

The Harrington Collection features roof-top penthouses and sub-penthouses along with premium apartments and townhouses, superbly crafted with luxurious finishes. Providing incredible sweeping views of the Opera House, Sydney Harbour, and the Harbour Bridge.

> Before commencing works on the heritage building, an archaeological excavation was carried out underneath it which resulted in significant finds including some of local indigenous significance reflecting the rich layered history of this unique neighbourhood.

During construction several adverse events impacted the works. In early 2019 the site was affected by air quality issues due to bushfires which were followed by flooding and frequent heavy rain which closed the site periodically. Subsequently COVID-19 has also had an ongoing impact on the works.

"Considering the challenges we have faced during the construction process it's fantastic that we finished the project on time and achieved a good product," said Tiago. "To a large extent that is thanks to the tight knit team that we had onsite. Everyone worked very well together and tried to do their best, including both the Icon team and our subcontractors."

With their long history of apartment building, Icon have gained a strong reputation across Australia's residential sector. They had a good existing relationship with Golden Age Group having previously delivered projects for them in Melbourne and Sydney.

"That strong relationship with the client is really important and we are happy they had such faith in us," Tiago said. "It's been a tough job and it's been great to deliver an end product that satisfies the client. Initial feedback from the market has been very positive and the apartments have really been living up to the expectations of those who bought off-the-plan."

Icon is part of Icon Co, one of the largest construction providers in Australia and New Zealand. They are proudly part of Kajima Corporation, one of the largest construction companies in the world. With their market leading breadth of sector capability Icon are able to deliver projects of any size and any

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The Harrington Collection is a new development in the heart of Sydney's The Rocks comprising 58 super luxury apartments including some of the most expensive penthouse apartments in Australia.

The unique position of the site included both new and heritage registered buildings with luxury finishes including bespoke detailed stonework within the apartments. Saba Bros Tiling, one of Australia's most professional and reputable tiling and stonework companies, was appointed to supply and install the stonework throughout the project.

The highly complicated design of the stone joinery required Saba Bros to make slight but clever modifications to ensure a practical installation. Saba Bros used water jet cutting machines to complete the finely detailed stonework. A special laser tool was also used to help convert the physical templates to drawings.

Saba Bros are highly experienced at delivering complex works and can achieve high quality workmanship under challenging conditions and within tight timescales. This made them an ideal fit for this unique project.

One particular challenge for the project was that the quarries for the stone which was specified for the project were shut down due to COVID-19. Saba Bros conducted a worldwide search to find out what was available from the market, source sufficient stone to complete the project and make sure it all matched and remained affordable for the client.

Director, Peter Saba has more than 25 years experience in the tiling and stonework industry. Together with the talented staff at Saba Bros Tiling he has completed many multi-million dollar projects in New South Wales, Queensland and the Australian Capital Territory, for a diverse range of building and construction companies.

Saba Bros Tiling has also established strong associations with local and overseas stone fabricators which gives them the ability to supply a vast array of stonework produced with the latest computerised machinery to ensure consistent quality at very competitive rates.

For more information contact Saba Bros Tiling, 34 Harley Crescent, Condell Park NSW 2200, phone 02 9904 9380, 83 Business Street, Yatala QLD 4207, phone 07 3807 2223, email info@sababros.com.au, website www.sababros.com.au

Embelton is a multi-faceted company which has been operating since 1925 and has specialised in noise and vibration isolation for over 50 years.

Embelton also offers a range of other products and services, including flooring, flooring tools and accessories. With over 100 permanent staff and hundreds of contractors, Embelton operates across two countries as well as through an extensive distributor network. They work with leading acoustic consultants, engineers, architects, builders and installers to design and supply custom solutions for projects of all types.

Embelton's engineering team were awarded a contract in October 2019 to design and install the base building isolation solution for The Harrington Collection of luxury apartments in Sydney's historic Rocks neighbourhood. The project site, located adjacent to Circular Quay railway station, experiences high levels of vibration. Embelton Engineering developed isolation bearings with an efficiency of 95-98% to mitigate the vibration and ensure a peaceful living environment.

Embelton provided a bespoke solution to isolate the building's concrete footings closest to the rail line, including two lift cores to

minimise noise and vibration for residents. The system was thoroughly tested during design then prototyped and tested again onsite to ensure the required performance was achieved.

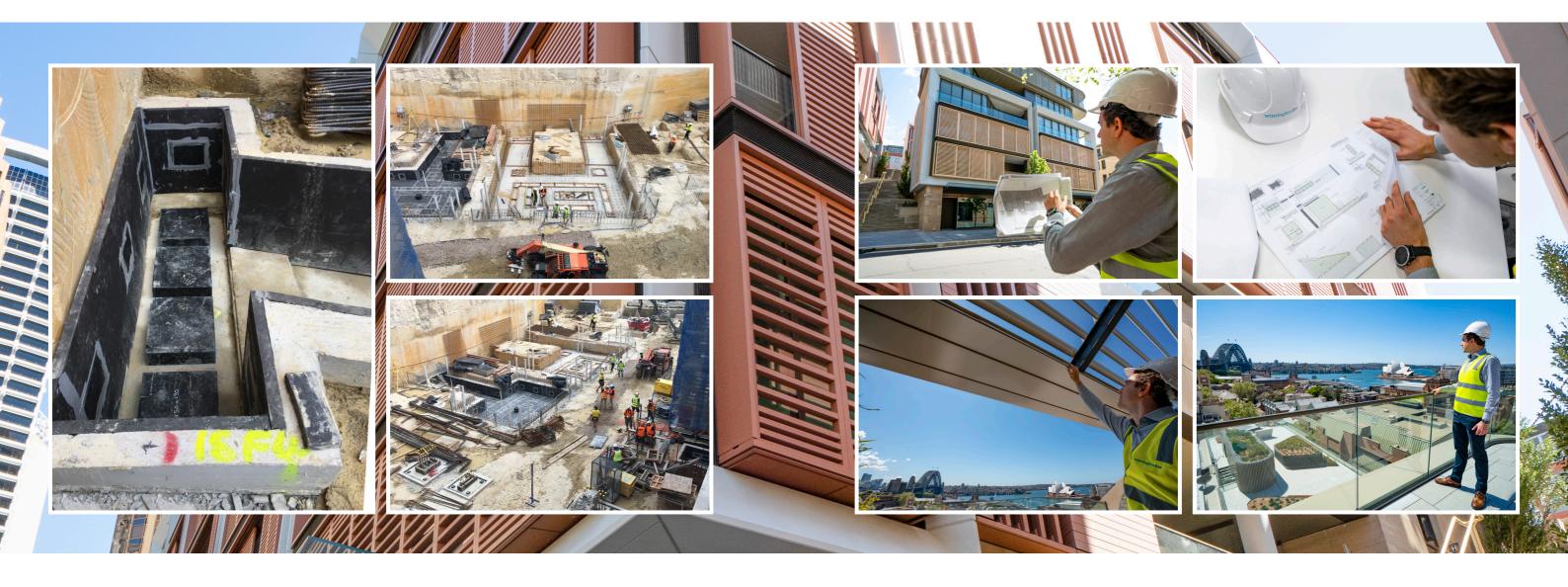
Embelton's design, completed in conjunction with structural engineers Rincovitch, required the manufacture and installation of multi-plate rubber bearings for vertical, lateral and uplift loads, with compressible void former that minimised installation risk. The bearings were manufactured to design and specification at Nepean Rubber & Plastics.

Heavy rains in February 2020 caused challenges and Embelton worked closely with main contractor Icon to minimise the impact of rain delays. Another challenge was the introduction of new seismic codes during the project which required the design to be adapted to meet the new regulations. Embelton successfully managed these issues to complete the project within the required timescales.

The Harrington Collection showcases Embelton's unique capability to deliver quality solutions from design to finished installation.

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Below Pulse White Noise Acoustics provided the initial vibration and regenerated noise assessments and the subsequent design and specification of the acoustic base building isolation system.



Located in the heart of The Rocks heritage district, The Harrington Collection is a prestige residential development offering an exclusive range of penthouses, apartments and terrace homes in the centre of Sydney.

Pulse White Noise Acoustics was appointed by main contractor Icon to review initial acoustic assessments and design and specify the acoustic base building isolation system that prevents vibrations from the nearby City Circle railway from affecting the apartments in the development.

"When we surveyed the site we found the vibration levels were actually higher than expected," said Matthew Harrison, Director. "The curve of the nearby rail line resulted in higher vibration levels than normal. The majority of the building is sitting on elastometric bearings of variable performance that completely isolated it from the vibrations."

During installation Pulse White Noise Acoustics conducted onsite inspection and testing of all bearing pads to ensure full isolation with no bridging. They also conducted vibration monitoring around the site to ensure that construction works did not adversely affect neighbouring properties, some of which were sensitive heritage buildings.

Established in 2016, Pulse White Noise Acoustics is a relatively new firm that brings together acoustic engineers and scientists with the highest qualifications and decades of specialist technical experience. They work in a wide range of sectors including commercial, education, residential and industrial developments as well as hospitals, government projects and television and radio studios.

With eight expert staff, the small size of Pulse White Noise Acoustics means that a director is involved in every project and gives the firm the flexibility and freedom to quickly respond to project challenges and propose innovative, cost effective solutions that deliver value to clients

"We always try to be innovative and find the right solution that fits the project," Matthew said. "We really believe that the most interesting and challenging projects are also the most rewarding!"

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Warringtonfire provide clients around the world with a comprehensive range of fire safety engineering, independent fire testing, fire assessment and product certification services. Their unique ability to deliver a full suite of services provides confidence and certainty throughout the entire building lifecycle. They have an established and extensive presence in Australia including at their NATA accredited laboratory in Melbourne and their consulting offices in Sydney, Melbourne, Brisbane, Canberra and Perth.

Warringtonfire provided fire safety engineering for The Harrington Collection, which includes two new mixed use buildings and the refurbishment of existing heritage terraces and townhouses over a common basement. Throughout the project Warringtonfire engaged with the design team, certifying authority and fire brigade to find strategies to deliver the design intent without compromising life safety.

The fire safety engineering strategies applied by Warringtonfire ensured the mixture of building uses, construction materials and heritage aspects could be maintained without affecting the project's architectural design. "Early investigation of the heritage aspects allowed us to develop solutions during the design phase that mitigated the need for complex installation details," said Jason Forrest, Senior Fire Safety Engineer.

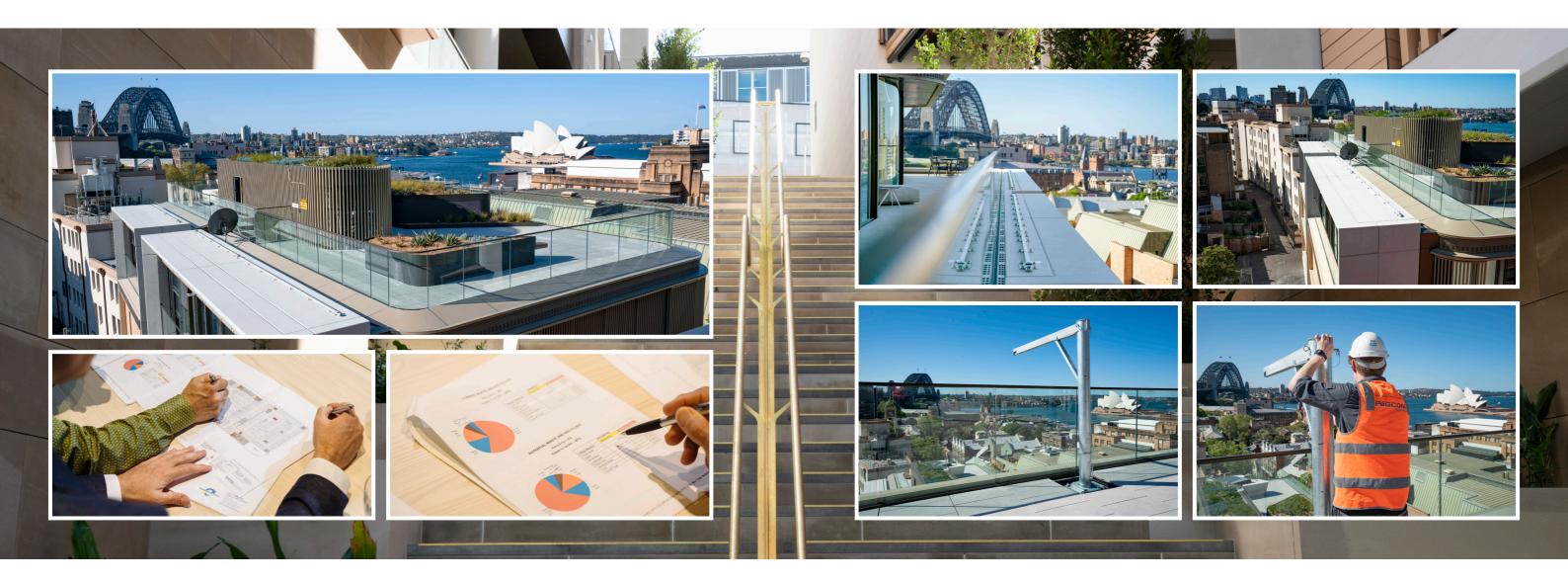
"Although the buildings onsite are united, through fire engineering analysis we apportioned the individual fire safety risks for each building which allowed us to rationalise the fire services design."

Fire engineering analysis allowed the design team to rationalise the fire protection of the project's unique steel roof which significantly improved buildability. Warringtonfire also engineered a unique partially pressurised and partially ventilated fire isolated stair for the high rise portion of the building which allowed the building's natural ventilation and lighting requirements to be met.

"We supported the project team every step of the way to propose alternative design solutions that met the performance requirement of the National Construction Code and maintained occupant safety without compromising the architectural concept," said Jason. "This was a unique project in terms of its location and prestige. Warringtonfire are proud to have provided fire safety engineering that allowed the original design intent to shine through."

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Waste Audit and Analytics was established in 1992 and from their inception has been one of Australia's leading independent firms specialising in the development and implementation of waste management strategies for the built environment.

From being the first Australian company to develop rigorous techniques for conducting waste audits to developing and implementing waste management plans and resource recovery programmes, Waste Audit has led the field in waste consultancy and advisory services with over 1,000 projects successfully completed for a wide range of industry sectors.

Waste Audit's success comes from having staff with a diverse range of backgrounds and skills, strong problem solving ability and extensive practical knowledge of the waste industry as well as council planning requirements such as state, federal, and local legislation, technology options and sustainability programs.

Waste Audit brings a highly focused approach to all projects from single developments to businesses with operations across Australia. In developing waste management plans they manage the entire process including system design and calculations of waste volumes

and collection frequencies, equipment recommendations, cost analysis and assessing compliance with statutory requirements.

The brief for The Harrington Collection was to design a system that was easy for residents to use while also minimising waste to landfill and maximising recycling. To achieve this Waste Audit worked closely with the project's managers and architects, taking into consideration all aspects of building layout, construction, and operations and analysing multiple options before determining the final strategy.

Due to site location constraints, collection vehicle access and service frequencies were also key issues and Waste Audit's understanding of Sydney City Council requirements and local waste collection industry capabilities was instrumental in developing an effective plan. Waste Audit and Analytics are well resourced to service the construction industry with offices in Sydney, Melbourne, and Brisbane and project delivery capability across Australia.

For more information contact Waste Audit and Analytics, Ground Floor, 470 St Kilda Road, Melbourne VIC 3004, phone 0411 444 714, email info@wasteaudit.com.au, website www.wasteaudit.com.au

RIGCOM is a height safety engineering company that designs, manufactures and installs bespoke height access systems as well as rope access installation, service and remediation works. Established in 2009, RIGCOM now has 60 dedicated people working across branches in Sydney, Canberra and Melbourne.

RIGCOM were appointed to design, supply and install the façade access maintenance and roof safety system for The Harrington Collection. The system incorporated roof-mounted abseil rail, static lines, Davit arms and bases to provide access to all parts of the façade where maintenance was required. RIGCOM provided full documentation and training to make all personnel aware of how to correctly use the system and will also provide post completion servicing.

Implementation of the system was challenging since façade access had not been fully considered in the initial building design. RIGCOM had to engineer a fully compliant and user friendly solution that was accepted by the client and incorporated within the building design.

"We came on board quite late in the project and had to work very closely with main contractor Icon, their subcontractors and the design team to find a solution that fit the design brief," said Jason Biag, Business Development Manager. "Time was a big pressure on this project and we had to work quickly. The whole project team worked really well together to get the system designed, approved and implemented."

The Harrington Collection project demonstrated RIGCOM's ability to provide a full service from design and consultation all the way through to delivery, training and maintenance of safe access systems.

RIGCOM are an active member of the Working at Heights Association (WAHA) and an Endorsed Installation Company. They are third party certified to ISO Quality and Environment Standards and Australian Workplace Health and Safety Standards and carry a full complement of insurances. RIGCOM are accredited to work on government projects as well as with many blue-chip companies across Australia.

For more information contact RIGCOM, Unit 1/14 Brumby Street, Seven Hills NSW 2147, phone 1300 893 230, email admin@rigcom.com.au, website www.rigcom.com.au