

CRAFTED

WITH
CAPRAL

Domestic

When travellers step into the new Western Sydney International Airport terminal, they'll be met not only by a state-of-the-art facility but by a remarkable architectural expression of place, light, and landscape.

CAPRAL
ALUMINIUM



ABOVE AND BEYOND: THE ALUMINIUM CEILING DEFINING WESTERN SYDNEY INTERNATIONAL AIRPORT

When travellers step into the new Western Sydney International Airport terminal, they'll be met not only by a state-of-the-art facility but by a remarkable architectural expression of place, light, and landscape. At the heart of this experience is a striking suspended ceiling – an undulating feature that speaks to the Blue Mountains, the Cumberland Plains, and the vast Western Sydney sky. This visionary ceiling was brought to life by Austral Interiors through a close collaboration with Woods Bagot Architects, Multiplex, and Capral Aluminium.

"We wanted Western Sydney International to be unique to its location and to its people," says Neil Hill, Principal at Woods Bagot, "and not to be confused for another airport terminal elsewhere, either in the country or the world."

That uniqueness is perhaps most powerfully expressed through the ceiling itself – a sweeping, sculptural installation involving over 200

kilometres of aluminium battens suspended overhead. While its organic form appears effortlessly fluid, the design and construction process was anything but simple.

"I've been looking at this ceiling and living and breathing it for the past two years, three years," admits Mitchell Grech, WSI Senior Project Engineer at



Multiplex. "So it's hard to be objective. It is the architectural focal point of the airport. So it was important that we pulled it off right."

Early in the project's development, the ZHA and Cox competition-winning design called for undulating battens to

profile through the terminal – a challenge both conceptual and logistical. Austral Interiors, responsible for delivering the feature ceiling, approached the task with equal parts creativity and technical precision.

"You see the waviness and the curves in the ceiling, but none of the battens are curved," explains Martin Cisneros,

Austral Interiors WSI Project Manager. "It's the framing that achieves that concept." To bring the vision to life, Austral worked with Rondo to develop a custom clip with a pivotal joint, allowing each batten to follow the geometry of the framing. "That custom clip... has



that little swivel on it. So whatever the framing is doing... the batten's following that."

But the ceiling's success depended not only on innovation in construction – it required a high-performance aluminium batten system, extruded to tight tolerances and high-quality standards. That's where Capral came in.

"Early in the piece, when we engaged Austral, we started talking to Capral about different extrusion shapes that would work," Mitchell recalls. "We started looking at the dies that we could make not only to get the strength that we need, but also the deflections and the straightness in order to get a high-quality product at the end."

Capral's contribution extended far beyond the supply of aluminium. The extrusion team worked closely with Austral Interiors to refine designs, factor in the unique tolerances of the custom clip system, and prototype components that would eventually span over 140 metres in width and 200

metres in length across the terminal.

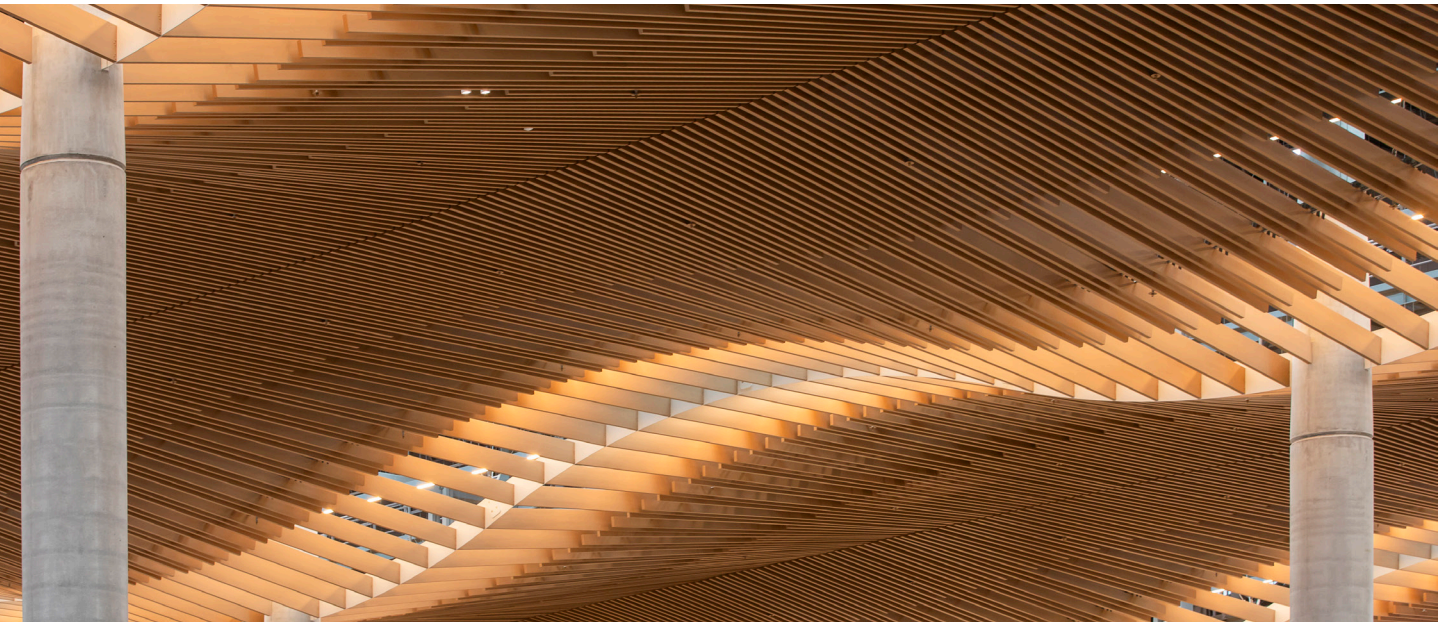
"Capral had a big job ahead of them... and they delivered," Martin says. "The QA that Capral had done is second to none."

Importantly, Capral supplied the battens using lower carbon aluminium – another milestone for a project deeply rooted in sustainability. "The fact that we were able to source this whole job with lower carbon aluminium was a great result," Martin notes

The technical feats didn't end there. The team introduced a central spine to help push spans further and eliminate the need for additional support framing in the skylight zones, preserving uninterrupted access to natural light.

This spine, cut by Capral's WA team from 12mm aluminium, became a key structural element of the ceiling itself. Its precision engineering helped reduce material wastage to just 10–15%.





Photos Courtesy of Multiplex & Aran Anderson Photography

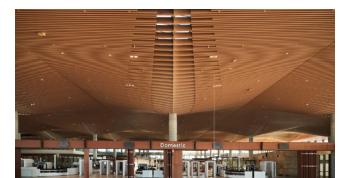
Throughout the process, collaboration was key. “It didn’t matter if you were an architect or a fabricator or a constructor or a project manager – we were all together,” Neil reflects. “We had a common goal to achieve the outcome.”

For many, this project has been more than just a job – it’s a personal legacy.

“I’ve got two young children,” Martin says. “In five, ten years, it could be them walking through here and just looking up and saying, ‘Look what Dad did.’ I’m sure not just myself, but

everyone feels that way who’s had involvement with the project.”

And for Capral, it was a privilege to help realise this bold vision. Crafted with care, precision and purpose – this ceiling doesn’t just float above Western Sydney International Airport. It soars.



Watch the Western Sydney International Airport Crafted with Capral case study to learn more about this remarkable architecture.

