

RONDO® insider

october 2017

THE JEWEL IN PERTH'S CROWN: Crown Towers

PACIFIC FAIR
SHOPPING CENTRE
Queensland

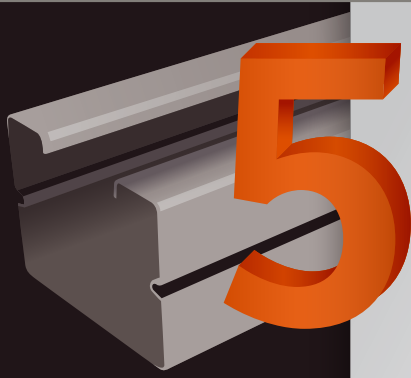
EQUINIX DATA CENTRE
New South Wales

HEALTH & INNOVATION
BUILDING
South Australia

PLUS MORE INSIDE...

PRODUCT NEWS:
OUR INNOVATIVE NEW
STUD SYSTEM IS RELEASED

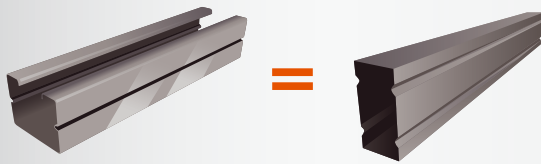




REASONS WHY OUR NEW DUPLEX STUD SYSTEM WILL IMPRESS YOU

1

DUPLEX Stud is one Stud that does the job of two. It replaces two regular Wall Studs that are typically boxed together at door frames, internal glazing and jambs.



One Duplex Stud

Two regular Studs
boxed together

2

Less products to install means much quicker installations, delivering you with the all important labour cost savings.



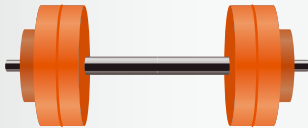
Save time



Save money

3

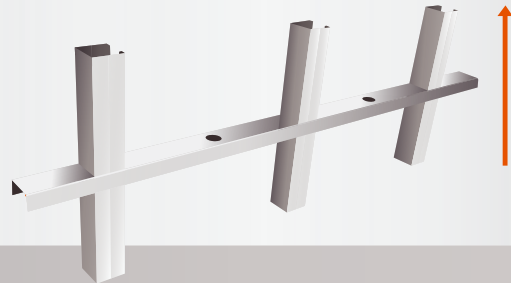
It has a greater load capacity than standard Steel Studs, so it can be used as a Wall Stud in situations where regular Studs would require installation at closer centres.



Stronger and greater load capacity

4

Higher walls can be achieved before Noggings are required. When your wall is lined both sides, you can achieve a wall height of up to 6 metres before requiring a Nogging.

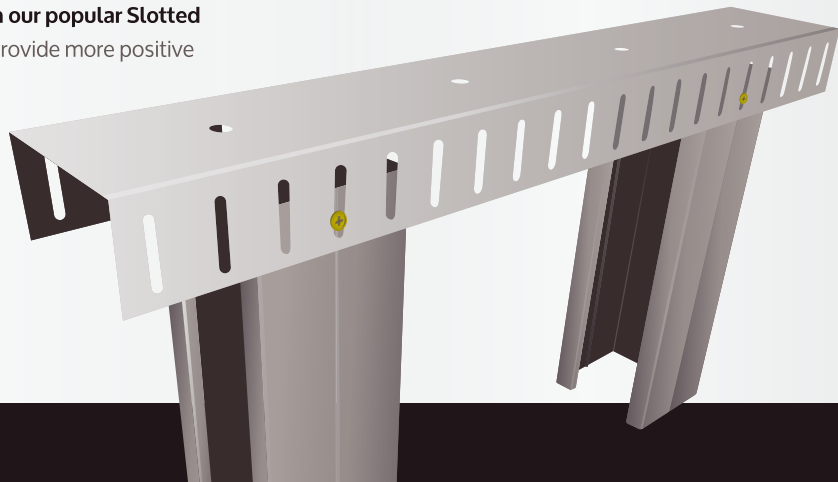


5

It perfectly integrates with our popular Slotted Deflection Head Track to provide more positive connections.



Perfection
achieved



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The Biggest
Game-Changing
Innovation for the Year is
now here.

(see next page)

PRODUCT NEWS

Introducing Our New Rondo DUPLEX Stud System®



LEADING THE WAY...

We've always been at the forefront of developing innovative system solutions.

We were the first company in Australia to design and produce both Concealed and Exposed Grid Ceiling Systems which were ground-breaking innovations for the industry at that time.

When we added a hem to our Wall Studs and Tracks, we became the first Australian manufacturer to deliver this innovation and offer safer handling on site. Our hemmed Stud and Track profile is still unrivalled to this day.

Our MAXIframe® External Wall Framing System was developed to offer a more efficient and cost effective design option than traditional methods and since its release, it has been used extensively in major projects such as Darling Harbour Live Sydney and Sunshine Coast University Hospital.

When we saw an increase in the demand of seismic requirements in both Australia and New Zealand, we were quick to develop innovative seismic solutions to meet market needs. We offer Seismic Designs for Walls and Ceilings, which can be tailored to suit each project's seismic requirements. Major projects which have benefited include the New Royal Adelaide Hospital and Gosford Hospital.

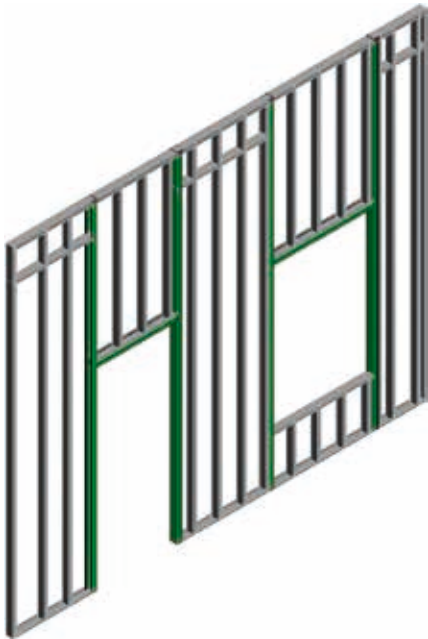
WE'VE DONE IT AGAIN!

With over 50 years of experience successfully releasing innovative products to the industry, we're in the best position to deliver additional solutions to meet changing customer needs.

At the top of our agenda has been to develop solutions that speed up product installations on site and deliver both material and labour cost savings – our new Rondo DUPLEX Stud System® achieves exactly that.



There's no longer a need to box Steel Studs at door and glazing openings, you can simply use our DUPLEX Stud® instead. That's one DUPLEX Stud® which replaces two regular Steel Studs boxed together at internal openings. Less products to install means much faster installations and delivers the all-important labour cost savings.



In addition to its use at internal openings, our DUPLEX Stud can also be used as a wall stud for internal wall framing. It has a greater load capacity than standard Steel Studs and can therefore achieve higher walls before Noggings are required. Where standard Stud Walls which are lined both sides require Noggings past 4.4 metres, those using DUPLEX Stud® can be constructed up to 6 metres before noggings are necessary.

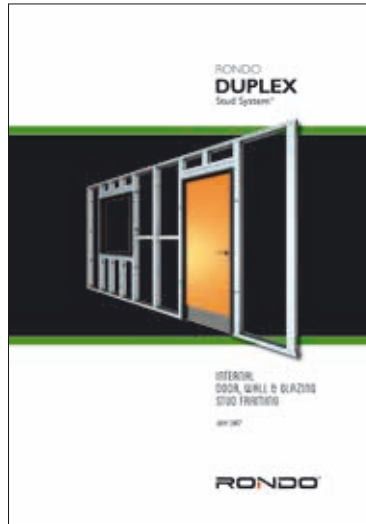
Also, when higher walls need to be achieved, Steel Studs will often be installed at closer centres to reach the required heights. DUPLEX Stud® can offer an alternative solution that doesn't involve reducing stud centres and therefore, less product needs to be installed.

For example; if you're using Rondo 112 Stud (64mm x 0.50bmt) and you have a wall lined both sides with 10mm plasterboard that needs to achieve a height of 3.9 metres, you'd need to install the Studs at 300mm centres or select another Stud. If you choose to use our Rondo DU64 (64mm DUPLEX Stud®), you can space it at 600mm centres and achieve the required wall height. Greater spans with less products and quicker installations.

Partnered with the new DUPLEX Sill/Header Bracket and Universal Stud Bracket, together with our popular Slotted Deflection Head Track, the Rondo DUPLEX Stud System® is the perfect addition to the Rondo family of Wall Framing Systems.

WANT TO KNOW MORE?

There's plenty of ways we can help you design and install our new DUPLEX Stud System® in your next project.



DOWNLOAD OUR DESIGN MANUAL

It provides you with the DUPLEX Stud System® components, section properties, typical applications details, installation details, wall height tables and design charts. Available now on the Rondo website.

DOWNLOAD OUR WHITEPAPER

'The Rising Value of Innovation' Whitepaper which discusses the need for innovative solutions that speed up construction time and improve resources allocation, will be available on the Rondo website in October.

WATCH OUR VIDEO

We've developed a 3D animated video that shows you the installation of DUPLEX Stud®, along with complementary components, and how it's an improvement on traditional internal framing methods. Watch it on the Rondo website from October.

REGISTER FOR A SALES PRESENTATION

If you're looking to use our DUPLEX Stud System on your next major project, you can register your interest in a presentation via our Technical and Specification Sales Team.

SPEAK WITH OUR PARTNERS

We've given our Rondo Partner Network early access to DUPLEX Stud System® resources so that they're ready to service your needs. Use the 'Where to Buy' section of our website to find one nearest to you.



Crown Towers [WA]

NOT just another hotel revamp, Crown Towers in Burswood, Perth, is a world away from anything else that has been developed in WA until now.

Awarded to Multiplex and designed by Architect, YWS Design & Architecture, the \$570M six-star hotel took two years to complete (between February 2014 to November 2016) and is an addition to the existing Crown Precinct.

Set in an ideal location with beautiful views of Perth city and new Perth Stadium, the project was split into two main areas for two separate ceiling and wall sub-contractors.

Ceilcon were contracted to oversee the construction of the towers, with hotel rooms, the gaming floor and luxury spa, while WA Ceiling Industries (WACI) were granted the podium areas, ballrooms, function rooms and luxury foyer areas.

Supplying the wall and ceiling systems, Rondo's support was also split between the towers and the podium areas. The tower corridors to the hotel rooms followed a slight curve and the Rondo Technical Services Team were engaged to provide many engineered designs for both internal and external wall framings, as well as internal ceilings and external soffit framings.

This included Stud & Track, MAXIframe® External Wall Framing System, EXANGLE® Finishing Sections and PANTHER® Access Panels, all needed to meet the detail required throughout the tower and podium levels.

Beautifully installed and intricately detailed bulkheads were framed out using Rondo KEY-LOCK® framing members to the luxury spa areas, with domes and arches setting the scene for an elaborate walkway throughout the spa areas.

Nevertheless, a project of this size was not without its challenges and one such example was when Rondo were requested to provide a design solution for the ballroom's nine-metre-high walls.



Rondo products used in this project:

- 345,000m Steel Stud & Track
- 44,000m QUIET STUD® Acoustic Stud System
- 11,000m 150mm MAXIjamb® External Wall Framing System
- 70,000m KEY-LOCK® Concealed Ceiling System components
- 45,000m EXANGLE® Finishing Sections
- 232 PANTHER® Access Panels

Photos: Reception Lobby, main; Spa Reception Area, top; Grand Ballroom Theatre and Reception Area, below.



The initial design was for 150mm x 1.15MT back-to-back studs at a maximum 300mm centres. However, due to the back-to-back stud requirement it was decided this solution would not offer the efficiencies for installation and an alternative engineered solution was looked at.

To remedy this, Rondo provided an alternative framing design, using our Rondo hi-tensile G500 1.2BMT MAXIjamb® Stud. This eliminated the requirement for back-to-back studs and meant our Rondo Engineers could present a design for the 150mm MAXIjamb® single members at 300mm maximum spacings. This not only offered onsite efficiencies but accommodated all loadings as required.

Clear communication was key in completing this job to such a high standard. The strength of Rondo's Technical Representation, the support of our Technical Services and Supply Chain Teams as well as the large stock holdings and capability to provide custom-sized lengths and products, assisted in less wastage on site and efficiency of installation, producing a truly spectacular result.



Equinix SY4 Data Centre [NSW]

EQUINIX is fast becoming the world's largest data centre service provider and judging by their new site in Alexandria in Sydney's inner West, it's not hard to see why.

Opened at the end of 2016, SY4 is the fourth Equinix International Business Exchange (IBX) in Sydney. Builder John Holland was appointed to manage the \$130M project, which required strict compliance with design and construction guidelines to maintain Equinix's global image. With a total usable floor space of more than 12,500 square metres, the Sydney campus is a business hub for over 600 companies, 140 network service providers (NSPs) and more than 225 cloud and IT providers in the CBD.

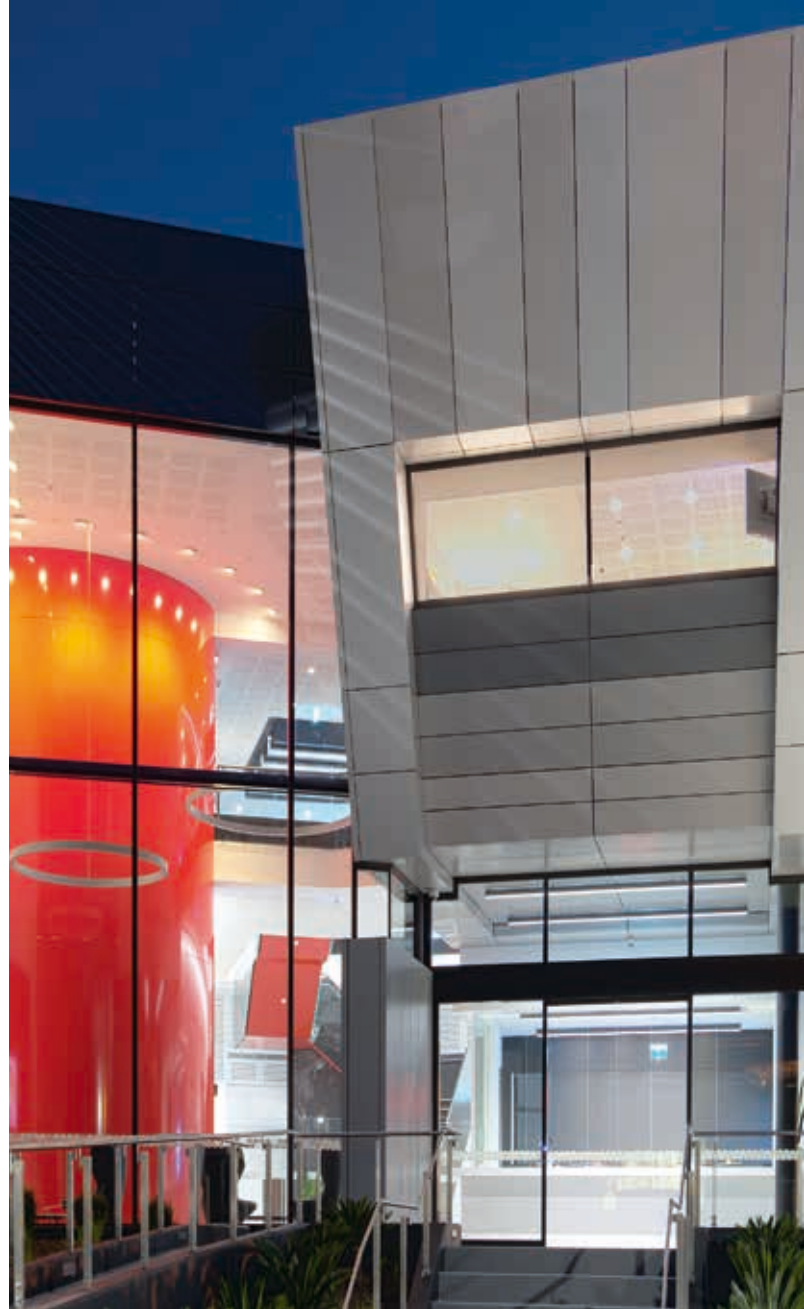
Using Stud & Track and KEY-LOCK®, Rondo was responsible for providing design support to Contractor, Amicus Constructions as well as onsite advice.

While Rondo provided internal and external product, it was the external use of Stud & Track that stole the show.

To achieve the vision of the façade that Greenbox Architects and Aurecon Engineers designed, the light weight external framing had to be cantilevered and due to the complexity of the framing request, Rondo's Engineers cleverly utilised 150mm x 1.15 BMT Stud & Track externally to achieve the impressive result that stands today.

Rondo products used in this project:

- **Steel Stud & Track – 150mm 1.15 BMT (externally)**
- **Steel Stud & Track – 92 x 0.75 & 1.15 BMT (internally)**
- **KEY-LOCK® Concealed Ceiling System**



PROJECTS

Gurner Apartments [QLD]

LOCATED in Fortitude Valley in the heart of Brisbane, FV Gurner Apartments is breathing new life into this historically raw neighbourhood.

Builder, Multiplex began Stage 1 of this \$200m project in May 2015 and completed it in July this year. Sub-contractor, Precision Interior Walls & Ceilings enlisted Rondo's expertise in designing the internal ceilings and partitions, external walls and soffit framing.

Designed by Architect's Elenberg Fraser, Stage 1 of the development consisted of 32 levels with 910 luxury apartments sprawled across two towers. This will eventually form part of three grand, residential towers incorporating ground floor retail areas, cafés, restaurants and over 1000 apartments in total.

However, luxury does not come cheap and as expected the development did present some challenges to the cross-functional team of contractors, builders and Rondo as developments of this size often do.

This was mainly because of the innovative, yet complex shape and design of the structure and consequent wind load pressure associated with this.

Nevertheless, using the skills of Precision Interior Walls & Ceilings and Rondo's Technical knowledge, the team produced some clever solutions to resolve these issues.

For instance, to overcome the wind pressure, Rondo's Technical Services Team provided high pressure external soffit/wall designs that incorporated Top Hats, 150mm and 92mm Studs.

Well done to Mick Thomson and the Precision Interior Walls & Ceilings Team, as well as Rondo's Technical Team and Technical Representative, Ory Yaxley, for another outstanding project.

Rondo have also been working with Tower 3 head contractor, ICON Construction, and relevant Architects/Engineers to provide project-specific solutions for the final instalment.

Rondo products used in this project:

- ***60,000l/m of 64, 92, 150mm Stud & Track***
- ***18,000l/m of 92mm QUIET STUD® Acoustic Stud System***
- ***Top Hats***
- ***EXANGLE® Finishing Sections***
- ***EXTREME® PVC Beads***
- ***Shaftwall One-Way Erected System***



Homemaker Centre [QLD]



FORMALLY a Bunnings Warehouse, partial refurbishment of the Maroochydore Homemaker Centre site commenced June this year in the heart of the Sunshine Coast, on Maroochydore Road.

Adding to the 14 other homemaker retailers already operating, the subdivision of the previous Bunnings site and carpark rectification works by builder, SJ Higgins Pty Ltd is estimated to be worth up to \$10m.

Contracted to Lifestyle Interior Linings Pty Ltd and designed by TRG Queensland Pty Ltd the build will include, among other tenants, Amart Furniture and Global Gym.

Rondo became involved with the project in mid-June when approached about using our Studs to make up the main walls that separate the building into individual shop outlets. As there was no time for the Contractor to source structural steel (which would take up to five weeks), Rondo Technical Representative, Andreas Koepke assisted in developing a design to use Rondo Studs in a similar way.

Having a design completed within days, Rondo supplied custom 150mm x 1.15BMT studs at a special length of 10.2m long. To work within the tight time-frame, the stud material was loaded and dispatched from Erskine Park HQ straight to site over a weekend to limit disruption.

Consequently, Rondo managed to design and deliver to site by July 6 – three weeks after the initial request was made. The final project is yet to be completed.

Rondo would like to thank Lifestyle Interior Linings for their frequent Instagram updates of the project where we have been fortunate enough to see this project be taken from concept to completion (almost).

Rondo products used in this project:

- ***Steel Stud & Track***
- ***Nogging Track***
- ***MAXItrack® Slotted Deflection Head Track***
- ***Top Hats***



PROJECTS

Pacific Fair Shopping Centre [QLD]

SHOPPING has never been more luxurious in the Gold Coast since the redevelopment of Pacific Fair Shopping Centre, completed in September 2016.

Beginning construction in January 2014 as a joint venture between Scentre/Westfield Group and AMP Capital, the project has been a great success.

Design and construction of this 18 month, \$670m project was given to North Australian Contracting (NAC) and was no easy feat. NAC and Rondo worked together to deliver against difficult time restraints through organising multiple shifts on site and working 24 days straight at one stage. Consequently, Rondo deliveries had to meet specific times for each shift and access to site.

The development was also a challenge because of the considerable scope of works involved in its formation, such as cold room panelling, under-slab insulation, veneered plywood, timber beams, aluminium composite panelling and stainless steel.

Due to the extensive blend of materials used, NAC required comprehensive design support and customer service from Rondo.

Danny Simpson, Managing Director of NAC stated, "the ceilings in the main thoroughfares came together using Rondo designed metal systems as did [the] David Jones [section]."

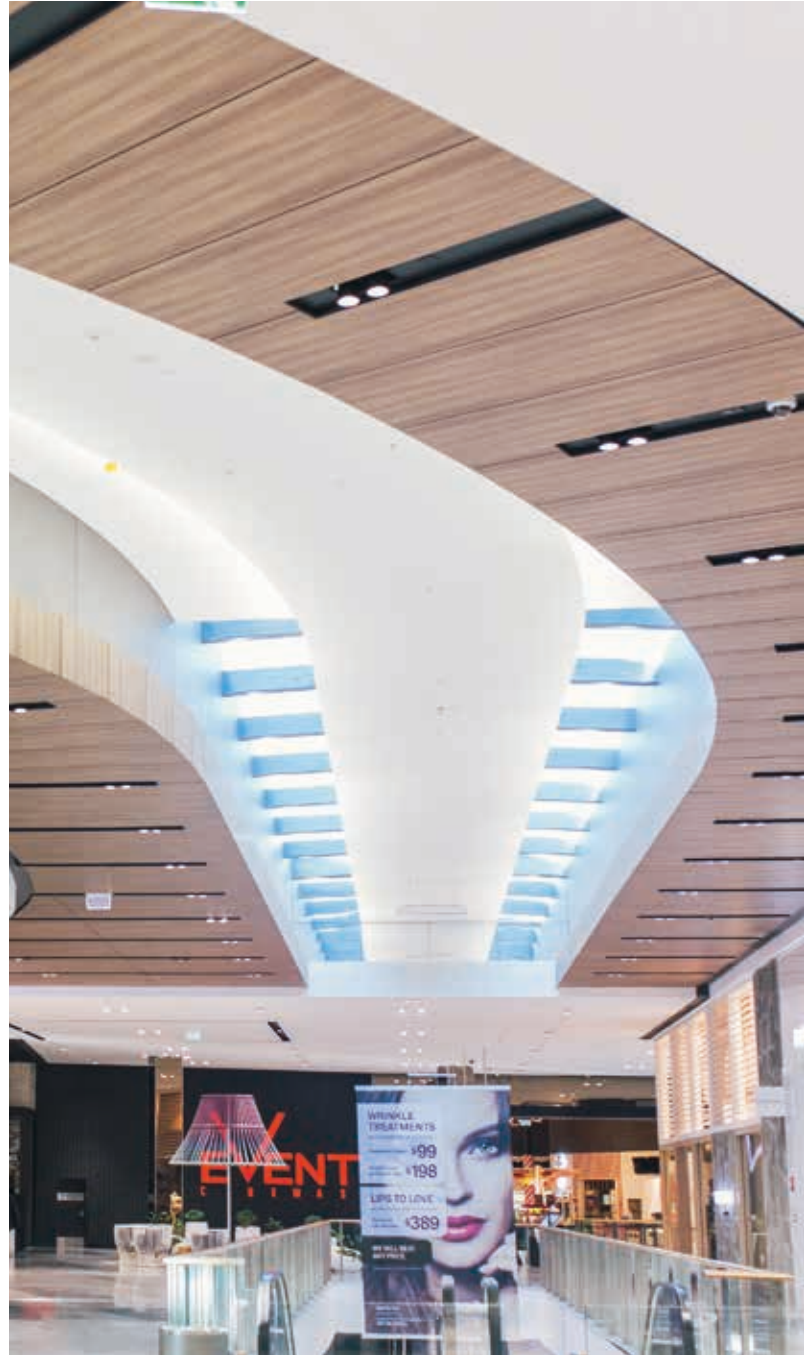
The project utilised curved features as well as additional loadings on walls and soffits, with Rondo also being responsible for providing large volumes of light gauge, hemmed stud framing.

After successful completion against such challenges Danny Simpson commented, "as with all these types of projects timely deliveries of materials are so important and we are most appreciative for the efforts of Stuart Boyce at Rondo for his assistance throughout the project."

Rondo products used in this project:

- **Steel Stud & Track – 64, 76 and 92mm Stud Framing**
- **Flexible Track**
- **Stud Bulkhead Framing**
- **External Wall & Soffit Framing using stud joists and stud droppers**
- **MAXIframe® External Wall Framing – 92 & 150mm**
- **Top Hats**





PROJECTS



Abian Apartments [QLD]

AFTER selling out in 2014 (two years ahead of completion), Abian's \$240m Luxury Apartments project, located at 140 Alice Street in Brisbane had a lot of hype to live up to and as of this year it has delivered.

After winning the contract for this 41-storey tower, builder, Sunland and contractor, North Australian Contracting, set about constructing the contemporary residence.

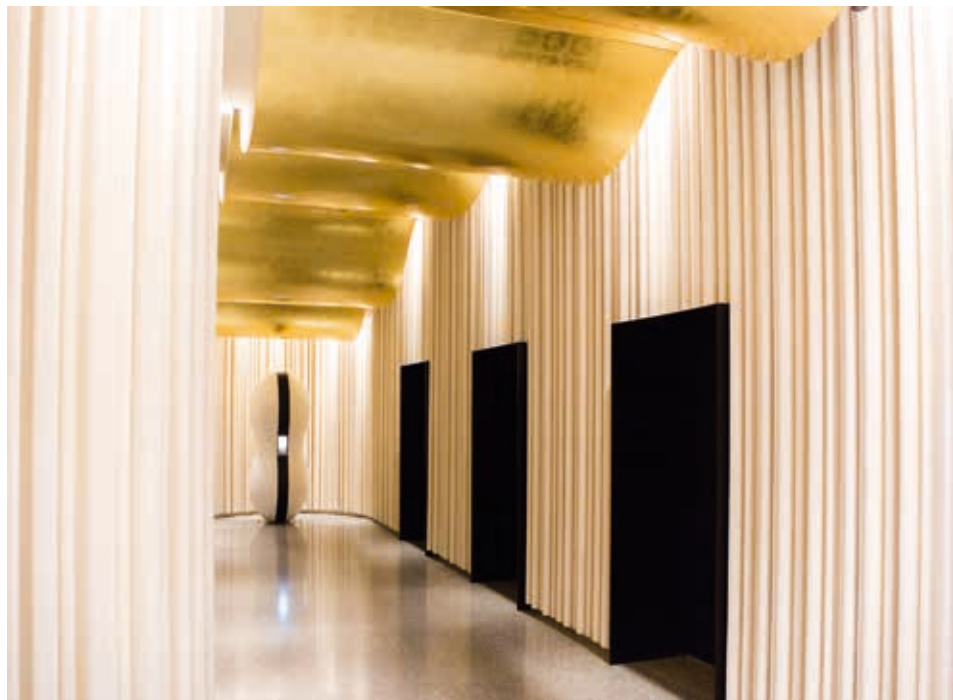
To set the internal aesthetics apart from other similar projects being built in Brisbane, Wood Marsh Architects designed some jaw-dropping gold ribbon ceilings that hover above the modern curved walls, which elegantly wrap around the lobby floor.

In saying this, achieving perfection is not a simple task and none of this could have been accomplished without Rondo's technical designs and NAC's expertise in making them come to life.

The main lobby ceiling presented an installation challenge in achieving the required ribbon design. The design dictated that the curves of the ceiling gradually got smaller, and this was achieved using our KEY-LOCK® System components, Furring Channel, Top Cross Rail and 226 Direct Fix Clip. There was also curved walls both sides of this feature ceiling at varying heights.

In order to make the Architects' vision a reality, NAC installed extensive curved walls and feature curved ceilings on every floor using Rondo Flexible Track for the steel stud framing.

Not only this, but due to the heavy stone tiles lining the bathroom walls, extensive technical design support was required to enable safe and secure installation of not only the stone tiling, but also the bathroom fittings. All worth the spectacular outcome.



Rondo products used in this project:

- 15000l/m Flexible Track used for wall framing
- 80,000l/m of wall framing consisting of 64 & 92mm Steel Stud & Track
- QUIET STUD® Acoustic Stud System

PROJECTS

Oracle Apartments [WA]

AT the corner of Stirling and Aberdeen Streets in Perth is a new apartment complex, set to add to the already blossoming areas surrounding Northbridge and Beaufort Street. Christened, Oracle Apartments the development is being constructed by builder, Probuild at a cost of \$44m.

Rondo worked closely with C&L Ceilings who were charged with the wall and ceiling contract. In order to be sure that the building's external facade would remain structurally secure and adhere to the Architectural detail, C&L installed Fibrous Cement Sheets, supported by heavy gauge Rondo components.

This project also has a fun, social side to its design personality. Drawn by Design Management Group the apartment building has a rooftop "relaxation zone." This exciting section at the top of the building consists of a sky garden, which incorporates luxurious open-air furnishings, BBQs, a private dining room and video theatre for movies and gaming.

Rondo Technical Services Team provided detailed assistance and confirmed requirements to allow installation of the television brackets needed for the video theatre (to suit a 42-inch TV). To help control noise, our Rondo 92mm QUIET STUD® was introduced to the building's corridor zones.

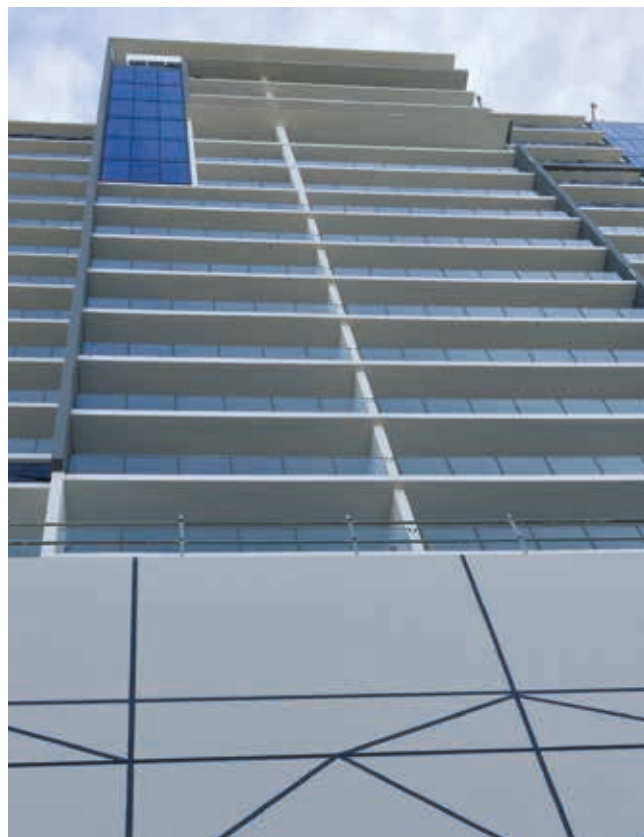
As efficiency is always of paramount importance, Rondo worked in conjunction with C&L to set up a drawdown (holding order) for C&L so that both Rondo and C&L could avoid any potential out of stock scenarios that may arise. The drawdown was set up over three stages to ensure Rondo's WA warehouse was not overstocked with product that wasn't required.

Similarly, a separate Project Account was set up to allow Rondo to allocate the drawdown/holding stock, which in turn permitted both C&L and Rondo to easily track the drawdown/holding order and which products were purchased within the total volume of Rondo purchases.

Scheduled for completion in September this year, the project would have taken just under 12 months from start to finish – a testament to all involved.

Rondo products used in this project:

- 36,240l/m KEY-LOCK® Concealed Ceiling System
- 60,449l/m Steel Stud & Track
- QUIET STUD® Acoustic Stud System
- EXANGLE® Finishing Sections
- Accessories



Adelaide Medical Nursing School [SA]

THE University of South Australia has been busy lately updating its facilities and one such update is Adelaide Medical Nursing School (AMNS) at North Terrace, Adelaide.

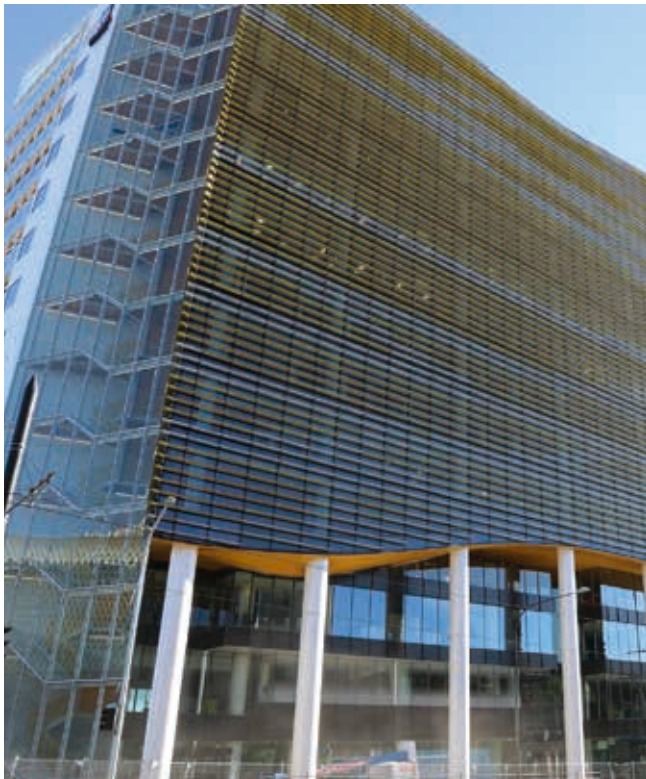
A project by builder, Lend Lease the \$130m facility is transforming the way students learn by enhancing the student experience and preparing future health care leaders for professional practice.

Contracted to Brighton Australia, the project commenced in January 2016 and was completed in March this year.

Rondo was heavily involved in the project. For instance, the expertise of Rondo's Engineers was needed more than 30 times during construction to provide solutions for cantilever bulkheads/framing issues with services.

Designed by, Lyons Architects the building reflects a new direction for infrastructure development complementing the needs of tomorrow's health sciences education. The design introduces a diversity of new generation spaces, utilizes full seismic designs and incorporates many thousands of lineal meters of Rondo product including:

- *Steel Stud & Track, including seismic designs*
- *KEY-LOCK® Concealed Ceiling System, including seismic designs*
- *DUO® Exposed Grid Ceiling Systems, including seismic designs*



PROJECTS

Health and Innovation Building [SA]



E DUCATION is entering a new age in Adelaide with the completion of the innovative Health and Innovation Building (HIB) located in North Terrace (part of the University of South Australia), due in October this year after 12 months of construction.

Led by builder Hansen Yuncken, the 14-storey UniSA project will be the next step in completing the SA Health and Biomedical Research Precinct.

The developments \$247.3m price tag makes it marginally more expensive than the \$246m Adelaide University building next door. HIB will house the Centre for Cancer Biology and UniSA's pharmacy school, with 450 researchers between them.

Rondo's involvement included providing ceiling and wall systems using our Shaftwall One-Way Erected System, KEY-LOCK® Concealed Ceiling System and PANTHER® Access Panels to create the desired effect. To help achieve the timber panel ceilings, KEY-LOCK® was added into the surrounding areas of the curtain ceiling system and access panels were inserted across 13 floors.

It was decided to insert our KEY-LOCK® Ceiling System into the curtain ceiling system due to the heavy weight of the ceiling. Independent stud dropper/plenum bracings (constructed of heavy duty steel stud) were built to connect the main track of the curtain system and to counter for any extra excessive load applied.

Vice-Chancellor David Lloyd said the project was, "the biggest thing we've ever done" and the museum would be, "Adelaide's biggest playground".

The 30,000m² of floor space will make the building two-thirds the size of UniSA's current City West campus and have 500km of data cabling and 7000 network points, more than any Adelaide building, except of course for the Royal Adelaide Hospital.

Rondo products used in this project:

- ***Steel Stud & Track***
- ***KEY-LOCK® Concealed Ceiling System***
- ***PANTHER® Access Panels***
- ***Shaftwall One-Way Erected System***

UPDATE

Revised MAXIframe® Brackets

ANCHORED IN THE RIGHT PLACE, FIRST TIME

Change is often inevitable in life and the same is true for our industry. Updates are made and better knowledge is acquired to ensure buildings are a safe place for occupants.

On 1 May 2016 the National Construction Code (NCC) was updated. SA TS 101:2015, which is a Technical Specification document for post-installed anchors into concrete.

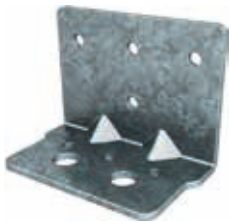
What was the update? And how does it relate to Rondo?

First: this means that all post-installed concrete anchors, used in safety critical applications, must comply with the requirements of SA TS101:2015.

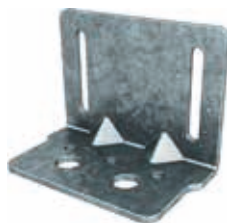
For our part, Rondo has reviewed the requirements and intent of the standard and taken the position that all fasteners used in external wall applications will be deemed "safety critical" and therefore will be designed in accordance with the standard.

Second: although Rondo does not technically manufacture post installed concrete anchors, we have decided to work through the code requirements with an anchor supplier and provide a solution within our external wall framing designs.

Next: In reviewing the code requirements, it was evident a greater concrete edge distance is necessary.



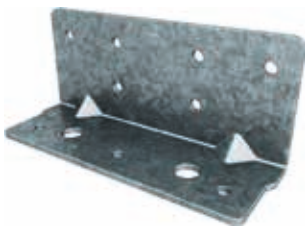
201 Bracket



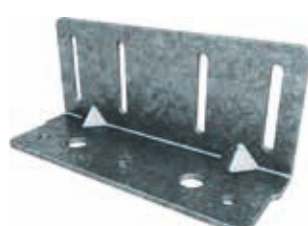
203 Bracket

This subsequently involved moving the fixing hole of our 92mm MAXIframe® Brackets 201 and 203 off centre and providing a second hole for symmetry, therefore allowing one bracket to be used for left and right handed applications.

Fortunately, our 150mm MAXIframe® Brackets 205 and 207 already utilise an offset hole so no changes were required.



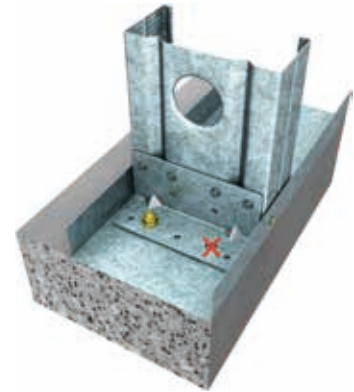
205 Bracket



207 Bracket

Simply stated, the standard installation requires that the concrete anchors are installed in the hole furthest from the slab edge and the design capacity of the connection has been developed through testing, considering the fastener in the rear fixing hole.

Finally: Rondo does not recommend changing the nominated fasteners, as the solution provided has undergone rigorous review and testing and cannot be simply substituted.



To Summarise:

1. New code has been released and now anchors and details need to be compliant.
2. Rondo has provided a solution in accordance with the code provisions, in consultation with the anchor manufacturer and after extensive in-house testing.
3. Rondo does not recommend changing the connection details.

Q&A:

Do I need to install two anchors in the new brackets?

No, the detailed connection only requires one anchor. The hole furthest away from a concrete edge shall be used for installation, in all applications.

Do the original brackets comply?

Yes, however anchors carrying a current ETA (European Technical Assessment) should be nominated by the anchor manufacturer based on the minimum concrete edge distances achievable.

The benefit of the new bracket and connection details will be in the assurance that you are compliant without referring to the anchor manufacturer for approval.

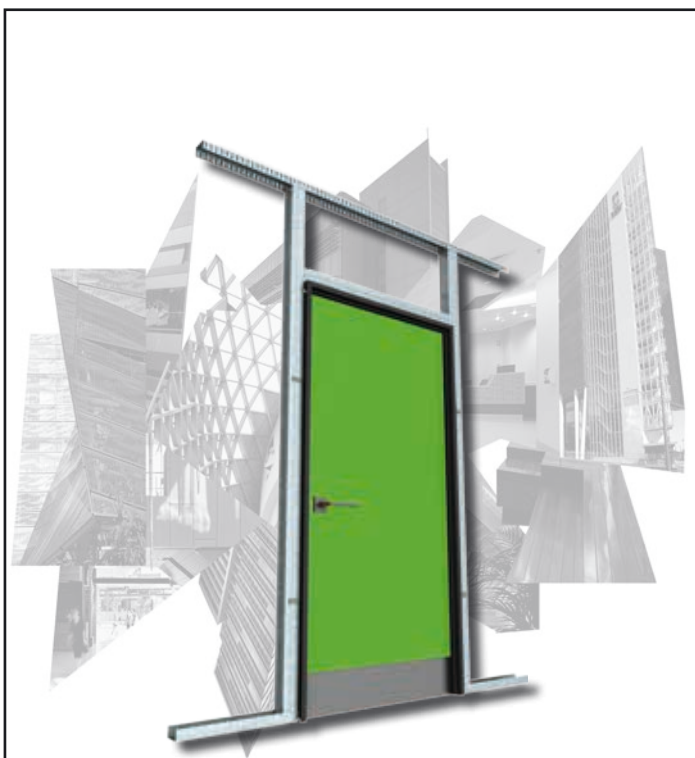
When will Rondo release the connection details?

The new brackets are available now.

What happens if I don't have a base or head track?

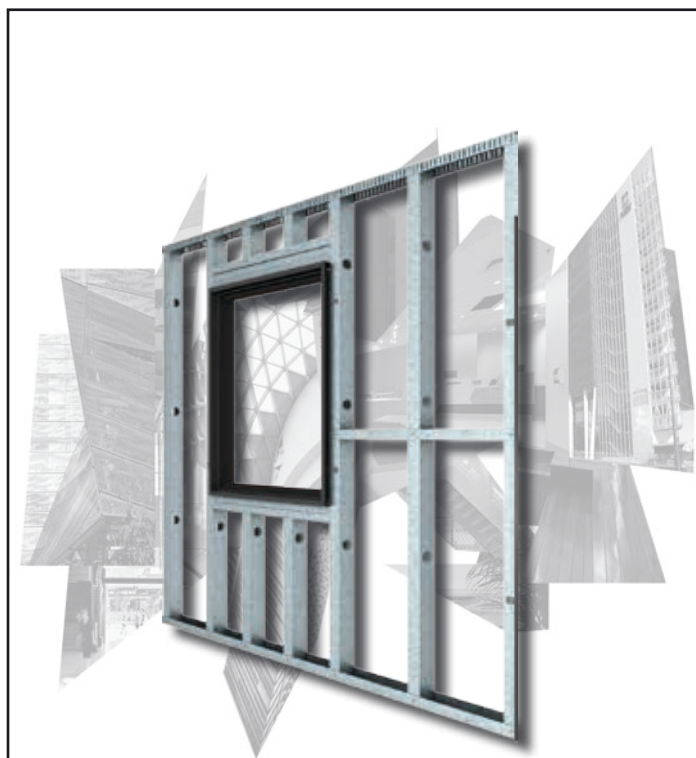
The connection capacity has been developed based on the connection as detailed. Removal of the wall track will allow rotation of the joint. If you require further guidance, please contact your local Rondo Technical Sales Representative.

NEW RONDO DUPLEX. ONE STUD THAT DOES THE JOB OF TWO.



**NO NEED TO BOX
STUDS AT INTERNAL
OPENINGS.**

**FASTER INSTALLATIONS.
COST EFFICIENCIES.**



**ACHIEVE GREATER
WALL HEIGHTS WITH
LESS NOGGINGS.**

**GREATER SPANS.
MORE PRODUCTIVITY.**

Find out more now at www.rondo.com.au/duplex

RONDO®