

# AFFINITY PLACE

Display suite for new Stockland  
commercial development



Stockland Corporation Limited | client  
Hassell | architect  
InOne Projects | project manager

Architectural Case Study

Affinity Place Level 38, 88. Walker Street North, Sydney



## Project Description

Affinity, a landmark development at 110 Walker Street in Sydney's northern CBD, is a 51-storey office tower designed with a focus on sustainability and progressive urban living.

Strategically positioned with growing transport links, it will deliver exceptional tenant and urban amenities while enhancing access to nature.



## Project Description

House of Bamboo were commissioned to design and coordinate custom manufactured engineered bamboo building elements for a new commercial tower development office display suite.



# Technical Specifications

Full Engineered Bamboo material specification

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Bamboo Species	P. edulis
Fire Rating	Class 3
Thermal Conductivity	0.17 W/mK
Density: [Kg/m <sup>3</sup> ]	650 - 700 [Kg/m <sup>3</sup> ]
Flexural Strength	40 - 89.7 (MOR) [MPa]
Shear Strength	14.2 [MPa]
Fibre content	99%
Formaldehyde emission	<0.04mg /m <sup>3</sup>
Maximum Resin / Glue content	<0.101%
Fungus Resistance	Grade 0
Durability	Class 1-2

# Technical Specifications

## Materials Used

Total area clad with House of Bamboo engineered bamboo: 30m<sup>2</sup>.



Custom battens 20mm wide x 20mm deep battens made into modular lattice screens with a 60x60mm opening



10 metres of engineered bamboo skirting boards 190mm x 20mm with 10x10mm shadow gap.



10 metres of solid engineered bamboo door jamb profiles 32mm wide x 154mm deep incorporating a 12x40mm rebate.

# Technical Specifications



Mould proof treated  
- FSC Certified



Global GreenTag  
Certified -Level A

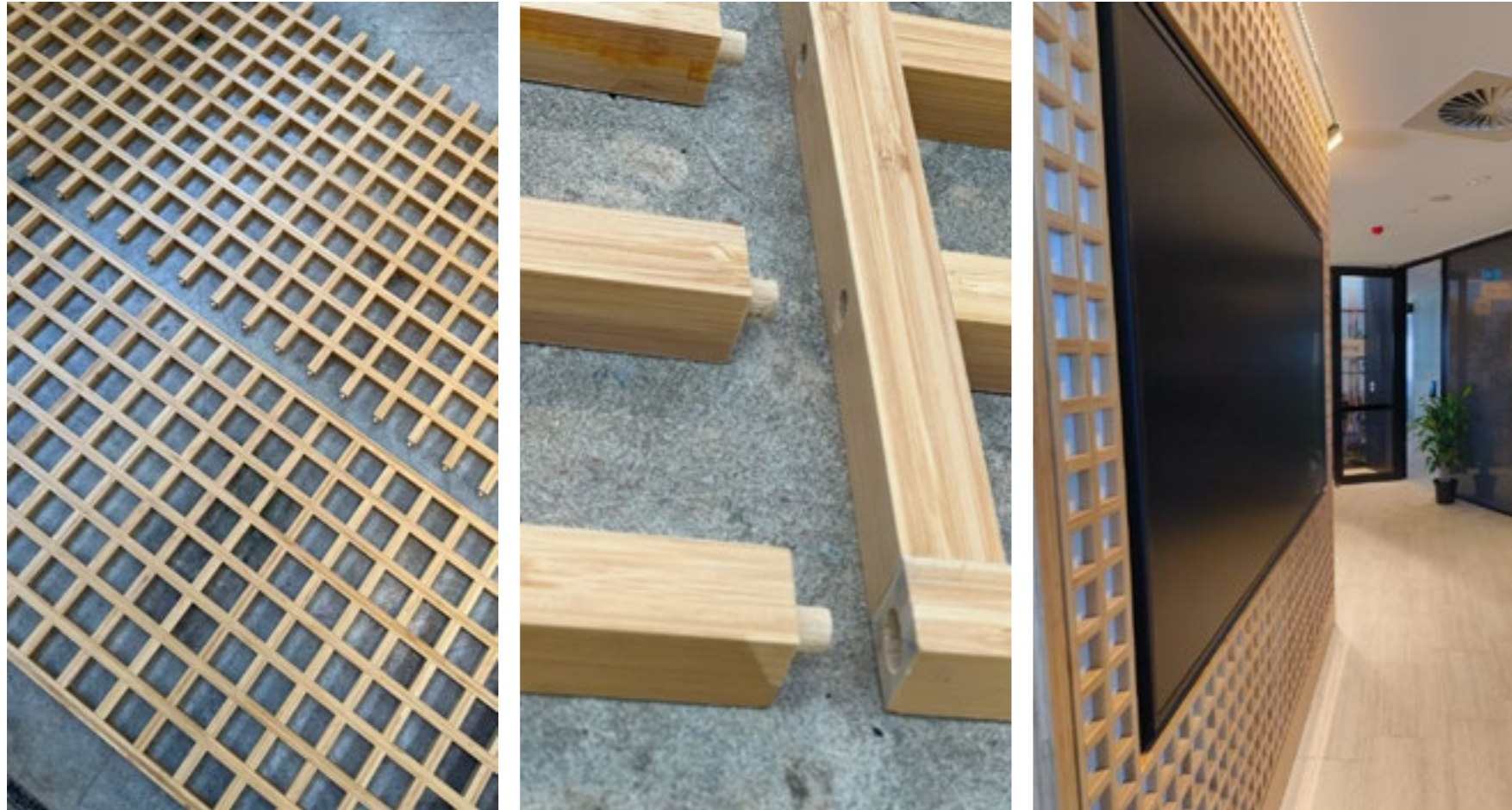
Global GreenTag  
HealthRate - Platinum



Finishes

Raw - UV super matt  
protective coating. All  
internal parts, included our  
standard mould treatment  
and coating.





Special attention to details on the lattice panels to ensure exact alignment on site: Incorporation of a pre drilled and dowelled joint detail.

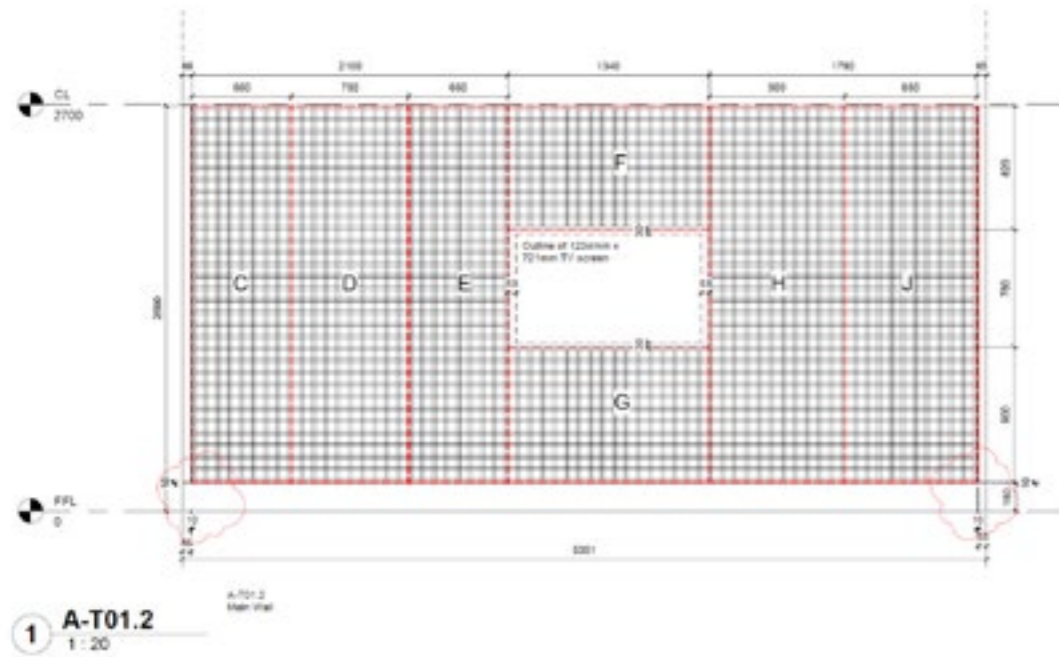
Careful attention to corner trims to align the lattice grid for an aesthetically pleasing symmetrical chamfered wall corners.

Refining fixing method to align the engineered bamboo lattices flush with the flat screen television, special attention to shadow gap profiles and allowances to site tolerances.

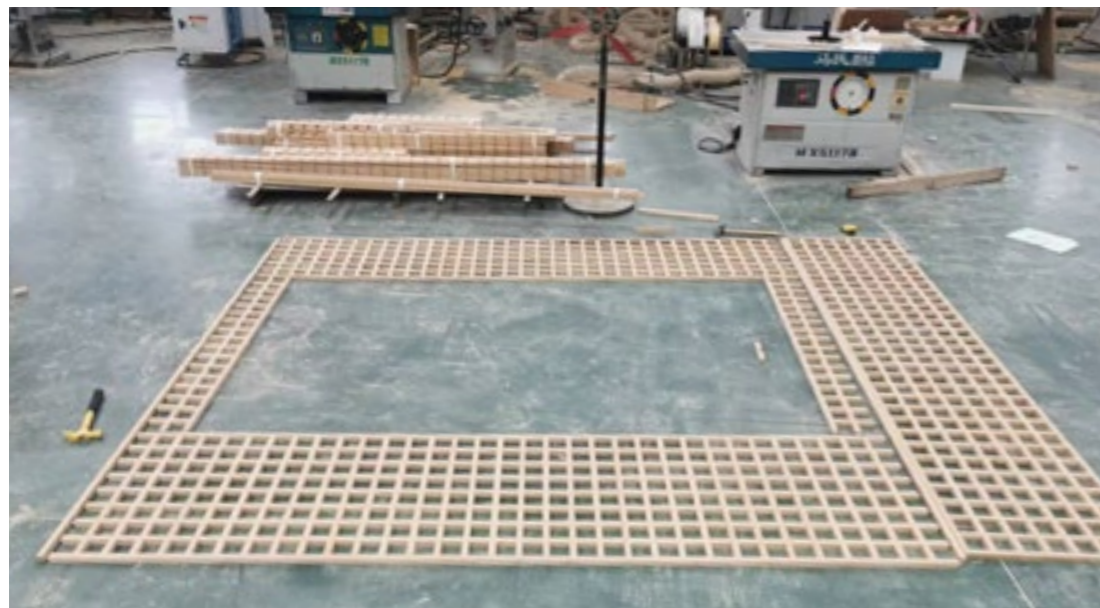
## Design and Manufacturing Challenges

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# Design and Manufacturing Challenges



## Tight timescale

Six revisions were provided to InOne Projects to ensure exact alignment with the design as it developed. Extra scope was required and promptly designed and added to the project scope with no fuss.

Given the client's tight deadline and revisions, the project parts required adjustment to comply with air freight packaging. This was achieved, with care, ensuring the parts remained the largest sizes possible for ease of installation.

Once air freighted the parts were promptly cleared by customs and made available to the Project Manager and Installation Manager for a pre-collection inspection.



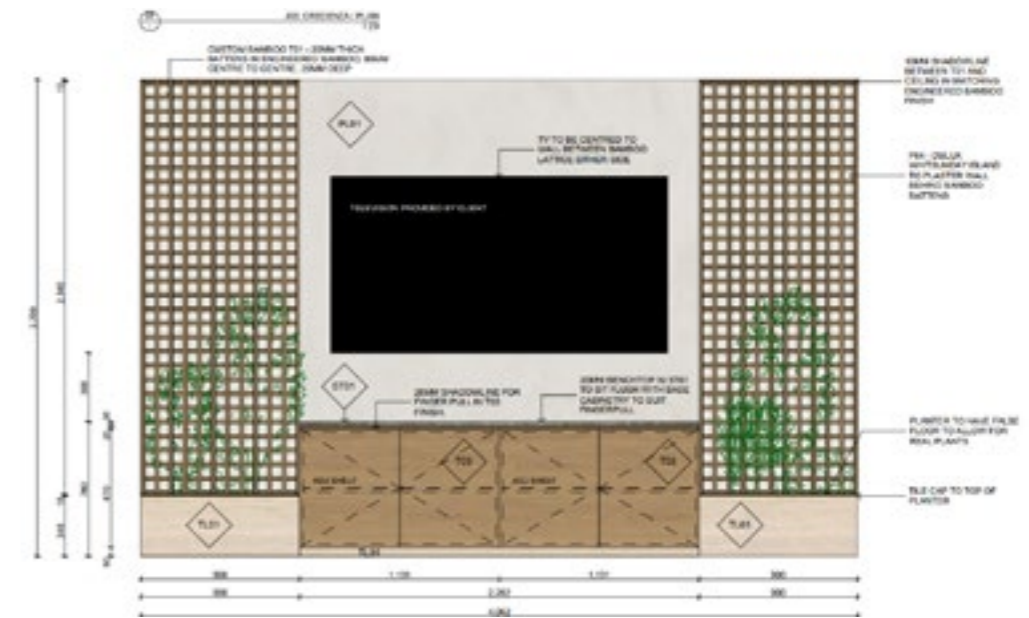
# Innovations and Solutions

The most substantial solution this project provided Stockland and InOne Projects was the streamlined design and manufacture timescale; producing custom engineered bamboo construction parts together, with careful coordination.

Instruction was received from InOne Projects to start manufacture on 4 April, 2024. Products were manufactured and shipped to the House of Bamboo warehouse in Botany, NSW, inspected and ready for collection on 17 May, 2024. Totalling just six weeks from instruction date.

## Manufacturing & Production Software:

The project utilised 3 dimensional BIM Software to model the complex geometry to ensure an exact match with Hassell Architects and Stockland general arrangement designs and reflected ceiling plans. Utilising BIM to help preempt any construction issues that may arise prior to installation to ensure any issues are eliminated.



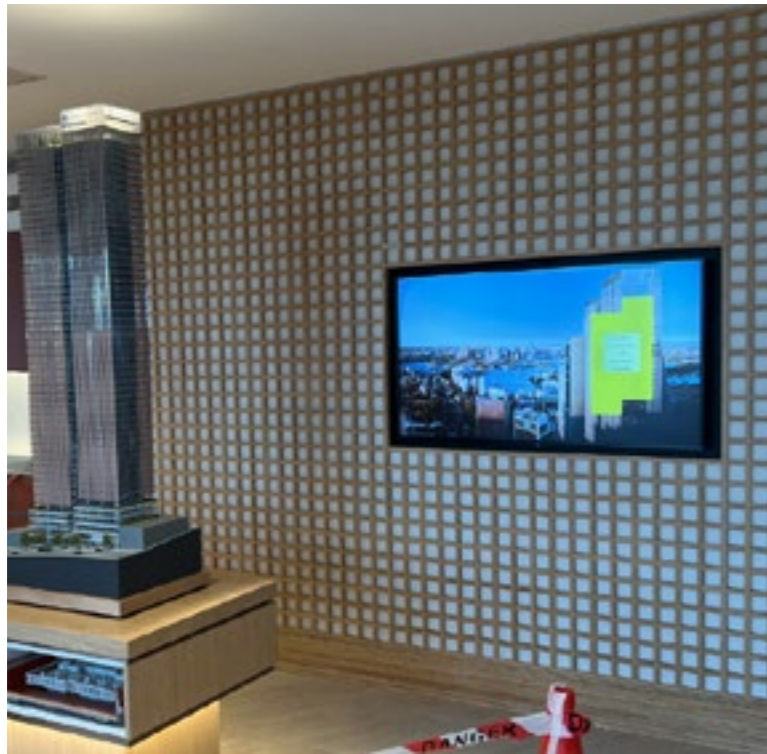
# Project Impact

A building material alternative with reduced embodied carbon:

Embodied Carbon (kg Co2/1 cubic metre of material) Comparison			
Cross Laminated Bamboo (Engineered)		Average Timber (Inc Eucalyptus)	
Unit	Embodied Carbon (kg Co2/1 cubic metre.)	Unit	Embodied Carbon (kg Co2/1 cubic metre.)
1m3	307.00 kg CO2	1m3	417.00 kg CO2
<b>Note:</b> Average A1 to B3 & C1 to D embodied carbon factors		<b>Note:</b> Average A1 to D embodied carbon factors	
<b>Source:</b> <a href="https://www.moso-bamboo.com/wp-content/uploads/20170315_EPD_INT_Moso_Solid_EN.pdf">https://www.moso-bamboo.com/wp-content/uploads/20170315_EPD_INT_Moso_Solid_EN.pdf</a>		<b>Source:</b> <a href="https://www.sciencedirect.com/science/article/abs/pii/S0360132322001871">https://www.sciencedirect.com/science/article/abs/pii/S0360132322001871</a>	

“Our ambitious response embeds a strong sense of purpose with social and environmental thinking to make a positive difference to future generations. We’re ensuring sustainability and wellbeing is at the heart of what we’re delivering.”

— Liz Westgarth, Principal and Board Director



## Conclusion

The engineered bamboo interior building elements on the AFFINITY PLACE project exemplifies House of Bamboo's expertise in merging sustainability with innovative design solutions.

## ■ Conclusion

### The future vision for Affinity Place:

Stockland's long term vision Affinity Place includes much more engineered bamboo:

Bamboo ceiling lattice with acoustic lining, Framing for ceiling lattice, End grain flooring, Bamboo lattice screen walls, Bamboo wall paneling for passenger lifts, Bamboo handrail in passenger lifts. 38mm diameter, Ceiling lattice in passenger lifts, Bamboo flooring, 19mm thick stair treads, risers and nosings.

*Engineered bamboo framed lattices (90mm deep) together with 150 x 150mm structural engineered bamboo framing to form the suspended feature ceilings to conceal services and add sustainable aesthetic appeal.*





EST. 1972

## **OFFICE & SHOWROOM NSW**



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