

CASE STUDY: CAIRNS CONVENTION CENTRE, CAIRNS, NORTH QLD

Architecture: COX Architecture, in partnership with CA Architects

Builder: Lendlease

Products: Gyprock Rigitone Matrix 8/12.5



Photography Credit: Christopher Frederick Jones



Background

Emerging from the lush greenery of tropical North Queensland, the striking Cairns Convention Centre's façade enthusiastically signals the development's unconventional character. Originally designed by COX in the 1990s, the \$176m project sought to expand the Centre's capacity and elevate its stature as an innovative world-class destination, offering the incumbent architects a unique opportunity to expand on their previous vision.

Created in partnership with CA Architects, the new design honours the building's architectural heritage while introducing a fresh and reinvigorating design language. In deference to the original structure's iconic wave-like roof, the expanded design seamlessly introduces new elements that engage with the revitalised waterfront and celebrate the distinctive personality of the new extension.

Expansive glass panels facilitate breathtaking vistas and inspire the integration of innovative solar management solutions, ensuring a comfortable and sustainable environment within the Centre. The façade's curved expression – punctuated by a dynamic dance of green, red, and brown sunscreen panels – emerges as a striking design emblem that harmoniously consolidates both buildings into one cohesive complex, sympathetically settled into the mesmerising water-side landscape.

"The Convention Centre gives the attendees a sense of place," explains Bastiaan Kolff, COX Architecture Senior Associate. "The design made the most of its stunning location, creating views and providing an externalised Convention Centre with a focus on integration into the setting at the edge of the city and nature." In contrast to multiple internalised and location-agnostic convention centre designs, Cairns' new cultural landmark establishes an unmistakable connection to its captivating geographical setting.

Breathing new life into the picturesque waterfront, previously overlooked due to industrialisation, the centre now boasts a 450-seat plenary lecture hall, three 120-seat meeting rooms, and exhibition space for 30 display booths designed to foster collaboration and innovation. The 500-seat rooftop banquet venue offers breathtaking panoramic views of the Trinity Inlet and majestic mountains beyond, while the captivating sky terrace provides a serene escape for contemplation and reflection.

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Challenge

Given the Centre’s multifaceted role as a host to performances, art exhibitions, and conferences and its design emphasis on openness and connection to the surrounding landscape, achieving impeccable acoustic performance was non-negotiable. The interior spaces, echoing the organic forms and textures of the Cairns landscape, required specified products that would enable the architects to realise their vision and elevate the Centre’s interior into a visually captivating environment.

A perforated ceiling system, offering superior acoustic control and design flexibility, emerged as a critical component in fulfilling these multifaceted design objectives.

Solution

Rigitone, a product of Gyprock, delivers a unique blend of acoustic excellence and design versatility, and its perforated ceiling panels are widely embraced in commercial settings such as theatres, restaurants, and shopping centres, where acoustic performance is paramount. With its precise balance of acoustic control and aesthetic appeal, the Rigitone Matrix 8/12.5 proved to be the ideal choice for the Cairns Convention Centre. “The Rigitone Matrix 8/12.5 provided the right combination between the required acoustics and the design intent,” says Bastiaan.

With its 8mm round perforations and edge-to-edge pattern layout, the Rigitone Matrix 8/12.5 delivers exceptional acoustic performance while seamlessly integrating with the Centre’s organic aesthetic. Its innovative installation method ensures a continuous, uninterrupted pattern, while the product’s Activ’Air technology has been engineered to help create a healthier indoor environment by improving air quality.

This ambitious expansion and revitalisation project has significantly enriched Cairns’ cultural landscape. The Centre’s seamless integration with its tropical context, coupled with its high-performing, world-class facilities, has established it as a landmark destination, while the building’s externalised architecture speaks to its unique, local character.

The project’s success is further underscored by its recognition from the Australian Institute of Architects, receiving both the prestigious Eddie Oribin Award for Building of the Year and the Commendation Award for Public Architecture in the Regional, Far North Queensland category. “COX Architecture and our local partners, CA Architects, are delighted with the outcome,” Bastiaan affirms. “But more importantly, the client and the operator are very pleased with the newly refurbished centre and the expansion as it has created opportunities that were not foreseen at the start of the project.”