

RICKARD

ENGINEERING

SYDNEY • LONDON • DUBAI • DENVER
MELBOURNE • CANBERRA • SHANGHAI



SKYE BY CROWN GROUP
North Sydney, NSW

Content

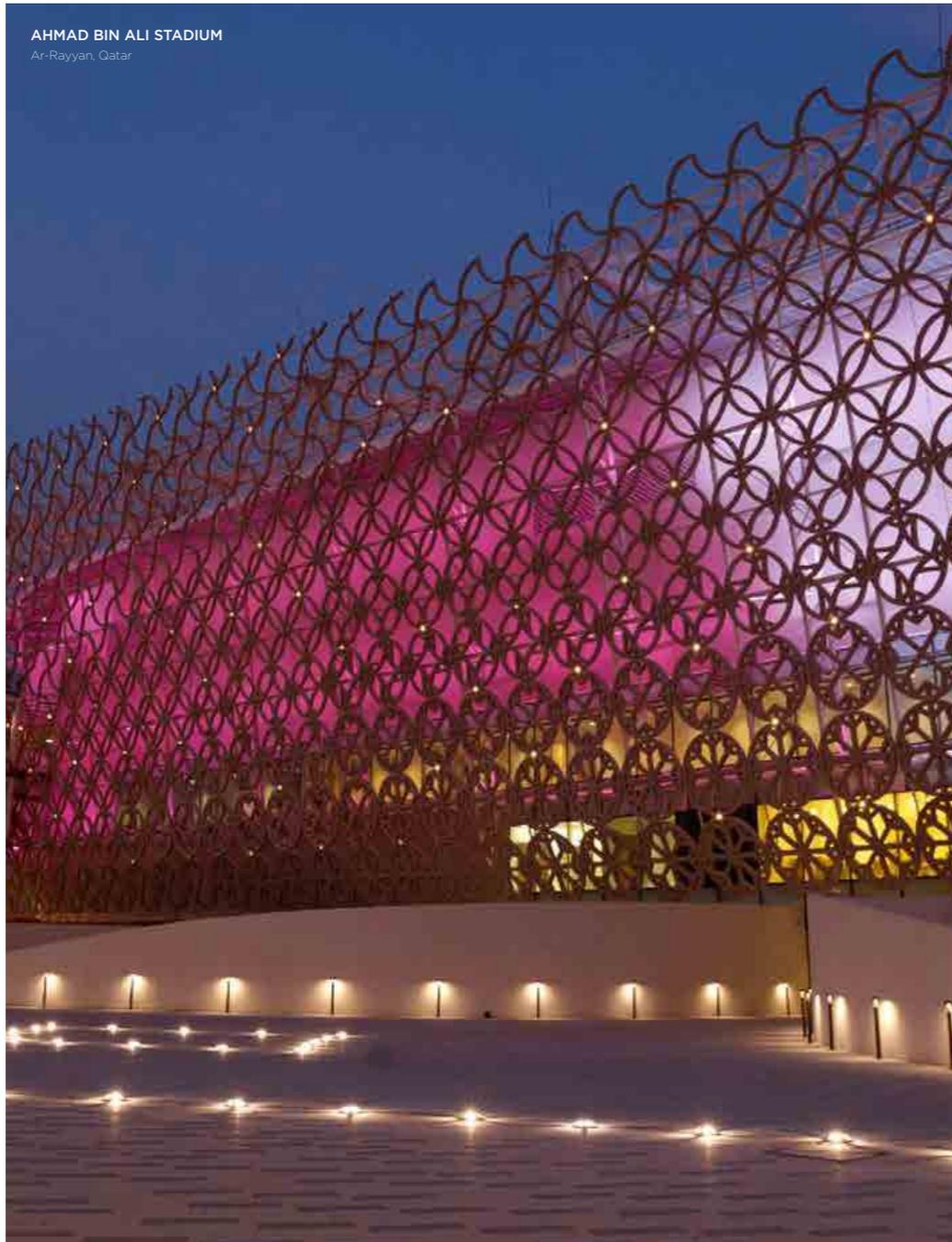
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ABOUT US



Charles Rickard

MANAGING DIRECTOR

CEng, FIE (Aust), FStructE, MIPENZ, MSc

Charles Rickard is one of Australia's most sought-after engineers who has built a solid reputation through delivering quality, trust and innovation within his field.

Charles graduated from Surrey University, UK with a Master of Science in Structural Engineering in 1975, having completed a Bachelor of Science in Civil Engineering the previous year.

Charles undertook three years of engineering training with Taylor Woodrow, the international engineering group. By 1982, after an 18 month stay with Alan Baxter & Associates, he had achieved the position of London Associate with White Young Consulting Group (now known as White Young Green). His major responsibility with them was the engineering design and site supervision of construction for the \$100 million (1980 value) Phase 2 Basildon town centre development in the UK. Charles also did a three month stint in Qatar, where he designed a new palace for the Emir.

In 1984, Charles moved to Australia and set up Rickard and Partners Pty Ltd, subsequently known as Bonacci Rickard, then Rickard Hails Moretti Pty Ltd (RHM).

In 2004, Charles amicably left RHM and after a short spell working with Connell Wagner in Neutral Bay on contract, in 2006 he set up Rickard Engineering, also located in Neutral Bay.

In 2024, the company has grown to include four Directors, four Associates and 18 staff with overseas representatives in Denver, Hangzhou, Dubai and London. New offices are opened in Melbourne and Canberra before Christmas. The company's current turnover is in excess of \$4 million.



Amir Naderi **DIRECTOR**

NER, RPEQ, CPEng, MIEAust, MEngSc (Geotechnical), MEngSc (Structural), BEng (Civil)

With over 20 years of expertise in façade and structural engineering, Amir has built an exceptional portfolio of prestigious and technically complex projects across the commercial and residential sectors, both nationally and internationally. Holding a Master of Structural Engineering and a Master of Geotechnical Engineering and Engineering Geology from the University of New South Wales. Amir is a Chartered Engineer (NER), a Design Practitioner under the DBP Act, registered in Queensland and Victoria. Since joining Rickard Engineering in 2014, Amir has played a pivotal role in major projects worldwide, including: Australia 108 (VIC), Amazone Tower (VIC), Wynyard Train Station (NSW), The Ribbon (NSW), Chevron Tower (WA), Australian Parliament House (ACT), Oman Convention Centre (Muscat, Oman), Rosewood Towers (Doha, Qatar), Singapore Zoo (Singapore), Royal Caribbean Group Headquarters (Miami, USA). His comprehensive expertise spans all facets of façade engineering, including conceptual design, prototype PMU and VMU testing, site inspections, and As-Built design certification. With a strong technical foundation and a global project footprint, Amir remains at the forefront of innovation and excellence in façade engineering.



Noman Ali **DIRECTOR**

APEC Engineer, IntPE(Aus), NER, CPEng, MIEAust, MSc (Seismic), MEngSc (Structural), BEng (Civil)

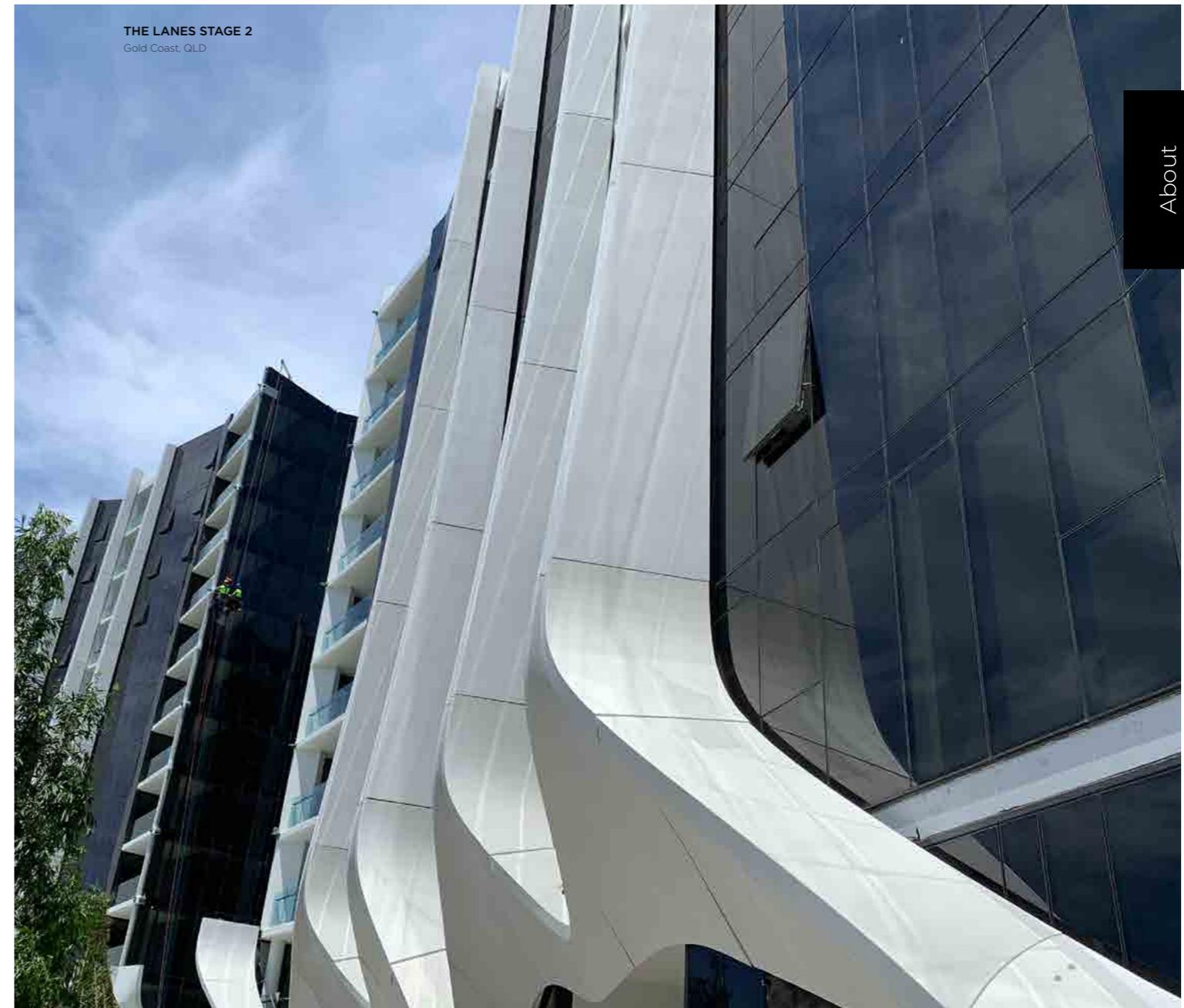
Noman is a globally experienced Civil and Structural Engineer with a specialized focus on seismic risk and complex infrastructure. With a strong academic foundation—holding degrees in Civil Engineering and Structural Engineering from Pakistan, and a Master's in Seismic Risk from the University of Rome—he brings a deep, technical understanding to every project. Since joining Rickard Engineering in 2017, Noman has played a key role in delivering major projects across Australia, the Middle East, and South Asia. His portfolio includes work on the Melbourne Metro (blast design), New Footscray Hospital, 380 Lonsdale St Melbourne (Vic), Al Rayyan Stadium (Qatar), IICC – Exhibition Centre (India), Amalan Four season Hotel – Trippl Bay Saudi Arabia, Infinity by Crown (Sydney), Destination Gold Coast (QLD) and many others. Known for his precision, adaptability, and collaborative approach, Noman combines global engineering standards with innovative problem-solving to drive successful outcomes on landmark developments.



Szymon Fujak **DIRECTOR**

NER, PE, CPEng, MIEAust, AIJ, PhD (Structural), MSc (Structural), BSc (Civil)

Szymon was born in Poland and attended Wroclaw University of Technology, BSc earning the Prize for the Bachelor Thesis (Analysis of Long-Span Steel Roofing Solutions). He studied in both Belgium (Vrije Universiteit Brussel and Université Libre de Bruxelles) as an exchange student in Germany (Universität der Bundeswehr München), also studying in Japan for the first time (Tōhoku University). His Masters thesis (completed in Poland) was titled The Influence of Changing Dynamic Characteristics of a Mass Damper onto the Effectiveness of Vibration Reduction in Slab-Column Buildings and was awarded the 'Best Graduate of the Department' and second place in the Best Graduate of the University. Szymon worked for K2 Engineering starting from the last year of his Masters, with major projects being Gliwice Arena (sports hall with PT roof, 14 000 seats), Fabryczna Station (one of major Polish railway stations) and Wroclaw Station (one of major Polish railway stations).



THE LANES STAGE 2
Gold Coast, QLD

SERVICES

Façade Engineering

GRC

GRP

Commercial Design

Residential Design

Structural Engineering

Swimming Pools

Temporary Works Support

Civil Engineering

Product Development

Project Evaluation
& Value Engineering

Diagnostic Engineering

Building Dispute Resolution
& Expert Opinion

Condensation Analysis

Thermal Analysis



Façade Engineering

The design of high rise building façades requires careful and detailed analysis. It is necessary to consider the “design intent” of the architect together with structural limitations and possible implications for construction. Concept design is essential to provide thermal analysis, ascertain likely wind loads, negative pressure, water-tightness and construction methodology and to work closely with owners, architects, contractors and other engineers.

Over many years we have become experts in the design of virtually every form of façade treatment including, but without being limited to:

- Curtain wall and window design and certification
- Precast concrete and GRC
- Metal clad and rain-screen systems
- Stone and terracotta
- Structural glass
- Fibre composites
- Glass awnings and skylights
- Thermal analysis of façade systems

The practice is renowned for its expertise in façades, in particular for curtain wall construction and the design of glass reinforced concrete cladding panels.



INDIA INTERNATIONAL CONVENTION CENTRE (IICC)
Delhi, India



18 INNOVATION WALK
Melbourne, VIC

Glass Reinforced Concrete (GRC)

Charles Rickard is an acknowledged world expert in the design and application of GRC technology. He was the Technical Secretary to the Cement & Concrete Association during the 1990s when he wrote the Australian Code of Practice for GRC. His pioneering use of continuous glass filament has led to much improved strength in façade structures and has been adopted as a standard throughout the world by the majority of GRC designers and fabricators.

Charles and his team are regularly invited overseas to provide GRC design services.

Glass Reinforced Plastic (GRP)

Since the 1990s, zero rated fibreglass has been available and has been used in such items as the Tangara train seats (for which we also designed the injection moulds) and other areas where fire rating is essential. The strength and flexibility of GRP allows for its use in façades and other indoor and outdoor applications.

GRP is used extensively for swimming pools. Rickard Engineering was responsible for designing the first free standing fibreglass swimming pool requiring no support from any soil or other structure.

Other commissions have included the design of seats for a grandstand at Randwick Race Course, the canopy to the lookout tower in Newcastle and agitation tanks for the manufacture of gelatine.

*GRP has the strength of steel
and the stiffness of timber.*



WEST GATE BRIDGE
Melbourne, VIC



555 COLLINS STREET
Melbourne, VIC

Commercial Design

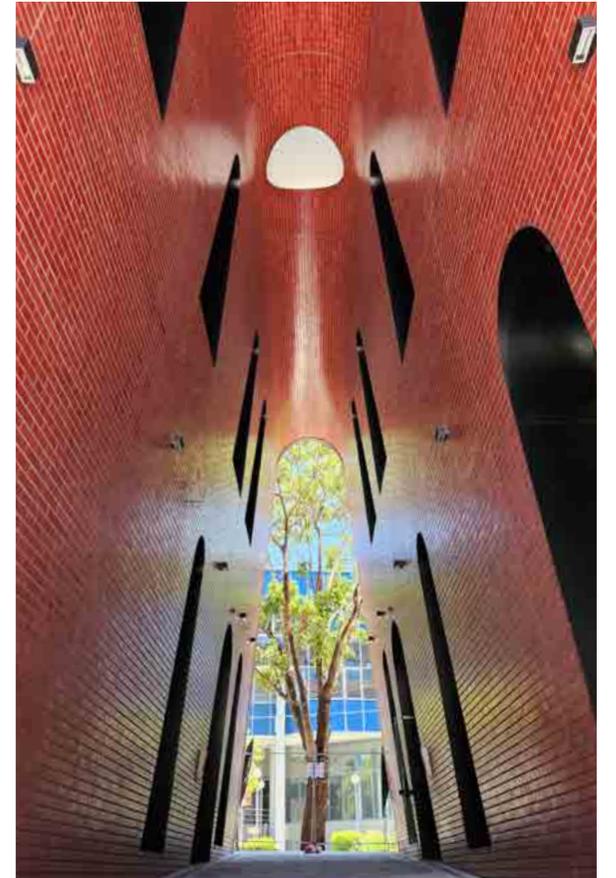
Commercial building construction requires a large-scale and fast-paced design approach that provides adaptable design solutions to suit a variety of floorplan configurations with efficient construction methodologies. Highly-designed podiums that create a strong public impression require particular attention to detail to the architectural vision for the space. Rickard Engineering brings proven expertise in delivering high quality engineering execution on each project.



OZONE CRONULLA
Sydney, NSW

Residential Design

Whether a single residence or multi-residential project, we provide expert advice on local, overseas or bespoke design solutions, tailored to align with the architectural intent while meeting performance benchmarks like thermal efficiency and weatherproofing, all within budget parameters. We take a proactive role in coordinating with stakeholders and consultants to ensure well-resolved and coordinated designs prior to construction. Our continued support throughout the build process safeguards construction integrity and ensures lasting value for both future residents and client.



DOWNTOWN ZETLAND
Sydney, NSW

With structural engineering we are particularly focused on the need to NOT overdesign.



Structural Engineering

Our services cover all classes of buildings: commercial, residential, industrial, retail, car parks, pre-fabricated and modular structures, demountable buildings, education facilities and materials handling facilities.

Works include design in steel, concrete and timber materials specialising in:

- Conceptual and schematic design
- Wind analysis review
- Lateral stability optimisation
- Earthquake engineering
- Detailed design and construction documentation
- Site support
- Peer reviews and value engineering

Our staff are trained to ensure that all structural design is appropriate for purpose and to be conscious both of construction cost and construction time.



When it comes to the design of swimming pools, Charles Rickard is an acknowledged expert in the field.

Swimming Pools

Charles Rickard has arguably the broadest experience in the design of swimming pools in Australia. Charles has enjoyed a professional relationship with Crystal Pools since 1984, building concrete pools. If one considers the design of fibreglass pools, he has no peer.

He has acted for Compass Pools Australia since 1984. In 1987, Charles was technical secretary to Standards Australia for the major overhaul of the Fibreglass Pool Codes, AS1838 and AS1839. In 1993, he won an Australian Design Award for the first free standing fibreglass pool "Compass Maxi".

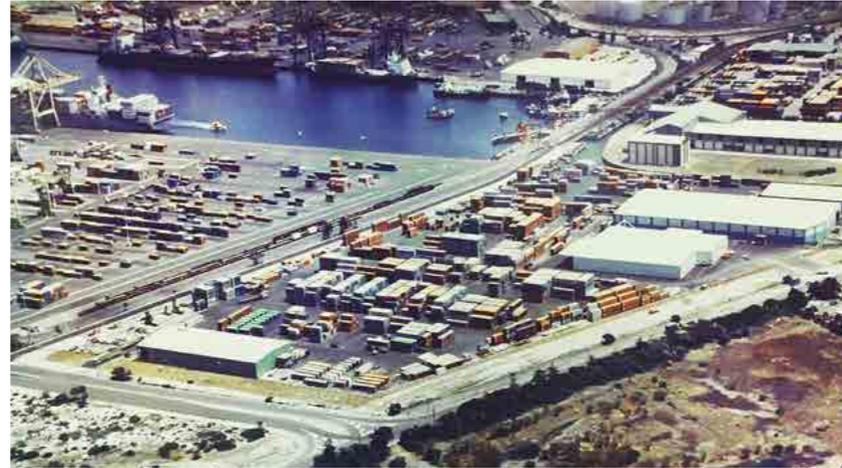
A selection of aquatic projects include:

- Bradbury Swimming Pool, NSW
- Colmslie Aquatic Centre Brisbane, QLD
- Eagle Vale Swimming Pool, NSW
- Hilton Hotel Melbourne, VIC
- Mt Annan Leisure Centre, NSW
- Next Generation Club, ACT

Temporary Works Support

Rickard Engineering regularly provides advice to building contractors on means of stabilising existing structures during major redesign and/or refurbishment works.

Temporary works may include design of back-propping, infill slabs, adjunct footings/foundations and the like.



PORT BOTANY CONTAINER PARK
Sydney, NSW



THIN TECH PANEL

Product Development

Rickard Engineering has been involved in the design and the development of numerous products which are integral to construction and engineering both. We have designed a number of aluminium proprietary products for the exclusive use of contractors for use in building façades, a range of GRC drainage pits for Mascot Engineering and a fire resistant GRC decking for use in country bushland areas.

We have the design skills in-house to meet most challenges for the design of specific products.

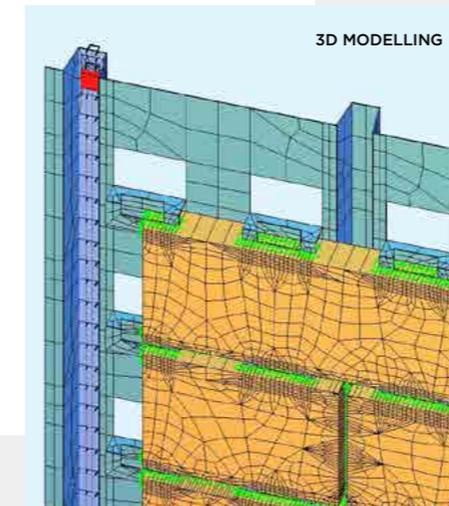
Civil Engineering

Our team of professional engineers have disparate yet complementary skills enabling us to confidently design:

- Retaining walls
- Underground pits
- Deep trenches including ground stabilisation walls
- Concrete and steel tanks
- Foundations including piling and piers
- Pavements
- Civil works
- Storm water controls

Staff involvement in completed projects includes:

The new container parks in the Ports of Sydney and Brisbane, the runway pavement alterations at Sydney Airport, the design of the Dubai dry docks and the Newcastle coal terminal at Kooragang Island, the largest coal port in the world.



3D MODELLING

Project Evaluation & Value Engineering

Project evaluation generally occurs post-design. Value engineering is generally conducted pre-design or during the design process.

Over design of structural engineering elements by some practitioners is, unfortunately commonplace. A peer review by an experienced structural engineer can identify whether a structure has in fact been over designed. Rickard Engineering's strict adherence to economical design within its own practice provides it with the ability to audit the work of others leading if necessary, to recommendations on design amendment and cost minimisation.

Rickard Engineering, both with project evaluation and value engineering, works in conjunction with Robert Hart who has over 50 years' experience working with architects, engineers (in all disciplines), builders and developers.



BOURKE STREET PUBLIC SCHOOL
Sydney, NSW

We have a proven track record of achieving optimum design solutions whilst minimising costs.

Diagnostic Engineering

Rickard Engineering has been providing engineering diagnostic services in Australia since 1984 and has strong ongoing relationships in the public sector, in particular, the NSW Department of Education.

Every year Rickard Engineering inspects an average of one school every calendar week. Rectification of cracking in old buildings requires pragmatism combined with a sound understanding of soil mechanics in relation to masonry and timber frame structures.

We also look at issues to do with residential strata when the enquiry is specifically to do with engineering. Such experience is also invaluable when evaluating the cause of building defects which become a matter of a building dispute.

Building Dispute Resolution & Expert Opinion

Lawyers know the law, we know building construction.

Building and construction litigation can be costly, stressful for both parties and often unnecessary. In the end, no one really wins in court except perhaps the lawyers. We have found that in reality, the root cause of a dispute can often be found in poor design or lack of effective supervision rather than in the execution of trades workmanship.

We have the proven expertise to unravel and understand complex problems and to separate and identify the design, management and construction responsibilities attaching to the particular dispute, without resorting to the law.

We confer with both parties to gain an understanding of the issues from their respective points of view. We then undertake a process known as "Early Neutral Evaluation" to guide our initial determination of the factual basis of a claim by claimant and defendant, both. When our review is complete we provide totally unbiased advice on how to resolve a dispute at a fraction of the cost of litigation.

Our team of industry experts have the experience and skills to resolve your dispute quickly, fairly and cost effectively.

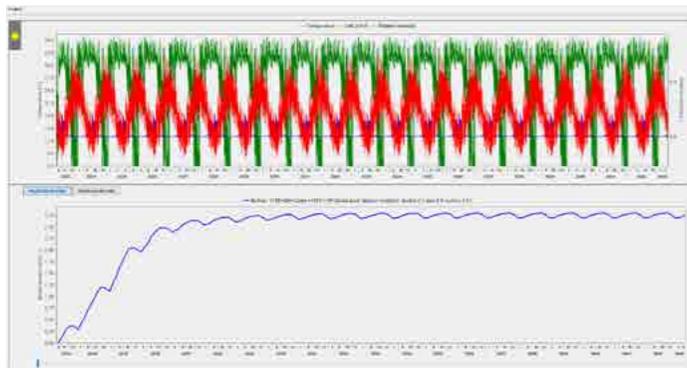


DEE WHY RSL CLUB, OCEAN GROVE APARTMENTS
Sydney, NSW

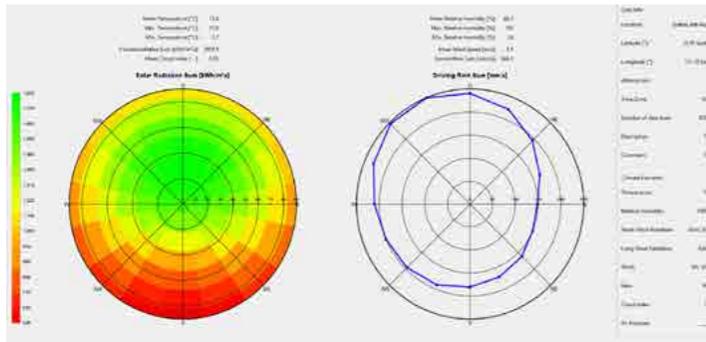
Condensation Analysis

Rickard Engineering examines how heat and moisture move through walls, roofs, and façades, helping to prevent hidden condensation that can lead to mould growth, reduced insulation efficiency, or structural damage. Using advanced WUFI software for hygrothermal modelling, we simulate real climate conditions and different material choices to identify potential risks early and recommend design solutions that keep buildings healthy, durable, and compliant with Australian standards.

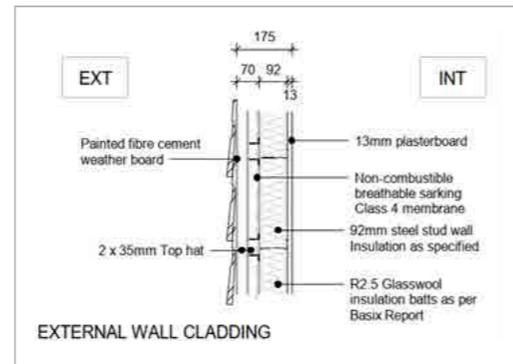
We combine rigorous modelling with practical guidance, giving clients confidence that their buildings are designed to perform over the long term. From residential projects to large-scale commercial developments, our approach ensures moisture issues are managed effectively, protecting both the building and its occupants.



MOULD GROWTH INDEX OF SOLID CONCRETE WALL OVER 20-YEAR PERIOD



OUTDOOR CLIMATE CONDITIONS

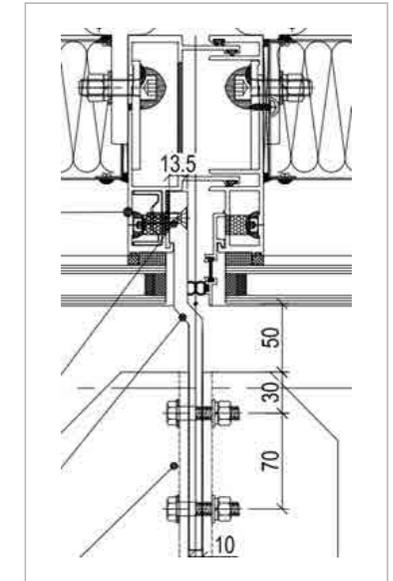


EXTERNAL WALL CLADDING
FC CLADDING WALL

Thermal Analysis

Our thermal analysis looks at how heat flows through building façades, identifying potential energy loss, cold spots, or overheating. By modelling different materials and design options, we can highlight thermal bridging risks and recommend solutions that maximise energy efficiency, comfort, and green building performance.

Using advanced tools and best-practice methods, our team verifies that façades meet Australian standards and perform reliably over time. From hospitals to commercial offices and residential developments, our analysis supports durable, energy-smart, and sustainable buildings that are built to last.



MULLION AT VISION GLASS WITH BRACKET/ BRIDGING ELEMENTS

ID # 136

Name Blg D CW Typ. Panel 1.2x2.8m

Mode NFRC

Type Custom Single Vision >>

Width 1222 mm

Height 2800 mm

Area 3.422 m²

Tilt 90

Environmental Conditions NFRC 100-2010

Total Window Results

U-factor 2.510 W/m²·K

SHGC 0.226

VT 0.201

CR N/A

Click on a component to display characteristics below

Frame

Name Building D CW Mullion@Vision + NEW T >>

ID 121	Uedge 1.773 W/m ² ·K
Source 2	Edge area 0.165 m ²
Ufactor 9.217 W/m ² ·K	PFD 50.0
Area 0.136 m ²	Abs 0.700

VISION PANELS

Mullion @ Vision U-Values

U-Factory	U-factor W/m ² ·K	Delta T °C	Length mm	Rotation
SHGC Extender	6.8072	39.0	50.0288	Projected in Glass Plane
Edge	1.7347	39.0	63.5	Projected in Glass Plane
Frame	7.3400	39.0	50.0001	Projected in Glass Plane

Display: U-factor R-value

% Ensl Enrgy Norm 9.20%

Export

MULLION U-VALUES

FEATURED WORK



AUSTRALIA 108

Melbourne, VIC

The tallest building in the southern hemisphere, Australia 108 is a new residential development in Melbourne completed in 2021. Rickard Engineering were the façade engineers to Minesco who supplied the aluminium and glass curtain wall.

The curved geometry of the façade and large displacement of the building meant it was essential for special considerations to be made with regard to façade/building movements and the interaction between the two.

The “Star Burst” design between Levels 69 and 72 is highly complicated and is constructed with aluminium panels and glazing panels installed on trusses.

CLIENT Minesco

CONTRACTOR Multiplex

ARCHITECT Fender Katsalidis



INFINITY BY CROWN GROUP

Sydney, NSW

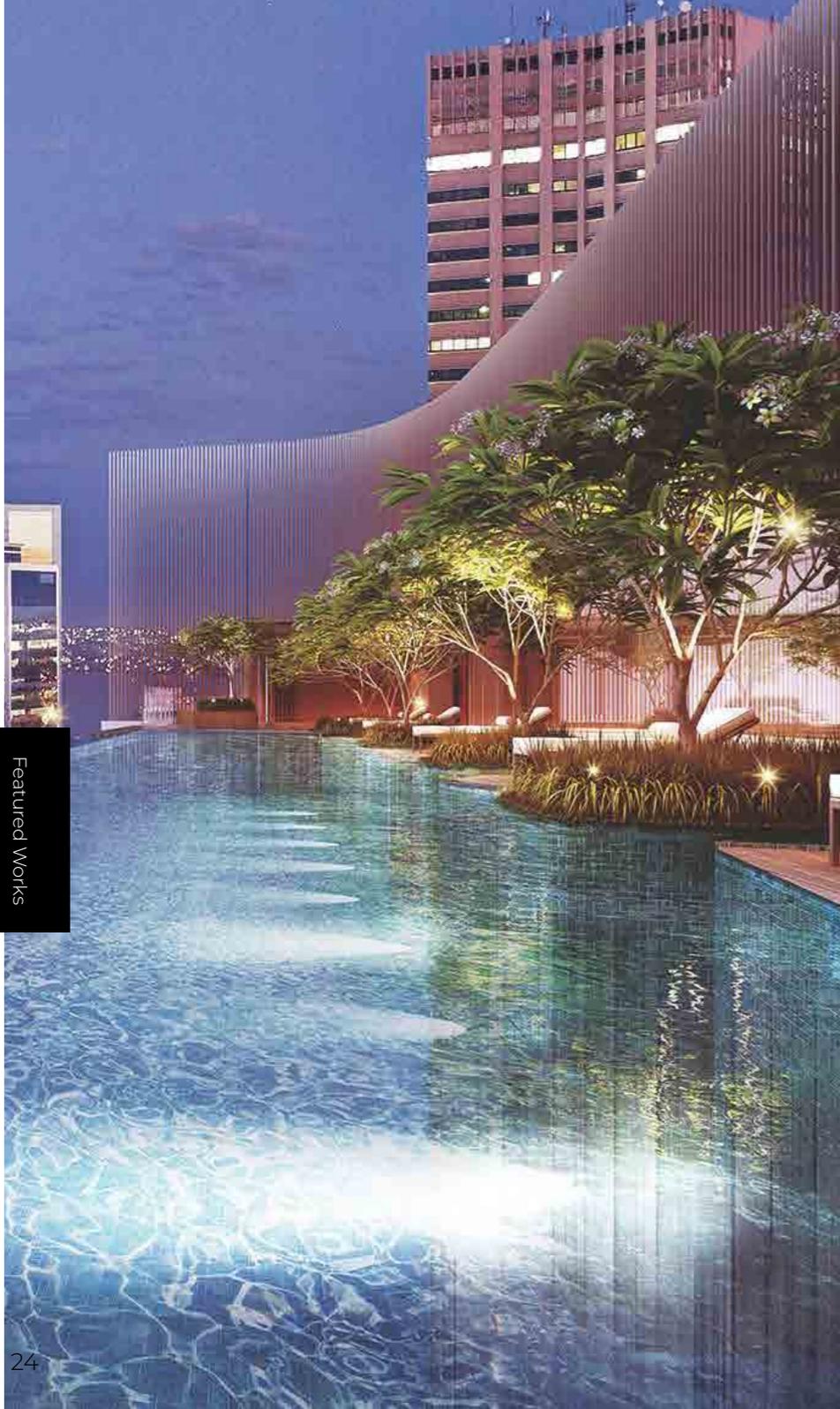
Asurco Contracting in Adelaide engaged Rickard Engineering to design the GRC cladding, seats and planter boxes for the Green Square project, Infinity.

This is a unique project, involving a curved ribbon shaped façade and ski-slope roof feature. Unique geometry and panel types are designed for construction, with a supported system on the slab edge.

CLIENT Asurco Contracting

CONTRACTOR Crown Group

ARCHITECT Koichi Takada Architects



SKYE BY CROWN GROUP

Sydney, NSW

Skye by Crown was a fascinating project in North Sydney.

Rickard Engineering was responsible for designing the curvilinear façade with detailed aluminium tubular sections for the luxury apartments.

- CLIENT Crown Group
- CONTRACTOR Crown Group
- ARCHITECT Koichi Takada Architects

ROYAL ADELAIDE HOSPITAL

Adelaide, SA

Australia's largest and most advanced hospital development, and South Australia's single biggest infrastructure project, costing around \$2 billion.

Yuanda Australia were the façade contractor for all of the aluminium and glass componentry.

Rickard Engineering was the independent certifying engineer for the façade project. Its involvement commenced in 2013. The last revisions were certified in 2017.

CLIENT Yuanda Australia

CONTRACTOR Hansen Yuncken and Leighton Contractors

ARCHITECT Silver Thomas Hanley in joint venture with Design Inc



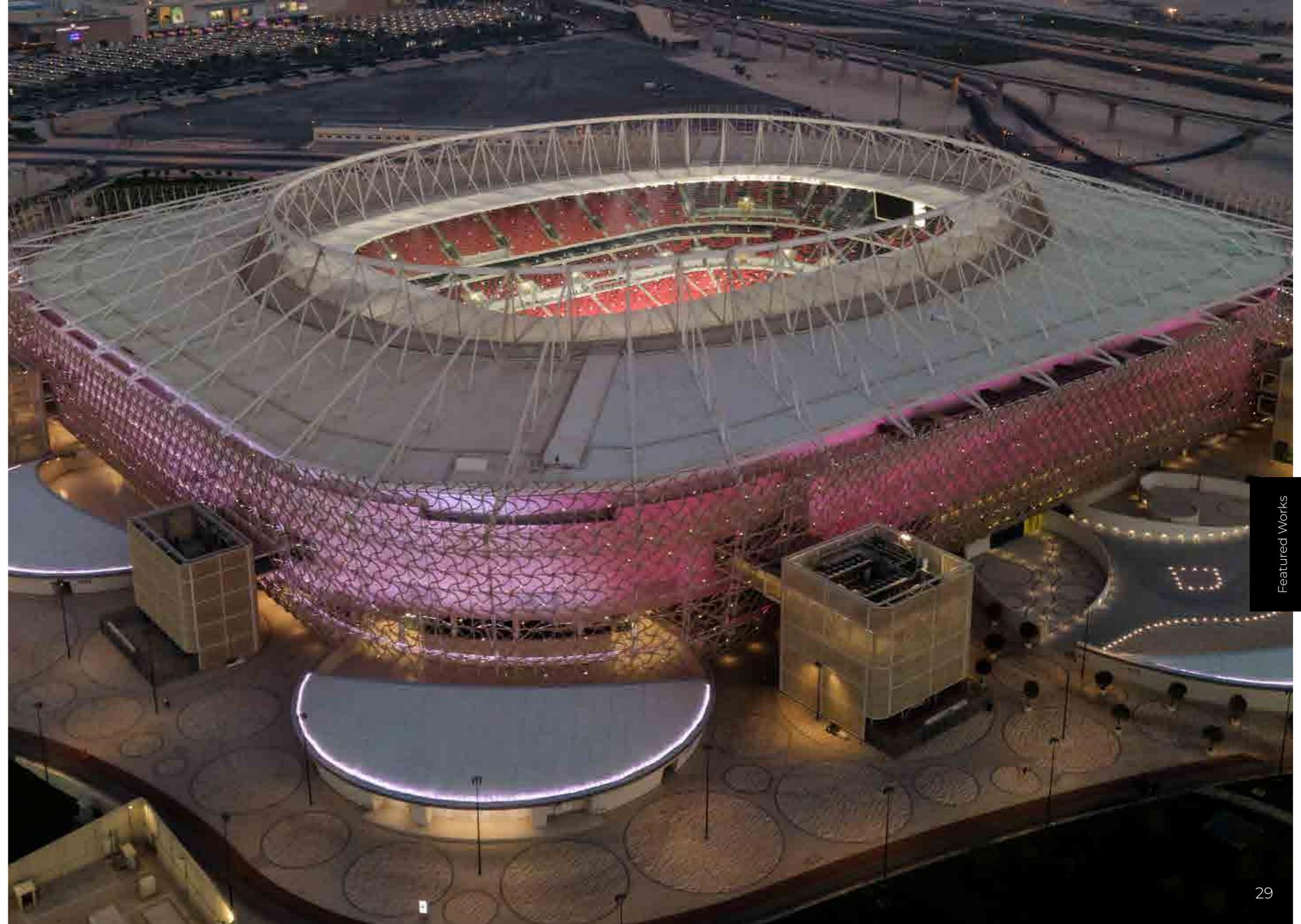
AHMAD BIN ALI STADIUM

Al Rayyan, Qatar

Rickard Engineering provided the engineering input for the new 'Ahmad Bin Ali' Football Stadium in Qatar, together with the GRP roof panels for the 8 "dune" buildings which surround the Stadium, where the 2022 FIFA World Cup was held.

Ahmad Bin Ali is a fascinating and complex project with regard to the differing GRP shapes designed and hence variations in connections to cater for the variety of shapes.

- CLIENT Al Tasnim Enterprises LLC
- CONTRACTOR Al Balagh and L&T
- ARCHITECT Pattern Design and KSS



380 LONSDALE

Melbourne, VIC

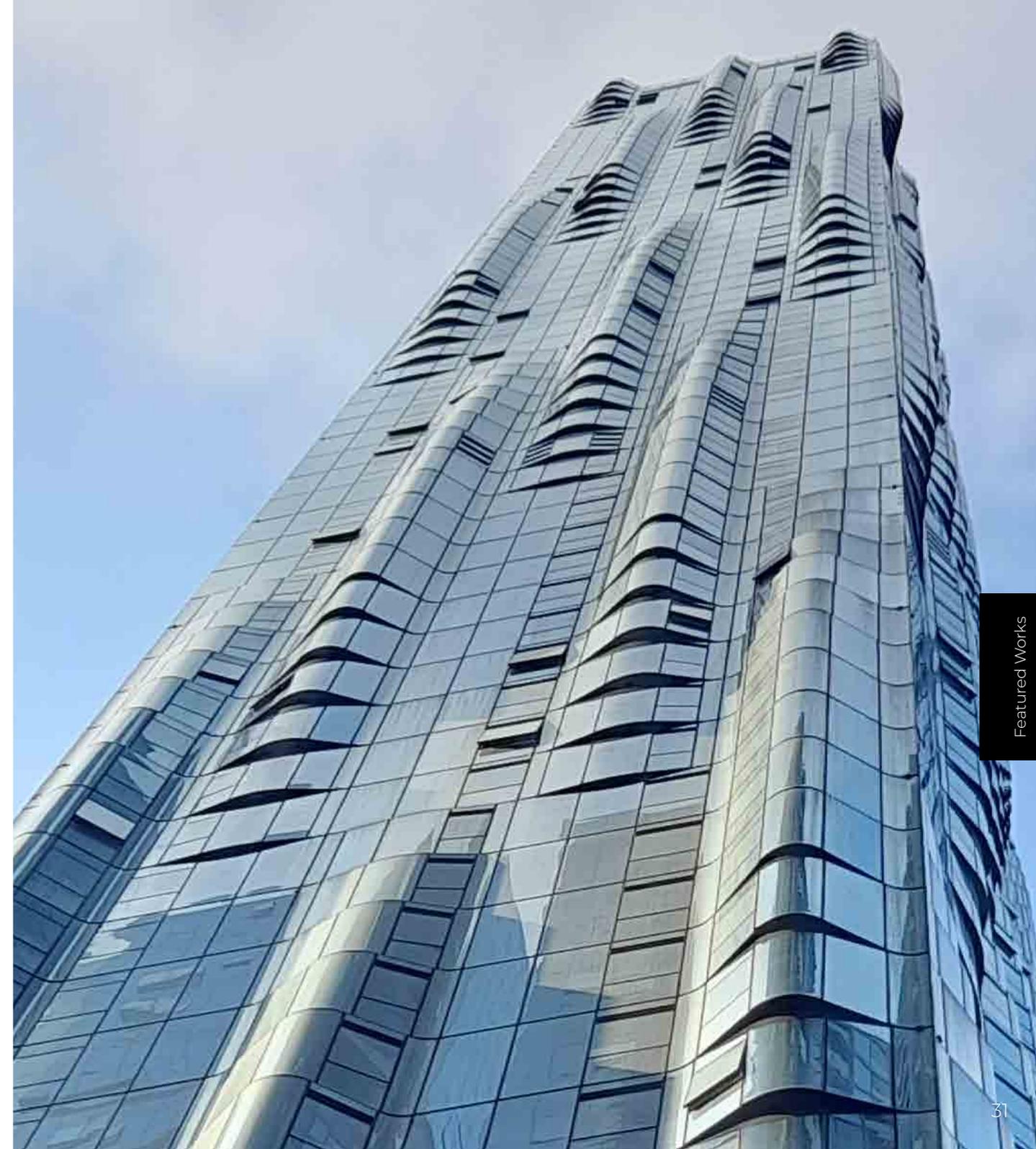
380 Lonsdale is the first curved curtain wall in Australia, located at 380 Lonsdale Street, Melbourne.

Rickard Engineering designed the complex curved curtain wall system for the 67 storey tower and podium of the building.

CLIENT SRG Global

CONTRACTOR Multiplex

ARCHITECT Elenberg Fraser



OMAN CONVENTION CENTRE (OCC)

Muscat, Oman

Rickard Engineering completed the design and certification of the GRC blue roof and glazing façade on the Oman Convention Centre (OCC). This was an extensive project comprising a GRC roof supported on a steel frame.

The OCC is an iconic landmark for the City of Muscat, Oman.

CLIENT Al Tasnim Enterprises L.L.C.

CONTRACTOR Shapoorji Pallonji and Oman Shapoorji Company

ARCHITECT SSH Design



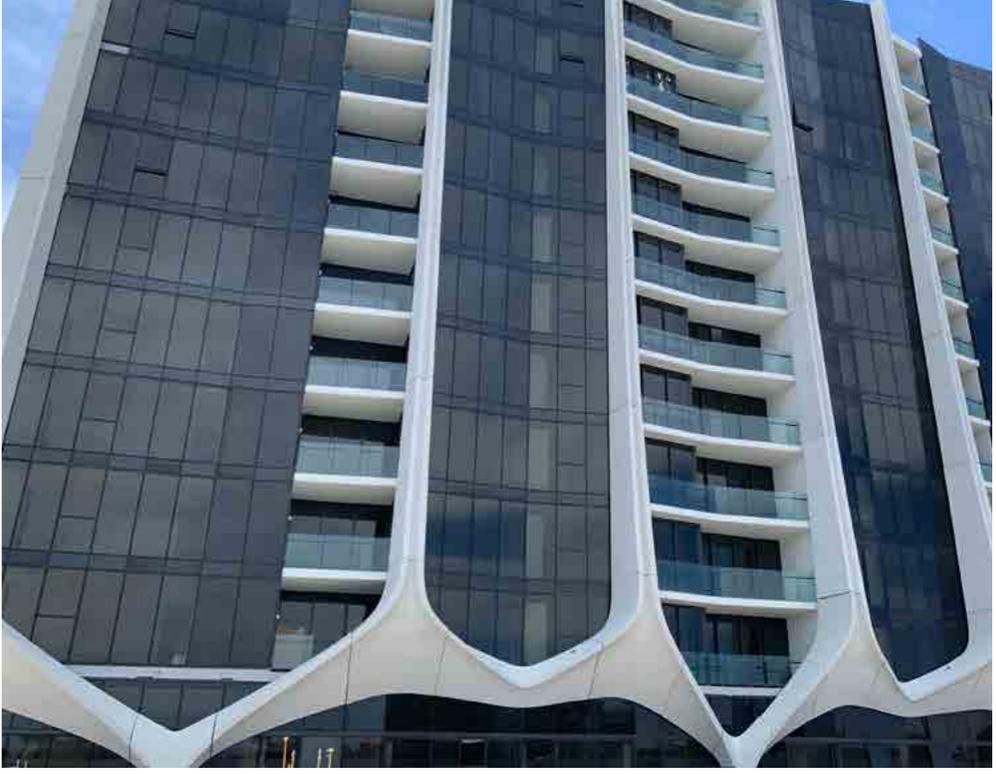
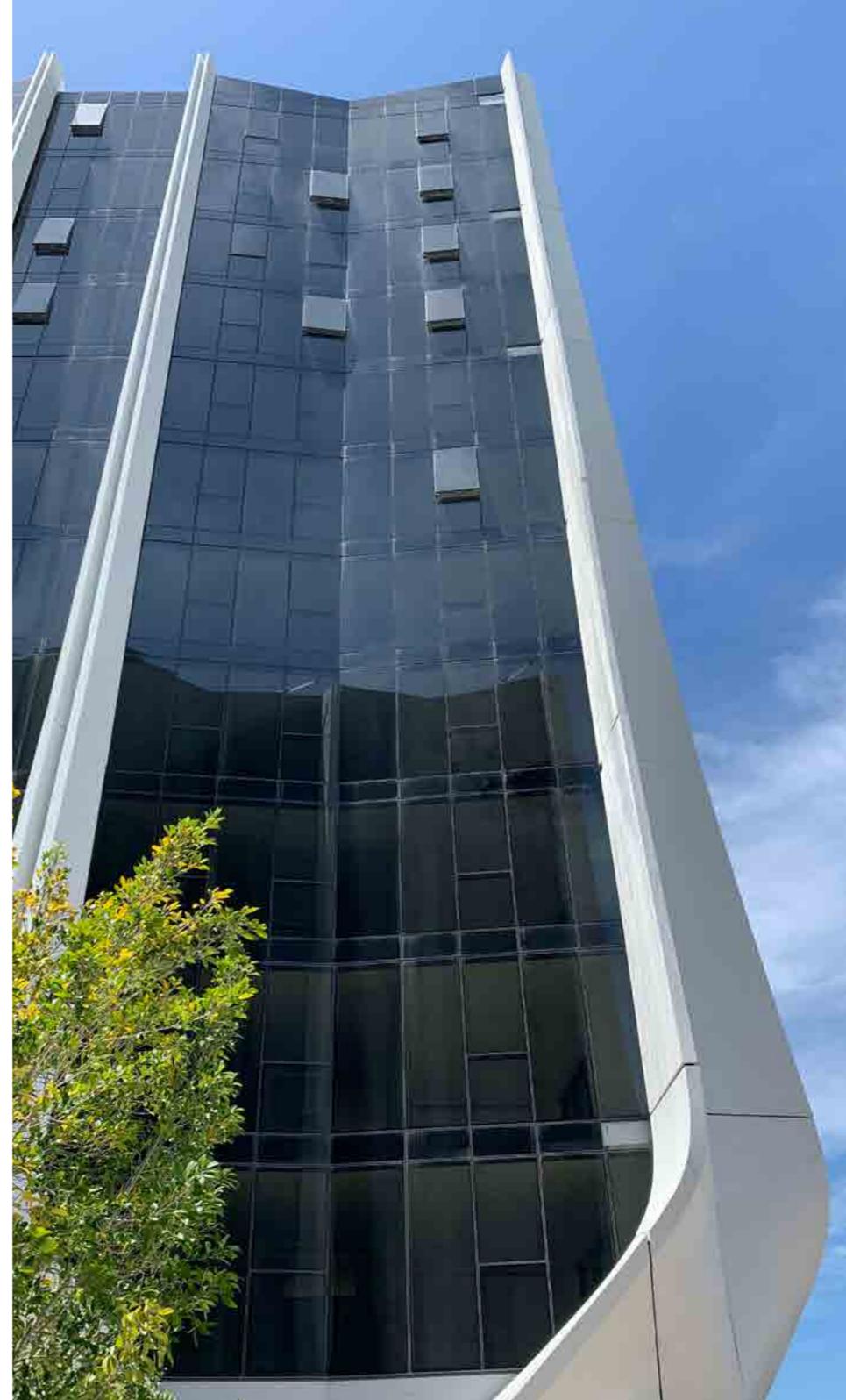
THE LANES STAGE 2

Gold Coast, QLD

The Lanes Phase 2 is a recently completed residential development involving two towers on the waterfront of Mermaid Waters, Gold Coast. Rickard Engineering provided the engineering input, from concept and detailed design to certification, for the GRC podium panels and GRC fins up to the roof for this project.

This is an appealing and complex project concerning all different 3D irregular curved shapes and, hence, variations in connections to cater to them. Transportation, lifting, and installation had their challenges because of the unique geometry and considerable panel size.

- CLIENT Hutchinson Builders
- CONTRACTOR Hutchinson Builders
- ARCHITECT Contreras Earl Architecture





123 ALBERT STREET

Brisbane, QLD

123 Albert Street is a commercial office development in Brisbane, Australia, which was completed in 2011. This repositioning project included substantial cutting-edge smart technology upgrades, ensuring the tower remains a leading property in Brisbane's premium-grade office market. Rickard Engineering is proud to be the façade engineer for the replacement and upgrade of the existing building façade with GRC cladding, from concept and detail design to certification. This is a complex project with active coordination with the builder and existing tenants to ensure continued operations. This is achieved by designing the GRC panels with the fixings to suit the erection method and sequence.

In addition to the GRC cladding, Rickard Engineering also designed a combination of crystal satin and frosted finish glass bricks for two of the columns on the street frontage, maintaining the building's heritage, with a modern twist to suit the vibe of the existing laneway and surrounds.

- CLIENT Buildcorp Queensland
- CONTRACTOR Buildcorp Queensland
- ARCHITECT Hassell (overall), Cameron & Co (Laneway only)



Featured Works



TARONGA ZOO

Sydney, NSW

- 1 Institute of Science and Learning
- 2 Amphibian & Reptile Conservation Centre
- 3 Wildlife Retreat

Rickard Engineering was appointed by Taylor Construction as the design engineer for the façade at the Taronga Institute of Science and Learning. It is a global centre of excellence for conservation science and learning and it is considered the first of its kind in the Southern Hemisphere. The original design concept was done by NBR Architecture and further developed by BKA Architecture. Rickard Engineering worked closely with Taylor Construction, BKA Architecture and Locker Group to bring the architectural ideas to life.

Rickard Engineering was responsible for the design of the perforated hexagonal panels, glass balustrades, perforated horizontal and vertical sunshades. The biggest challenge was designing the hexagonal panels to achieve a 3D effect due to them not being on the same plane.

The facility achieved a 6 Star Green Star rating.

CLIENT

- 1) Taylor Construction Group
- 2) Stainless Services Group
- 3) Hi-Tec

CONTRACTOR

- 1) Taylor Construction Group
- 2) Stephen Edwards Construction
- 3) Taylor Construction Group

ARCHITECT

- 1) NBR Architecture (concept),
BKA Architecture
- 2) DWP
- 3) COX Architecture

Featured Works

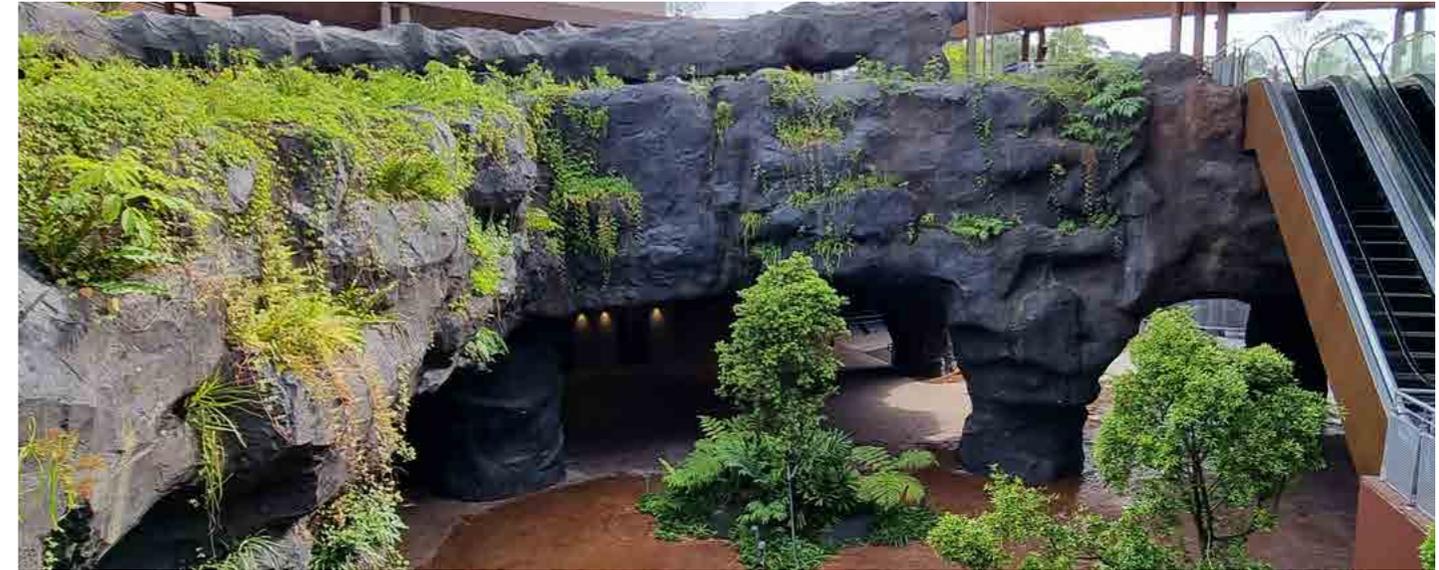
SINGAPORE ZOO

Mandai, Singapore

Our team provided the structural analysis for a major upgrade at Mandai Wildlife Reserve, including the penguin tanks and the GRC waterfall complex. We ensured that the penguin tanks can withstand water pressure up to 80 kPa, guaranteeing their water-tightness, durability, and safety for years to come. This project is a significant milestone, as it integrates five zoological parks into a cohesive and innovative wildlife reserve. The project aims to offer a wide range of sustainable and ethical wildlife experiences, making it a unique destination for visitors from around the world.

The success of this project is a testament to our commitment to creating spaces that are not only functional but also enhance the visitor experience while promoting conservation and education.

- CLIENT Pico Play Pty Ltd
- CONTRACTOR Obayashi Singapore
- ARCHITECT RSP Singapore



INDIA INTERNATIONAL CONVENTION CENTRE (IICC)

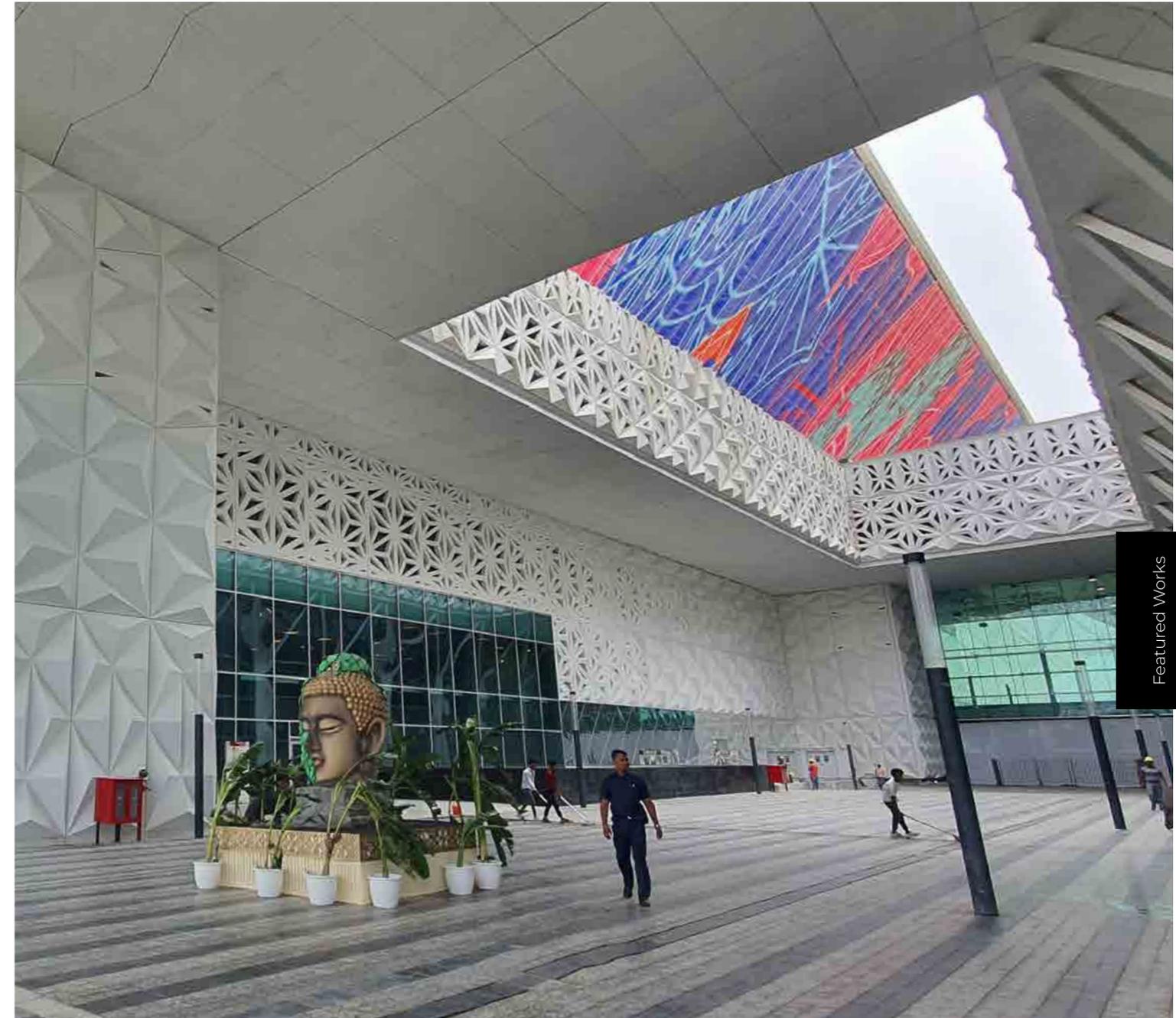
Delhi, India

Rickard Engineering delivered the design for GRC solid and perforated panels for the façade and internal ceiling of three buildings in the complex.



Featured Works

CLIENT L&T Construction
CONTRACTOR L&T Construction
ARCHITECT CP Kukreja Architects IDOM
and ARCOP Associates



Featured Works

MUSEUM OF CONTEMPORARY ART (MCA)

Sydney, NSW

Construction for a major extension to the Museum of Contemporary Art (MCA) commenced in 2010 and opened in 2012. The competition design winner was architect, Sam Marshall. A major feature of the building design was the GRC façade.

The main contractor was Watpac Constructions, the GRC panels were manufactured by Precast Concrete of Brisbane to design by Rickard Engineering. The panels were the largest precast GRC panels ever constructed in Australia, probably the world. 11m x 3.4m with a 1.5m return was the largest panel size, supplied in a variety of different sealed stained colours. The panels incorporated a unique fixing detail to accommodate the seasonal movement for such a large panel, developed specially by Rickard Engineering. They were the subject of a paper presented by Charles Rickard at the GRCA World Conference in Istanbul in 2012.



- CLIENT Watpac Constructions
- CONSTRUCTOR Watpac Constructions
- ARCHITECT Sam Marshall

108 FLINDERS STREET

Melbourne, VIC

108 Flinders Street is an office development in the heart of Melbourne. The panels do not contain any structural frame which highlights the unique ability of the GRC material to create fine detail. Designed by Rickard Engineering, the panels were built by GRC Environments for the building, which was completed in early 2014.

- CLIENT GRC Environments
- CONSTRUCTOR Merkon Constructions
- ARCHITECT Fender Katsalidis



80 COLLINS STREET

Melbourne, NSW

We were engaged by Gallery Commercial and Minesco for the impressive 80 Collins Street, Melbourne project. Our scope of works for Gallery Commercial included the GRC panels with patterns. We also provided services for Minesco and the scope of works for the podium included the curtain wall, window wall, glazed shop front and the perforated cladding.

This four-part project was made up of a new commercial tower, boutique hotel, renovation to the existing commercial tower and a podium base that links the entire block and makes quite an impression.



- CLIENT Minesco, Gallery Commercial
- CONSTRUCTOR Multiplex
- ARCHITECT Woods Bagot

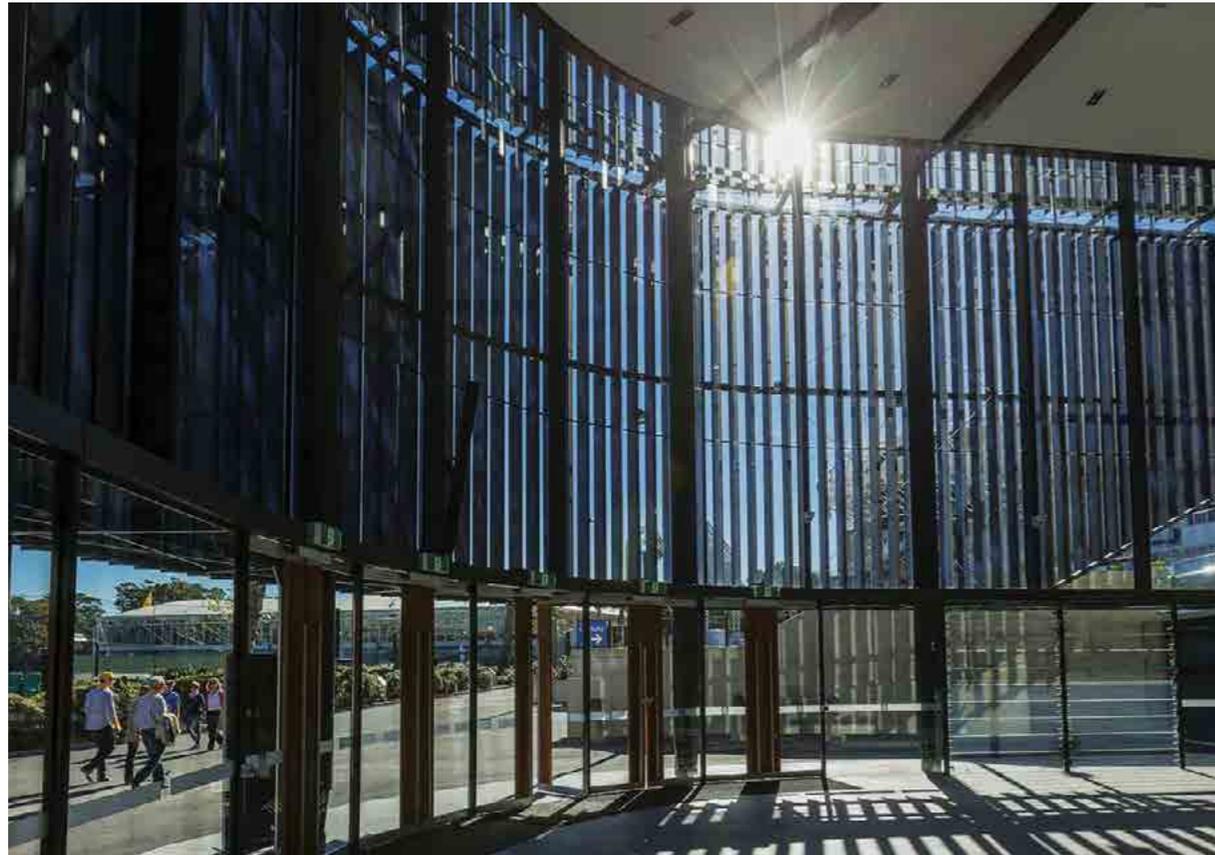
SCG STAND SYDNEY

Sydney, NSW

The North Stand at the Sydney Cricket Ground was designed by Cox Richardson Architecture and built by builder AW Edwards Pty Ltd. It was opened in 2014.

The aluminium external façade was supplied by Townsend Group, design by Rickard Engineering.

- CLIENT SGC Trust
- CONTRACTOR AW Edwards Pty Ltd
- ARCHITECT COX Architecture



ALLIANZ STADIUM

Sydney, NSW

Rickard Engineering provided structural design and certification services for the Allianz Stadium upgrade, covering grandstands, vomitories, pitch, suites, concourses and surrounding windscreens, spanning approximately 2,500 linear metres.

Our scope included reviewing design documentation and producing calculation packages for structural glass in the grandstands and along the pitch. We also designed structural glass, stainless steel and acrylic polymer (PMMA) elements in accordance with Australian Standards, ensuring durability, safety and aesthetic quality across the stadium.

- CLIENT Stainless Services NSW Pty Ltd
- CONTRACTOR John Holland Group
- ARCHITECT COX Architecture



THE WINX STAND

Sydney, NSW

The Winx Stand is one of the Sydney's most world-class venues located at the iconic Royal Randwick. Named in honour of the legendary racehorse Winx, this state-of-the-art facility is a stunning two-level space, boasting a \$46.6 million investment in excellence.

Designed with precision, the Winx Stand features intricate structural and thermal designs for its impressive windows and doors, designed by Rickard Engineering in collaboration with Hi-Tec. The remarkable 2.5-meter-wide windows are not just a feat of engineering; they enhance the venue's ambience, flooding the space with natural light while providing stunning views of the surrounding landscape. It was a complex design, and we had to introduce special stiffeners to make the mullions work.



CLIENT Hi-Tec Windows Pty Ltd
CONTRACTOR Taylor Construction Group
ARCHITECT COX Architecture

OPTUS STADIUM

Perth, WA

Rickard Engineering team was engaged to provide expertise and technical support on the issues related to as-built state of the Optus Stadium facade. Originally Perth Stadium, but currently known as Optus Stadium due to sponsorship reasons, is a multi-purpose stadium with the total capacity of more than 60,000 spectators. Stadium's facade features a bronze anodized aluminum wrap placed in front of the curtain wall. The wrap reflects the unique geology of Western Australia. At night, it is illuminated with a 15,000-light LED system, showcasing team colors and creating a vibrant atmosphere.

The Rickard Engineering team is thrilled to have been part of this landmark project, bringing our vision to life and contributing to the vibrant community of Perth.



CLIENT Yuanda Australia Pty Ltd
CONTRACTOR Multiplex
ARCHITECT HASSELL, COX Architecture and HKS Architects

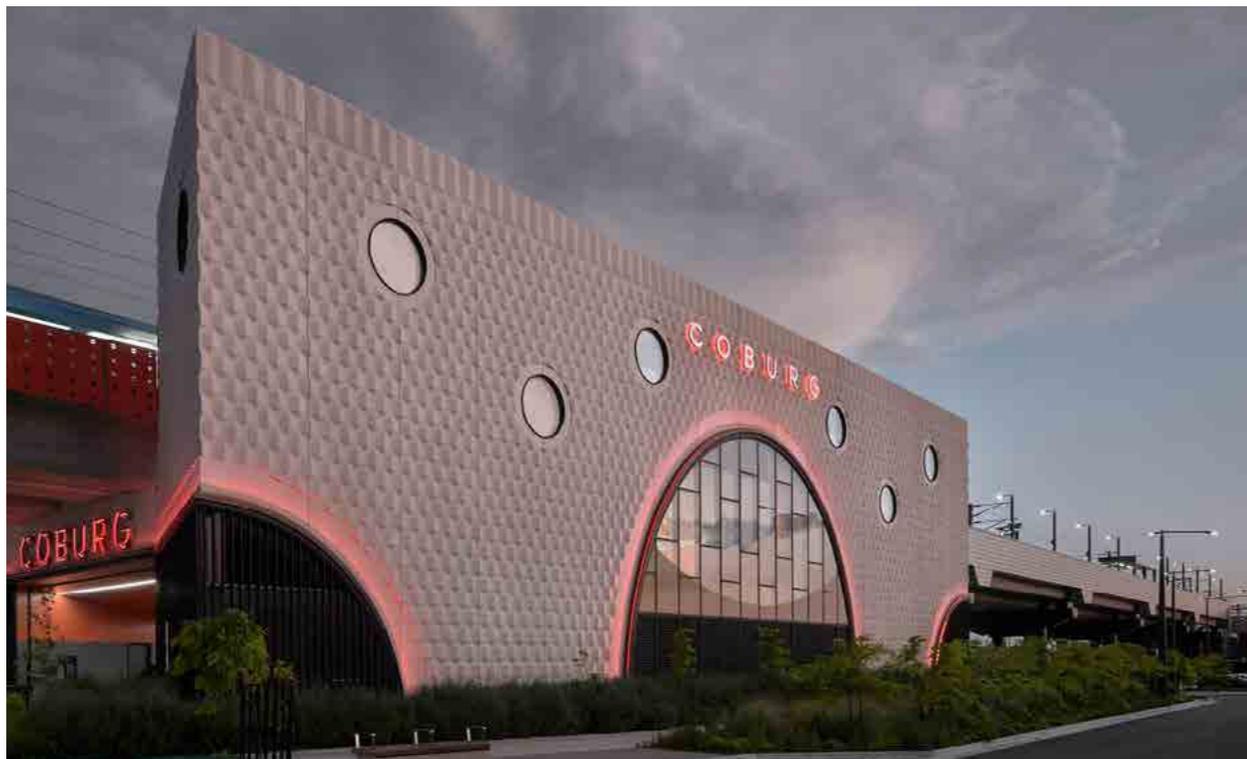
COBURG STATION

Melbourne, VIC

Rickard Engineering, in collaboration with Minesco, has successfully delivered an innovative structural solution for tall window wall panels spanning up to 9.0 meters, a true engineering challenge turned into architectural beauty.

To make this ambitious design work, we incorporated custom-engineered stiffeners, ensuring structural integrity without compromising on aesthetics. The feature circular windows add a striking visual element, celebrating the fusion of bold geometry and refined engineering.

- CLIENT Minesco Australia Facade Pty Ltd
- CONTRACTOR John Holland Group
- ARCHITECT Wood Marsh Architecture
- PHOTOGRAPHER Peter Bennetts



BELL AND PRESTON STATION

Melbourne, VIC

Rickard Engineering, in partnership with KBR and Wood Marsh, has delivered a technically advanced façade design for Bell & Preston Stations, blending architectural creativity with engineering precision.

Key innovations include: 7-meter cladding panels for seamless aesthetics, Free-standing glazing for unobstructed views, Custom precast panels for optimised durability, and aluminium cladding with glazing for a unique hybrid system. As façade consultant, Rickard Engineering has ensured performance, durability, and striking architectural execution.



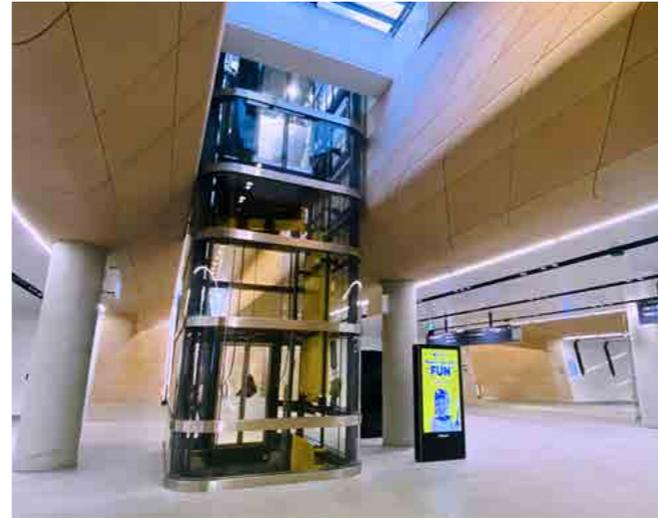
- CLIENT KBR
- CONTRACTOR John Holland Group
- ARCHITECT Wood Marsh Architecture
- PHOTOGRAPHER Peter Bennetts

CENTRAL STATION

Sydney, NSW

Central Station was a primary element of the Sydney Metro City & Southwest upgrade, covering about 10,000 square metres. Rickard Engineering delivered structural design and certification for areas including Central Walk, Grand Northern Concourse, Chalmers Street Entry, Eastern Suburbs Railway, North-South Concourse, and Intercity, Suburban and Metro platforms.

Our scope included detailed design calculations, shop drawing approvals, and structural solutions for extreme loading such as blast. We also designed structural glass, aluminium and steel elements in compliance with Australian Standards. This upgrade enhances connectivity, safety and passenger flow at one of Sydney's busiest transport hubs.



- CLIENT ABS Facade, F&D Normoyle Engineering
- CONTRACTOR Laing O'Rourke Australia
- ARCHITECT Woods Bagot

ARDEN STATION

Melbourne, VIC

Arden Station is a key part of the Metro Tunnel Project and a landmark of civic infrastructure. Rickard Engineering was engaged to provide the facade engineering design and certification for the station's sculptural tiles cladding system, integrating architectural expression with robust engineering performance.

We have also designed the metal cladding inside the station and the stones at the entrance and at the skylight along with featured GRC columns.

Blast resistance was considered for all elements in the design.

Featured Works



- CLIENT Cross Yarra Partnership (CYP)
- CONTRACTOR Cross Yarra Partnership (CYP)
- ARCHITECT HASSELL, Weston Williamson + Partners and Rogers Stirk Harbour + Partners

PARKVILLE AND DOMAIN STATION

Melbourne, VIC

In collaboration with Minesco, Rickard Engineering undertook the design and certification of the GRC, glass panel, and metal cladding systems at Parkville and Domain Stations. These engineered systems were meticulously developed to comply with safety requirements, with blast resistance integral to their design.

At Parkville Station, Rickard Engineering also partnered with CYP to certify the vibrant tile artwork, reflecting community spirit and artistic expression. Collectively, these elements exemplify the seamless integration of architectural innovation and resilient performance within Melbourne's landmark Metro infrastructure project.



- CLIENT Cross Yarra Partnership (CYP), Minesco
- CONTRACTOR Cross Yarra Partnership (CYP)
- ARCHITECT HASSELL, Weston Williamson + Partners and Rogers Stirk Harbour + Partners

Featured Works

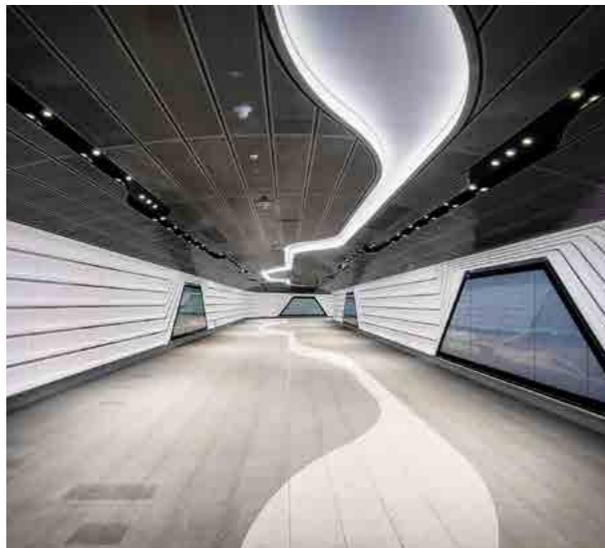
WYNYARD WALK

Sydney, NSW

Situated in Sydney's CBD, Wynyard Walk is a pedestrian walkway which connects Barangaroo with Wynyard train station. Rickard Engineering designed the glass, stainless steel, aluminium and sandstone cladding with provision for potential impact of a bomb explosion.

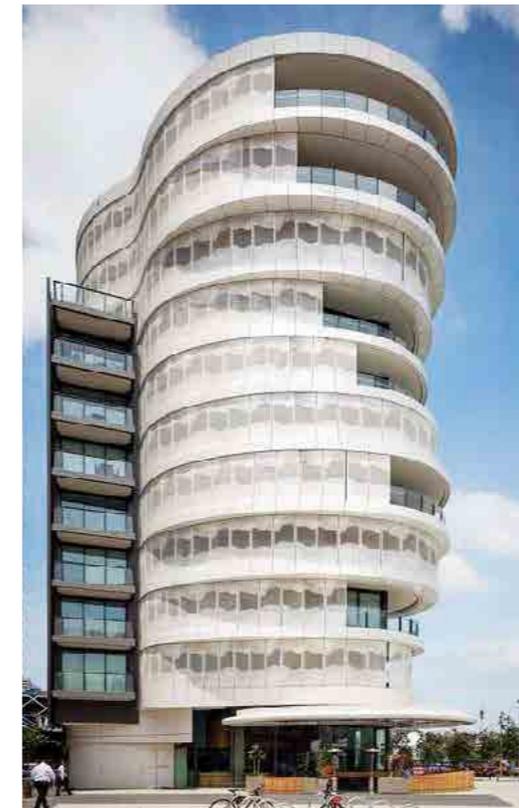
Some other design work included the glazed façade, awnings and perforated stainless steel façade of the Clarence Street building, including the glazed canopy, glass lift shaft and sandstone cladding of the Western Portal. We also designed the perforated stainless steel ceiling and glass balustrade of the Pedestrian Bridge over Sussex Street, alongside the perforated stainless steel ceiling of the main tunnel.

- CLIENT Townsend Group, CPB Contractors
- CONTRACTOR CPB Contractors
- ARCHITECT Woods Bagot



ANADARA AND ALEXANDAR APARTMENTS

Sydney, NSW



Anadara and Alexander Apartments is positioned on the waterfront within the Barangaroo precinct. Rickard Engineering designed and detailed the curved sliding screen panels, adjustable louvres and the bifold sliding screens. We were responsible for the façade engineering and certification of both the Anadara and Alexander buildings at Barangaroo South.

Both buildings feature manually operated perforated sliding shutters on the balconies, which open inwards, thus not obstructing balcony space. Anadara building also has motorised sliding shutters. The most distinguished part of Anadara building is the Cloud - the curved portion of the building with façade comprising of manually operated sliding perforated screens which stack in parking bays. Rickard Engineering was also responsible for the vertical and horizontal adjustable louvres, as well as the wall and ceiling cladding.

- CLIENT Lend Lease
- CONTRACTOR Lend Lease
- ARCHITECT FJMT (Anadara Building) and PTW Architects (Alexander Building)



CEREMONIAL COURT

Ar-Rayyan, Qatar

Charles Rickard first visited Qatar in 1980. His first project was a royal palace for the Emir built around 1980. Working for White Young in London, Charles spent time in Rome working with architect Sandro Petti. The palace was built on a new island just off the coast of Qatar. Since that time he has revisited Doha on many occasions.

In more recent years his involvement has been related to GRC. The Ceremonial Court was part of a technical educational facility project for the Queen. Built by Redco, a local Qatar GRC company, Charles undertook the design on behalf Rickard Hails Moretti in 2005.

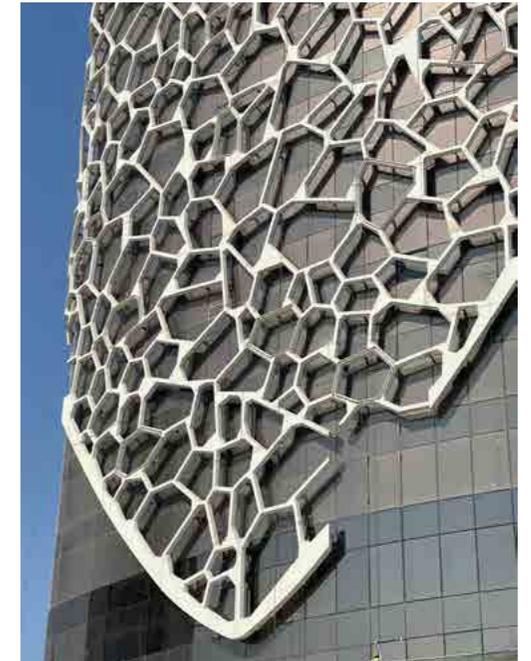


CLIENT Redco
CONSTRUCTOR Qatar Foundation / Redco
ARCHITECT Arata Isozaki

ROSEWOOD

Doha, Qatar

Setting the benchmark for ultra-luxury hotels in the region, Doha's 'Rosewood' is a key focal point of the city's skyline. Rickard Engineering is proud to have provided the structural design for the striking GRP facades of the two towers, which were inspired by the coral reefs in the seas surrounding it. The complex will be one of the city's most dynamic culinary and hotel destinations and introduces 300 residences boasting modern luxury.



CLIENT Gulf GRC Trading Co
CONSTRUCTOR Arkaz Investment
ARCHITECT Ibrahim Jaidah Architects & Engineers

ST LEONARD'S COLLEGE

Melbourne, VIC



Rickard Engineering's scope of works was the Design and Certification of the GRC façade for the new buildings. The large, curved panels are designed to clad the buildings with a water tight joint in the GRC panel. Ten metre long GRC panels are strengthened with steel frames to withstand applicable wind loads.

- CLIENT Asurco Contracting Pty Ltd
- CONTRACTOR ADCO Construction
- ARCHITECT ARM Architecture

DESTINATION

Gold Coast, QLD

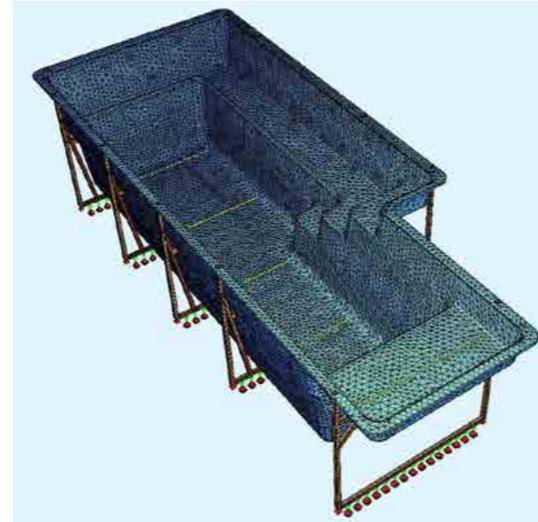
Rickard Engineering completed the concept to design for the Glass Reinforced Concrete (GRC) podiums panels on this project. The GRC panels are up to 4 m long x 4 m wide. Transport, lift and installation had its challenges. GRC was shop drawn and manufactured by Precast Concrete Brisbane. The GRC panels are supported by a steel frame with a GRC skin. The façade consisted of all different shapes and sizes to meet the architectural intent.

- CLIENT Hutchinson Builders
- CONTRACTOR Hutchinson Builders
- ARCHITECT DBI Design and Cottee Parker



POOLS

When it comes to the design of swimming pools, Charles Rickard is an acknowledged expert in the field. His expertise covers both fibreglass and concrete pools, and his designs include over 20 Aquatic centres in Australia and Asia. Pictured are some examples of his designs.



CAR PARKS

Canberra Hospital / Liverpool Hospital / Padstow Railway Station /
Wollongong Railway Station / Sydney Domestic Airport

Rickard Engineering has provided design support for a large number of car park projects throughout NSW and the ACT.

One example is the Canberra Hospital car park built in 2012. Others include the Liverpool Hospital car park built in 2012, Padstow Railway Station in 2015, Wollongong Railway Station in 2012, Revesby car park in 2012 and the Sydney Domestic Airport car park No. 3 built in 2013.

Rickard Engineering has designed aluminium/steel façades for a variety of clients, working with a number of different architects and builders. Rickard Engineering enjoyed a close relationship with Townsend Group on a whole range of different projects until the company sadly closed in 2017. Other significant manufacturers and installers whom we continue to work with are Minesco, Hitec, Façade Concepts, Gallery Façades, Windtech Façade Solutions, Lidco, Yintec, Aambianz and Concept Windows.



COLMSLIE SWIM CENTRE
Brisbane, QLD



WOLLONGONG RAILWAY STATION CAR PARK
Sydney, NSW



CANBERRA HOSPITAL CAR PARK
Canberra, ACT



THE MERLION
Singapore



BIG PRAWN
Ballina, NSW



BIG OYSTER
Taree, NSW



BODY ZONE
London, England



BIG MERINO
Goulburn, NSW

ICONIC GRC PROJECTS

Sydney, NSW

The Merlion / Big Prawn / Big Oyster /
Body Zone / Big Merino

Commencing in 1984 with the "Big Merino" in Goulburn NSW and continuing on with projects such as the "Big Prawn" in Ballina, the "Big Oyster" in Taree in 1987 and then in 1993 the 37 metre high "Merlion" on Sentosa Island in Singapore, Charles became recognised as the expert in free-form GRC resulting in him being responsible in 1999 for the GRC element of the "Bodyzone" in the Millennium Dome Greenwich London, as part of the Millennium celebrations.

CONTACT US



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