MULTIPLEX

Mass Timber Capability

Creating enduring value for clients, communities and the environment

Multiplex is a premier construction company known for shaping skylines and delivering iconic projects around the world. Established in 1962, Multiplex has delivered over 1,100 projects with a combined value of more than US$100 billion.

La Trobe University Student Accommodation, Melbourne, Australia

Experts in Mass Timber

As a long-term builder, we know how to deliver projects that have a positive environmental impact and create enduring value for our clients and the broader community.

We have positioned ourselves at the forefront of pre-fabricated mass timber building, specifically the use of cross-laminated timber (CLT) and glue-laminated timber (glulam) engineered wood products, which have been proven to significantly reduce the embodied carbon within a building.

We have delivered some of Australia's leading mass timber buildings including projects at La Trobe and Monash University in Victoria and Murdoch University in Western Australia. Gillies Hall, a student accommodation project at Monash University, received the first large-scale Passivhaus certification in the Southern Hemisphere.

Clients can trust us to deliver with certainty and maintain quality through the procurement, shipping and installation process, ensuring a final product that has been constructed for the long term.

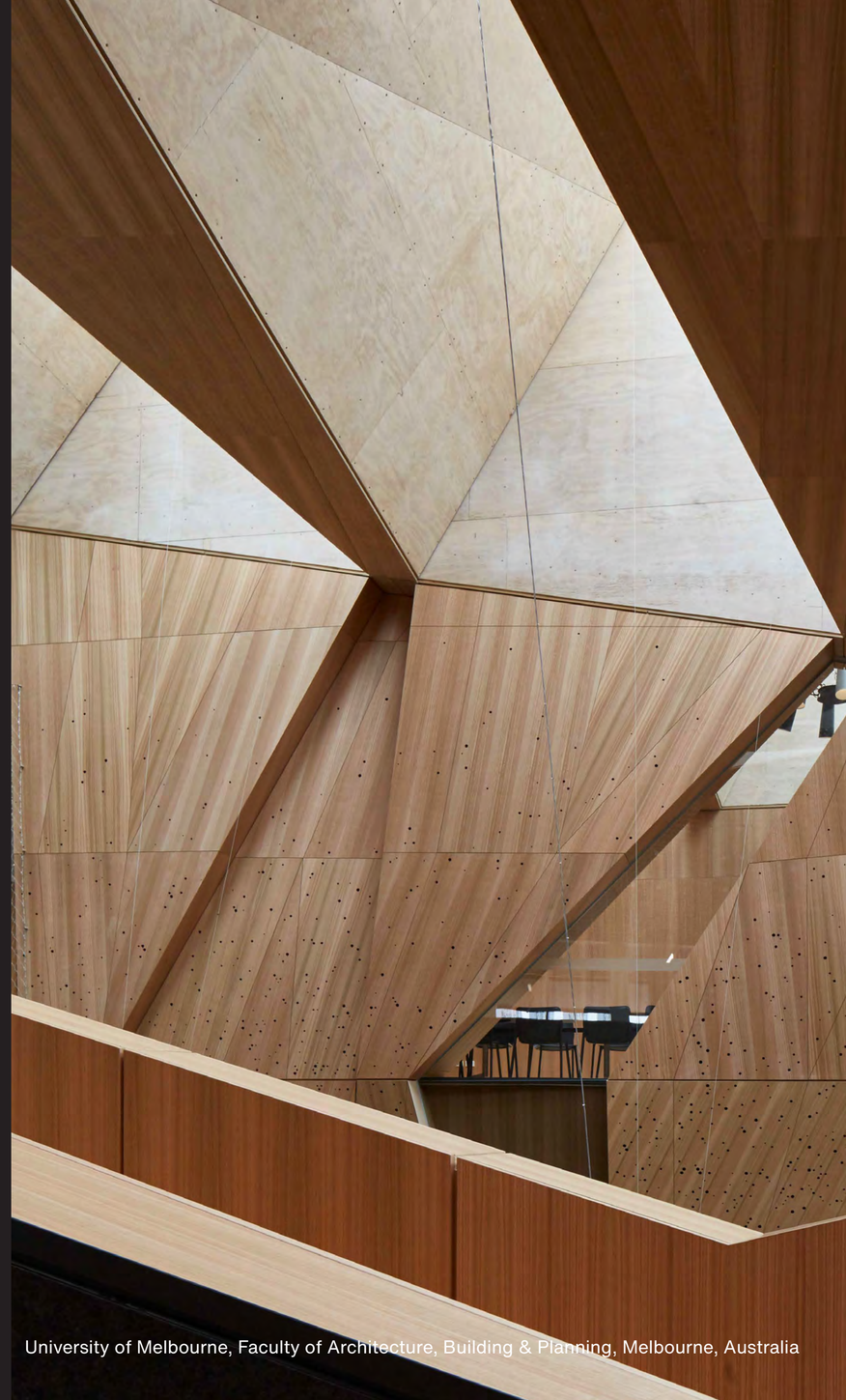
Building with mass timber since 2013

9 Projects

US$1.3bn

55% for repeat clients

The largest mass timber projects in VIC and WA at the time of delivery



University of Melbourne, Faculty of Architecture, Building & Planning, Melbourne, Australia

Outperformance for your project from the outset

We have a proven track record in value engineering during a project's feasibility and conceptual stages. In an early contractor involvement (ECI) role we collaborate with the consultancy team, providing holistic and innovative buildability advice and solutions, and integrating our extensive subcontractor and product supplier network to ensure the best outcome is achieved.

This includes determining the procurement solution that best suits your project. Multiplex has fostered strong partnerships with mass timber suppliers both locally and internationally. Our extensive network means we have the flexibility to design a bespoke procurement solution to meet your project's unique needs.

With mass timber buildings, we know a one size fits all approach rarely provides the best outcome. Instead, at the commencement of each project, we take into account the project design, timeframe and budget to identify the right materials and preferred supplier to make sure your build is as efficient and cost-effective as possible.

2013
University of Melbourne
Faculty of Architecture

Laminated Veneer Lumber timber

2016
Monash Teaching & Learning Building

LVL timber

2017
Bunjil Place

GluLam (complex 5-axis fabrication)

2018
Gillies Hall, Monash

Passivehaus Certification
Full CLT structure

2019
276 Flinders Street

Hybrid CLT / Steel

2020
La Trobe University

Full CLT structure

2023
Australian Nursing and Midwifery Association Hotel

Full CLT Structure & Passivehaus Certification

2023
Boola Katitjin

CLT & GluLam Structure

Under construction
New Sydney Fish Market

Architectural GluLam Roof Structure

We are committed to a low carbon future

As a founding partner of the Cooperative Research Centre for Low Carbon Living, we have been leading actions and discussions towards reducing carbon in the built environment for many years.

We are committed to working with our clients and supply chain to reduce the embodied and operational carbon footprint of our projects – before, during and after the built. This includes making our bids ‘on time, on budget and on carbon’ by putting forward carbon reduction solutions at bid stage regardless of whether a client has requested in or not.

We also recognise the significance of building materials in achieving carbon reduction targets and work with suppliers to innovate greener solutions such as low-carbon concrete and mass timber.

As a business, we have delivered over 50 Green Star-rated projects and are a signatory of the World Green Building Council’s Net Zero Commitment. We understand your goals because we value the same outcome.

Boola Katitjin Murdoch University, Perth, Australia

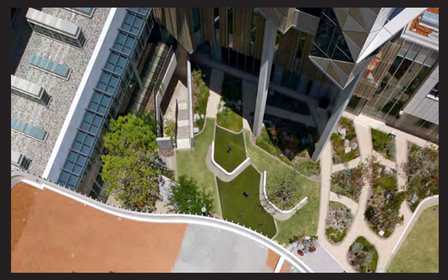
An approach focused on delivery and impact

Our delivery track record is supported by clear vision and action across the full spectrum of ESG. We have oriented our global business around five core ESG principles – Environment, People, Communities, Partnerships, and Governance and Operational Excellence - and positive and material change.

Environment

We interact closely with nature through our day-to-day operations and drive positive outcomes across our full spere of influence - including climate change, noise, waste, biodiversity, and sustainability and wellbeing.

With our strategic focus on impact and materiality, we place a particular emphasis on reducing carbon. We draw on and contribute to evidence and prioritise early conversations with our clients to explore how the design and building decisions we make will influence embodied and operational carbon outputs.



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People

We genuinely care about people; it is one of our inherent values. Within our business, we resource and promote programs to support the physical and mental health of our people and supply chain – from industry-leading flexible working programs to mental health first aid training that equips our people to support each other.

S

Communities

We seek to connect and enrich communities by working with them, not for them, and tailoring programs that create meaningful and long-term change. With construction one of the largest employers globally, we have a significant opportunity for impact through employment and procurement and we place a particular emphasis on programs to educate, upskill and connect job seekers to work.

Partnerships

With collaboration in our DNA, we bring everyone together at the earliest opportunity because we know that's when we stand to have the greatest impact. On projects we foster a 'one team' approach where clients, consultants, designers, project managers and subcontractors come together to plan ahead, identify risk and opportunities, and ensure our work is safe and aligned.

Governance & Operational Excellence

As a sustainable business, we have sound business practices that both manage risks and realise opportunities. We balance the discipline and structure required to operate to the highest standards, with the flexibility to continually learn, grow and improve.

G

A continued focus on the fundamentals

Safety

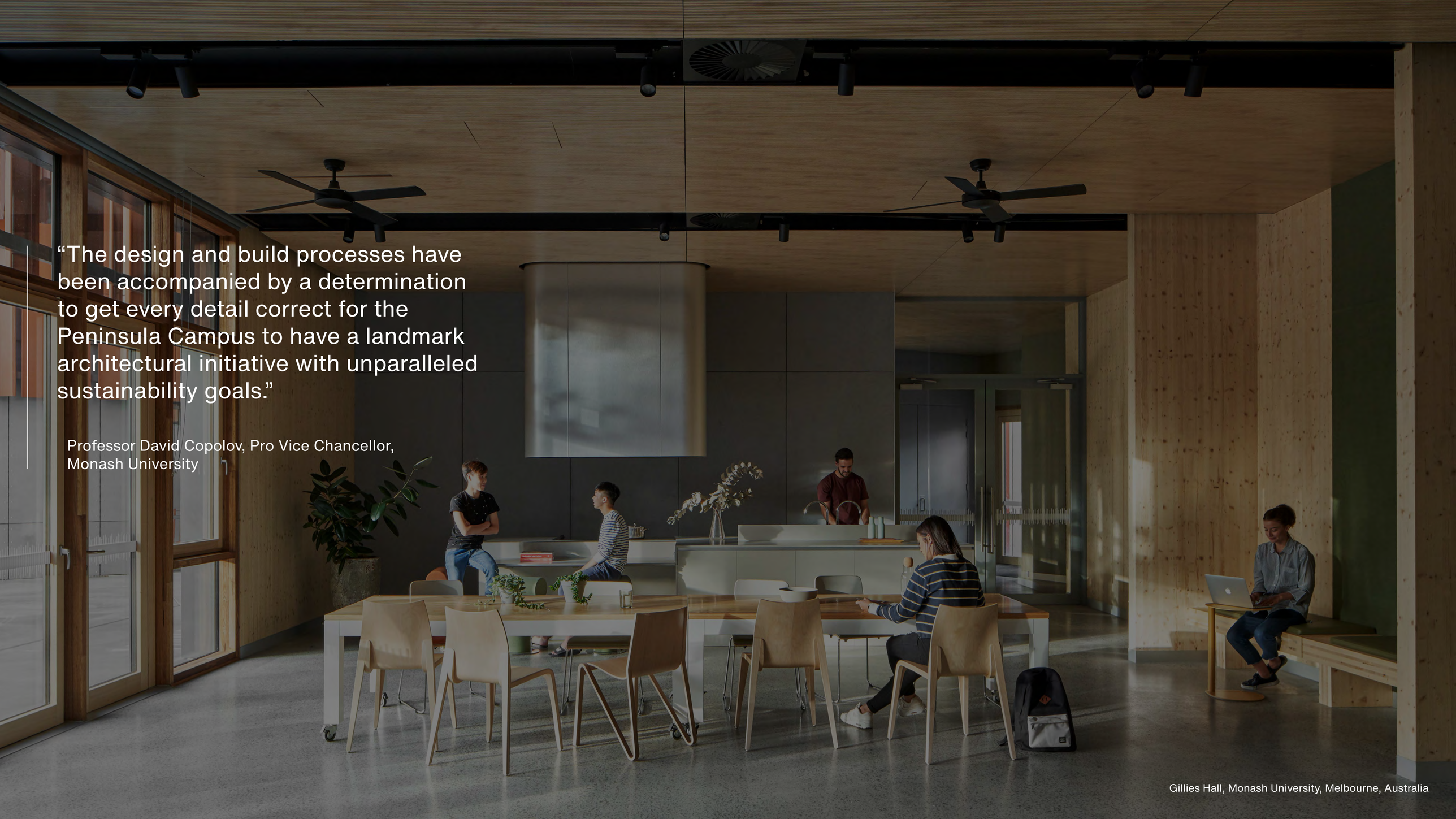
Multiplex is on a continuous journey to boost safety culture and standards across our business and industry. For our projects, our robust ‘Safer by Design’ strategy focuses on eliminating critical risks that will have the greatest consequences. This means working with clients to design out safety risks and design in safety controls in the early stages of projects, because we know we stand to have the most impact when we plan upfront.

Quality

Multiplex has a strong track record in quality management, and our clients benefit from systems and processes that have been developed and refined over 60 years. Our approach to quality goes beyond basic certification. It is built into everything we do - from tender development to delivery and operation. And it is grounded in our Management System, the strategic framework within which we manage our business and projects.

Innovation & Technology

Our approach to technology and innovation is underpinned by value. We know value means different things to different clients, and we look for innovative ways to tailor value for our clients – from construction techniques to reduce carbon to employment initiatives to deliver social procurement requirements. While we don’t adopt technology for the sake of appearances, where it can be found to deliver value and efficiencies, we are at the forefront.



“The design and build processes have been accompanied by a determination to get every detail correct for the Peninsula Campus to have a landmark architectural initiative with unparalleled sustainability goals.”

Professor David Copolov, Pro Vice Chancellor,
Monash University

Gillies Hall, Monash University, Melbourne, Australia

Case Studies

University of Melbourne, Faculty of Architecture, Building & Planning, Melbourne, Australia

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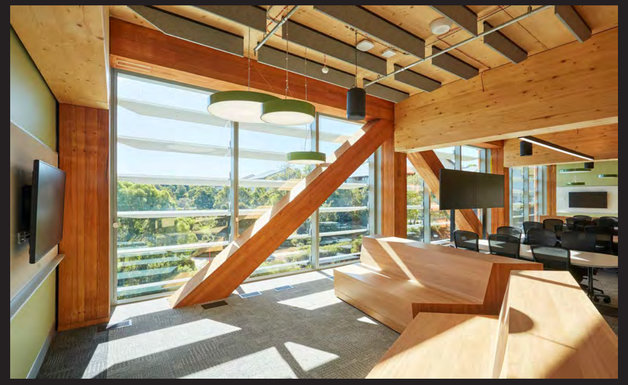
Project Awards



Case Study:
Boola Katitjin Murdoch University, WA

Scope
21 large flat-floor format teaching and learning spaces, technology-rich labs.

Project Value
AU $150M

Client
Murdoch University

Dates
2021—2023

Murdoch University's new academic building Boola Katitjin sets a global benchmark for sustainability and innovative teaching technology and is one of the first and largest mass engineered timber projects in Western Australia. The building is the University's new primary address, accommodating up to 60% of teaching capacity needs.

The 180 metre long structure used approximately 1,800 pieces of mass engineered timber, and pushed engineering boundaries with the installation of some of the largest beams ever seen in Australia by volume – with some weighing more than 7,000 kg and extending 26 metres in length.

The individual timber elements and their connections were designed and documented to a very high degree of detail. This important step ensured all the structural connections were designed, engineering, reviewed, checked, and verified prior to being fabricated and transported. This was particularly vital given the project was delivered during a period of significant global shipping/supply disruptions.

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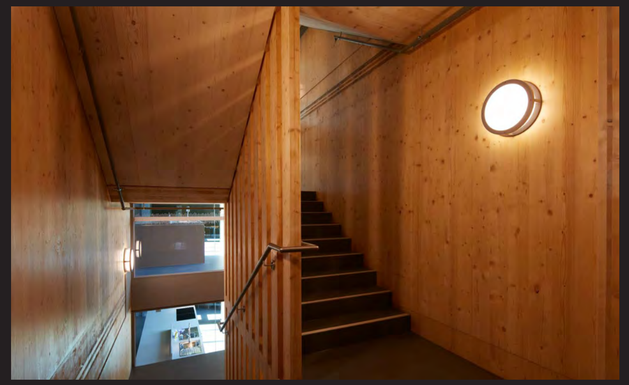
Project Awards



Case Study:
Gillies Hall, Monash University, VIC

Scope
Six-storeys, 150 student residential rooms.

Project Value
AU $35M

Client
Monash University

Dates
2018—2019

Certification
Passive Haus

Gillies Hall was the first large-scale building in the southern hemisphere to achieve Passivhaus certification. Early involvement on significant items such as identifying the optimum procurement solution for the project and the complexities involved in achieving Passivhaus certification was critical to its success.
Close collaboration with CLT suppliers and subcontractors, along with factory inspections of materials, ensured we fully understood procurement requirements.

Mass timber components included Glulam Beam & Column and CLT floors and walls, including the core. The CLT structure had only a 10-week timeframe following completion of concrete works. Detailed delivery and shipment management avoided delays and material protection maintained during shipment and storage.

The project was delivered on time, despite an aggressive schedule and challenging weather conditions on the exposed sloping site.

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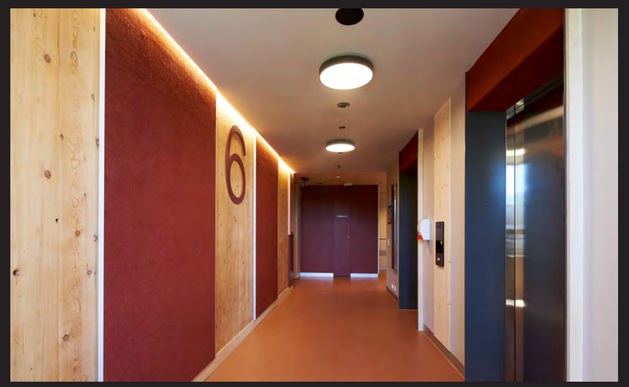
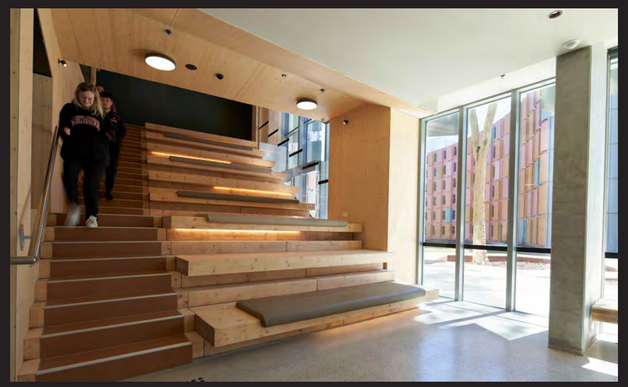
Project
Awards





Case Study:

La Trobe University Student Accommodation, VIC

Scope
Two buildings providing an additional 624 beds, utilising a full cross-laminated timber (CLT) and glulam structure

Project Value
AU $94M

Client
La Trobe University

Dates
2019—2020

Certification
5 Star Green Star

The largest mass timber construction project (by volume) in Victoria at the time, the procurement of the CLT was paramount to the success of the project. Using BIM models to fast-track the process and a design intensive workshop which took place over two weeks in Italy, we delivered CLT from concept to ready on site in just 17 weeks - an unprecedented speed.

Over 2,700 mass timber elements were used in the construction. With the project taking place within a busy operating university campus, the use of mass timber also helped to fast-track construction while minimising noise and impact to the learning environment. Other accelerated construction techniques include the use of pod bathrooms and prefabricated concrete.

Despite COVID lockdowns in the key final phase, the project program was maintained.

Case Study:
New Sydney Fish Market, NSW

Scope
Four-storey market hall with a Glulam canopy roof structure.

Project Value
AU $750m

Client
Infrastructure NSW (INSW)

Dates
2020 — present

We are delivering the third largest fish market in the Southern Hemisphere of its kind next door to the current site in Sydney's inner city. Over 6,000 square metres of new public space in a market hall setting will be constructed along with restaurants, cafés, bars, fishmongers, specialty food retailers, public promenades, offices, commercial space and a ferry wharf.

The innovative design of the new Sydney Fish Market includes a distinctive wave-shaped and scale-patterned roof paying homage to the fishing industry. Approximately 1600m^3 of spruce glulam from Italy and 150 tons of steel have be used to manufacture the roof. Once transported to Sydney, the timber was lifted on to site using barge-cranes.

The roof design also utilises its geometry for potential energy production through the incorporation of photovoltaic cells, as well as rainwater collection and recycling.

Project Awards

Project	Year	Award	Association
ANMF House	2023	Merit, Sustainability	Australian Timber Design Awards
Boola Katitjin, Murdoch University	2023	Merit, People's Choice	Australian Timber Design Awards
	2023	Excellence in Timber Products, Engineered Wood Product	Australian Timber Design Awards
	2023	Excellence in Construction Awards, Best Education Building $100m	Master Builders Association
	2023	Excellence in Construction Awards, Energy Efficiency	Master Builders Association
Bunjil Place	2018	William Wardell Award for Public Architecture	AIAA VIC
	2018	Best in Victoria	Australian Engineering Excellence Awards
	2018	Winner, Cultural Category	Global Architecture and Design Awards
	2018	Excellence in Timber Design	Australian Timber Design Awards
	2018	Excellence in Use of Timber Products	Australian Timber Design Awards
	2018	Finalist	Australian National Architecture Awards (Public)
	2017	Architecture of the Year	International Design Awards
	2017	Gold Prize, Institutional Category	International Design Awards
	2017	Gold Prize, Landmarks Symbolic Structures	International Design Awards
Faculty of Architecture, Building and Planning, University of Melbourne	2015	Architecture Award for Education Architecture	
	2015	Marion Mahony Award for Interior Architecture	
	2015	Daryl Jackson Award for Educational Architecture	
Gillies Hall, Monash University	2019	Health and Comfort	Green Solutions Awards
	2019	Winner, Built Environment category	Premiers Sustainability Awards
	2019	Merit, Sustainability	Australian Timber Design Awards
La Trobe University Student Accommodation	2020	Excellence in Timber Applications, Multi-residential	
Monash Teaching and Learning Building	2018	National Award for Education Architecture	AIAA
	2018	National Award for Interior Architecture	AIAA
	2018	Award for Educational Architecture	AIAA

ANMF House, Melbourne, Australia

Built to outperform.