regular advertisers and other friends of the magazine as well, both for the depths of knowledge they have shared with me and their support and humour. Magazine editing is not an easy job and more than once I've had to beg a five-hour turnaround from someone in a very busy role – and every time they have graciously helped make that happen.

There are literally too many people to

name, and I am sure to kick myself for someone forgotten, but Michael Kennedy of Kennedy's Timbers, Ed and Shelena Serrano at Vekta, Leon Quinn at Tilling, the entire Meyer and Multinail teams, Daniel Wright at ASH/MASSLAM and Christine Briggs, who has just left AKD, all deserve special mention, as do the Association teams, who have all been wonderful on a personal level as well as sterling advocates for their members (Judith from TTIA hit every single deadline, which was remarkable) and the many experts who have walked me through complex topics, including Boris Iskra, Alastair Woodard and Dr David Bylund – my understanding of timber's abilities under fire and in tall structures is entirely thanks to them.

I cannot thank Julitta Overdijk enough, she has been the best of art directors and I know that she will continue to show everyone to their best advantage in these pages.

I'm stepping off into the unknown, but

hope to keep writing about timber and the timber sector, so with luck we will cross paths again. If you've read this far, I would leave you with two notes.

The first is that we can only end the Timber Wars once and for all through education. The more transparency we show and the more we inform the public, the better they understand the realities of renewable wood products and their benefits for the environment. It's easy to think of the big-G Greens as the enemy, but I prefer to think of them as people who don't yet understand they're waging the wrong battle. They see a fallen tree: we see carbon locked in a house frame for decades and an open patch of forest where we'll plant more trees.

And, finally, always attach two or three good high-res photographs to your stories and press releases.

The very best possible 2024 to all of you,

*Donyale*

**The more transparency we show and the more we inform the public, the better they understand the realities of renewable wood products.**



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## In brief

**C**OP28 was, predictably, a mixed bag of results, but one clear win has been the Australian Government committing to increasing the amount of wood in the built environment by 2030 to provide climate solutions for the building sector.

**Y**ou may have missed the news just before Christmas, but multiple major shipping lines are diverting their ships from the Red Sea after attacks by Houthis rebels in Yemen who say they are targeting ships travelling to Israel as support for Palestinians. This is the route by which ships can reach the Suez Canal from the south: expect significant flow-on effects to start showing soon.

**T**here's a new cop on the beat vibe to the NSW Building Commissioner with the extension of his and the commissions powers on 1 December last year, and those new powers have already caught their first non-complying builders. Commissioner David Chandler visited four randomly selected sites on the first day and found problems at all four, ranging from a lack of consideration for public walkways to significant safety issues on one. Chandler said, "The penny must drop at some point with risky players. The cost of doing it properly, will always be cheaper than stoppages and rework. Building Commission NSW now has a team of over 440." That's a lot of building beat cops!

**V**ictoria has changed its planning laws to allow for secondary dwellings under 60 square metres to be built without a planning permit. It's a win in that state for the traditional granny flat, which is seen as a partial solution to the huge downturn in affordable housing around the country. Applicants will still require a building permit and the buildings must be self contained, with cooking and bathroom facilities. Similar 2009 changes in NSW have made granny flat construction easier and other states are following suit. Tiny Home aficionados hope they'll be next for regulatory support.

**A**n official ban on engineered stone has been announced in Australia from 1 July. Years of medical and union advocacy in response to the high levels of silicosis seen in tradies working with the product has paid off. The ban is a world-first for Australia.



**Above:** Regrowth in pine plantation in early winter after harvesting in south-west Western Australia.

# News in brief

## Federal funding for plantation growth

Grants begin, but experts call for more funding.

**T**he first bequests from the \$73.76 million Support Plantation Establishment program have been handed out. An initial \$3.2 million dispersal will go towards establishing seven plantation forests across New South Wales, Tasmania and Queensland.

The Support Plantation Establishment program will provide grant funding over four years to help establish new long-rotation softwood and hardwood plantation forests. The program will seek to establish up to 36,000 hectares of new plantation across Australia, including in mixed farm forestry and other less traditional areas. This initiative is part of a commitment by the Albanese government in response to industry concerns after the already-low national plantation timber reserve took a significant hit during the Black Summer fires.

Minister for Agriculture, Fisheries and Forestry Murray Watt said the program further emphasises the Albanese Government's commitment to supporting the forestry industry and regional communities, while reducing our carbon footprint.

"The Albanese Government has delivered the most significant forest industry support package in Australia's history, investing over \$300 million to help improve the capacity and capability of the sector," Watt said.

"By stimulating new growth in Australia's plantation forest estate, we are helping meet future demand for timber, increasing our carbon stocks, creating regional employment opportunities, and building a sustainable and prosperous future while meeting our climate emissions reduction commitments."

Shaun Tamplin, who runs a farming operation on the NSW Mid North Coast, is one of the scheme's recipients. He told the ABC ([www.abc.net.au/news/2023-12-15/timber-plantation-grants/103223746](http://www.abc.net.au/news/2023-12-15/timber-plantation-grants/103223746)): "It essentially provides enough funds to get us started with the plantation."

"It's fantastic, we really appreciate it."

Tamplin had already diversified his business, by dedicating 161 hectares of cleared land on his Bunyah property for grazing. He plans to allocate the parts of his land not suitable for grazing to the timber plantations: studies have shown that trees can be highly useful to stock farmers, both as shelter to protect animals in inclement weather and as a way of raising water tables to improve pastures and limiting erosion.

Tamplin told the ABC it was important for Australia to increase the plantation estate to reduce industry reliance on less-sustainable products from overseas. "We have much stricter environmental controls here than in places such as Southeast Asia and, as a result, environmentally Australian timber is of much higher value," he said.

World Wide Fund for Nature Australia conservation scientist Stuart Blanch also told the ABC that while \$70 million to expand Australia's plantation estate was "a good start", it did not go far enough.

"That \$70 million investment, probably needs to be \$700 million," he said.

"Particularly if the federal and state governments want to expand hardwood plantations by buying cleared farm country."

Dr Blanch said more funding was needed to support the industry during its transition.





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**Above:** John Pizzezy (left) had guided Porta's growth since 1979, building today's strong team.

## Remembering John Pizzezy

The family and team at Porta pay tribute to the late John Pizzezy and describe how his visionary legacy will shape the decorative timber specialist's future, maintaining his sustainable goals.

In the midst of Australia's rich timber heritage, we take a moment to honour and reflect on the enduring legacy of a true visionary, John Pizzezy. His passing on 26 October, 2023, signifies not only the loss of our esteemed managing director and owner but also marks a pivotal moment in the history of Porta, a fifth-generation family company deeply intertwined with Australia's timber industry legacy. This tribute, filled with deep respect and affection, comes from his wife Helen, his children Claire, Olivia, and Thomas, and the entire Porta community.

John's remarkable 40-year tenure at Porta was a period of profound transformation and growth. His visionary leadership catapulted Porta to become one of Australia's premier suppliers of decorative timber products, blending innovation with a commitment to quality and excellence.

John's dedication to tradition and environmental stewardship has been pivotal in shaping our company. He meticulously oversaw the production and distribution of our diverse range of timber products, sourced from both local and imported certified species. His belief in timber sustainability was unwavering, always prioritising certified timber sources.

During challenging market shifts, it was John's comprehensive understanding of timber, particularly Tasmanian Oak, that guided Porta through adversity. His passion for timber and its potential transformed our approach to timber merchandising and established Porta's unrivalled presence in the industry.

### NEXT STEPS FOR PORTA

We are delighted to announce Mark Bejatovic as Porta's newly appointed CEO, a decision met with enthusiastic approval from both John Pizzezy before his passing and the board members. John's insightful foresight and the board's collective confidence in Mark's leadership capabilities underscore this choice. Mark embodies John's visionary values and leadership philosophy, aligning closely with Porta's core principles. His unique strengths, coupled with the strong foundation laid

by John, position him perfectly to lead Porta into a future of innovation, growth, and progress. This appointment marks a pivotal step in ensuring Porta's continued success and dynamic evolution in the timber industry.

In this new chapter, with Mark, and John's family guiding us, we at Porta are thrilled to introduce a range of cutting-edge products. At the forefront is our Porta Contours Tasmanian Oak in Featured Grade, a product that truly exemplifies our dedication to quality and sustainability. This variety of timber grade is crafted from sustainably sourced and PEFC-certified Tasmanian Oak, reflecting our dedication to responsible and eco-friendly practices.

We are also proud to announce the launch of Portaline, our latest addition to the Porta Lining Board products. These 12mm thick boards are not just a testament to our innovative spirit but are also designed for simple installation and an impressive finish. Portaline is specifically crafted to cater to the modern DIY enthusiast, ensuring that the individual's spaces are not just styled but personalised.

At Porta, we believe in more than just producing timber products; we aim to transform timber into elegant, environmentally responsible design solutions. The unique profiles and adaptability of our products invite you to reimagine your spaces, infusing them with the natural beauty and warmth of timber. We have more exciting products lined up to unveil in the coming months. These launches are not just additions to our product range; they are a continuation of the forward-thinking and environmentally responsible legacy that John Pizzezy so passionately built.

Our growth and the positive reception of our products in the market are testaments to our enduring commitment to excellence. The trust our customers placed in us, nurtured over generations, transcends mere acknowledgment of our past successes; it lays the groundwork for our future endeavours. These subtle yet impactful signs highlight Porta's esteemed position as a market leader in the Australian timber industry, showcasing a legacy steeped in excellence and a horizon rich with possibilities.

As we forge ahead, the indomitable spirit and visionary values that John Pizzezy instilled in Porta continue to inspire us. We are steadfast in our commitment to uphold the high standards and pioneering values he championed. Together, we pledge to honour and build upon the legacy and future of Porta, a company that is not only a significant part of Australia's timber industry but also a symbol of a sustainable and innovative future.

**For more, visit [www.porta.com.au](http://www.porta.com.au)**



**Above:** This photo of a 3AW outside broadcast van by David Holmes shows the Porta headquarters on Heidelberg Rd Northcote in the late 1950s/early 60s.



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## New market index

FWPA and AFPA launch the Timber Market Index to track price movements of Australian softwood products.

There were celebrations at FWPA late last year as the team launched a new product, the Timber Market Index (TMI).

Published quarterly, the data used to calculate the TMI is collected anonymously to ensure data security and accuracy. It's created using volume and price information provided by a range of Australian softwood processors and calculates an index that is representative of price movements for different categories of softwood products, for example structural, and provides an index representing price movements on different categories of sawn softwood products.

The TMI has been developed with strong support from industry and is a collaboration between FWPA and the Australian Forest Products Association (AFPA). In 2017, AFPA commissioned a Timber Market Index report, which reviewed the opportunity to establish a new and best-practice approach to an index.



**Above:** The FWPA team at the TMI launch: (from left) Jodie Mason, Janette Newport, Sarah Downey, Kevin Peachey, Andrew Leighton, Emmy Petersson and Erick Hansnata.

"The Timber Market Index is a powerful new tool in tracking industry price movements and trends over time," said Kevin Peachey, Head of Built Environment Programs at FWPA.

"It's exciting to see this great initiative launched and to be able to support our industry with increased transparency and confidence in tracking industry trends" Peachey continued.

"The development of the Timber Market Index is a great example of collaboration and

will help support industry analysis as well as business planning" said Andrew Leighton, CEO of FWPA.

The TMI is independently audited by consultants to ensure that all inputs are correct, providing assurance for all parties. The index may be used by the industry and its consultants to help track price movements.

**Find the TMI at <https://fwpa.com.au/resources/timber-market-index/movements-of-australian-softwood-products/>**

PHOTO: COURTESY FWPA

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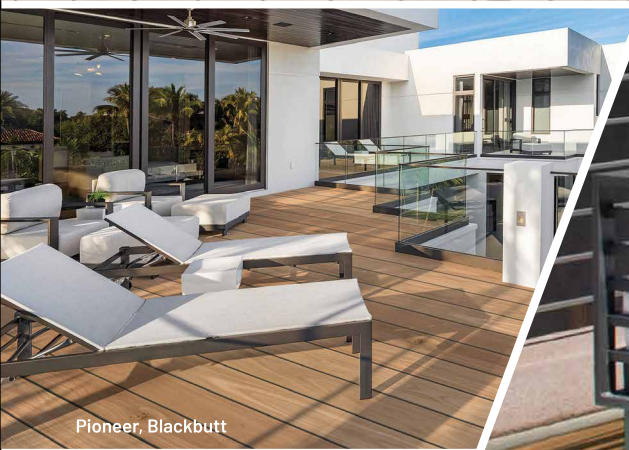
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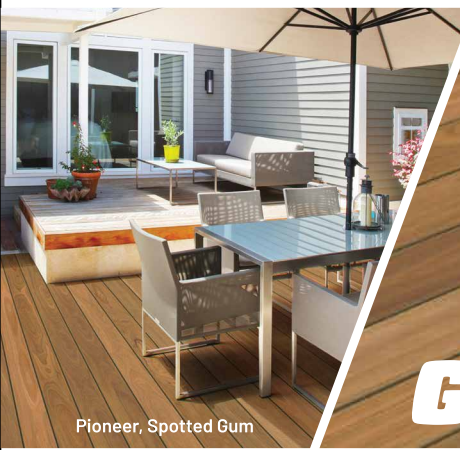
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**Above:** Tully Kendall, winner of Furnishing Trades and Outstanding Apprentice of the Year.

## Queensland TAFE top apprentices

The 14 Apprentices of the Year stand out in their fields.

The 2023 TAFE Queensland – SkillsTech CSQ Apprentice Awards held at Howard Smith Wharves in Brisbane City celebrated apprentice excellence. Fourteen hardworking and high-achieving apprentices were crowned Apprentice of the Year (AotY) in each of their respective trade categories, with one declared as the best overall and awarded the CSQ Outstanding Apprentice of the Year award.

Now in their sixth year, the Apprentice Awards celebrate the high-achieving apprentices who will advance the future of their trades in Queensland and Australia. The 14 trade categories range from carpentry to light automotive, with five building and construction categories, plus the CSQ Outstanding Apprentice of the Year for the overall highest-ranked apprentice.

The TradeTools Carpentry AotY was tightly contested and eventually won by Remo Italia, a second year apprentice completing his training between the TAFE Queensland Acacia Ridge and Bracken Ridge campuses.

In his nomination, Mr Italia's employer at Italia Projects spoke of his professionalism and dedication to learning, citing times when during holidays he looked to further his skills and attended additional training, utilising a 'drop-in days' training mode at TAFE Queensland's Bracken Ridge campus.

Italia felt he had always been destined for a career in carpentry and hopes to further his qualification and become a builder.

"I have had a keen interest in building and construction for as long as I can remember. Ever since I was a child I have always been creating and building structures out of timber, sticks, cardboard, Lego, or anything

that I could get my hands on," Italia said.

Bunnings Trade Kaboodle Furnishing Trades AotY was taken out by 17-year-old, second-year joinery apprentice Tully Kendall who was nominated by her employer, RWD Joinery company director Leonie Wilson. In her nomination, Wilson said Tully's commitment to learning and natural problem-solving abilities were second to

none as was her quickness to learn, with Kendall already doing advanced work.

Kendall said following her completion of TAFE Queensland's Trade Taster program in Grade 10 she had her sights firmly set on an apprenticeship, and that she was immensely happy she had taken on the challenge so early in her life. "I hope to use my youth to my advantage and constantly continue to build more skills and learn as much as possible wherever I can," Kendall said.

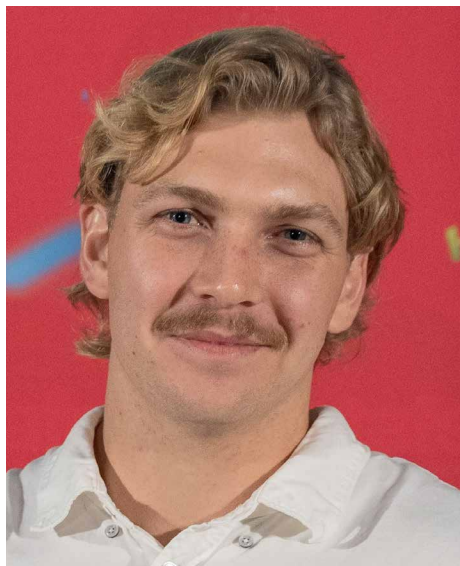
The Cbus Super Construction AotY winner was Lachlan Vine, a plastering apprentice from Superior Walls & Ceilings. Vine is completing a Bachelor of Construction Management (Honours) at Griffith University at the same time as his trade qualification and using real world experience and interviews with fellow workers to influence his Honours thesis.

"I felt compelled to seek an apprenticeship to complement my university studies in order to acquire a holistic understanding of construction when I reached the halfway mark," Mr Vine said.

The final award of the night was the CSQ Outstanding Apprentice of the Year, given to the overall highest ranked apprentice of the event. Finalists in this category included all winners of individual trade categories and Tully Kendall was the worthy winner.

**For more information about trade training visit [tafeqld.edu.au](http://tafeqld.edu.au)**

"I have had a keen interest in building and construction for as long as I can remember. Since I was a child I have always been building structures."



**Above:** Lachlan Vine, Construction AotY (left) and Remo Italia, Carpentry AotY.

PHOTOS: PAUL A. BROBEN





## UPCOMING EVENTS

### JANUARY

#### WOODSOLUTIONS WEBINAR

The first webinar for 2024 in the ongoing WoodSolutions series is titled The Role of Forests and Wood Products in Building a Zero Carbon Future and focuses on the three new Carbon Guides released by Forest & Wood Products Australia and WoodSolutions as well as details coming out of COP28. Dr Fabiano Ximenes, senior research scientist with the NSW Dept. of Primary Industries, and Stephen Mitchell, principal consultant at Thinkstep-anz, are the expert speakers. Free to join online, 23

January at 11am. Visit [www.woodsolutions.com.au/events/woodsolutions-webinar-role-forests-and-wood-products-building-zero-carbon-future](http://www.woodsolutions.com.au/events/woodsolutions-webinar-role-forests-and-wood-products-building-zero-carbon-future)

### MARCH

#### FTMA NATIONAL CONFERENCE

For the first time in 10 years the nation's fabricators will be descending on Victoria for this biannual event. A true must-see event for

FTMA members, the conference not only brings together experts to inform, educate and inspire, but also provides unmissable networking opportunities and a chance to relax at the Red Activities Day and dinner. Built around the theme Looking Outside the Triangle, the conference will be held in Geelong on 18–19 March. **For more information and to book, visit [www.conference.ftmanews.com](http://www.conference.ftmanews.com)**

### MAY

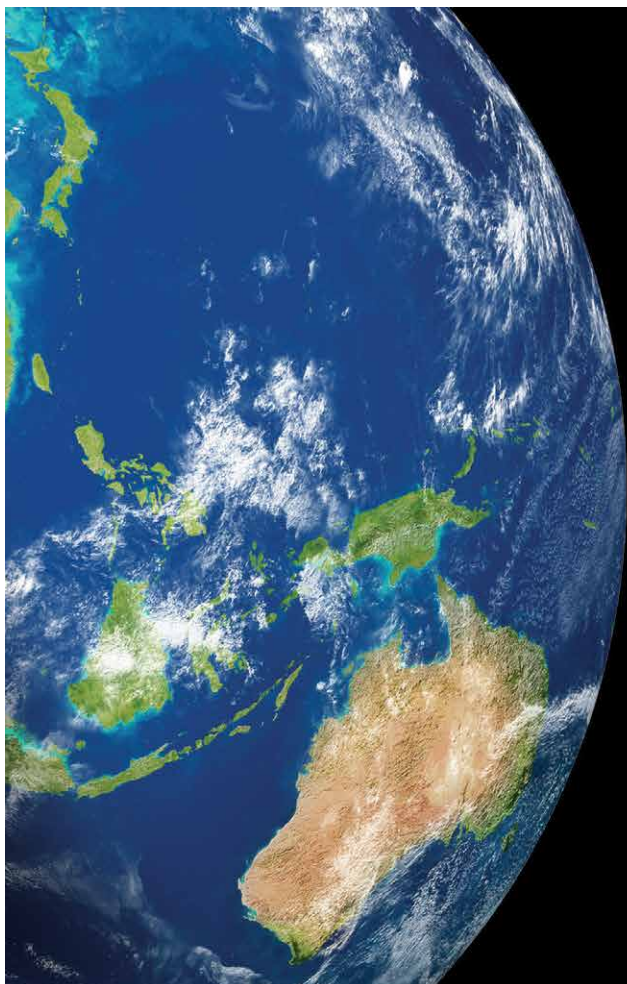
#### SYDNEY BUILD EXPO

Australia's largest construction and design show features 20,000+ attendees, 600+ speakers across 12 CPD stages, 500+ exhibitors, Meet the Buyers, Government Hub, Architect's Hub, live music, entertainment, DJs, celebrity guests and more. Best of all, general entry tickets are free. At the ICC Sydney, 1–2 May. **For full details of the program and speakers and to book, visit [www.sydneybuildexpo.com](http://www.sydneybuildexpo.com)**

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# Why relationships matter

Genuinely making people a focus in your business builds immediate benefits. **By Peter Maguire**

There are lots of organisations around who say: “people are our greatest asset” but, when we have a good look inside them, we sometimes struggle to see how that tenet is actually being lived in practice.

It isn't unusual to find that organisations can invest a lot in policies, procedures, surveys and metrics, and individual development and performance management and still not get the cultural and performance outcomes they are looking for.

As much as all of that investment in systems, processes, data and resources is important, we're also dealing with human beings and, to a significant degree, the return on those investments is dependent on people's ability and engagement to utilise those resources and to collaborate with each other.

Yet it is rare that we find that relationships feature significantly, if at all, in performance or development management processes.

If people really are your greatest asset, why is that?

## THE SIMPLE REALITY

In any job that I do, there will be people whom I rely on for certain inputs that I need to do my job and there will be other people who rely on me to deliver certain outputs so they can do their jobs.

Anyone who has implemented lean quality systems understands process mapping and internal customer/supplier relationships and how important they are for getting work

processes right with minimal waste and optimal efficiency.

But those relationships are between human beings, ie the people or teams who are those customers and suppliers.

How effective are you in assuring that the people in those process chains understand their interdependencies, have the training and resources (including time) to play their part and are supportively held accountable for doing that?

## WHEN PEOPLE ARRIVE

Whether you call it induction or onboarding or orientation or some other name, that new experience when someone joins your organisation has a profound impact on how quickly the new starter settles in and becomes productive and what they think about the culture of their new workplace and whether they will be happy there.

Typically, what we see in this entry program is a lot of stuff around rules and administration and compliance and the physical workplace and work processes/ systems and sometimes some stuff around desired organisation culture, values, vision, mission, etc.

There might be someone appointed as a buddy, but we don't often see anything really constructive in key relationships, ie the people this person is going to rely on for stuff and the people who this person is going to rely on to do their stuff.

Given what we have already said about the importance of people, wouldn't it make sense to help the new starter to understand these key relationships and interdependencies as soon as possible?

We recommend including meetings with each of the people that the new starter is going to have a key relationship with and asking that person to answer three questions for the new starter:

- What is their role?
- What do they rely on the new starter for?
- What does the new starter rely on them for?

Just spending a little time up front on properly inducting a new starter into their key relationships can make such a positive difference to them and their development and those relationships – and, of course, on their performance and the realisation of return on investment.

## WHY PEOPLE LEAVE

There is a mountain of research out there about why people leave organisations. Gallup says people leave managers, Culture Amp says that may be the case sometimes, but it is more about leadership and development opportunities. Others says that money and recognition are key issues.

I think that, in the main, people leave problematic relationships just as happens in other elements of life. That might be that I don't think that my manager appreciates or



supports me or it might be that I don't see positive leadership that I respect and want to follow. It might be that I have outgrown the organisation and it isn't able to provide me with the meaning that I need from work or to meet my personal growth needs. Or it could be that there is one or more internal relationships that are negatively affecting me.

There is a lot that we can influence in all of that by investing in relationships with our people and having open and regular conversations with them so that we become aware of how they are feeling and can act to address any issues for them.

Of course, there are occasions when someone just gets an offer that you can't match and they think it is too good to refuse, or they leave for other reasons such as to start a family or their own business or some other personal endeavour or to retire.

If the relationship is sound, those people will be advocates for you as an employer. Additionally, sometimes people find that 'the grass isn't greener' and 'money isn't everything' and they might just come back if you leave the door open.

There have been a couple of times in my career when, on announcing my resignation, my boss responded: "Why are you leaving?"

We had big plans for you!" Of course, I didn't know of those plans because they hadn't told me about them, ie they had not invested in the relationship with me.

Don't let that happen with your people.

### THE NEW POSITIVE DUTY REGIME

This year we are seeing the introduction of positive duties to eliminate or control psychosocial hazards and, guess what... a lot of those psychosocial hazards are related to the quality of relationships.

Four of the hazards in the legislation are pretty obvious – "violent and aggressive behaviour", "bullying", "harassment including sexual harassment" and "conflict and poor workplace relationships and interactions".

However, if you explore a number of the other psychosocial hazards, you will find that

relationships have a lot to do with the risks associated with the particular hazard – for example, relationships between management and workers or between workers in the same or different businesses or between a company, its people and its customers to name a few.

So, a key part of meeting the new positive duty is to assess relationship risk and put in place appropriate control measures.

Of course, engaging your people in that conversation and building positive relationships is actually part of that process and the solution.

Investing in relationships is important because relationships matter – to staff engagement and wellbeing, to staff retention, to productivity and for legal compliance.

So why wouldn't you do that? **T**

**Peter Maguire** is the owner and practice leader of Ridgeline HR, an award winning HRM consulting practice which he founded in 2000. Peter is an acknowledged expert in workplace relations compliance and also a high-performance leadership coach with over 40 years' experience in HRM. Ridgeline HR's byline is Helping PEOPLE in BUSINESS and that is essentially what Peter does – help business people with their people business.



## TimberTrader<sub>news</sub>

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**AUSTRALIA'S MOST RELEVANT AND INSIGHTFUL TIMBER INDUSTRY MAGAZINE**



# Association news



2023 saw significant change and activity in the timber importing space and at ATIF.

ATIF first and foremost extends its gratitude to members for their continued support and participation in the activities of ATIF over the past year.

As the dynamic landscape of the timber importing industry continues to evolve, ATIF is committed to maintaining active and robust advocacy on behalf of the industry that amplifies the collective voice of members and addresses their ongoing needs and concerns.

ATIF reaffirms its commitment to fostering a resilient and thriving timber sector for 2024.

## ATIF'S ANNUAL GENERAL MEETING IN SUMMARY

ATIF hosted its AGM, which saw its largest attendance to date. The AGM was held with hybrid attendance in person, with thanks to Stora Enso Timber for hosting the in-person component at their Derrimut location, and online participation facilitated via Teams.

In brief summary, the ATIF constitution has been amended to formally permit members to join from other states.

## 2024 COMMITTEE OF MANAGEMENT

ATIF is excited to announce its new Committee of Management for the 2024 year:

- Robert Cairns, Independent
- Jacinta Colley of Vidawood (Chairman)
- Simon Evans of Forest One
- David Meyer of Meyer Timber (Deputy Chairman)
- Leon Quinn of Tilling Group
- Germano Tomassetti of ITI (Aust) Group
- Darrin Wheeler of Stora Enso Timber
- Chris Woodhouse of Woodhouse Timber

In addition to the Committee of Management, the position of Public Officer and Secretary has also been confirmed as

Natalie Reynolds, the Interim General Manager for ATIF.

ATIF thanks all nominees for their interest in joining the Committee and would also like to thank and acknowledge Glyn Davies for his participation as a member of the Committee since joining in 2017.

## ACTIVITIES AND ADVOCACY IN 2024

As established at the AGM, in the coming year, ATIF wishes to prioritise and seize the unique opportunity presented by the sunset of the Illegal Logging Prohibition Regulation 2012 (Cth) and the oncoming amendment of this legislative framework. ATIF sees this as a prime and rare opportunity to advocate for significant changes to be made to the legislation in the interest of promoting fairness and practicality in the requirements of the regulation, balanced against its intended purpose, that being to take action against illegal logging.



## WOOD PRODUCTS ROLE IN REDUCING EMISSIONS RECOGNISED AT COP28

We know wood is a renewable biological resource that can be manufactured into a range of essential products, including many innovative engineered wood products, such as sawn timber, plywood, particleboard, fibreboard, laminated veneer lumber (LVL), cross laminated timber (CLT), glue laminated timber (glulam/GLT) and many new hybrid products. We also appreciate that timber products can reduce emissions and waste, store carbon, provide skilled jobs, and build the types of new homes and businesses needed in Australia's low emissions future.

It's clear that wood should be the preferred building material in a low emissions and circular economy and that can also provide many social, environmental and economic benefits.

In a very promising initiative at December's United Nations climate change conference (COP28) in Dubai, a coalition of 17 countries (including Australia), endorsed the following important statement: "Recognising that wood from sustainably managed forests provides climate solutions within the construction sector, we commit to, by 2030, advancing policies and approaches that support low carbon construction and increase the use of wood from sustainably managed forests in the built environment. Such policies and approaches will result in reduced GHG emissions, and an increase in stored carbon."

This is a positive step forward and we urge all levels of Australian government to fully embrace the use of more renewable wood product solutions in the built environment to reduce emissions and store carbon long-term.

We appreciate the existing range of supportive programs and policy measures, including \$100 million for a new R&D body called Australian Forest and Wood Innovations (AFWI), a \$300 million Timber Building Program via the Clean Energy Finance Corporation (CEFC) to drive green buildings using low emission engineered timber construction, an \$86 million New Timber Plantations Grants Program to



**Above:** Delegates at COP28 endorsed the support of timber products in construction as an important part of achieving a sustainable future.

PHOTO: COURTESY AFPA





**Above:** Joel Fitzgibbon (front left) of the Australian Forest Products Association was one of the delegates at COP28, here signing a Memorandum of Understanding with the President of the International Forestry Students' Association (IFSA) Isabelle Claire Dela Paz (centre front) between the IFSA and AFPA.

support the establishment of new plantations for future wood supply and a \$113 million Accelerate Adoption of Wood Processing Innovation Program to co-invest with wood processors for new and upgraded wood processing facilities etc.

Industry is coming to the party by investing in new capacity and new products, such as increasing the domestic capacity of sawn timber, structural flooring, and reconstituted board products, new CLT and GLT facilities, and innovative hybrid products made from recycled plastic and woody residues to name a few. Circular economy and precision manufacturing initiatives are increasing momentum. Builders, specifiers, fabricators, and consumers are rightfully asking for more information, including the sustainability, environmental and certified quality

credentials of the products that they use to build the structures we live and work in. These important attributes are being demonstrated by forest management, chain of custody, and product certification, with many Australasian timber processing operations audited by a third-party wood products quality assurance body, such as the EWPAA.

2023 has flown by and gone. I hope that everyone in our renewable timber industry has had a very Merry Christmas and a Happy New Year. Last year was a big and busy year for our sector, full of change, challenges and opportunities, and 2024 will only be better. Stay safe and I hope you all have had or are having a relaxing break.

Gavin Matthew  
CEO

We urge all levels of Australian government to fully embrace the use of more renewable wood product solutions.



### NEWLY ELECTED BOARD OF DIRECTORS FOR 2023/2024

Following the successful merger between TABMA Australia and Hardware Australia in March of last year, the National Timber and Hardware Association (NTHA) is pleased to announce the results of its inaugural Annual General Meeting (AGM) held on Monday, 20 November 2023.

At the AGM, the following esteemed Members were elected as Directors to lead the Association in the coming year:

#### Merchant/Fabricators Positions

- Chris Lavis, Lavis Mitre 10
- Julie Murphy, Murphys Mitre 10
- Danny Gattone, Swadlings Timber & Hardware
- Lyndon Poirrier, Williams Group Australia
- Paul Stewart, Barrow & Bench Mitre 10
- Gary Walker, Belmont Timber Co
- Clint Spence, Beaudesert Mitre 10
- William Abi-Arrage, George's Building Supplies
- Michael Gaske, Ozline Timbers

#### Non-Merchant/Fabricator Positions

- Glenn Tilling, Tilling Timber
- Peter Hutchison, MiTek Australia
- Michael Shadbolt, ITI (Aust)
- Greg Downie, Central Purchasing Services

In the subsequent Board meeting, the Directors elected the following office bearers:

**Chairman:** Peter Hutchison

**Vice Chairman:** Paul Stewart

**Vice Chairman:** Glenn Tilling

Expressing his gratitude and enthusiasm, newly elected Chairman Peter Hutchison said, "I am honoured and privileged to be >>





Above: NTHA Chairman, Peter Hutchison.

**Most modern awards provide for a minimum payment for work on a public holiday.**

the elected Chairman of the National Timber and Hardware Association (NTHA). Along with Vice Chairs Paul Stewart and Glenn Tilling, I look forward to continuing the work NTHA is doing to ensure a thriving and sustainable industry, together with providing exceptional services for our members."

The NTHA Board and staff extend their sincere thanks to outgoing Director Brad Campbell for his commitment, insights, and passion for the industry. They look forward to continuing to work with Brad as a valued member.

Chief Executive Officer David Little added: "With this dynamic and experienced Board of Directors, we are confident in our ability to drive positive change and innovation. Combined, they are a truly representative board, bringing skills and experiences from all areas of our Membership."

**For more information on NTHA and its activities, visit [www.ntha.com.au](http://www.ntha.com.au)**



**Timber Trade  
Industrial Association**

### **PUBLIC HOLIDAYS: WHAT IS DOUBLE TIME AND A HALF?**

Readers are reminded that Australia Day falls on Friday 26 January 2024.

How do you calculate penalty rates for an employee who worked on a public holiday? Read more on penalty rates and public holidays below.

The use of the term "double time and a half" in connection with work performed on a

public holiday means that an employee receives the ordinary rate of pay for the day and, in addition, time and a half for all time worked on the holiday.

That is, the employee receives a total of double time and a half for time worked on a public holiday – NOT double time and a half in addition to their ordinary pay for the holiday.

### **DO YOU GET DOUBLE TIME AND A HALF ON PUBLIC HOLIDAYS?**

For example, a full-time employee covered by the Timber Industry Award 2020. The employee is called into work for four hours on a public holiday to deal with an emergency. They would receive payment of 7.6 hours pay for the day at ordinary rates, plus four hours in addition at time-and-a-half.

This in effect is the same as double time and a half rates for the four hours worked plus 3.6 hours pay at ordinary rates, being the balance of one full day's normal hours, which the employee was not required to work, but for which he or she is entitled to be paid.

Most modern awards provide for a minimum payment when an employee is required to work on a public holiday. For example, the timber award prescribes a minimum payment of three hours of work at double time and a half. A casual employee would receive an additional 25% based on the ordinary hourly rate.

### **BASE RATE OF PAY**

An employee is entitled to be paid at their base rate of pay when a holiday falls on a day the employee normally works. Under the Fair Work Act (s12), 'base rate of pay' means the rate of pay payable to an employee for their ordinary hours of work, but **NOT** including the following:

- incentive-based payments and bonuses
- monetary allowances
- overtime or public holiday penalty rates, and
- any other separately identifiable amounts.

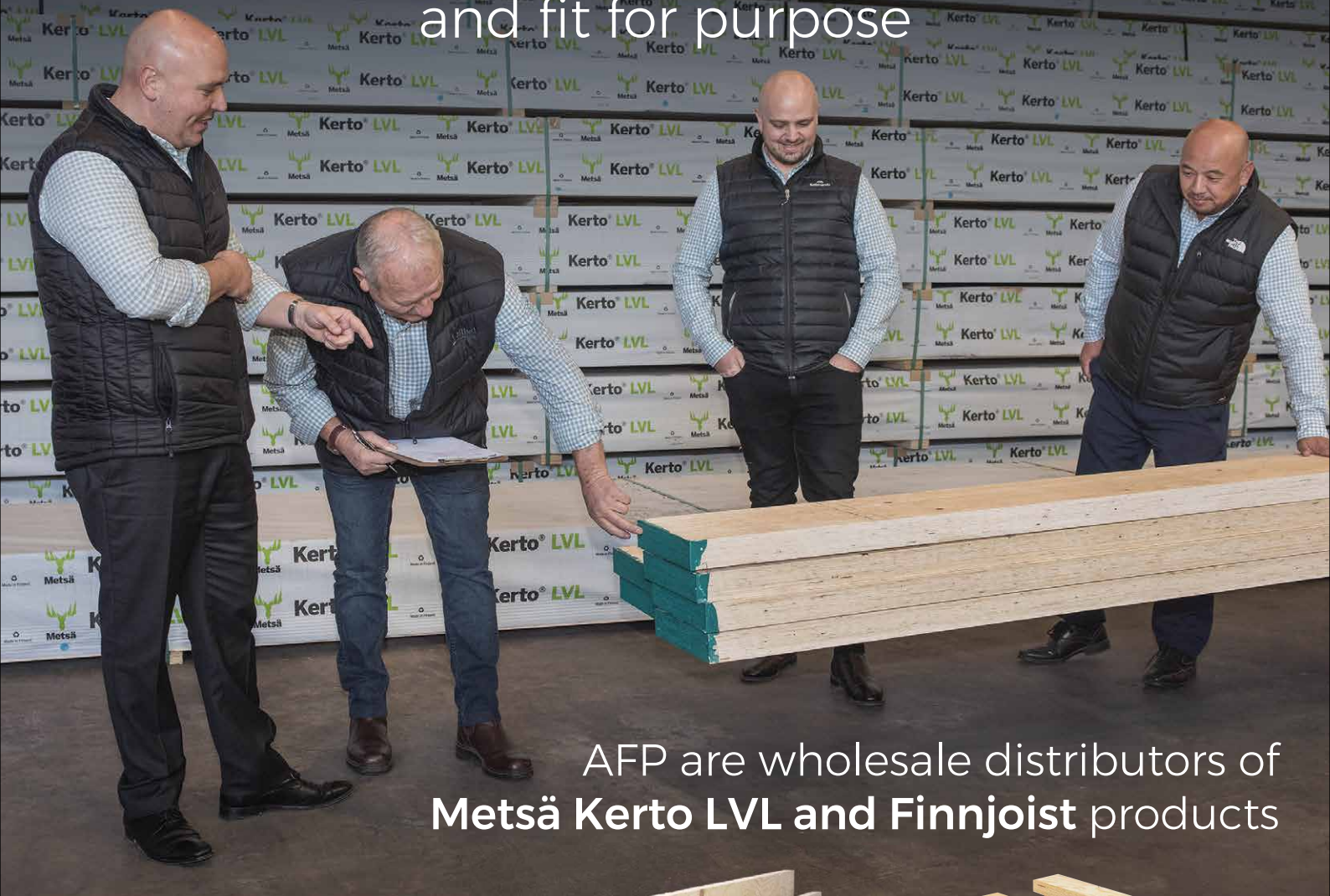
The base rate of pay under the National Employment Standards applies to all national system employees unless a more beneficial entitlement is prescribed by the applicable modern award, enterprise agreement, or individual contract of employment.

**The TTIA Timber Hotline operates nationally on unlimited calls. Contact (02) 9264 0011 or email [ttia@ttia.asn.au](mailto:ttia@ttia.asn.au) if you are not already a Member and are interested in learning more.**

*Brian Beecroft  
Chief Executive Officer*



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# Timber treatment: what is needed for performance?

The standards rightly assume a preservative can only work where it's detectable in timber, but at what level has long been the question. New research from Arxada provides clearer answers.

**T**imber treatment quality is, in general terms, dependent upon the overall retention of a preservative and how the preservative is distributed throughout the cross-section of the treated article in question, i.e. the penetration of the preservative.

When considering these two fundamental aspects of treatment quality, penetration is the most subjective. The determination of actual retention is relatively straightforward, assuming that an analytical method exists for the analysis of the preservative active ingredient/s in question.

Traditionally, the penetration of preservatives has been assessed visually, either through being able to distinguish treated from untreated areas, as in the case of creosote, or through the use of a

penetration spot test, whereby a reagent reacts with one of the preservative components to elicit a colour change. These methods are used extensively on account of their simplicity and convenience and are standardised in many countries.

With the introduction of metal-free preservative systems, particularly active ingredients such as the triazole fungicides and synthetic pyrethroid insecticides for which spot test reagents have proven elusive, a common approach has been to include a surrogate or penetration indicator in the treating solution. A penetration tracer is a non-diffusible substance that penetrates the timber in a similar way to that of the active ingredient/s, but for which a spot test exists, enabling a visual assessment to be

made of the penetration and distribution of the actives in the wood tissues.

Since the introduction of the tebuconazole, propiconazole and permethrin combination for light organic solvent preservatives (LOSP) into the Australian and New Zealand markets in 2005, copper- and zinc-naphthenates or -octanoates have commonly been used as penetration tracers. These penetration tracers react with a spot test reagent such as 1-(2-pyridylazo)-2-naphthol (PAN) to give rise to a magenta or red colouration, as shown in Figure 1 (opposite page, at top). For a given concentration of active ingredient and metal penetration tracer, the ratio of the two found in the various treated zones of the treated article is broadly similar. Importantly, the metal tracers do not overstate azole/pyrethroid penetration, nor do they diffuse with changes in the moisture content of the treated timber.

In the last five years there have been significant changes in AS/NZS 1604.1: 2021 with respect to the requirements around penetration spot testing compliance. Formerly, it was sufficient to demonstrate 'evidence' of penetration in those zones required to be treated. This was largely changed to a requirement to demonstrate 'continuous' penetration of those zones required to be treated.

This requirement, and what actually constitutes 'continuous penetration', has been the source of significant debate within the timber treatment industry and in particular with respect to so-called low-uptake preservative treatments e.g., non-full-cell azole/pyrethroid systems. The latter can result in gradients through the cross-section of treated timber elements, and consequently can result in 'ambiguous' spot testing results, whereby the apparent presence of tracer in central regions of the cross-section can appear patchy and/or of lower intensity. Some examples of the latter are shown in Figure 2 (opposite page, top, second set).

In response to these uncertainties around penetration spot test interpretation, Arxada undertook a study to clarify what constitutes an acceptable spot test result for low-uptake treated timber in terms of penetration



**Above:** Expert staff at Arxada's Technical Centre examined 720 timber billets exposed to rot and termites.



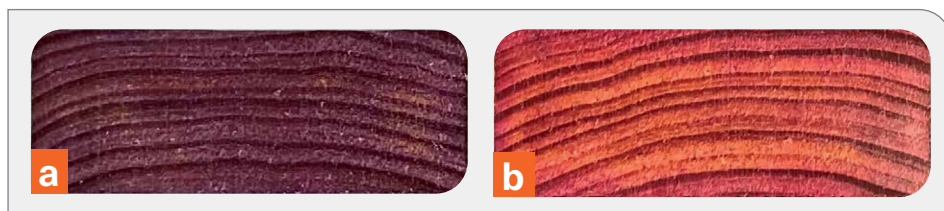


Figure 1: Examples of fully penetrated timber elements from spot testing.

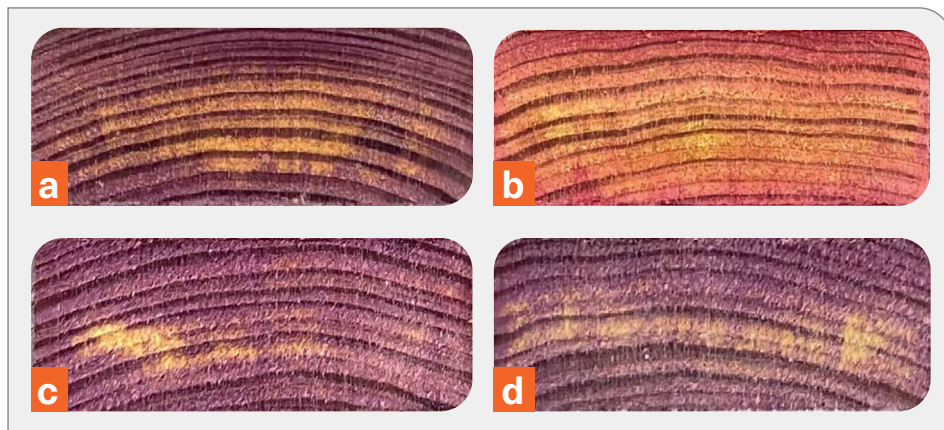


Figure 2: Examples of 'ambiguous' spot test results.

compliance and, equally importantly, in terms of satisfactory performance against key biodeteriogens, i.e. wood-destroying decay fungi and subterranean termites.

### TESTING TIMBER AGAINST FUNGAL AND TERMITE ATTACK

The study involved deliberately creating a range of different penetration gradients in commodity sized softwood test specimens (90 x 35mm), characterising those gradients by chemical analysis of active retentions (both full cross-section and inner/central 1/9th) and penetration spot testing (see Figure 3, right), and then exposing wafers taken from the cross-section to wood-destroying decay fungi in the laboratory and subterranean termites in the field.

In effect, the approach enabled the biodeteriogens to map the distribution of the active ingredients in the cross-section and to determine whether there were adequate levels of preservative actives to provide protection against significant degradation.

In total some 720 timber billets were treated with low odour (LO) Vacsol® Azure preservative (containing the actives propiconazole, tebuconazole and permethrin). Wafers were exposed in the laboratory to five brown rotting fungi (*Rhodonía placenta*, *Gloeophyllum abietinum*, *Coniophora olivacea*, *Rhodofomitopsis lilacinogilva* (syn *Fomitopsis lilacinogilva*) and *Antrodia xantha*) for 12 weeks (see Figure 4, page 22, top image set).

The fungi used in the study were selected from those specified in the Australasian Wood Preservation Committee (AWPC) Protocols for Assessment of Wood

Preservatives (2015). Wafers were also exposed in the field for six months against the two most economically important subterranean termite species in Australia, namely *Coptotermes acinaciformis* and *Mastotermes darwiniensis*, the giant northern termite (see Figure 5, page 22, middle image set).

The study is acknowledged as representing severe exposure, in that in practice the cross-section of a length of treated timber is typically only ever exposed though its cut ends. However, in some instances the insertion of metal fasteners into timber elements, for example, as well as the checking that is particularly prevalent in permeable softwood species, can both lead

### At a glance

- The efficacy of timber treatment relies on the treatment being retained in the timber *and* on the preservative penetrating the timber.
- Preservative penetration is more difficult to test accurately with some modern treatment options.
- Arxada has conducted laboratory and real-world testing to determine the efficacy of its preservatives against rot and insect attack.
- The results show that a core retention of  $\geq 0.02\%$  m/m (mass of active ingredient/mass of treated oven-dry wood) total azoles and  $\geq 0.007\%$  m/m permethrin, in conjunction with meeting the standard, should provide satisfactory performance.
- Not overusing preservatives has benefits for the timber industry's environmental footprint, as well as saving costs.

to exposure of the inner sections of the treated timber in question to moisture ingress and wood-destroying biodeteriogens.

The study was co-ordinated in its entirety at Arxada's Technical Centre in Melbourne. Here, the five-person team with capabilities and experience in the areas of formulation science, analytical chemistry, laboratory and field efficacy evaluations, ancillary properties of treated timber, as well as treatment processes, has over 130 years of combined experience in wood protection, wood science and related disciplines. The Centre is fully equipped to enable end-to-end »

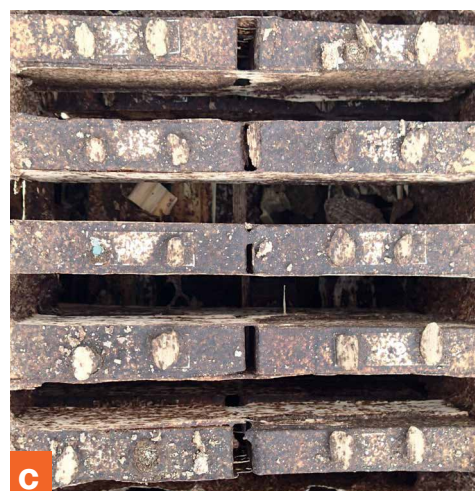


Figure 3: Example of spot tested billets with a range of preservative uptakes and gradients.





**Figure 4.** Wafers exposed to decay fungi in the laboratory: a) set-up, b) after 12 weeks' exposure.



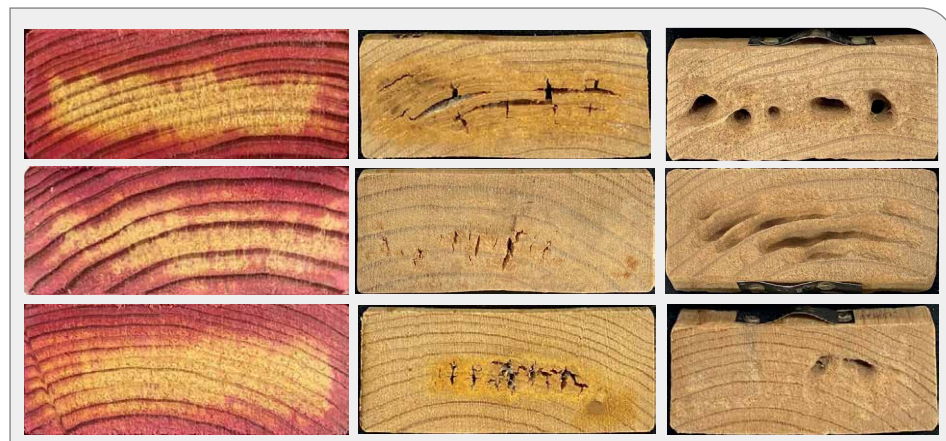
**Figure 5:** Exposure of wafers against *Coptotermes acinaciformis*: a) wafer/baitwood assembly in exposure container, b) exposure container installed in the field, c) wafers after take-down of the field trial.

development of new wood preservatives for both solid wood and engineered wood products, and is one of Arxada's three global Research Centres devoted to wood protection.

The results of the study demonstrated that significant attack by fungi and termites was only evident in regions of wafers where the retentions of actives fell below a third of that stipulated as the minimum specified in AS/NZS 1604 for full cross-section retention i.e., less than 0.02% m/m (mass of active ingredient/mass of treated oven-dry wood) total azoles and 0.007% m/m permethrin (see Figure 6, below). All examples of the treated

**Significant decay only occurred where actives were below a third of AS/NZS minima.**

billets with 'ambiguous' spot test results proved to be resistant to attack; for example, those shown in Figure 2 had central 1/9th total azole retentions ranging between 0.031 and 0.056% m/m, and permethrin retentions ranging from 0.011 to 0.017% m/m.



**Figure 6:** Examples of treated timber elements that failed the penetration spot test. These had central 1/9th retentions below 0.02% m/m (molar concentration per cent by mass) total azoles and 0.007% m/m permethrin, and were significantly attacked by decay fungi and termites.

In summary, the study has provided further clarity around what constitutes satisfactory visual penetration patterns (as assessed by spot testing), in addition to what is described in the current version of AS/NZS1604.1:2021. Achieving a core retention of  $\geq 0.02\%$  m/m total azoles and  $\geq 0.007\%$  m/m permethrin, in conjunction with compliance with the full cross-section minima currently listed in AS/NZS1604.1:2021, should provide satisfactory performance of timber treated with low-uptake preservative systems, assuming that the latter is installed and maintained in the appropriate manner.

It is our view that a degree of pragmatism should be exercised with respect to interpretation of penetration spot test results, supported by periodic analyses of the central 1/9th zones of treated timber elements with ambiguous spot test results.

For an industry that rates its green/renewable credentials as a key comparative advantage over other competing construction materials, we believe that it is imperative that the amount of chemicals deployed into the environment should be sufficient to ensure confidence that treated timber will perform in service. Excessive use of chemicals is not desirable both from a cost and environmental footprint perspective. **T**

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# Decks that go the distance

The one thing better than being able to spend weekends and warm evenings relaxing on your deck is being able to do it year after year because you planned properly. **By Donyale Harrison**

*This Pentarch decking timber is repeated in the built-in seating and ceiling lining, and has ventilation gaps to keep it stable.*





**Above:** Leaving a hardwood deck to grey off naturally can have be a perfect option for relaxed outdoor spaces like this classic Queenslander.

Australians are spoiled for choice when it comes to creating our perfect outdoor retreats. The range of decking timbers alone is extensive: in the past few years this magazine has run stories on native timber boards from Pentarch, sustainable flooded gum from Mortim, Simmonds Lumber's imported and local ranges and Themory's heat-treated boards as well as recycled and sustainable options from Kennedy's Timbers, and ITI's choices of softwood, hardwood and composite boards. And that's before we've even touched on fastenings and coatings.

You would think the obvious conclusion is that we're experts at decks in this country. But, too often, builders and homeowners prioritise the wrong things when it comes installing their deck. Three elements need to work together to keep the client happy and the job long-lasting: the look, the budget and the right materials, and in some ways the last of these should govern the other two.

We spoke with Leon Travis, general manager sales and distribution at Pentarch Forestry about watchpoints for timber in decking and how to best use Pentarch's extensive offer, then with James Renshaw, head of marketing, and Jason Shedden, general manager, at connections specialist VUETRADE about how to make sure your deck lasts its full performance life.

**"People start with a deck's colour – the same way they choose their flooring timbers."**



**Above:** Durable spotted gum lasts near gardens

### ASKING THE RIGHT QUESTIONS

Leon Travis and his team at Pentarch Forestry supply for a wide range of customers, from decks and boardwalks at commercial venues to home builders.

"When they come to us, the idea at the front of their mind is colour," he says.

"Usually they'll have done their homework and know if they want to maintain the deck with periodic oiling and so on to retain the colour or whether they're looking for timber that will naturally grey-off with minimal maintenance, and that decision will be made in conjunction with the style of their home and backyard, in exactly the same way people choose their flooring timbers. We have a comprehensive range and will be able to find the perfect match for them."

Where it gets complex is in the second thing people want for their decks. "That's durability, which dovetails into design. And that's where the difficulties start," Travis says.

Happily, those difficulties aren't an integral factor of the timber deck itself, rather, they're due to not enough expertise being brought to bear on the design and mostly occur in domestic builds where the homeowner has engaged a builder or carpenter.

"My experience is they're fully reliant on builder to provide them with all the necessary information," says Travis, "and they're not >>



talking directly with us or with one of our stockists, who would completely understand the appropriate product for the application."

In short, there is an important difference between a well-built deck and a well-built deck that's right for its location.

Pentarch has multiple resources to help make sure everyone gets the right deck for their site. "Our installation guide – you can download it from the website – is comprehensive, and we encourage people to call us or our expert stockists," Travis says.

"We try to give the most specific advice possible in response to the situation of their build, and that starts with questions like 'How low to the ground will the decking structure be? Will it be beside the pool area or up against vegetation or garden beds? Are you in a BAL-rated area?' All those sorts of questions will guide our advice."

One of the most common issues is decking structures built low to the ground, in which cases Travis advises a narrow-profile decking plank.

"The biggest issue is with moisture. Timber is hygroscopic, so it absorbs moisture," he says. "If your deck is on a flat block or beside a pool area, there's every chance of drainage issues, which means water will pond under that deck. If you've used narrow boards, then the gaps between those boards should allow for enough airflow under the deck to dry that out. But if you've used wide boards, there are fewer gaps and therefore less air movement."

"If those boards aren't properly sealed on the bottom and sides, that moisture will be absorbed and the planks will expand. If the gaps between the boards aren't wide enough for the application, the planks can actually compress and cup."

Pre-oiling, which Pentarch offers as a service, can help by giving the installers time before the boards start taking up moisture, but, Travis says, "it's not a permanent solution. It's only one coat. But it gives them a little bit of time post-installation to ensure that the deck is properly sealed."

Wider planks come into their own in decks with more clearance, such as those on sloping blocks and in many regional locations. "In some of those areas we start looking at fire safety," Travis says.

"There are regulations in the standard and may be additional requirements that each council will be across. In BAL 29 zones, we're going to be recommending timbers with natural fire retardancy such as spotted gum, blackbutt, silver top ash... the species that carry high durability and are also naturally fire retardant."

## GETTING THE RIGHT RESULTS

"A surprisingly regular question we get asked is 'Why has our deck turned orange? Why does it have a horrible appearance?'" says Travis. "We have to find a nice way to say it's because they've used an inappropriate product that they've picked up wherever. In good news, there's a simple remedy."

He advises sanding the deck to remove the discoloured surface then re-coating with a proper decking oil from a recommended brand (talk to your timber supplier about suitable coating and cleaning products.)

"This is another case of start with the experts," Travis says.

"Timber merchants sell a lot of good quality products that will avoid those situations. »

"For low decks, the gaps between narrow boards should allow for enough airflow under the deck to keep the underside dry."

*White mahogany decking from Pentarch ensures a long-lasting outdoor room in this home by Brisbane's Éclat Building Co.*



PHOTO: COURTESY PENTARCH FORESTRY/ÉCLAT BUILDING CO



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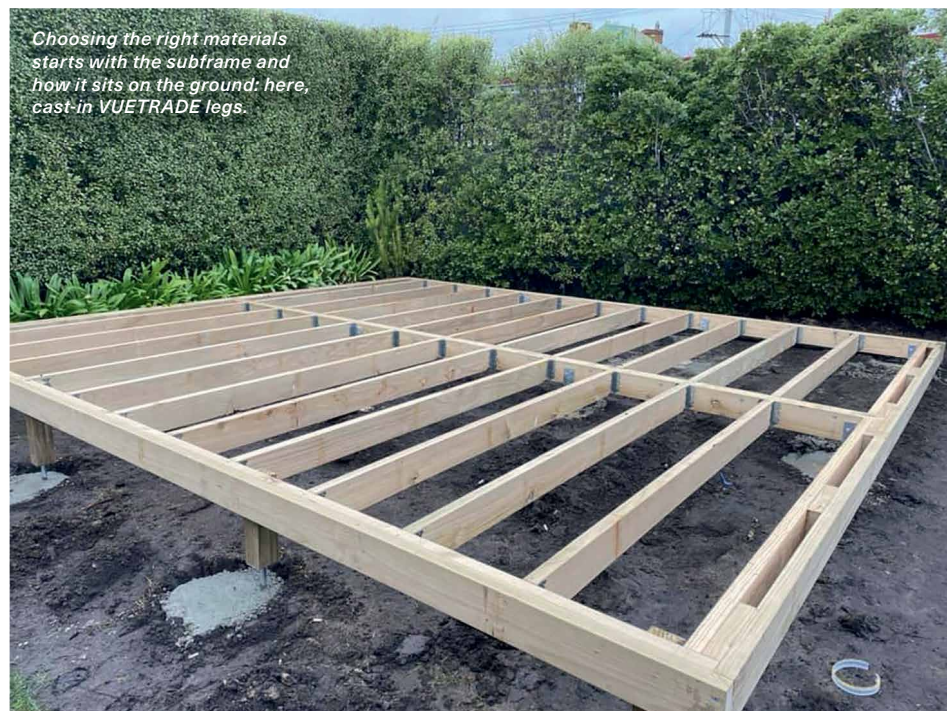
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# DECKING







**Above:** VUETRADE's T-Blade system conceals most of the steel, leaving timber the star of the show.

They occur when people hope to save money on a cheap coating product, but end up with discolouration or oxidation, which looks horrible. It peels and it turns orange and doesn't do the job. But it's easy to fix: sand back to the raw surface and re-coat with the recommended choice. For a small difference in product cost, there's a huge difference in the result, so you save overall."

Care for Pentarch's decking timbers starts much earlier in their lifespan. They're dried in the same kilns as the brand's flooring products, to a 10-12% moisture target. This level of moisture helps to ensure the final product is dimensionally stable, which aids in

**"Where a deck is located will determine whether it requires stainless steel."**

everything from installation to the product's performance in the deck.

"We also make a point in our installation instructions that pre-site handling of the product is key," says Travis. "We spell it out: protect the boards against adverse weather; keep the wrapping on the pack; throw a tarp over it if you're not intending to start installing in the 24 hours after delivery; keep it dry: keep it off the ground."

Travis emphasises talking with your timber supplier and reading the manufacturer's instructions on the correct type of fasteners to use, noting that much of the industry has moved ahead of the Australian standards.

"A deck is a big investment and you want long-term in-service life," Travis says. "All the things that have traditionally guaranteed that still do: Australian-made timbers that are sustainably sourced, certified, regulated and durable. Good quality coatings if you're trying to maintain your deck's colour, and regular checks to see if maintenance is needed."

"Above all, don't try and create a design that you know is unworkable. If it's low to the ground, readjust the look for narrow boards, as opposed to wider boards. And always make sure you've got good drainage."

"If you follow all those steps, you'll have a really beautiful place to entertain and enjoy your downtime."

Pentarch sources 95% of its hardwoods

through a contract with the NSW State Government. "There's been some misinformation about hardwood harvesting on Crown Land in the media recently," says Travis, "but those forests are highly regulated. We've actually brought local politicians into our business, both out in the forests and at our plants, to see what really happens."

"I'm pleased to say a lot of MPs are accepting our invitations and when they come to observe how it actually works, it changes the whole narrative and their point of view. Once people are educated about the realities, they can see how sustainable this industry is."

## HOLDING IT TOGETHER

Part two of the decking materials question is, of course, the parts that hold it together.

"There's a huge range of product – and then just as big a range of decks and locations out there," says VUETRADE'S James Renshaw.

Like Pentarch, the VUETRADE team has a series of questions to direct its customers to the best options, starting with location.

"This is the vital one for us, because where a deck is located will determine whether it requires 316 stainless steel, or 304 or galvanised product," says Renshaw.

"There are so many Australian homes near the coast and that equals salt, which will quickly corrode galvanised product. We've designed a map to help our customers understand the conditions where they are and what that means for their choices."

VUETRADE's map (see page 31) divides coastal areas into R2, R3 and R4 durability classification regions. R4 is the highest classification, requiring 316 stainless steel for breaking surf environments close to the coast with high levels of salt in the air and wind. Also called 'Severe Marine' zones, these are areas where inappropriate materials will corrode rapidly, sometimes within months.

Sheltered coastal areas, such as very sheltered bay areas, salt water harbours and salt water river estuaries, may only require R3 materials made of 304 stainless steel, which is somewhat cheaper. The salt content in the air is lower and there is less onshore wind, however these areas are still considered Marine Environment zones.

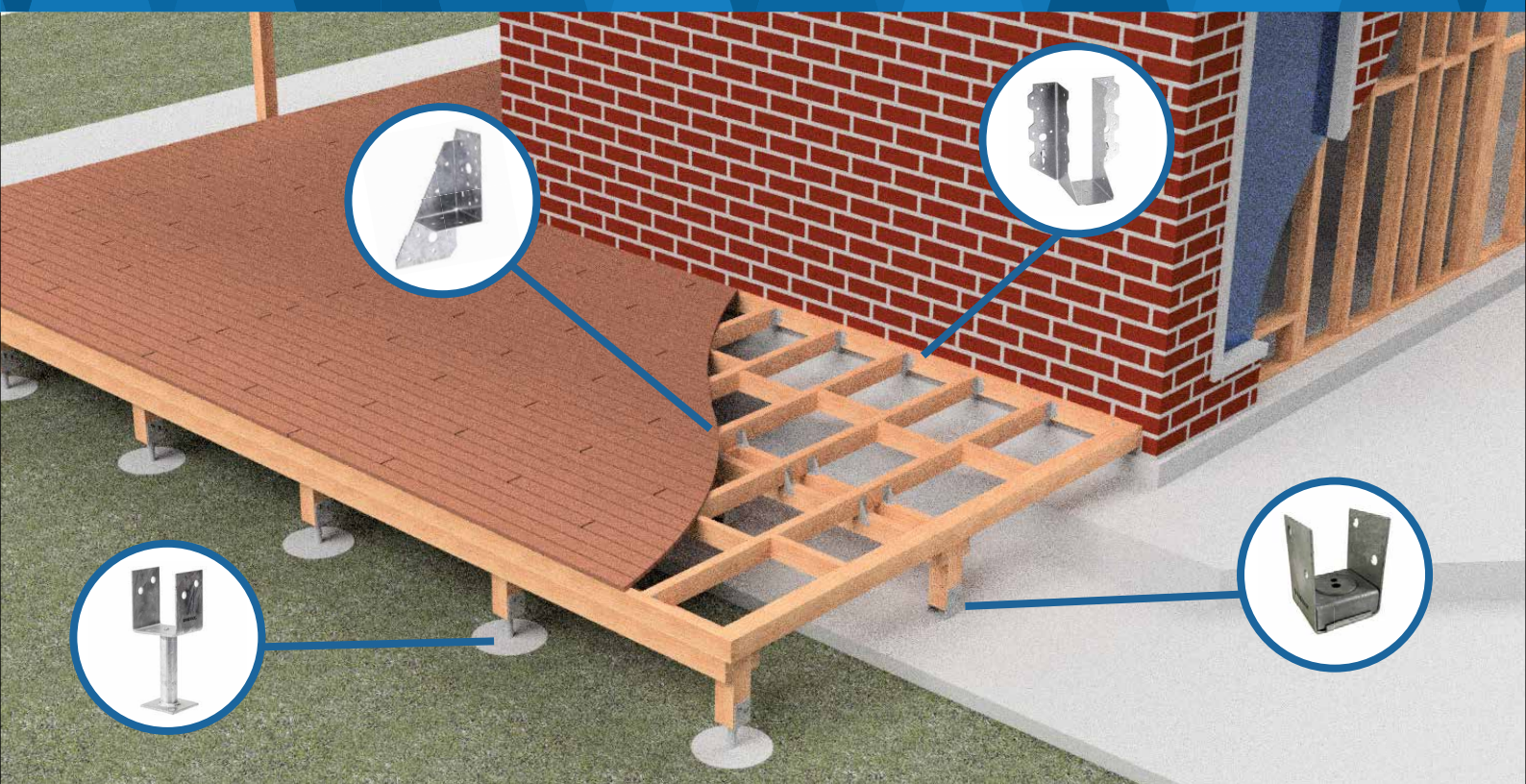
Most other areas will be Standard, where galvanised steel will do the job, but Renshaw notes there are still some Standard locations that are unsuitable for galvanised product. "Anywhere there's a lot of water, even freshwater, requires specialised product. Saltwater pools are increasingly common and corrode just like surf. Chlorine pools are highly reactive, too," he says.

The team has made this information as accessible as possible, partly to educate builders and partly to educate the general



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**Above:** This subtle VUETRADE connector provides all the strength needed without visually dominating.

public, who sometimes quibble over the cost difference between stainless and galvanised parts. Jason Shedden says, "We've got builders who are quoting in stainless steel and doing the right thing – no cutting corners – and their customer will go with a lower quote from a builder who's specified the gal product for a coastal zone."

"And we might have quoted that job on the stainless, too, but they choose to go with galvanised to get the job, then 18 months

later that job comes back again and you think, 'I remember that...' Now they're retrofitting with the stainless steel and they're paying to do the job twice. There are no builders who make money out of callbacks."

For some builders, there isn't a clear understanding that even away from the beach front, corrosion zones are important, but in other cases it comes down to cost. Renshaw says that some homeowners only look at the final cost figure, not the reasoning behind it.

"Getting the decision maker to understand the upfront benefits and the higher costs associated with that amount of retrofitting is where the problem lies," he says.

Shedden agrees, "In the very best case, where the builder fixes the problem, your deck is still out of action for days or weeks. And in other cases, if it's a deck of any size or a concealed finish where you have to take off the fascia, it can be thousands of dollars. All for a really small upfront price difference. So we work hard to help our clients understand that, while the cost is that little bit more, you've got longevity in your build."

As a way to help their builder clients who are quoting with the appropriate materials, VUETRADE has educational materials to back up their map. "There's a series of landing pages across our website for various purposes," Renshaw says. "So, for example, [vuetrade.com/coastal-ss](http://vuetrade.com/coastal-ss) will take you to a page with a video that introduces our 316 and 304 stainless ranges and then there's information on why you'd choose stainless and how gal will corrode in a salt-laden or wet environment."

The cost of living crisis has exacerbated the problem. "I completely understand why people are looking to get a cheaper quote,"



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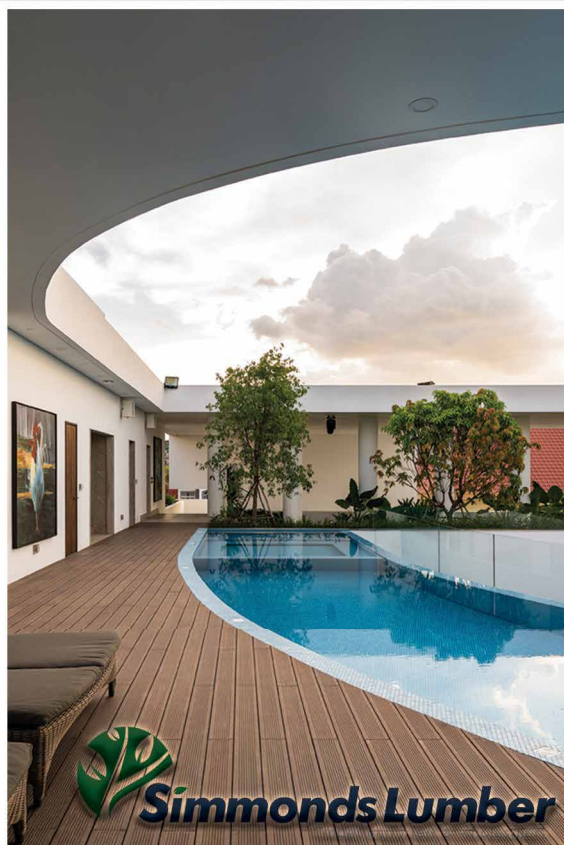


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says Renshaw. "But we want to reassure the builders who are quoting stainless product that they're doing the right thing. Because it may seem the more expensive option, but if we can help the builder to educate the owner as to why that stainless is worth the extra, then that's going to help everyone in the long run. Nobody looks good if a product starts to fail through corrosion."

### LOOKING GREAT

"We're a traditional connectors company in that we focus strongly on the long service life and practical use of our products, but," says Shedden, "we're also innovating around the aesthetics of these products."

"You've got these beautiful timber decks and some of the fittings and fastenings can look a bit old-fashioned or solid. So we've introduced T-Blades and VUEBOLTS to pull together a more aesthetic, attractive finish, especially for people who are building their dream home."

The T-Blade/VUEBOLT combination replaces traditional bolt-down systems for decking posts and edge fences: a narrow blade of steel sits inside the timber post and is secured with an engineered male-female bolting system that secures inside the timber.



Above: A VUETRADE map showing which areas require stainless steel product (wave = 316, drop = 304).

This minimises the amount of visible steel, but has a highly secure attachment to the post, which can be lifted up to 75mm from ground level to provide a physical termite barrier. A stainless steel cap neatens up the attachment to the deck or concrete pad, hiding those bolts as well.

"With the range we have, we've tried to

make sure that people have got options to suit whatever they want to do," Renshaw says. "So you might want the T-Blade for aesthetics, but if the fixing is going to be invisible, you may not want to pay for one of the more premium products. And in those cases there are multiple supports you can use: we've got bolt-down options, we've got >>>

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**Above:** When decking is delivered wrapped, keep it that way and off the ground until ready to install.

stirrup options, whatever is right for the builders and the end users.”

Bolt-down attachments are used for retrofitting a deck onto a pre-existing concrete pad, while cast-in stirrup and leg options can be used in cases where the builder is pouring-in concrete on site.

“Those are particularly good options if there are drainage problems, because you achieve a clear gap between the ground and the timber,” says Renshaw. “So you know timber is not soaking up any moisture, which is going to prolong the lifespan even further.”

Shedden adds, “Not to mention clearance for termite inspection.”

Cast-in options also cater for cyclonic conditions. “It maximises the wind upload capacity,” Shedden says. “So while we’re catering for choice of appearance, there are also options there for the wind upload capacities and ensuring that the decks are built to the spec for that particular area.”

That spec is something Shedden and his team work hard to quantify precisely. He says, “We need to understand exactly what the customer is trying to do and that might involve saying, ‘listen, can you get me through a drawing of the site? Or something your architect’s given you so we can understand better what you’re trying to do here?’ And then we can analyse our range and say “OK, here are our options and this is how we can achieve what you want to by

**“Our engineer is there to bounce things off, because it’s important to ensure compliance.”**

using these products.

“Our engineer is always there to bounce questions off. That’s not a small investment on a yearly basis, but it’s important for us to have that backup. To ensure that the product we put on the market is compliant. We hold that in very high regard. And it’s something that can’t be underestimated.”

One of the side benefits of both the extent of VUETRADE’s range and this certainty of compliance is timber subframes become a trusted option on sites that previously might have gone to steel.

“We see a lot of sloping or undulating locations where we can offer a range of solutions for the job,” Shedden says. “Previously they might have had a steel frame fabricated, but now they can actually visualise the timber structure with the range of products we have. And immediately that’s a saving, because it’s one less trade you need to go out to.”

Renshaw points out that “VUETRADE

offers Australian products for Australian conditions. We know that a majority of people live by or relatively close to a coastline. A lot of people have pools. So we’ve aimed for a product range that suits the environment we actually live in,” he says

“We make all the sheet material products, the joist hangers, the triple grips and the multi grips at our manufacturing facility in Victoria, which means extra jobs and it means that we know the product inside and out. The width of our stainless steel product range is something you won’t find with most other suppliers.”

Shedden agrees, and adds, “One big thing a lot of people probably don’t know is that we have the ability to custom manufacture product. We quite often see jobs that have been designed by an architect and there’s nothing on the market fit to perform the job they want. But we can work with them to design and custom manufacture a solution in stainless or gal.”

VUETRADE can also produce items from its standard 304 stainless steel range in 316 when they’re not already carried. “We want to play our part in making sure the homeowner gets the solution they want, based on their specific needs,” Renshaw says. “So, whether that is advising on the most appropriate material for the connectors, or fabricating something custom to suit, we’re happy to help out where we can. We’ve tried to make sure we can produce custom items in a timely manner at a price point that works for people.”

Ultimately, both Shedden and Renshaw reiterate that the VUETRADE team welcomes questions, from trade or homeowners, to help make sure the end product is perfectly suited to the installation environment”.

“We’re here to help,” says Renshaw. “We’ve got the resources and experience and we’ve got products in thousands of decks, in all parts of the country. If you’ve got problems, we’ve probably come across them before and we can use that experience to help you.

“We have a business development manager covering each state and they’re very experienced, knowledgeable guys who make sure that if people ask questions they’ll get an accurate answer. Our BDMS can tell you what you’ll need and where to find stockists near you – and they’ll find you the right person to talk to if you’re not sure about what’s required. We’re serious about service; most of the people in our office answering the phones have over a decade of experience selling these products. And those sales revolve around making sure you get the right products to keep that deck safe and secure throughout its service life.” **T**

**For more, visit <https://pentarchforestry.com.au> and <https://vuetrade.com>**



# Woodwise: Blackbutt



Beautiful, fast-growing and quick to regenerate – blackbutt is managed to provide for both our homes and koala habitat.

A favourite with koalas and builders alike, blackbutt is one of the highest value Australian timbers.

This tall hardwood is endemic to coastal forests from southern Queensland to southern NSW, with the thickest stands on the north coast of NSW. There are also blackbutt plantations internationally, though demand for the popular light-blond timber can outstrip the well-managed supply. Blackbutt trees have strongly V-shaped branch forks, where koalas often rest in forests.

Preferring a warm, sunny site with moderately fertile soil, good soil drainage and decent rainfall, blackbutt's natural zone sadly overlaps with highly developed parts of the east coast, which has seen a significant drop in the tree's numbers since European settlement. However, some mighty specimens from pre- or early-Colonial days still survive. In Middle Brother National Park on the NSW Mid North Coast there are two large blackbutt trees that hold stories, history and great significance for local Aboriginal people of the Birpai nation. Known as Bird tree and Benaroon, they are over 69m tall and Benaroon has a girth of 15m, making it the largest blackbutt in Australia.

**Botanical name:** *Eucalyptus pilularis*, named for the pill-like seed capsule.

## CHARACTERISTICS

A fast-growing tree of up to 50m or more in height, with a long straight cylindrical trunk, it commonly measures up to 3m in diameter (older specimens can be much larger and taller) and does not form a lignotuber. Instead, the tree is highly resistant to fire – it gets its name from the rough bark at the tree base, which is usually charred black from past bushfires – a characteristic that is passed on to its timber, which is suitable for BAL 29-rated areas.

The trees and timber are very strong and highly resistant to insect attack, which has made this a very popular choice for structures and outdoor applications. It has Class 1 durability with an expected lifespan of over 40 years above ground and 15–25 years in-ground.

## APPEARANCE

Blackbutt is 'half' bark, which means it has rough, fibrous bark on the lower trunk with the upper trunk and branches normally being smooth and whitish to yellow in colour. The bark sheds away in strips in the upper part of the trunk, leaving smooth branches, often with insect 'scribbles' on the bark.

It flowers mainly from January to April with flower buds in groups of seven to 15, followed by white flowers and hemispherical or shortened spherical fruit with the defining pill-shaped seed capsules that distinguish it from similar eucalypts like Sydney peppermint.

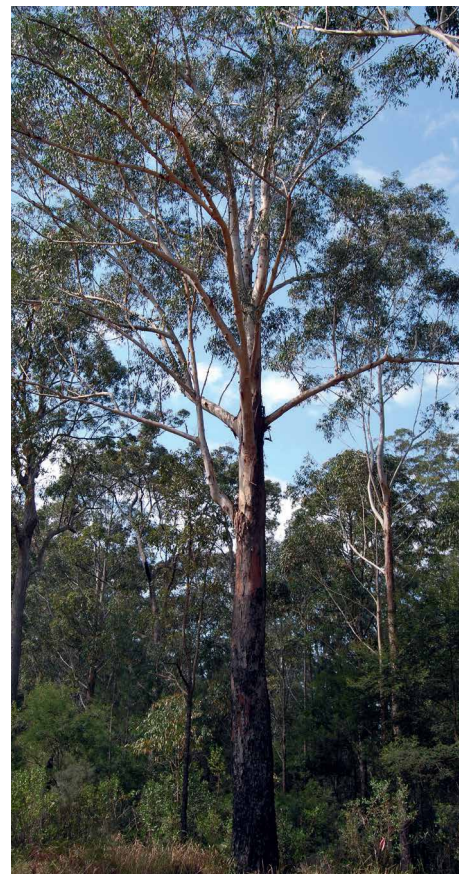
There are 19th century photos of blackbutts said to be 85m high, but the tree was heavily harvested in the 20th century so no known giants of this size remain.

## COMMON APPLICATIONS

Blackbutt is a preferred timber for building construction, including rafters and battens. It is also used for flooring, weatherboards, decking, bridge planks, railway sleepers and pulp as well as in EWP. When treated with a preservative, it is used for posts and poles and in boat building. It is highly sought after for use in making paper, particularly fine writing and printing paper, as well as for fine joinery and furniture. In addition, the leaves are eaten by koalas.

## WORKABILITY

The wood is hard and strong but not particularly difficult to work. It has a straight



**Above:** The base of a blackbutt is often charred from old bushfires, with smooth, branched limbs above.

grain with an even texture and is relatively easy to both machine and maintain, taking both oils and polishes well.

Care needs to be taken when drying as blackbutt is prone to surface checking on the tangential surface. Blackbutt should not be re-conditioned as this will widen any surface checks. Blackbutt can be stained, painted or polished but there can be issues with painting because of its tendency to surface check. The high extractives of mature wood can cause problems with some adhesives, but this is much less of an issue with young regrowth wood. These extractives can also cause staining on painted surfaces after exposure to the weather. Blackbutt machines well but is only fair for steam bending. **T**

### Further information:

Content based in part on Wood Solutions website. For further information see: [www.woodsolutions.com.au/wood-species/hardwood/blackbutt](http://www.woodsolutions.com.au/wood-species/hardwood/blackbutt)

PHOTOS: PETER KRISCH/SHUTTERSTOCK

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# A little more elevation, a lot more action

Housing and lowering carbon are the two biggest issues in Australia. Timber multires building tackles both in a practical, achievable way.

By Donyale Harrison

There's not a person I've spoken with in the timber sector who doesn't support the National Cabinet's promised 1.2 million well-located homes over five years from July 2024 as a goal. There's also not one who thinks we're on track to hit it. *But* – and it's a vital but – every expert I spoke with for this story can see ways to get us closer.

Tim Newman, general manager of Timber Building Systems Australia (TBS), is thoughtful in his assessment. "I think the magnitude of it is difficult," he says.

"If you work that back to how many houses you need per week, it's a really, really big number, which requires a lot of investment. And if we're going to leave it to businesses like us to find the capital to invest to do it, »

"If you work that goal back to how many houses you need per week, it's a really, really big number, which requires a lot of investment."

PHOTO: COURTESY TILLING

Lowering Tilling floor cassettes into place at The Green, Parkville.











**Above:** Express Homes commissioned a range of timber floor and roof cassettes from Tilling to speed up production of prefab homes in WA. Sadly, the successful project was shuttered when the parent company returned to its core concrete business.

**“We – and that’s the royal we of the timber industry – need to be pushing architects and engineers to be working in timber from the start.”**



**Above:** Australian fabrication, whether cassette manufacture at Tilling’s Kilsyth plant shown above or standard frame and truss operators, is adaptable and accomplished. But it can’t move into multi-residential work without architects and engineers

it’s going to be a long drawn-out process. So the government needs to get behind it and put some capital into businesses like us to help build them to supply those sorts of numbers.”

He’s right. Over the five years of the plan it’s 240,000 dwellings per annum: last financial year saw just us add 169,500 dwelling units and even the record in 2017 was 223,000.

Travis Taylor, CEO at Multinail Advance, says it’s going to require real changes in the way we think about building, and not just structurally.

“We’re starting to ask if we really need extra suburbs where councils will have to maintain added roads and put in parks, water pipes and more of everything you need for a new community,” he says. “Or do we focus on areas where the infrastructure is already there and infill brownfield sites that can go up? It’s more economical, more practical – Sydney is already doing it, just look out a train window.”

But to do this in timber, we’re going to need to rethink several basics.

“I run an offshore estimation service,” says Taylor, “and so I see a lot of what’s being built. In the four-storey space, for example, we’re seeing a lot of walk-up, townhouse sort of builds, because the issues of fire and acoustics are easier to handle compared to in a four-storey unit block with people above



and below you. For the latter, we do have some timber fabricators already there, but often the work has not been set up and architects aren't doing it with timber in mind.

"When you get into these buildings, the plans are often very basic, whereas a timber plan is very accurate. We – and that's the royal we of the timber industry – need to be pushing architects and engineers to be working in timber from the start. Right now it's coming through mostly designed for concrete and steel. We have the technology to build in timber; we have the fabricator capability – all the truss plants could manage it. The work is not coming through in this space.

"We have a whole industry that is geared up to do things the way they normally do, and we're asking them to change. I'm one of the biggest advocates for doing this, in fact, I'm leading a whole new company at Multinail looking at this, but this is one of the biggest hurdles we've got."

### KNOWN TERRITORY

As both Taylor and Newman point out, this isn't a groundbreaking area. It's something we know how to do. Back in January 2020, I talked with Craig Kay, national product engineer at Tilling, for *TTN* about his work on Australand Property Group's The Green at Parkville.

"We were asked by TimberTruss to come up with an alternative proposal for The



**Above:** One additional advantage of timber in multires is easier access to services for maintenance and repairs.

Green's construction, because it looked like it was being lost to steel," he told me.

"We had just introduced the manufacture of TecBeam, so we raced to build some prototypes and had all the developers, designers and so on come here and jump on them to see how they performed. The next thing you know, we're madly constructing

cassettes and designing all the attendant structural support and engineering."

At the time of the build – 2014 – it was heralded with excited headlines, including "Australand breaks through the affordable multi-resi barrier with timber" in the *Fifth Estate*, a story that went on to quote the developers as saying average build costs per apartment were 25% less than in a conventional apartment construction and noted the significant carbon benefits of using timber rather than concrete and steel.

"They were big advocates," Kay said in *TTN*'s 2020 article. "They were able to show the cost-benefit analysis because they built another building in concrete beside it at the same time. The construction time on the timber build was so much better. It had one level of concrete at the base, then four levels timber-framed with 900m<sup>2</sup> per level residential, including 283 prefabricated TecBeam and LVL floor cassettes and prefabricated timber wall framing. Those four levels of timber were constructed in six weeks. Some of the studs in the very lowest sections were LVL; as the build moved up and the stresses became less, we were able to go to framing timber."

Again, there's a but. In 2015, Australand was acquired by Singapore-based Frasers Centrepoint, and the team that had helped pioneer the system was no longer there to show off the building and spread the word. »



**Above:** This TBS build for Henley at Cloverton Estate, Kalkallo, took minimal time on site, going up quickly and smoothly.





**Above:** Multinail already has fabricator customers stepping into the light timber multi-storey multires space. Its new company, Multinail Advance, will help to remove pain points and provide support, new products and new services for their customers who are expanding their markets.

Despite the fact this was one of the builds behind the 2016 changes in the NCC that expanded the deemed-to-satisfy provisions for timber multires construction, it wasn't repeated. Speaking to Kay for this story, he admitted that hadn't been the only time he'd seen a false start on timber in multires.

"We had quite a big program in WA where we designed both the floor and roof cassettes for a builder doing prefab homes," Kay says. "They had pre-clad wall frames and floor/roof cassettes delivered to site in the morning, which achieved lockup stage within one day. We did about 200 homes with floor cassettes and about 120 with roof cassettes.

"I would argue that while the large Parkville building got the lion's share of the attention, this programme developed by Express Homes in WA was equally as innovative. But because Express was a small division of BGC (WA's premier brick and concrete housing group) it was eventually killed off, because it didn't fit with their core business."

One thing that The Green did change was that Tilling became a company that also fabricates. As Kay said in 2020: "For The Green, it was all about time frames and experimenting, but on the builds we've done subsequently, we've seen that the fabricator and, even more so, the builder has been taken out of his or her comfort zone with this type of work. We know that human nature means that when you hit any impediment, you'll say 'Oh, that's all a bit too hard' and revert back to what you know. We identified that we needed

to make it as seamless as possible for them and started fabricating elements."

Cassettes remain a core Tilling product, recently joined by I-joist manufactured at Kilsyth. But, Kay says, echoing Taylor's comments on precision, "A lot of people got very excited about cassettes at the time, but enthusiasm seemed to wane after that initial rush. Cassettes are precision-made in the factory and when coupled with wall frames that are constructed on a sometimes uneven or out of square slab, or non level brickwork, the rigidity of the cassette can be a problem. Experience shows that it can be difficult to mix highly engineered elements with very tight dimension tolerances with more 'casually' constructed framing elements."

### PRACTICAL SOLUTIONS

Around the same time I was talking with Kay about The Green, Tim Newman was selling panelised builds into the Kāinga Ora social housing scheme in Aotearoa New Zealand, all designed for manufacture using the 'kit-of-parts' approach Newman learned in his early years as an engineer at GM Holden.

TBS delivered multiple apartment buildings into New Zealand, up to five storeys, but in Australia, it's currently all townhouses, because that's where the work is.

"We started working with Henley on townhouses and since then we've been fully engaged in building a production line that can manufacture townhouses very quickly," Newman says.

The medium-density homes use the same timber-rich, component-focused philosophy that underpinned TBS's Kāinga Ora work, but unlike those builds, which were all close to Auckland's city centre, the Henley builds are on Melbourne's fringes, because Australian governments have made too little land available close to major infrastructure.

The team at Henley did, however, prioritise sustainability by approaching Newman and his team and asking if they would be able to build these projects in prepanelised timber.

"They used to build these townhouses conventionally," says Newman. "But they knew what we were doing in New Zealand and they asked if we could do a trial project on one set of townhouses. And now we're building most of Henley's townhouses in Victoria."

It's been a win for both companies: for Henley, it means a faster, better product with less time on site and fewer risks. "They've seen a big time saving and increase in quality," Newman says.

For TBS, the contract has meant certainty at a time when the Australian market has been unpredictable. "We're building two a week for the next 18 months. We've been on a fairly aggressive employment campaign for the last three to four months," says Newman.

"We're close to doubling our workforce out on the factory floor. And we've increased staff because we know we've got the work in front of us. We can settle down and manufacture buildings. This is what companies like us





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need to get the throughput, the reassurance of work coming forward. So that we can invest in not just the machinery but in the people as well."

Trusted supply partners like Meyer Timber have been a very important part of the equation, but the pivotal factor has been a commitment to innovation.

"We developed our own floor cassette for the New Zealand market that suppresses noise. We've recently put them into a school in New South Wales," Newman says. "It took us a year to develop, about five years ago, now. But we have a timber-rich cassette that has been very successful in solving the acoustic issues that people worry about in timber multires builds. It's doable."

### EXISTING SKILLS

"The talent is already here," Taylor agrees.

"We've got truss plants who are interested in doing that now. I know a Multinail truss plant

who is actively looking for a site to do a five-storey timber building today.

"What we're not seeing is the NCC opening the doors further for this sector of the industry. We're not seeing architects and engineers being as educated as they could be in this sector of the industry. Builders will have to change. Many have been using concrete for the last 20 years, so there has to be a reason for them to change. At the recent Timber Offsite Construction conference, there was a guy from America who runs a billion-dollar building company, who has swapped his steel and concrete business for timber. And it wasn't done for altruistic or environmental reasons. It was because of the benefits of a timber build."

Cognisant of the need to make the playing field as level as possible for timber, Taylor has been driving Multinail's move into a new company for its existing customer base: Multinail Advance.

He says, "In a nutshell, I'm taking Multinail's

existing technology, our connections systems software, our machinery capabilities... I'm taking all those things we've developed for detached and semi-detached housing and putting them into new markets. Those could be apartments up to five storeys using lightweight timbers, or five to eight storeys, where we go into hybrid building systems with a concrete podium or CLT included."

Rather than a big change, it's an extension of the work Multinail has been doing for years. "We just need to apply more engineering, understand more bracing and load transfer paths for taller buildings," Taylor says. "And then we need to adapt to any fire and acoustic requirements. Those aren't even really engineering issues, they're detailing issues from our perspective."

It's a very on-brand move for Multinail, a company that has worked closely with its customers to respond to changing Australian markets. Taylor points out that we sometimes don't think enough about those actual end users when considering new housing. "When people sell their plots of land in an inner-city suburb, we should be putting a five or six storey building on it," he says. "If the government wants to hit their numbers, that's the way we have to start looking at it. We need to be building for people's needs. So >>

"We have a timber-rich cassette that has been very successful in solving the acoustic issues that people worry about in timber multires builds."



**Above:** The repeatability of timber elements in multires, both townhouses such as this TBS build at Kalkallo and apartments, delivers manufacturing economies and buildings that are faster and easier to assemble.

PHOTO: COURTESY TIMBER BUILDING SYSTEMS AUSTRALIA



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TRADE & INDUSTRIAL





**Above:** Panel- and cassette-based construction also removes a lot of working at height, making sites safer.

## “Regulators are grappling with some of the issues that prefabrication is highlighting. How can a building surveyor do a frame inspection?”

much social housing is studio and one bedroom apartments, but we should have more three and four bedroom apartments. Because we’re getting multi-generational families who need that sort of housing.”

Taylor emphasises that none of the stopping points to more and bigger timber multires are on the fabricator side. “The only delay is a lack of orders, because plans are not coming through designed for timber,” he says, noting that fabricators only see the plans *after* design.

“Our customers won’t be alone if they make the move into that space. Multinail Advance is designed to work with our existing customer base to make them more efficient and provide new products and services – and to hopefully rectify some pain points – in multires projects. We want to give our customers an advantage in that space and assurance on their designs. That’s where I’m starting. And mid next year we will have something to offer the industry around larger timber buildings.”

As for increasing the number of plans coming through that are designed on a timber-first basis, Taylor acknowledges it’s a complex problem. “Historically, engineers

and architects have focused on steel and concrete because they’re simpler materials from their perspective. Where do you even start with teaching timber for design? With joint groups? Treatment levels? Section sizes? At every stage, there are complexities to learn, though on the balance, you design a building that is easier to build, better to live and work in and better for the environment.”

He pinpoints one area that could be changed quickly, flagging that the 2016 NCC amendments did not go far enough. “I believe we need an industry effort to change the construction codes, then to re-educate engineers and architects about what’s possible, because most of them aren’t across the benefits of timber construction and don’t know how to design in timber. The fabricators will adapt straight away.”

He’s not alone in pointing out issues with the Code and regulation. “The deemed-to-satisfy solutions we currently have, with the exception of roof trusses, predate the widespread use of prefabricated building elements,” says Kay. “Regulators are grappling with some of the issues that prefabrication is highlighting. How can a

building surveyor do a frame inspection when the wall frames are arriving on site with all the cladding and plasterboard installed? Does the fabricator now need to employ licensed plumbers and electricians so that they can provide a plumbing and electrical certificate for elements with pre-installed wiring and plumbing fittings?

“The NSW government released a position paper on 15 November 2023 on the topic of ‘Proposed regulation of prefabricated building work. To my understanding this position paper, is the first attempt of someone to fully grasp how to regulate prefabricated building.”

Newman has been able to work well within the existing NCC, but adds, “There is probably more work to be done around fire engineering in the code. Boris Iskra from WoodSolutions and Alastair Woodard and Andrew Dunn are doing a lot of good work in that space.”

Taylor points to Newman, Kay and many more, including the Multinail engineering team, as others who are ‘doing good work’.

“There isn’t a single answer to all the issues,” he says. “There are improvements underway at multiple levels: architects, engineers and builders all need to be educated more – we’re still seeing problems like designs that use beams that aren’t available. But the truss plants, if you give them a plan and they’re interested in those spaces, will work out how to do it; that’s what they do.

“And we will work with our fabricators so they can ensure that the structure is sound, and to smooth any pain points they have. The manufacturing part just follows on from that.

“All I can do is really stand shoulder to shoulder with everybody else and be part of the timber industry community that is putting solutions forward when it comes to housing. And I’m confident there are many others who will keep moving forward with this.”

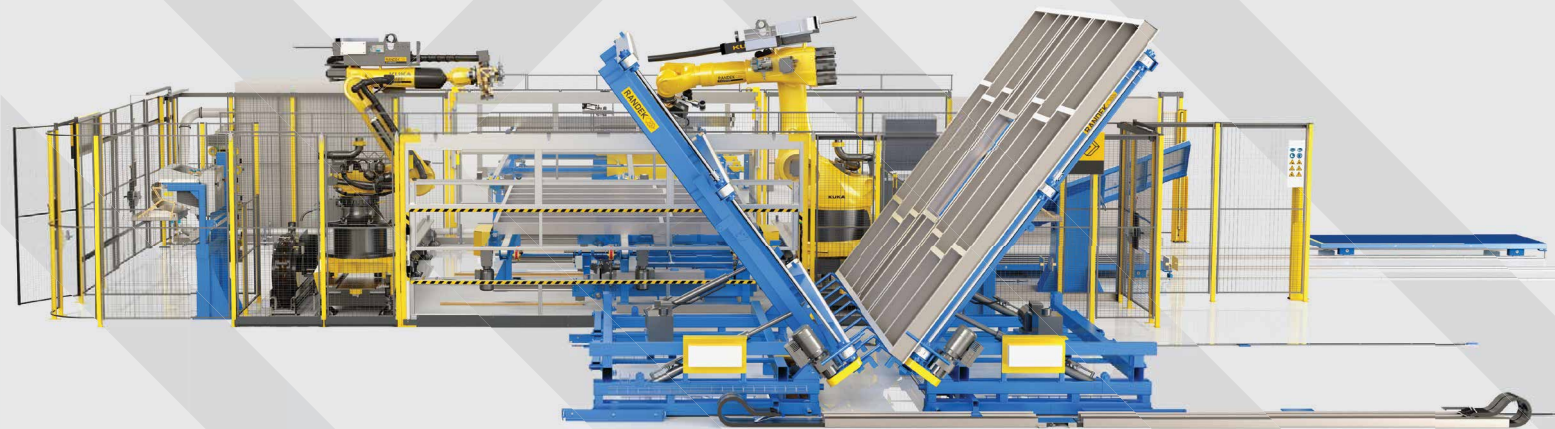
Reassuringly, Newman, who has been even closer to the coalface on the building side, has a similar view. “With developing anything new,” he says. “I think you just need to get into it and work through those solutions. Building these sort of buildings out of timber is certainly better. You have buildings that can go up faster and are of higher quality. Yes, there’s the stuff that makes it more difficult to do, but anything is difficult to do the first time. We just need to get into it and get moving on it.” **T**

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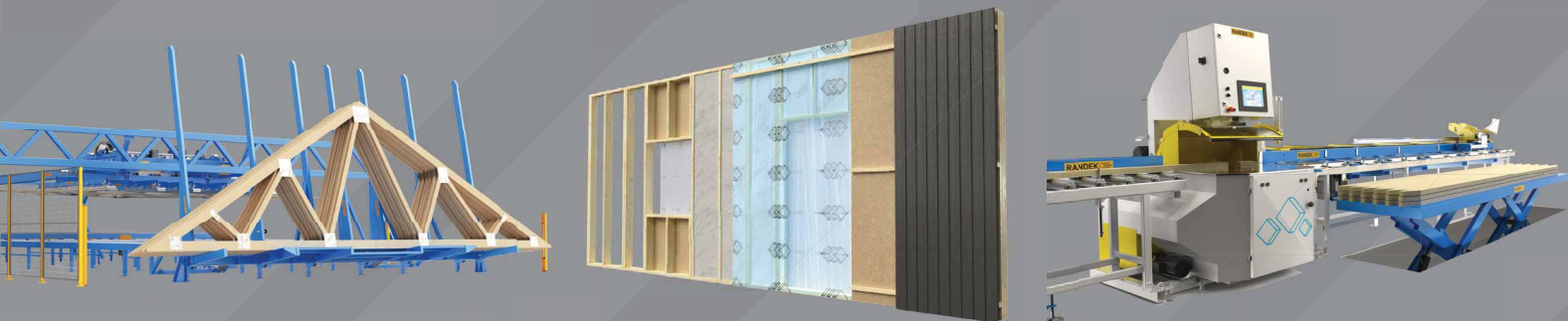
**Read on to learn how early involvement between material suppliers and the design and build team improved a Queensland multires development.**



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**Above:** The Bokarina Beach development on the Sunshine Coast: Intergrain oils were used to protect the Weathertex cladding for a unified, easy-maintain finish.

## Case study

### Bokarina Beach townhouses

When Simone Gillies, BDE trade commercial Cabot's at DuluxGroup in Brisbane took a phone call from local architect Garth Hollindale asking about how Dulux/Intergrain coating products would work on Weathertex, she admits to a little stalling.

"I'd never heard of Weathertex," she admits. "But I rang them and Aaron Davey, the local BDM, sent me a set of samples, which were super. Garth had said he wanted a natural weathering effect on the boards for the Bokarina Beach development he was designing in a coastal location on the

Sunshine Coast. So I whipped up some options using our Intergrain Universal Timber Oil in two double-strength colours: Coastal Grey and Roasted Walnut."

Weathertex is a well-regarded modified timber product that combines sustainably sourced Australian hardwoods with steam, compression and 3% natural wax for water repellency to produce regular, long-lasting architectural board and panel products that are widely used in multi-residential builds.

It was a logical choice for Hollindale to specify. "He was after a weathered look," Gillies says, "and the beauty of the Universal Timber Oil is that it protects, but it also allows the timber to naturally grey off and keep that real beach look, as opposed to a waterproof stain."

Initially, Gillies did her own testing: "I often do that for architects," she says. "I'll take the material they're looking at for cladding and we'll coat it ourselves so that we can first check that the product we think will work is the best option, then that it looks right, then that it lasts as it will need to. Because we do all our testing locally, we're always working to actual Australian conditions."

"In this case, we opted for a brushed finish that perfectly matched Garth's idea and was achievable by the painter. And it only needed to be on the external face of the board, so that saved time, money and product."

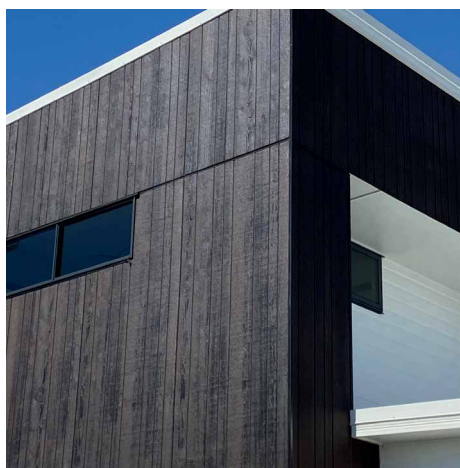
For DuluxGroup's national team, Weathertex was already a well-known brand. "We have established national specifications with Weathertex for several coatings, says Madhuri Ranjan, commercial marketing manager at Intergrain Trade & Industrial. "For solid paint, that's often Dulux Weathershield, for example. But if it's a timber look that they're after that generally it's Intergrain."

"So the builder can now work from that specification without worry, because they know that Weathertex and DuluxGroup – both premium brands – test our products to make sure that they are compatible and that they will last as set out in our warranty. We test our durability performance based on substrates like Weathertex to ensure that coatings won't peel or blister flake after 12 months of application. Plus there's product care and maintenance that we set out so the homeowner is aware of what it takes to maintain their property."

The results speak for themselves, with the 70+ townhouses quickly selling. "They came up beautifully," says Gillies. "We went out to check on the coatings during and after the build and now with the gardens growing up around them, it's a stunning result."

"These sorts of builds rely on repeatability and cost effectiveness, so for anyone thinking of doing something similar, I would say get us involved from the start. We can find the most cost effective, most aesthetically suitable product that will also be the easiest for their maintenance schedule. And we can give the architect, builder, painter and the end consumer a reality of expectations for re-coating."

**For more, visit [www.intergrain.com.au](http://www.intergrain.com.au)**



**Above:** Over time, timber will grey off under Universal Timber Oil, unless owners recoat.



# Living the dream

Home ownership remains a goal for most Australians, but to achieve it – and adequate housing – we need to change our approach. **By George Dolezal, Principal Engineer, Meyer Timber Pty Ltd.**



*Cassettes and panels built by TBS for Henley's prefabricated Kalkallo townhouses.*

**2023** was an interesting year for housing supply in Australia. Multiple interest rate rises softened the housing market but house prices remained firm or rose in most cities. Rental vacancies were at an all-time low and immigration was on the way up again. Families continued the trend of becoming more fragmented so there are fewer people on average living in each home. If you consider all of these statements, they've led to a serious housing crisis which is not getting any better as times goes on.

To combat this the government has pledged to build 1.2 million homes over the next five years, which is 240,000 homes a year. Historically, the maximum number built was in 2016 at about 232,000, so a very high bar has been set, but is it realistic? The bottom line is that we need to build more homes that people can afford and quickly. This is the basis of the great Australian Dream of owning your own home. In the rest of this article, I will try to unpack the issues that have been standing in our way and come up with potential solutions.

## STARTING POINTS

If you look at the basics of the problem, we need to build quicker and cheaper while not compromising on quality.

Pre-fabrication and panelisation are good starting points. Roof trusses and pre-fabricated wall frames make building much quicker than stick-built on-site construction,

although this has remained stagnant for the last 25 years or so. If we take the next step to component manufacture, such as floor and roof cassettes, we can speed up the build process and improve the quality. A stick-built floor system takes around one day for a carpentry team, while a cassette floor can be installed in an hour. The cassette floor, made in the factory with CNC-cut members, will come together easier and be of a better quality. This allows the team on site to spend the rest of the eight-hour day moving onto the next process in the build.

These systems are already available from EWP wholesalers like Meyer Timber and Tilling Timber, as well as a small number of frame and truss plants. As they gain in popularity, there will be more people who will

start making them, but a phase shift in building perception could accelerate this. Companies like Frasers Property Australia have already embraced floor cassettes in NSW on their medium-density developments with great success.

Now, what can be done to make a cassette floor or roof system more cost effective? The obvious answer here is repeatability and simplicity. By building something multiple times, you can very quickly refine the design to come to the most cost-effective solution. And the more you do the same thing the easier it is; this goes for manufacture as well as installation.

The NSW government has just reinforced this by announcing that it is developing pre-approved modular housing designs that »



**Above:** Sunland Developments in Mt Annan, NSW, has 149 units based on only six basic designs. Yet with those limited designs there is still a lot of façade variation.





**Above:** Simple housing designs with highly repeatable elements can still look good, as in this Boston duplex.

can be fast tracked through the planning and building permit process. Once you have a design – along with all the details and certifications that are approved – there is no need to review for the next build as long as the overall site conditions are the same (such as wind and soil classifications), and this can reduce the project time by months.

These sorts of repeatable 'pattern book' designs are boring, though, and we don't want them all to look the same, right? Wrong! You can easily have a single internal layout which has four or five façade variations to make the development look different and interesting.

Sunland Group in NSW recently completed a development of 149 units with only six different basic designs but many façade variations, as shown on page 45. Henley Properties has also taken this on board with further panelisation in combination with Timber Building Systems (TBS). Its Kalkallo development has 10 townhouses, eight of which are replica designs.

By using repeatable designs as well as cassettes and closed external wall panels (including cladding and windows), the 10 townhouses were built from slab to lock-up in three weeks rather than the conventional

several months. Added to the time savings are improved quality and fewer trades on site, which leads to safer construction. Henley Properties has now completed six of these developments and has many more in the pipeline now it's realised the advantages.

### KEEP IT SIMPLE

Let's take another look at simplicity. Complex design leads to complex construction, which is more costly and takes longer to build. We need to develop designs that maximise the use of direct load transfer from roof to ground (let's get rid of brick ledge cantilevers). By reducing the amount of offset critical loads, we will invariably remove steel beams which will mean a more complete

timber structure from a single supplier that is integrated in design and manufacture.

There are many places around the world that use this philosophy. Travelling through the US or Europe you will see homes that are essentially rectangular in plan and simple in design from a structural perspective. Yet, as you can see in this photo of a duplex in Boston (above), the aesthetics are not compromised.

Simple structure equates to simple build which results in easy repeatable components (such as cassettes). In saying this, technology has evolved and allowed new systems such as the meyBRACE timber portal system to be used on the Henley Properties townhouses to ensure the project was free of structural steel.



**Above:** Building attic rooms in the roof cavity is a way to get extra space without adding greatly to overall height.

**The 10 townhouses  
were erected in three  
weeks, not months.**



The other aspect on simplicity is house layout and size. If we are building more houses that statistically have fewer people in them, why do we need a house with five bedrooms plus study, three bathrooms, media room, living area, formal dining and an outdoor alfresco to finish it off? This results in a much larger, more expensive and harder to build home. There may need to be a reset in terms of house size back to the traditional three bedroom, two bathroom (I do agree with an ensuite) home of the '70s and '80s. This revolves around changing perceptions and acceptance, but if you can offer a home which is over \$100,000 cheaper but still functional, many people will commit to this as a first step in the housing market.

The simplicity can be increased with the use of attic-style rooms replacing the dead space in some or all of the roof cavity, such as the suite at the bottom of the opposite page. By reducing the overall building height, it allows for more floor area as overshadowing reduces. It also suits roof cassettes in the raked ceiling areas to speed up construction time to lock up and lessen weather delays.

Materials are another thing to consider. Why are we still using bricks when they are only a facing and do not contribute to the structure of the house? A meeting with an overseas supplier recently brought up this exact question and they were confused with the complexity

of brick veneer, which is not structural and often gets rendered over. This is the perfect place for the use of timber or fibre cement panel-style claddings.

### THE BIGGER PICTURE

There is one more thing to consider in all of this, which the construction industry does not have direct control, over and this is land availability and affordability. There needs to be land released in urban areas (where people are close to work and services) that is priced at a level that is attainable. It seems that some developers are thinking outside the box on this one as well. There is even talk about novel 'Build to Rent' models where the house is built and owned by the purchaser but the land is still own by a third party and rent is collected. The advantage of this process is that it reduces the initial mortgage size, making it more affordable, and as the land is still owned by someone the land rent will be lower. Challenges include the process when land rent is not paid – you cannot throw a tenant out of a house they own but they are not paying rent on the land they don't own. Whatever the answer, we can only concentrate on the building to make sure this part is as cost effective as possible.

I may have jumped around a bit and the issues are many to solve but they come with a few general overarching themes. If we want to address the housing crisis we need to design and build functional houses in which

**These must be fast and easy to install but still look good and this is where timber comes into its own.**

there are well thought out designs to maximise space.

Simplicity is the key in both layout and structural load transfer as well as deciding on building and fitout materials. These must be fast and easy to install but still look good and this is where timber comes into its own. By doing this we may have to revert from the 'McMansions' of the past and try to stop 'Keeping up with the Joneses'.

Hopefully this article can start a thought bubble that gets to the right people who can make a difference and begin delivering homes.

The main outcome is to have homes that people can call their own – this is the dream that Australians have come to seek. Timber is well placed to be an important part of this, and we haven't even touched on carbon capture and sustainability of timber at all. Let's hope one day we can all be Living the Dream. **T**



For more information on this topic, contact George Dolezal via email at [GeorgeD@meyertimber.com.au](mailto:GeorgeD@meyertimber.com.au)

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**Above:** At the 2022 FTMA National Conference, topics including competing and retaining staff, managing business debt and handling mental health issues were addressed by our expert speakers, along with the launch of FTMA's successful Carbon Warrior program.

# FTMA's 2024 National Conference

With favourite events like the activities day plus new initiatives, this is one not to miss!

**By Kersten Gentle**

Our upcoming 2024 National Conference is being held in Geelong on 18–19 March. This is the first time out of Queensland in 10 years and the first time we have gone to the regions.

The conference is designed to expand our members' perspectives by thinking beyond the conventional. We have invited professionals who will guide attendees in understanding future housing scenarios, highlight potential threats to our market position, provide strategies for navigating the industrial environment, offer advice on defending your business from Workcover claims and shed light on future framing possibilities. These are just some of the subjects we will cover at the conference.

We are thrilled to announce the esteemed

speakers who will join us at the conference: IndustryEdge's Tim Woods, WoodSolutions' Karl-Heinz Weiss, Arboralis' Nick Hewson, Brenda Garrard-Forster from HR Anywhere and Dr. Alastair Woodard will all be attending. Each will bring their professional expertise and unique perspectives to our gathering.

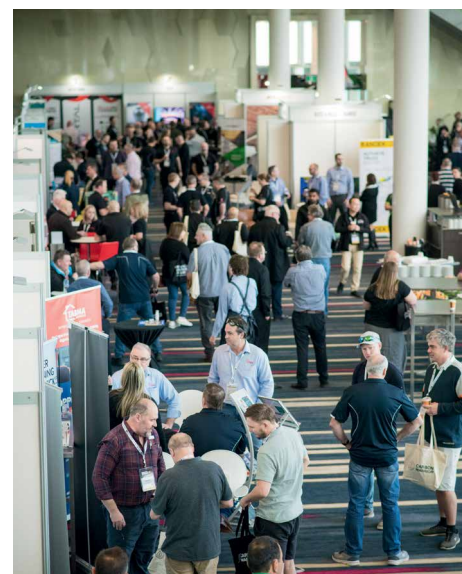
Our keynote speaker, sponsored by our Principal Partner MiTek, is the renowned adventurer and environmentalist Tim Jarvis. He's known for his challenging expeditions that raise awareness of environmental issues. At the conference, he will talk about the importance of leadership in adversity, a topic that carries significant relevance in our current global scenario. We can assure you that the knowledge and insights gained from our speakers will be well worth your time and participation.

## FTMA ART SHOW

The innovative concept of the FTMA Art Show is a unique way to showcase our valued partners and sponsors. Instead of a traditional trade exhibit, these stakeholders are invited to submit a piece of art that embodies their business ethos and reflects their identity. This approach provides a deeper understanding of who our partners

are, what they stand for, and why delegates should engage with them.

Following the conference, the pieces will be collated into a stunning art book. This book, which will be sent to every fabricator in Australia, serves as a tangible and lasting reminder of our partners' commitment to the industry.



**Above:** Networking opportunities abound.

The conference is designed to expand our members' perspectives by thinking beyond the conventional.



## The FTMA Community Award recognises members who are significantly involved in their local communities.

### RED ACTIVITIES DAY

The Red Activities Day is an integral part of the conference, serving as both a networking opportunity and a day of relaxation and fun before the more formal proceedings commence. Delegates can choose from a variety of activities, including golf, horse riding, fishing, a winery tour or surfing. This day, generously sponsored by our Principal Partner Pryda, offers an excellent chance for delegates to network in a more relaxed setting while enjoying their chosen activities.

Following the day's activities, the Red Activities Ice-Breaker will be held at the historic Events 1915, situated in the old Federal Mill buildings. Sponsored jointly by Pryda, Meyer Timber and Vekta Automation, the Ice-Breaker promises to be an unforgettable evening with excellent food, an exclusive wine collection presented by a private sommelier, and top-notch entertainment, setting the perfect tone for the conference to follow.

### NATIONAL CONFERENCE DINNER AND AWARDS

The 2024 National Conference dinner, with the theme 'Disco Cats', promises to be a spectacular evening filled with merriment and celebration. Held at the GMBHA Stadium, it offers attendees an opportunity to unwind while enjoying delicious food, refreshing beverages, and compelling conversations. The night will be more than just good food and company, as it will also include the presentation of several prestigious industry awards. Sponsored by our Principal Partner Multinail, the dinner is an integral part of the conference experience and is not to be missed.

As stated, we have a number of prestigious awards. First and foremost, the Clive Martella Service to Industry Award, an established honour in our industry, will be presented as it has been in previous years. This award

celebrates individuals who have shown significant dedication and provided exceptional service to our industry.

Additionally, we're introducing three new award categories this year. The FTMA Community Award is designed to recognise members who are significantly involved in their local communities, embodying our organisation's values through their actions. The Jackson Kidd Wellbeing Award salutes businesses that make outstanding efforts to ensure the wellbeing of their employees, a crucial aspect of modern business practice. Lastly, the Employee Recognition of Service Award will be granted to members' employees who have remained loyal to one employer for 10, 15, 20, or more than 25 years. This award is a testament to the importance we attach to dedication and longevity in employment.

### THINGS TO KNOW BEFORE YOU REGISTER

Registration for the FTMA Conference is exclusive to fabricators, supplier members, and sponsors. Non-member suppliers are respectfully reminded that they are ineligible to attend our events. In an effort to promote maximum participation from fabricators, we have implemented a cap on supplier registrations until late February. The number of registrations is distributed among Principal Partners (10 registrations), Strategic Partners (6), Supporting Partners (4), Conference Sponsors (4), and Supplier Members (2).

We firmly believe that suppliers benefit immensely from a high turnout of fabricators. Therefore, these limitations serve to create an environment conducive to meaningful exchanges and networking. Should there be availability towards the end of February, we will consider increasing supplier registrations. This approach ensures a balanced representation of all stakeholders and a fruitful conference experience for all.

In conclusion, we are eagerly looking forward to the enriching experiences that the FTMA Conference is set to provide, from the insightful plantation and sawmill tour to the unique FTMA Art Show, all organised with the goal to inspire and educate.

If you want further information on the conference please visit [www.conference.ftmanews.com](http://www.conference.ftmanews.com)

Kersten Gentle



For more information contact  
FTMA on 0418 226 242 or via  
email at [kersten@ftma.com.au](mailto:kersten@ftma.com.au)



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# Attic trusses tips

Focus on these design considerations when creating roof spaces. **By Paul Davis**

Attic trusses are a popular choice for creating extra living or storage space in the roof of a building. You can never have too much storage in a house! They are composed of a bottom chord that acts as a floor joist, a top chord that acts as a rafter and a web of timber members that connect them. However, attic trusses are not as simple as they may seem. There are several factors that need to be taken into account when designing them. Here are some of the most important ones.

## FLOOR DESIGN LOADS

The first thing to decide is the intended use of the attic space and the corresponding floor design loads. Depending on the type and amount of load that the bottom chord will have to carry, there are different parts of the standard that apply. According to the Australian Standard AS 1170.1, the minimum design loads for floors are:

- 0.5 kPa for domestic "non-habitable roof spaces in self-contained dwellings", such as very light storage of empty packaging, that unused exercise bike or stored children's toys.
- 1.5 kPa for typical house floor loads, such as a room to be lived in or heavy storage such as books.
- 3 kPa or more for commercial or industrial uses, depending on the specific application and requirements.

The higher the design load, the stronger and stiffer the bottom chord and the supporting structure need to be. And,

depending upon the webbing (if any), a change in the design of the bottom chord can affect the top chords.

## STRUCTURAL BEHAVIOUR

Attic trusses are something of a misnomer, because they are not fully triangulated and therefore not really proper trusses. But then again, they are not really a set of separate beams either. They are a structural mule, born of two different species of parents.

Because they are not fully triangulated, the load in the bottom chord largely acts like a floor joist. It is supported by the walls below and transfers the load to them. However, the load on the roof is much like a truss – pretty much like a traditional cut-on-site coupled roof. The roof loads end up as compression in the top chord and are taken down to the external wall line, where they are balanced out by tension forces in the bottom chord.

This means that the top and bottom chords are subject to different types of stresses and deformations, and they need to be designed accordingly. Moreover, the web members also play a role in distributing the loads and providing stability to the truss, see Figure 1 (below).

## SPECIAL CASES AND TIPS

There are special cases and tips that need to be considered when designing attic trusses. Here are some of them:

- If the truss has a vertical end (cutoff truss), make sure that there is trussing

(diagonals) between internal walls to take strutted floor loads. Otherwise, the top chord, which wants to be in compression, can slide off sideways.

- Depending on the relative stiffness of the top and bottom chords, if there are low walls at the outside of the attic room, the top chord (rafter) may hang up and carry some floor loads. This may result in additional bending stresses and deflections in the top chord.
  - Internal supports, such as beams or columns, can be used to shorten the span of the bottom chord and make for a much more efficient design. However, they need to be properly aligned and designed and the loads sent to the structure below.
  - Note that you cannot camber attic trusses, which means that you cannot compensate for the expected deflections under load. So do not trust a design from software that relies on cambers. The actual deflections will be higher than predicted.
  - For a quick sizing, size the bottom chord as a floor joist spanning between supports to wall under and size the top chord as a rafter spanning from apex to external wall line. The sum of the parts should still be adequate when formed into a truss.
  - Parallel chord trusses can be incorporated in the floor or roof elements in lieu of solid timbers. They can provide more strength and stiffness, as well as more flexibility in the layout of the attic space.
  - Think about access stairs or ladders. Cutting trusses is just as bad in an attic truss as in any other. It can compromise the structural integrity and safety of the truss. Therefore, plan ahead and make sure that the access to the attic space is compatible with the truss design. You may need a different design to trim out the opening.
- Attic trusses can be a great way to create more space and value in a building. However, they require careful design and installation to ensure that they perform well and safely. By following these considerations and tips, you can optimise your attic truss designs. **T**

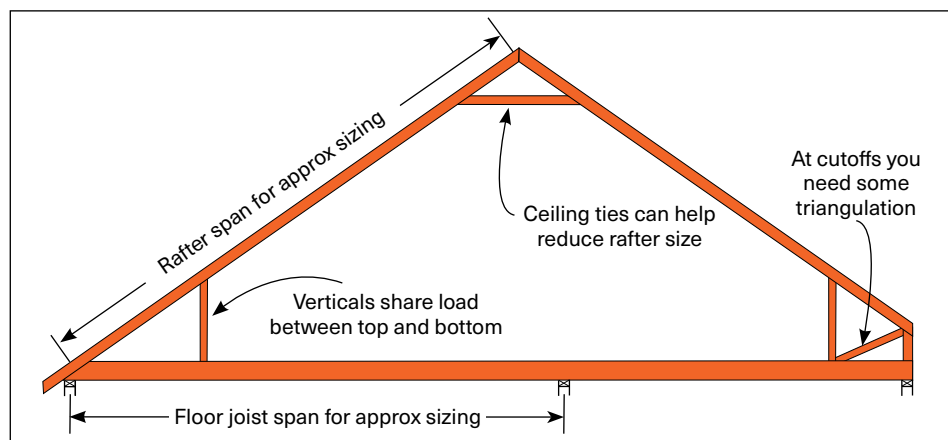


Figure 1: Attic trusses require careful planning, including knowing their final loads and use before design starts.

**Paul Davis** is an independent structural engineer managing his own consulting firm Project X Solutions Pty Ltd. The views in this column are Paul's and do not reflect the opinions of *TimberTrader News*.  
**Phone: 02 4576 1555 | Email: paul@projectxsolutions.com.au**





# VEKTA PACKFEEDER

The ultimate automatic infeed system - speed, compact size, customisable and it completely eliminates picking errors.



## PACKFEEDER

The most common cause of downtime for an automated saw is a lack of timber on the infeed conveyors.

Feeding a linear saw can be a very labor-intensive process. Operators will fatigue and naturally slow down over the day and loading mistakes can cost a plant significantly in lost productivity. Vekta's Packfeeder solution addresses these issues in an extremely compact, clever manner - making it a viable option for both new and existing plants.

Packs of timber are loaded onto light-weight racks. Racks with longer timber are loaded on an upper row while those with shorter timber are loaded on a lower row. A vacuum head gantry then scans the location of each rack and the profiles of the timber in those racks. When called, a piece of timber of the correct length and grade is picked up with the vacuum head and delivered to the saw. **Vekta Packfeeder requires 75% less space than any other system.**





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